

Photometric Test Report



ASTRAPAR7ZIP

7X40W IP65 RGB+WW

zoom LED PAR

(Preliminary)

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Color temperature 4000K

Beam angle Max Zoom 80

Beam angle Med Zoom 85

Beam angle Min Zoom 90

Color temperature 5600K

Beam angle Max Zoom 95

Beam angle Med Zoom 100

Beam angle Min Zoom 105

Color temperature 6000K

Beam angle Max Zoom 110

Beam angle Med Zoom 115

Beam angle Min Zoom 120

TESTING PROCESS

Prolights has its own optical testing laboratory in order to provide accurate photometric reports for its lighting products. The testing laboratory contains certain variety of precise lighting measurement systems that ensure an optimal reading of all the characteristic parameters of the lighting devices. All measurements are made at a controlled room temperature of 25°C without any external light sources. This photometric report is obtained through the data measured by a high precision measurement system and analyzed by a dedicate software.

Prolights measurement instrument

Prolights measurement instrument is a complete measurement system for any light source. It's equipped with two-axis goniometer, that enables to measure the full 3D distribution field of the light source. This instrument measures the light intensity, the beam angle and the most significative colors parameters, like color temperature, spectral distribution, CRI, CQS, TM-30 with a very high accuracy rate.

Please Note: All measurements are made with light source at operating temperature. Before starting the measurement, the instrument analyzes the process of the light source during the heating phase. The measuring process of all the parameters begins only when the light emission is stable, that is with a variation of less than 0.5% in a 15 minutes time frame.

Prolights measurement software

The software provides user friendly interface for the operator who does the measurements, and it also analyzes and processes all the collected data by the instrument. With this software it is possible to see the measured data in real-time and it is possible to examine all the measured data and graphics afterwards as well. All information is collected in a specific Prolights template, and the software creates also IES and LDT files, which are widely used to transfer the photometric data, and to develop lighting system.

Additionally, the fixtures are rechecked using various hand-held instruments like Sekonic C-700 and Gossen Mavospec Base, this is done to ensure, that the data in the photometric report are as accurate as possible.



Total lumen output:

2604 lm

Peak candela output:

7594 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

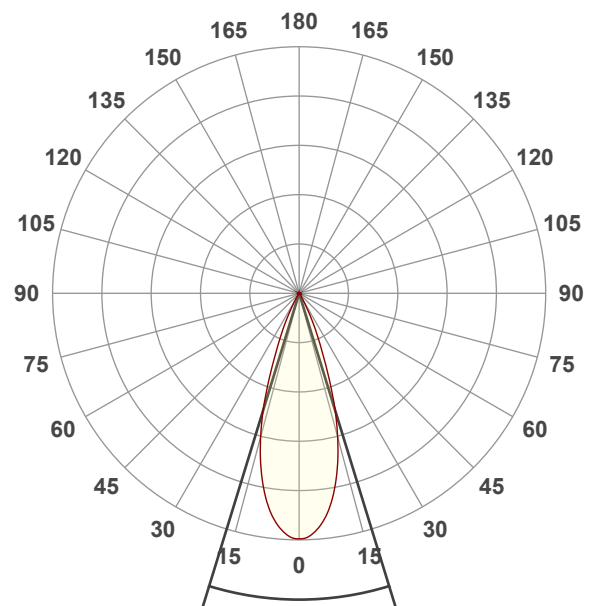
Full On

Operator:

Salvatore Giglio

Date and time:

16/01/2023 10:15:29

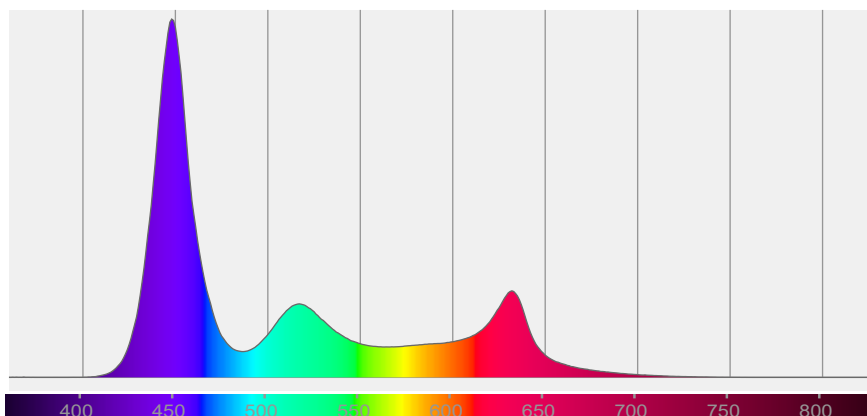


Beam angle 50%: 34,2°

Field angle 10%: 52,7°

Cut off angle 2.5%: 63,2°

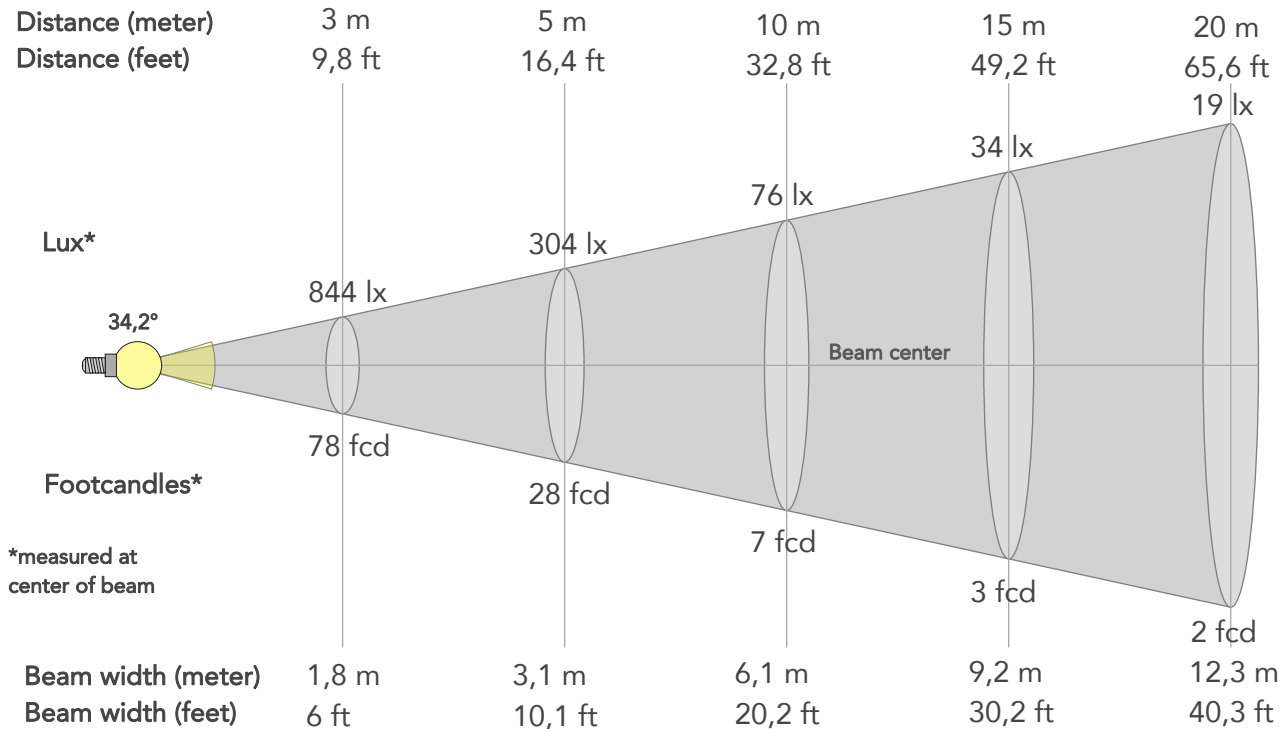
Spectra



BEAM DETAILS



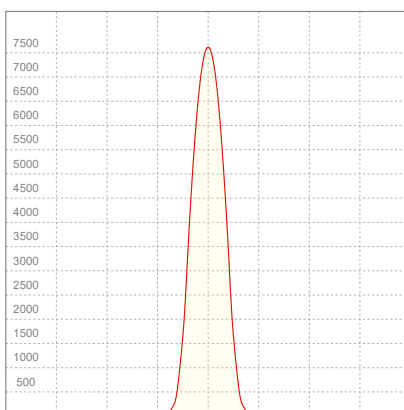
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,2°	52,7°	63,2°	93,2%	93,1%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	7594lx	1898lx	844lx	475lx	304lx	135lx	76lx	34lx	19lx	12lx	8lx	5lx	3lx
Footcand.	705fcd	176fcd	78fcd	44fcd	28fcd	13fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,5m	3,1m	4,6m	6,1m	9,2m	12,3m	15,4m	18,4m	24,6m	30,7m
Beam wid.	2ft	4,1ft	6ft	8,1ft	10,1ft	15,1ft	20,2ft	30,2ft	40,3ft	50,4ft	60,5ft	80,7ft	100,8ft

LINEAR DISTRIBUTION DIAGRAM

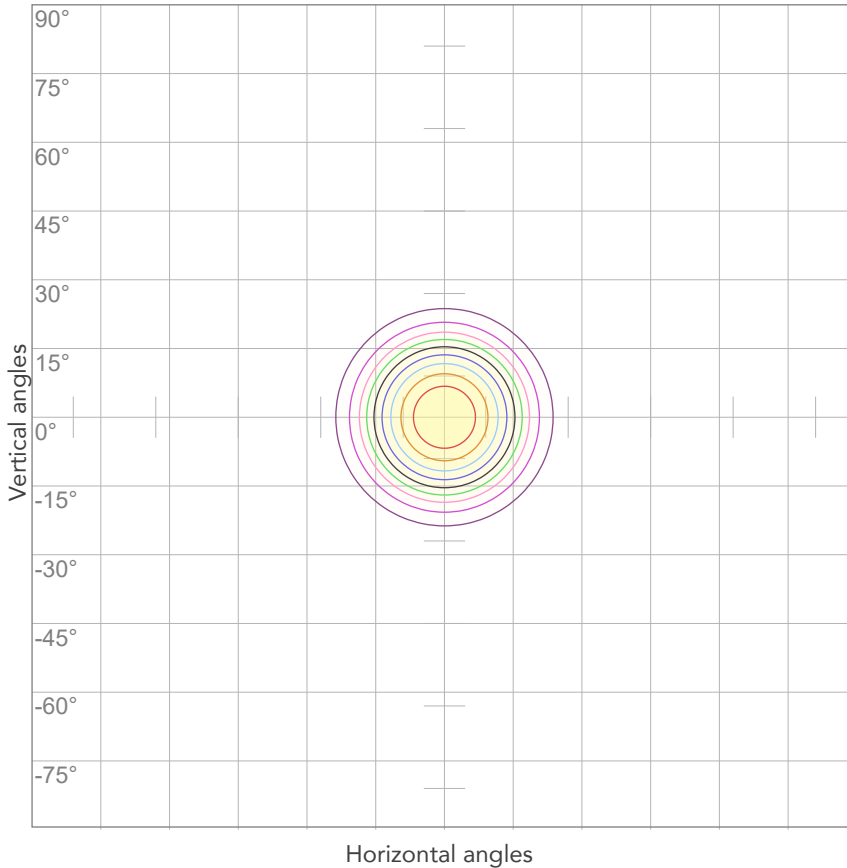


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,942A	198,8W	13lm/W

Power FC
0,93

ISO CANDELA DIAGRAM



10%	759 cd
20%	1519 cd
30%	2278 cd
40%	3038 cd
50%	3797 cd
60%	4556 cd
70%	5316 cd
80%	6075 cd

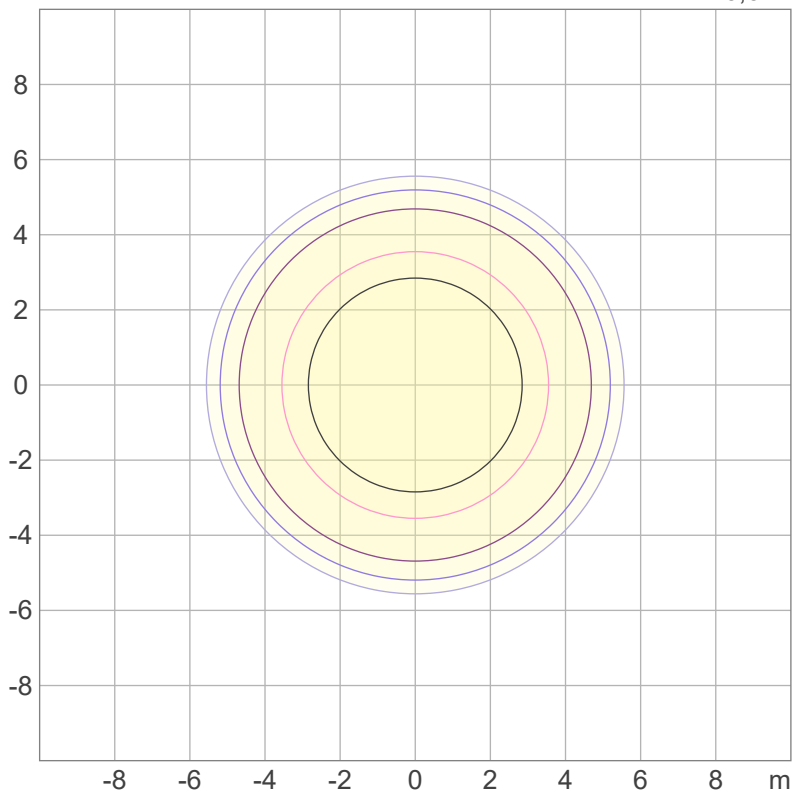
Conditions:

Number of c-planes: 2

Candela at center: 7594 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	2,28 lx
5%	3,80 lx
10%	7,59 lx
30%	22,8 lx
50%	38,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 75,9 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

2483 lm

Peak candela output:

26942 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

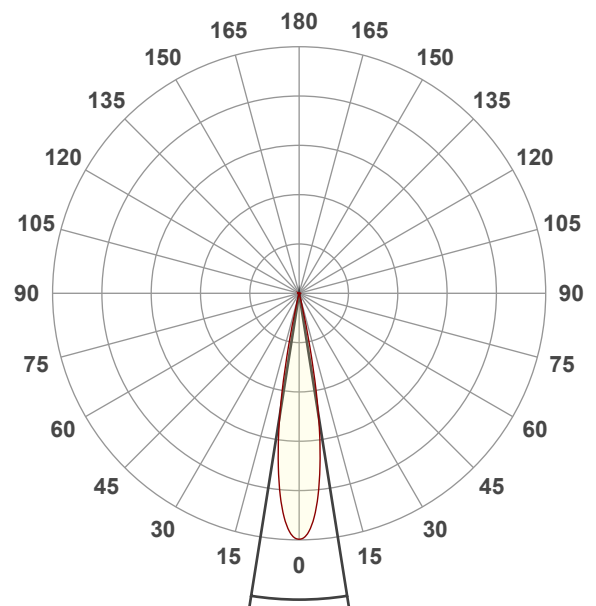
Full On

Operator:

Salvatore Giglio

Date and time:

16/01/2023 10:19:39

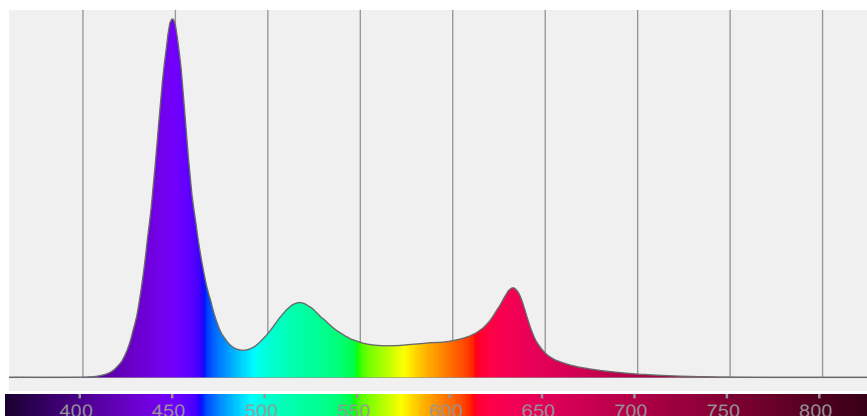


Beam angle 50%: 18°

Field angle 10%: 25,1°

Cut off angle 2.5%: 27,7°

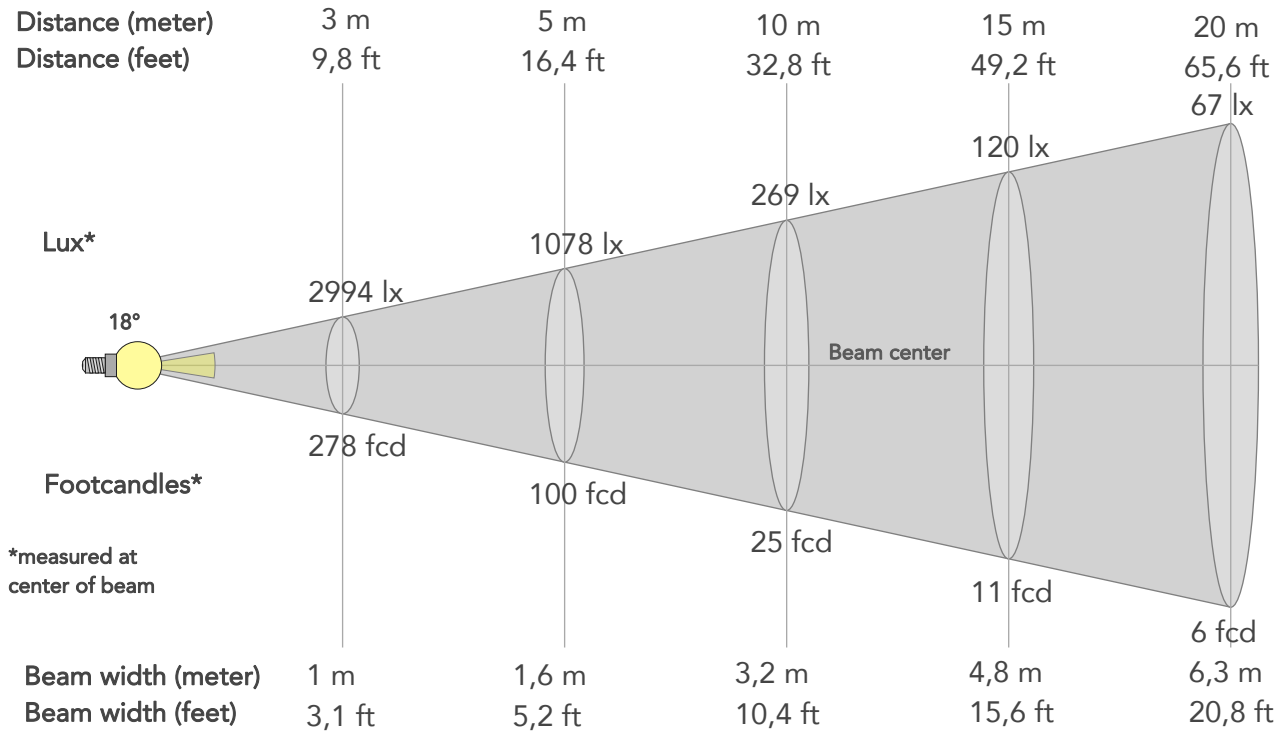
Spectra



BEAM DETAILS



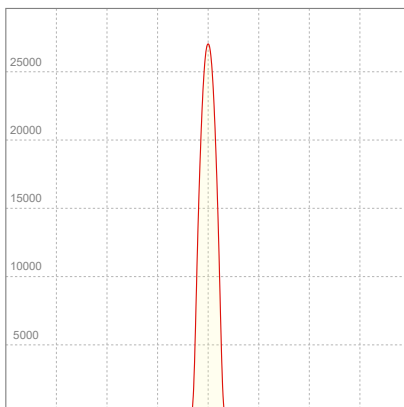
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18°	25,1°	27,7°	87,7%	87,7%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	26942lx	6735lx	2994lx	1684lx	1078lx	479lx	269lx	120lx	67lx	43lx	30lx	17lx	11lx
Footcand.	2503fcd	626fcd	278fcd	156fcd	100fcd	44fcd	25fcd	11fcd	6fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,3m	7,9m	9,5m	12,7m	15,9m
Beam wid.	1ft	2,1ft	3,1ft	4,2ft	5,2ft	7,8ft	10,4ft	15,6ft	20,8ft	26ft	31,2ft	41,6ft	52ft

LINEAR DISTRIBUTION DIAGRAM

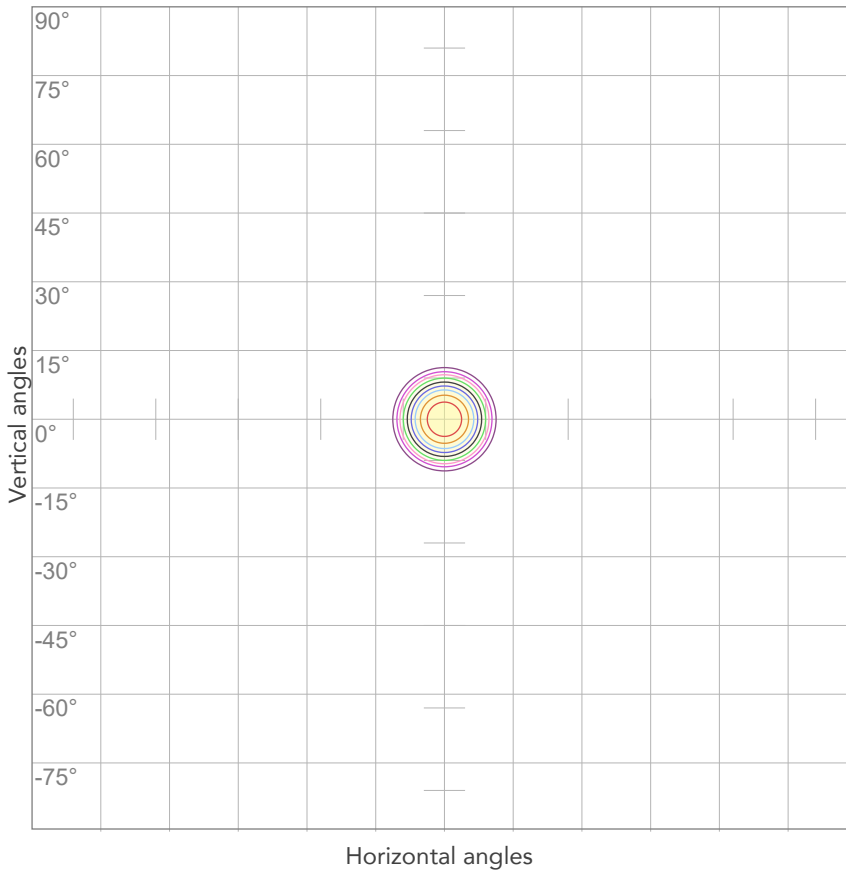


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,937A	197,8W	13lm/W

Power FC
0,93

ISO CANDELA DIAGRAM



10%	2694 cd
20%	5388 cd
30%	8083 cd
40%	10777 cd
50%	13471 cd
60%	16165 cd
70%	18859 cd
80%	21554 cd

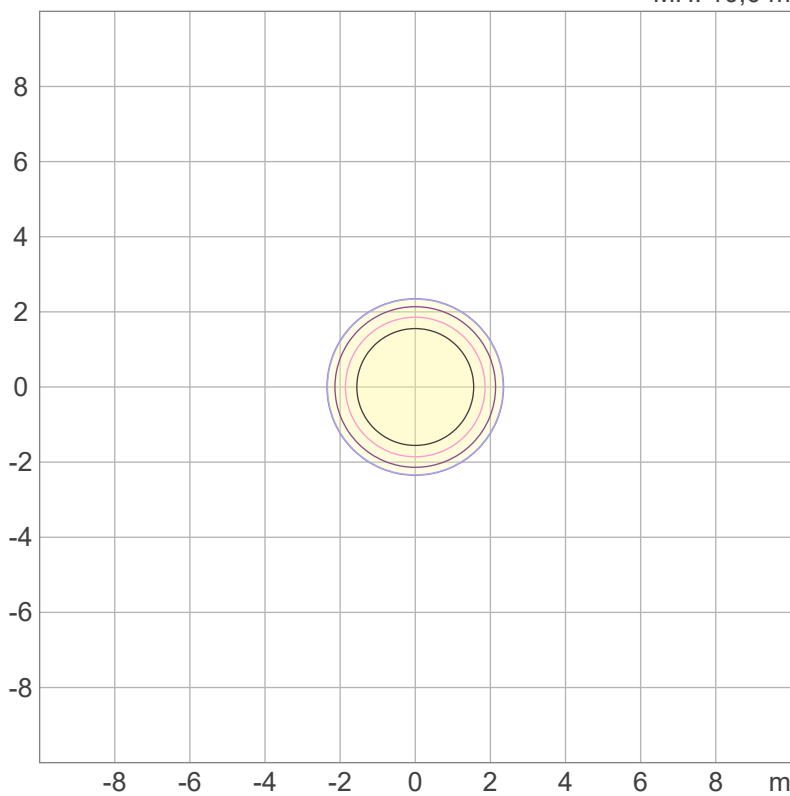
Conditions:

Number of c-planes: 2

Candela at center: 26942 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	8,08 lx
5%	13,5 lx
10%	26,9 lx
30%	80,8 lx
50%	135 lx

Conditions:

Number of c-planes: 2

Lux at center: 269 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1513 lm

Peak candela output:

313534 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

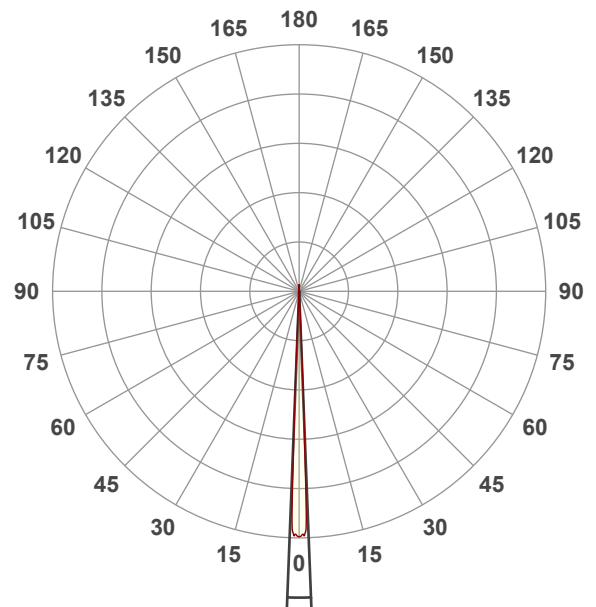
Full On

Operator:

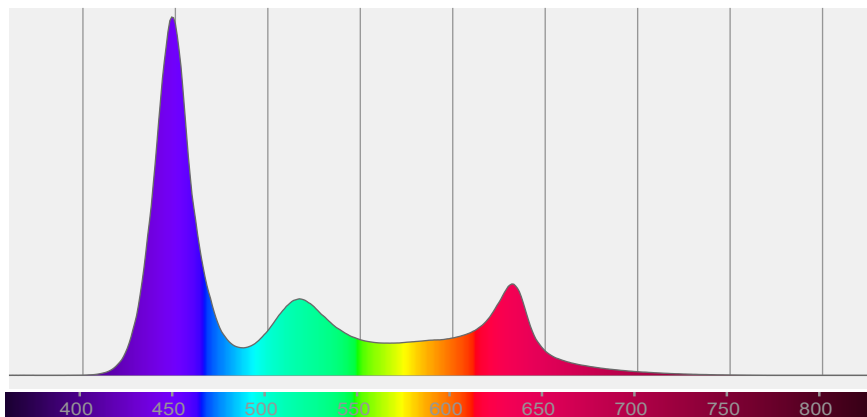
Salvatore Giglio

Date and time:

16/01/2023 10:17:10



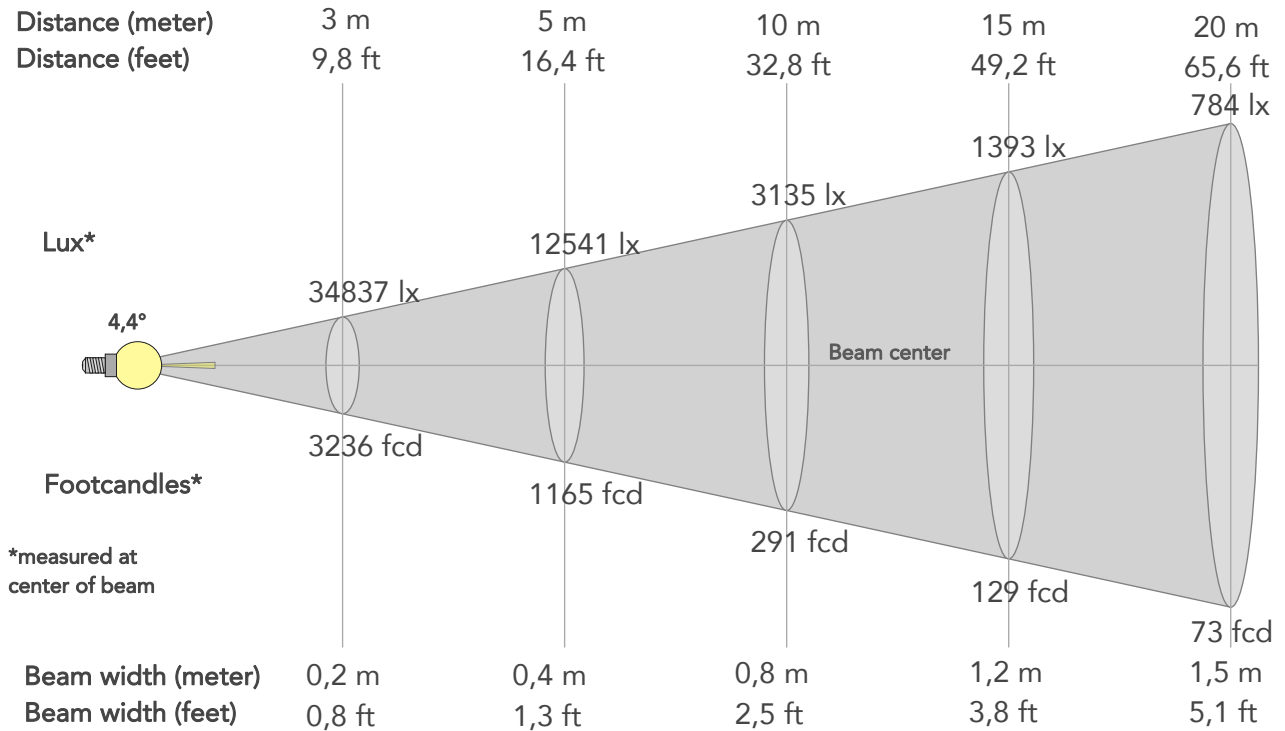
Spectra



BEAM DETAILS



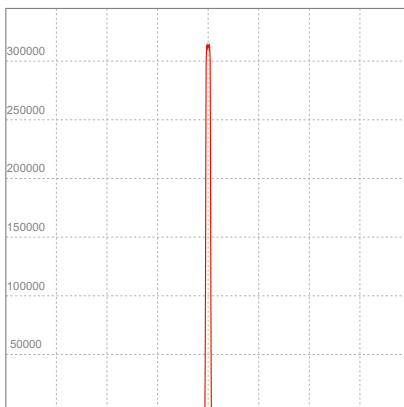
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,4°	5,4°	5,6°	99,9%	99,9%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	313533lx	78383lx	34837lx	19596lx	12541lx	5574lx	3135lx	1393lx	784lx	502lx	348lx	196lx	125lx
Footcand.	29128fcd	7282fcd	3236fcd	1821fcd	1165fcd	518fcd	291fcd	129fcd	73fcd	47fcd	32fcd	18fcd	12fcd
Beam wid.	0,1m	0,2m	0,2m	0,3m	0,4m	0,6m	0,8m	1,2m	1,5m	1,9m	2,3m	3,1m	3,9m
Beam wid.	0,3ft	0,5ft	0,8ft	1ft	1,3ft	1,9ft	2,5ft	3,8ft	5,1ft	6,3ft	7,6ft	10,2ft	12,7ft

LINEAR DISTRIBUTION DIAGRAM

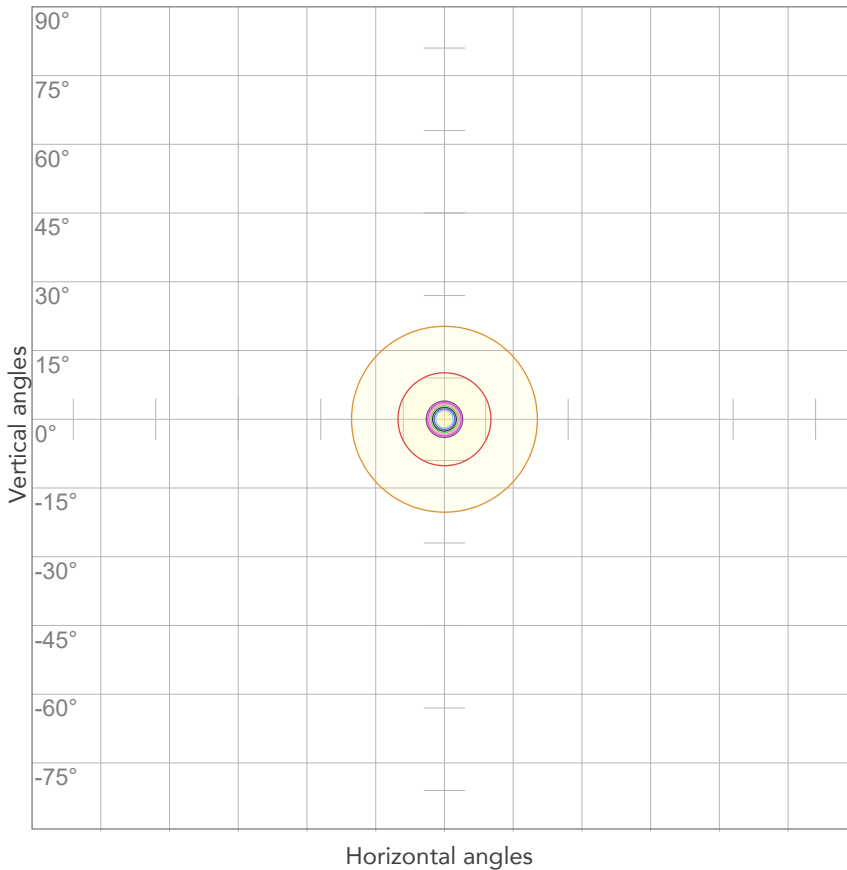


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Efficiency
226V	0,939A	198,3W	8lm/W

Power FC
0,93

ISO CANDELA DIAGRAM



10%	31353 cd
20%	62707 cd
30%	94060 cd
40%	125413 cd
50%	156767 cd
60%	188120 cd
70%	219473 cd
80%	250827 cd

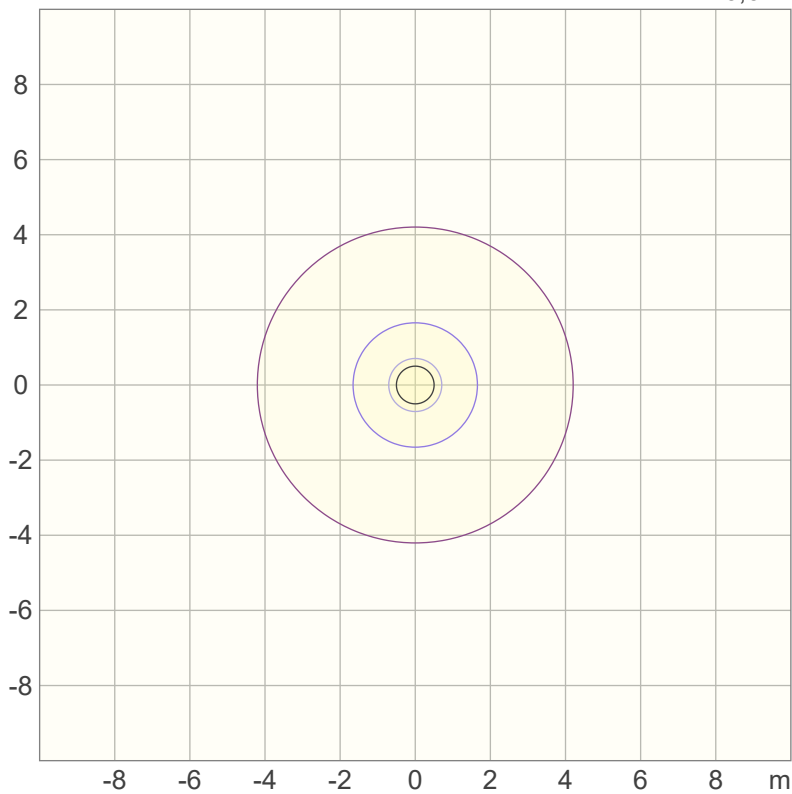
Conditions:

Number of c-planes: 2

Candela at center: 313533 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	94,1 lx
5%	157 lx
10%	314 lx
30%	941 lx
50%	1568 lx

Conditions:

Number of c-planes: 2

Lux at center: 3135 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

675 lm

Peak candela output:

1681 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

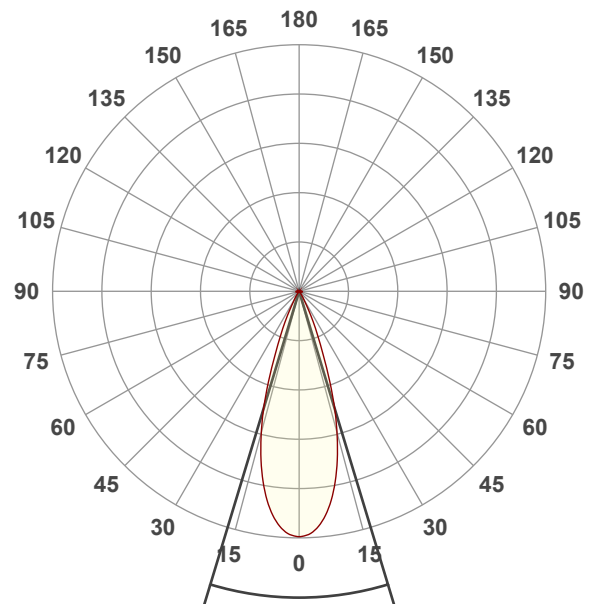
Red

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:59:39

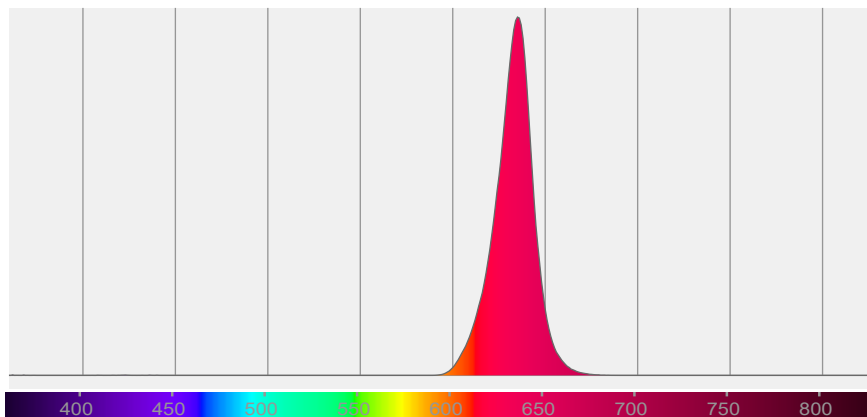


Beam angle 50%: 33,7°

Field angle 10%: 52,3°

Cut off angle 2.5%: 65,1°

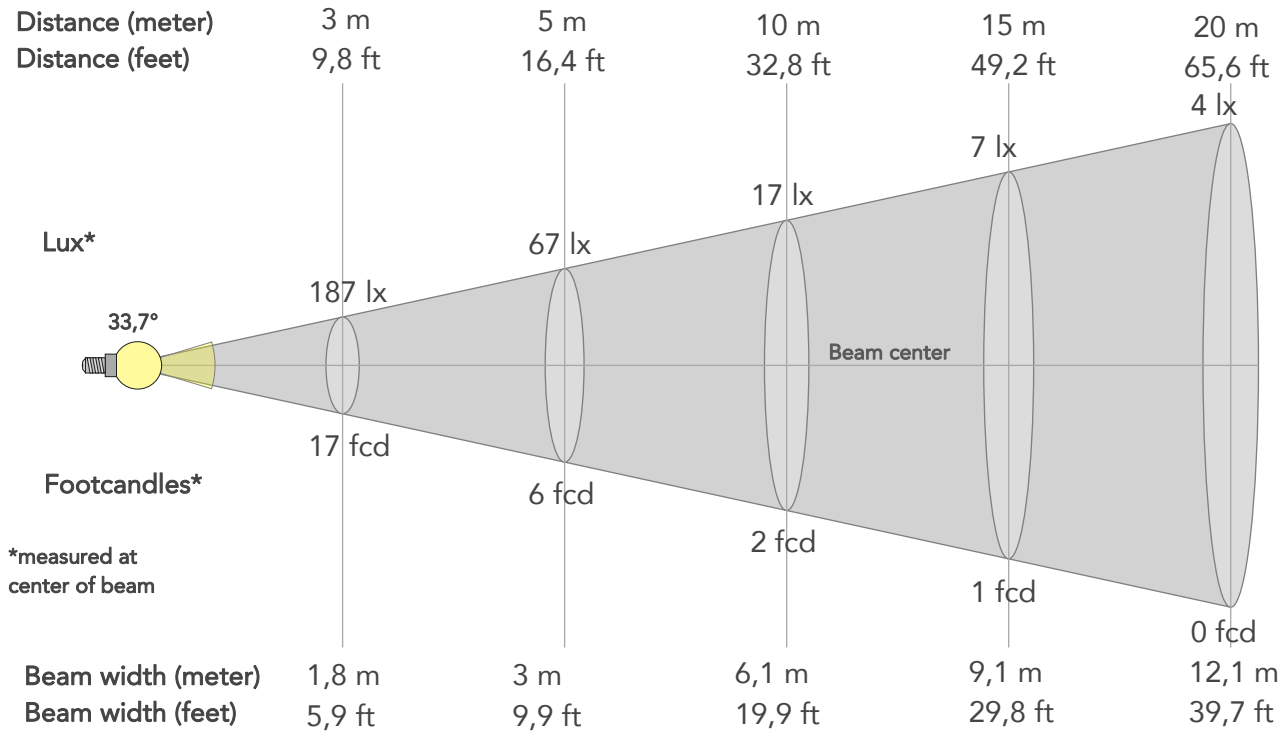
Spectra



BEAM DETAILS



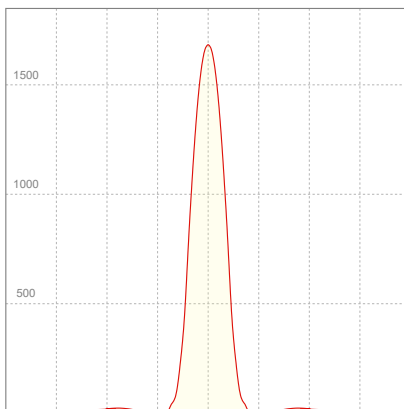
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
33,7°	52,3°	65,1°	79,2%	78,5%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	1681lx	420lx	187lx	105lx	67lx	30lx	17lx	7lx	4lx	3lx	2lx	1lx	1lx
Footcand.	156fcd	39fcd	17fcd	10fcd	6fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3m	4,5m	6,1m	9,1m	12,1m	15,1m	18,2m	24,2m	30,3m
Beam wid.	2ft	4ft	5,9ft	7,9ft	9,9ft	14,9ft	19,9ft	29,8ft	39,7ft	49,7ft	59,6ft	79,5ft	99,4ft

LINEAR DISTRIBUTION DIAGRAM

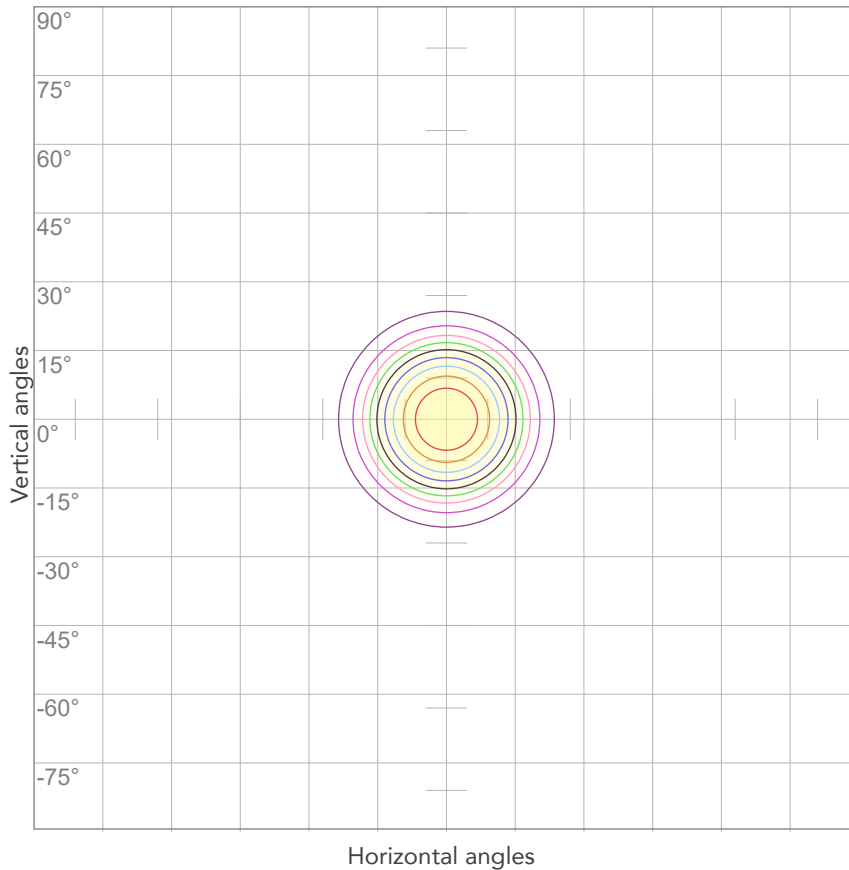


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,421A	74,6W	9lm/W

Power FC
0,78

ISO CANDELA DIAGRAM



10%	168 cd
20%	336 cd
30%	504 cd
40%	672 cd
50%	840 cd
60%	1009 cd
70%	1177 cd
80%	1345 cd

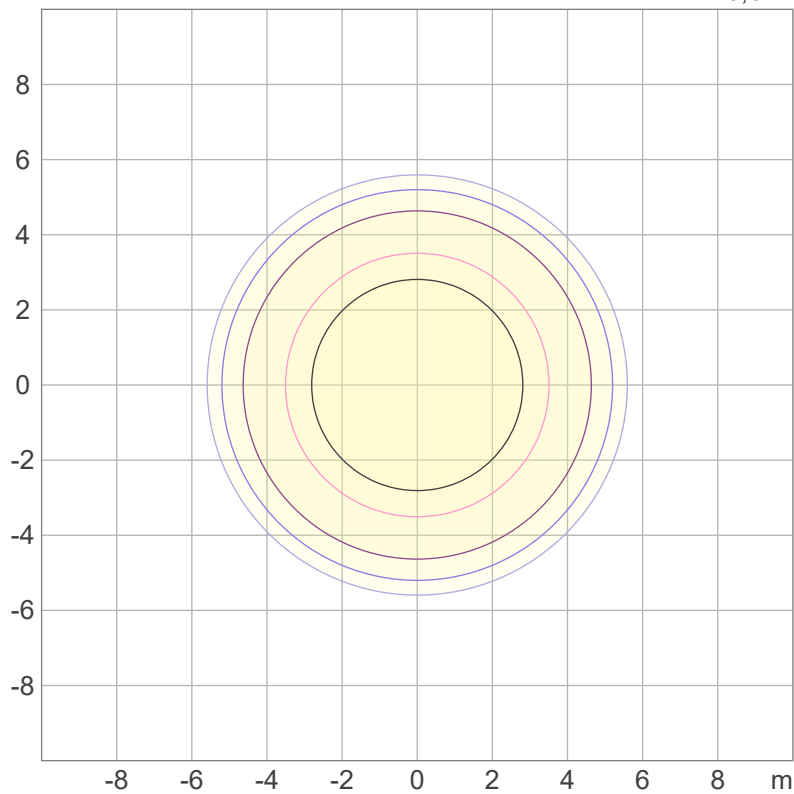
Conditions:

Number of c-planes: 2

Candela at center: 1681 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	0,504 lx
5%	0,840 lx
10%	1,68 lx
30%	5,04 lx
50%	8,40 lx

Conditions:

Number of c-planes: 2

Lux at center: 16,8 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

630 lm

Peak candela output:

5782 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

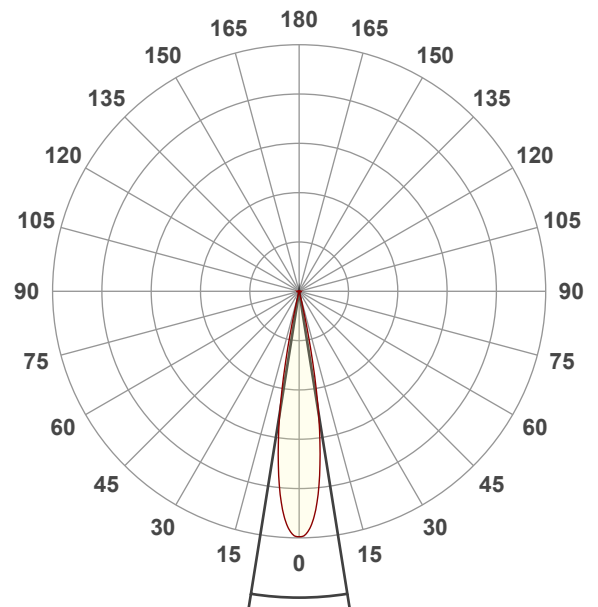
Red

Operator:

Salvatore Giglio

Date and time:

13/01/2023 16:08:00

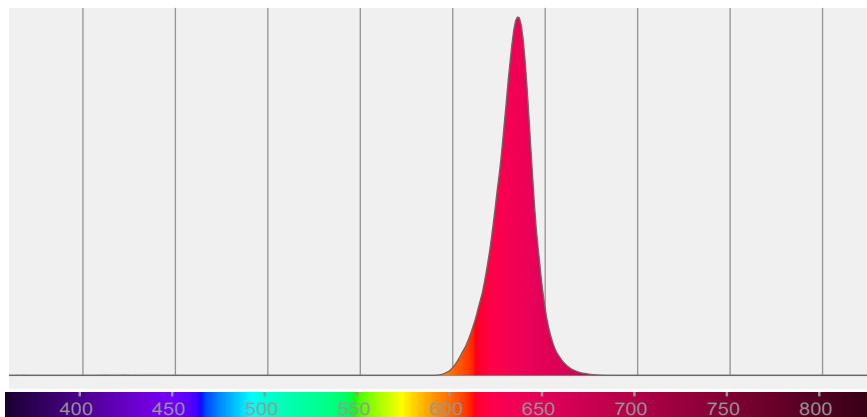


Beam angle 50%: 18,1°

Field angle 10%: 25,4°

Cut off angle 2.5%: 27,8°

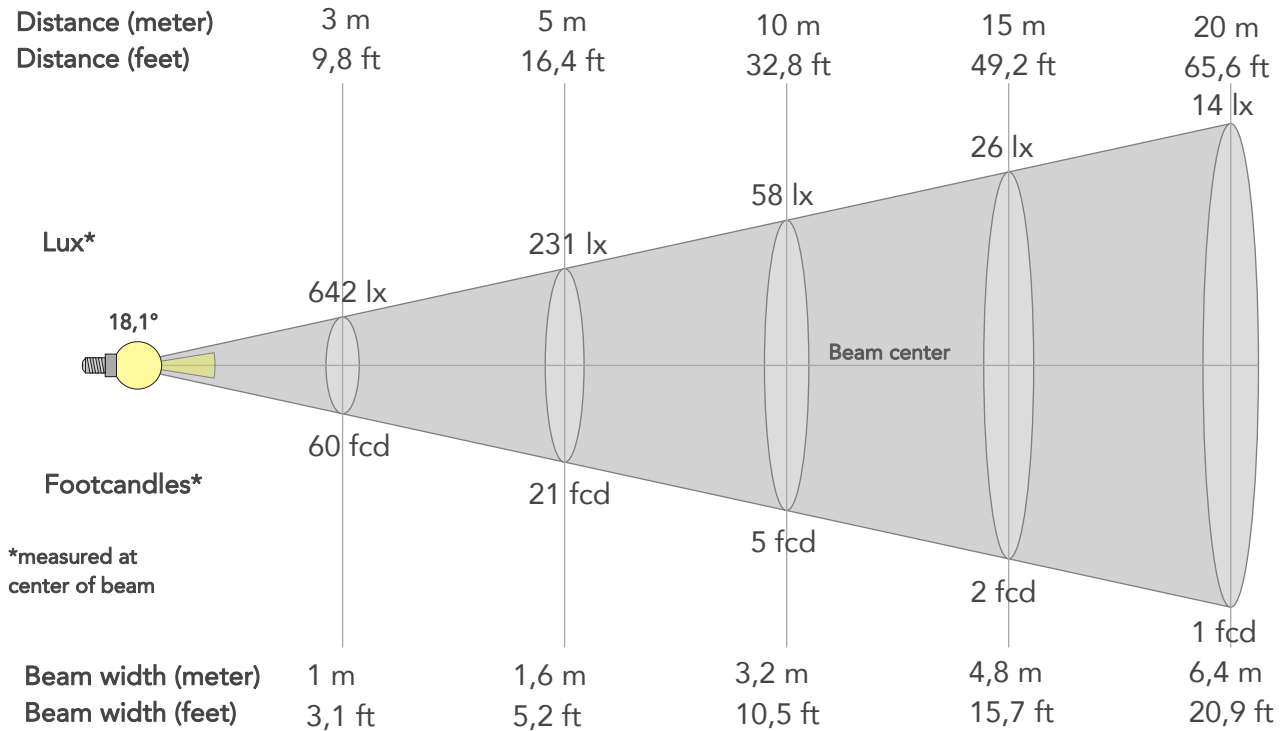
Spectra



BEAM DETAILS



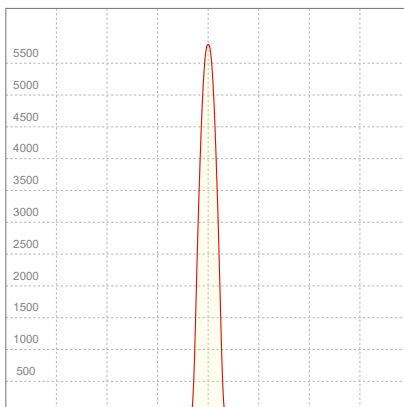
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,1°	25,4°	27,8°	75,5%	75,5%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	5782lx	1446lx	642lx	361lx	231lx	103lx	58lx	26lx	14lx	9lx	6lx	4lx	2lx
Footcand.	537fcd	134fcd	60fcd	34fcd	21fcd	10fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8m	9,6m	12,7m	15,9m
Beam wid.	1,1ft	2,1ft	3,1ft	4,2ft	5,2ft	7,8ft	10,5ft	15,7ft	20,9ft	26,1ft	31,4ft	41,8ft	52,3ft

LINEAR DISTRIBUTION DIAGRAM

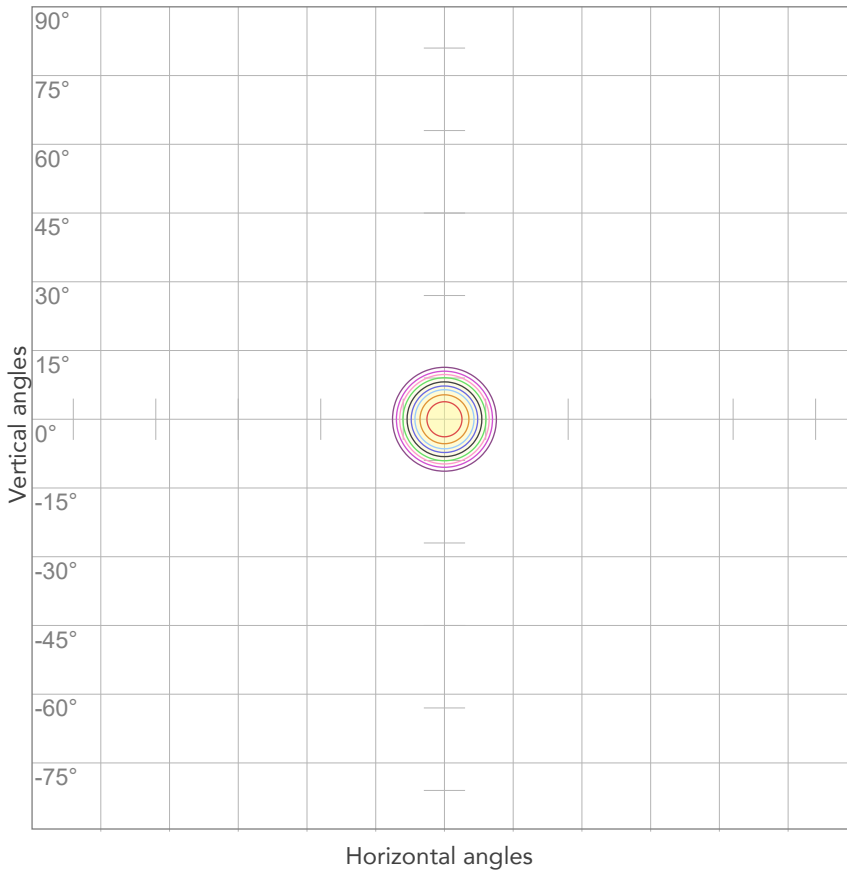


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,422A	74,6W	8lm/W

Power FC
0,79

ISO CANDELA DIAGRAM



10%	578 cd
20%	1156 cd
30%	1735 cd
40%	2313 cd
50%	2891 cd
60%	3469 cd
70%	4048 cd
80%	4626 cd

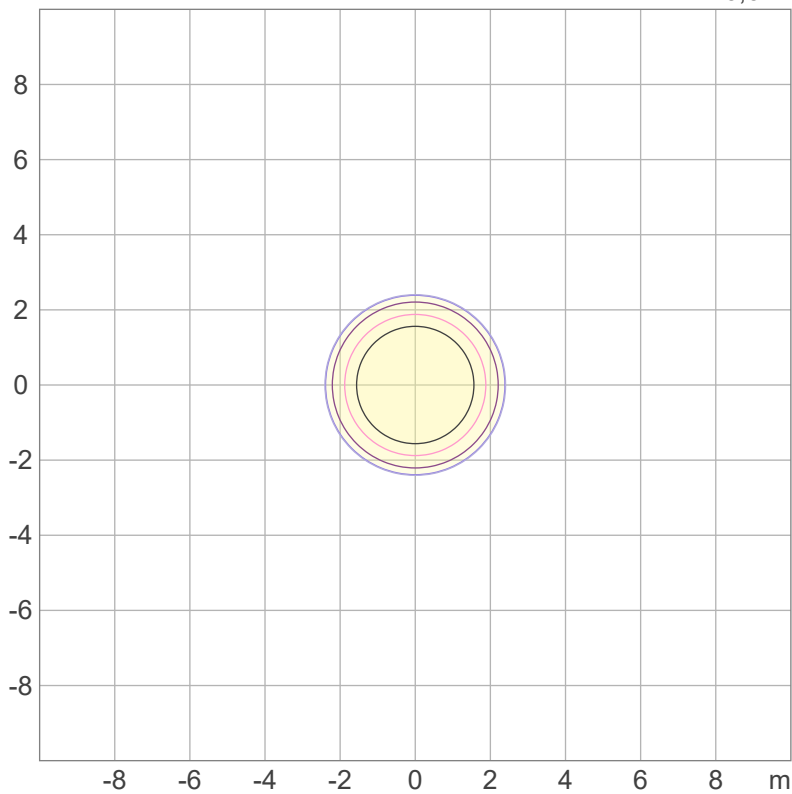
Conditions:

Number of c-planes: 2

Candela at center: 5782 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	1,73 lx
5%	2,89 lx
10%	5,78 lx
30%	17,3 lx
50%	28,9 lx

Conditions:

Number of c-planes: 2

Lux at center: 57,8 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

431 lm

Peak candela output:

90249 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

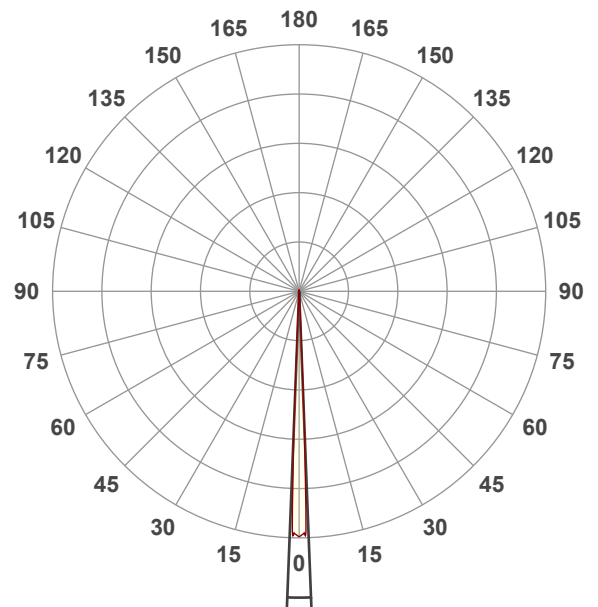
Red

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:10:41

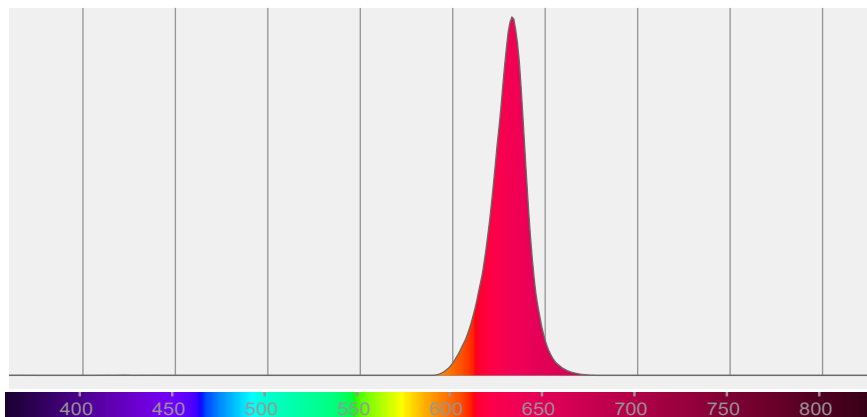


Beam angle 50%: 4,4°

Field angle 10%: 5,3°

Cut off angle 2.5%: 6°

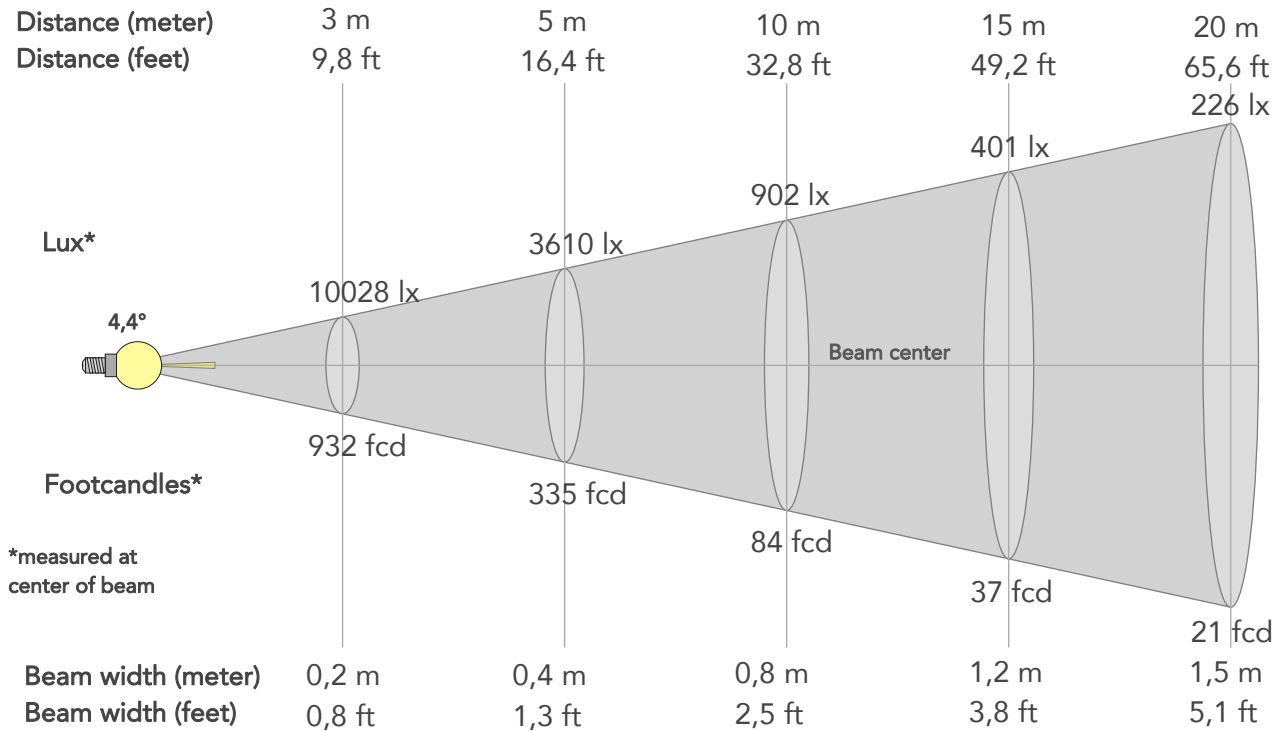
Spectra



BEAM DETAILS

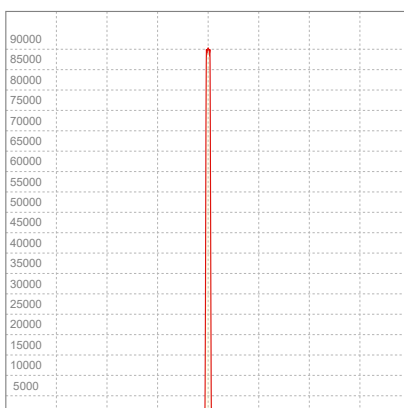


Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,4°	5,3°	6°	99,9%	99,8%



Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	90249lx	22562lx	10028lx	5641lx	3610lx	1604lx	902lx	401lx	226lx	144lx	100lx	56lx	36lx
Footcand.	8384fcd	2096fcd	932fcd	524fcd	335fcd	149fcd	84fcd	37fcd	21fcd	13fcd	9fcd	5fcd	3fcd
Beam wid.	0,1m	0,2m	0,2m	0,3m	0,4m	0,6m	0,8m	1,2m	1,5m	1,9m	2,3m	3,1m	3,9m
Beam wid.	0,3ft	0,5ft	0,8ft	1ft	1,3ft	1,9ft	2,5ft	3,8ft	5,1ft	6,4ft	7,6ft	10,2ft	12,7ft

LINEAR DISTRIBUTION DIAGRAM

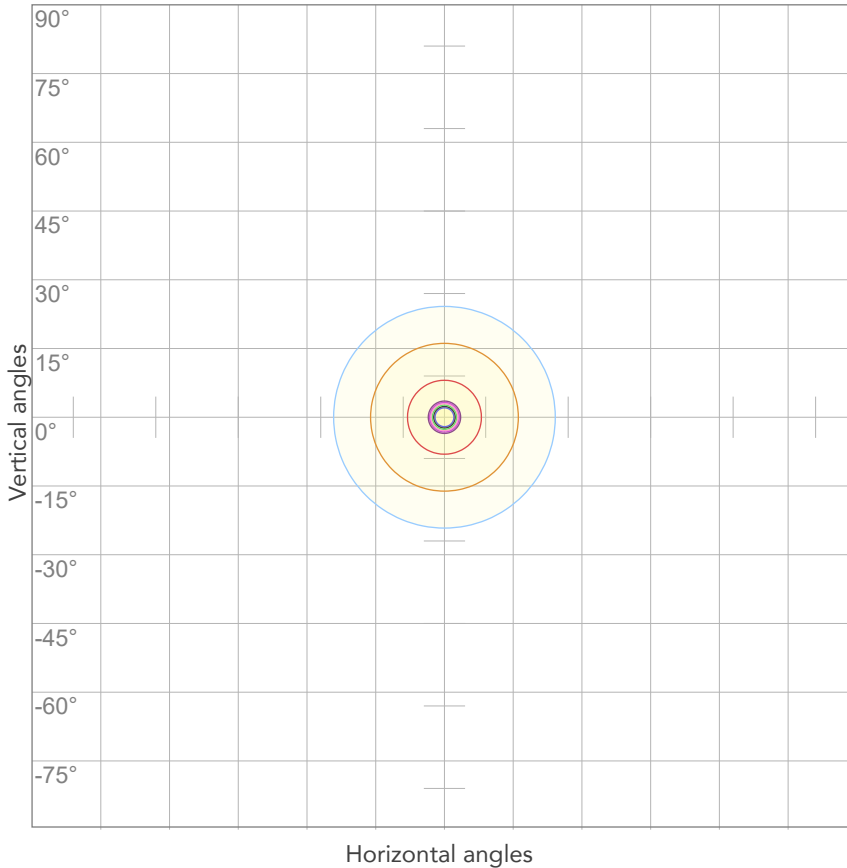


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,426A	75,3W	6lm/W

Power FC
0,79

ISO CANDELA DIAGRAM



10%	9025 cd
20%	18050 cd
30%	27075 cd
40%	36100 cd
50%	45125 cd
60%	54150 cd
70%	63175 cd
80%	72199 cd

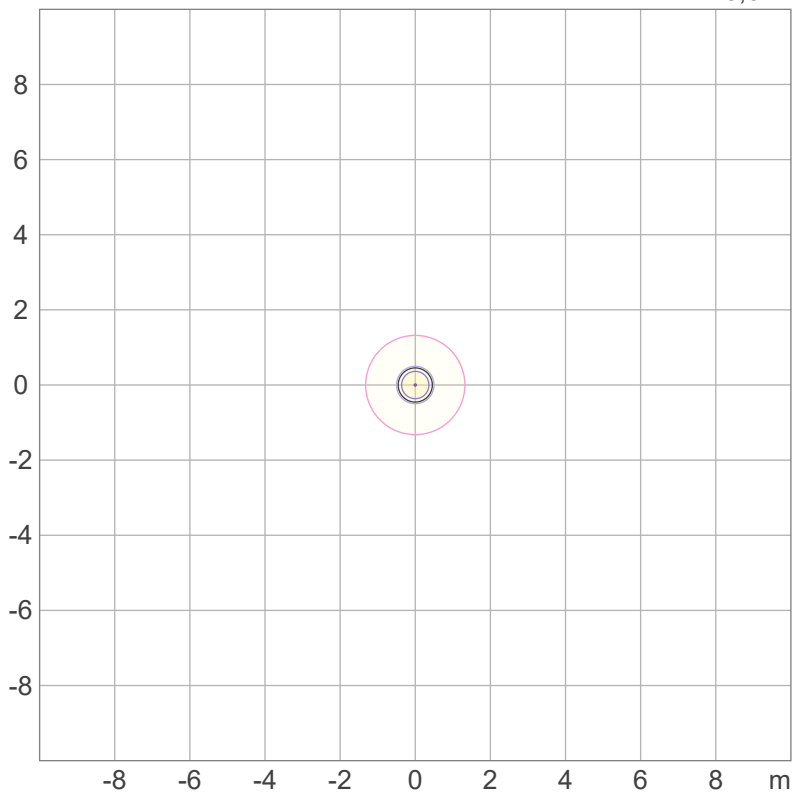
Conditions:

Number of c-planes: 2

Candela at center: 90249 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	27,1 lx
5%	45,1 lx
10%	90,2 lx
30%	271 lx
50%	451 lx

Conditions:

Number of c-planes: 2

Lux at center: 902 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1084 lm

Peak candela output:

2813 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

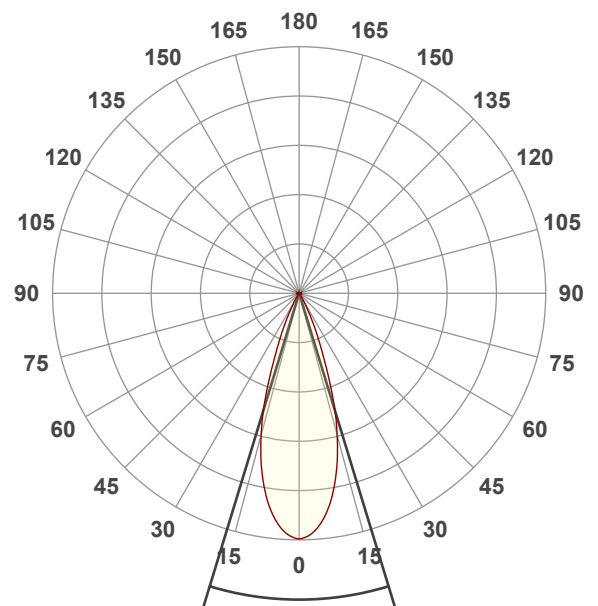
Green

Operator:

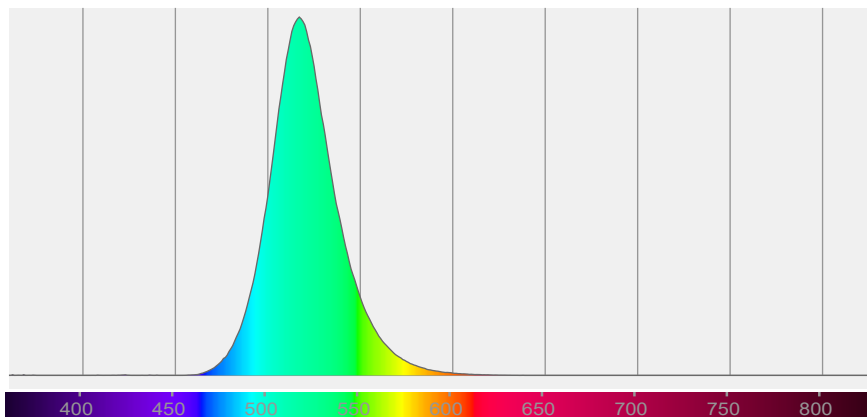
Salvatore Giglio

Date and time:

13/01/2023 16:01:25



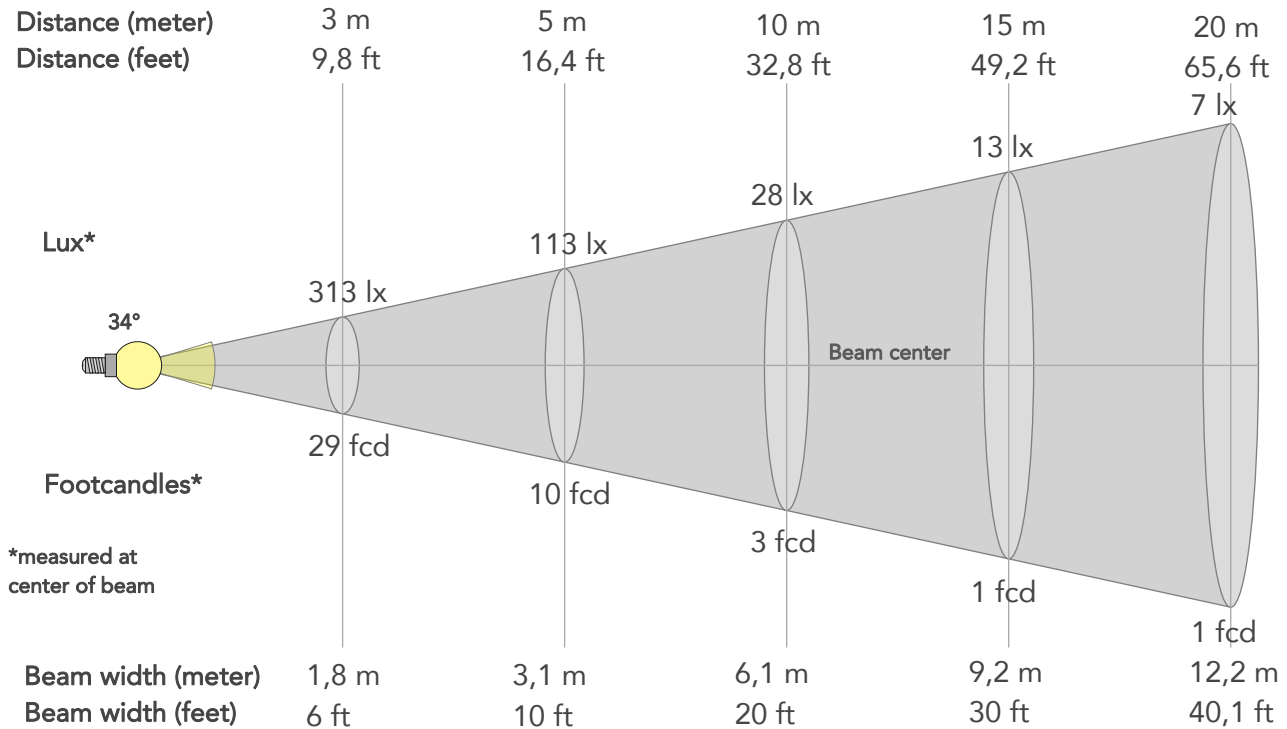
Spectra



BEAM DETAILS



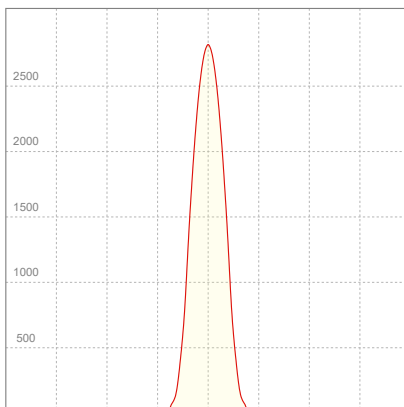
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34°	52,6°	64,9°	82,9%	82,5%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	2813lx	703lx	313lx	176lx	113lx	50lx	28lx	13lx	7lx	5lx	3lx	2lx	1lx
Footcand.	261fcd	65fcd	29fcd	16fcd	10fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3,1m	4,6m	6,1m	9,2m	12,2m	15,3m	18,3m	24,4m	30,5m
Beam wid.	2ft	4ft	6ft	8ft	10ft	15ft	20ft	30ft	40,1ft	50,1ft	60,1ft	80,1ft	100,1ft

LINEAR DISTRIBUTION DIAGRAM

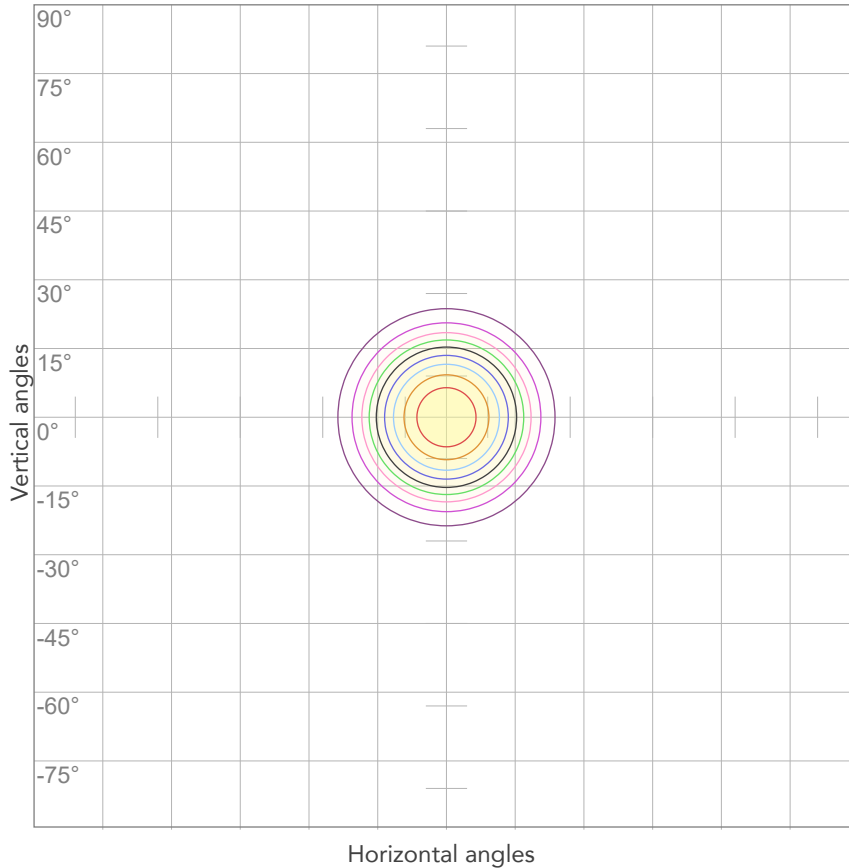


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,473A	87,5W	12lm/W

Power FC
0,82

ISO CANDELA DIAGRAM



10%	281 cd
20%	563 cd
30%	844 cd
40%	1125 cd
50%	1406 cd
60%	1688 cd
70%	1969 cd
80%	2250 cd

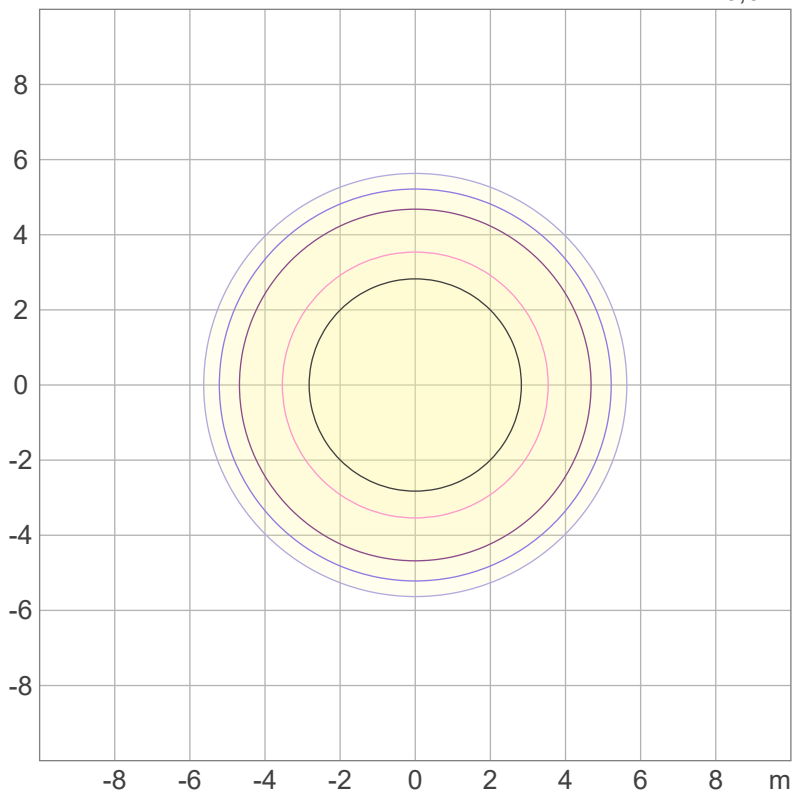
Conditions:

Number of c-planes: 2

Candela at center: 2813 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	0,844 lx
5%	1,41 lx
10%	2,81 lx
30%	8,44 lx
50%	14,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 28,1 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1071 lm

Peak candela output:

9938 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

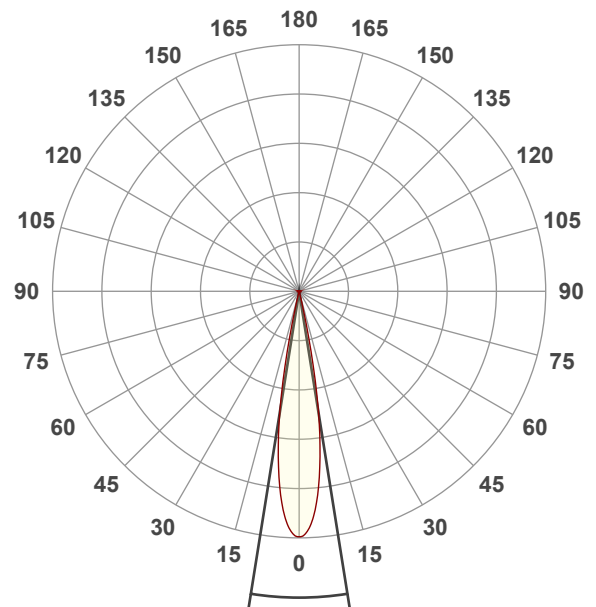
Green

Operator:

Salvatore Giglio

Date and time:

13/01/2023 16:09:35

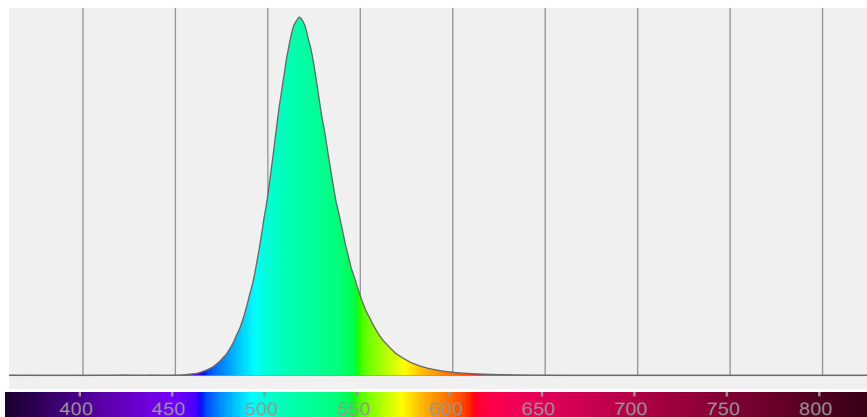


Beam angle 50%: 18,1°

Field angle 10%: 25,2°

Cut off angle 2.5%: 27,5°

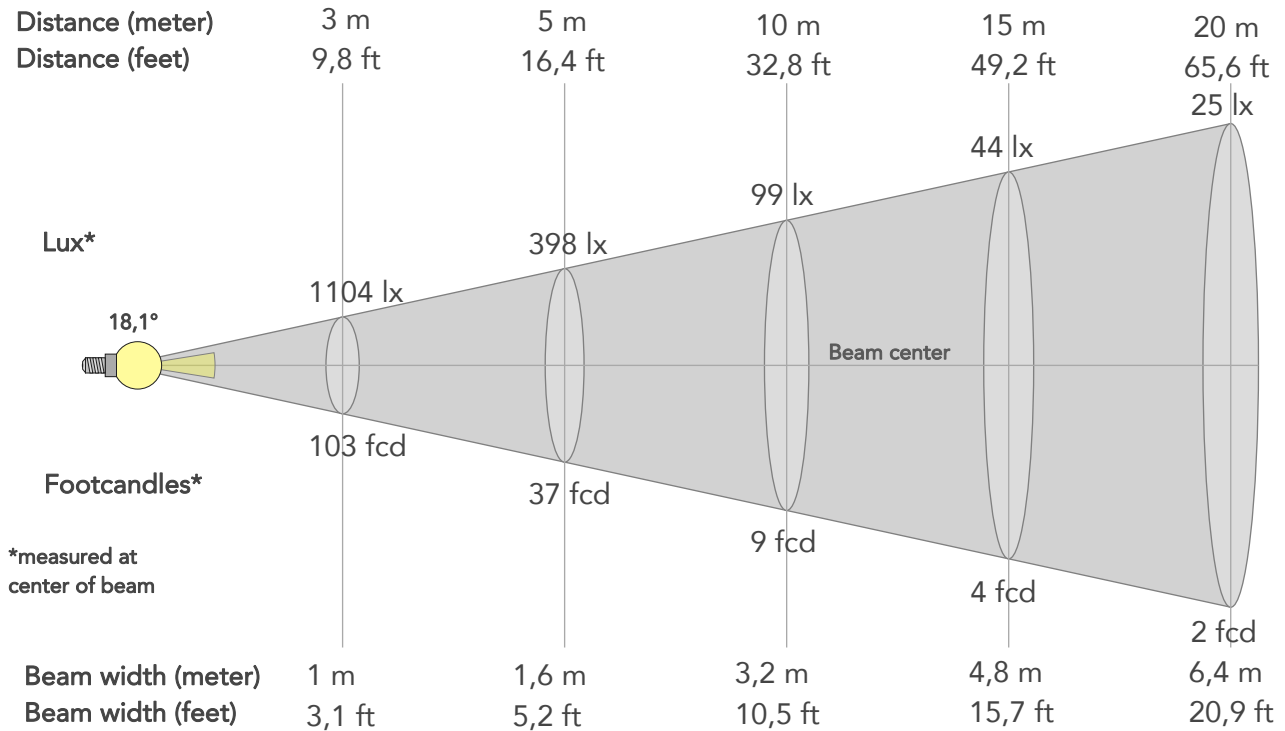
Spectra



BEAM DETAILS



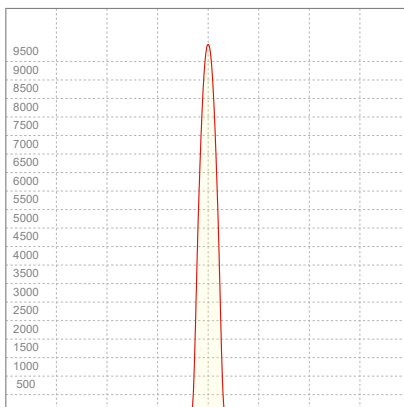
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,1°	25,2°	27,5°	75,5%	75,5%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	9938lx	2485lx	1104lx	621lx	398lx	177lx	99lx	44lx	25lx	16lx	11lx	6lx	4lx
Footcand.	923fcd	231fcd	103fcd	58fcd	37fcd	16fcd	9fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8m	9,6m	12,8m	16m
Beam wid.	1,1ft	2,1ft	3,1ft	4,2ft	5,2ft	7,9ft	10,5ft	15,7ft	20,9ft	26,2ft	31,4ft	41,9ft	52,4ft

LINEAR DISTRIBUTION DIAGRAM

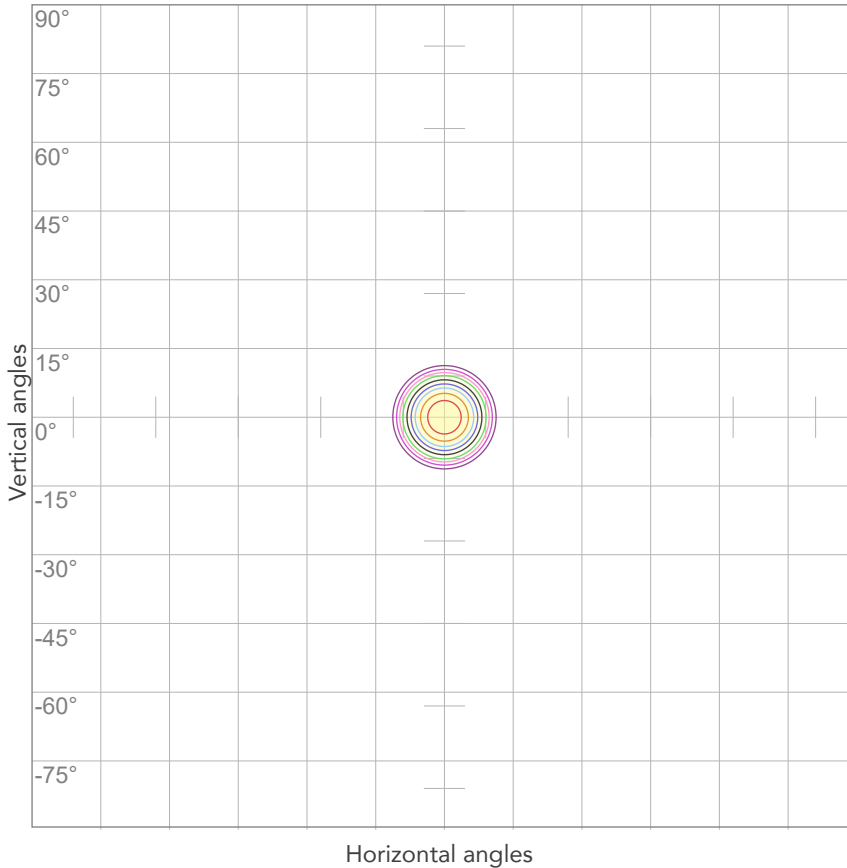


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,474A	87,6W	12lm/W

Power FC
0,82

ISO CANDELA DIAGRAM



10%	994 cd
20%	1988 cd
30%	2981 cd
40%	3975 cd
50%	4969 cd
60%	5963 cd
70%	6957 cd
80%	7951 cd

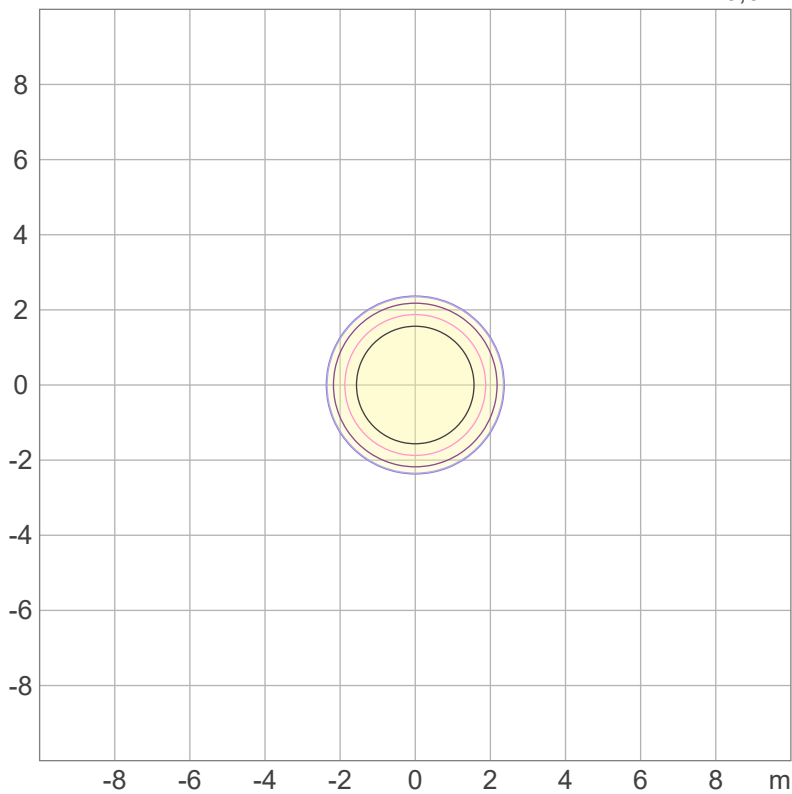
Conditions:

Number of c-planes: 2

Candela at center: 9938 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	2,98 lx
5%	4,97 lx
10%	9,94 lx
30%	29,8 lx
50%	49,7 lx

Conditions:

Number of c-planes: 2

Lux at center: 99,4 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

578 lm

Peak candela output:

119924 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

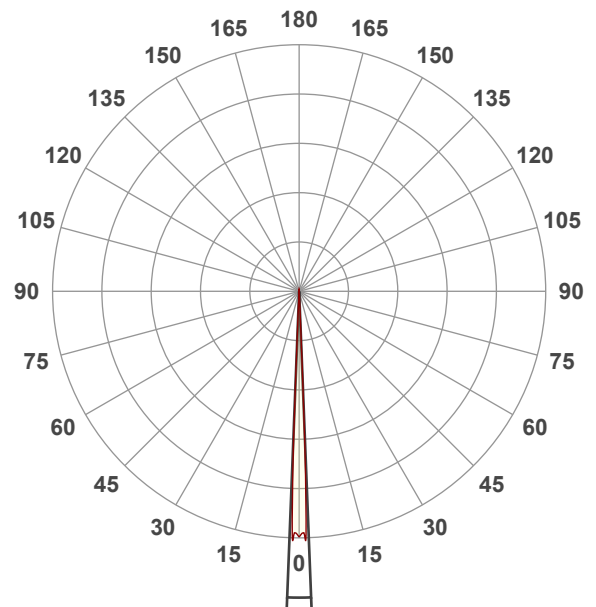
Green

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:12:03

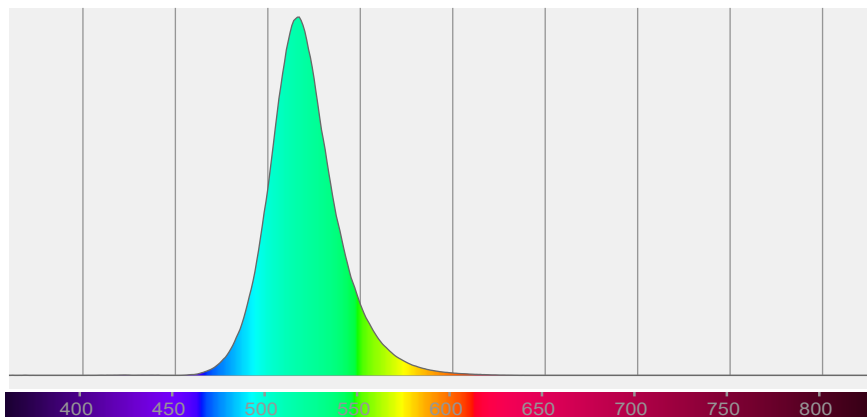


Beam angle 50%: 4,5°

Field angle 10%: 5,2°

Cut off angle 2.5%: 6°

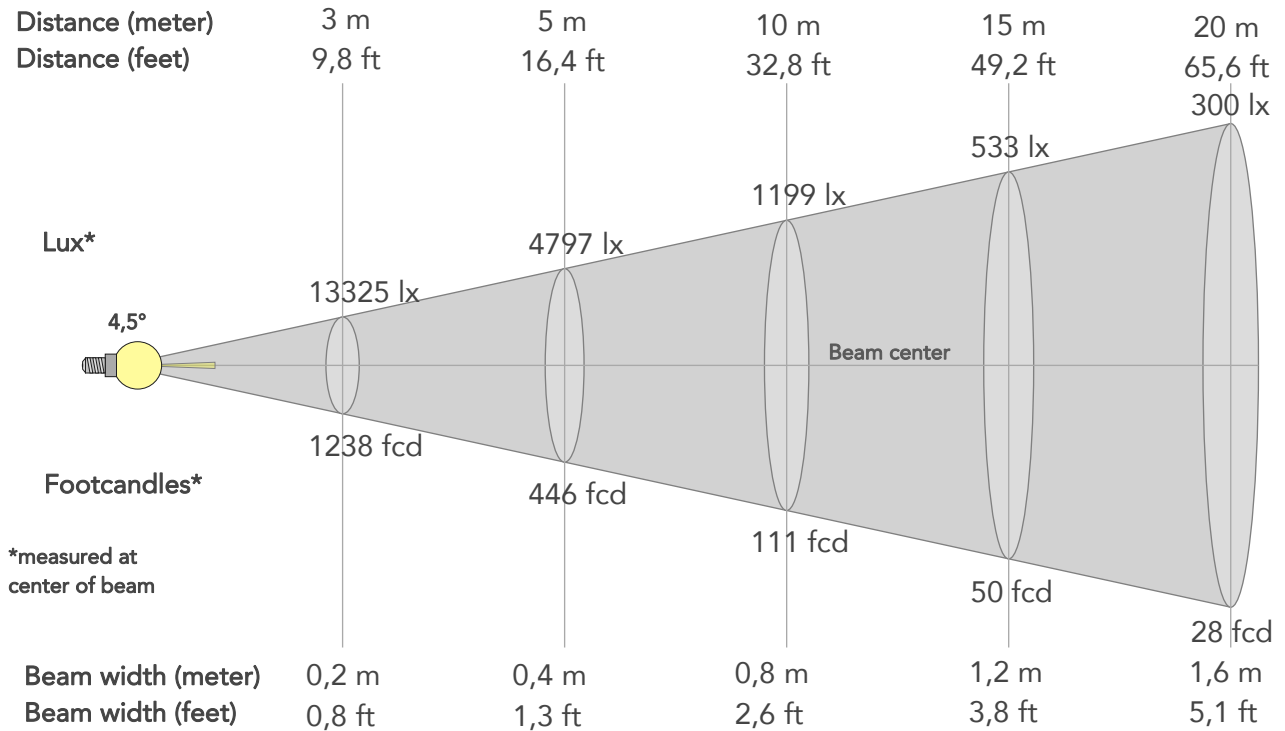
Spectra



BEAM DETAILS



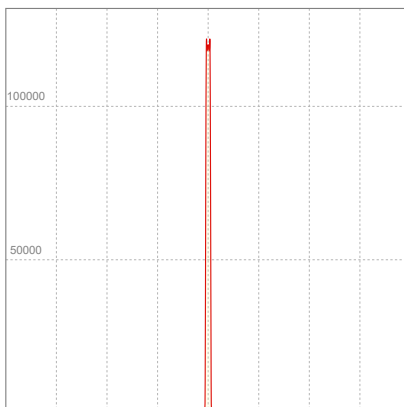
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,5°	5,2°	6°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	119924lx	29981lx	13325lx	7495lx	4797lx	2132lx	1199lx	533lx	300lx	192lx	133lx	75lx	48lx
Footcand.	11141fcd	2785fcd	1238fcd	696fcd	446fcd	198fcd	111fcd	50fcd	28fcd	18fcd	12fcd	7fcd	4fcd
Beam wid.	0,1m	0,2m	0,2m	0,3m	0,4m	0,6m	0,8m	1,2m	1,6m	2m	2,3m	3,1m	3,9m
Beam wid.	0,3ft	0,5ft	0,8ft	1ft	1,3ft	1,9ft	2,6ft	3,8ft	5,1ft	6,4ft	7,7ft	10,3ft	12,8ft

LINEAR DISTRIBUTION DIAGRAM

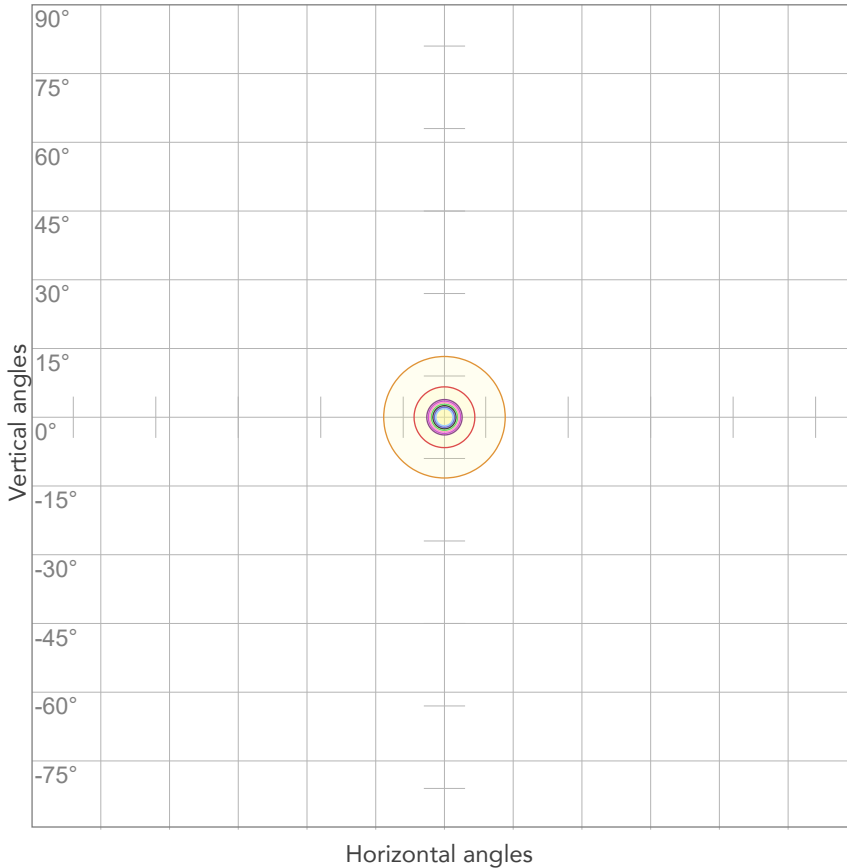


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,482A	89,4W	6lm/W

Power FC
0,83

ISO CANDELA DIAGRAM



10%	11992 cd
20%	23985 cd
30%	35977 cd
40%	47970 cd
50%	59962 cd
60%	71955 cd
70%	83947 cd
80%	95939 cd

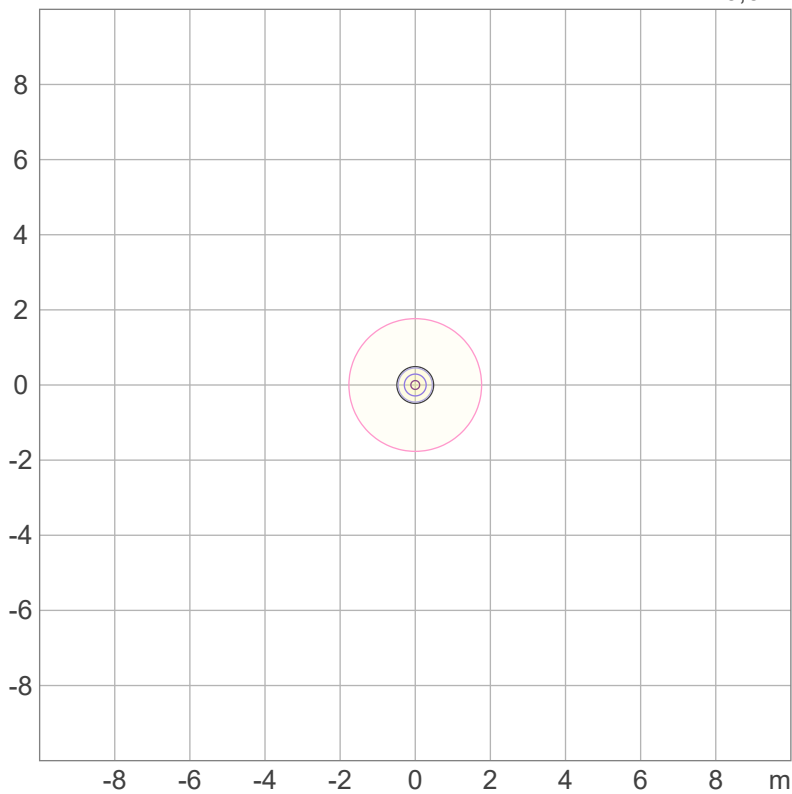
Conditions:

Number of c-planes: 2

Candela at center: 119924 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	36,0 lx
5%	60,0 lx
10%	120 lx
30%	360 lx
50%	600 lx

Conditions:

Number of c-planes: 2

Lux at center: 1199 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

284 lm

Peak candela output:

718 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

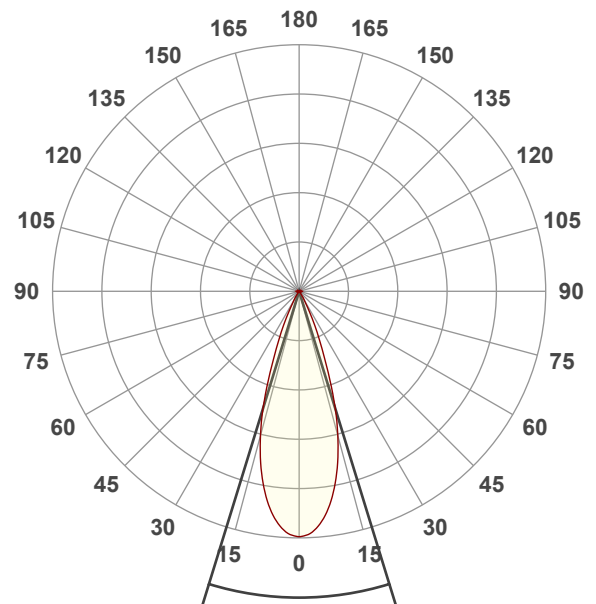
Blue

Operator:

Salvatore Giglio

Date and time:

13/01/2023 16:03:27

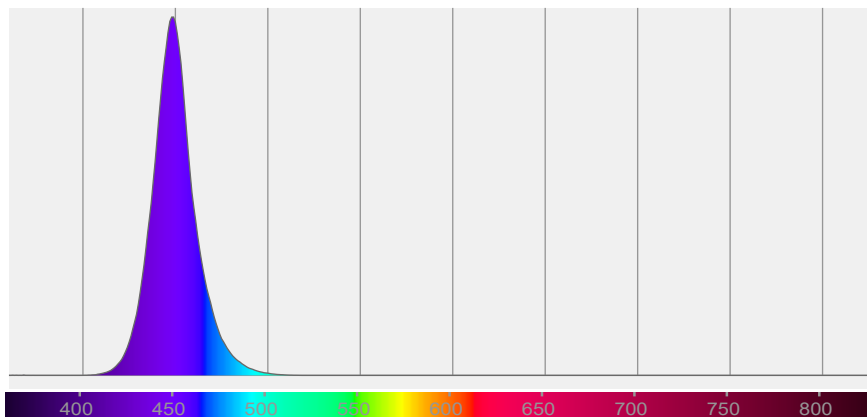


Beam angle 50%: 34,3°

Field angle 10%: 53°

Cut off angle 2.5%: 65,8°

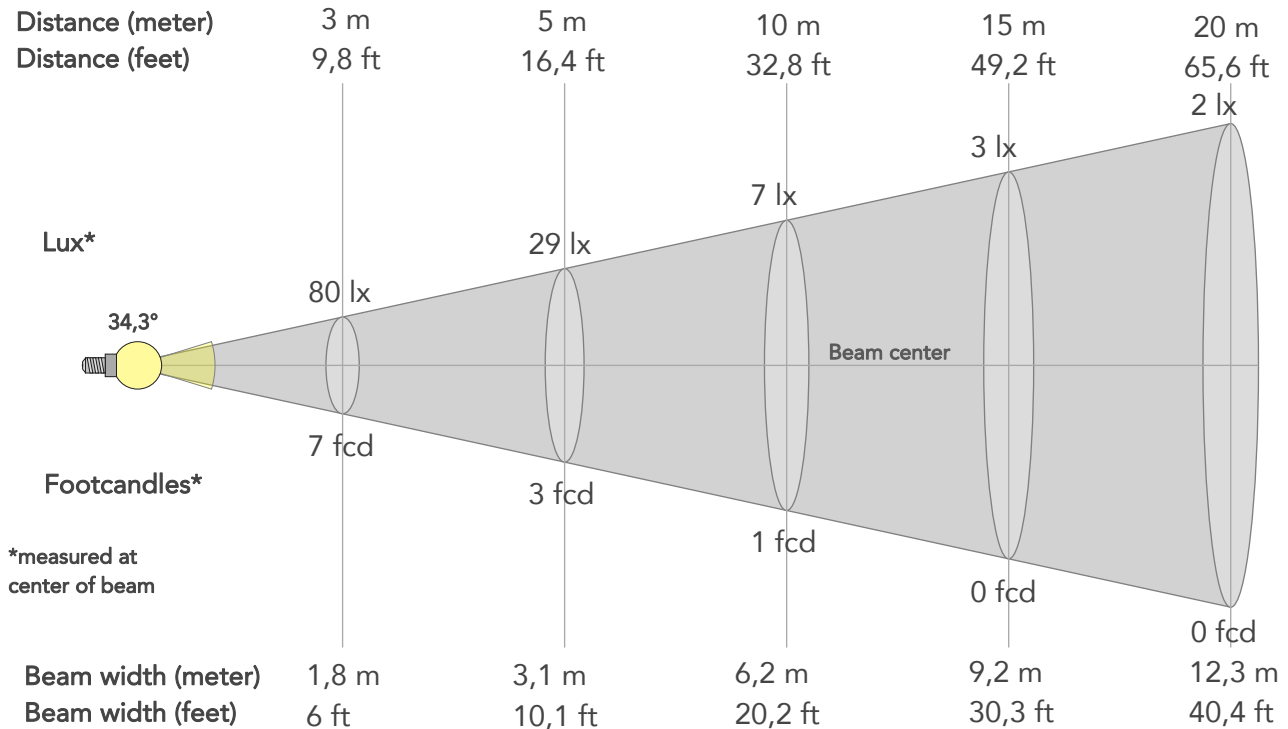
Spectra



BEAM DETAILS



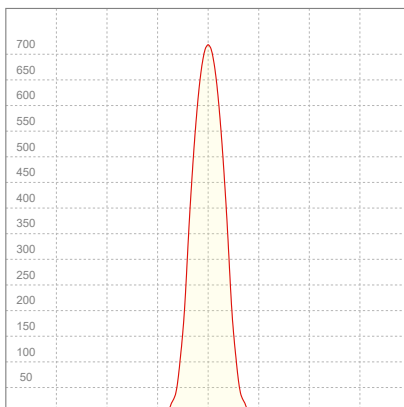
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,3°	53°	65,8°	82,6%	82,1%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	718lx	179lx	80lx	45lx	29lx	13lx	7lx	3lx	2lx	1lx	1lx	0lx	0lx
Footcand.	67fcd	17fcd	7fcd	4fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,5m	3,1m	4,6m	6,2m	9,2m	12,3m	15,4m	18,5m	24,6m	30,8m
Beam wid.	2ft	4,1ft	6ft	8,1ft	10,1ft	15,2ft	20,2ft	30,3ft	40,4ft	50,5ft	60,6ft	80,9ft	101,1ft

LINEAR DISTRIBUTION DIAGRAM

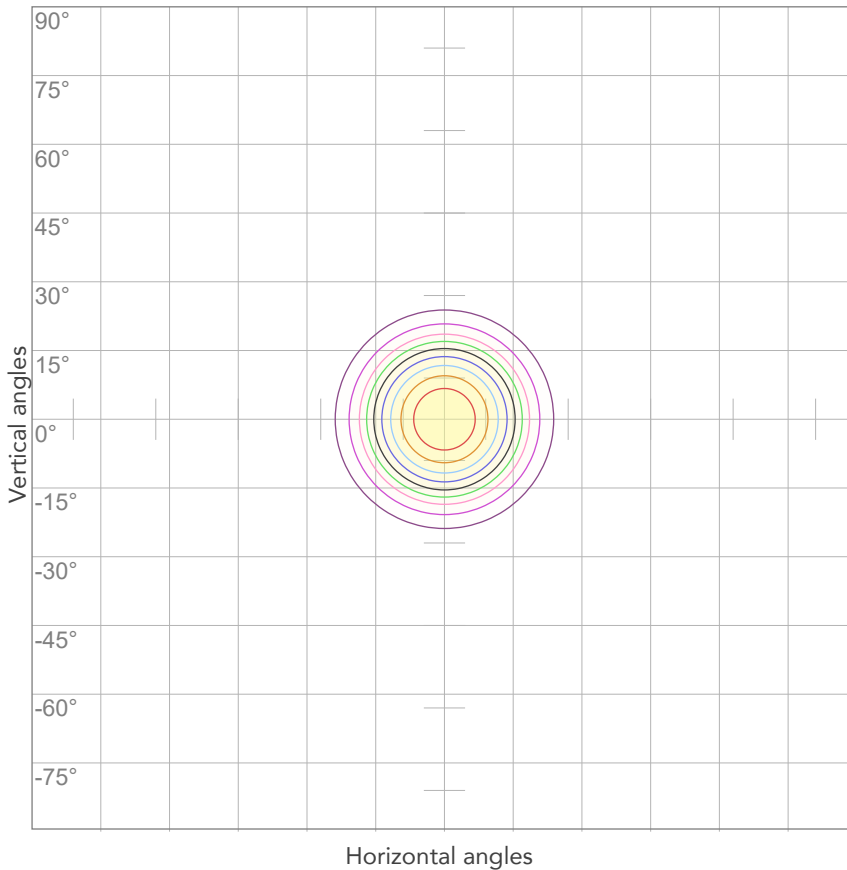


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,471A	87,1W	3lm/W

Power FC
0,82

ISO CANDELA DIAGRAM



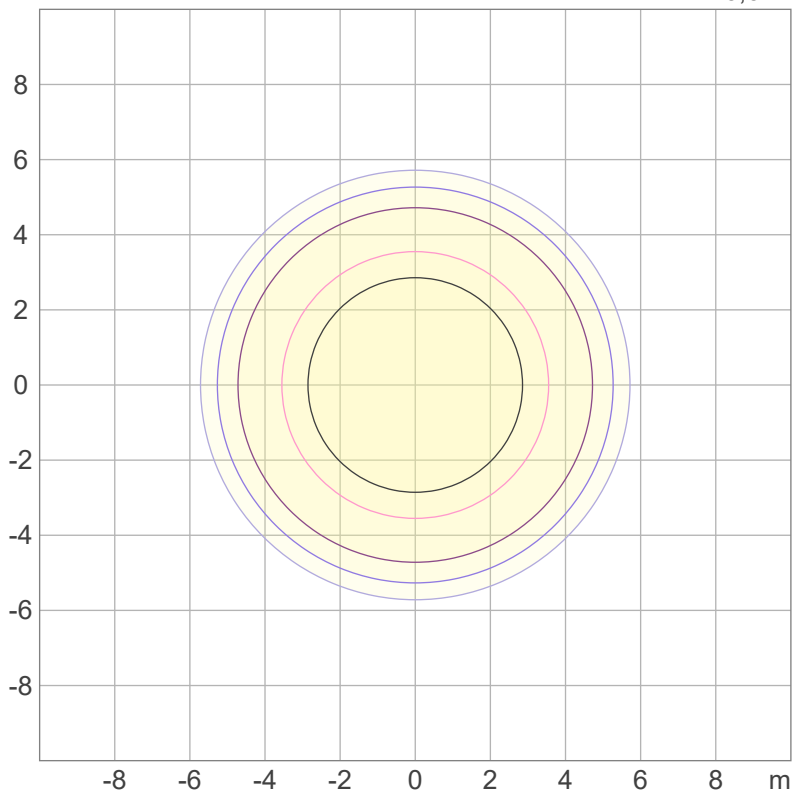
10%	72 cd
20%	144 cd
30%	215 cd
40%	287 cd
50%	359 cd
60%	431 cd
70%	502 cd
80%	574 cd

Conditions:

Number of c-planes: 2
Candela at center: 718 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	0,215 lx
5%	0,359 lx
10%	0,718 lx
30%	2,15 lx
50%	3,59 lx

Conditions:

Number of c-planes: 2
Lux at center: 7,18 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

274 lm

Peak candela output:

2612 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

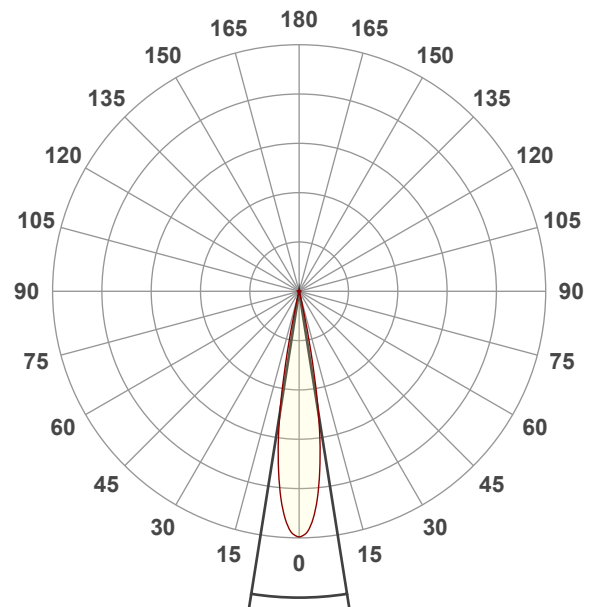
Blue

Operator:

Salvatore Giglio

Date and time:

13/01/2023 16:06:20

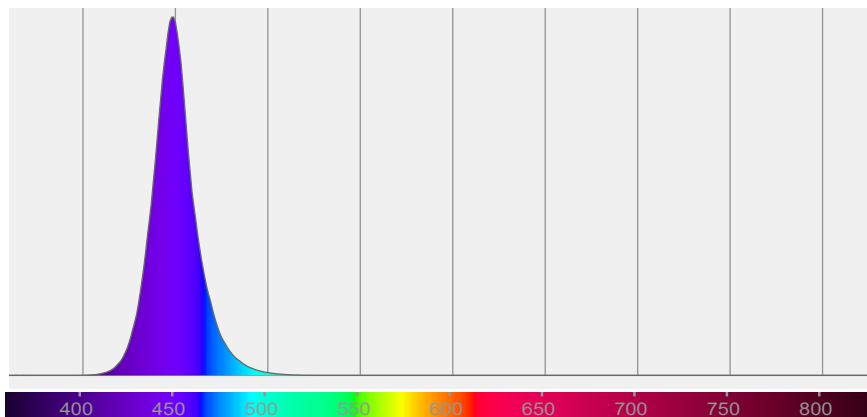


Beam angle 50%: 18°

Field angle 10%: 24,9°

Cut off angle 2.5%: 27,6°

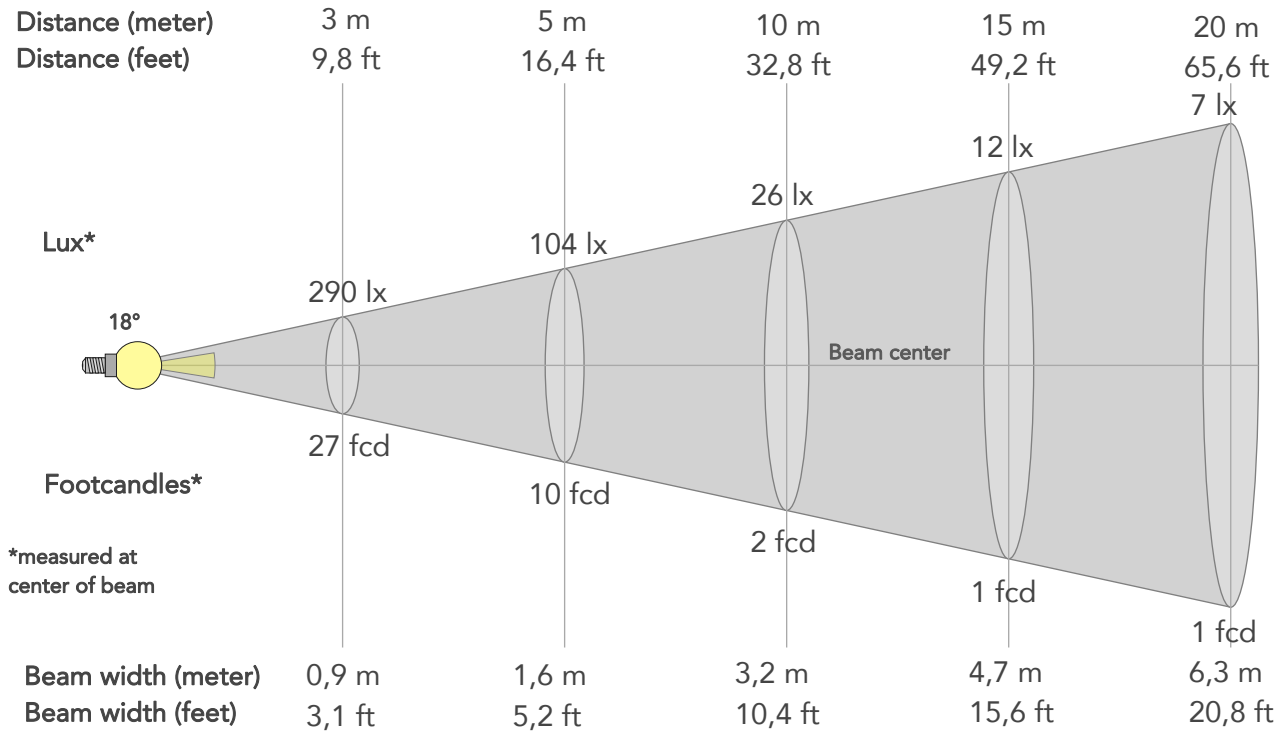
Spectra



BEAM DETAILS



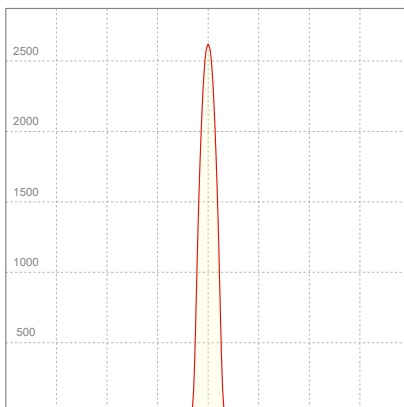
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18°	24,9°	27,6°	76,6%	76,5%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	2612lx	653lx	290lx	163lx	104lx	46lx	26lx	12lx	7lx	4lx	3lx	2lx	1lx
Footcand.	243fcd	61fcd	27fcd	15fcd	10fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,3m	0,6m	0,9m	1,3m	1,6m	2,4m	3,2m	4,7m	6,3m	7,9m	9,5m	12,7m	15,8m
Beam wid.	1ft	2,1ft	3,1ft	4,1ft	5,2ft	7,8ft	10,4ft	15,6ft	20,8ft	26ft	31,1ft	41,5ft	51,9ft

LINEAR DISTRIBUTION DIAGRAM

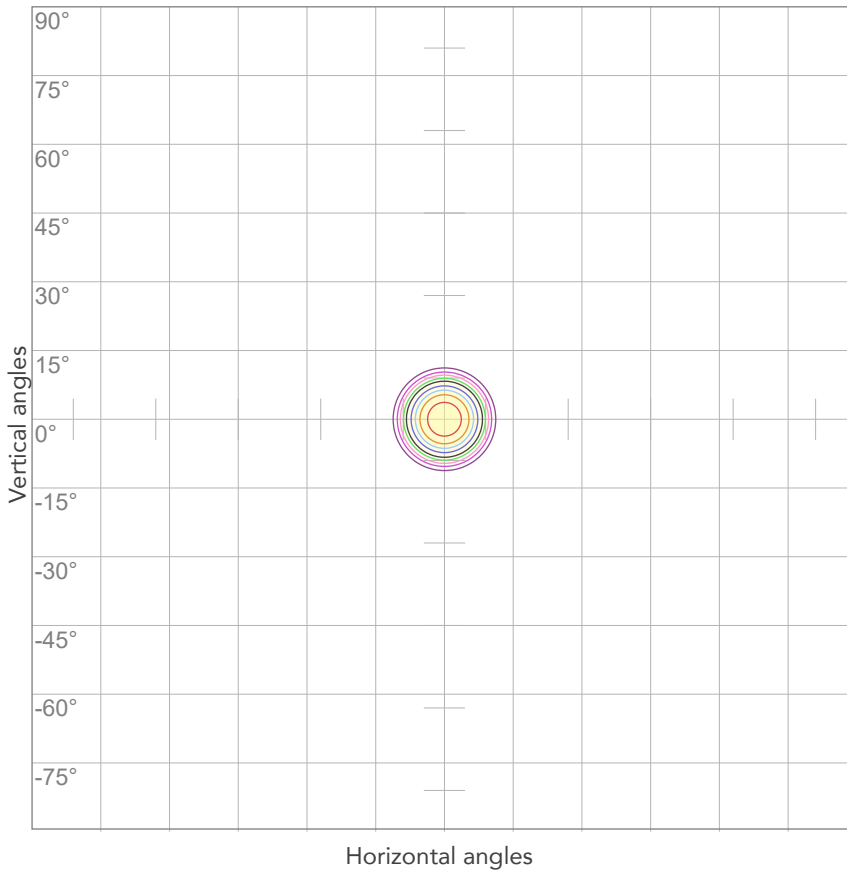


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,472A	87,2W	3lm/W

Power FC
0,82

ISO CANDELA DIAGRAM



10%	261 cd
20%	522 cd
30%	784 cd
40%	1045 cd
50%	1306 cd
60%	1567 cd
70%	1828 cd
80%	2090 cd

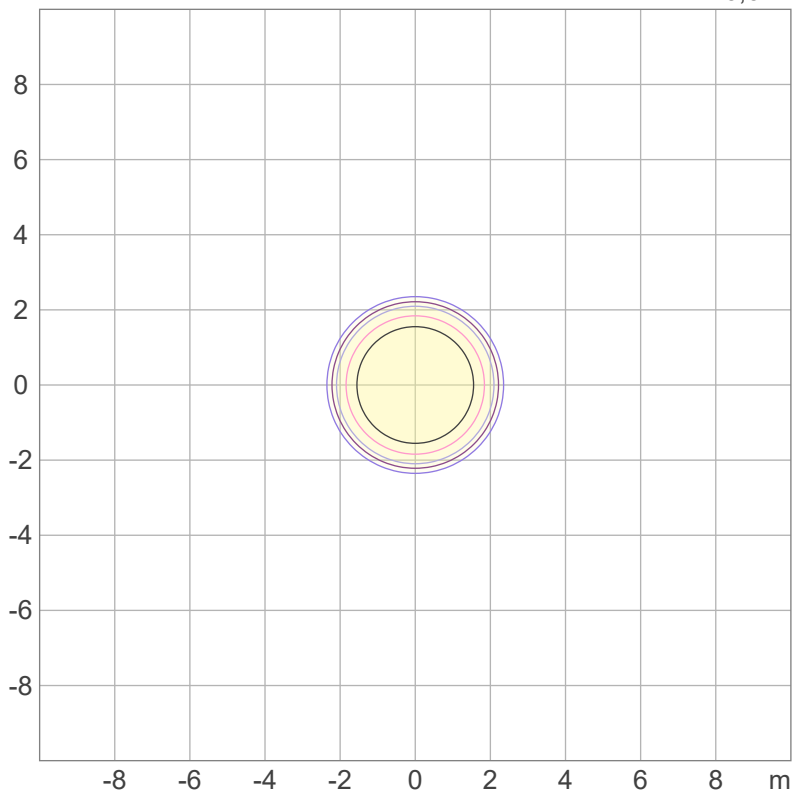
Conditions:

Number of c-planes: 2

Candela at center: 2612 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	0,784 lx
5%	1,31 lx
10%	2,61 lx
30%	7,84 lx
50%	13,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 26,1 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

152 lm

Peak candela output:

30561 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

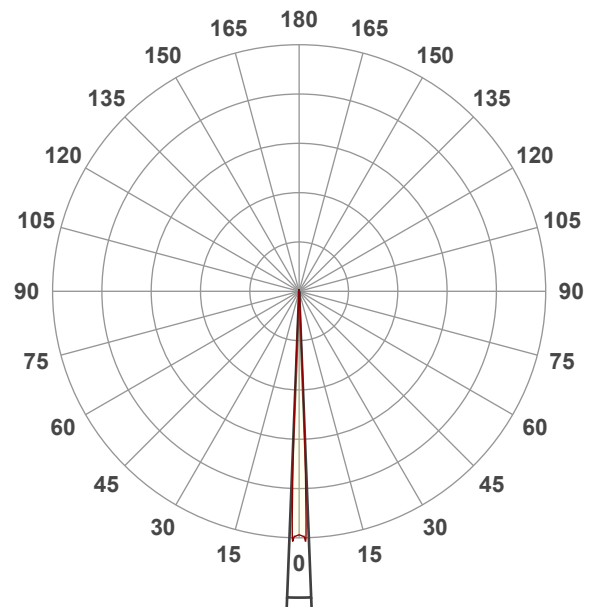
Blue

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:13:36

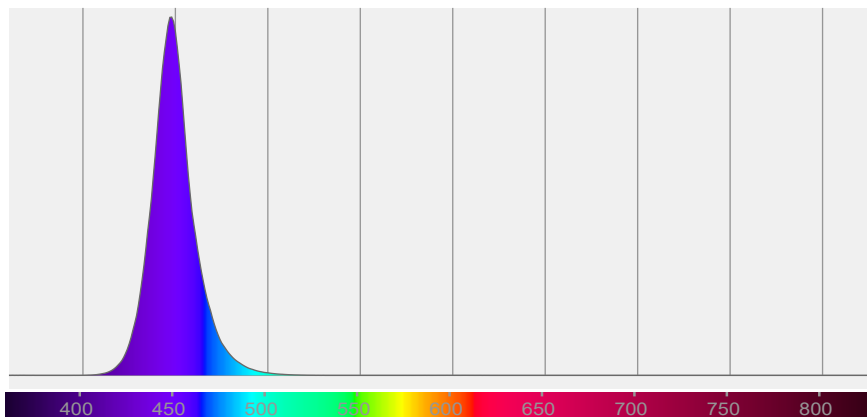


Beam angle 50%: 4,5°

Field angle 10%: 5,3°

Cut off angle 2.5%: 6°

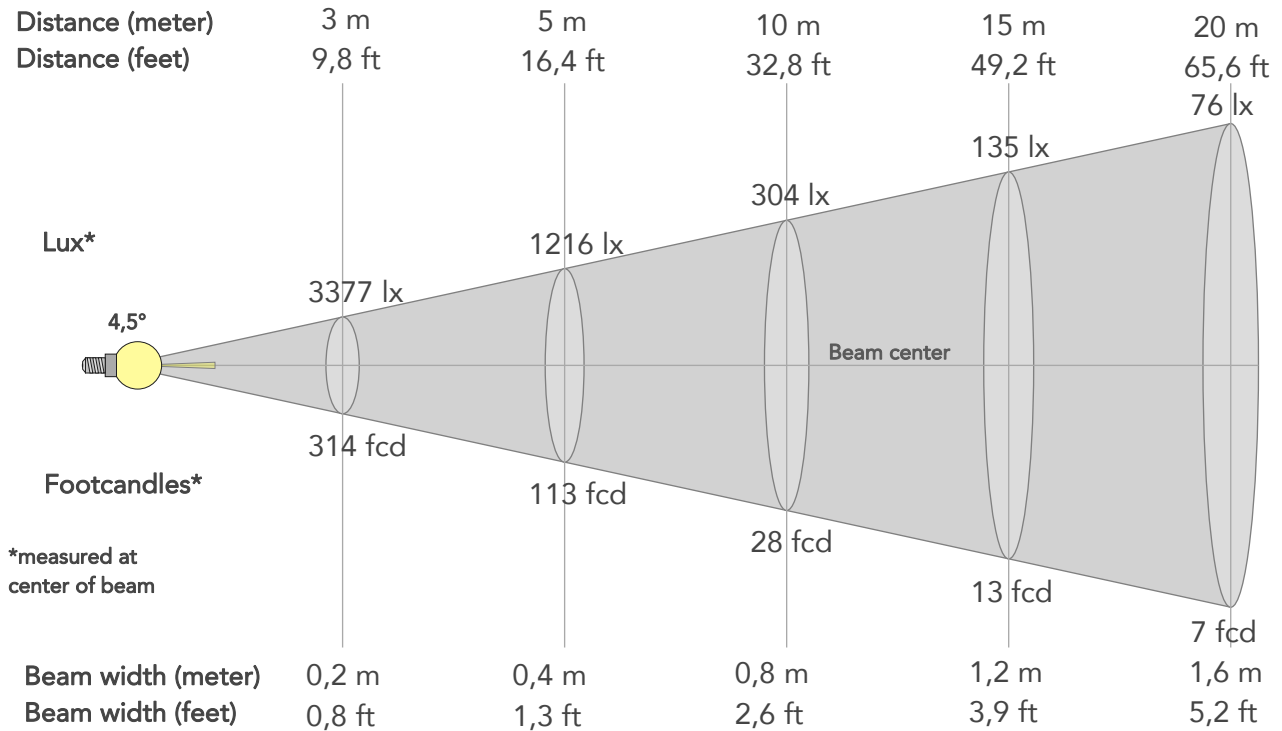
Spectra



BEAM DETAILS



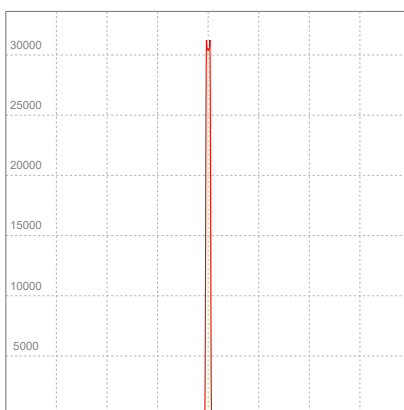
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,5°	5,3°	6°	98,8%	98,7%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	30389lx	7597lx	3377lx	1899lx	1216lx	540lx	304lx	135lx	76lx	49lx	34lx	19lx	12lx
Footcand.	2823fcd	706fcd	314fcd	176fcd	113fcd	50fcd	28fcd	13fcd	7fcd	5fcd	3fcd	2fcd	1fcd
Beam wid.	0,1m	0,2m	0,2m	0,3m	0,4m	0,6m	0,8m	1,2m	1,6m	2m	2,4m	3,1m	3,9m
Beam wid.	0,3ft	0,5ft	0,8ft	1ft	1,3ft	1,9ft	2,6ft	3,9ft	5,2ft	6,4ft	7,7ft	10,3ft	12,9ft

LINEAR DISTRIBUTION DIAGRAM

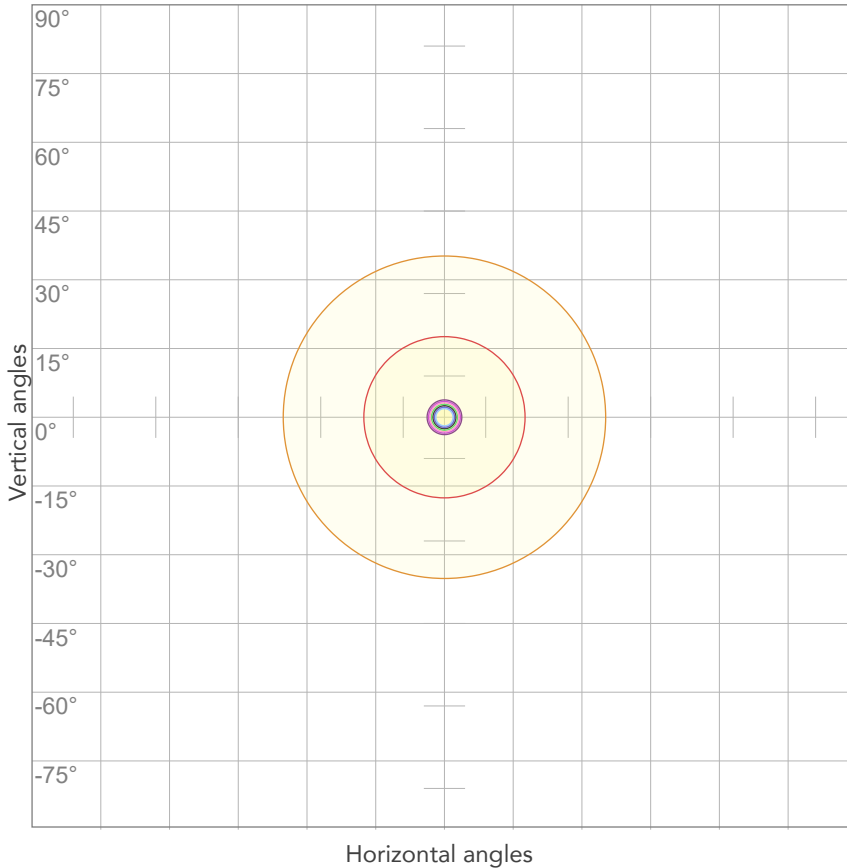


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,477A	88,2W	2lm/W

Power FC
0,83

ISO CANDELA DIAGRAM



10%	3039 cd
20%	6078 cd
30%	9117 cd
40%	12155 cd
50%	15194 cd
60%	18233 cd
70%	21272 cd
80%	24311 cd

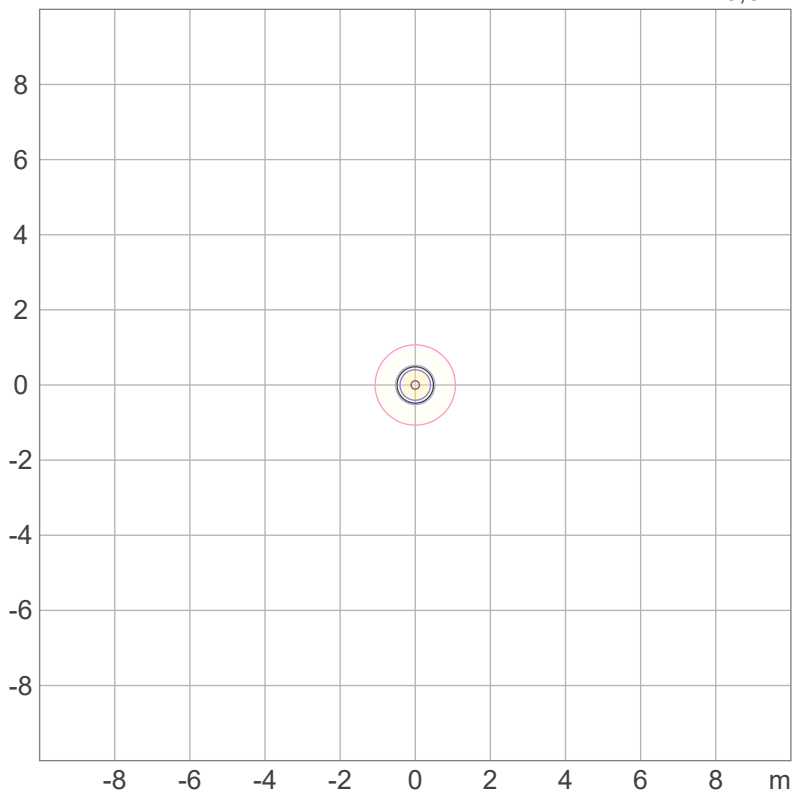
Conditions:

Number of c-planes: 2

Candela at center: 30389 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	9,12 lx
5%	15,2 lx
10%	30,4 lx
30%	91,2 lx
50%	152 lx

Conditions:

Number of c-planes: 2

Lux at center: 304 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1669 lm

Peak candela output:

3979 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

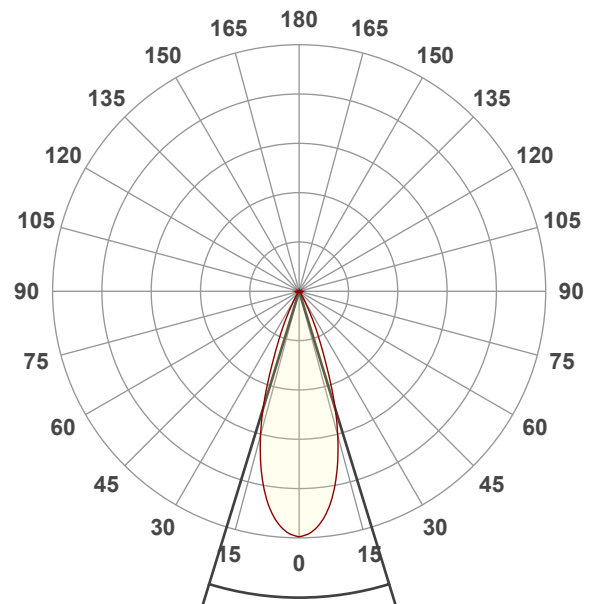
White

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:58:20

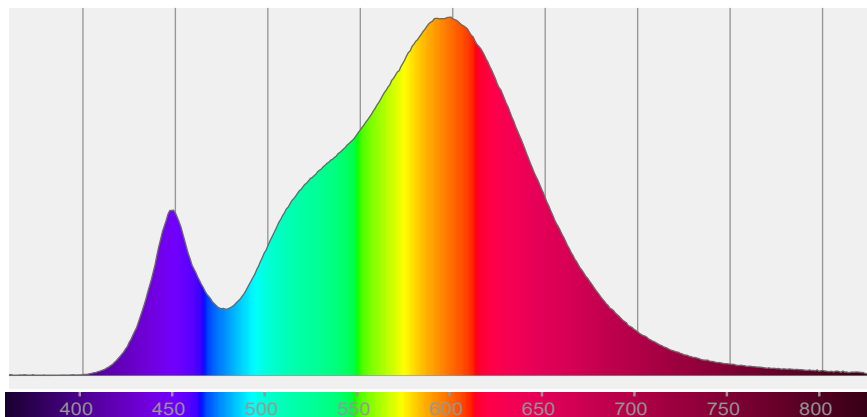


Beam angle 50%: 34,2°

Field angle 10%: 53°

Cut off angle 2.5%: 66,1°

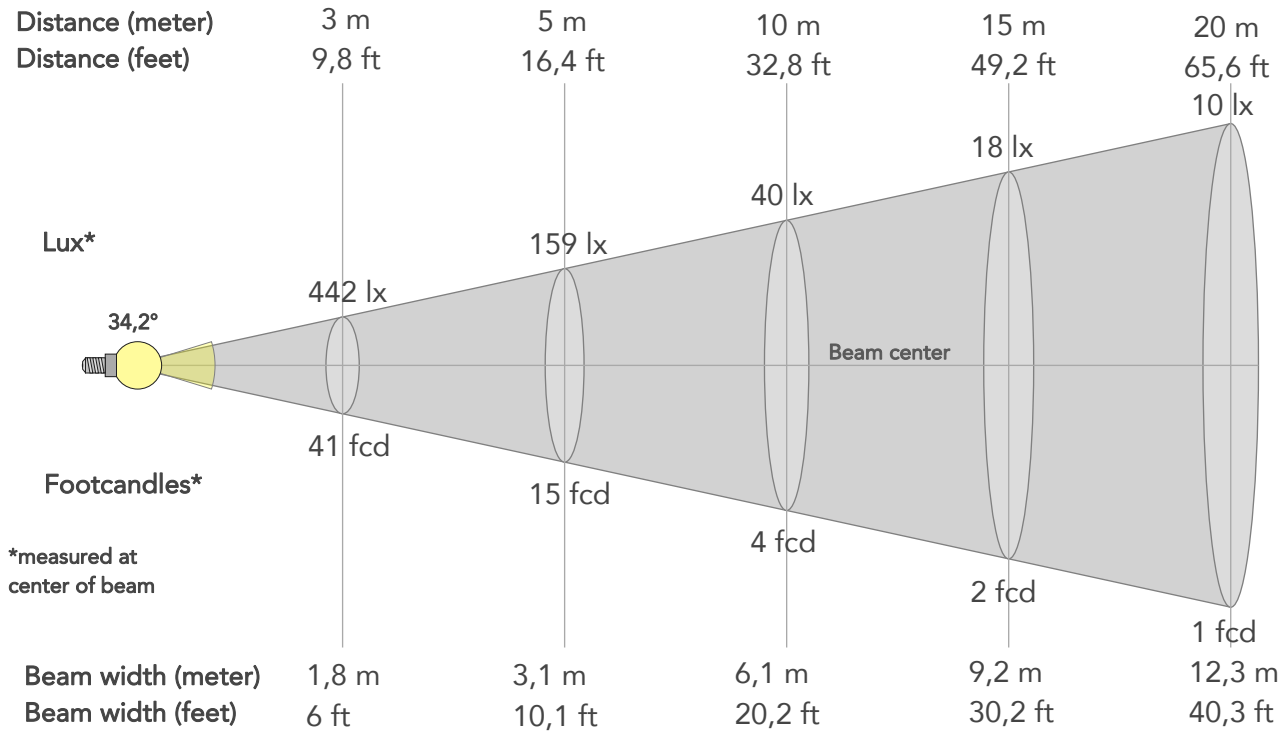
Spectra



BEAM DETAILS



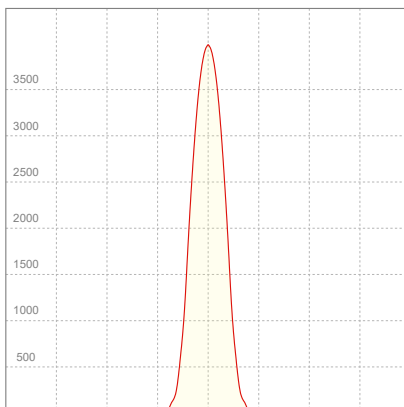
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,2°	53°	66,1°	78,5%	77,6%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	3979lx	995lx	442lx	249lx	159lx	71lx	40lx	18lx	10lx	6lx	4lx	2lx	2lx
Footcand.	370fcd	92fcd	41fcd	23fcd	15fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,5m	3,1m	4,6m	6,1m	9,2m	12,3m	15,4m	18,4m	24,6m	30,7m
Beam wid.	2ft	4,1ft	6ft	8,1ft	10,1ft	15,1ft	20,2ft	30,2ft	40,3ft	50,4ft	60,5ft	80,7ft	100,8ft

LINEAR DISTRIBUTION DIAGRAM

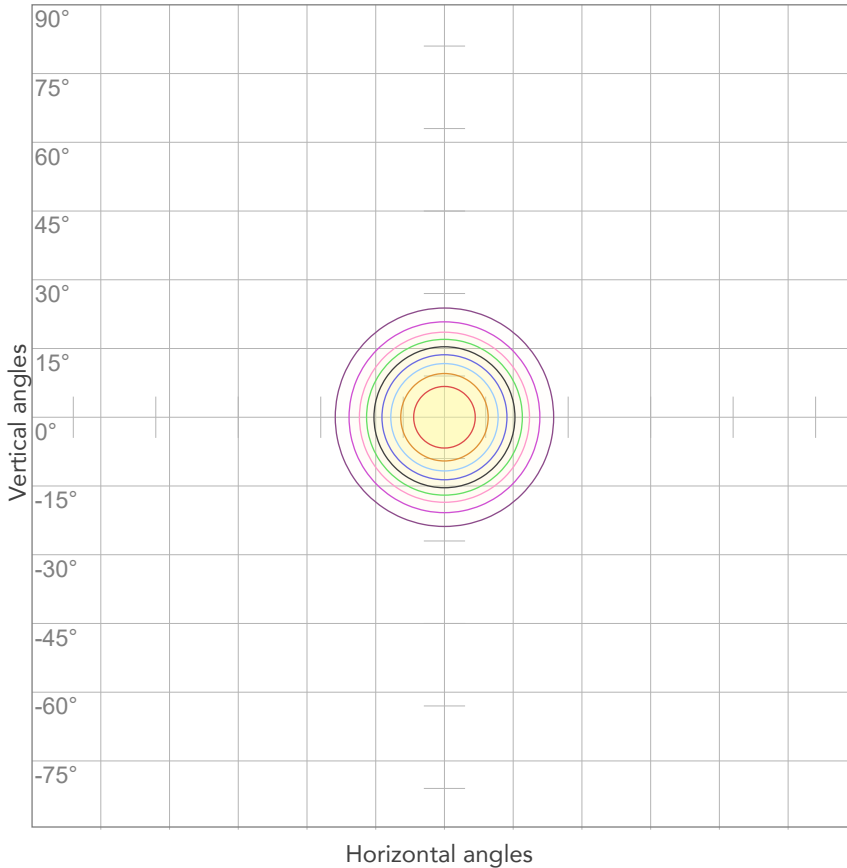


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,476A	88,4W	19lm/W

Power FC
0,82

ISO CANDELA DIAGRAM



10%	398 cd
20%	796 cd
30%	1194 cd
40%	1592 cd
50%	1990 cd
60%	2388 cd
70%	2785 cd
80%	3183 cd

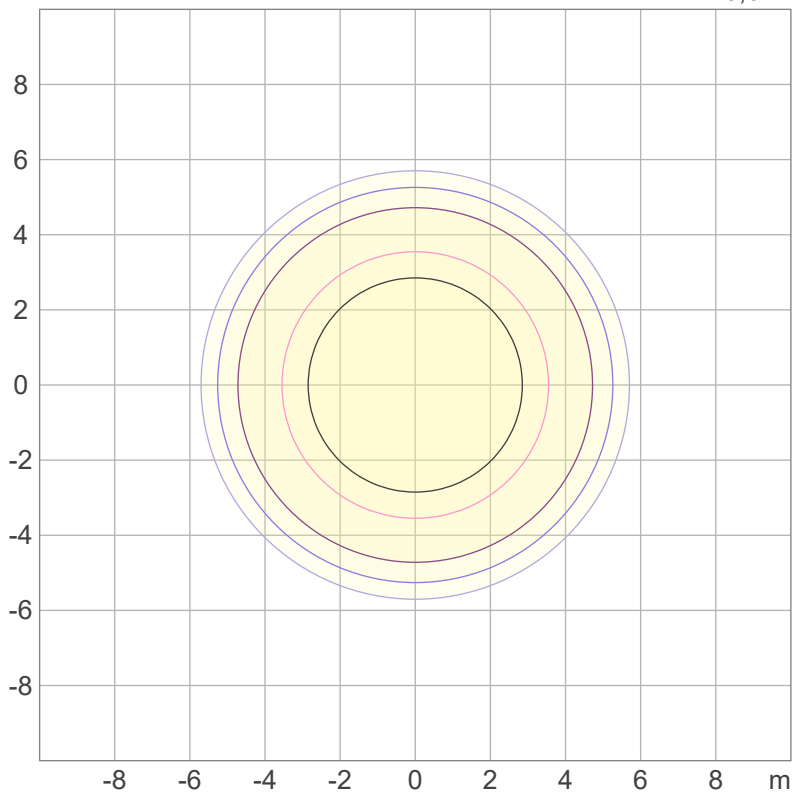
Conditions:

Number of c-planes: 2

Candela at center: 3979 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	1,19 lx
5%	1,99 lx
10%	3,98 lx
30%	11,9 lx
50%	19,9 lx

Conditions:

Number of c-planes: 2

Lux at center: 39,8 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1522 lm

Peak candela output:

13850 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

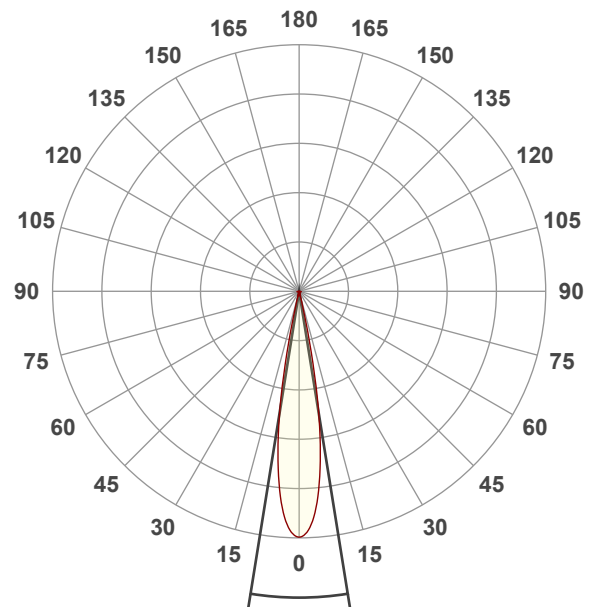
White

Operator:

Salvatore Giglio

Date and time:

13/01/2023 16:11:33

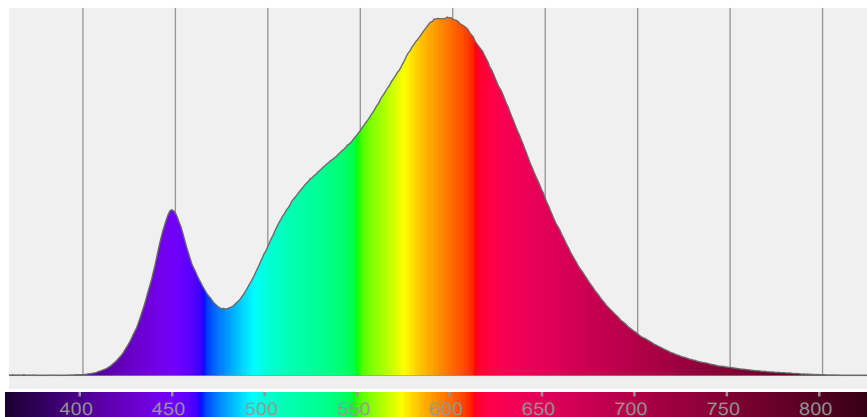


Beam angle 50%: 18,3°

Field angle 10%: 25,4°

Cut off angle 2.5%: 28°

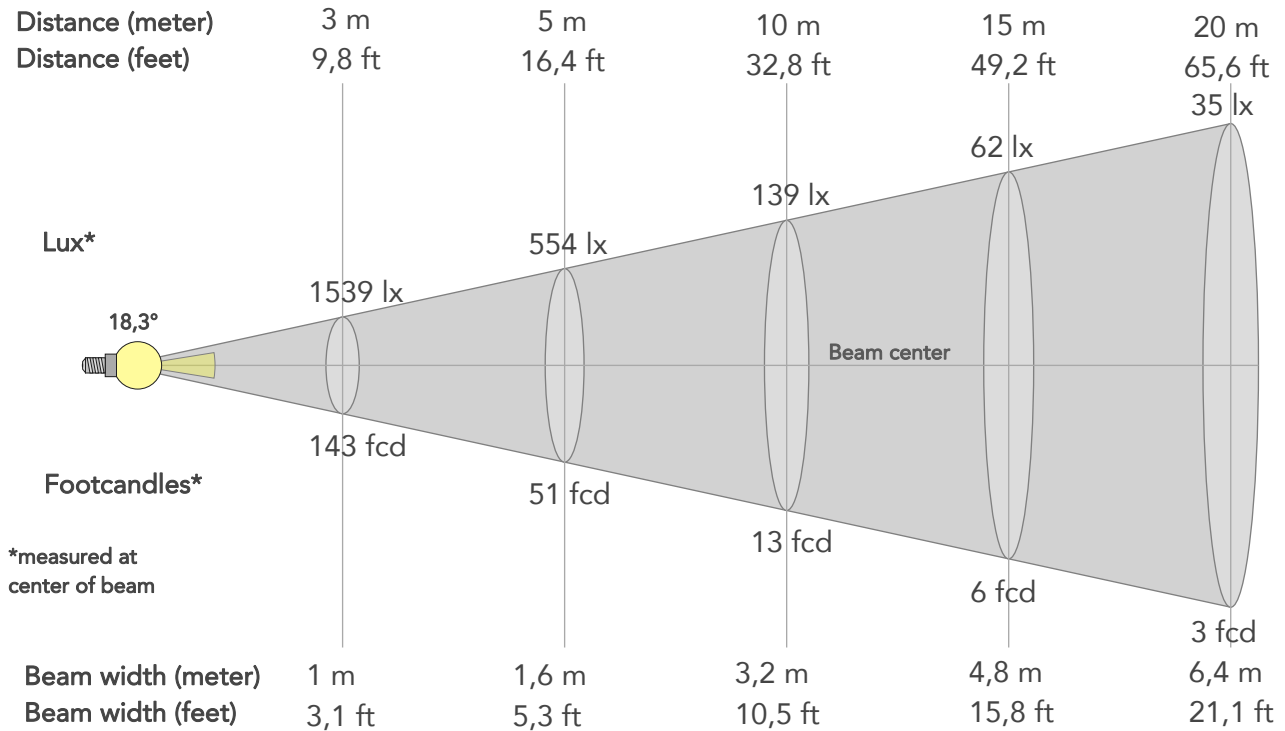
Spectra



BEAM DETAILS



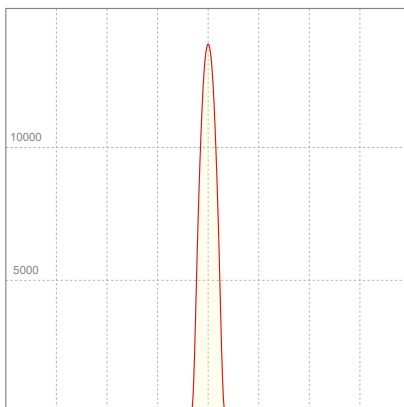
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,3°	25,4°	28°	75,7%	75,7%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	13850lx	3463lx	1539lx	866lx	554lx	246lx	139lx	62lx	35lx	22lx	15lx	9lx	6lx
Footcand.	1287fcd	322fcd	143fcd	80fcd	51fcd	23fcd	13fcd	6fcd	3fcd	2fcd	1fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8m	9,6m	12,9m	16,1m
Beam wid.	1,1ft	2,1ft	3,1ft	4,2ft	5,3ft	7,9ft	10,5ft	15,8ft	21,1ft	26,4ft	31,6ft	42,2ft	52,7ft

LINEAR DISTRIBUTION DIAGRAM

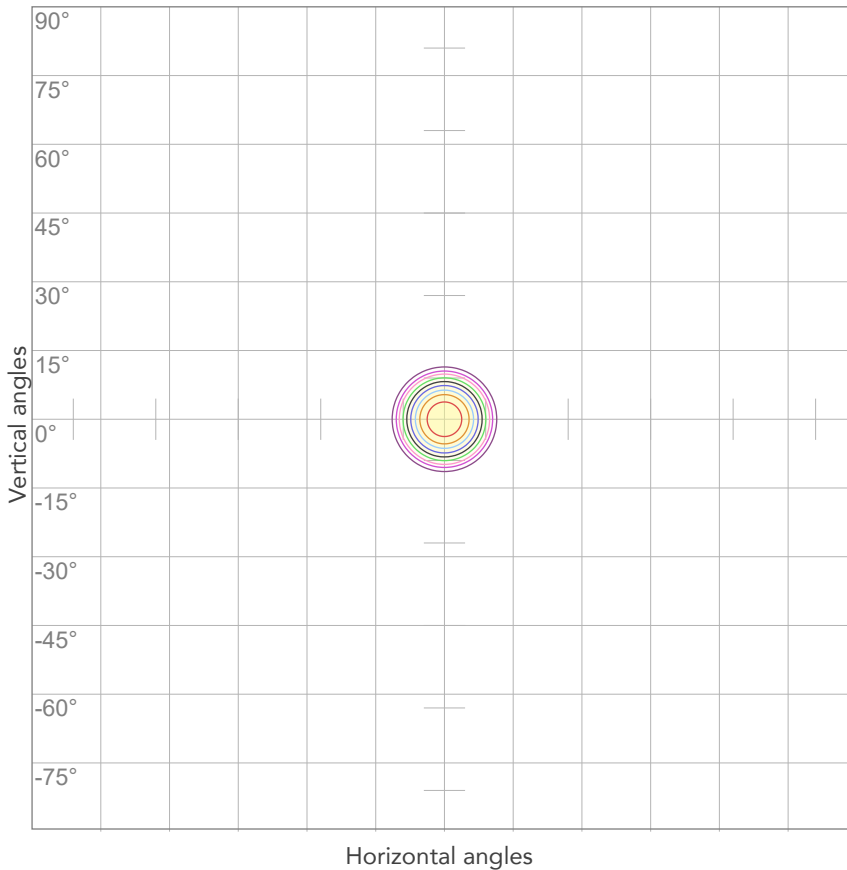


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,473A	87,6W	17lm/W

Power FC
0,82

ISO CANDELA DIAGRAM



10%	1385 cd
20%	2770 cd
30%	4155 cd
40%	5540 cd
50%	6925 cd
60%	8310 cd
70%	9695 cd
80%	11080 cd

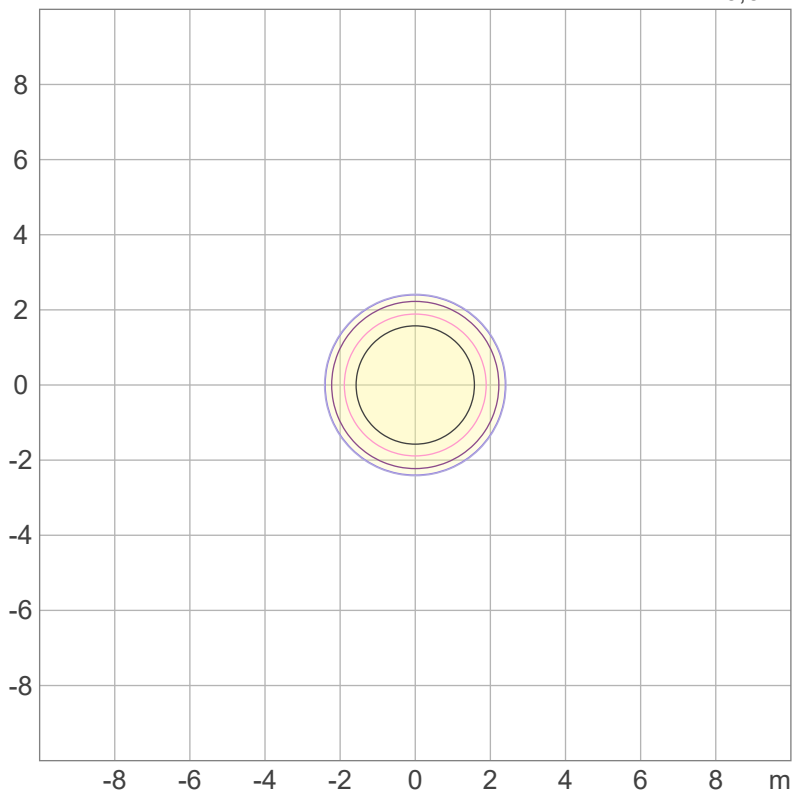
Conditions:

Number of c-planes: 2

Candela at center: 13850 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	4,16 lx
5%	6,93 lx
10%	13,9 lx
30%	41,6 lx
50%	69,3 lx

Conditions:

Number of c-planes: 2

Lux at center: 139 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

833 lm

Peak candela output:

175861 cd

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

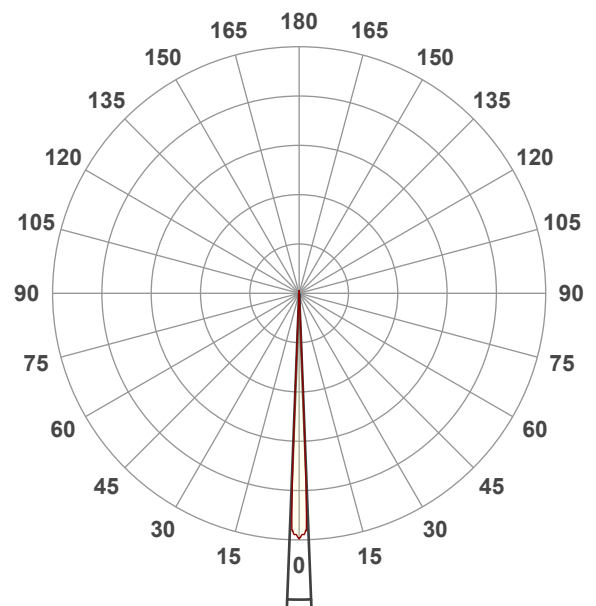
White

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:14:47

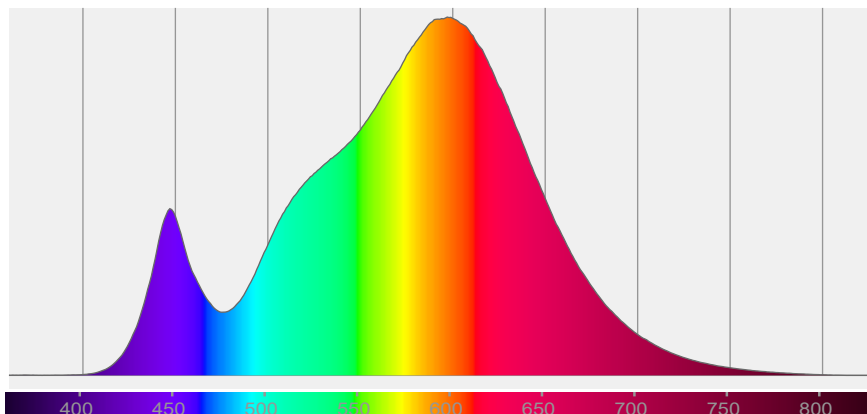


Beam angle 50%: 4,5°

Field angle 10%: 5,1°

Cut off angle 2.5%: 5,4°

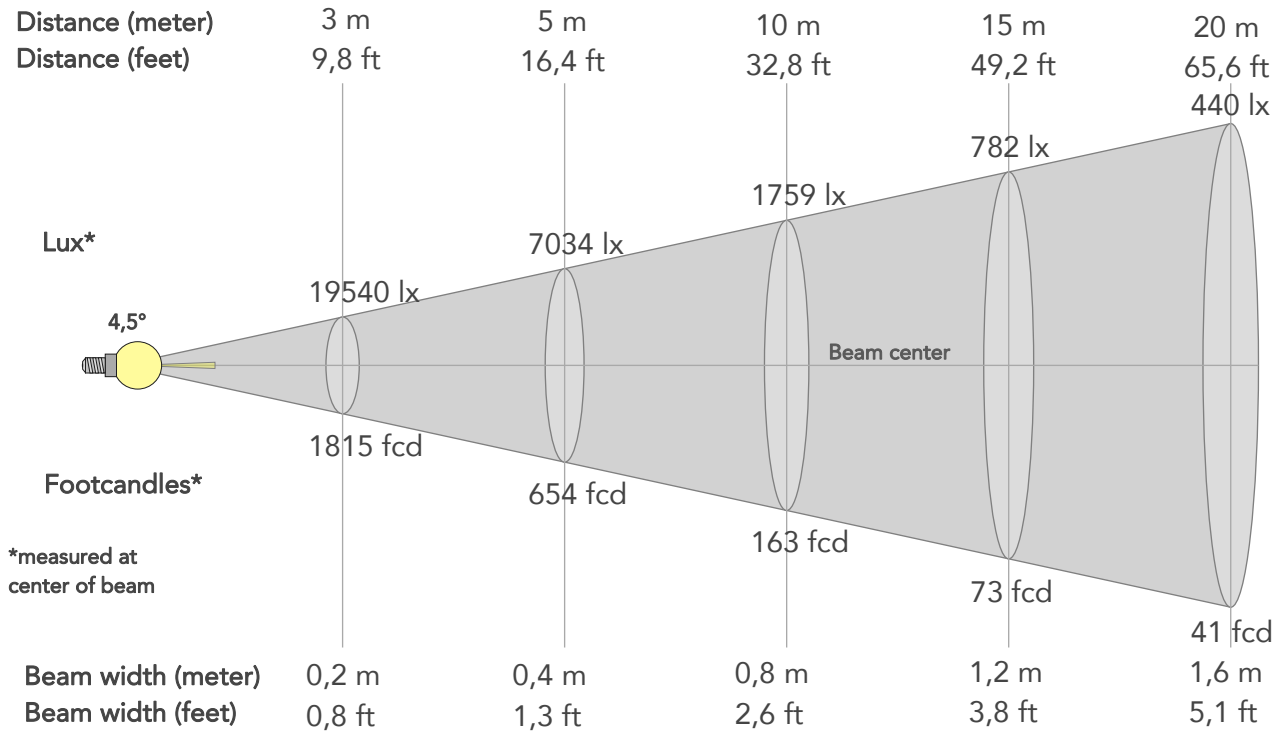
Spectra



BEAM DETAILS



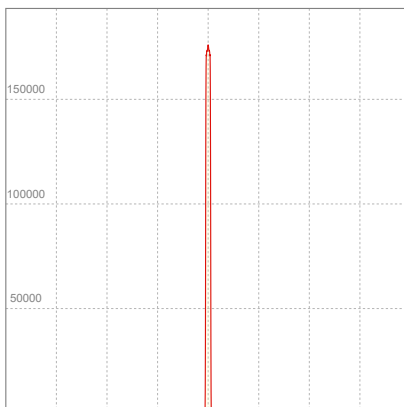
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,5°	5,1°	5,4°	99,5%	99,5%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	175861lx	43965lx	19540lx	10991lx	7034lx	3126lx	1759lx	782lx	440lx	281lx	195lx	110lx	70lx
Footcand.	16338fcd	4085fcd	1815fcd	1021fcd	654fcd	290fcd	163fcd	73fcd	41fcd	26fcd	18fcd	10fcd	7fcd
Beam wid.	0,1m	0,2m	0,2m	0,3m	0,4m	0,6m	0,8m	1,2m	1,6m	2m	2,3m	3,1m	3,9m
Beam wid.	0,3ft	0,5ft	0,8ft	1ft	1,3ft	1,9ft	2,6ft	3,8ft	5,1ft	6,4ft	7,7ft	10,2ft	12,8ft

LINEAR DISTRIBUTION DIAGRAM

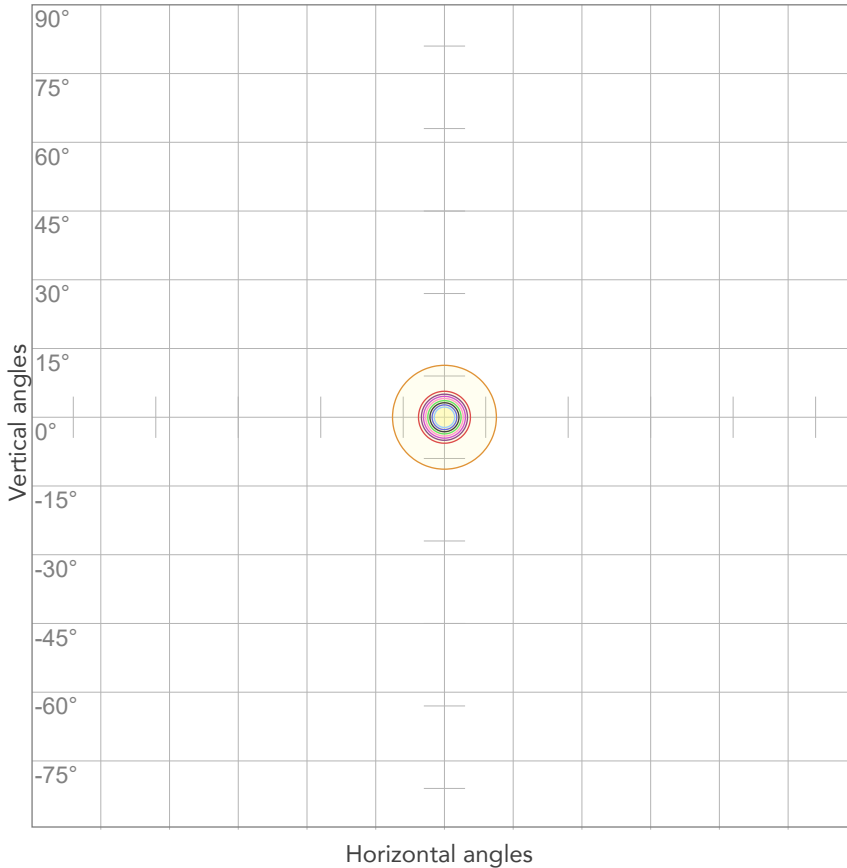


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Efficiency
224V	0,478A	88,6W	9lm/W

Power FC
0,83

ISO CANDELA DIAGRAM



10%	17586 cd
20%	35172 cd
30%	52758 cd
40%	70345 cd
50%	87931 cd
60%	105517 cd
70%	123103 cd
80%	140689 cd

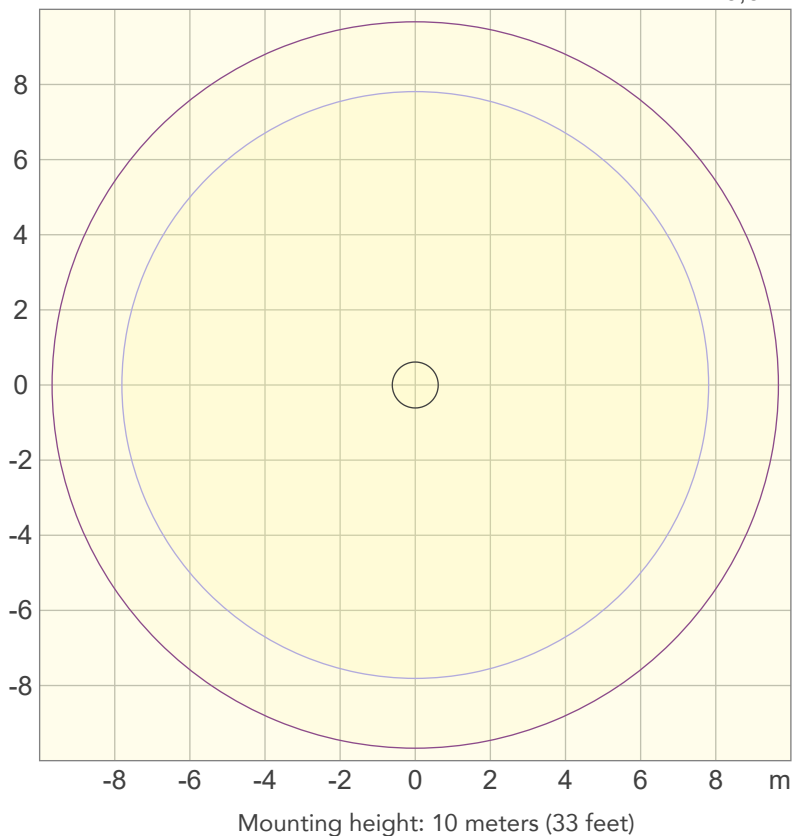
Conditions:

Number of c-planes: 2

Candela at center: 175861 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	52,8 lx
5%	87,9 lx
10%	176 lx
30%	528 lx
50%	879 lx

Conditions:

Number of c-planes: 2

Lux at center: 1759 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1902 lm

Peak candela output:

4958 cd

Light quality:

CRI: 92,0

Color temperature:

2766 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASURAMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

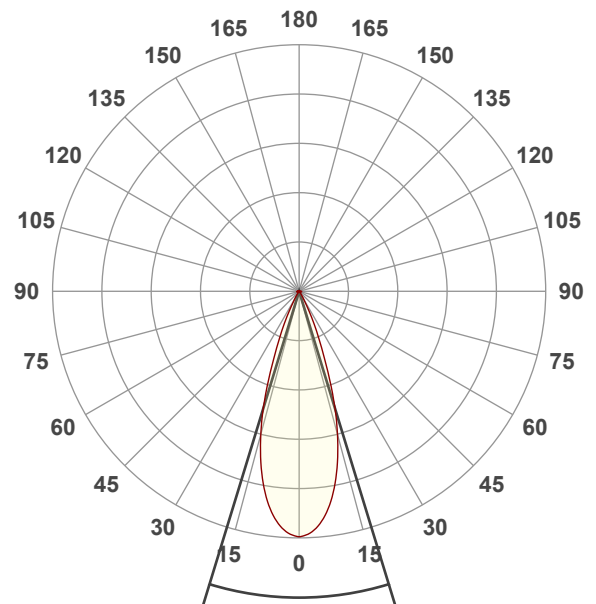
2800K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 16:44:18

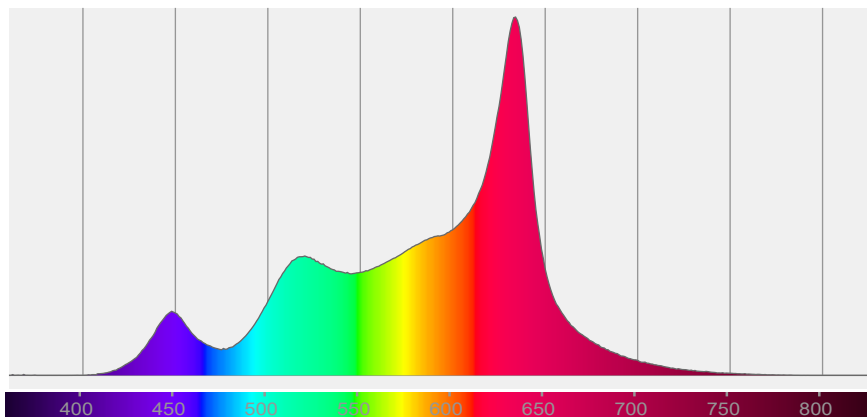


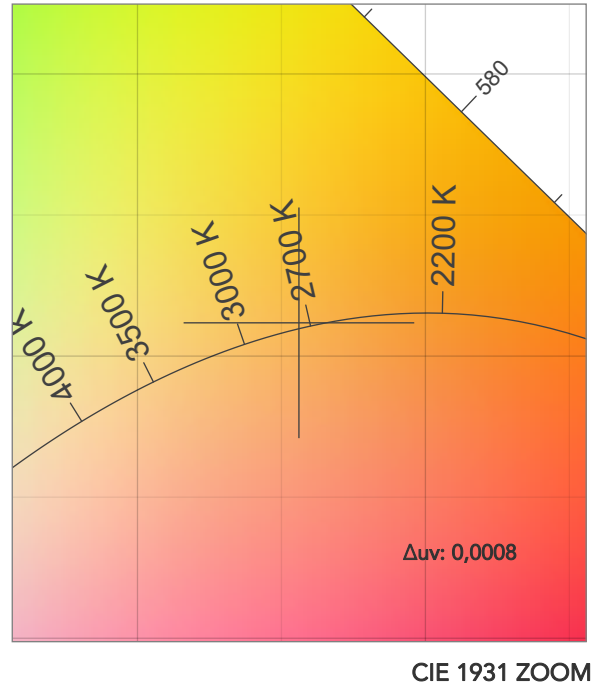
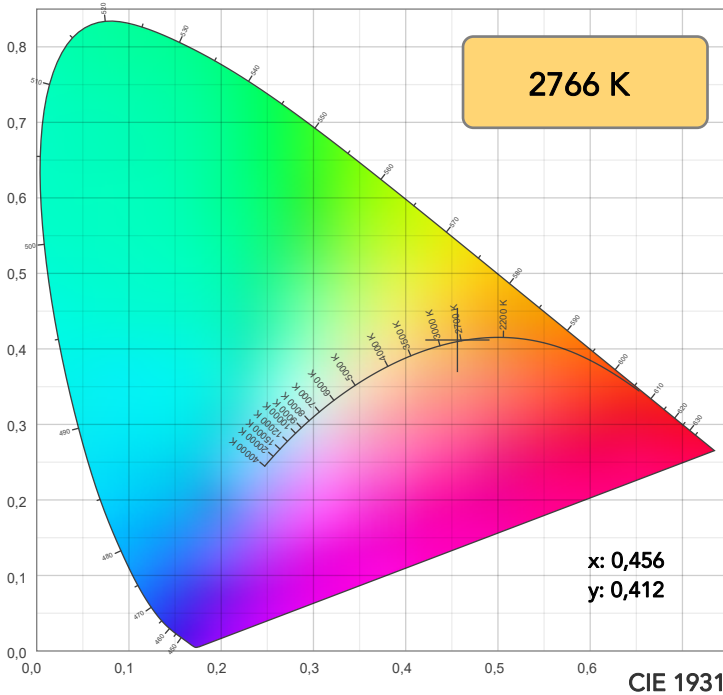
Beam angle 50%: 34°

Field angle 10%: 52,5°

Cut off angle 2.5%: 63,9°

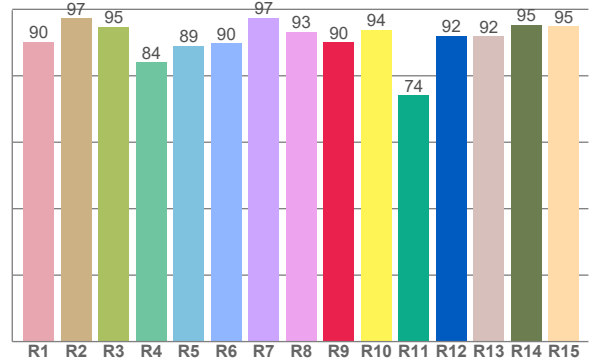
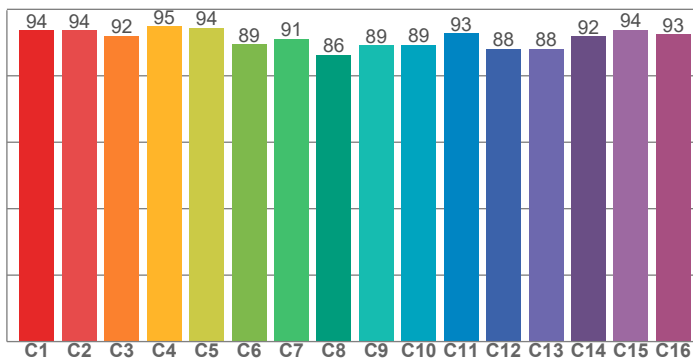
Spectra





TM30: 91,8

CRI: 92,0 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
90,3	97,3	94,8	84,0	89,0	89,9	97,5	93,3	90,2	93,9	74,2	92,1	91,9	95,4	95,0

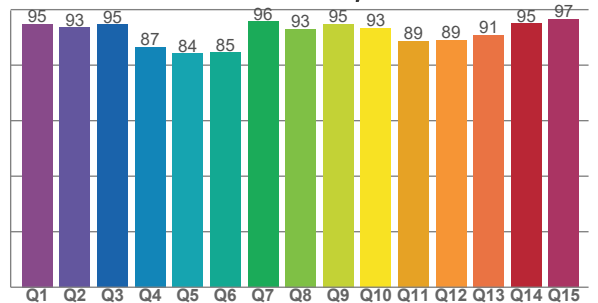
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,7	93,7	92,1	94,9	94,4	89,5	91,2	86,4	89,1	89,3	92,8	88,1	88,1	91,9	93,7	92,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,9	93,5	94,6	86,6	84,1	84,6	95,6	93,0	94,8	93,4	88,6	89,1	90,9	95,0	96,5

CQS: 90,5



COLOR PARAMETERS

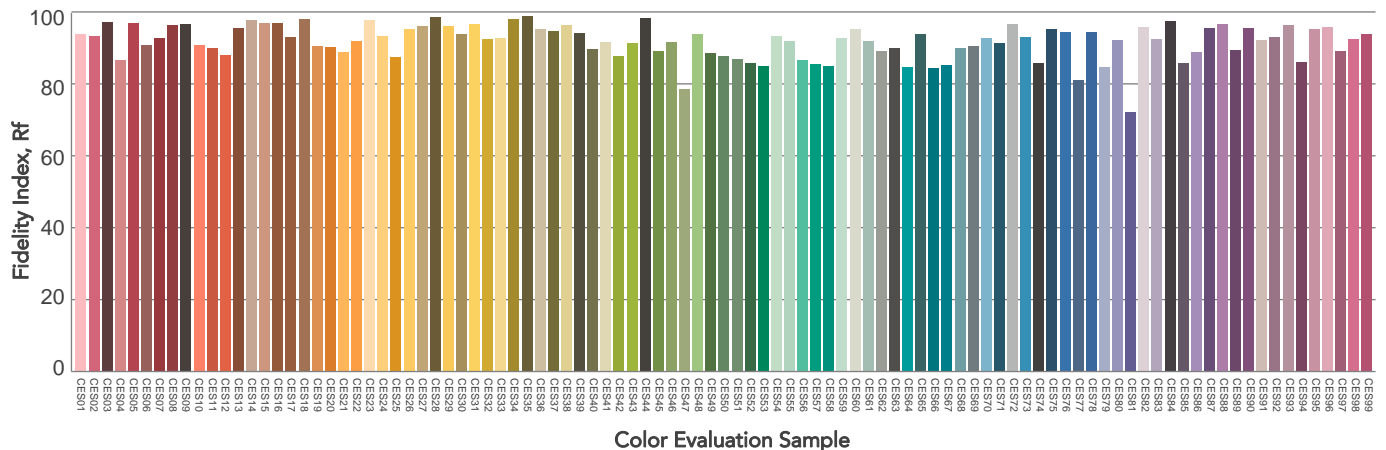
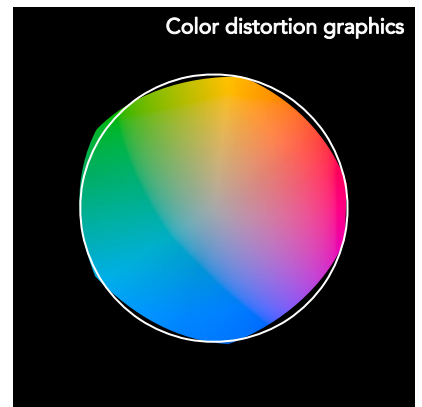
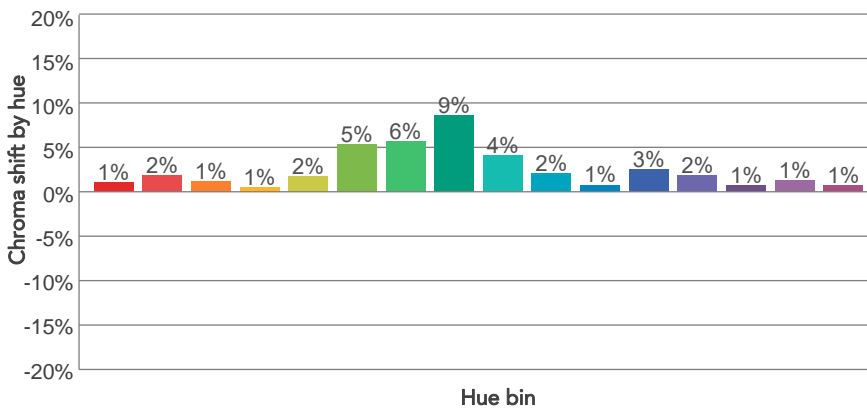
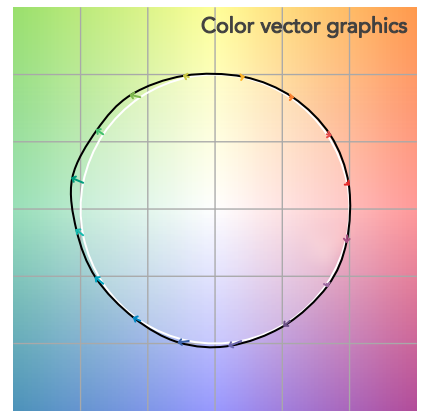
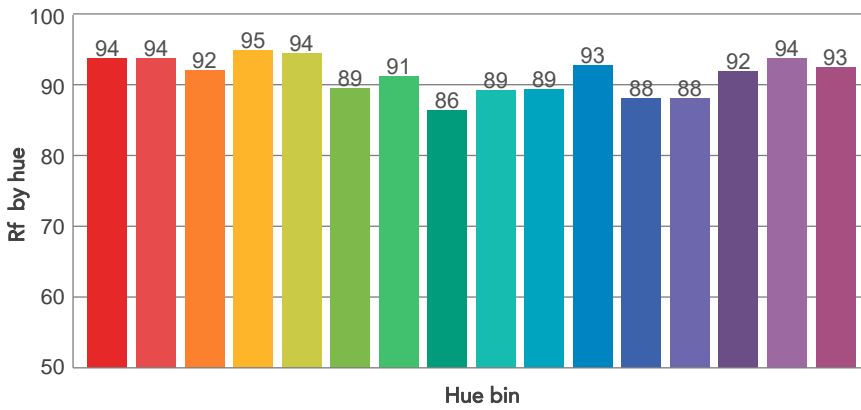
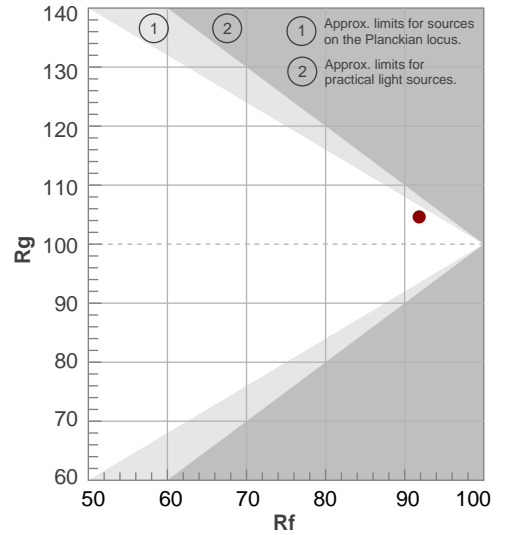
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2766 K	92,0	90,2	91,8	104,6	90,5	80	0,456	0,412	0,0008

TM30 DETAILS

Rf 91,8
Fidelity index Rf

Rg 104,6
Gammut index

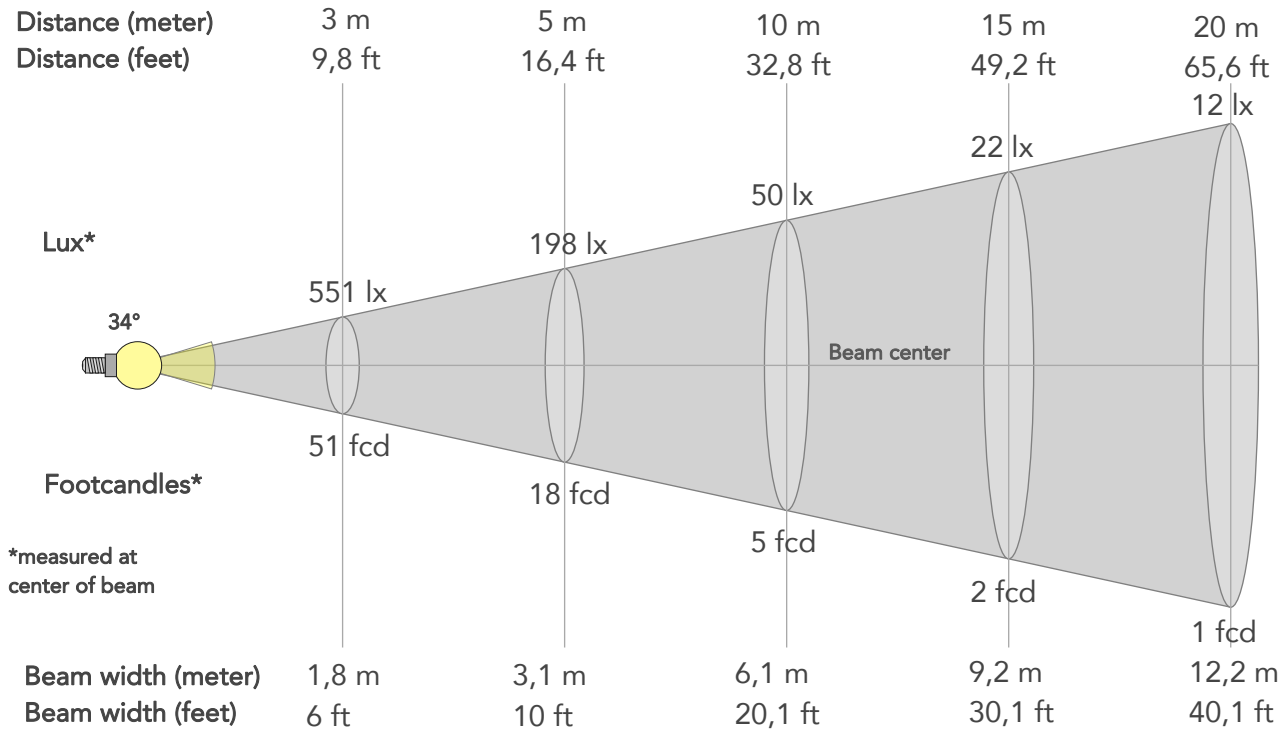
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	-1%
2	94	2%	-2%
3	92	1%	-2%
4	95	1%	-2%
5	94	2%	3%
6	89	5%	5%
7	91	6%	0%
8	86	9%	-2%
9	89	4%	-5%
10	89	2%	-7%
11	93	1%	-5%
12	88	3%	-7%
13	88	2%	-9%
14	92	1%	-5%
15	94	1%	-1%
16	93	1%	-5%



BEAM DETAILS



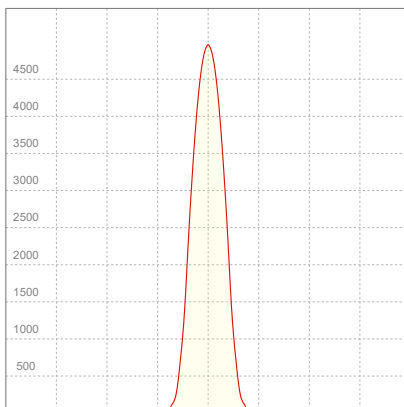
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34°	52,5°	63,9°	83,3%	83,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4958lx	1240lx	551lx	310lx	198lx	88lx	50lx	22lx	12lx	8lx	6lx	3lx	2lx
Footcand.	461fcd	115fcd	51fcd	29fcd	18fcd	8fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,4m	3,1m	4,6m	6,1m	9,2m	12,2m	15,3m	18,4m	24,5m	30,6m
Beam wid.	2ft	4ft	6ft	8ft	10ft	15,1ft	20,1ft	30,1ft	40,1ft	50,2ft	60,2ft	80,3ft	100,4ft

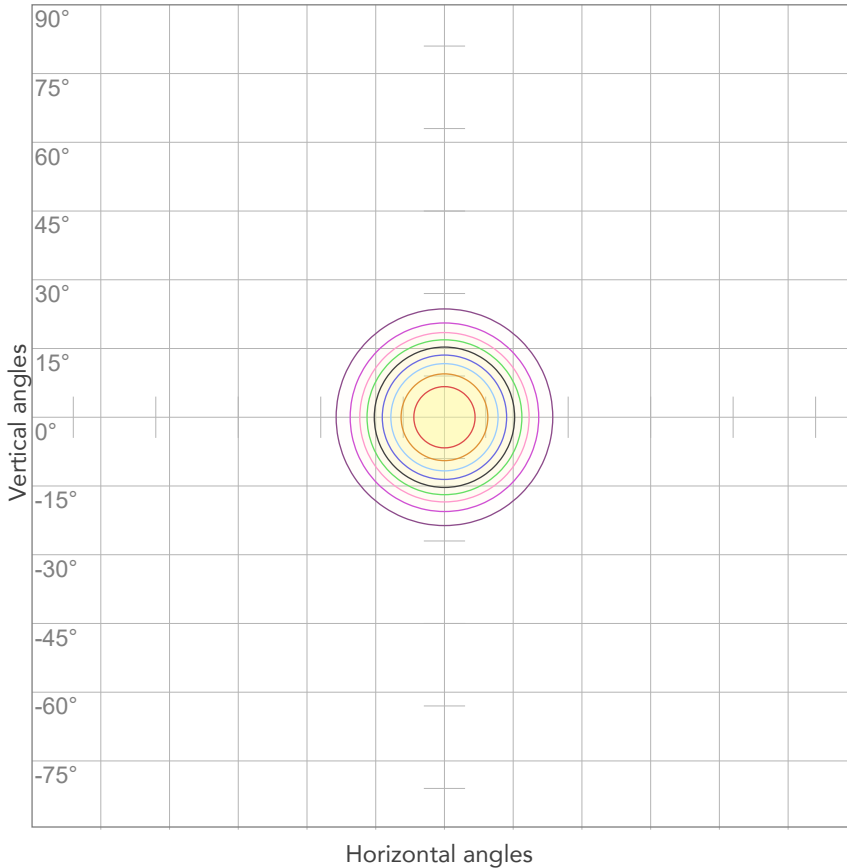
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,558A	108,4W	18lm/W

ISO CANDELA DIAGRAM



10%	496 cd
20%	992 cd
30%	1487 cd
40%	1983 cd
50%	2479 cd
60%	2975 cd
70%	3471 cd
80%	3966 cd

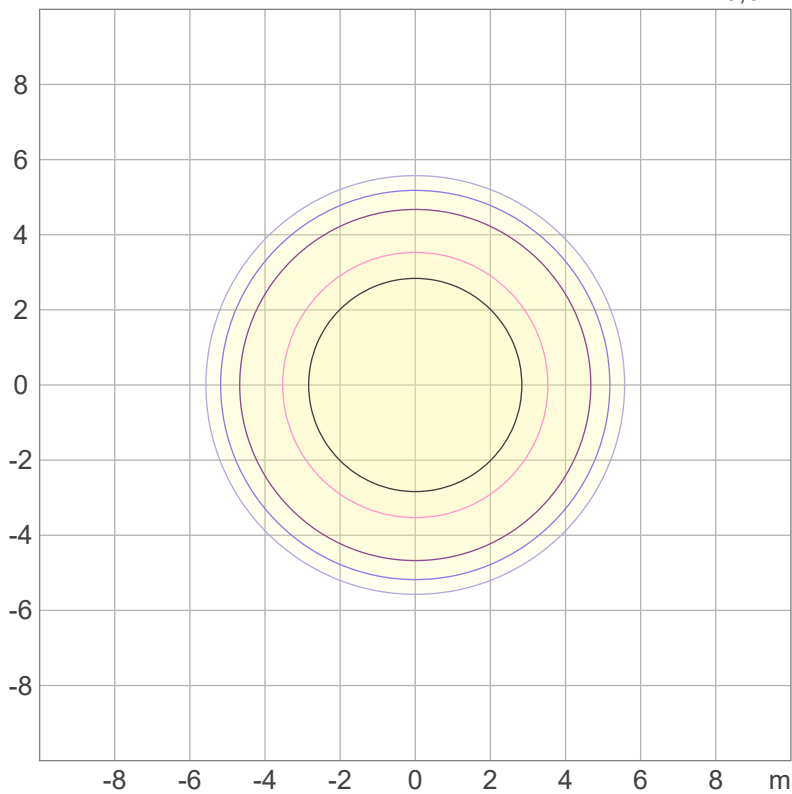
Conditions:

Number of c-planes: 2

Candela at center: 4958 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	1,49 lx
5%	2,48 lx
10%	4,96 lx
30%	14,9 lx
50%	24,8 lx

Conditions:

Number of c-planes: 2

Lux at center: 49,6 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1834 lm

Peak candela output:

17362 cd

Light quality:

CRI: 91,6

Color temperature:

2780 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

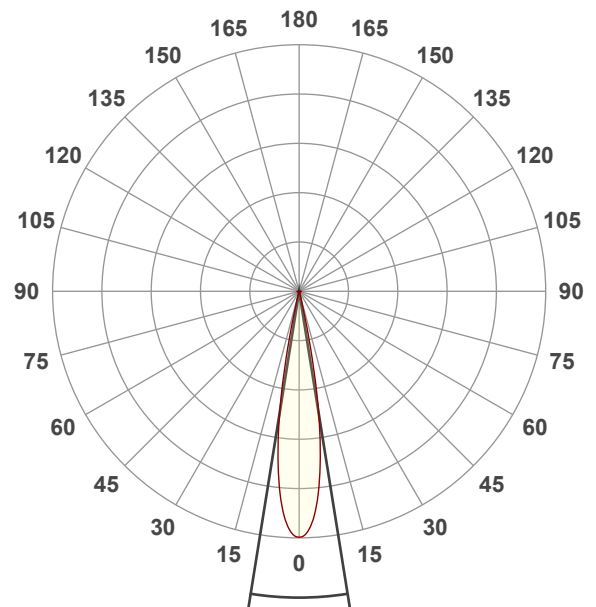
2800K

Operator:

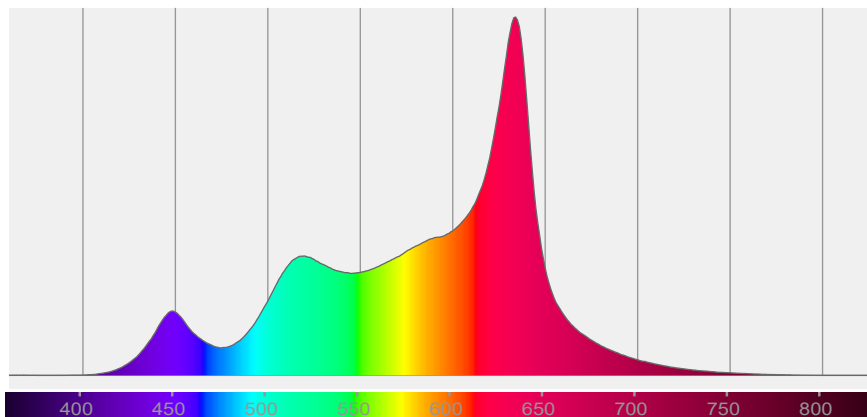
Salvatore Giglio

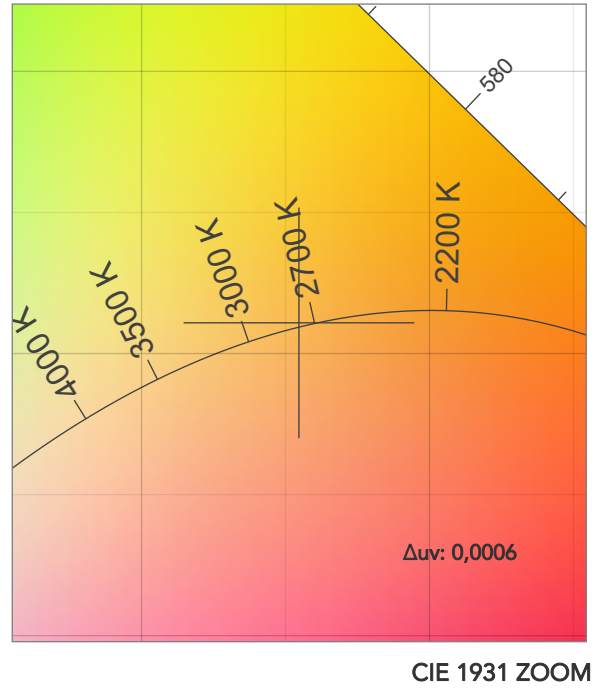
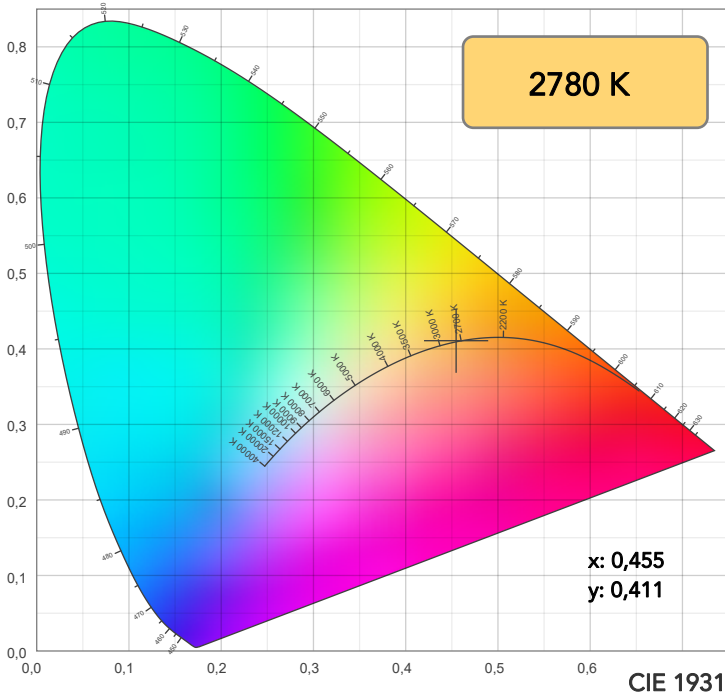
Date and time:

13/01/2023 16:13:05



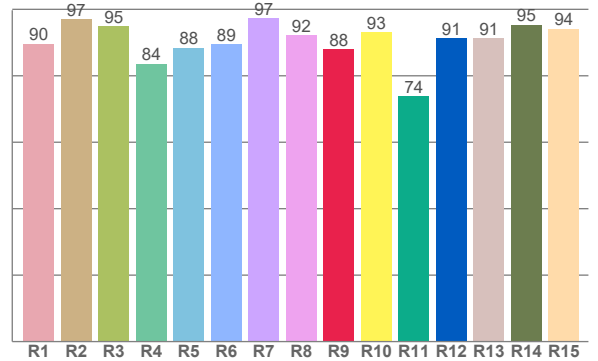
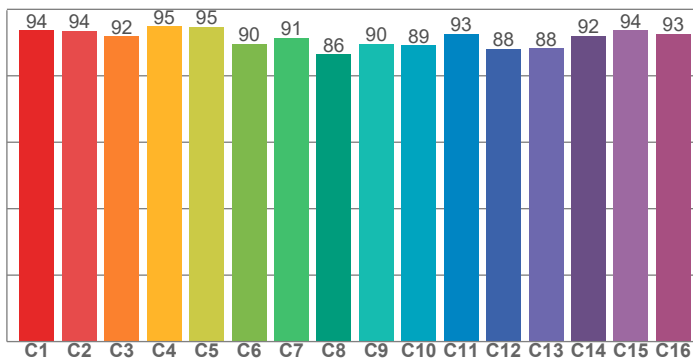
Spectra





TM30: 91,9

CRI: 91,6 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
89,7	97,0	94,8	83,6	88,4	89,4	97,3	92,3	87,9	93,1	73,8	91,4	91,3	95,4	94,2

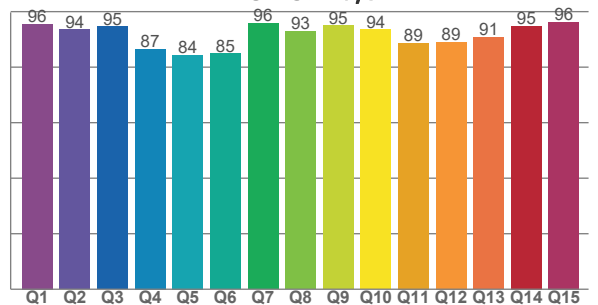
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,7	93,5	91,8	94,9	94,7	89,6	91,4	86,4	89,6	89,1	92,7	88,0	88,2	92,1	93,7	92,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,5	93,5	94,6	86,6	84,3	84,9	95,8	92,9	94,9	93,6	88,7	89,0	90,8	94,9	96,3

CQS: 90,6



COLOR PARAMETERS

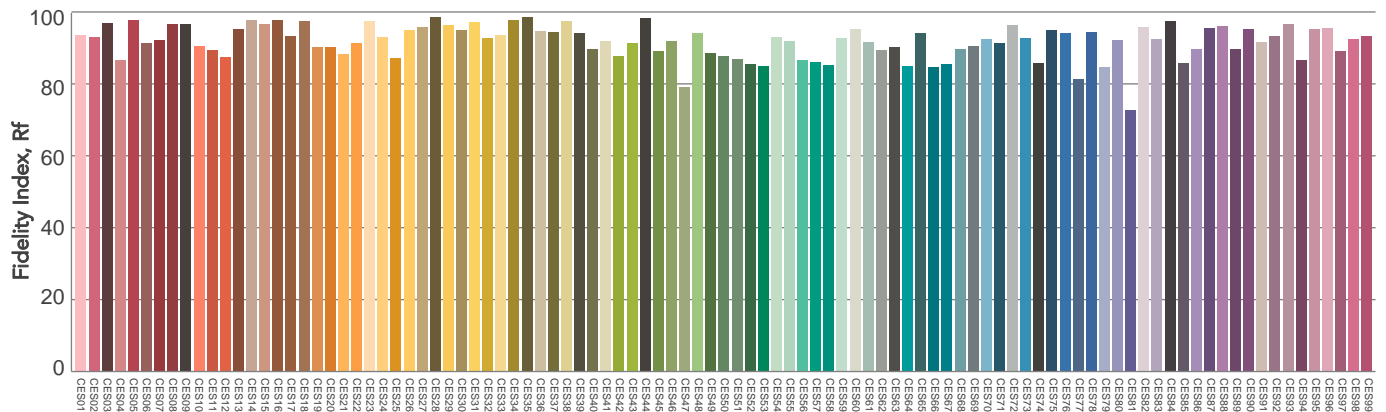
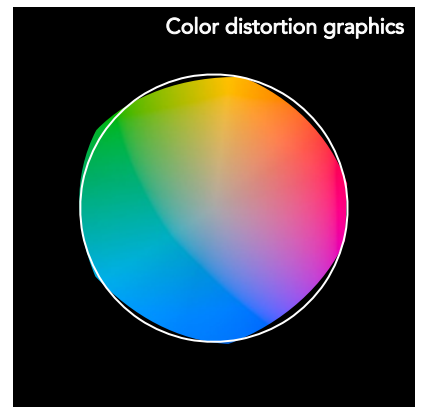
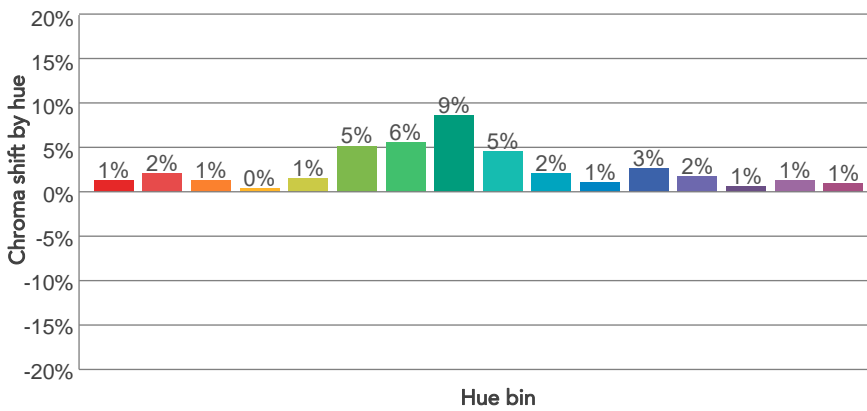
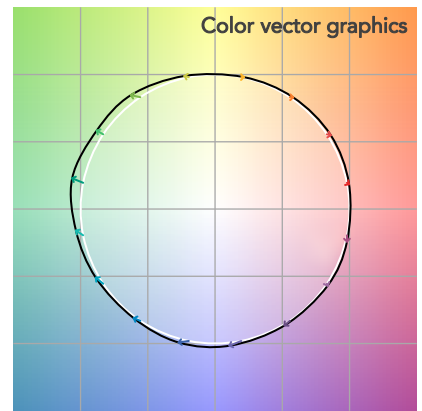
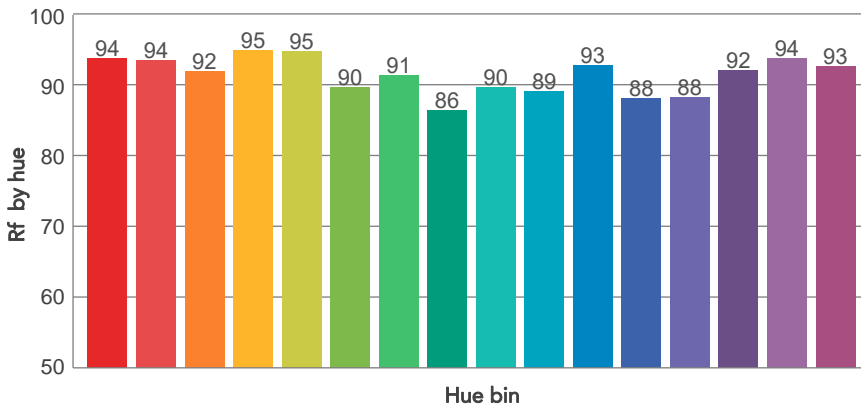
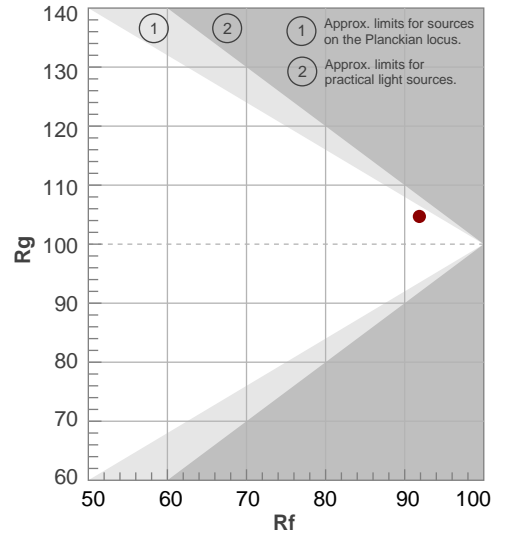
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2780 K	91,6	87,9	91,9	104,7	90,6	81	0,455	0,411	0,0006

TM30 DETAILS

Rf 91,9
Fidelity index Rf

Rg 104,7
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	-1%
2	94	2%	-2%
3	92	1%	-2%
4	95	0%	-2%
5	95	1%	3%
6	90	5%	5%
7	91	6%	0%
8	86	9%	-2%
9	90	5%	-4%
10	89	2%	-7%
11	93	1%	-5%
12	88	3%	-7%
13	88	2%	-9%
14	92	1%	-5%
15	94	1%	-1%
16	93	1%	-5%

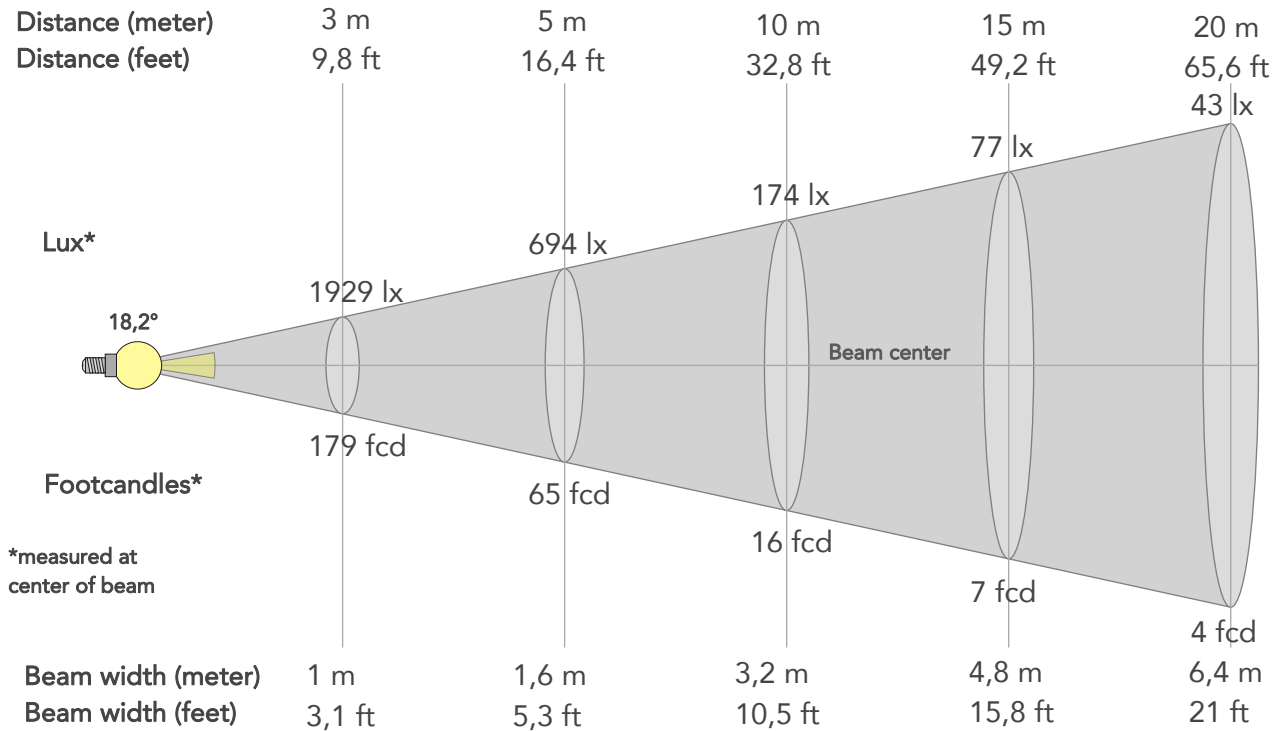


Color Evaluation Sample

BEAM DETAILS



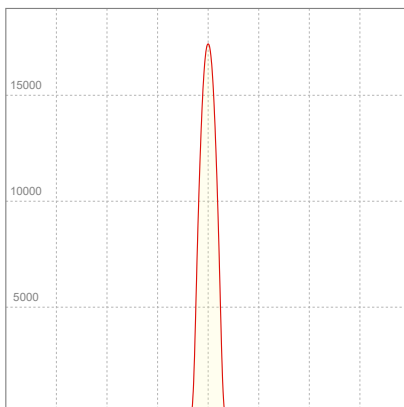
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,2°	25,5°	28,1°	78,6%	78,6%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	17362lx	4340lx	1929lx	1085lx	694lx	309lx	174lx	77lx	43lx	28lx	19lx	11lx	7lx
Footcand.	1613fcd	403fcd	179fcd	101fcd	65fcd	29fcd	16fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8m	9,6m	12,8m	16m
Beam wid.	1,1ft	2,1ft	3,1ft	4,2ft	5,3ft	7,9ft	10,5ft	15,8ft	21ft	26,3ft	31,5ft	42ft	52,6ft

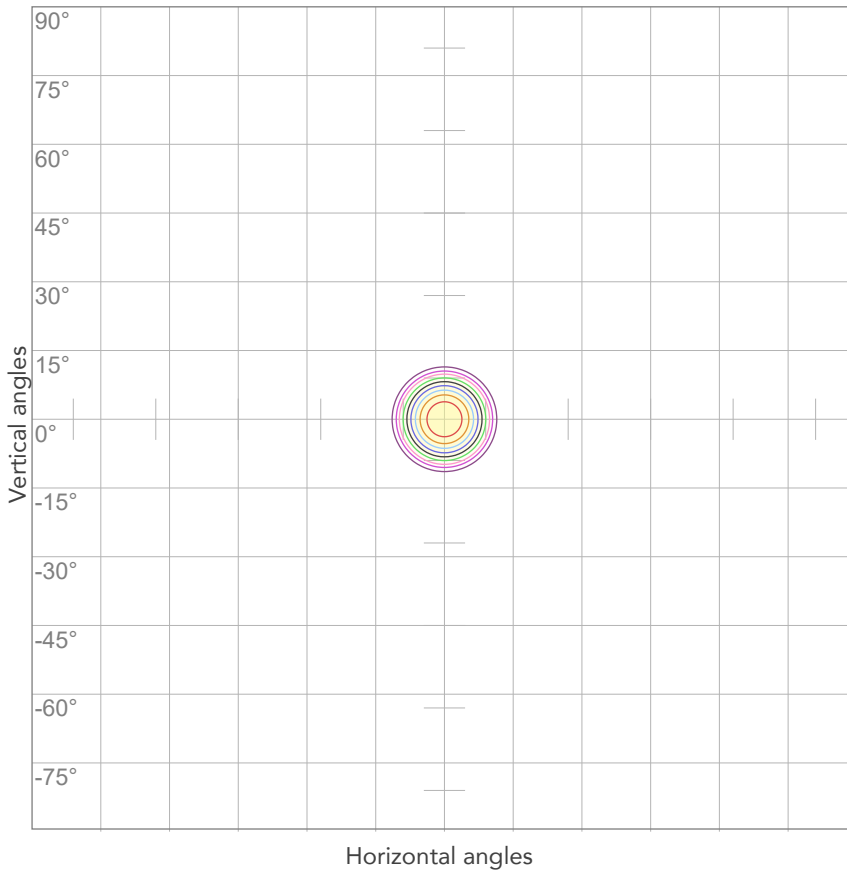
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,558A	108,7W	17lm/W

ISO CANDELA DIAGRAM



10%	1736 cd
20%	3472 cd
30%	5208 cd
40%	6945 cd
50%	8681 cd
60%	10417 cd
70%	12153 cd
80%	13889 cd

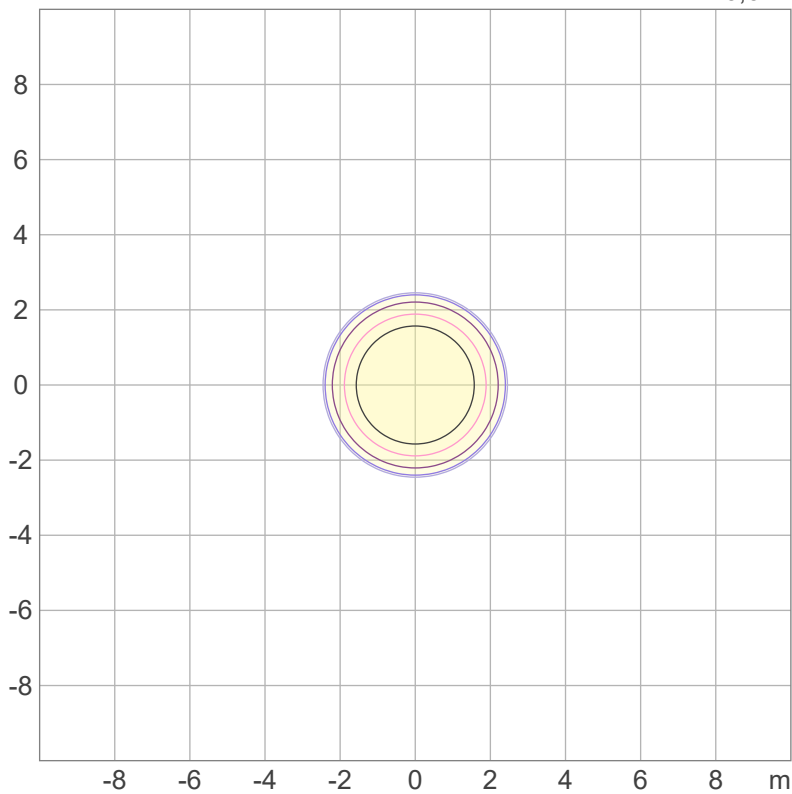
Conditions:

Number of c-planes: 2

Candela at center: 17362 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	5,21 lx
5%	8,68 lx
10%	17,4 lx
30%	52,1 lx
50%	86,8 lx

Conditions:

Number of c-planes: 2

Lux at center: 174 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1013 lm

Peak candela output:

214964 cd

Light quality:

CRI: 91,9

Color temperature:

2773 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASURAMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

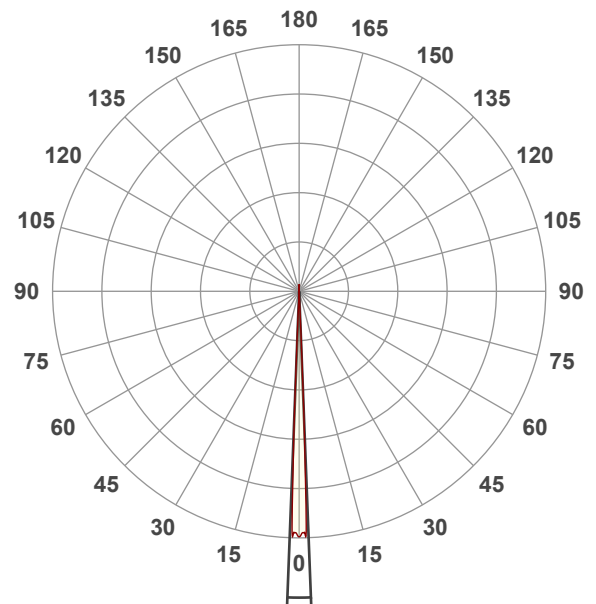
2800K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:17:53

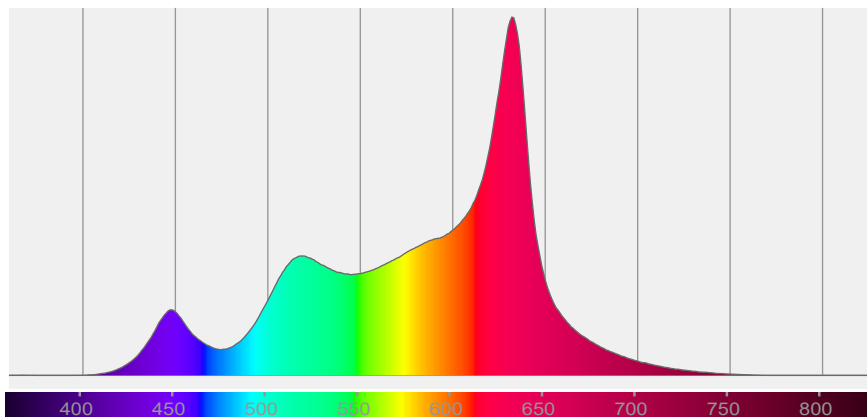


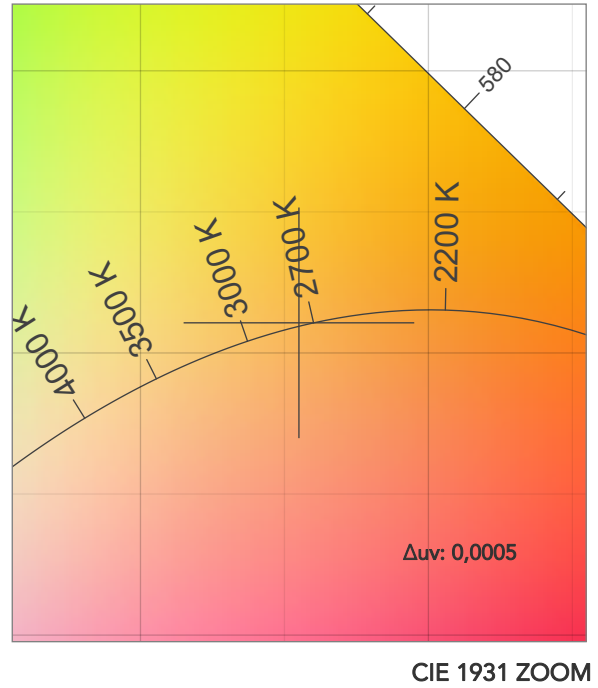
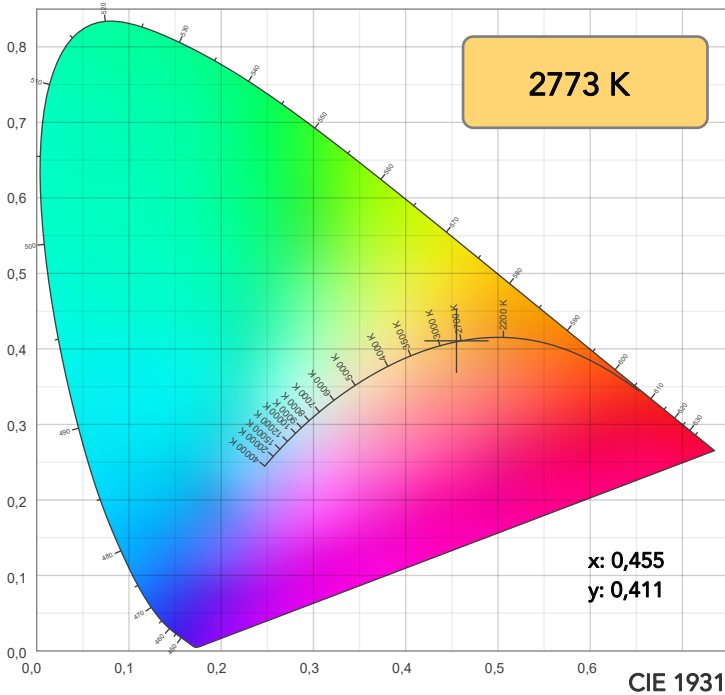
Beam angle 50%: 4,4°

Field angle 10%: 5,3°

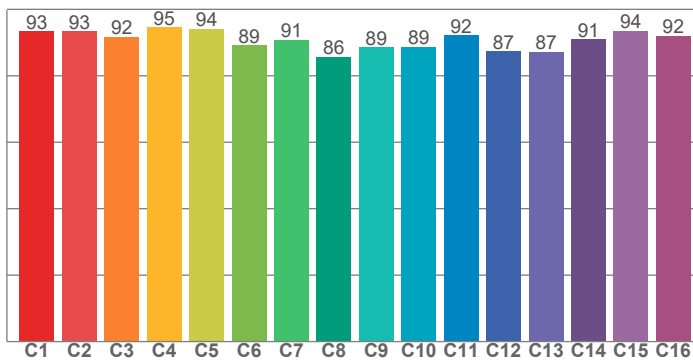
Cut off angle 2.5%: 5,5°

Spectra

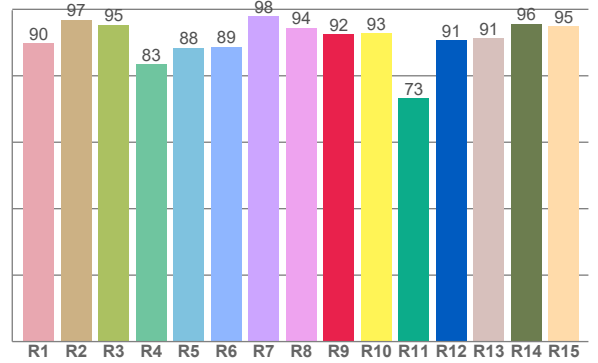




TM30: 91,4



CRI: 91,9 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
89,7	96,9	95,4	83,4	88,4	88,7	97,9	94,4	92,4	92,9	73,2	90,6	91,3	95,6	95,0

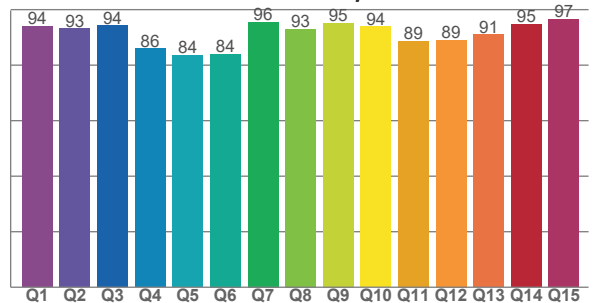
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,4	93,4	91,8	94,6	94,2	89,1	90,8	85,7	88,6	88,6	92,2	87,3	87,1	90,9	93,5	92,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,0	93,2	94,3	85,9	83,6	84,1	95,6	93,1	95,2	93,9	88,7	89,1	91,0	94,7	96,5

CQS: 90,3



COLOR PARAMETERS

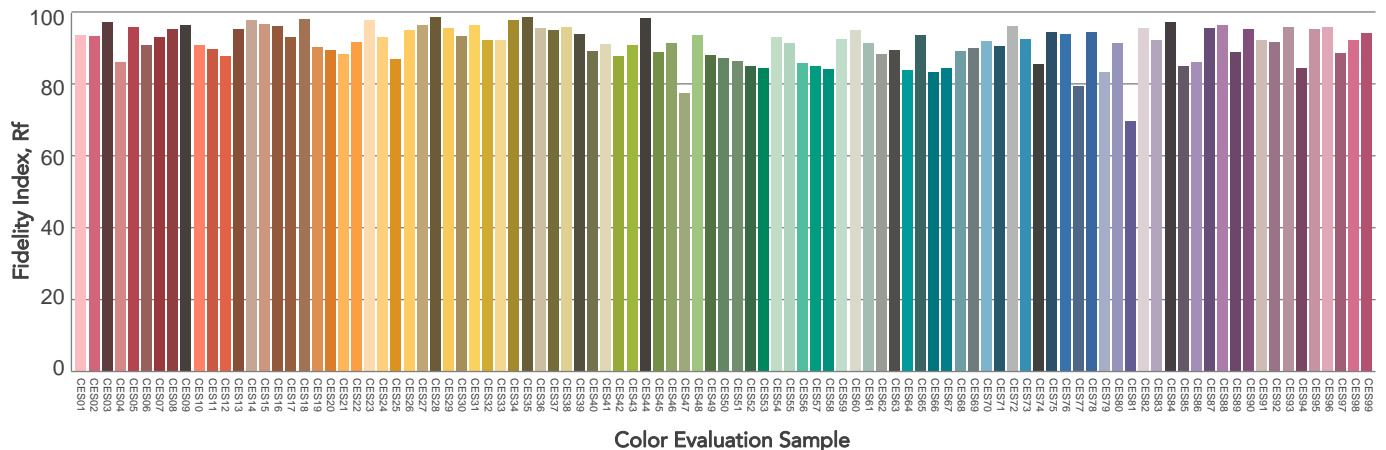
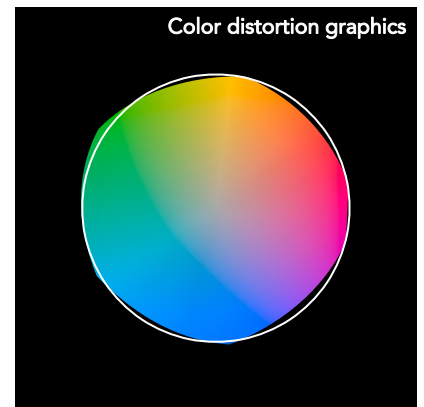
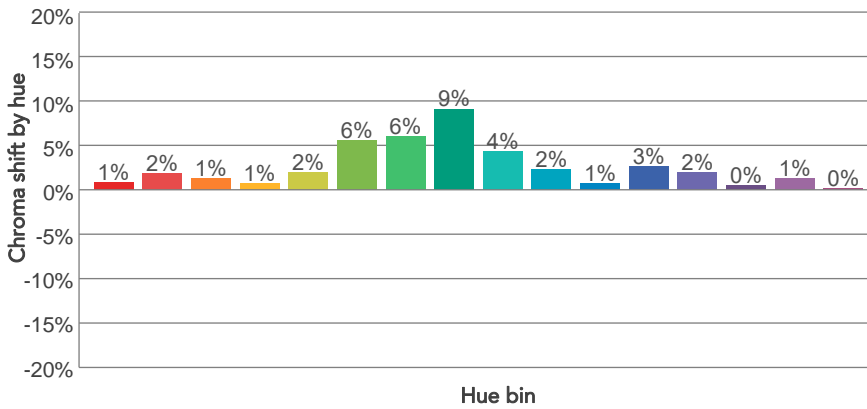
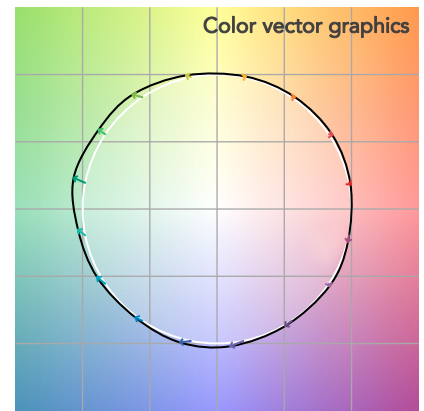
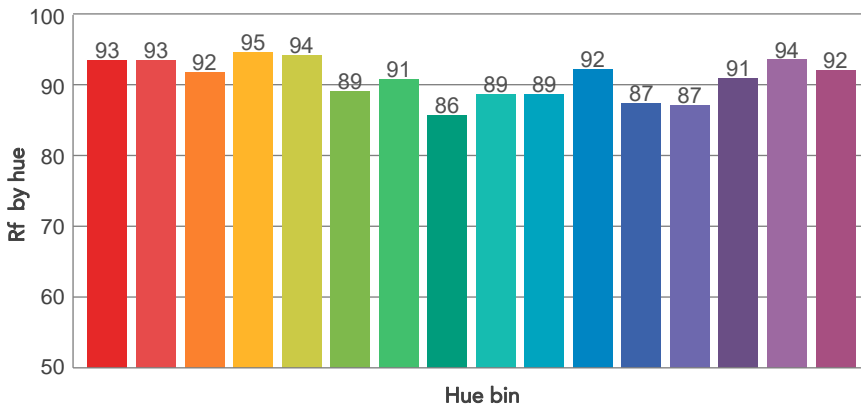
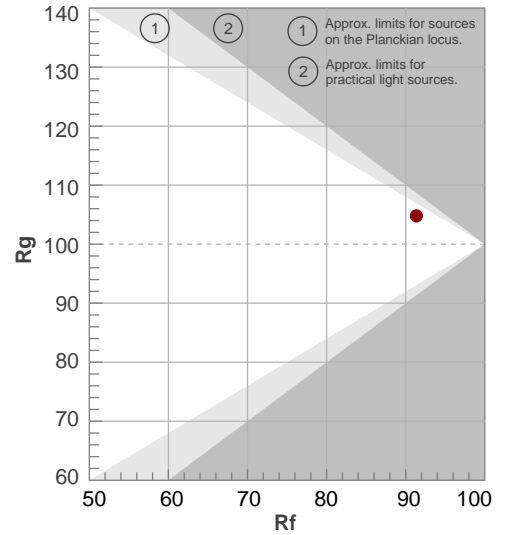
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2773 K	91,9	92,4	91,4	104,8	90,3	79	0,455	0,411	0,0005

TM30 DETAILS

Rf 91,4
Fidelity index Rf

Rg 104,8
Gammut index

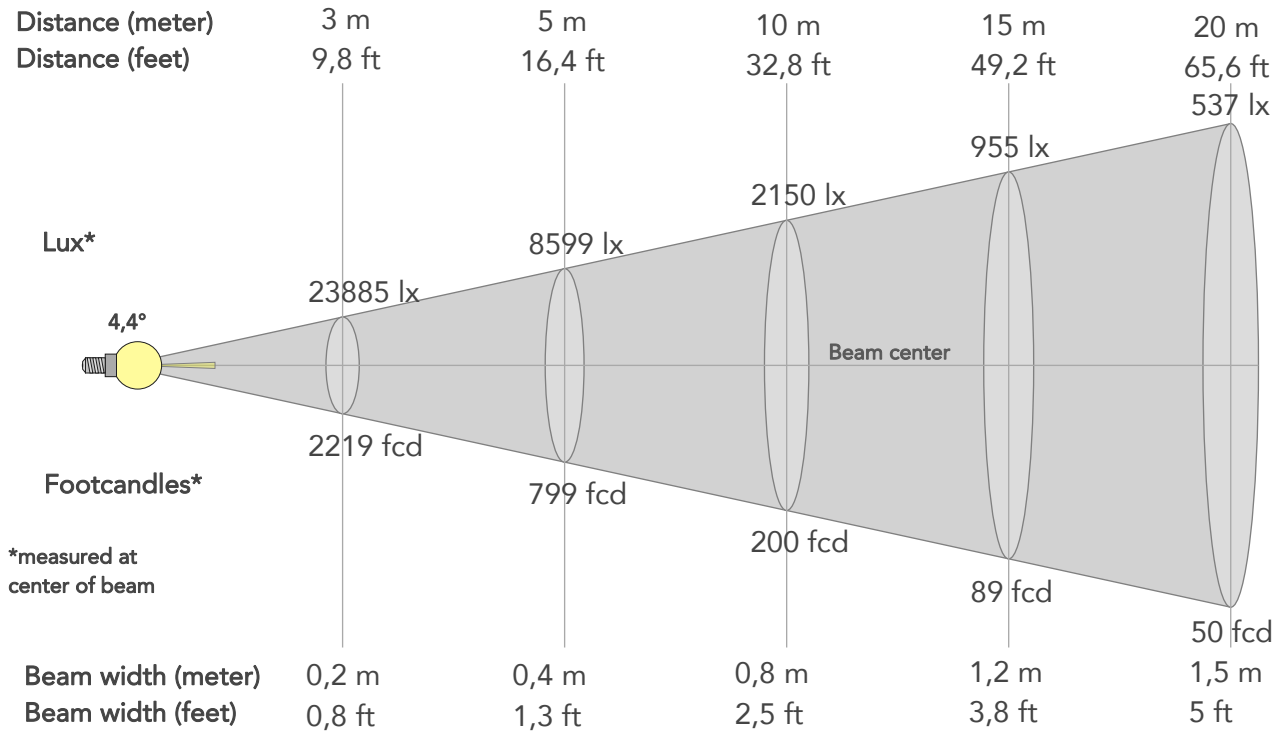
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	1%	-1%
2	93	2%	-2%
3	92	1%	-2%
4	95	1%	-2%
5	94	2%	3%
6	89	6%	5%
7	91	6%	0%
8	86	9%	-2%
9	89	4%	-5%
10	89	2%	-7%
11	92	1%	-6%
12	87	3%	-8%
13	87	2%	-10%
14	91	0%	-6%
15	94	1%	-1%
16	92	0%	-5%



BEAM DETAILS



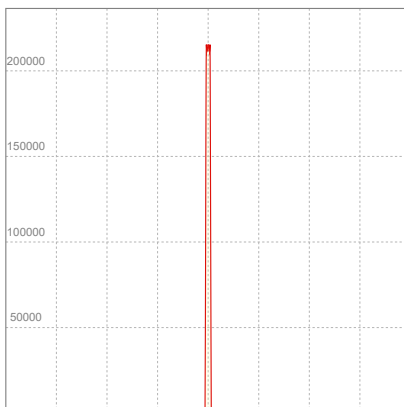
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,4°	5,3°	5,5°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	214964lx	53741lx	23885lx	13435lx	8599lx	3822lx	2150lx	955lx	537lx	344lx	239lx	134lx	86lx
Footcand.	19971fcd	4993fcd	2219fcd	1248fcd	799fcd	355fcd	200fcd	89fcd	50fcd	32fcd	22fcd	12fcd	8fcd
Beam wid.	0,1m	0,2m	0,2m	0,3m	0,4m	0,6m	0,8m	1,2m	1,5m	1,9m	2,3m	3,1m	3,8m
Beam wid.	0,3ft	0,5ft	0,8ft	1ft	1,3ft	1,9ft	2,5ft	3,8ft	5ft	6,3ft	7,6ft	10,1ft	12,6ft

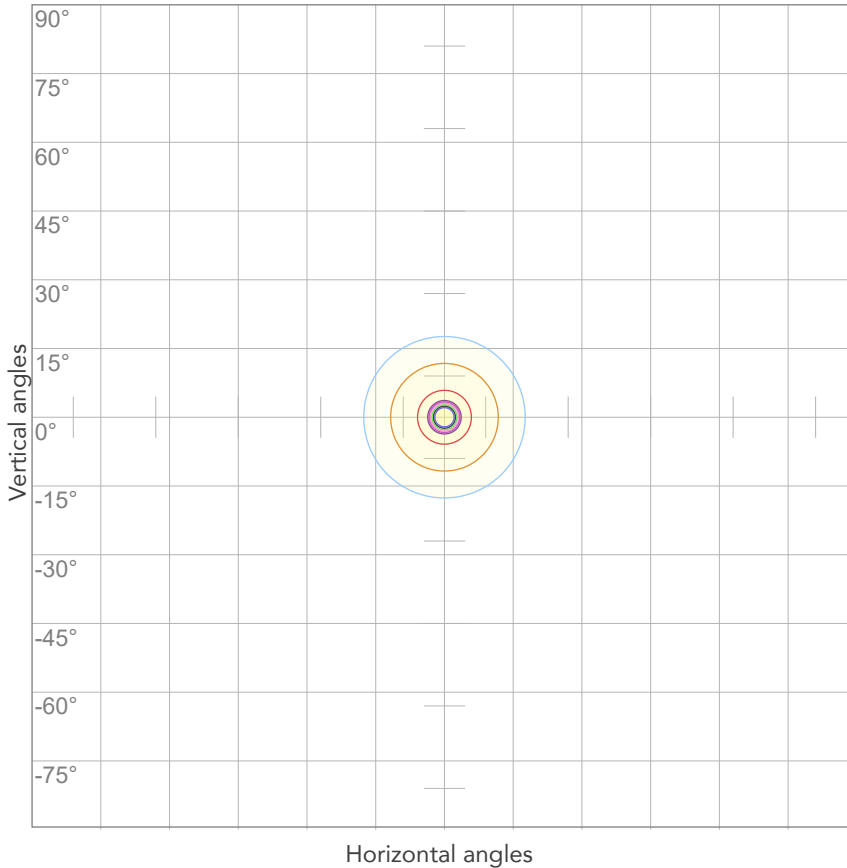
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,562A	109W	9lm/W

ISO CANDELA DIAGRAM



10%	21496 cd
20%	42993 cd
30%	64489 cd
40%	85986 cd
50%	107482 cd
60%	128978 cd
70%	150475 cd
80%	171971 cd

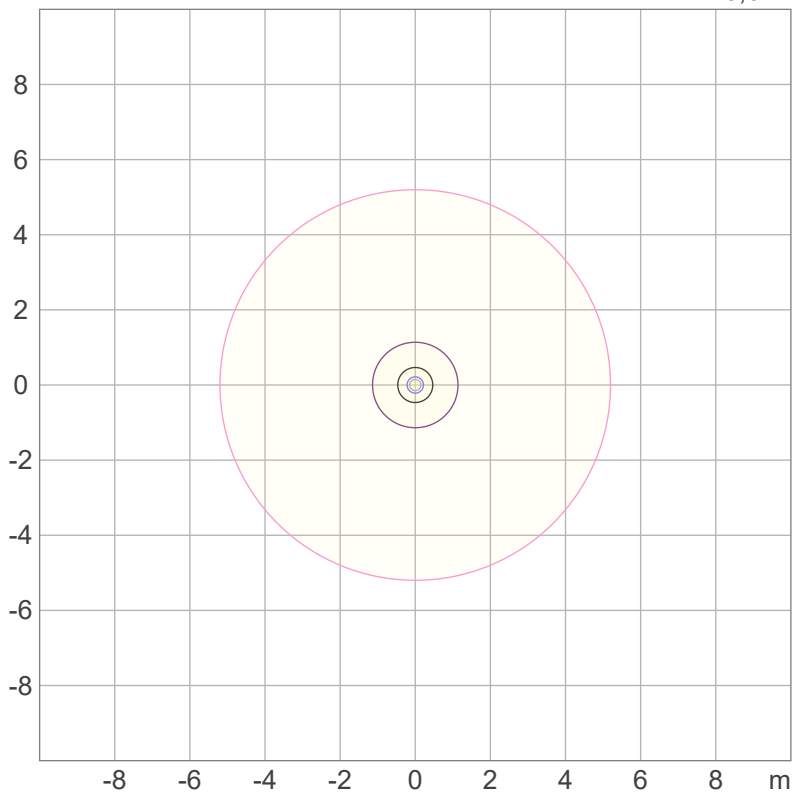
Conditions:

Number of c-planes: 2

Candela at center: 214964 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	64,5 lx
5%	107 lx
10%	215 lx
30%	645 lx
50%	1075 lx

Conditions:

Number of c-planes: 2

Lux at center: 2150 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1787 lm

Peak candela output:

4920 cd

Light quality:

CRI: 94,8

Color temperature:

3202 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASURAMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

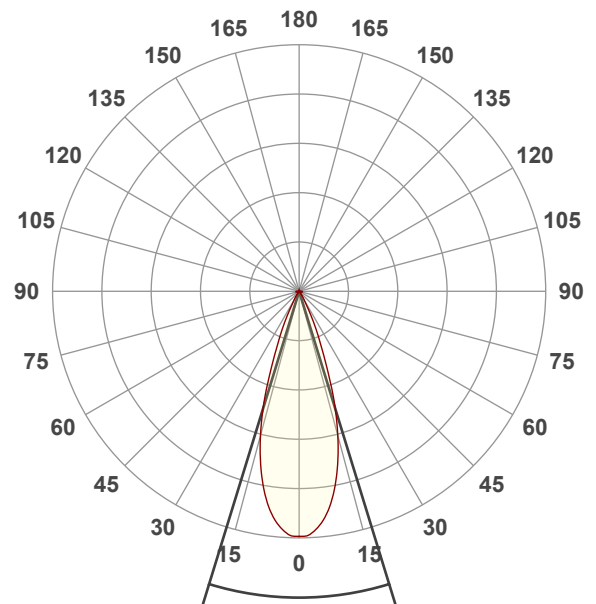
3200K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:55:03

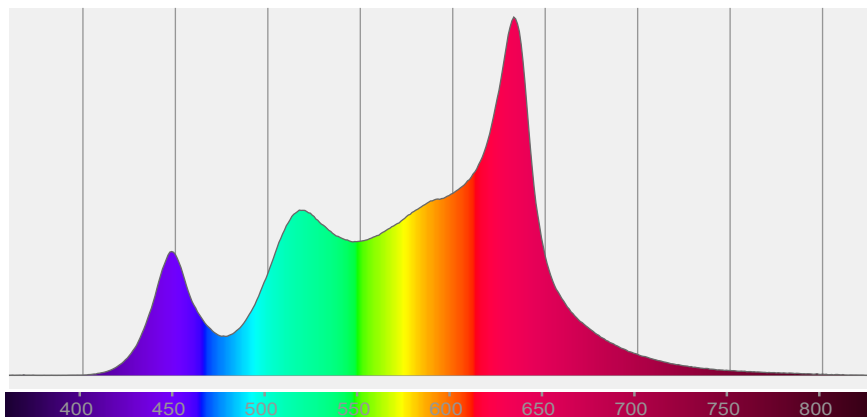


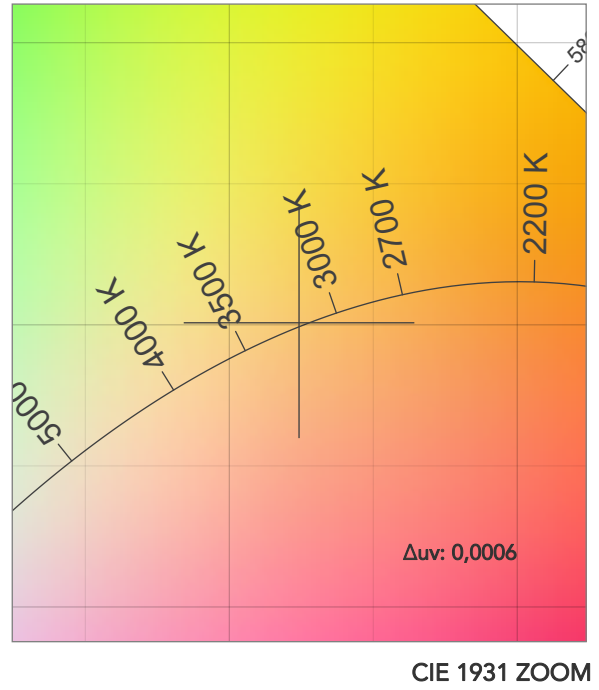
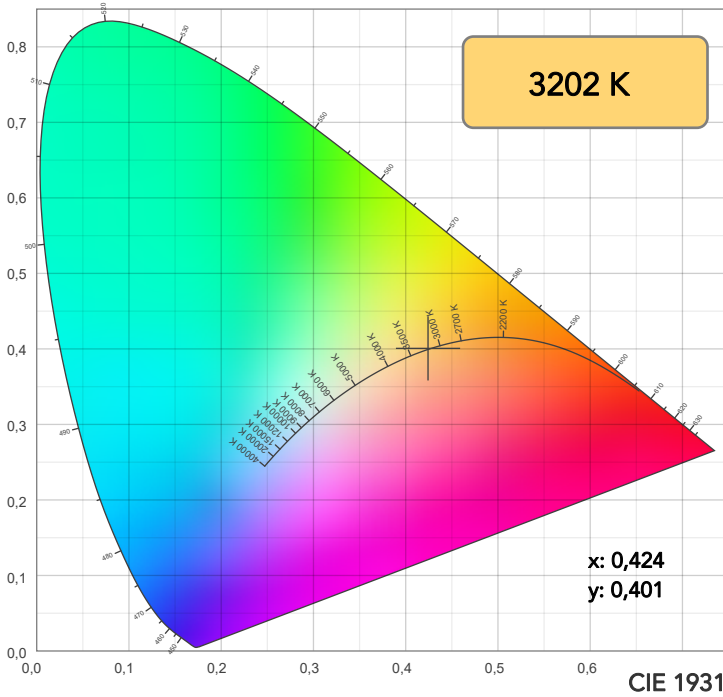
Beam angle 50%: 34,2°

Field angle 10%: 52,9°

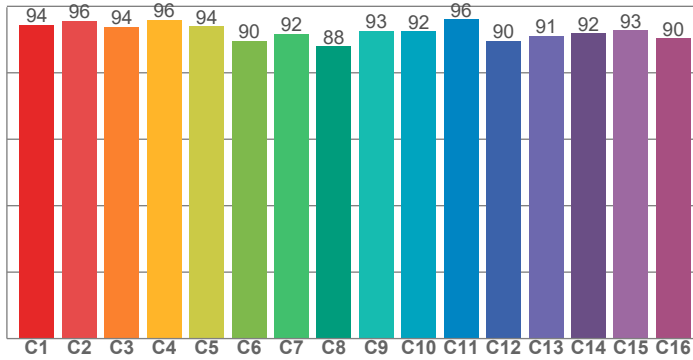
Cut off angle 2.5%: 65,8°

Spectra

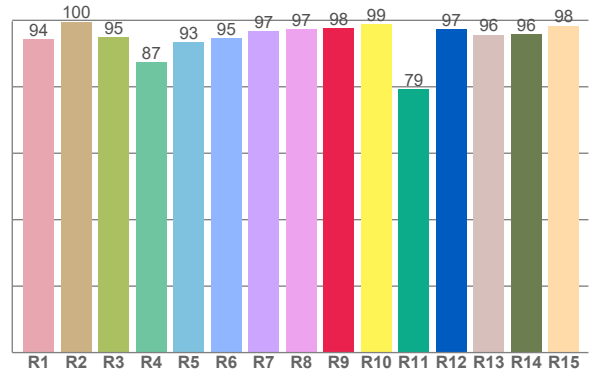




TM30: 93,1



CRI: 94,8 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
94,2	99,6	94,9	87,4	93,4	94,6	96,8	97,4	97,6	98,9	79,2	97,3	95,7	95,9	98,4

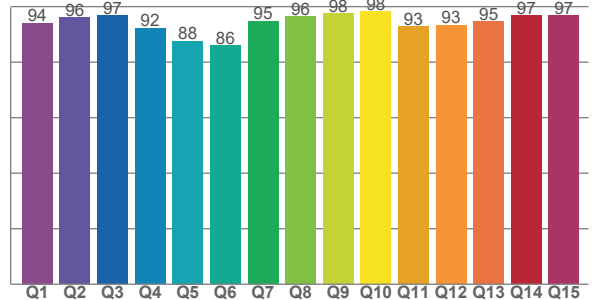
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,4	95,6	93,9	95,9	93,9	89,6	91,7	87,9	92,6	92,4	96,1	89,7	91,1	91,8	92,8	90,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,1	96,0	96,8	92,2	87,6	86,0	94,7	96,4	97,6	98,2	92,8	93,3	94,6	96,8	96,8

CQS: 93,1



COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3202 K	94,8	97,6	93,1	104,8	93,1	83	0,424	0,401	0,0006

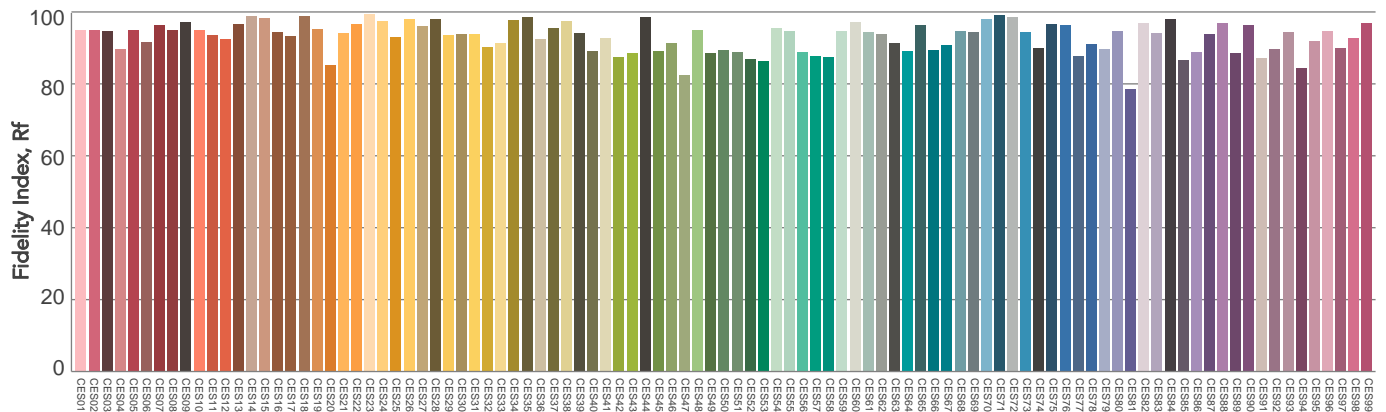
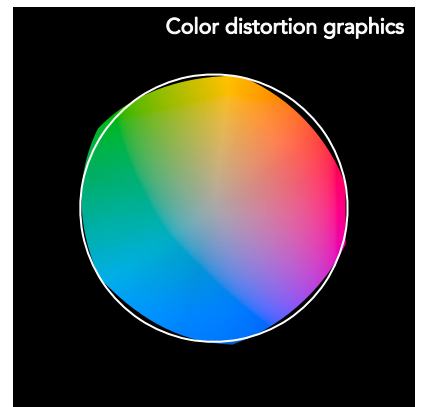
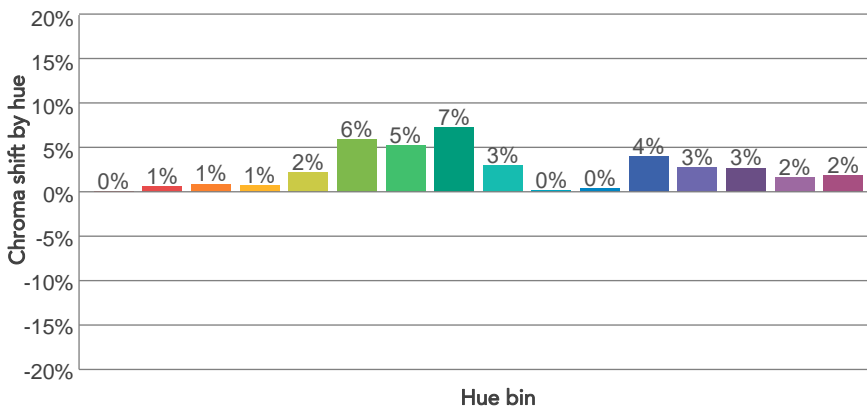
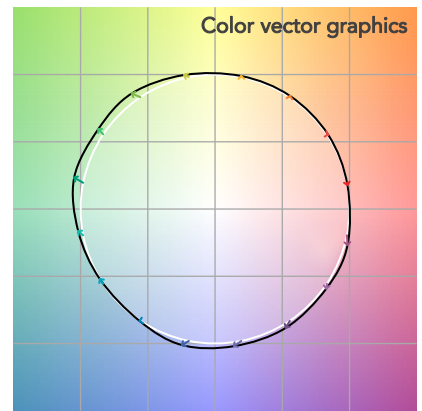
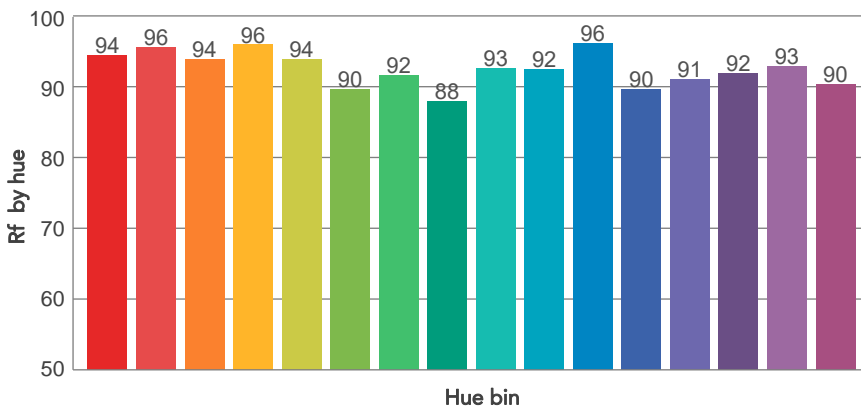
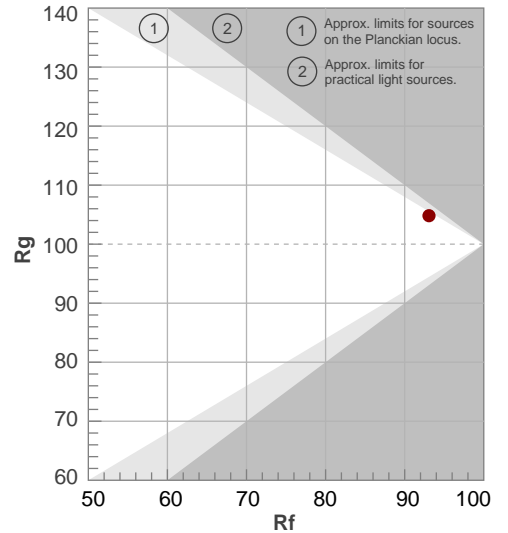
TM30 DETAILS



Rf 93,1
Fidelity index Rf

Rg 104,8
Gammut index

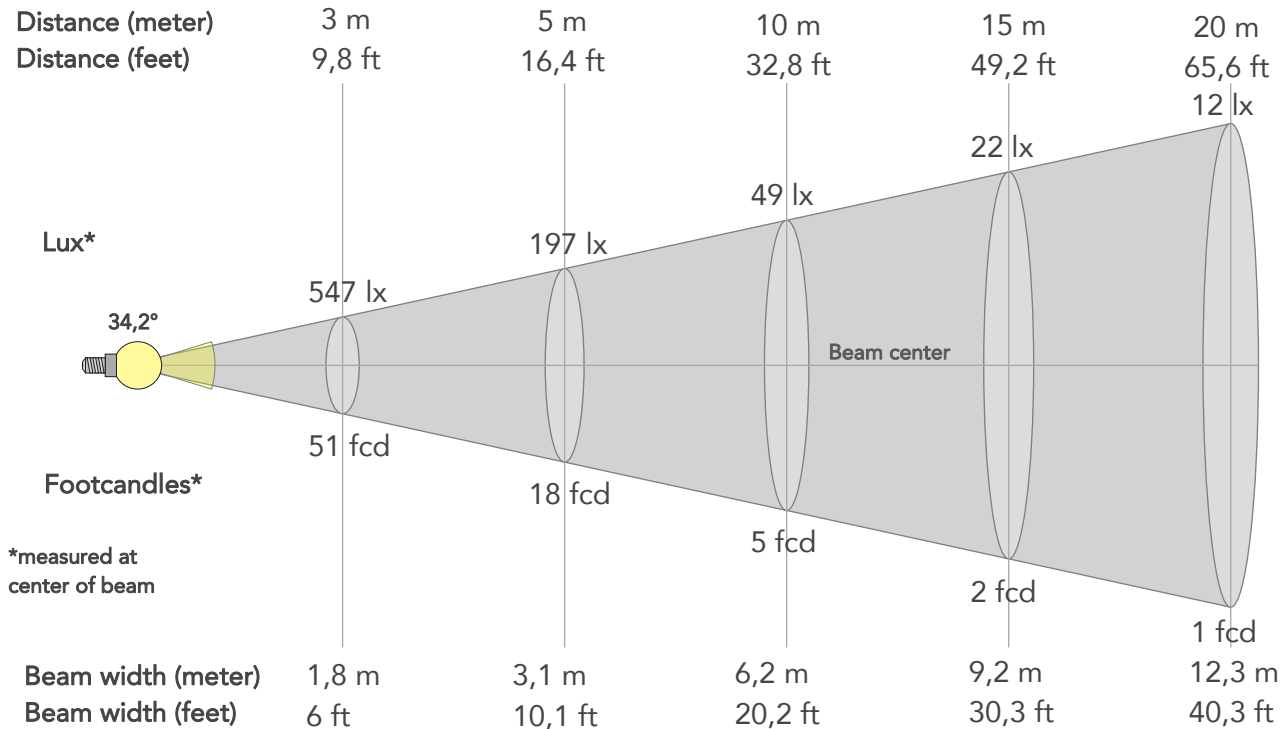
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	0%	-2%
2	96	1%	-1%
3	94	1%	0%
4	96	1%	0%
5	94	2%	3%
6	90	6%	4%
7	92	5%	-1%
8	88	7%	-3%
9	93	3%	-4%
10	92	0%	-4%
11	96	0%	0%
12	90	4%	-4%
13	91	3%	-6%
14	92	3%	-5%
15	93	2%	-3%
16	90	2%	-7%



BEAM DETAILS



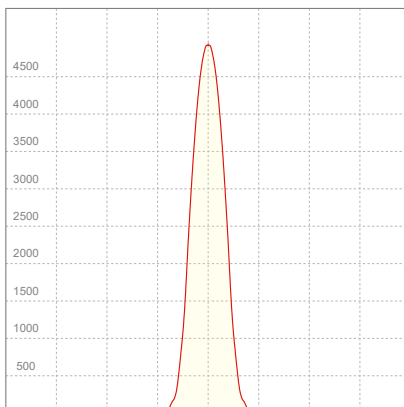
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,2°	52,9°	65,8°	89,9%	89,2%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	4920lx	1230lx	547lx	308lx	197lx	87lx	49lx	22lx	12lx	8lx	5lx	3lx	2lx
Footcand.	457fcd	114fcd	51fcd	29fcd	18fcd	8fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,5m	3,1m	4,6m	6,2m	9,2m	12,3m	15,4m	18,5m	24,6m	30,8m
Beam wid.	2ft	4,1ft	6ft	8,1ft	10,1ft	15,1ft	20,2ft	30,3ft	40,3ft	50,4ft	60,5ft	80,7ft	100,9ft

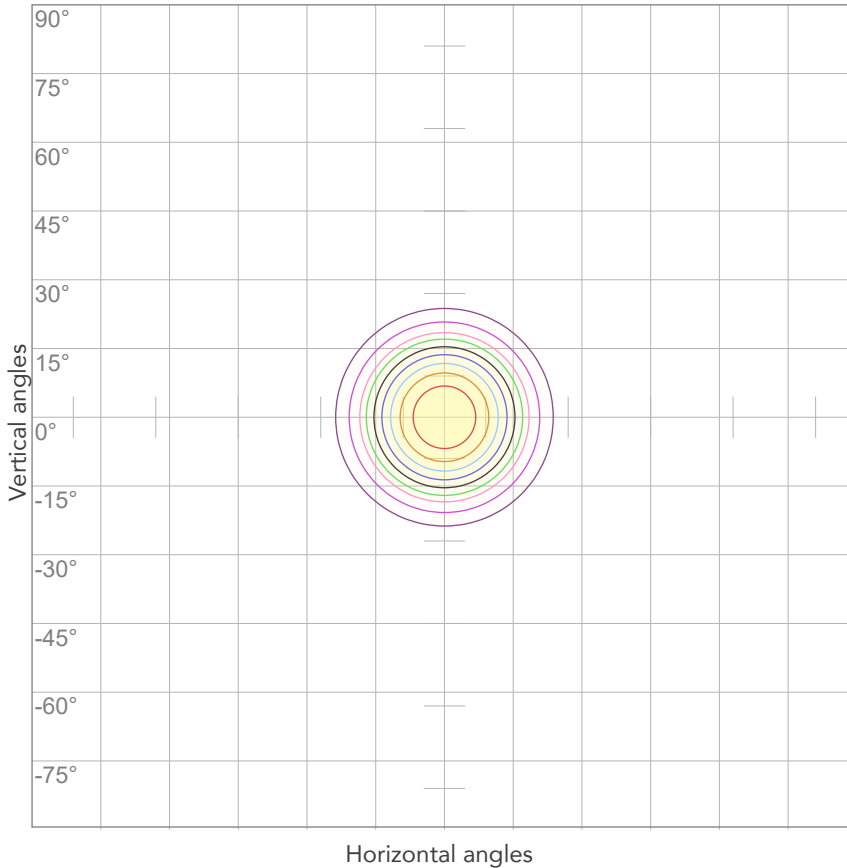
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,554A	107,3W	17lm/W

ISO CANDELA DIAGRAM



10%	492 cd
20%	984 cd
30%	1476 cd
40%	1968 cd
50%	2460 cd
60%	2952 cd
70%	3444 cd
80%	3936 cd

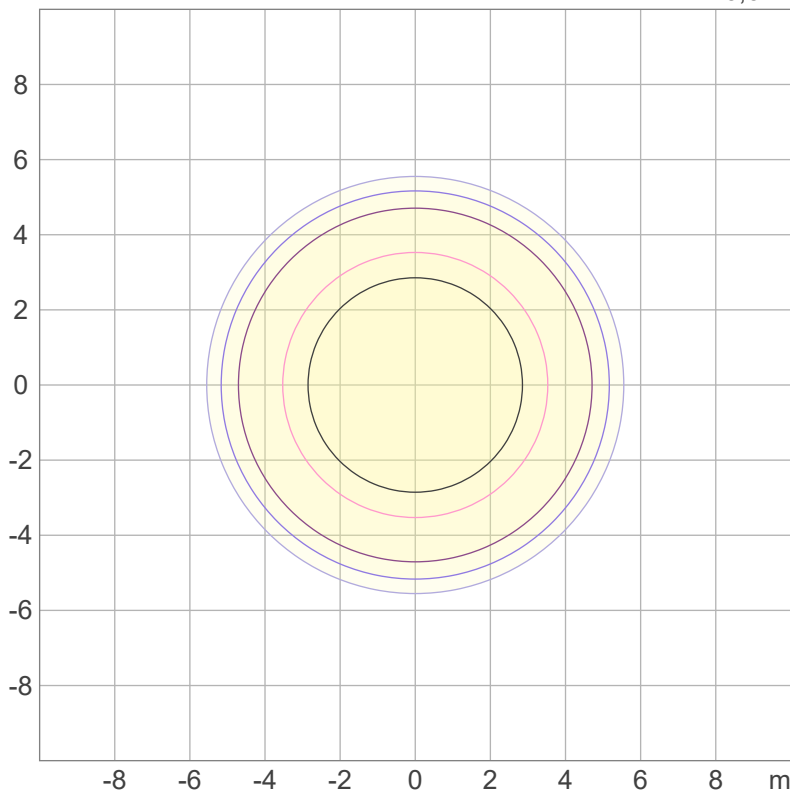
Conditions:

Number of c-planes: 2

Candela at center: 4920 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	1,48 lx
5%	2,46 lx
10%	4,92 lx
30%	14,8 lx
50%	24,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 49,2 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1703 lm

Peak candela output:

17275 cd

Light quality:

CRI: 94,6

Color temperature:

3193 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

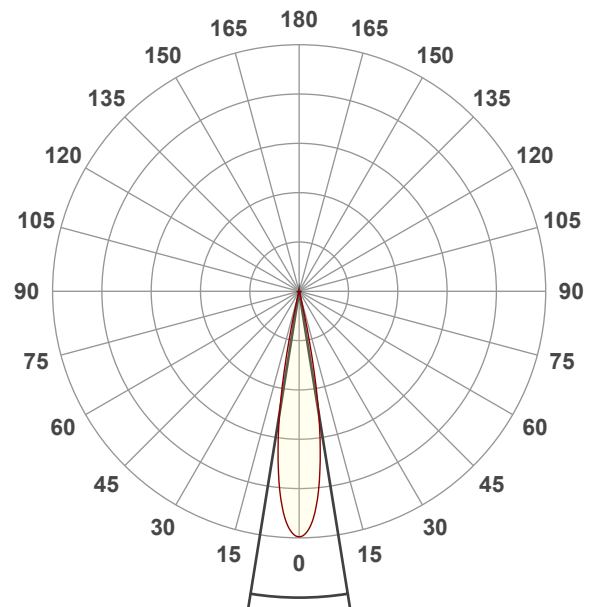
3200K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 16:14:28

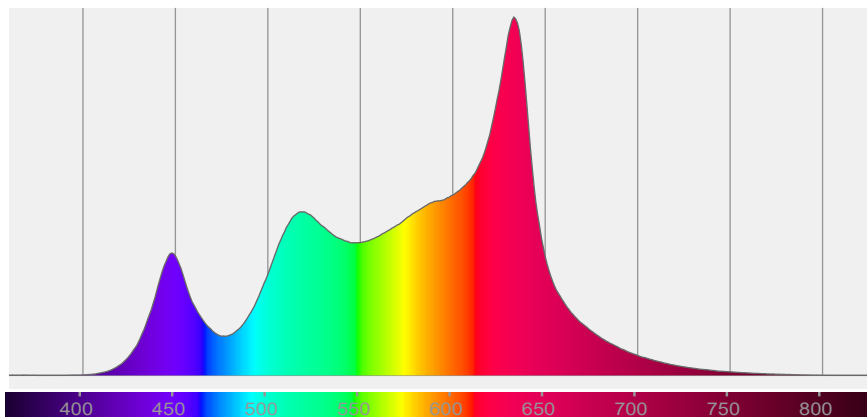


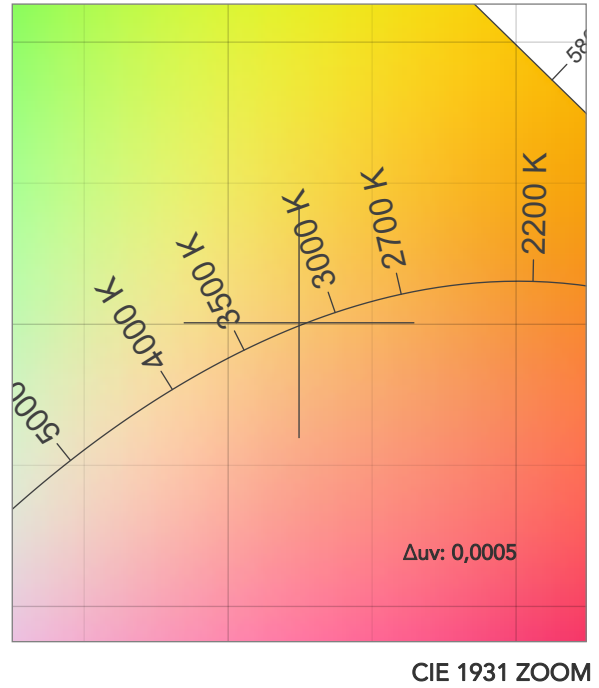
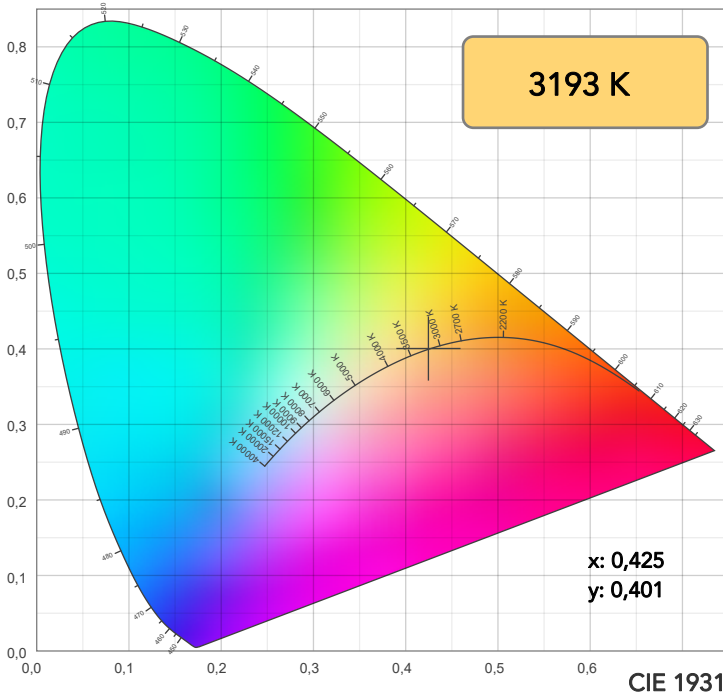
Beam angle 50%: 18,3°

Field angle 10%: 25,4°

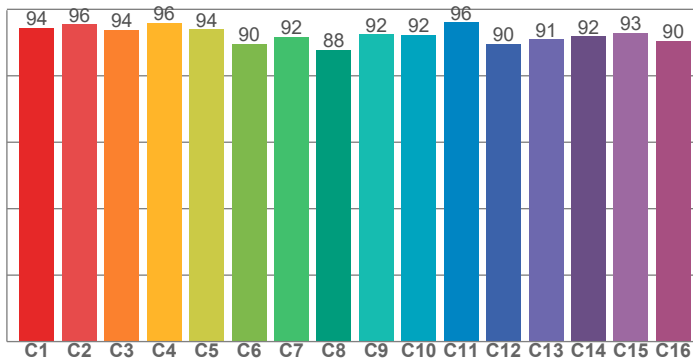
Cut off angle 2.5%: 27,8°

Spectra

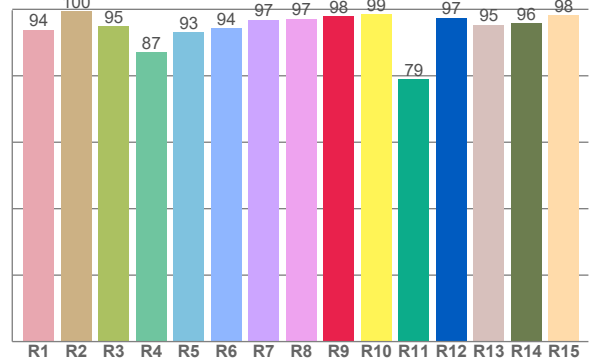




TM30: 93,0



CRI: 94,6 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93,9	99,5	94,9	87,2	93,1	94,3	96,8	97,2	97,8	98,6	78,9	97,5	95,3	95,8	98,2

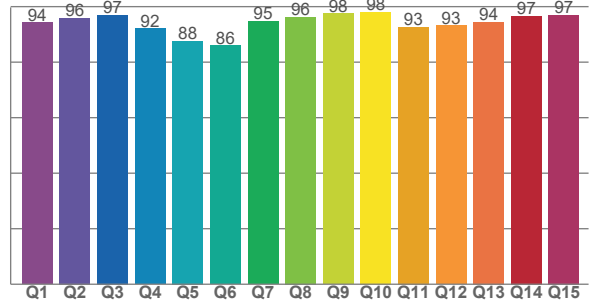
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,4	95,5	93,8	95,9	94,0	89,5	91,7	87,8	92,5	92,3	96,1	89,6	91,0	91,9	92,9	90,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,3	96,0	96,9	92,0	87,5	86,0	94,7	96,3	97,5	98,1	92,7	93,1	94,5	96,7	97,0

CQS: 93,1



COLOR PARAMETERS

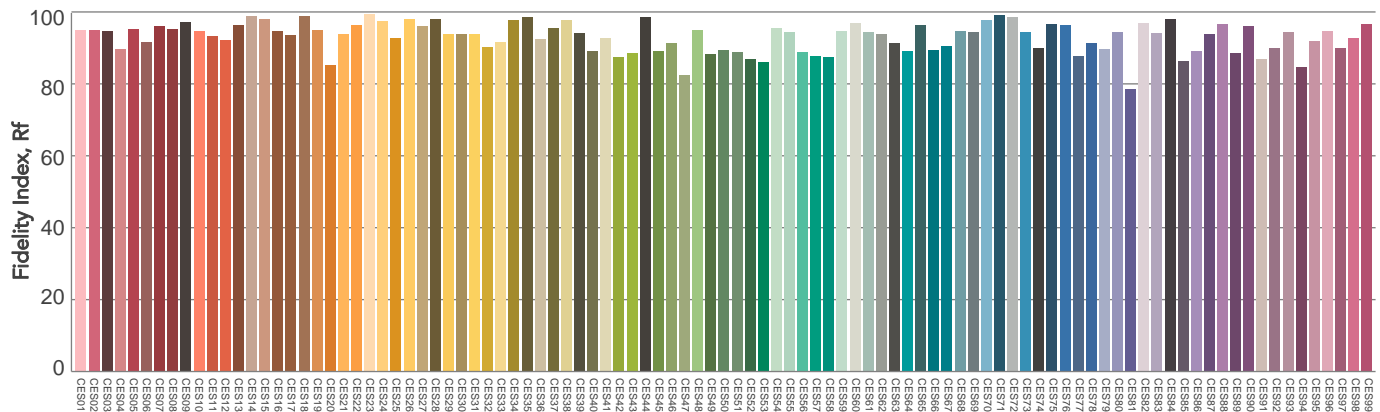
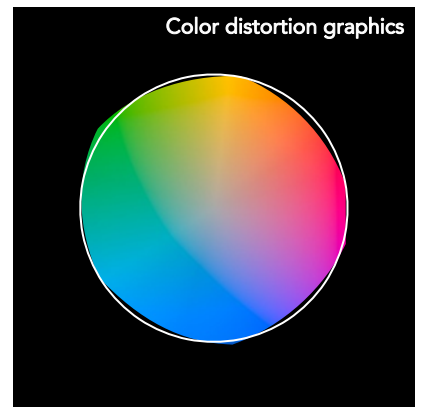
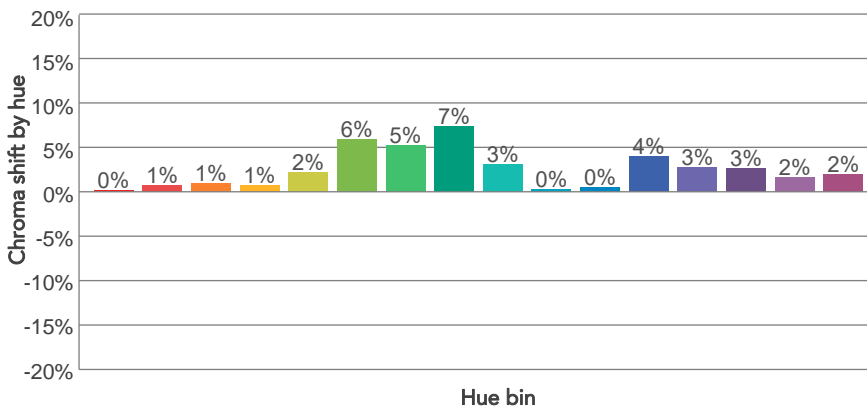
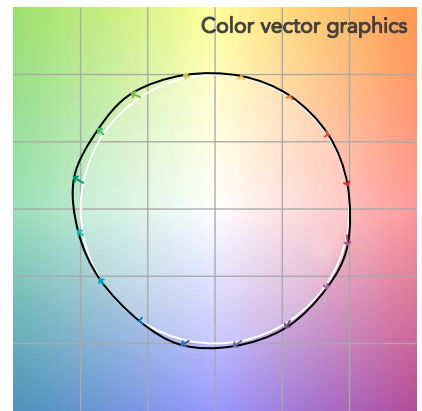
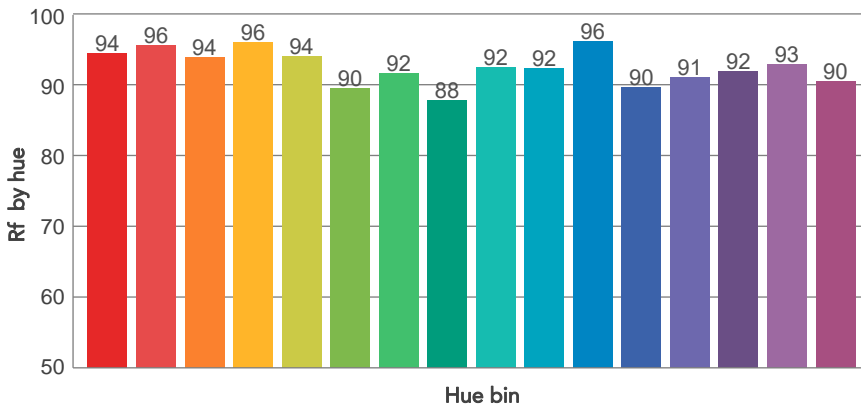
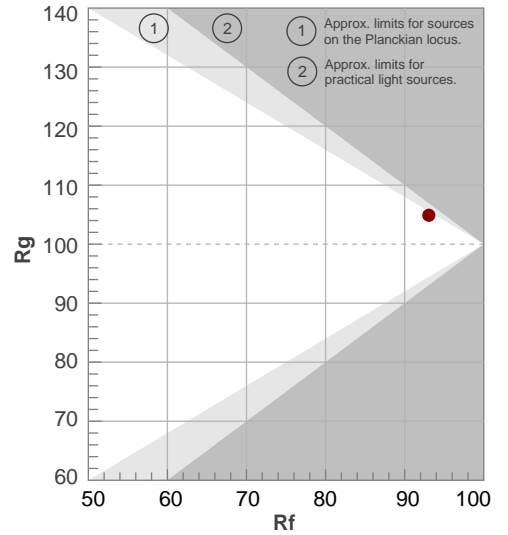
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3193 K	94,6	97,8	93,0	104,9	93,1	84	0,425	0,401	0,0005

TM30 DETAILS

Rf 93,0
Fidelity index Rf

Rg 104,9
Gammut index

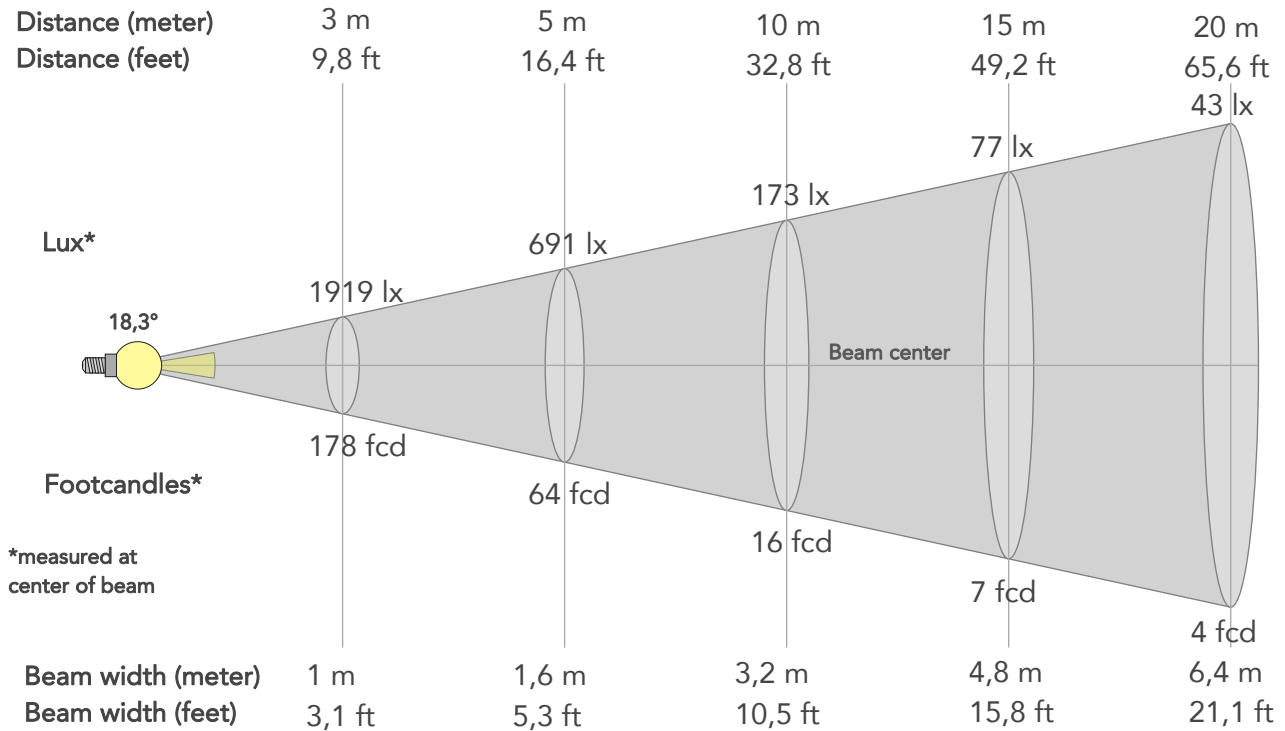
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	0%	-2%
2	96	1%	-1%
3	94	1%	0%
4	96	1%	0%
5	94	2%	3%
6	90	6%	4%
7	92	5%	-1%
8	88	7%	-2%
9	92	3%	-4%
10	92	0%	-4%
11	96	0%	0%
12	90	4%	-5%
13	91	3%	-6%
14	92	3%	-5%
15	93	2%	-3%
16	90	2%	-7%



BEAM DETAILS



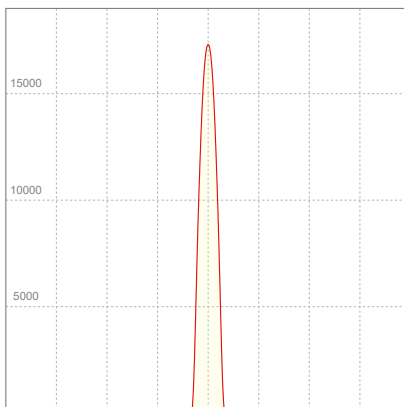
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,3°	25,4°	27,8°	83,8%	83,8%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	17275lx	4319lx	1919lx	1080lx	691lx	307lx	173lx	77lx	43lx	28lx	19lx	11lx	7lx
Footcand.	1605fcd	401fcd	178fcd	100fcd	64fcd	29fcd	16fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8m	9,6m	12,9m	16,1m
Beam wid.	1,1ft	2,1ft	3,1ft	4,2ft	5,3ft	7,9ft	10,5ft	15,8ft	21,1ft	26,4ft	31,6ft	42,2ft	52,7ft

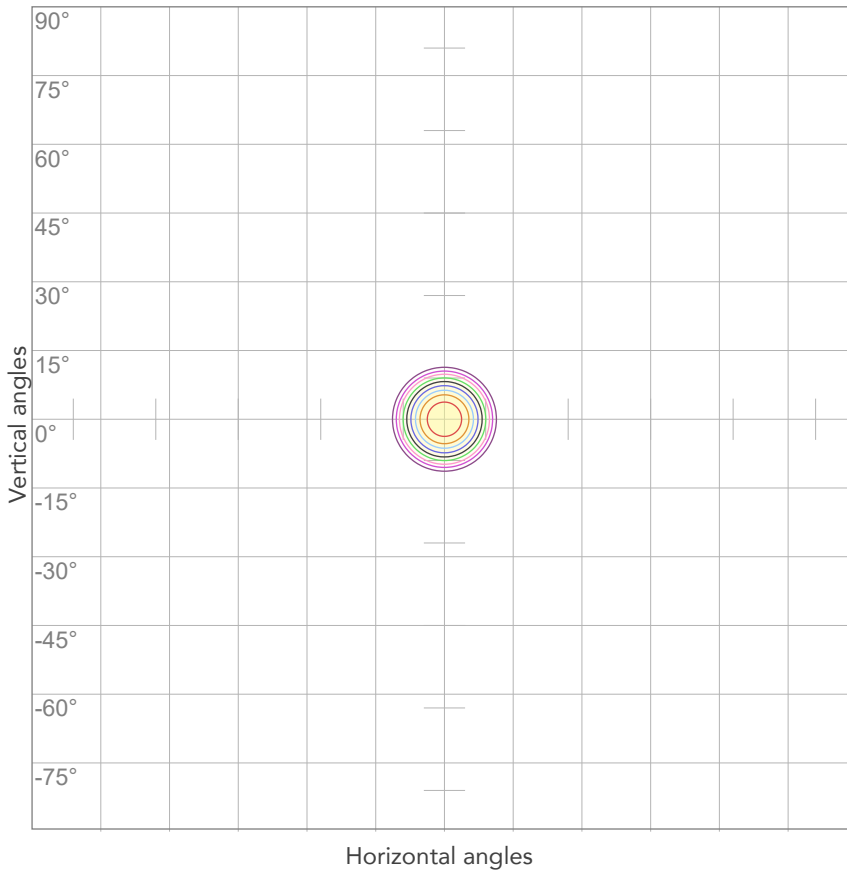
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,554A	107,3W	16lm/W

ISO CANDELA DIAGRAM



10%	1727 cd
20%	3455 cd
30%	5182 cd
40%	6910 cd
50%	8637 cd
60%	10365 cd
70%	12092 cd
80%	13820 cd

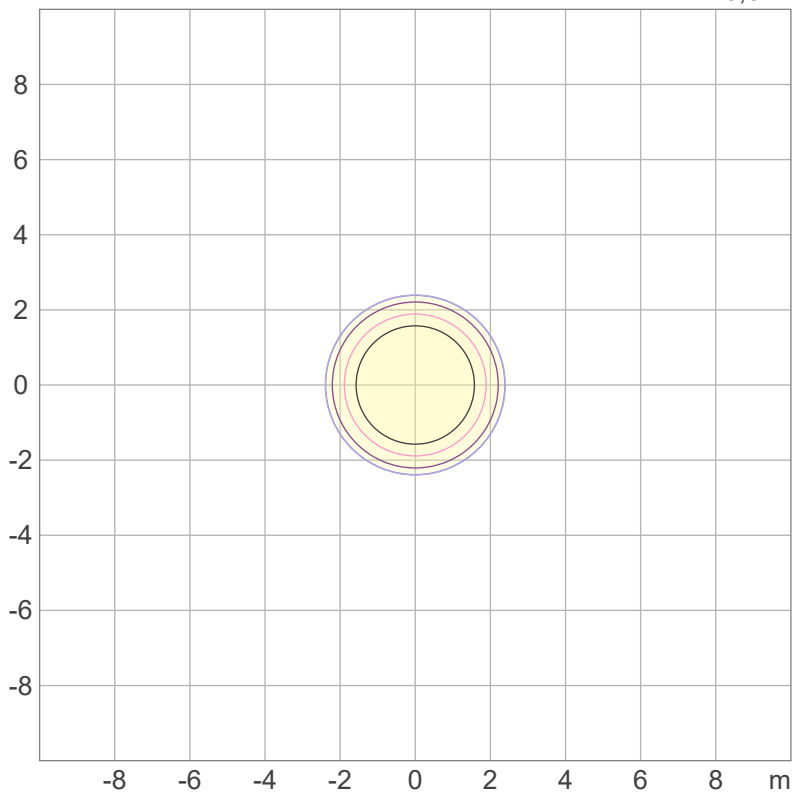
Conditions:

Number of c-planes: 2

Candela at center: 17275 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	5,18 lx
5%	8,64 lx
10%	17,3 lx
30%	51,8 lx
50%	86,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 173 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1000 lm

Peak candela output:

211736 cd

Light quality:

CRI: 94,5

Color temperature:

3212 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

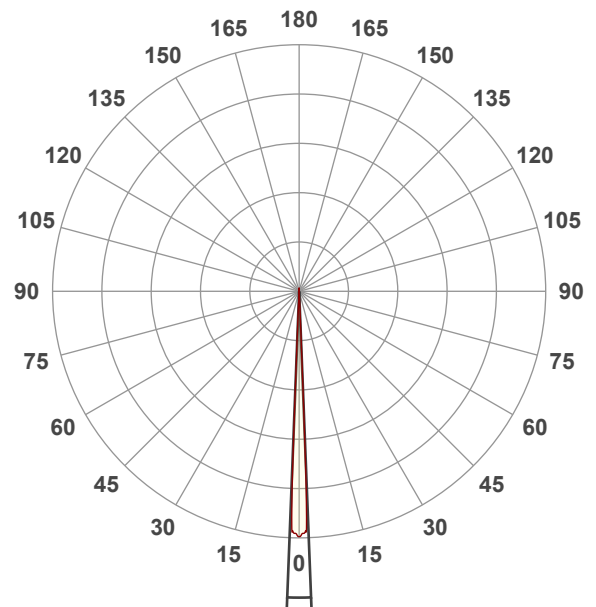
3200K

Operator:

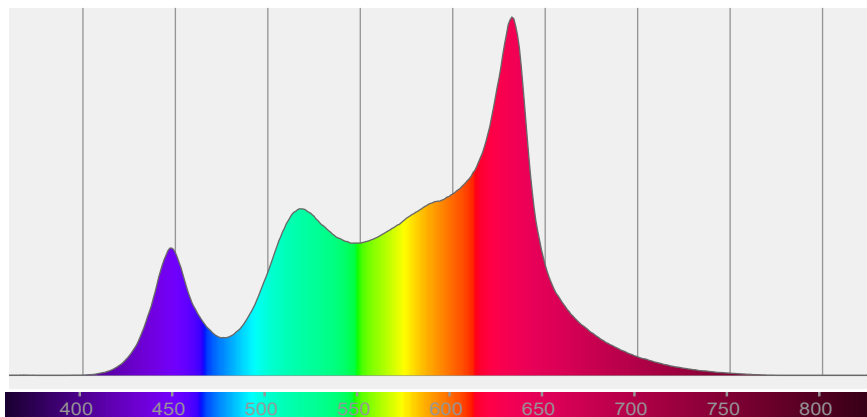
Salvatore Giglio

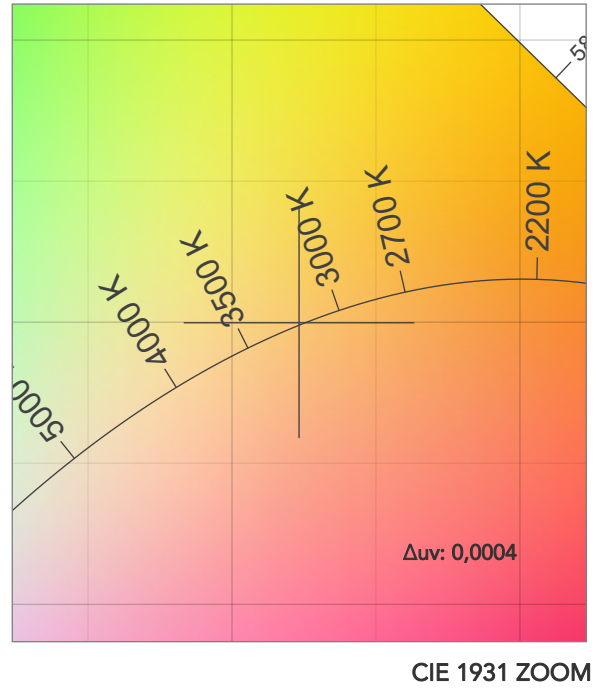
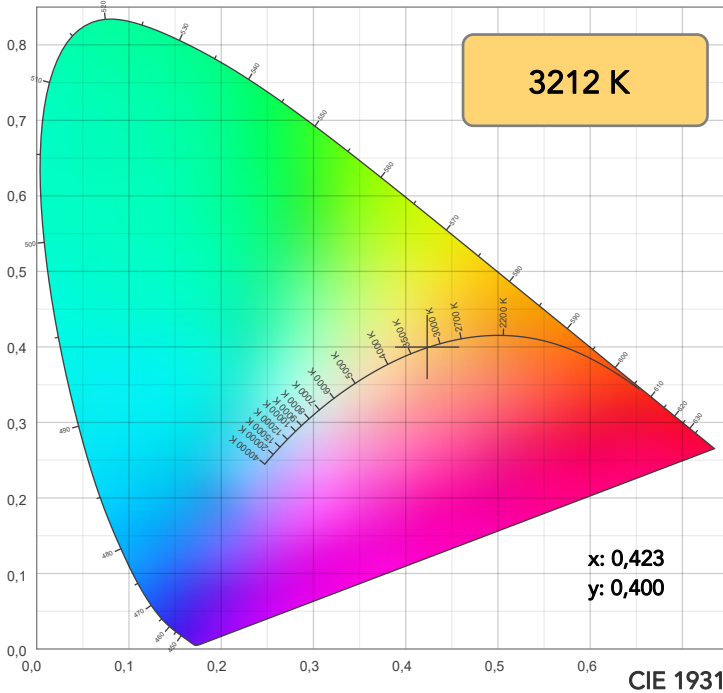
Date and time:

13/01/2023 15:19:33



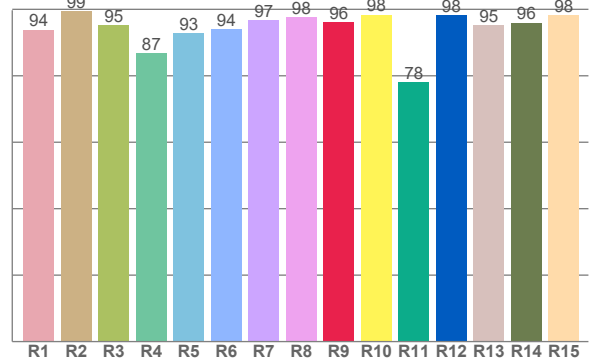
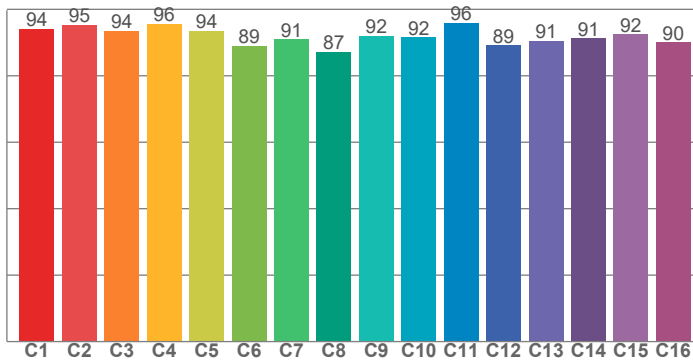
Spectra





TM30: 92,6

CRI: 94,5 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93,8	99,5	95,2	86,7	92,9	93,9	96,7	97,7	96,1	98,4	78,1	98,2	95,3	96,0	98,3

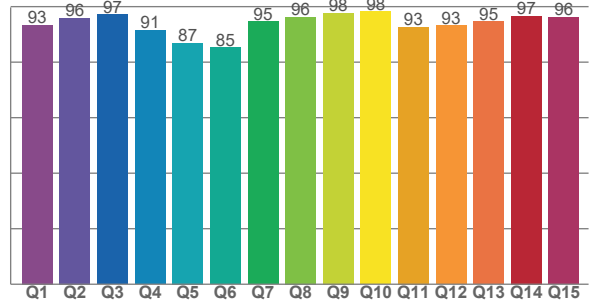
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,1	95,3	93,5	95,5	93,6	89,0	90,9	87,1	91,9	91,5	95,9	89,2	90,5	91,2	92,4	90,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,4	96,0	97,1	91,5	86,8	85,3	94,6	96,3	97,6	98,2	92,6	93,1	94,6	96,6	96,2

CQS: 92,8



COLOR PARAMETERS

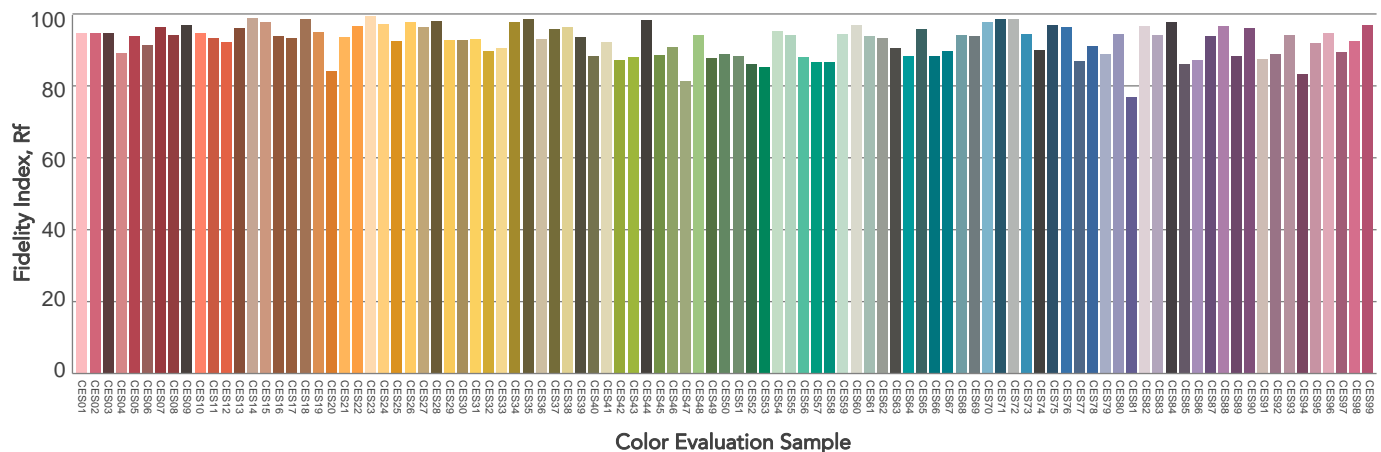
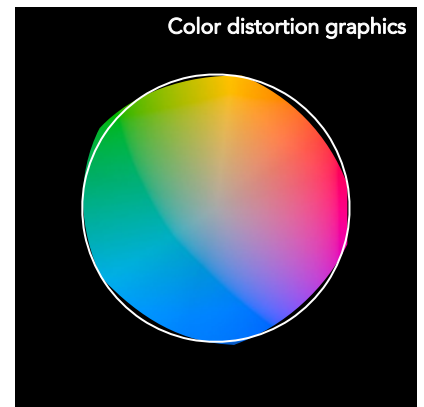
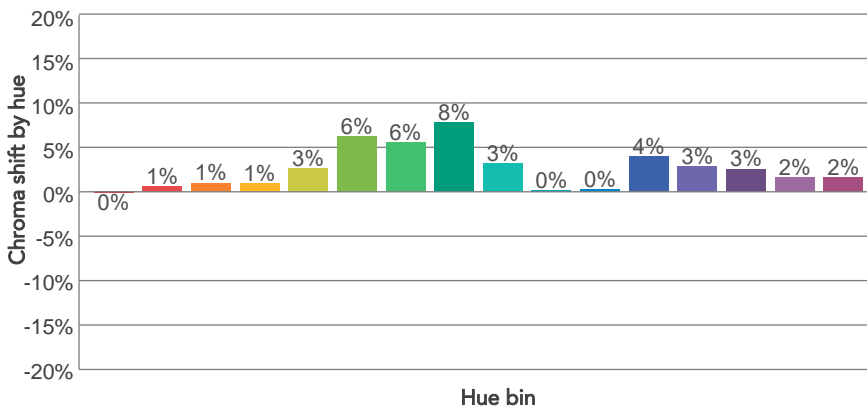
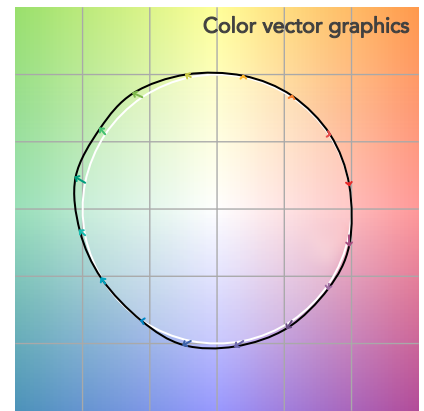
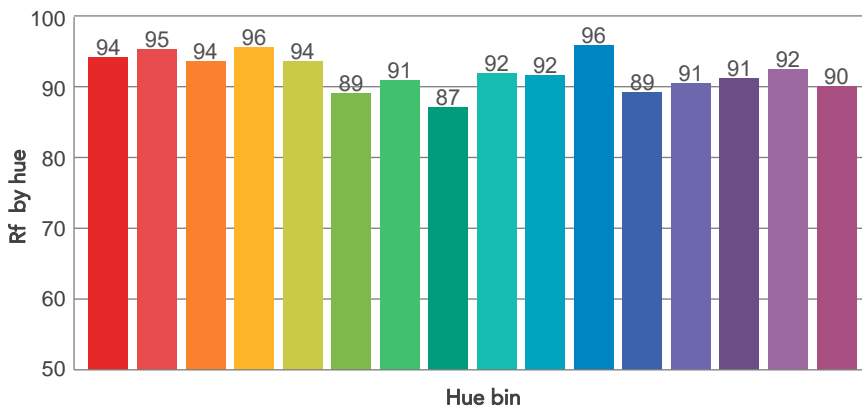
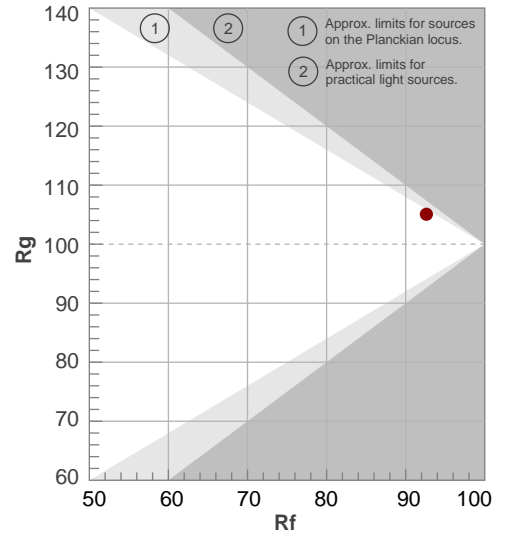
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3212 K	94,5	96,1	92,6	105,1	92,8	82	0,423	0,400	0,0004

TM30 DETAILS

Rf 92,6
Fidelity index Rf

Rg 105,1
Gammut index

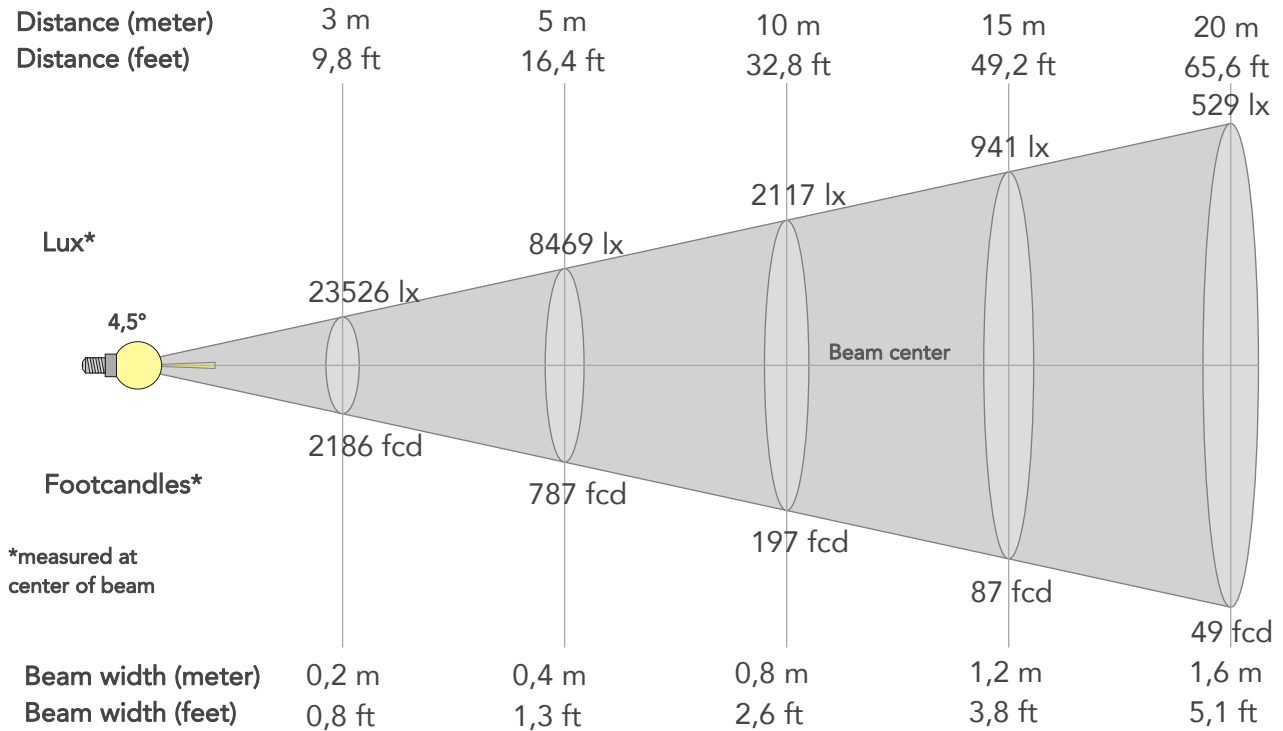
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	0%	-2%
2	95	1%	-1%
3	94	1%	0%
4	96	1%	0%
5	94	3%	3%
6	89	6%	4%
7	91	6%	-1%
8	87	8%	-3%
9	92	3%	-4%
10	92	0%	-5%
11	96	0%	-1%
12	89	4%	-5%
13	91	3%	-7%
14	91	3%	-6%
15	92	2%	-3%
16	90	2%	-7%



BEAM DETAILS



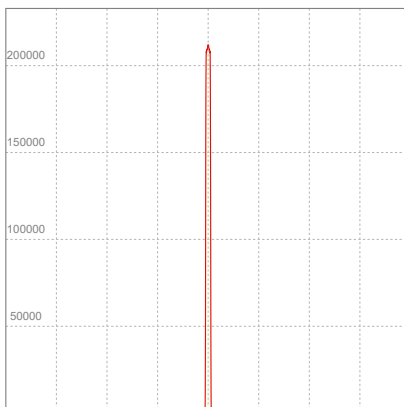
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,5°	5,1°	5,3°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	211736lx	52934lx	23526lx	13233lx	8469lx	3764lx	2117lx	941lx	529lx	339lx	235lx	132lx	85lx
Footcand.	19671fcd	4918fcd	2186fcd	1229fcd	787fcd	350fcd	197fcd	87fcd	49fcd	31fcd	22fcd	12fcd	8fcd
Beam wid.	0,1m	0,2m	0,2m	0,3m	0,4m	0,6m	0,8m	1,2m	1,6m	1,9m	2,3m	3,1m	3,9m
Beam wid.	0,3ft	0,5ft	0,8ft	1ft	1,3ft	1,9ft	2,6ft	3,8ft	5,1ft	6,4ft	7,7ft	10,2ft	12,8ft

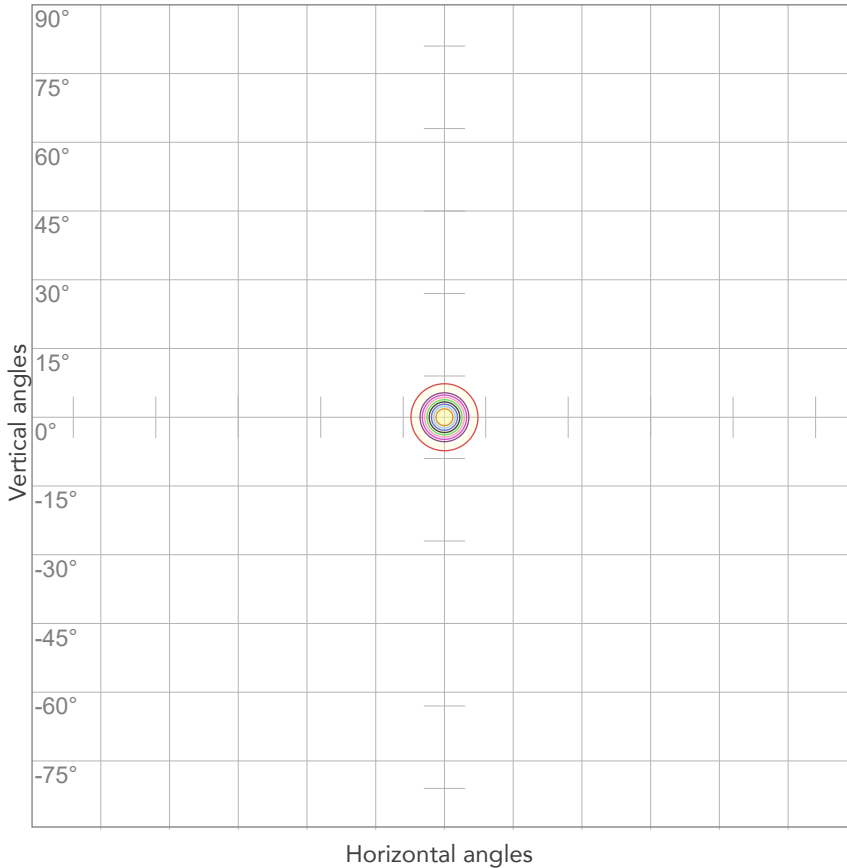
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,558A	108,2W	9lm/W

ISO CANDELA DIAGRAM



10%	21174 cd
20%	42347 cd
30%	63521 cd
40%	84694 cd
50%	105868 cd
60%	127041 cd
70%	148215 cd
80%	169389 cd

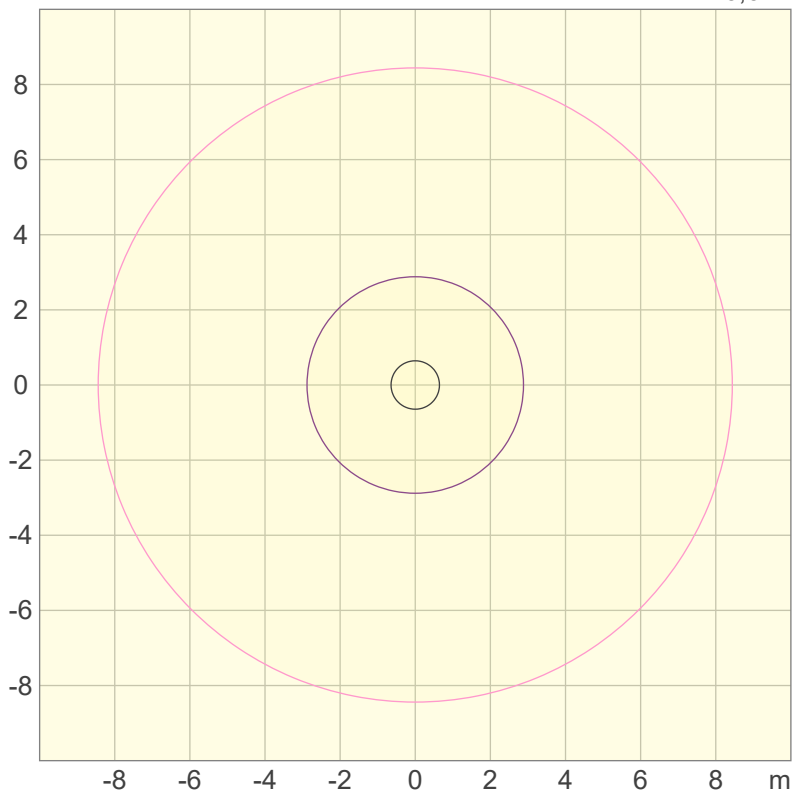
Conditions:

Number of c-planes: 2

Candela at center: 211736 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	63,5 lx
5%	106 lx
10%	212 lx
30%	635 lx
50%	1059 lx

Conditions:

Number of c-planes: 2

Lux at center: 2117 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

2146 lm

Peak candela output:

5087 cd

Light quality:

CRI: 94,9

Color temperature:

3989 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

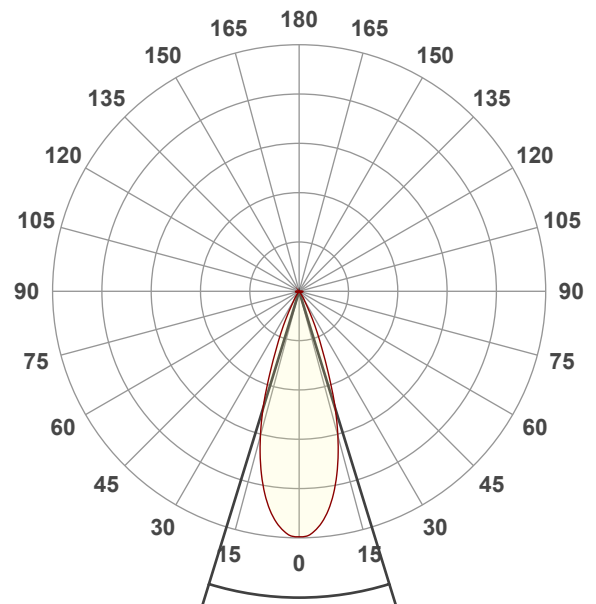
4000K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:43:22

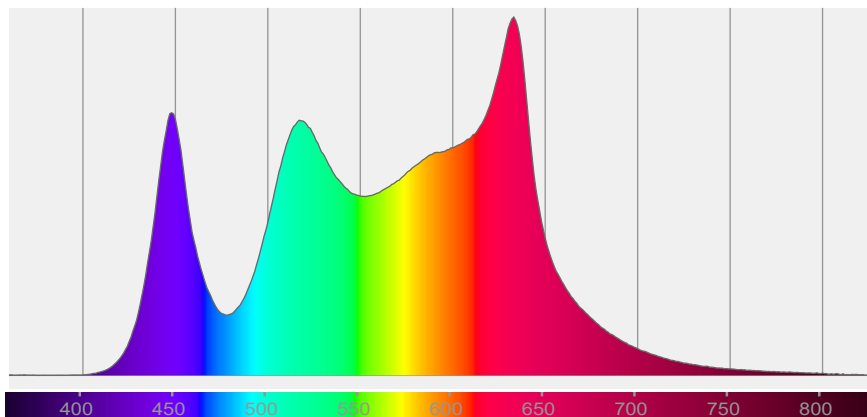


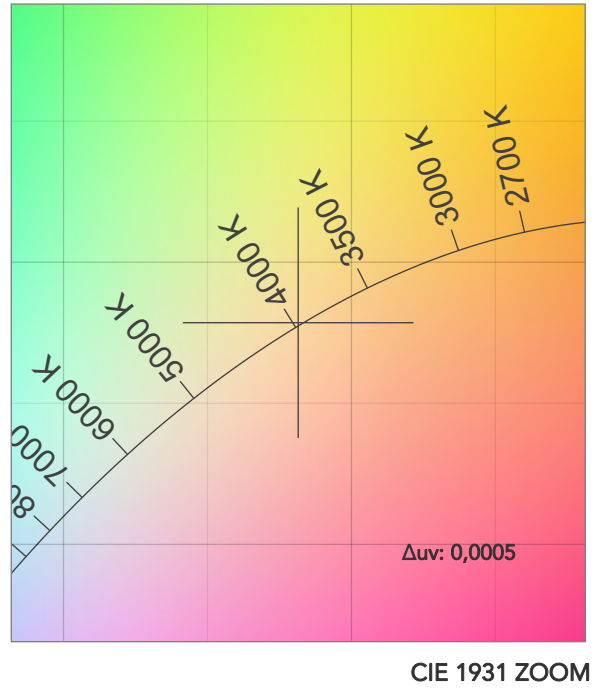
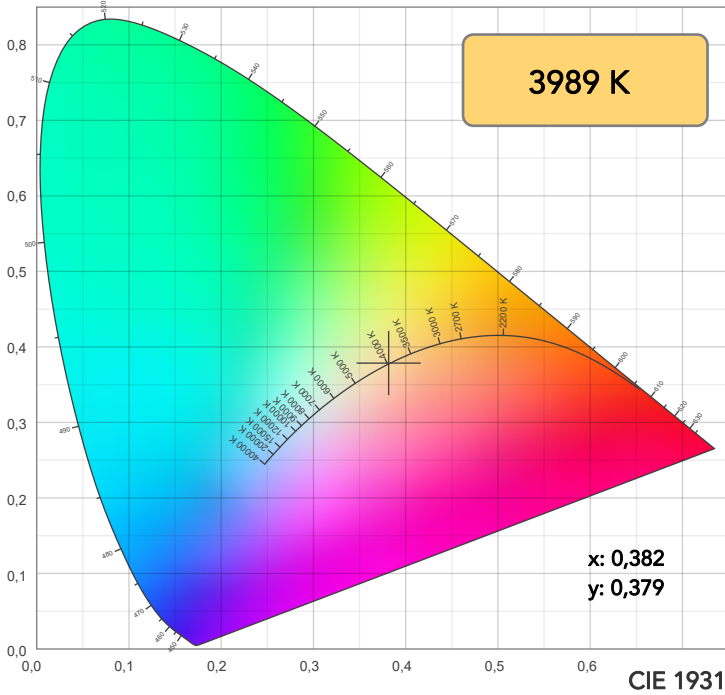
Beam angle 50%: 34,2°

Field angle 10%: 53,2°

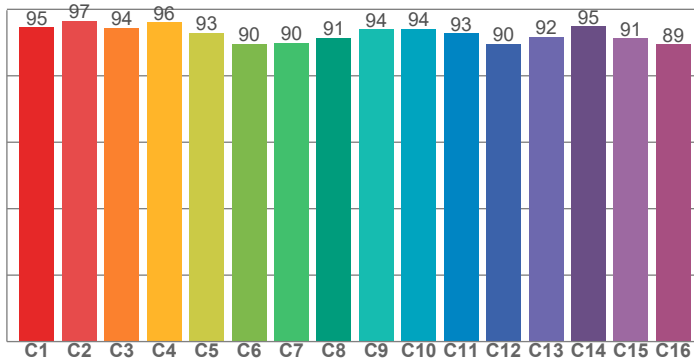
Cut off angle 2.5%: 66,3°

Spectra

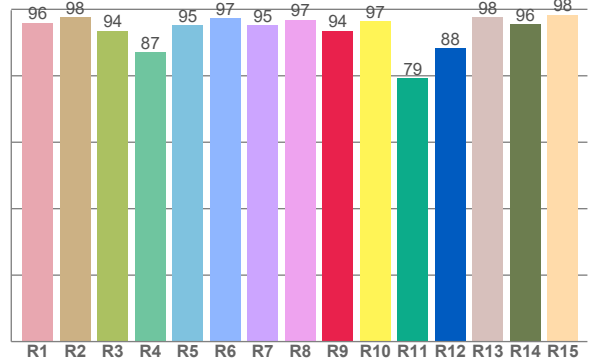




TM30: 93,0



CRI: 94,9 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96,0	97,7	93,6	87,1	95,2	97,4	95,1	96,8	93,6	96,5	79,3	88,3	97,5	95,6	98,3

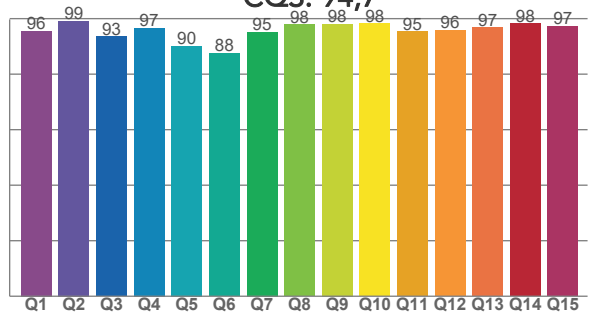
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,5	96,5	94,4	96,1	92,9	89,6	90,0	91,4	94,0	94,1	92,8	89,6	91,8	94,9	91,2	89,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,5	99,1	93,5	96,7	90,2	87,5	95,2	97,9	98,0	98,2	95,3	95,8	96,8	98,2	97,3

CQS: 94,7



COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3989 K	94,9	93,6	93,0	105,0	94,7	82	0,382	0,379	0,0005

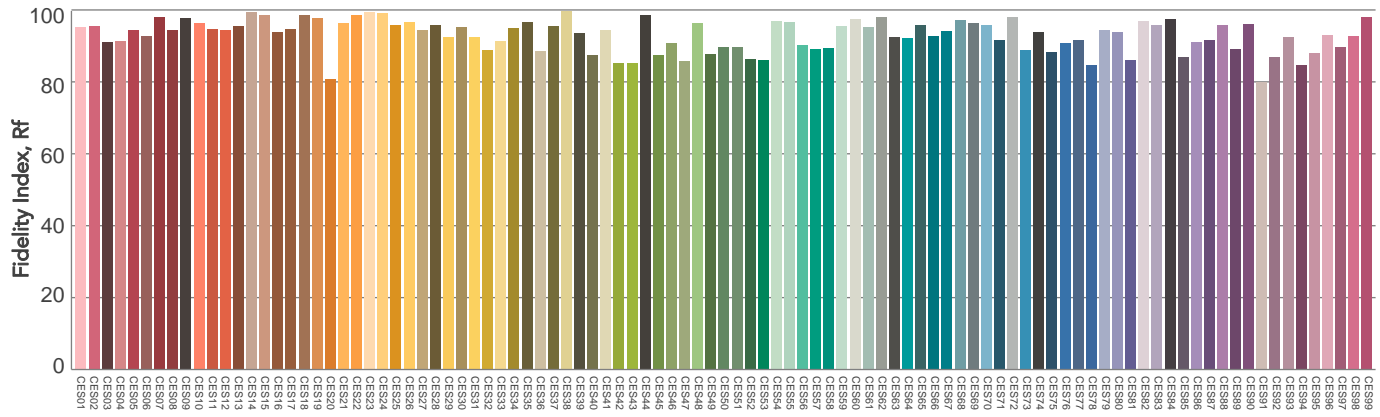
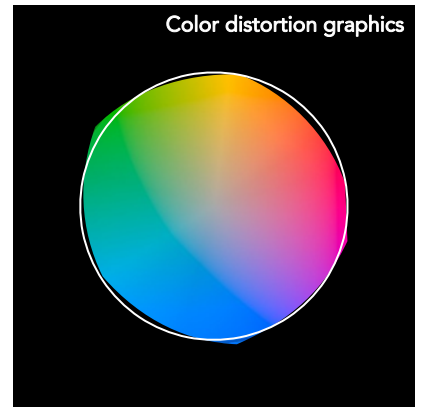
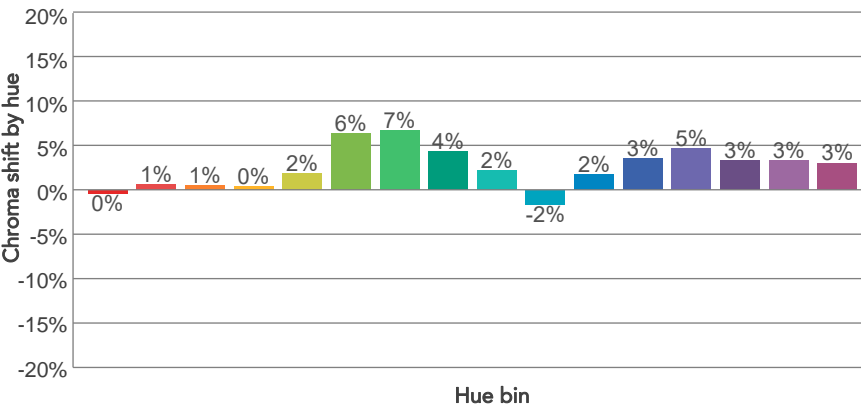
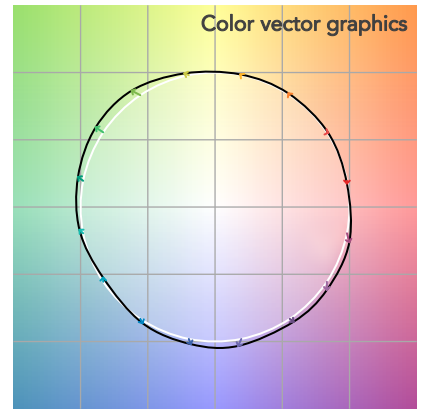
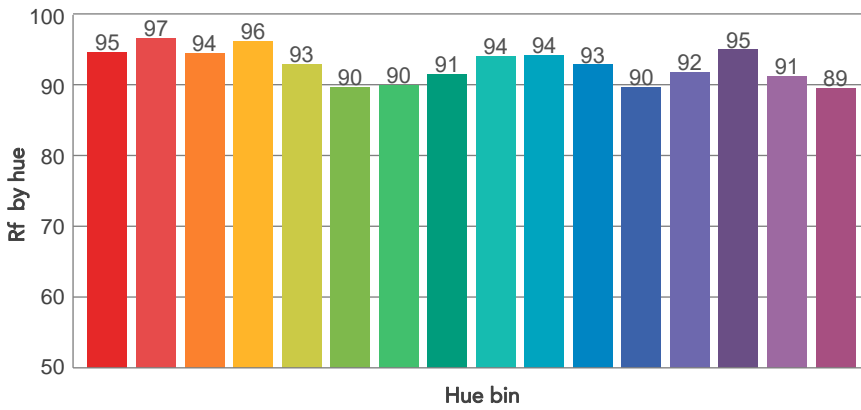
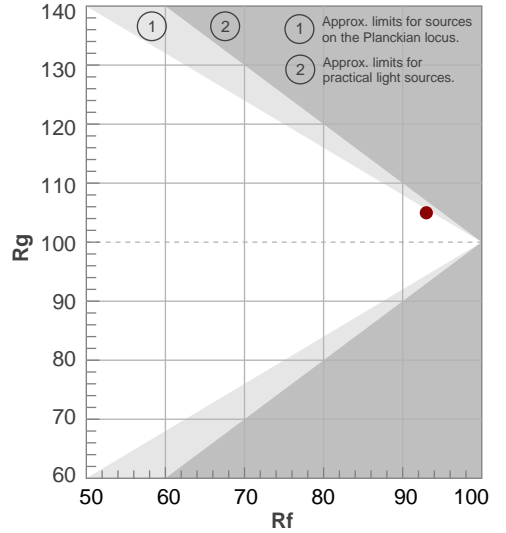
TM30 DETAILS



Rf 93,0
Fidelity index Rf

Rg 105,0
Gammut index

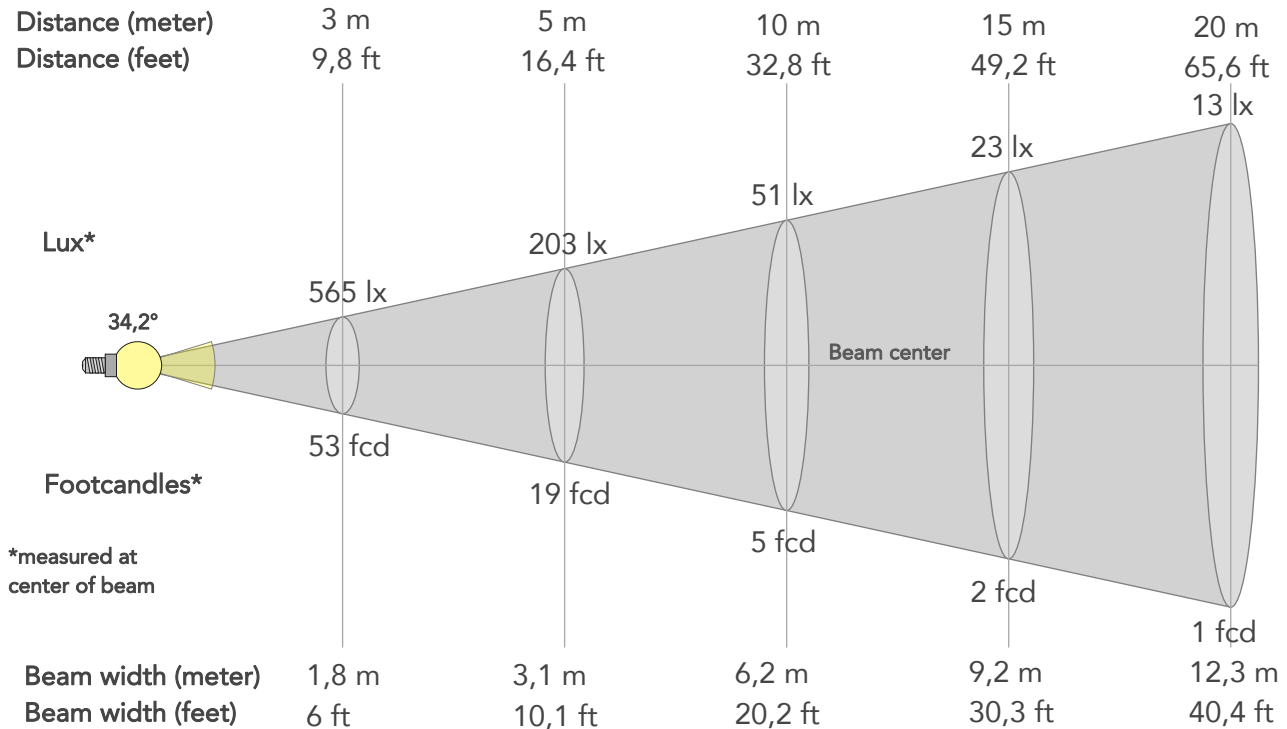
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	0%	-2%
2	97	1%	-1%
3	94	1%	2%
4	96	0%	1%
5	93	2%	3%
6	90	6%	3%
7	90	7%	0%
8	91	4%	-2%
9	94	2%	-3%
10	94	-2%	-3%
11	93	2%	3%
12	90	3%	2%
13	92	5%	-3%
14	95	3%	1%
15	91	3%	-5%
16	89	3%	-6%



BEAM DETAILS



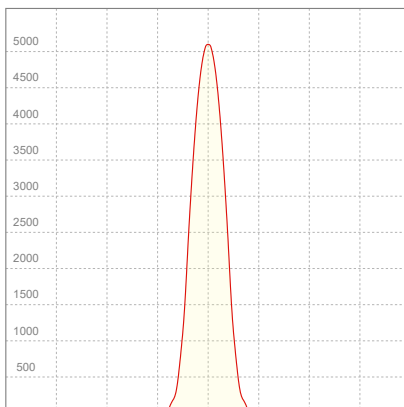
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,2°	53,2°	66,3°	78,3%	77,5%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	5087lx	1272lx	565lx	318lx	203lx	90lx	51lx	23lx	13lx	8lx	6lx	3lx	2lx
Footcand.	473fcd	118fcd	53fcd	30fcd	19fcd	8fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,5m	3,1m	4,6m	6,2m	9,2m	12,3m	15,4m	18,5m	24,6m	30,8m
Beam wid.	2ft	4,1ft	6ft	8,1ft	10,1ft	15,2ft	20,2ft	30,3ft	40,4ft	50,5ft	60,6ft	80,8ft	101,1ft

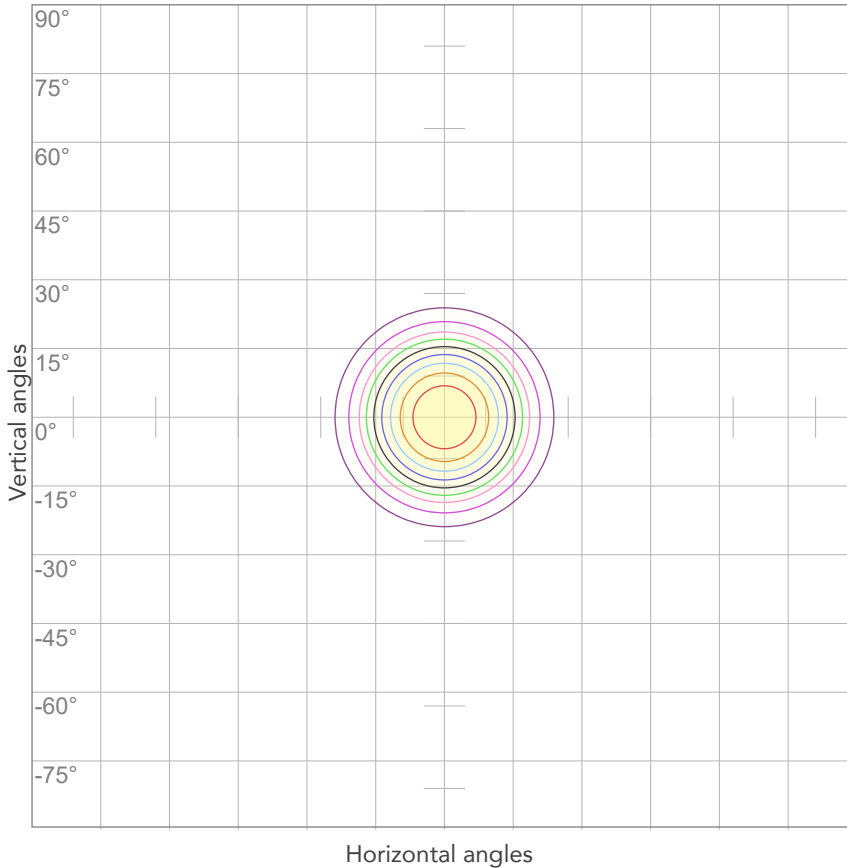
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,572A	111,5W	19lm/W

ISO CANDELA DIAGRAM



10%	509 cd
20%	1017 cd
30%	1526 cd
40%	2035 cd
50%	2544 cd
60%	3052 cd
70%	3561 cd
80%	4070 cd

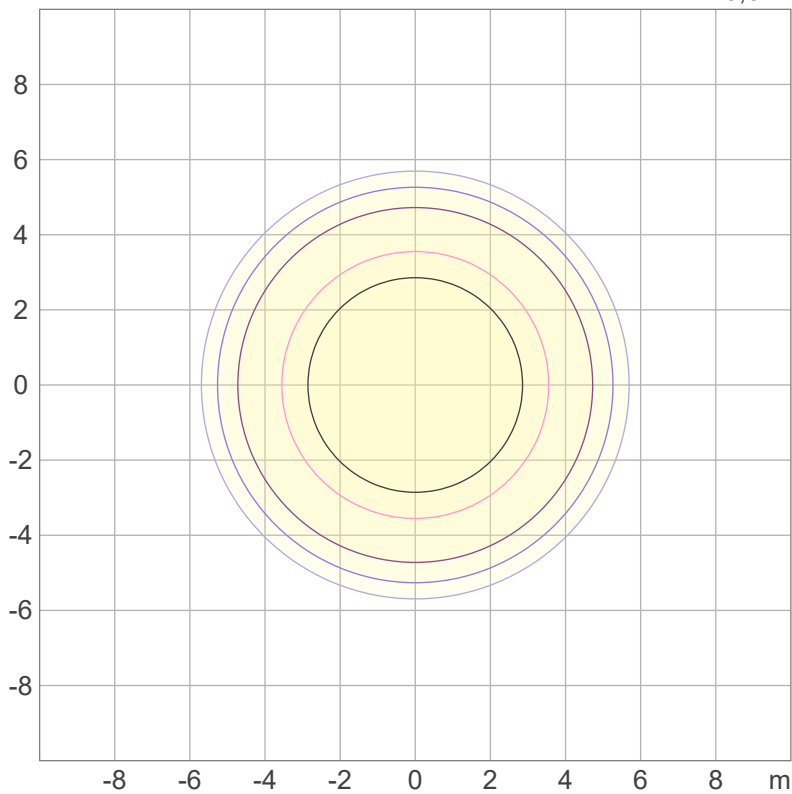
Conditions:

Number of c-planes: 2

Candela at center: 5087 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	1,53 lx
5%	2,54 lx
10%	5,09 lx
30%	15,3 lx
50%	25,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 50,9 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1996 lm

Peak candela output:

17853 cd

Light quality:

CRI: 94,9

Color temperature:

4005 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

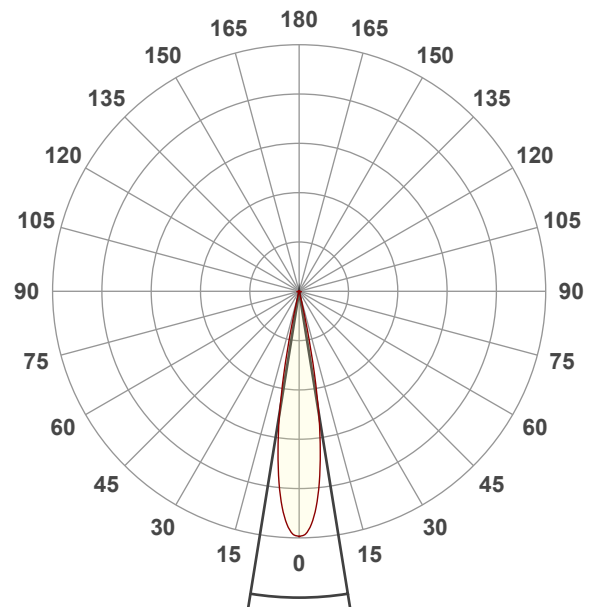
4000K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 16:17:59

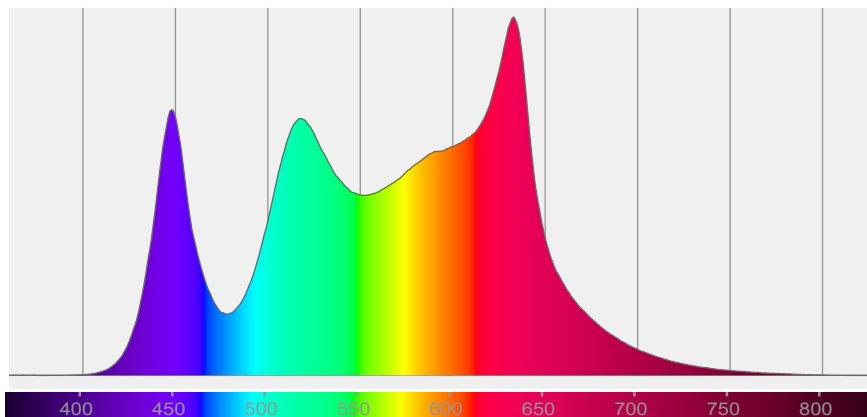


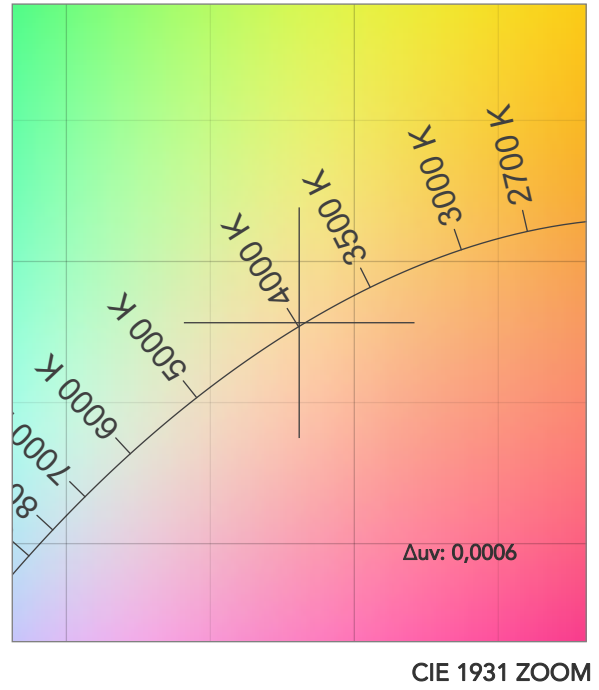
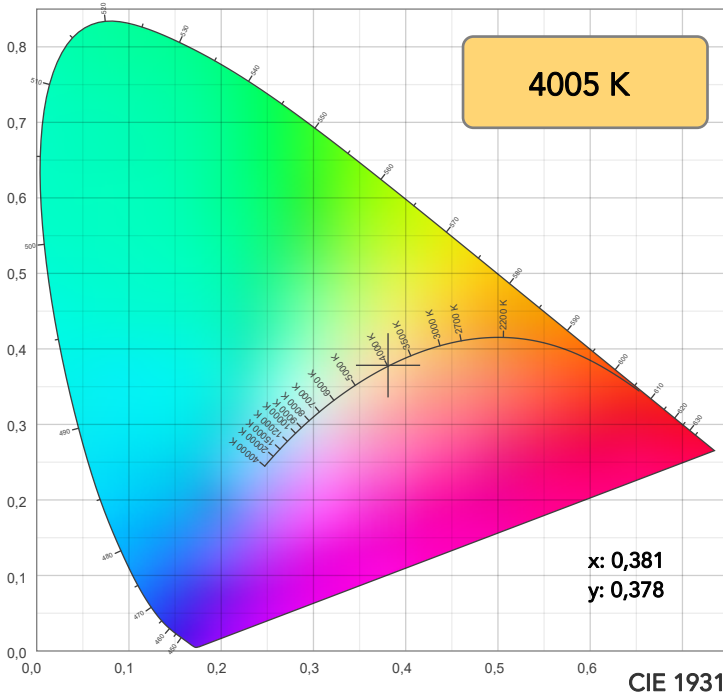
Beam angle 50%: 18,3°

Field angle 10%: 25,6°

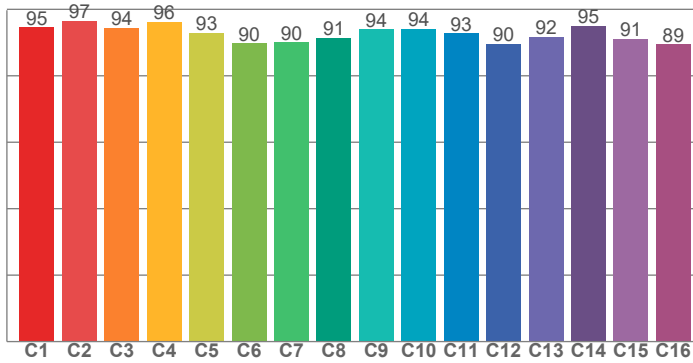
Cut off angle 2.5%: 28,2°

Spectra

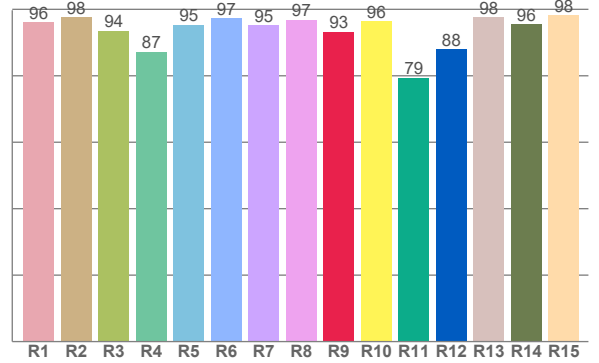




TM30: 93,0



CRI: 94,9 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96,0	97,7	93,6	87,2	95,3	97,4	95,2	96,9	93,2	96,4	79,4	88,1	97,6	95,6	98,3

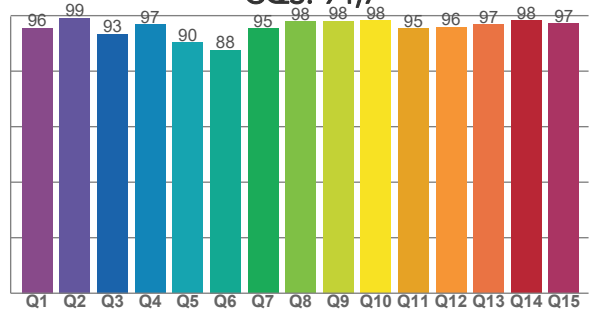
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,5	96,6	94,4	96,2	92,9	89,7	90,1	91,5	94,0	94,2	92,7	89,5	91,7	95,0	91,2	89,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,5	99,1	93,4	96,8	90,3	87,7	95,3	97,9	98,0	98,2	95,3	95,8	96,8	98,2	97,2

CQS: 94,7



COLOR PARAMETERS

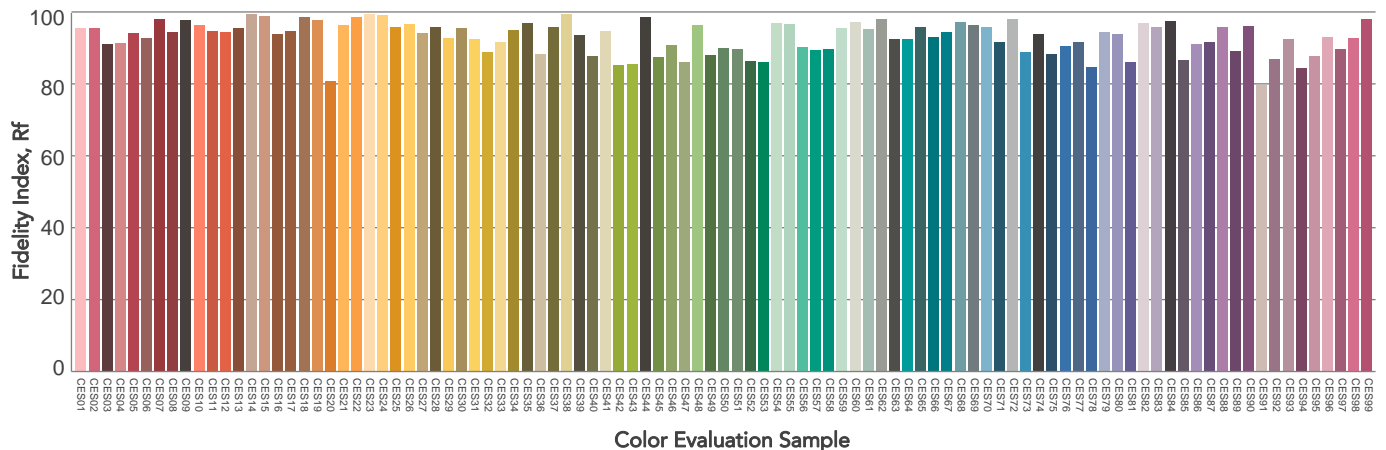
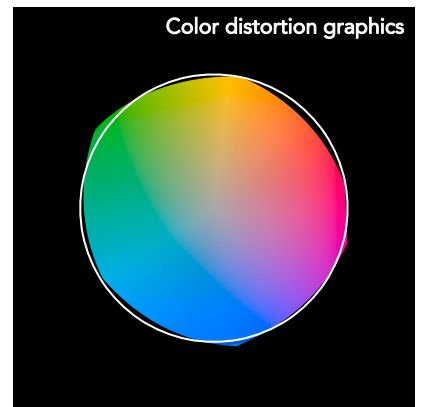
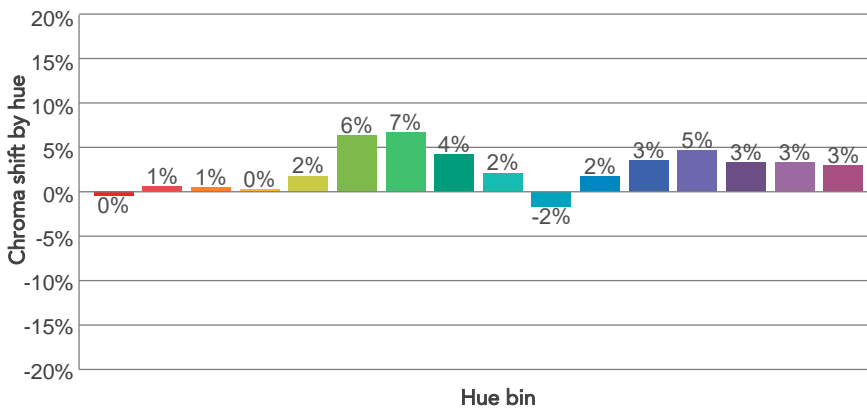
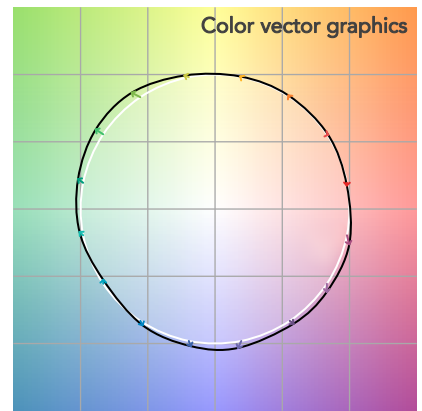
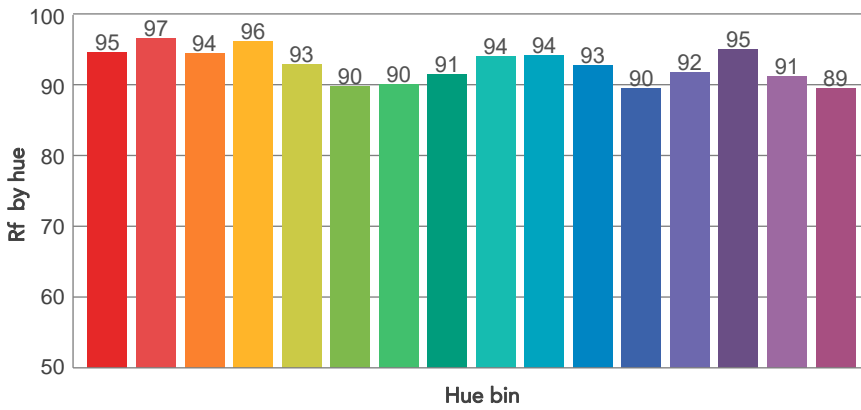
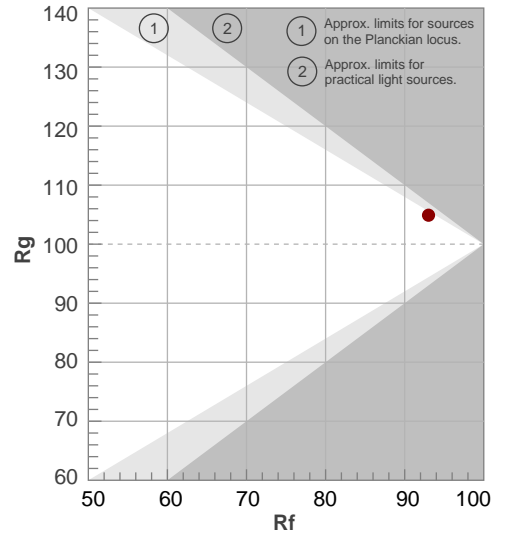
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4005 K	94,9	93,2	93,0	104,9	94,7	82	0,381	0,378	0,0006

TM30 DETAILS

Rf 93,0
Fidelity index Rf

Rg 104,9
Gammut index

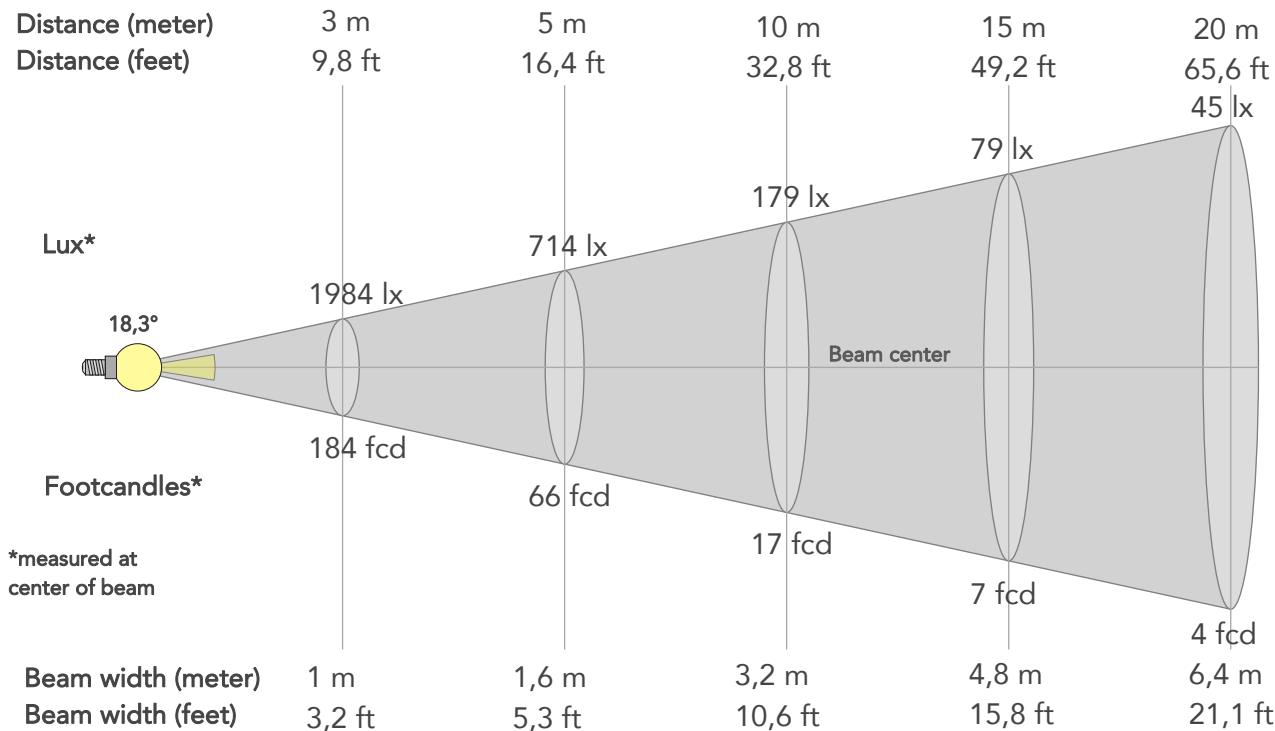
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	0%	-2%
2	97	1%	-1%
3	94	1%	2%
4	96	0%	1%
5	93	2%	3%
6	90	6%	3%
7	90	7%	0%
8	91	4%	-2%
9	94	2%	-3%
10	94	-2%	-2%
11	93	2%	3%
12	90	3%	2%
13	92	5%	-3%
14	95	3%	1%
15	91	3%	-5%
16	89	3%	-6%



BEAM DETAILS



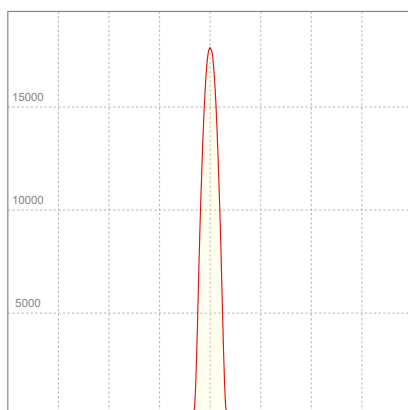
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,3°	25,6°	28,2°	74,2%	74,2%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	17853lx	4463lx	1984lx	1116lx	714lx	317lx	179lx	79lx	45lx	29lx	20lx	11lx	7lx
Footcand.	1659fcd	415fcd	184fcd	104fcd	66fcd	29fcd	17fcd	7fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8m	9,7m	12,9m	16,1m
Beam wid.	1,1ft	2,1ft	3,2ft	4,2ft	5,3ft	7,9ft	10,6ft	15,8ft	21,1ft	26,4ft	31,7ft	42,2ft	52,8ft

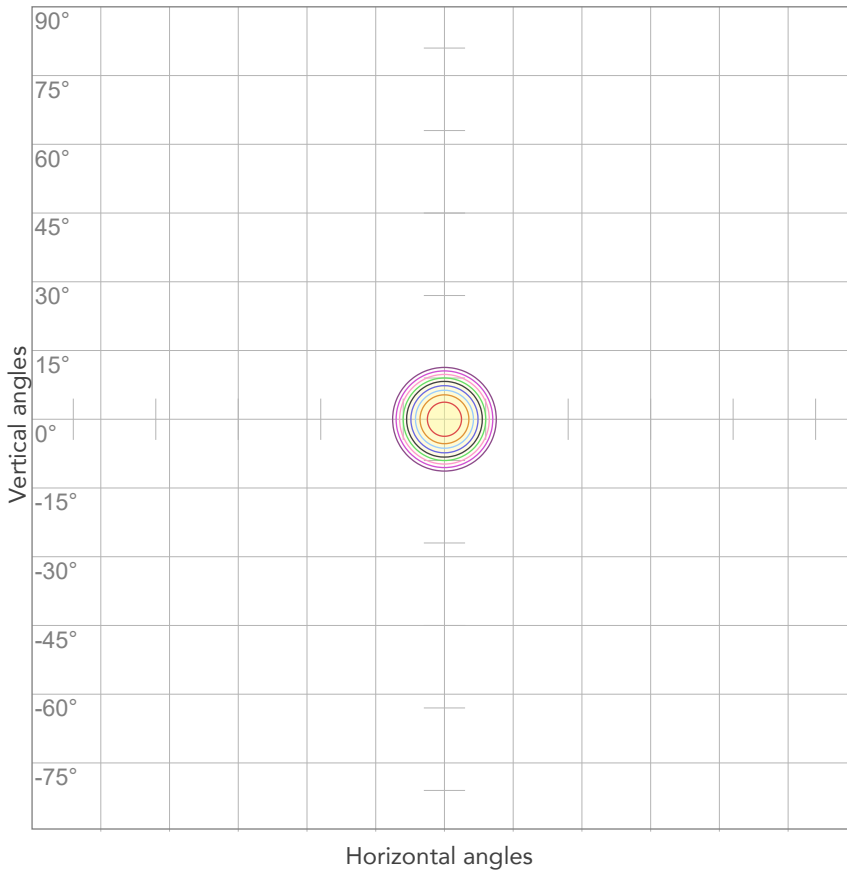
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,576A	112,7W	18lm/W

ISO CANDELA DIAGRAM



10%	1785 cd
20%	3571 cd
30%	5356 cd
40%	7141 cd
50%	8927 cd
60%	10712 cd
70%	12497 cd
80%	14283 cd

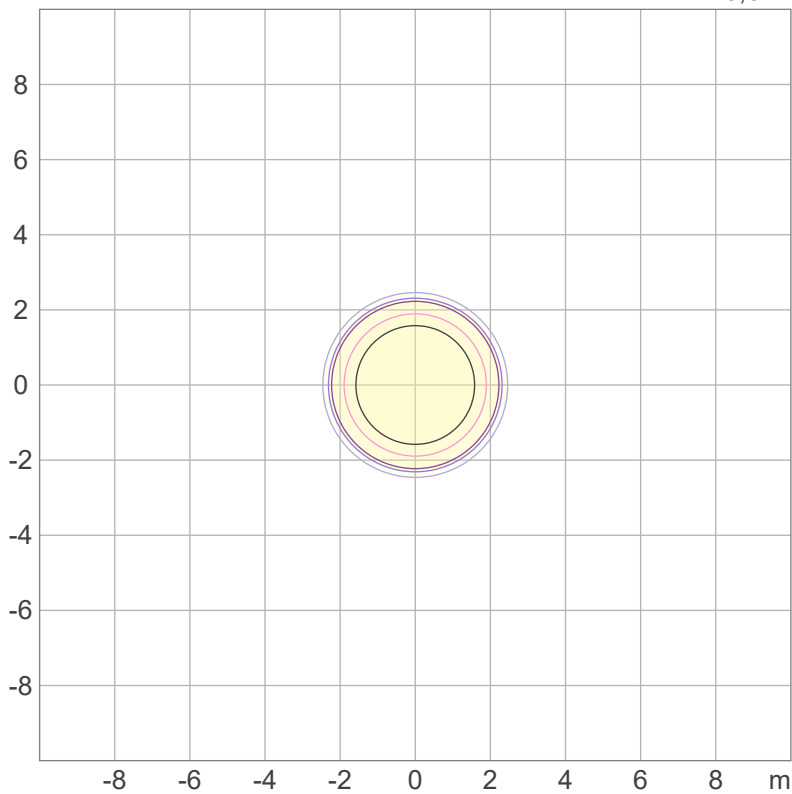
Conditions:

Number of c-planes: 2

Candela at center: 17853 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	5,36 lx
5%	8,93 lx
10%	17,9 lx
30%	53,6 lx
50%	89,3 lx

Conditions:

Number of c-planes: 2

Lux at center: 179 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1022 lm

Peak candela output:

215028 cd

Light quality:

CRI: 94,8

Color temperature:

3993 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

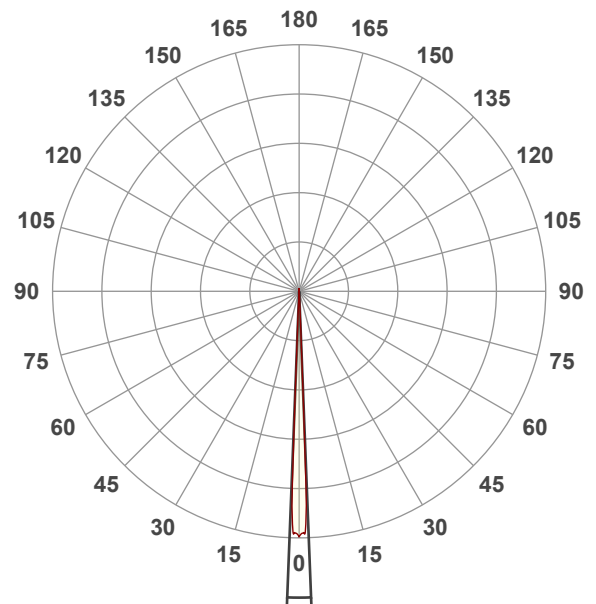
4000K

Operator:

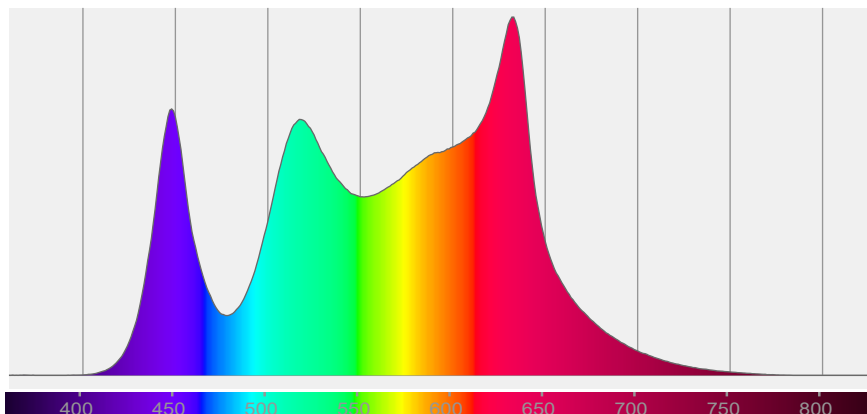
Salvatore Giglio

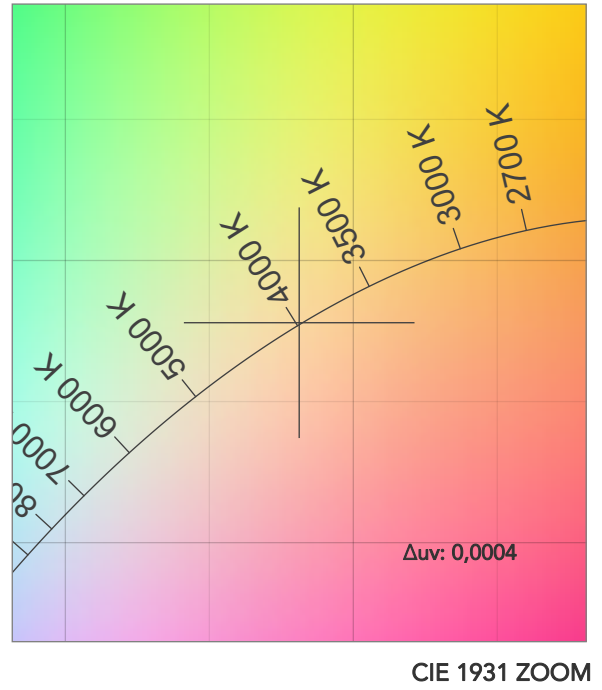
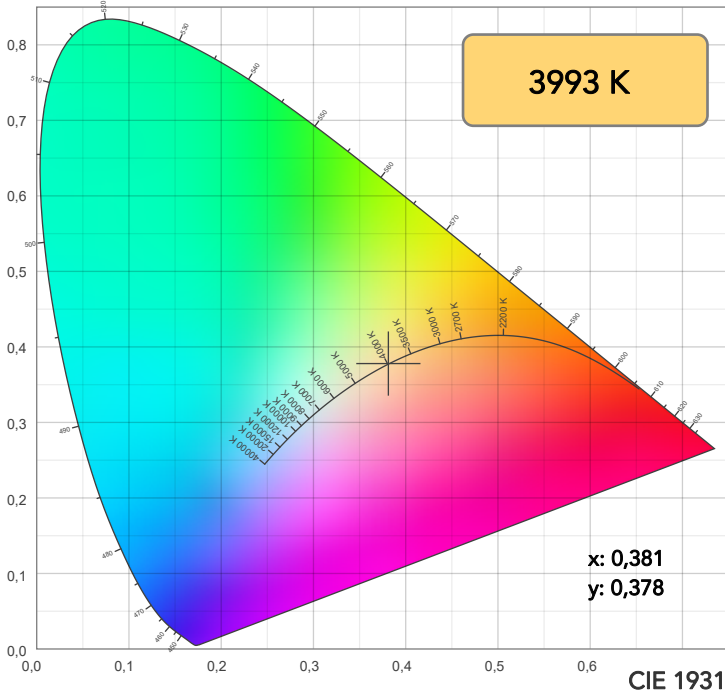
Date and time:

13/01/2023 15:26:32

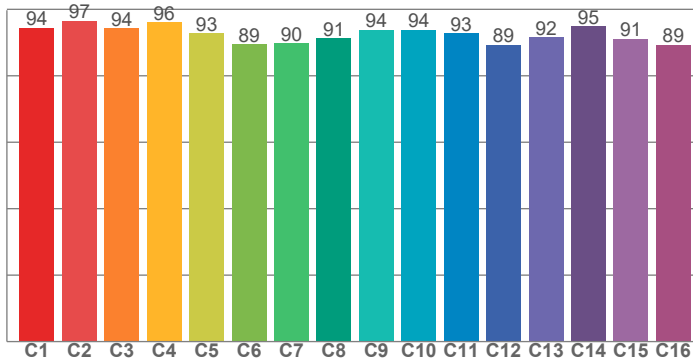


Spectra

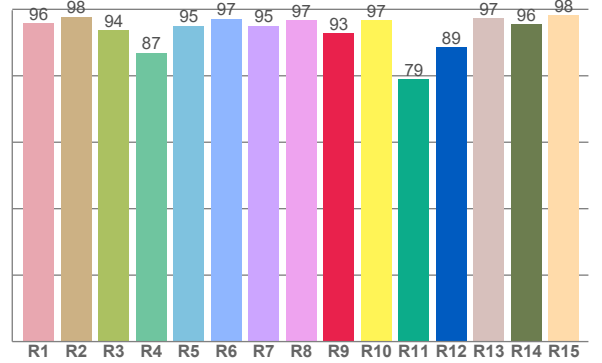




TM30: 92,9



CRI: 94,8 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95,8	97,8	93,7	86,9	95,1	97,2	95,1	96,8	92,9	96,7	78,9	88,6	97,4	95,6	98,3

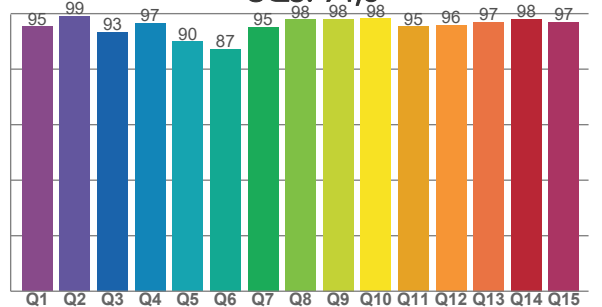
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,4	96,5	94,3	96,0	92,8	89,4	89,7	91,3	93,8	93,9	92,8	89,4	91,6	94,9	91,1	89,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,3	99,1	93,5	96,6	90,0	87,3	95,2	97,8	98,0	98,2	95,4	95,9	96,9	98,0	97,0

CQS: 94,6



COLOR PARAMETERS

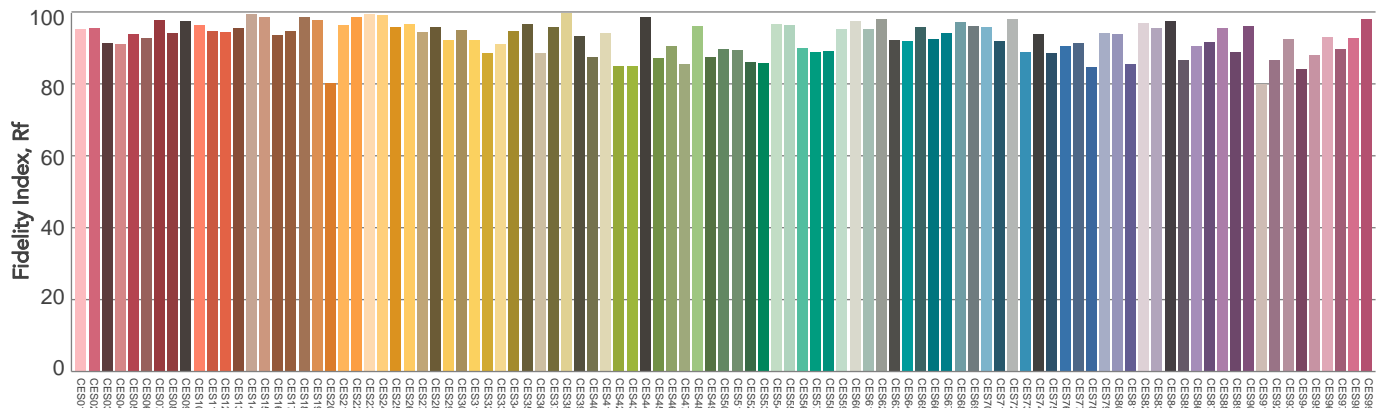
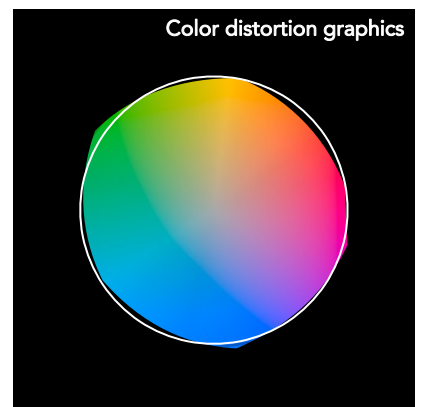
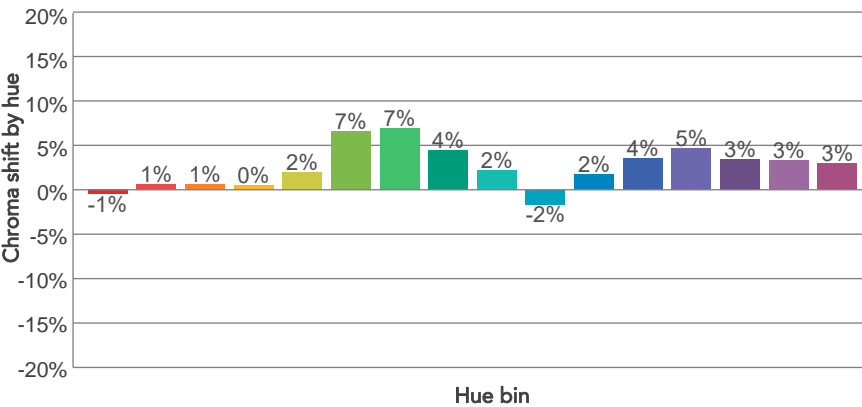
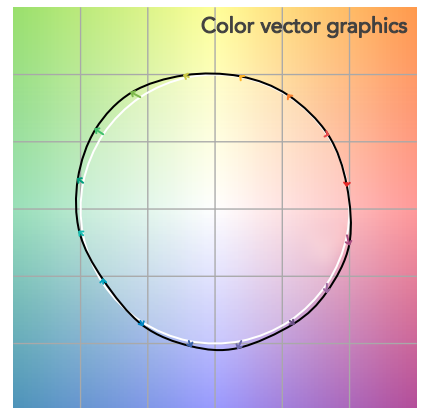
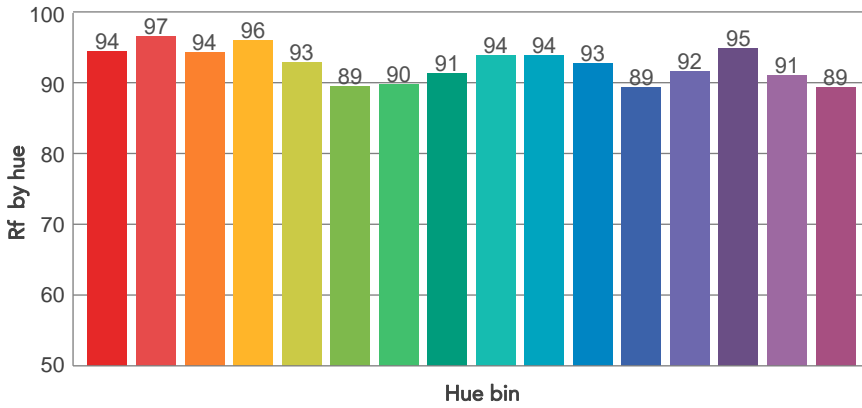
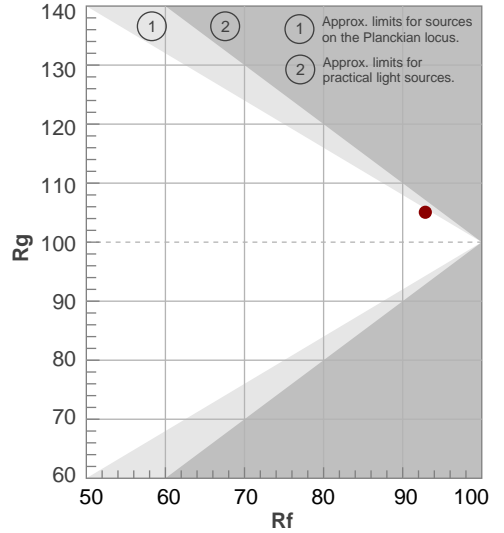
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3993 K	94,8	92,9	92,9	105,1	94,6	82	0,381	0,378	0,0004

TM30 DETAILS

Rf 92,9
Fidelity index Rf

Rg 105,1
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	-1%	-2%
2	97	1%	-1%
3	94	1%	2%
4	96	0%	1%
5	93	2%	3%
6	89	7%	4%
7	90	7%	0%
8	91	4%	-2%
9	94	2%	-3%
10	94	-2%	-3%
11	93	2%	3%
12	89	4%	2%
13	92	5%	-3%
14	95	3%	1%
15	91	3%	-5%
16	89	3%	-6%

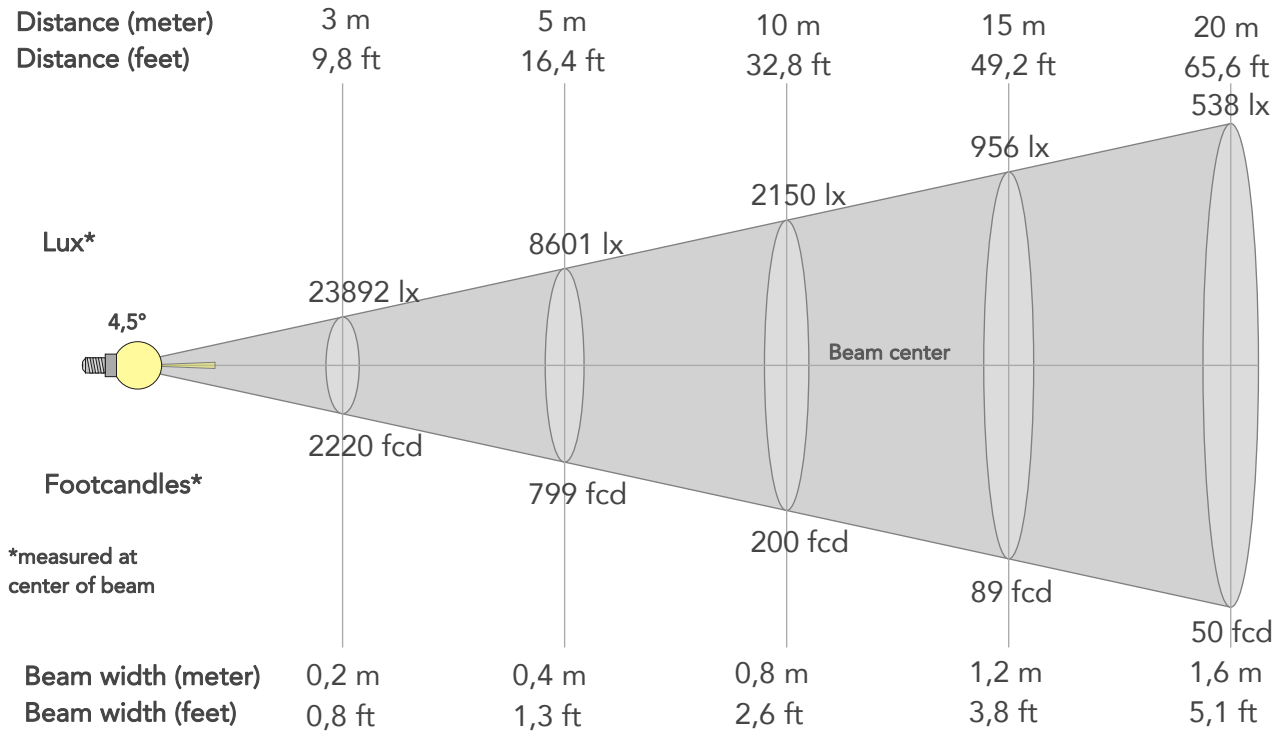


Color Evaluation Sample

BEAM DETAILS



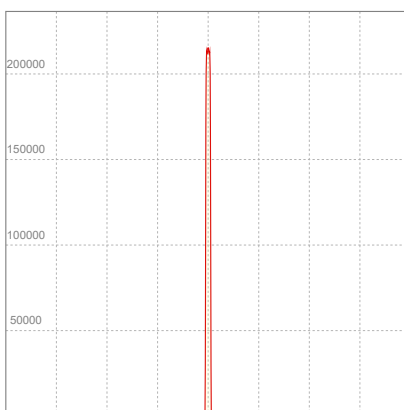
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,5°	5,3°	5,8°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	215028lx	53757lx	23892lx	13439lx	8601lx	3823lx	2150lx	956lx	538lx	344lx	239lx	134lx	86lx
Footcand.	19977fcd	4994fcd	2220fcd	1249fcd	799fcd	355fcd	200fcd	89fcd	50fcd	32fcd	22fcd	12fcd	8fcd
Beam wid.	0,1m	0,2m	0,2m	0,3m	0,4m	0,6m	0,8m	1,2m	1,6m	1,9m	2,3m	3,1m	3,9m
Beam wid.	0,3ft	0,5ft	0,8ft	1ft	1,3ft	1,9ft	2,6ft	3,8ft	5,1ft	6,4ft	7,7ft	10,2ft	12,8ft

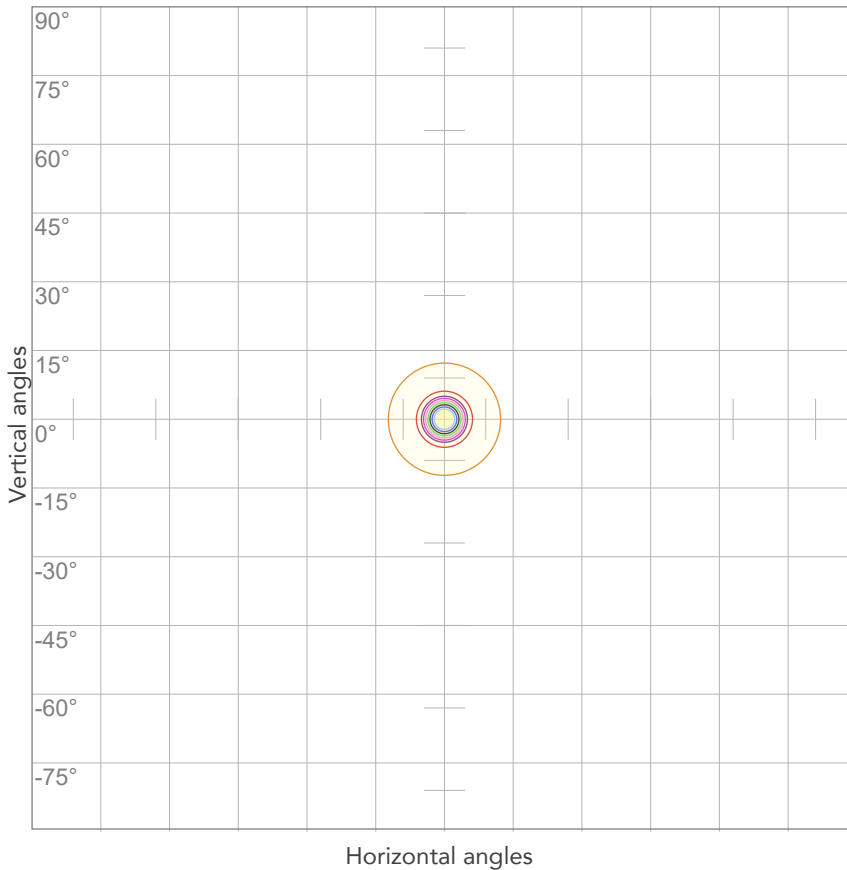
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,573A	111,9W	9lm/W

ISO CANDELA DIAGRAM



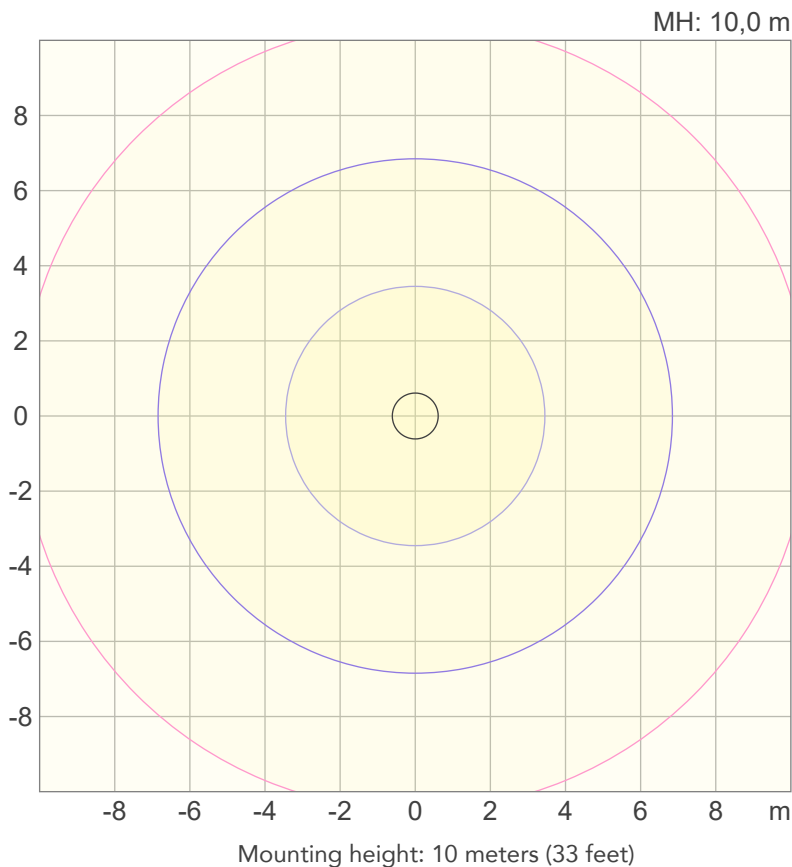
10%	21503 cd
20%	43006 cd
30%	64509 cd
40%	86011 cd
50%	107514 cd
60%	129017 cd
70%	150520 cd
80%	172023 cd

Conditions:

Number of c-planes: 2

Candela at center: 215028 cd

ISO LUX DIAGRAM



3%	64,5 lx
5%	108 lx
10%	215 lx
30%	645 lx
50%	1075 lx

Conditions:

Number of c-planes: 2

Lux at center: 2150 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

2132 lm

Peak candela output:

5336 cd

Light quality:

CRI: 92,9

Color temperature:

5627 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASURAMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

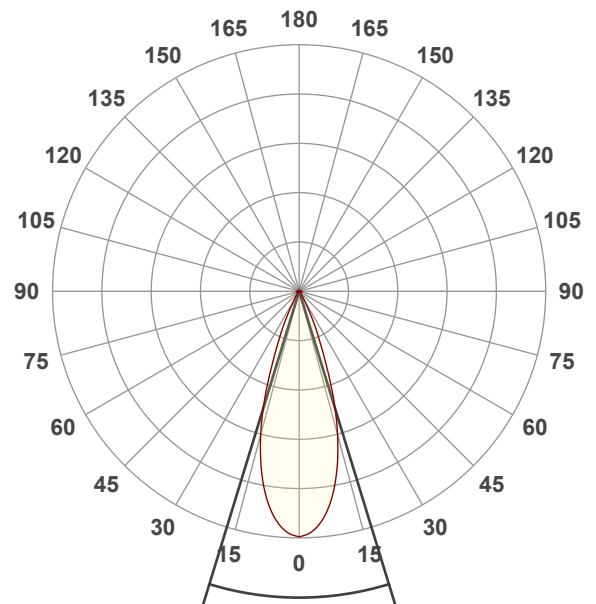
5600K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:40:06

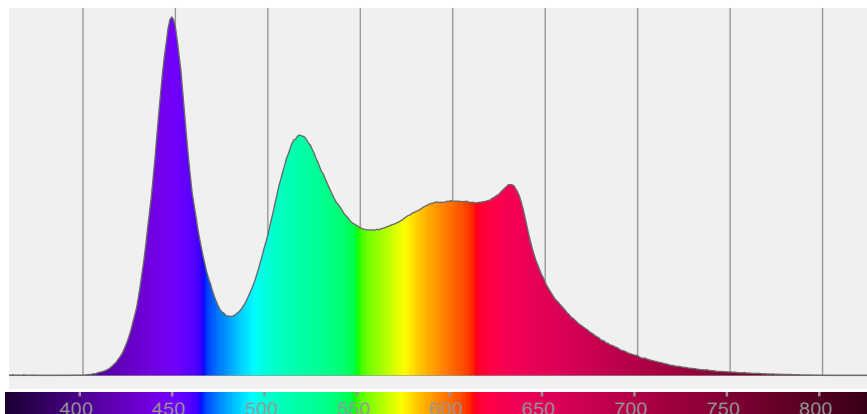


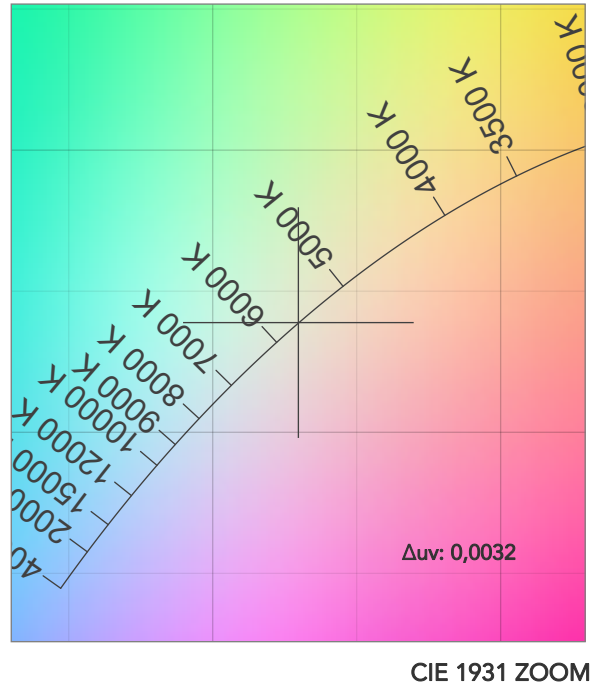
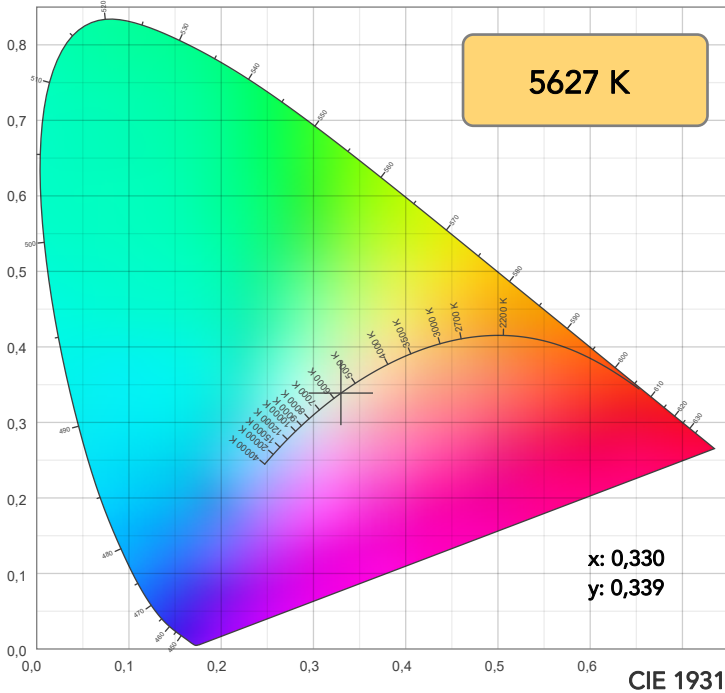
Beam angle 50%: 34,1°

Field angle 10%: 52,8°

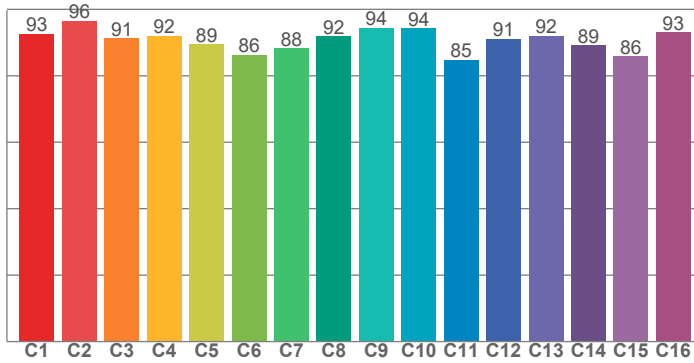
Cut off angle 2.5%: 65,3°

Spectra

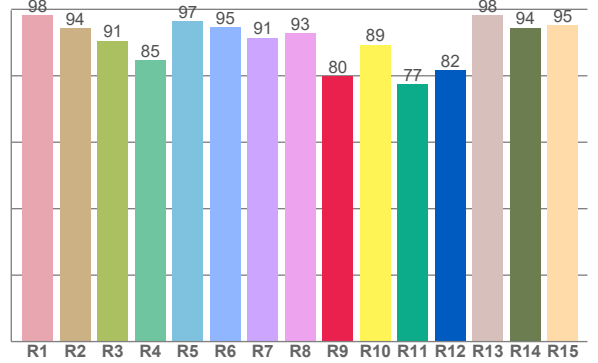




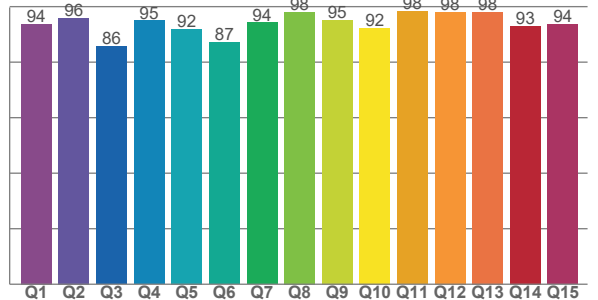
TM30: 90,6



CRI: 92,9 (R1-R8)



CQS: 93,0



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98,2	94,2	90,6	84,6	96,5	94,6	91,5	92,7	79,8	89,3	77,4	81,6	98,2	94,4	95,1

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,6	96,5	91,2	92,1	89,4	86,2	88,2	91,9	94,3	94,2	84,7	91,0	92,0	89,1	85,9	93,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,7	95,9	85,7	95,0	92,0	87,2	94,2	98,0	95,2	92,4	98,3	98,1	98,1	93,1	93,6

COLOR PARAMETERS

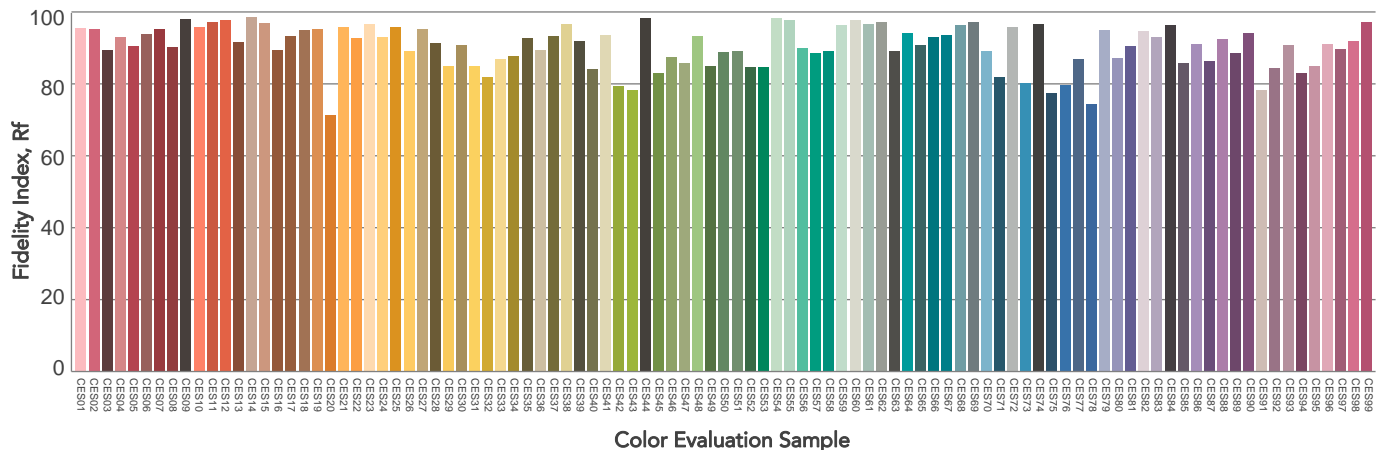
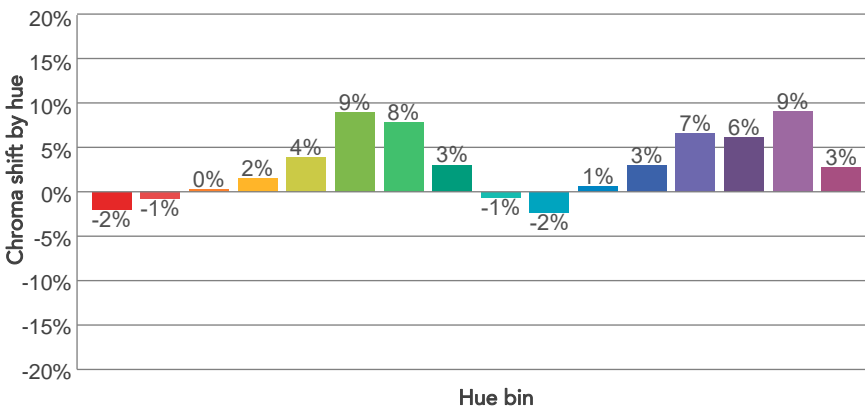
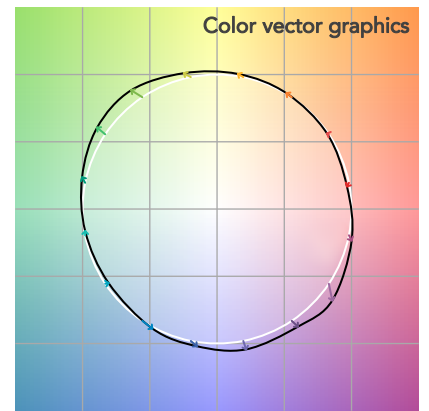
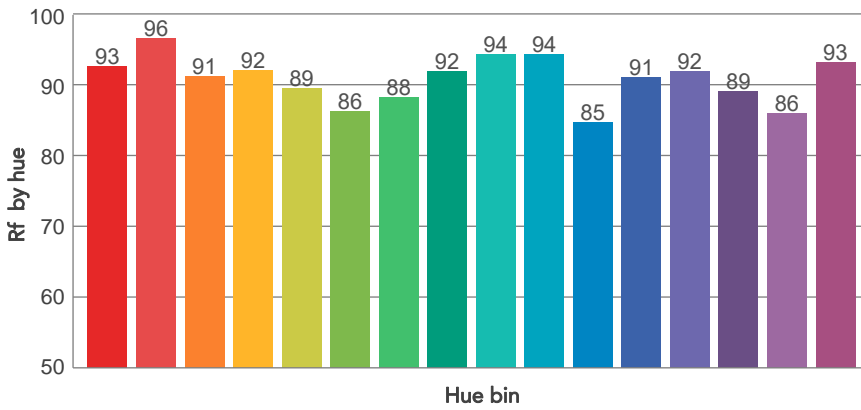
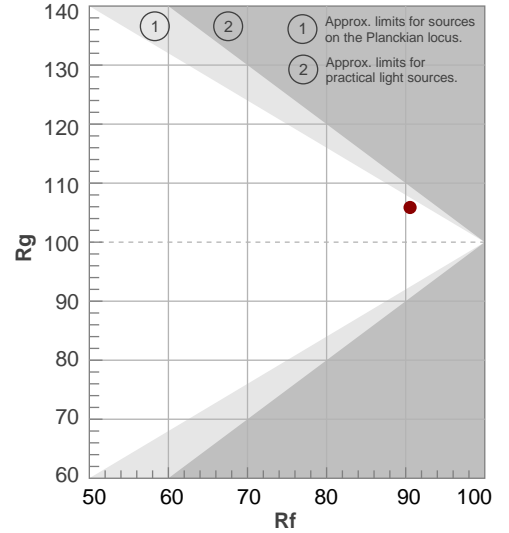
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5627 K	92,9	79,8	90,6	105,9	93,0	84	0,330	0,339	0,0032

TM30 DETAILS

Rf 90,6
Fidelity index Rf

Rg 105,9
Gammut index

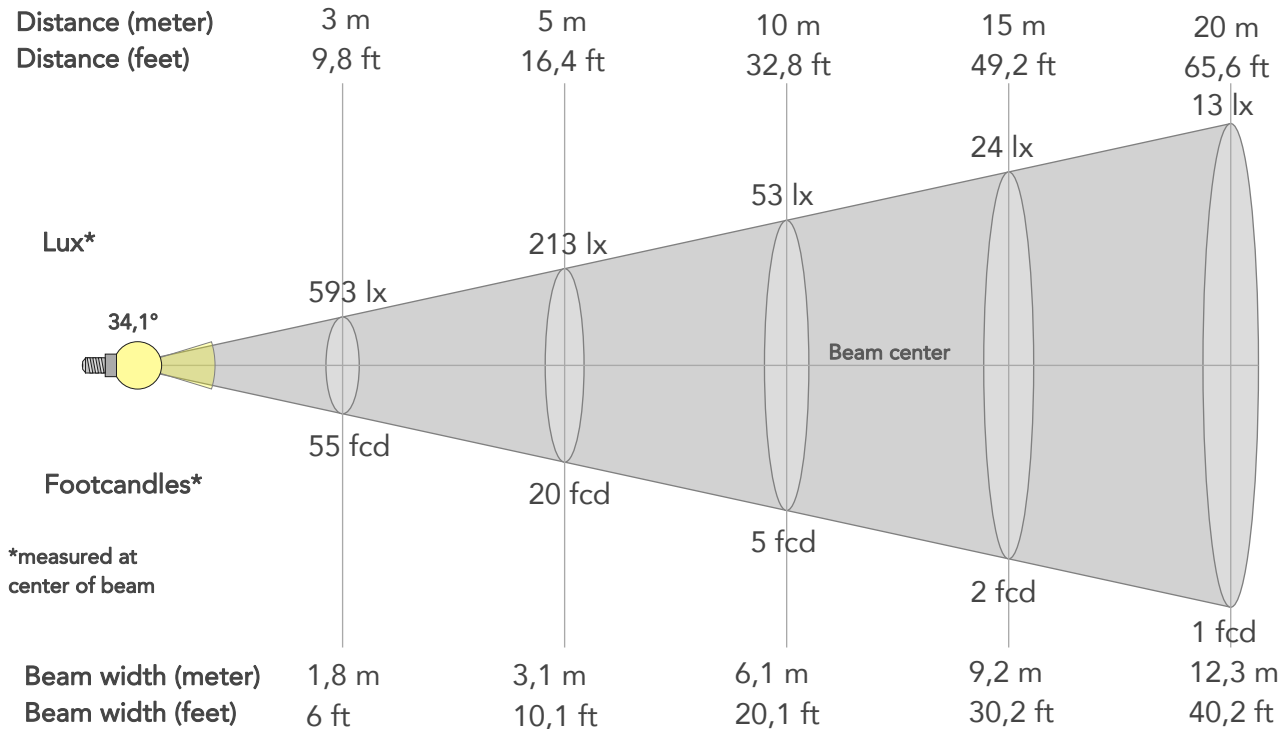
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-2%	-2%
2	96	-1%	1%
3	91	0%	5%
4	92	2%	4%
5	89	4%	5%
6	86	9%	4%
7	88	8%	-1%
8	92	3%	-4%
9	94	-1%	-3%
10	94	-2%	1%
11	85	1%	9%
12	91	3%	5%
13	92	7%	1%
14	89	6%	1%
15	86	9%	-9%
16	93	3%	-3%



BEAM DETAILS



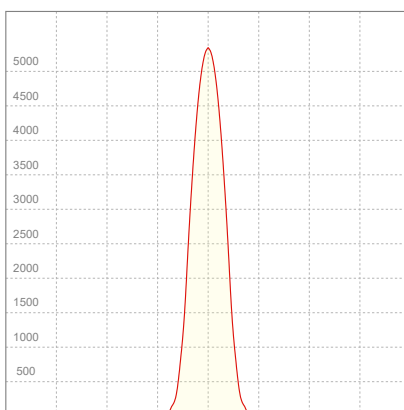
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,1°	52,8°	65,3°	81,0%	80,6%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	5336lx	1334lx	593lx	333lx	213lx	95lx	53lx	24lx	13lx	9lx	6lx	3lx	2lx
Footcand.	496fcd	124fcd	55fcd	31fcd	20fcd	9fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,5m	3,1m	4,6m	6,1m	9,2m	12,3m	15,3m	18,4m	24,5m	30,7m
Beam wid.	2ft	4ft	6ft	8ft	10,1ft	15,1ft	20,1ft	30,2ft	40,2ft	50,3ft	60,3ft	80,4ft	100,5ft

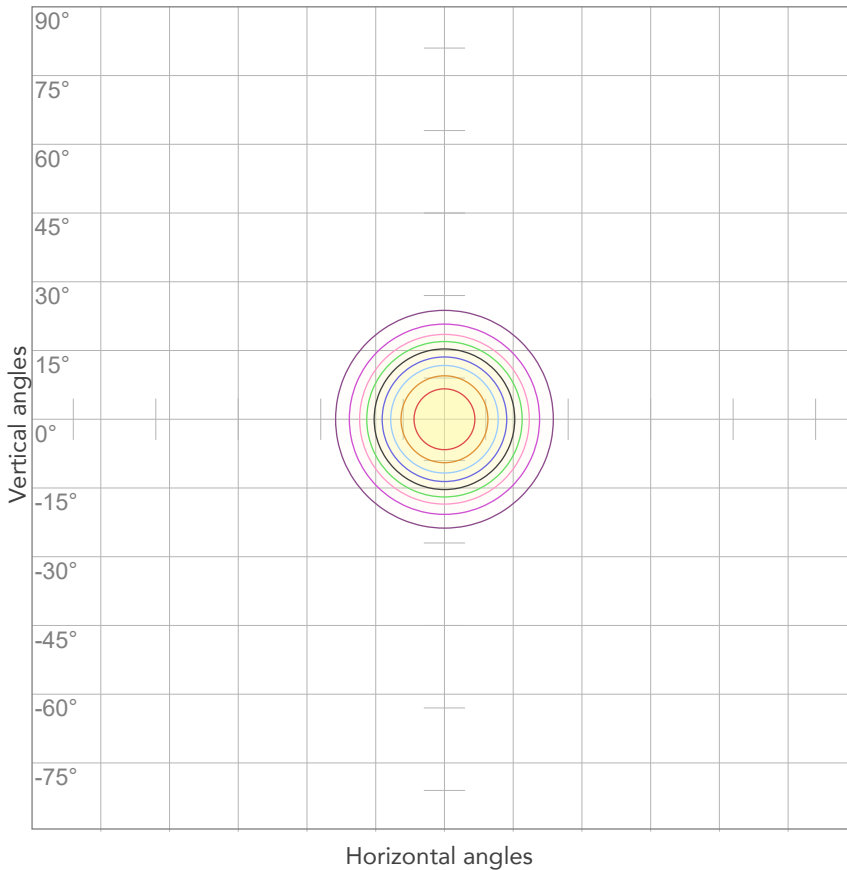
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,602A	118,6W	18lm/W

ISO CANDELA DIAGRAM



10%	534 cd
20%	1067 cd
30%	1601 cd
40%	2134 cd
50%	2668 cd
60%	3201 cd
70%	3735 cd
80%	4268 cd

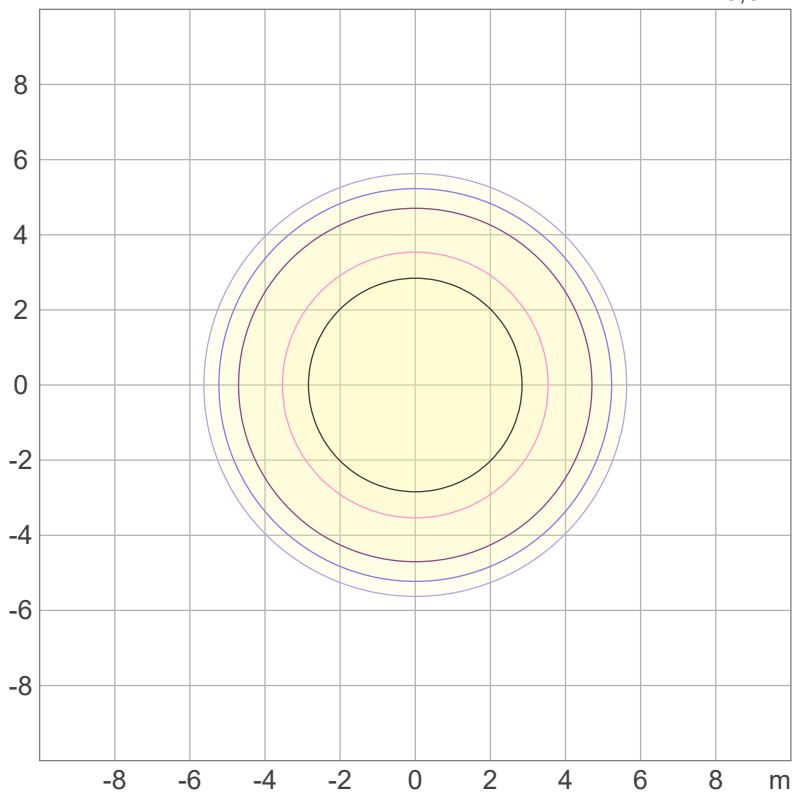
Conditions:

Number of c-planes: 2

Candela at center: 5336 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	1,60 lx
5%	2,67 lx
10%	5,34 lx
30%	16,0 lx
50%	26,7 lx

Conditions:

Number of c-planes: 2

Lux at center: 53,4 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

2116 lm

Peak candela output:

18525 cd

Light quality:

CRI: 93,0

Color temperature:

5584 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

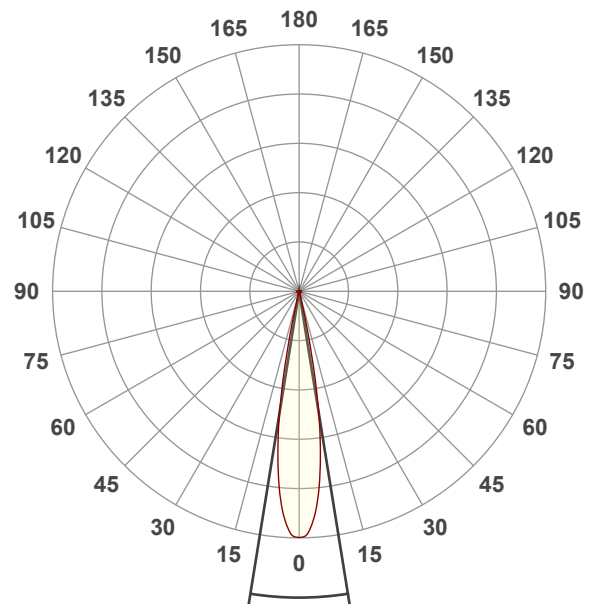
5600K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 16:26:26

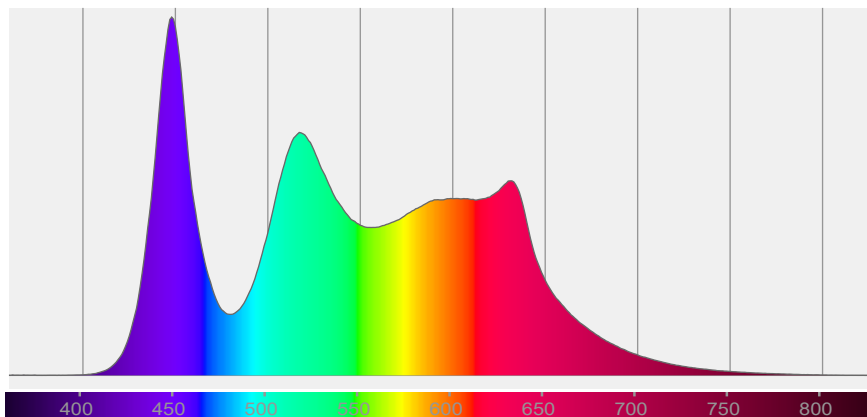


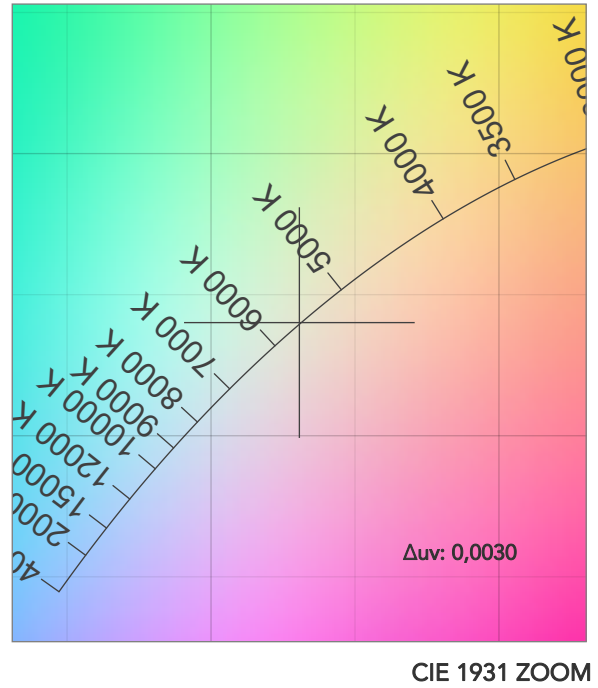
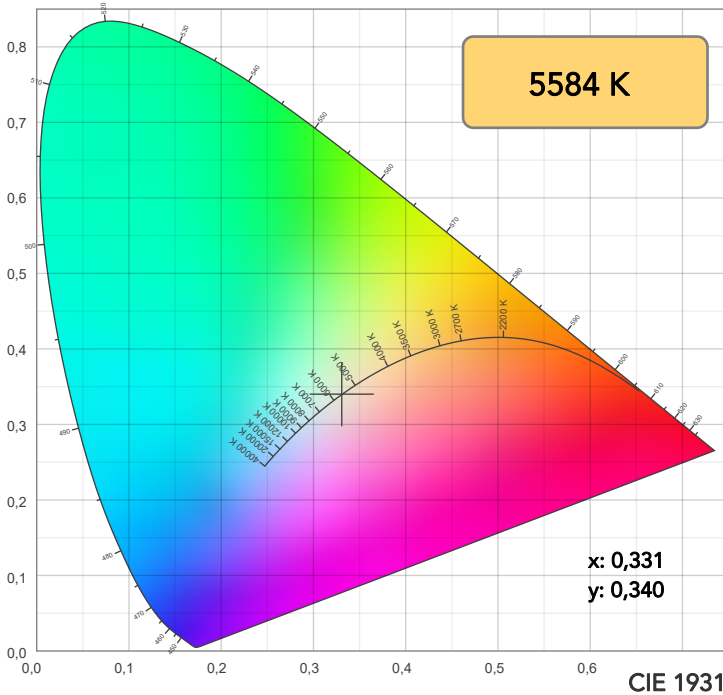
Beam angle 50%: 18,3°

Field angle 10%: 25,6°

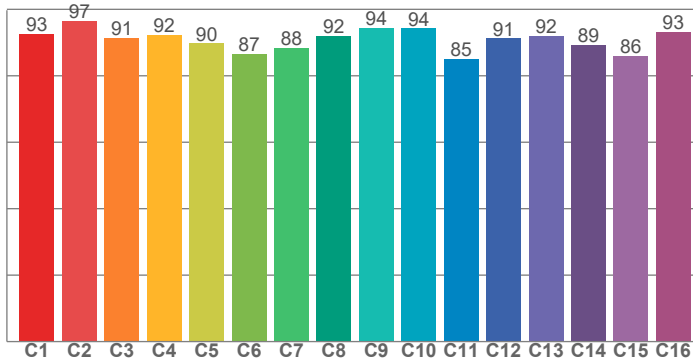
Cut off angle 2.5%: 28,5°

Spectra

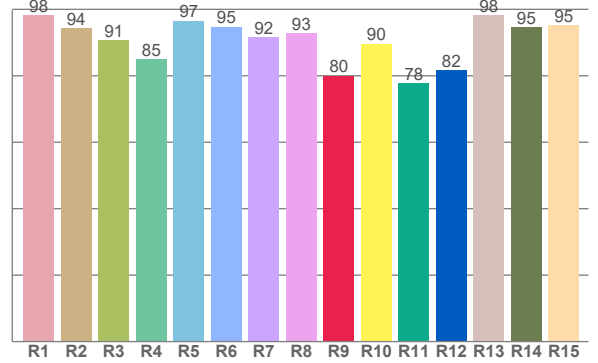




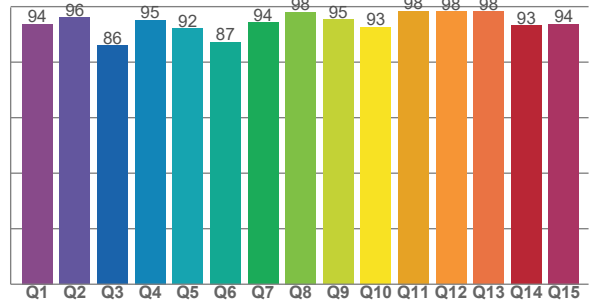
TM30: 90,7



CRI: 93,0 (R1-R8)



CQS: 93,1



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98,3	94,4	90,8	84,9	96,6	94,8	91,7	92,8	80,0	89,6	77,8	81,7	98,3	94,5	95,2

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,6	96,6	91,5	92,4	89,7	86,5	88,5	92,1	94,4	94,3	85,0	91,3	92,1	89,4	86,0	93,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,8	96,1	86,0	95,1	92,1	87,3	94,3	98,1	95,3	92,6	98,5	98,3	98,3	93,2	93,7

COLOR PARAMETERS

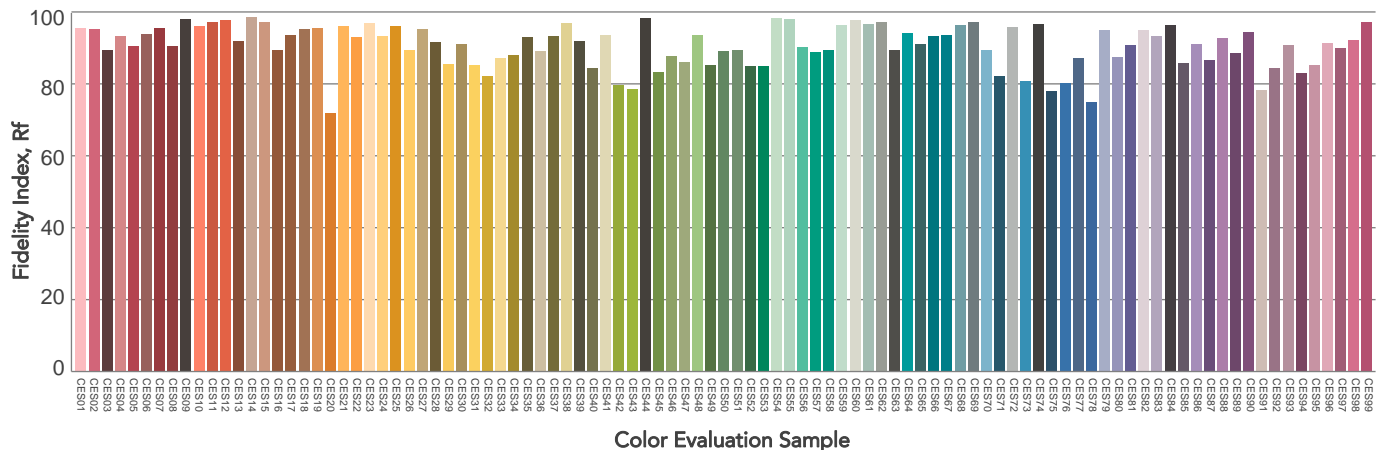
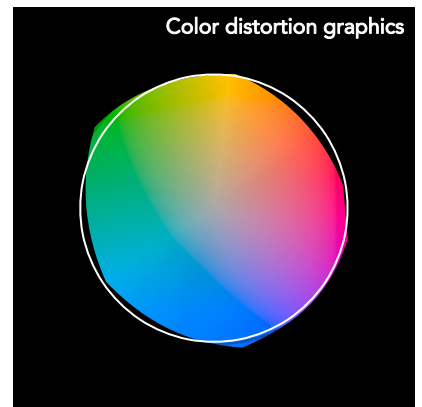
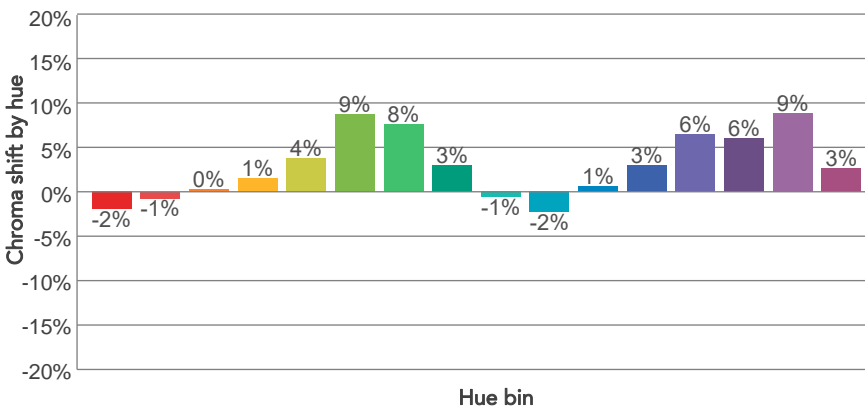
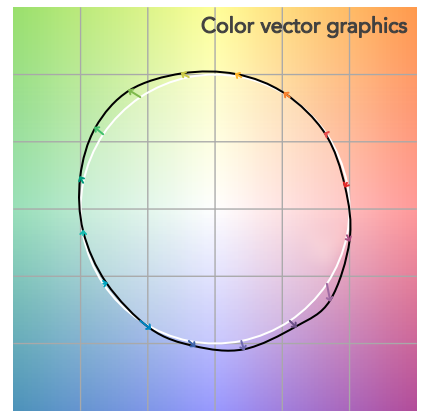
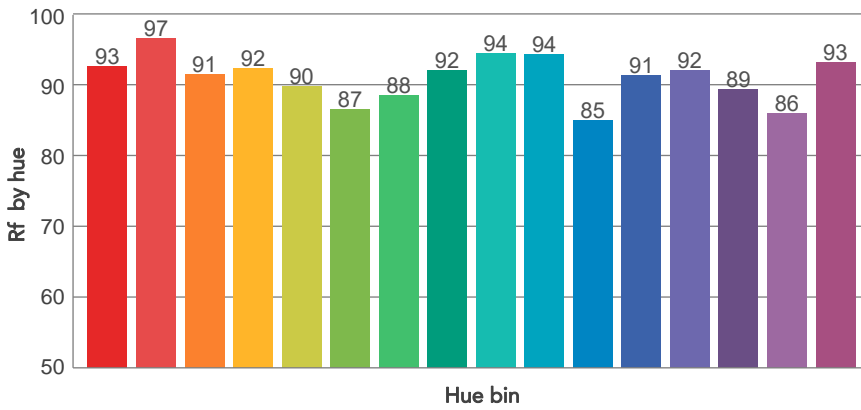
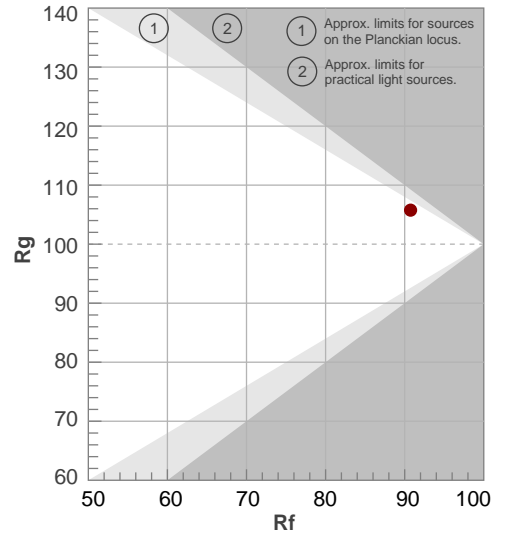
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5584 K	93,0	80,0	90,7	105,8	93,1	85	0,331	0,340	0,0030

TM30 DETAILS

Rf 90,7
Fidelity index Rf

Rg 105,8
Gammut index

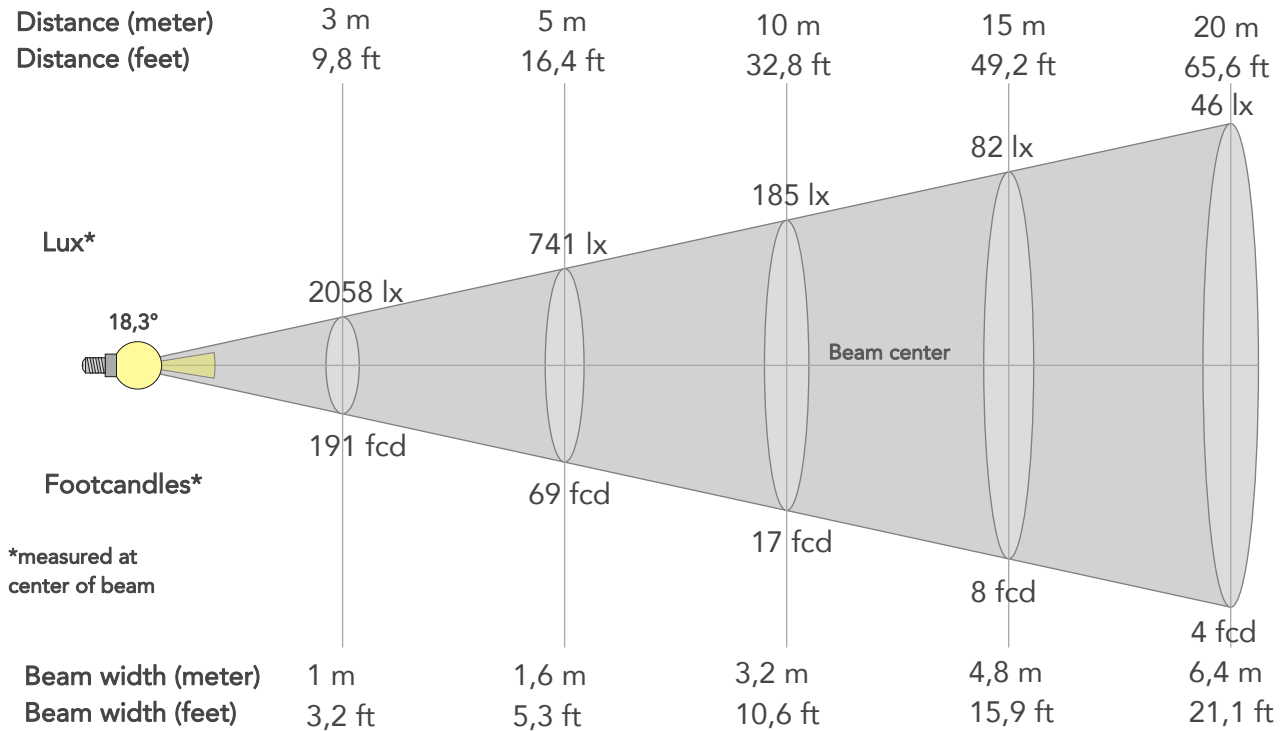
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-2%	-2%
2	97	-1%	1%
3	91	0%	5%
4	92	1%	4%
5	90	4%	4%
6	87	9%	4%
7	88	8%	-1%
8	92	3%	-3%
9	94	-1%	-3%
10	94	-2%	1%
11	85	1%	9%
12	91	3%	5%
13	92	6%	1%
14	89	6%	1%
15	86	9%	-9%
16	93	3%	-3%



BEAM DETAILS



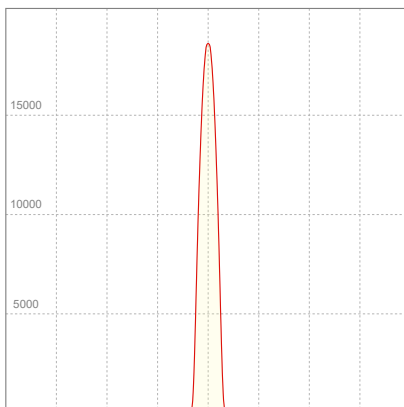
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,3°	25,6°	28,5°	73,3%	73,3%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	18525lx	4631lx	2058lx	1158lx	741lx	329lx	185lx	82lx	46lx	30lx	21lx	12lx	7lx
Footcand.	1721fcd	430fcd	191fcd	108fcd	69fcd	31fcd	17fcd	8fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8,1m	9,7m	12,9m	16,1m
Beam wid.	1,1ft	2,1ft	3,2ft	4,2ft	5,3ft	7,9ft	10,6ft	15,9ft	21,1ft	26,4ft	31,7ft	42,3ft	52,9ft

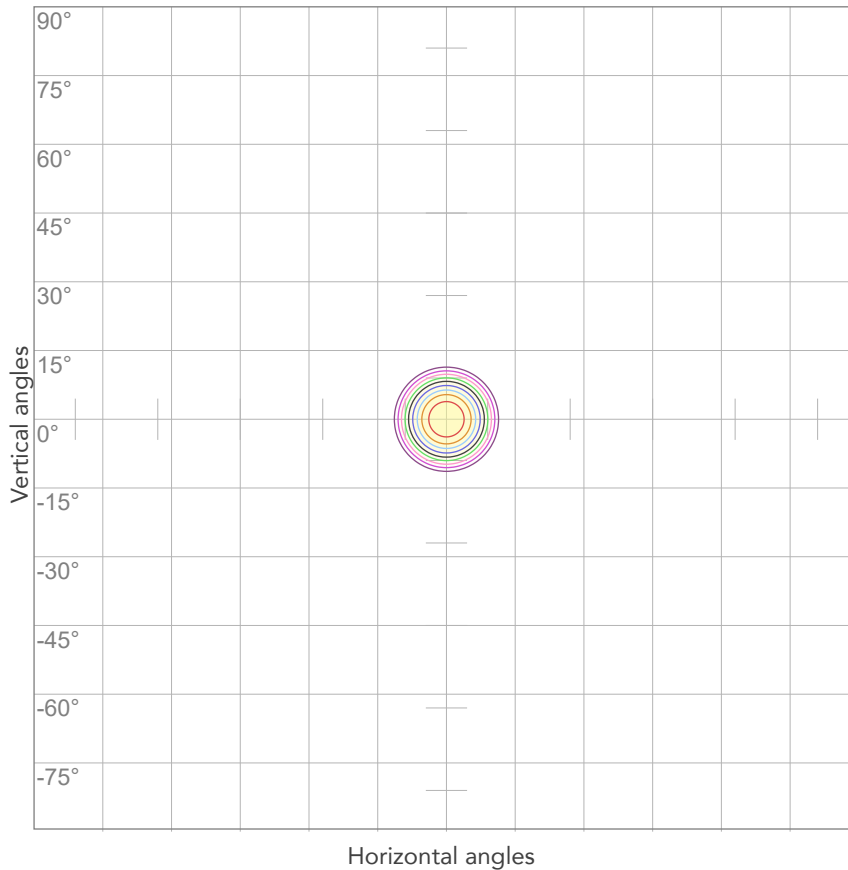
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,602A	118,7W	18lm/W

ISO CANDELA DIAGRAM



10%	1853 cd
20%	3705 cd
30%	5558 cd
40%	7410 cd
50%	9263 cd
60%	11115 cd
70%	12968 cd
80%	14820 cd

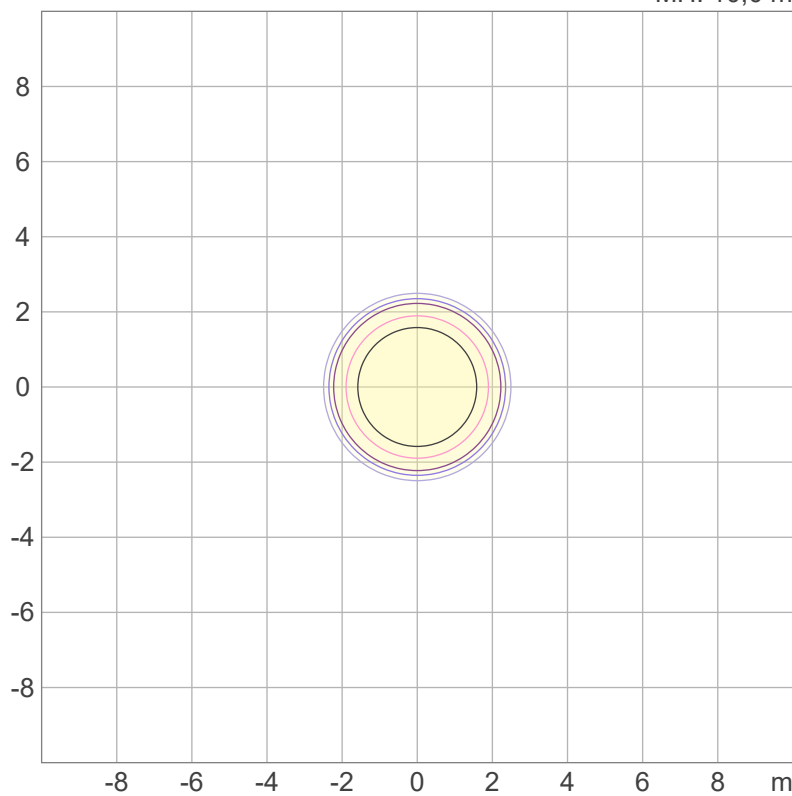
Conditions:

Number of c-planes: 2

Candela at center: 18525 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	5,56 lx
5%	9,26 lx
10%	18,5 lx
30%	55,6 lx
50%	92,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 185 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1070 lm

Peak candela output:

222257 cd

Light quality:

CRI: 93,1

Color temperature:

5618 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

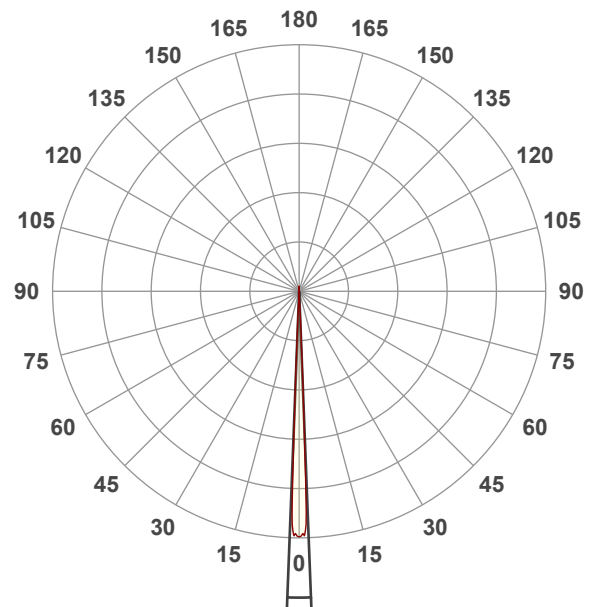
5600K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:34:28

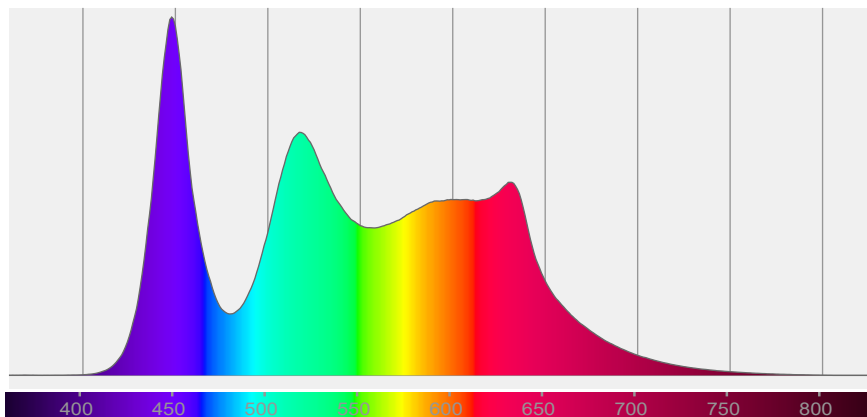


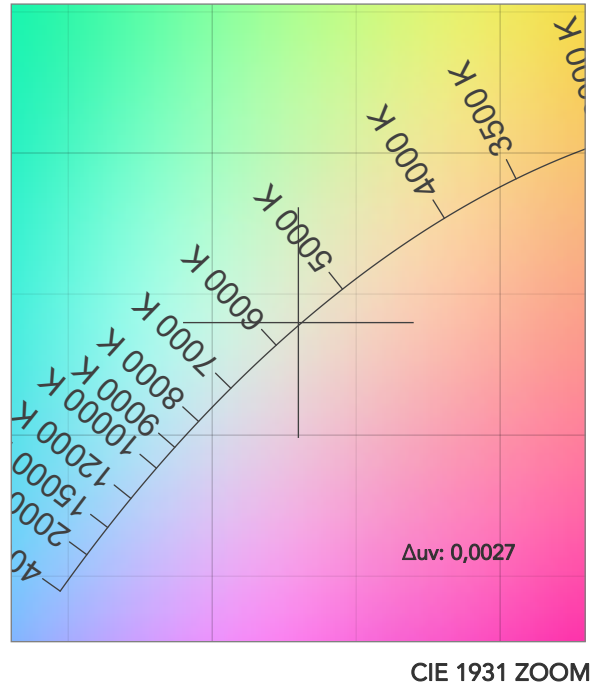
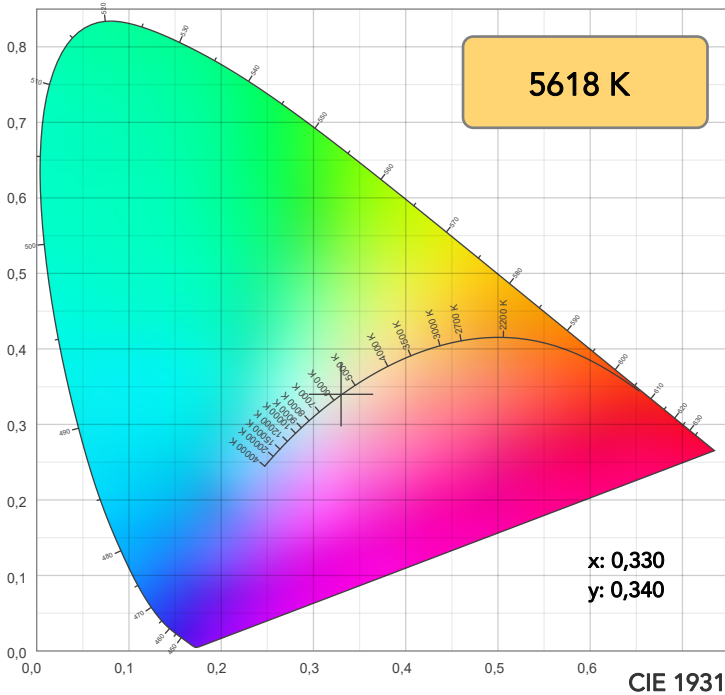
Beam angle 50%: 4,4°

Field angle 10%: 5,5°

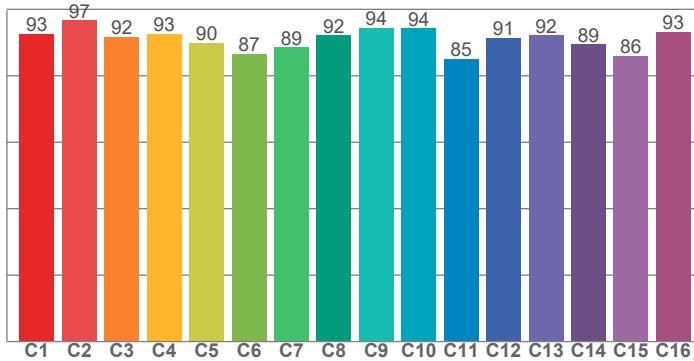
Cut off angle 2.5%: 5,7°

Spectra

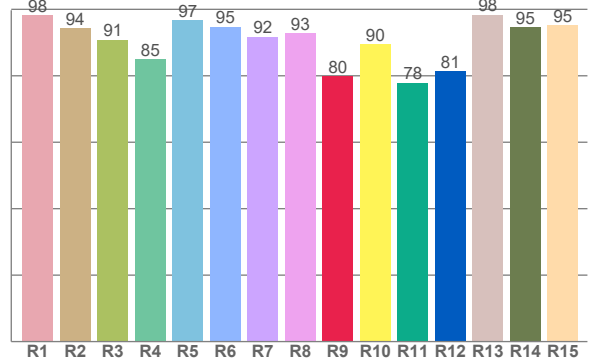




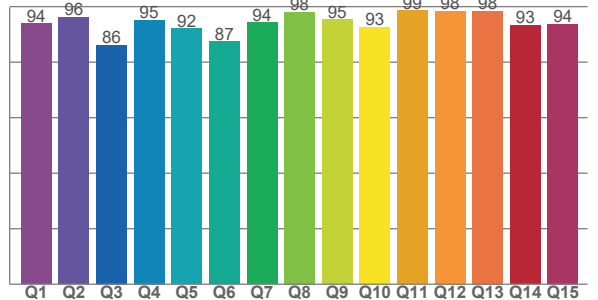
TM30: 90,8



CRI: 93,1 (R1-R8)



CQS: 93,2



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98,3	94,4	90,8	85,0	96,6	94,8	91,8	92,9	80,0	89,6	77,9	81,5	98,4	94,6	95,2

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,7	96,7	91,7	92,5	89,9	86,7	88,6	92,2	94,5	94,3	85,0	91,4	92,1	89,5	86,0	93,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,9	96,2	86,1	95,2	92,1	87,4	94,3	98,1	95,4	92,7	98,6	98,5	98,5	93,3	93,7

COLOR PARAMETERS

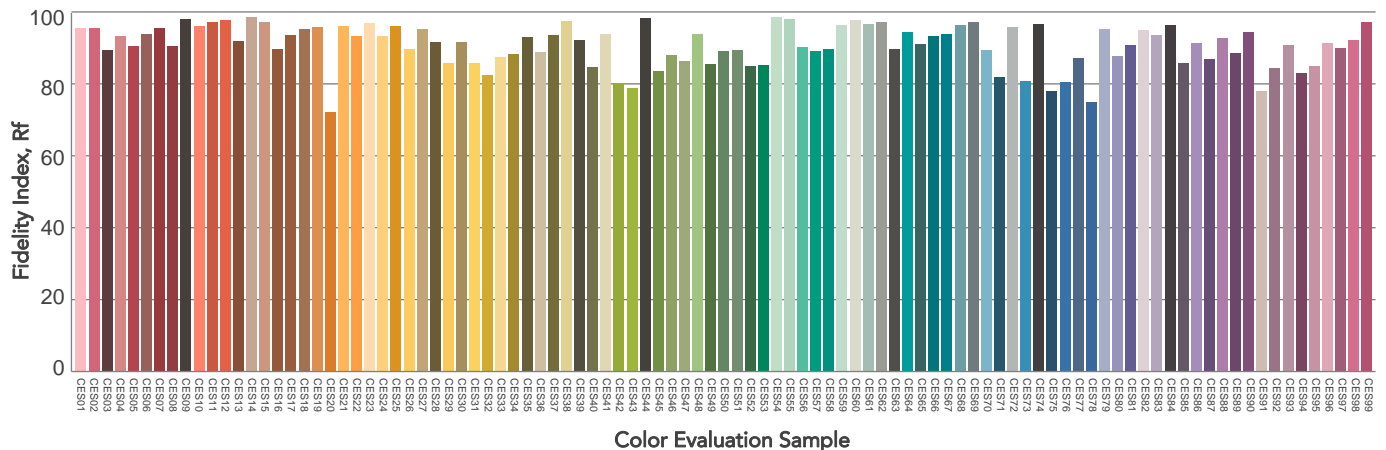
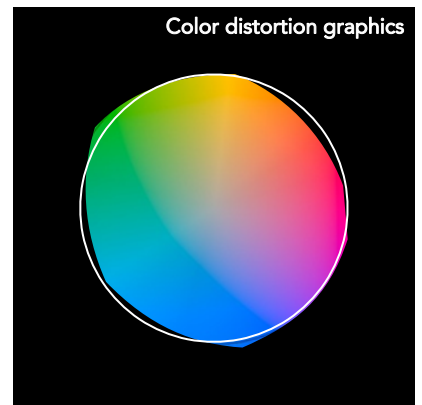
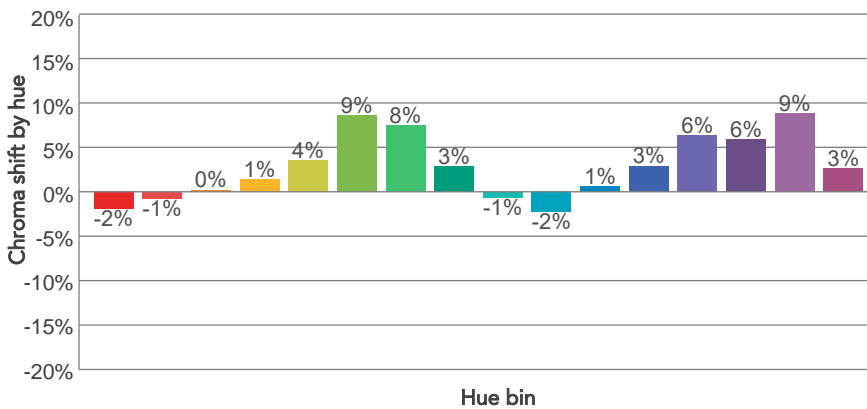
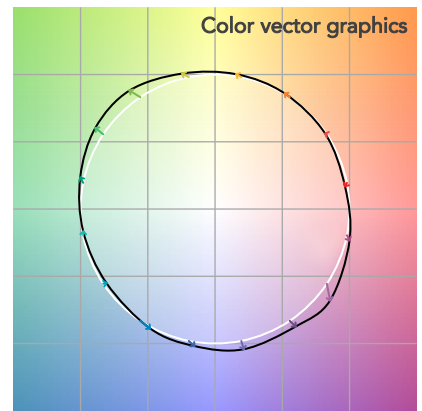
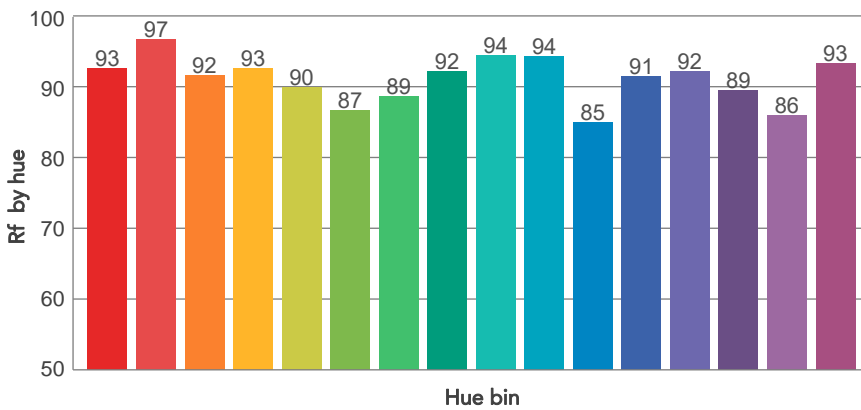
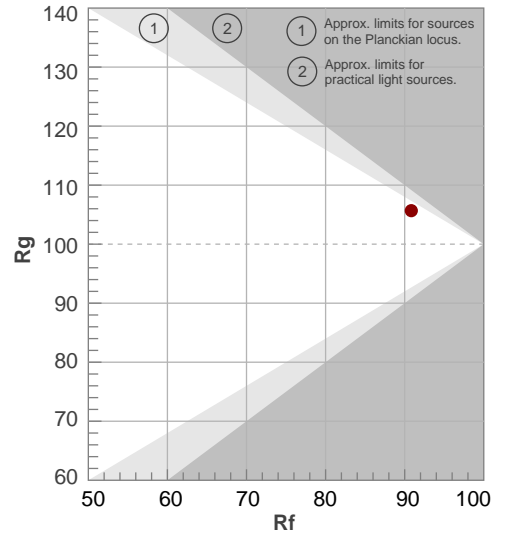
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5618 K	93,1	80,0	90,8	105,7	93,2	85	0,330	0,340	0,0027

TM30 DETAILS

Rf 90,8
Fidelity index Rf

Rg 105,7
Gammut index

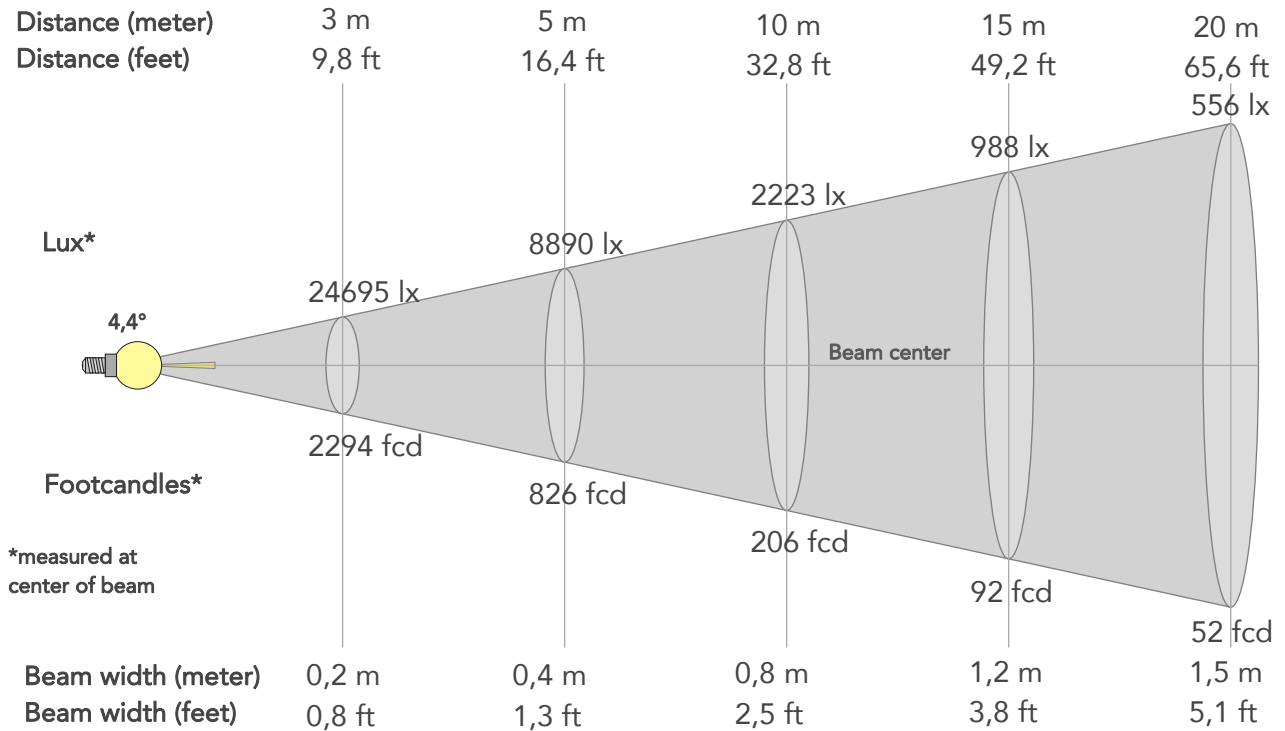
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-2%	-2%
2	97	-1%	1%
3	92	0%	5%
4	93	1%	4%
5	90	4%	4%
6	87	9%	4%
7	89	8%	-1%
8	92	3%	-3%
9	94	-1%	-3%
10	94	-2%	1%
11	85	1%	9%
12	91	3%	5%
13	92	6%	1%
14	89	6%	1%
15	86	9%	-9%
16	93	3%	-3%



BEAM DETAILS



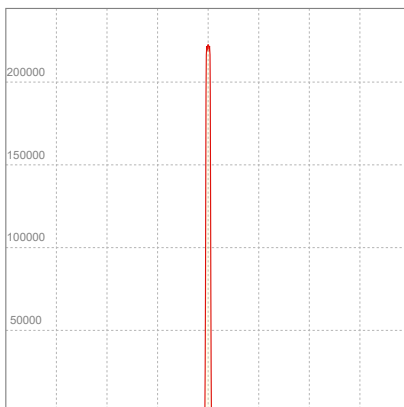
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,4°	5,5°	5,7°	99,9%	99,9%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	222257lx	55564lx	24695lx	13891lx	8890lx	3951lx	2223lx	988lx	556lx	356lx	247lx	139lx	89lx
Footcand.	20648fcd	5162fcd	2294fcd	1291fcd	826fcd	367fcd	206fcd	92fcd	52fcd	33fcd	23fcd	13fcd	8fcd
Beam wid.	0,1m	0,2m	0,2m	0,3m	0,4m	0,6m	0,8m	1,2m	1,5m	1,9m	2,3m	3,1m	3,9m
Beam wid.	0,3ft	0,5ft	0,8ft	1ft	1,3ft	1,9ft	2,5ft	3,8ft	5,1ft	6,3ft	7,6ft	10,1ft	12,7ft

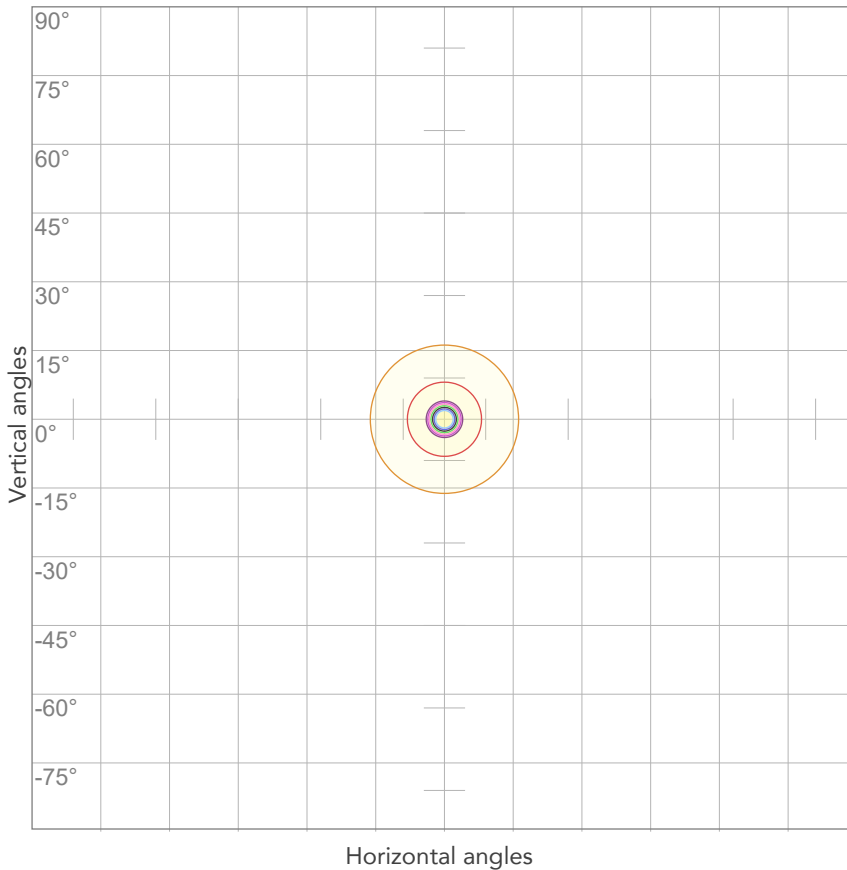
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,607A	119,8W	9lm/W

ISO CANDELA DIAGRAM



10%	22226 cd
20%	44451 cd
30%	66677 cd
40%	88903 cd
50%	111129 cd
60%	133354 cd
70%	155580 cd
80%	177806 cd

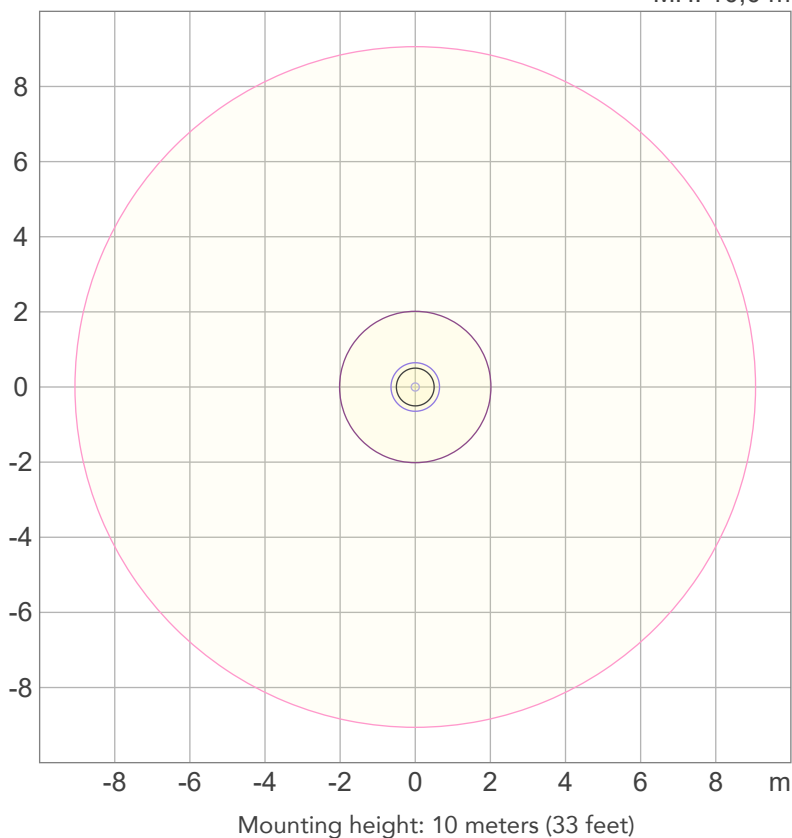
Conditions:

Number of c-planes: 2

Candela at center: 222257 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	66,7 lx
5%	111 lx
10%	222 lx
30%	667 lx
50%	1111 lx

Conditions:

Number of c-planes: 2

Lux at center: 2223 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

2287 lm

Peak candela output:

5410 cd

Light quality:

CRI: 92,7

Color temperature:

6048 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

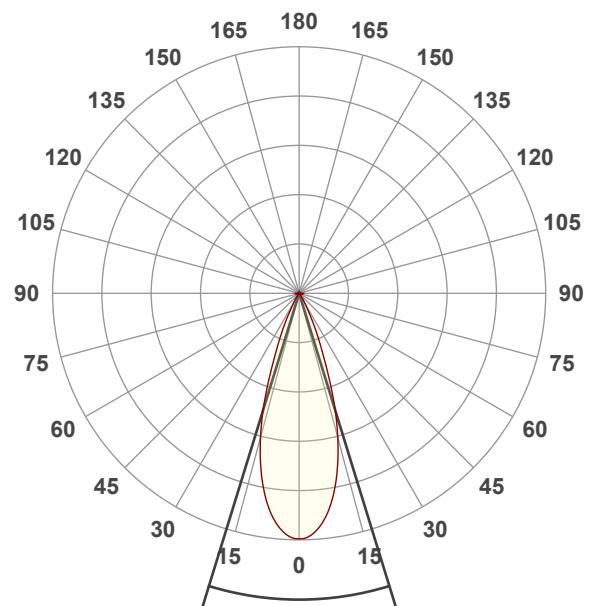
6000K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:38:31

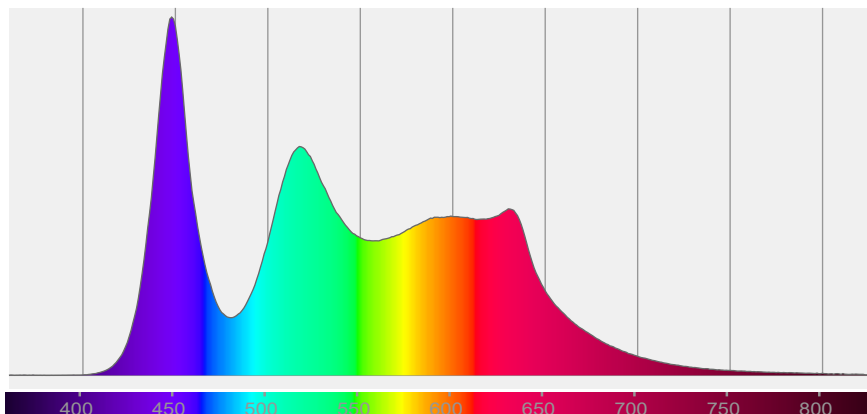


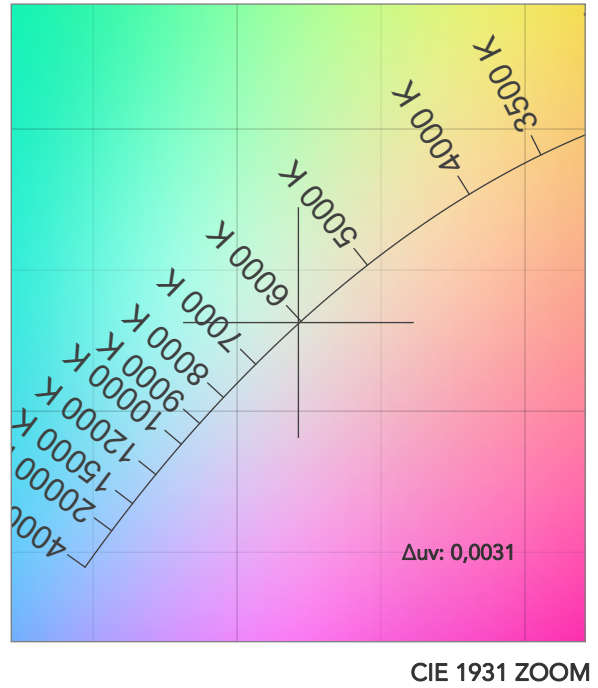
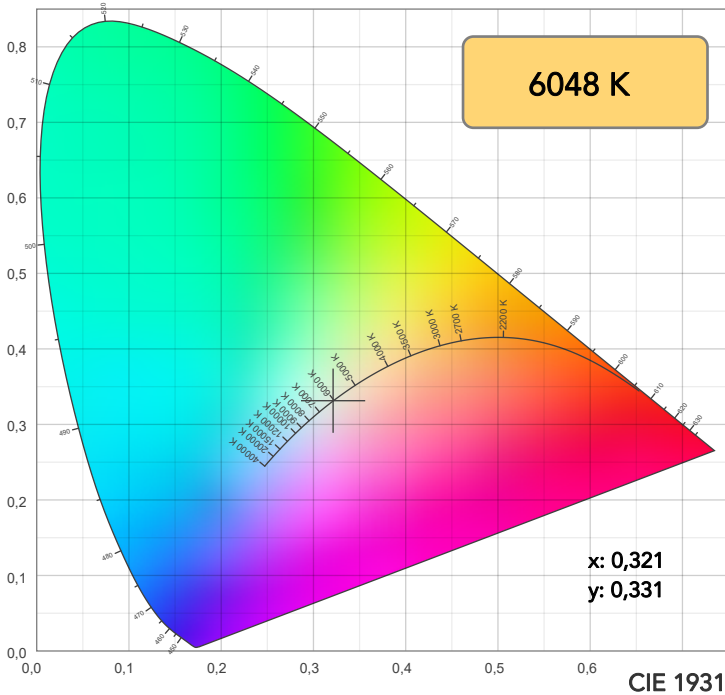
Beam angle 50%: 34,3°

Field angle 10%: 53,2°

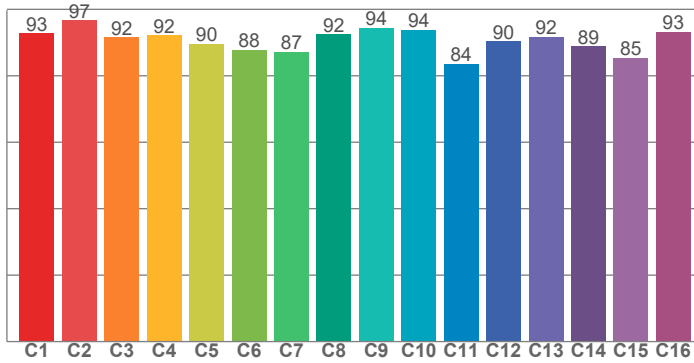
Cut off angle 2.5%: 66,6°

Spectra

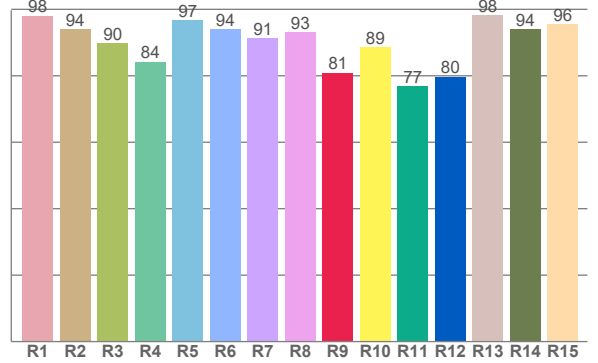




TM30: 90,5



CRI: 92,7 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98,0	93,9	89,8	84,3	96,7	94,1	91,4	93,0	80,9	88,6	76,9	79,8	98,2	94,1	95,5

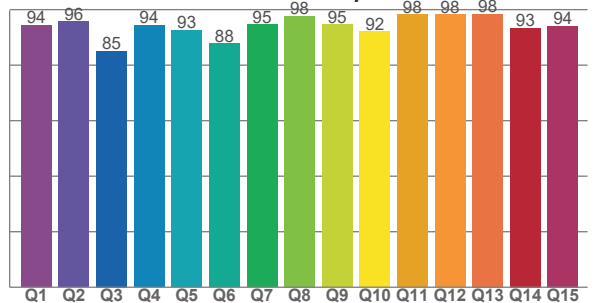
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,8	96,6	91,6	92,2	89,6	87,8	87,2	92,4	94,4	93,9	83,6	90,4	91,8	88,9	85,4	93,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,4	95,7	85,2	94,4	92,6	87,8	94,7	97,6	94,7	92,1	98,2	98,2	98,4	93,4	94,1

CQS: 93,1



COLOR PARAMETERS

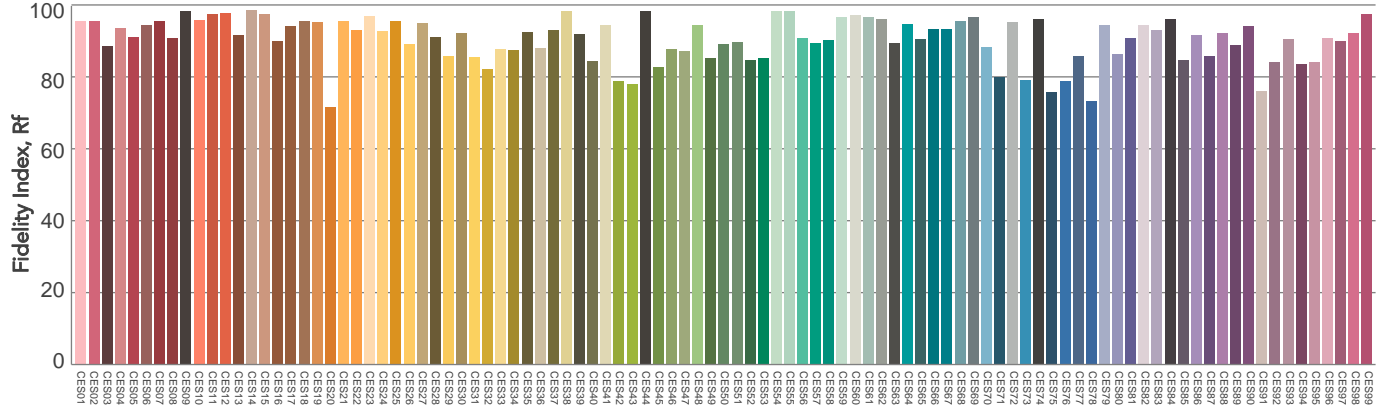
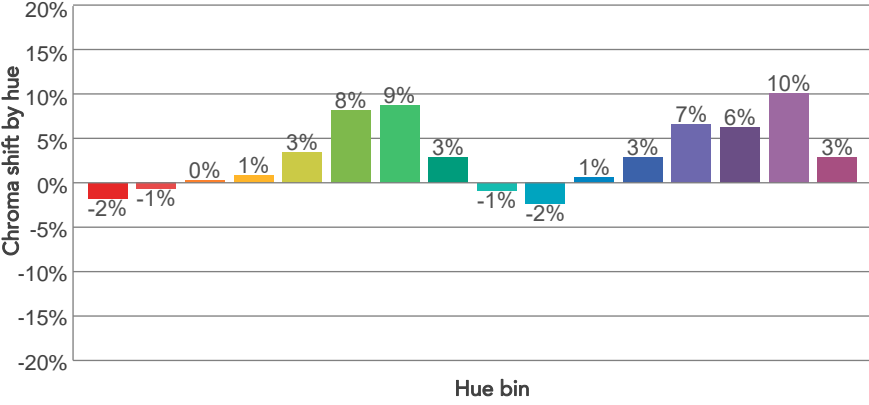
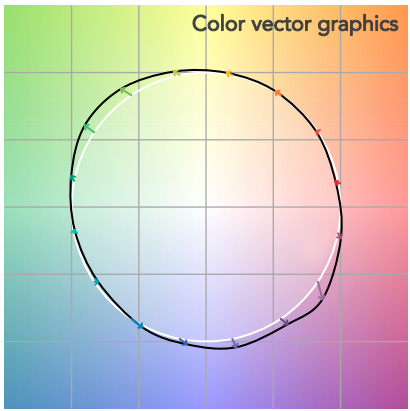
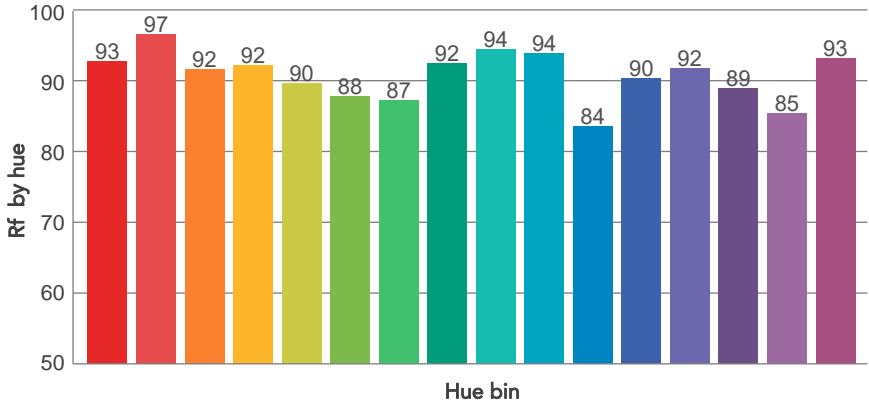
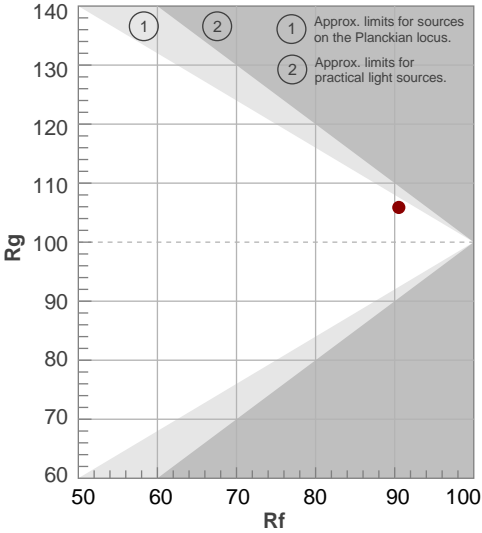
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6048 K	92,7	80,9	90,5	105,9	93,1	85	0,321	0,331	0,0031

TM30 DETAILS

Rf 90,5
Fidelity index Rf

Rg 105,9
Gammut index

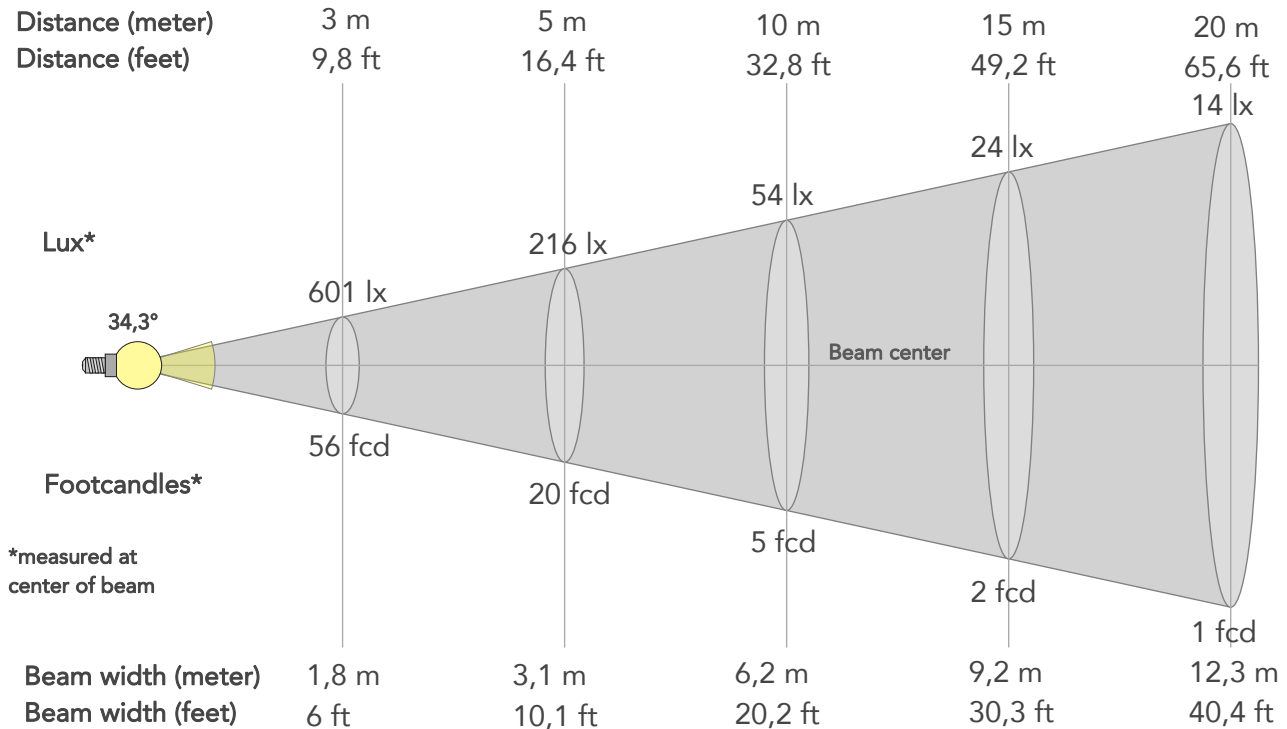
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-2%	-2%
2	97	-1%	1%
3	92	0%	5%
4	92	1%	4%
5	90	3%	4%
6	88	8%	4%
7	87	9%	0%
8	92	3%	-3%
9	94	-1%	-2%
10	94	-2%	2%
11	84	1%	10%
12	90	3%	6%
13	92	7%	2%
14	89	6%	2%
15	85	10%	-9%
16	93	3%	-3%



BEAM DETAILS



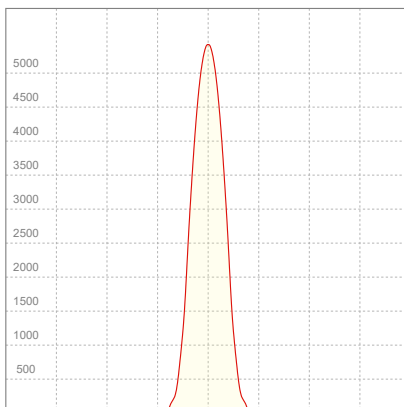
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
34,3°	53,2°	66,6°	78,1%	77,2%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	5410lx	1352lx	601lx	338lx	216lx	96lx	54lx	24lx	14lx	9lx	6lx	3lx	2lx
Footcand.	503fcd	126fcd	56fcd	31fcd	20fcd	9fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,6m	1,2m	1,8m	2,5m	3,1m	4,6m	6,2m	9,2m	12,3m	15,4m	18,5m	24,7m	30,8m
Beam wid.	2ft	4,1ft	6ft	8,1ft	10,1ft	15,2ft	20,2ft	30,3ft	40,4ft	50,5ft	60,7ft	80,9ft	101,1ft

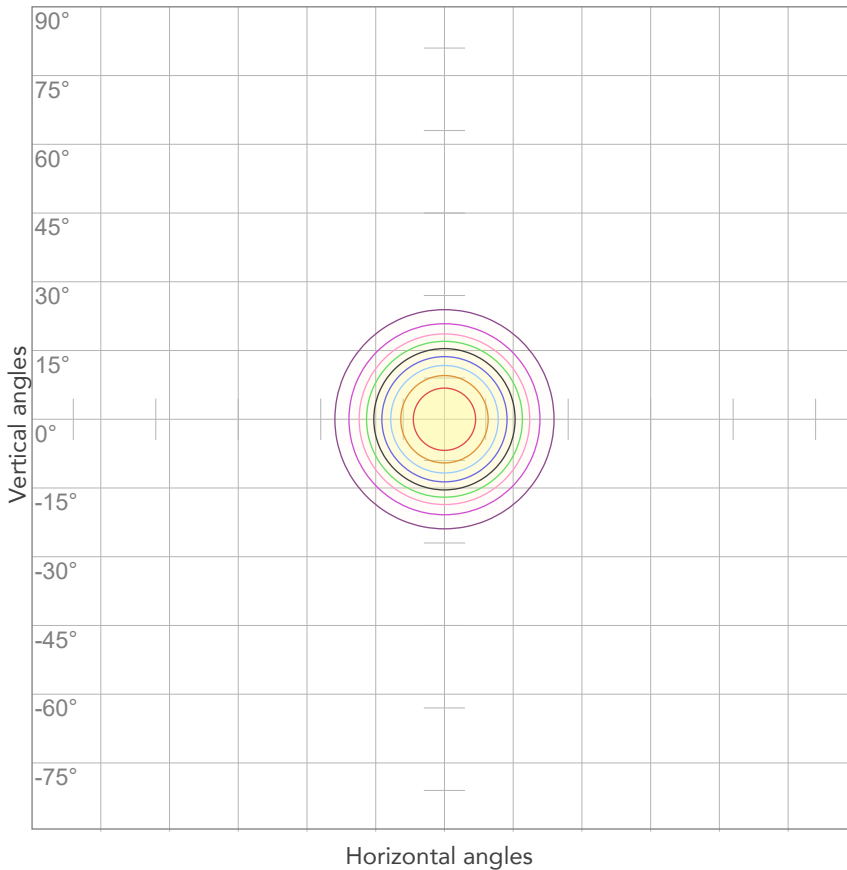
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,615A	121,5W	19lm/W

ISO CANDELA DIAGRAM



10%	541 cd
20%	1082 cd
30%	1623 cd
40%	2164 cd
50%	2705 cd
60%	3246 cd
70%	3787 cd
80%	4328 cd

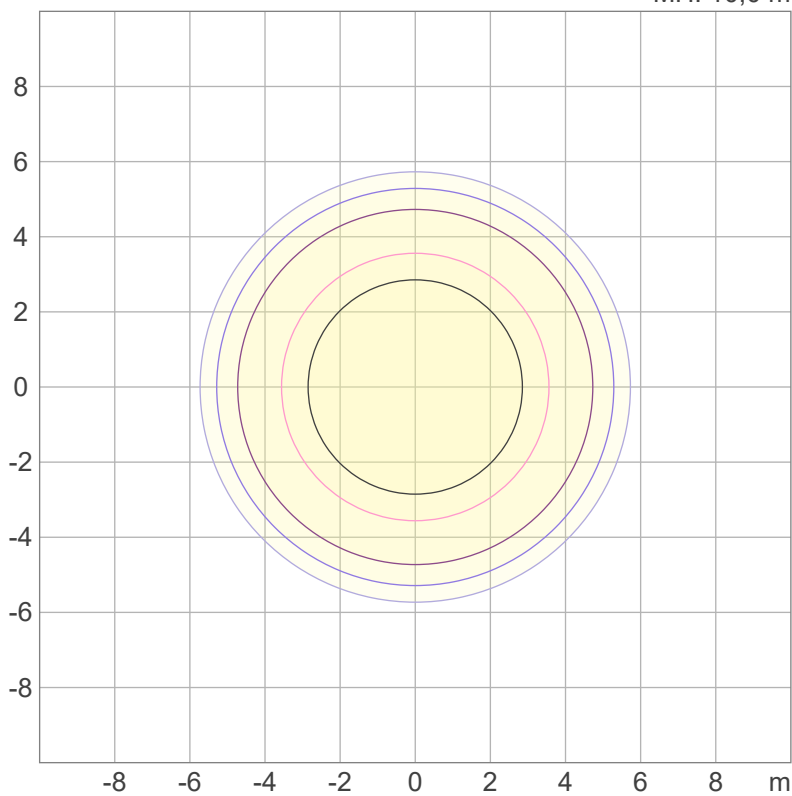
Conditions:

Number of c-planes: 2

Candela at center: 5410 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	1,62 lx
5%	2,70 lx
10%	5,41 lx
30%	16,2 lx
50%	27,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 54,1 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

2122 lm

Peak candela output:

18912 cd

Light quality:

CRI: 92,7

Color temperature:

5994 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASURAMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

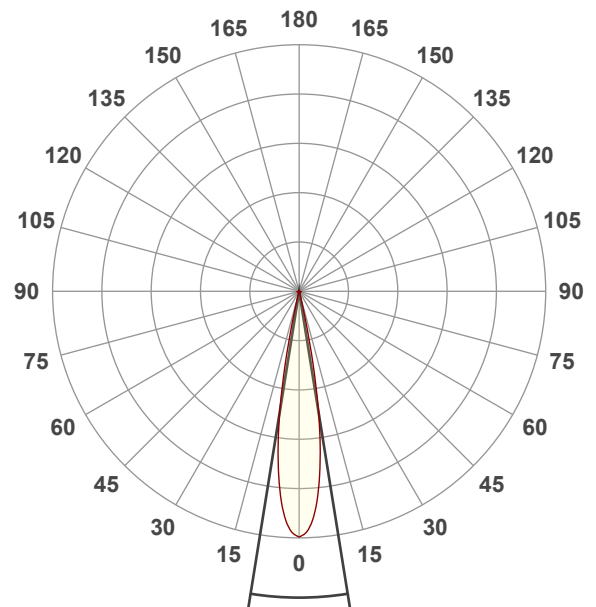
6000K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 16:29:13

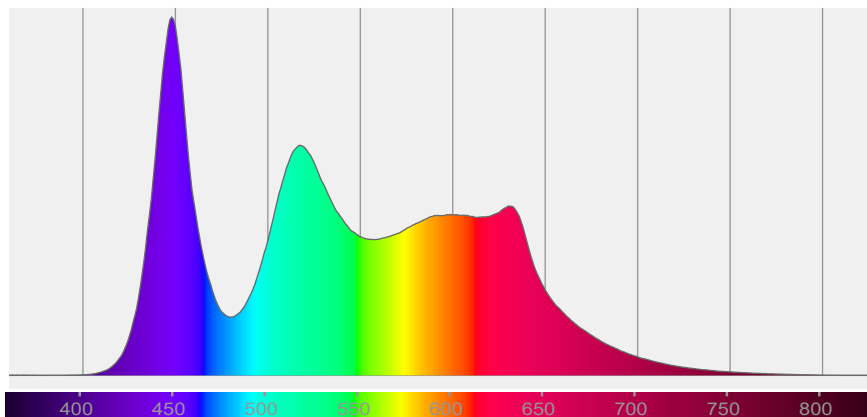


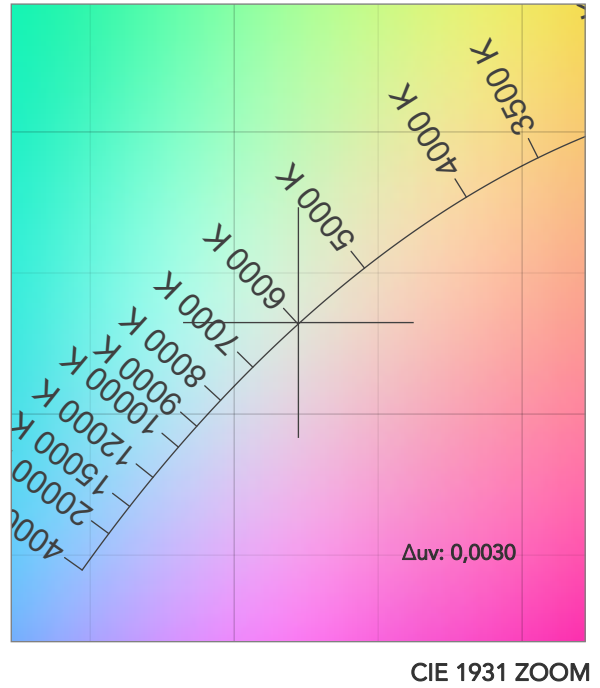
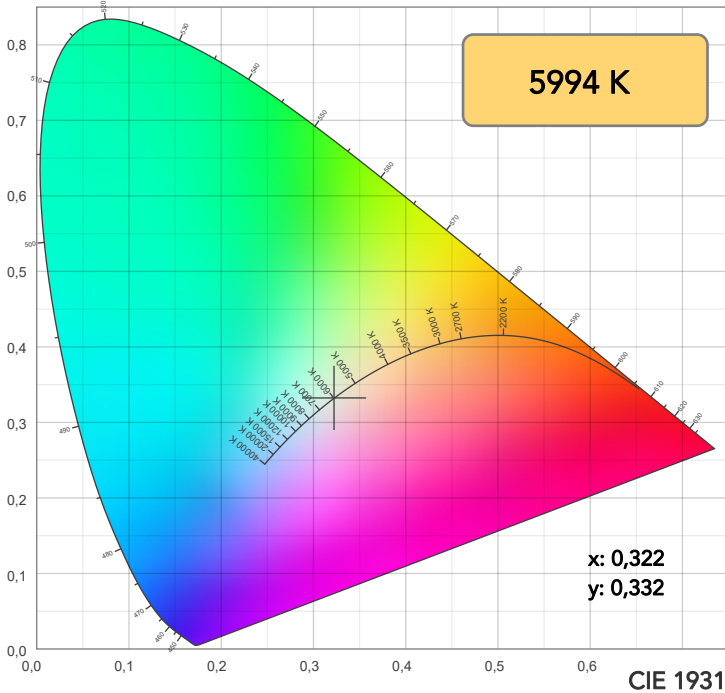
Beam angle 50%: 18,2°

Field angle 10%: 25,7°

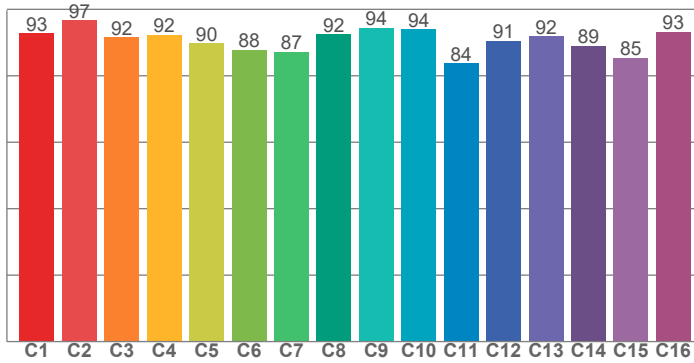
Cut off angle 2.5%: 28,2°

Spectra

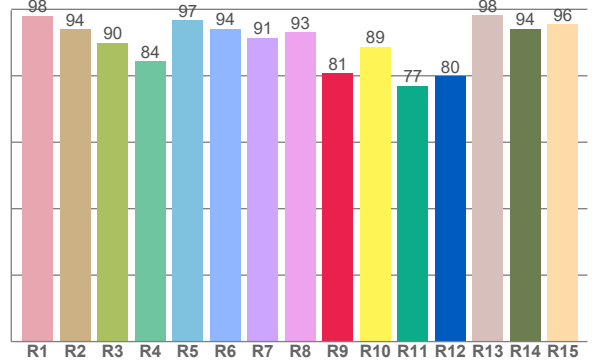




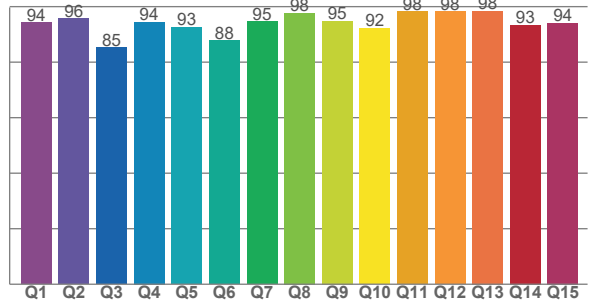
TM30: 90,6



CRI: 92,7 (R1-R8)



CQS: 93,1



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98,0	94,0	90,0	84,4	96,7	94,2	91,5	93,1	80,8	88,7	77,0	79,9	98,3	94,1	95,5

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,8	96,6	91,6	92,3	89,7	87,9	87,2	92,5	94,4	94,0	83,8	90,6	91,9	89,0	85,4	93,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,3	95,8	85,3	94,5	92,6	87,8	94,6	97,7	94,8	92,2	98,3	98,3	98,4	93,4	94,1

COLOR PARAMETERS

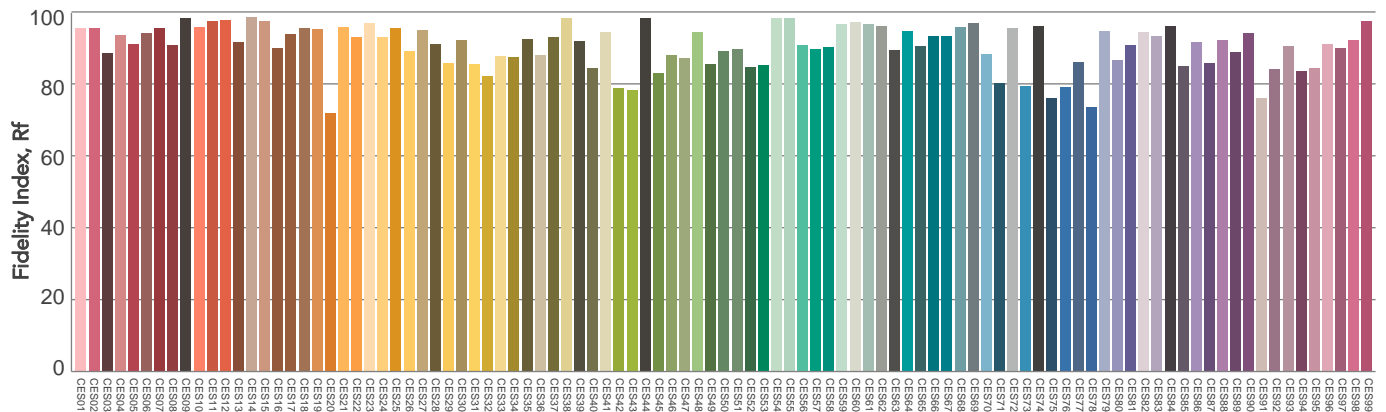
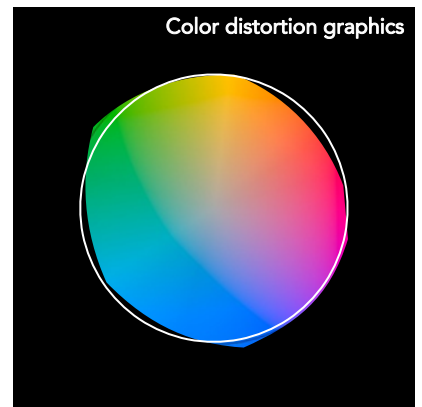
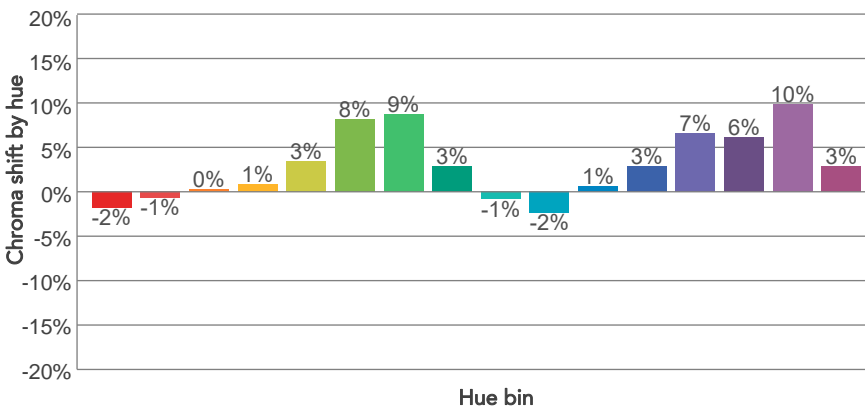
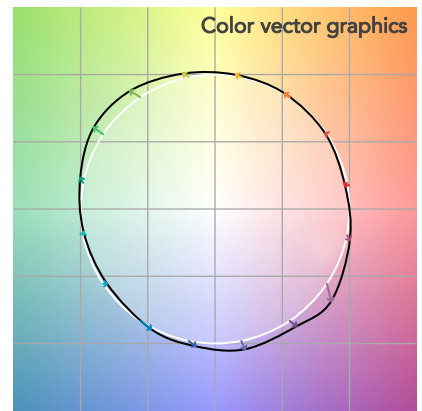
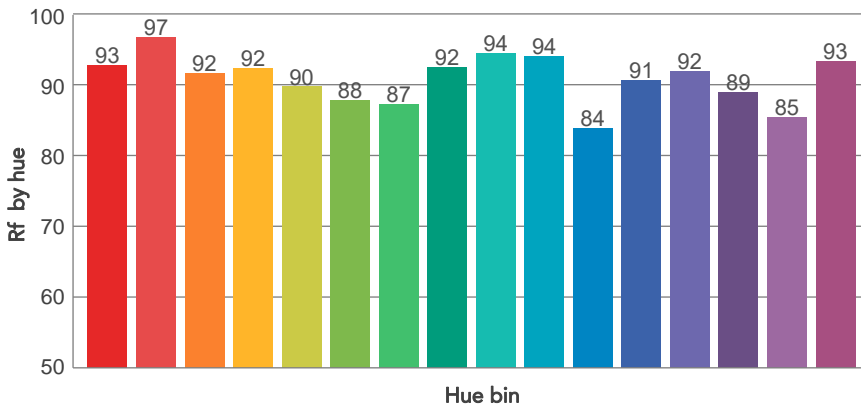
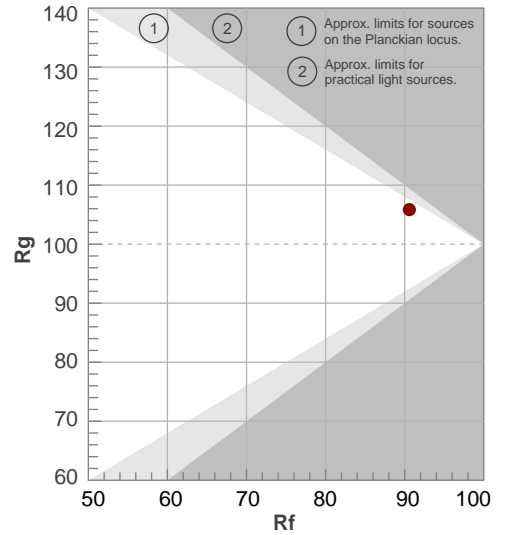
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5994 K	92,7	80,8	90,6	105,9	93,1	85	0,322	0,332	0,0030

TM30 DETAILS

Rf 90,6
Fidelity index Rf

Rg 105,9
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-2%	-2%
2	97	-1%	1%
3	92	0%	5%
4	92	1%	4%
5	90	3%	4%
6	88	8%	4%
7	87	9%	0%
8	92	3%	-3%
9	94	-1%	-2%
10	94	-2%	2%
11	84	1%	10%
12	91	3%	6%
13	92	7%	1%
14	89	6%	2%
15	85	10%	-9%
16	93	3%	-3%

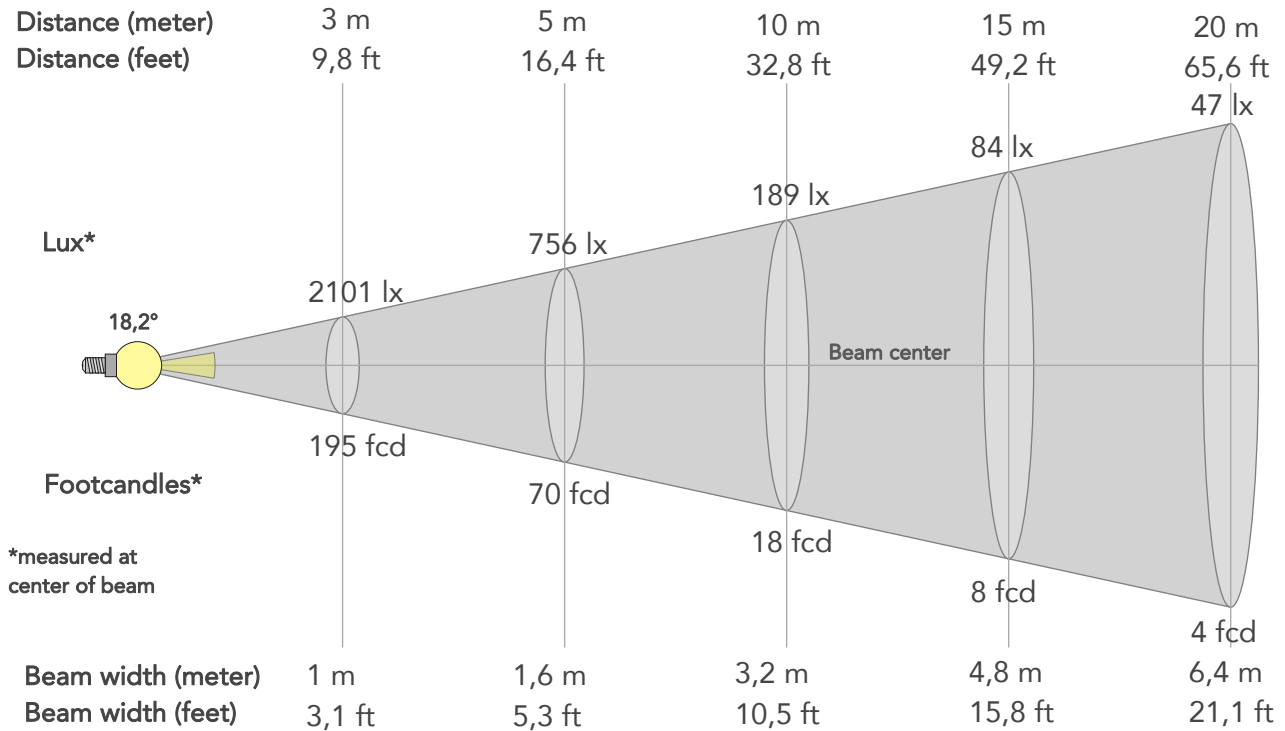


Color Evaluation Sample

BEAM DETAILS



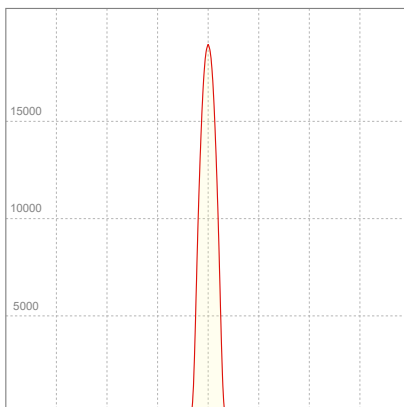
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18,2°	25,7°	28,2°	74,0%	74,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	18912lx	4728lx	2101lx	1182lx	756lx	336lx	189lx	84lx	47lx	30lx	21lx	12lx	8lx
Footcand.	1757fcd	439fcd	195fcd	110fcd	70fcd	31fcd	18fcd	8fcd	4fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,3m	0,6m	1m	1,3m	1,6m	2,4m	3,2m	4,8m	6,4m	8m	9,6m	12,8m	16,1m
Beam wid.	1,1ft	2,1ft	3,1ft	4,2ft	5,3ft	7,9ft	10,5ft	15,8ft	21,1ft	26,3ft	31,6ft	42,1ft	52,7ft

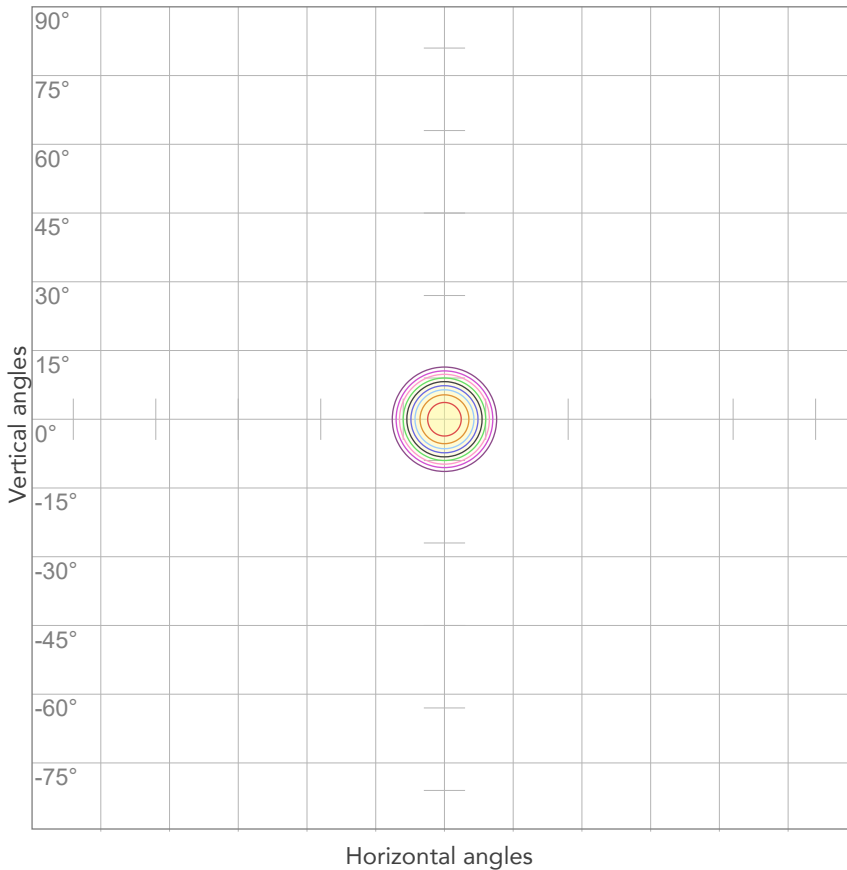
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,613A	121,4W	17lm/W

ISO CANDELA DIAGRAM



10%	1891 cd
20%	3782 cd
30%	5674 cd
40%	7565 cd
50%	9456 cd
60%	11347 cd
70%	13238 cd
80%	15130 cd

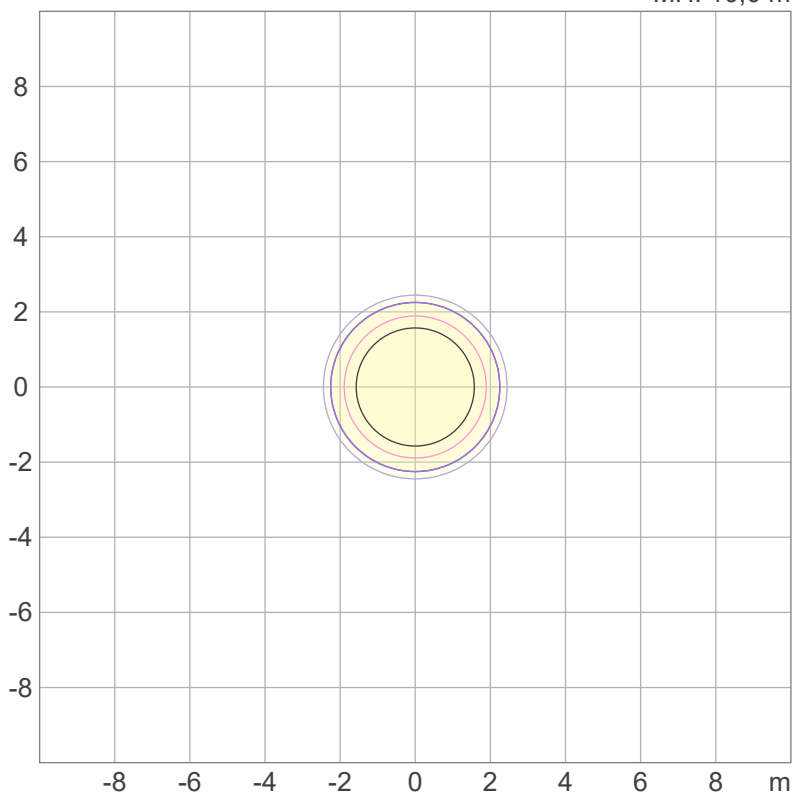
Conditions:

Number of c-planes: 2

Candela at center: 18912 cd

ISO LUX DIAGRAM

MH: 10,0 m



Mounting height: 10 meters (33 feet)

3%	5,67 lx
5%	9,46 lx
10%	18,9 lx
30%	56,7 lx
50%	94,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 189 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.



Total lumen output:

1083 lm

Peak candela output:

224574 cd

Light quality:

CRI: 92,8

Color temperature:

6011 K

PRODUCT NAME:

ASTRAPAR7ZIP

MEASURAMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

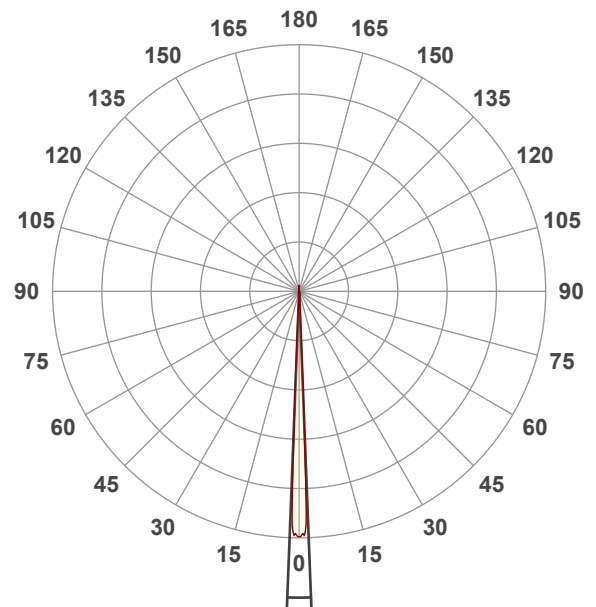
6000K

Operator:

Salvatore Giglio

Date and time:

13/01/2023 15:36:57

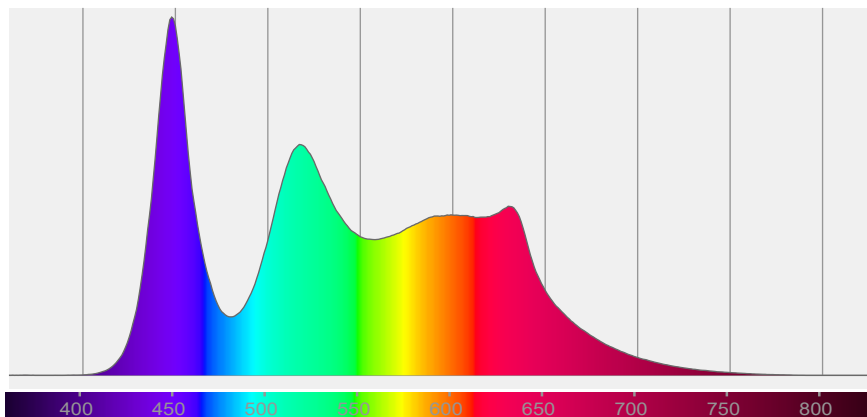


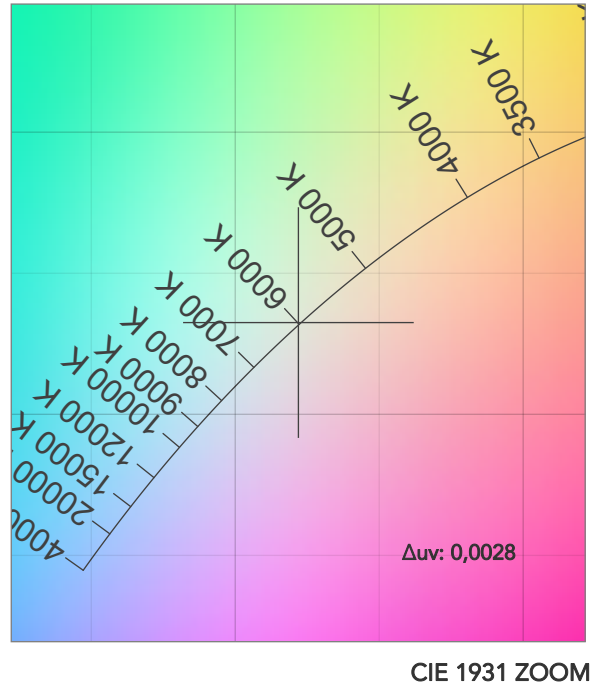
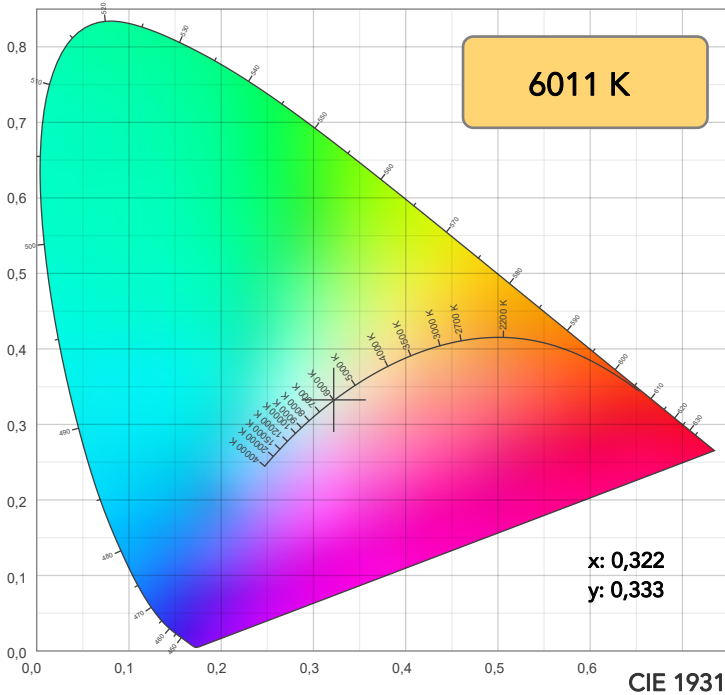
Beam angle 50%: 4,4°

Field angle 10%: 5,4°

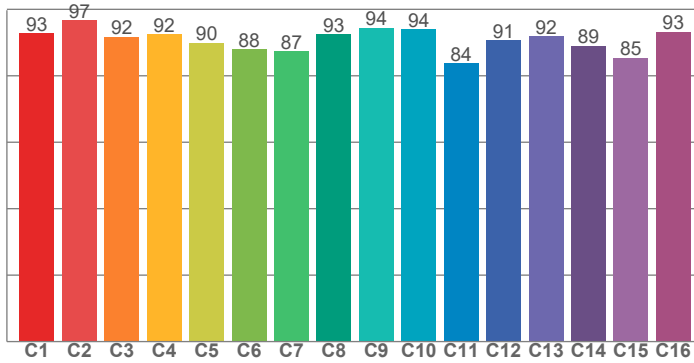
Cut off angle 2.5%: 5,7°

Spectra

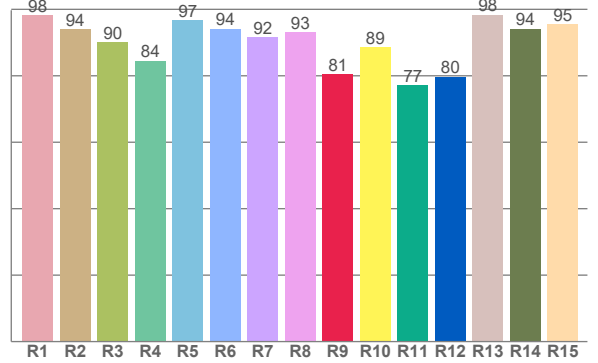




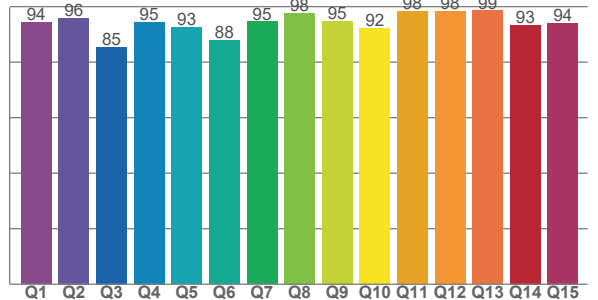
TM30: 90,6



CRI: 92,8 (R1-R8)



CQS: 93,2



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98,1	94,0	90,0	84,5	96,7	94,2	91,6	93,1	80,5	88,7	77,1	79,7	98,3	94,2	95,4

TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,7	96,7	91,8	92,4	89,9	88,0	87,3	92,5	94,5	93,9	83,8	90,7	91,9	89,0	85,4	93,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,3	95,8	85,4	94,5	92,6	87,8	94,6	97,7	94,8	92,3	98,4	98,5	98,5	93,3	94,1

COLOR PARAMETERS

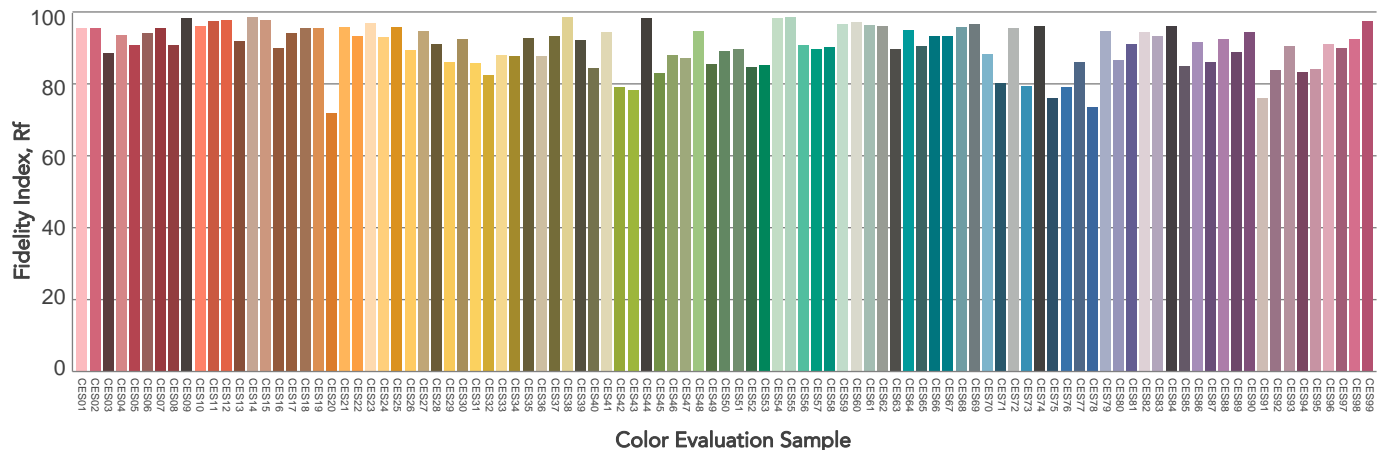
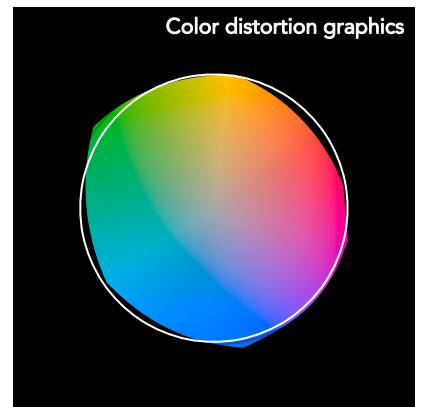
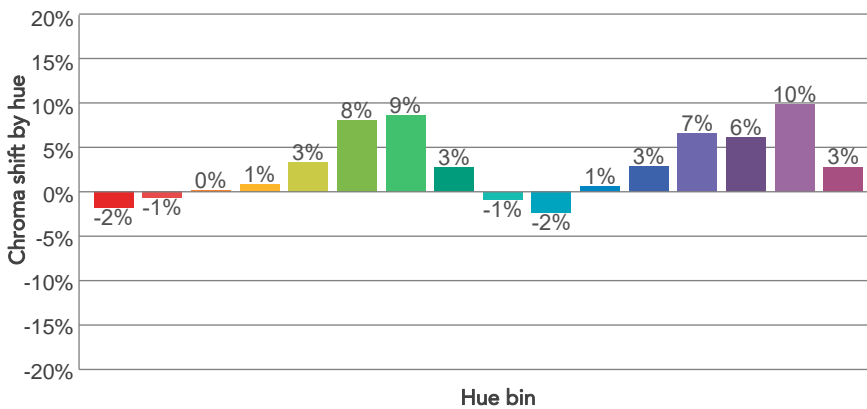
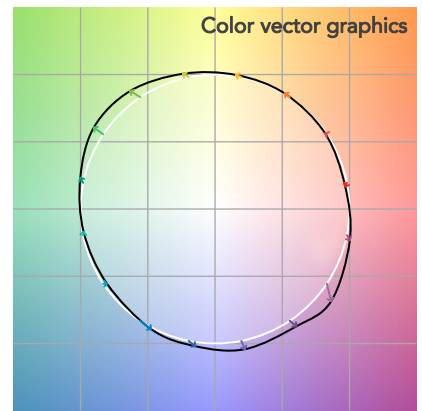
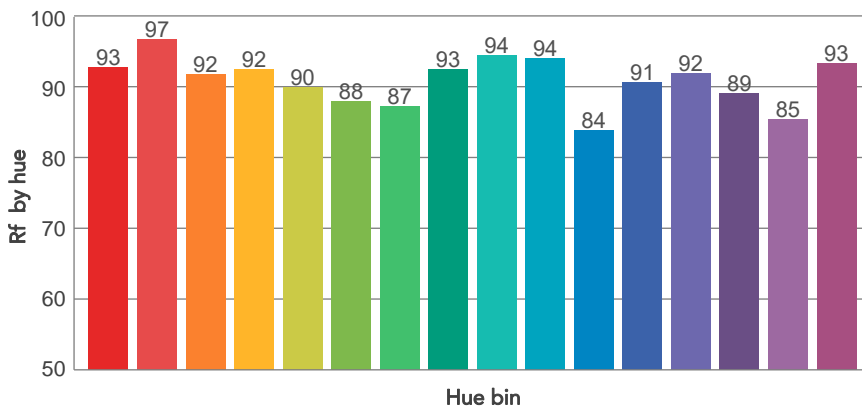
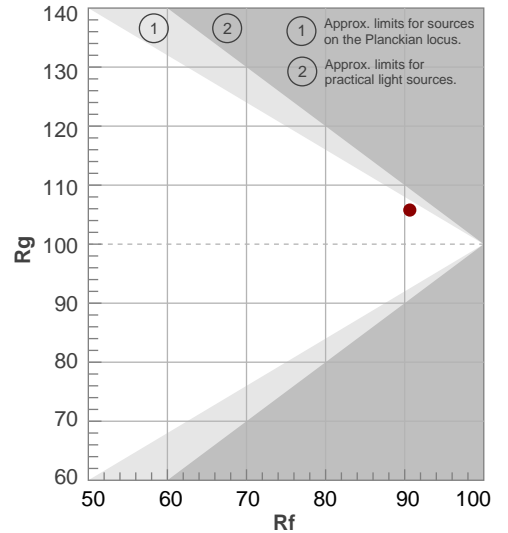
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6011 K	92,8	80,5	90,6	105,8	93,2	85	0,322	0,333	0,0028

TM30 DETAILS

Rf 90,6
Fidelity index Rf

Rg 105,8
Gammut index

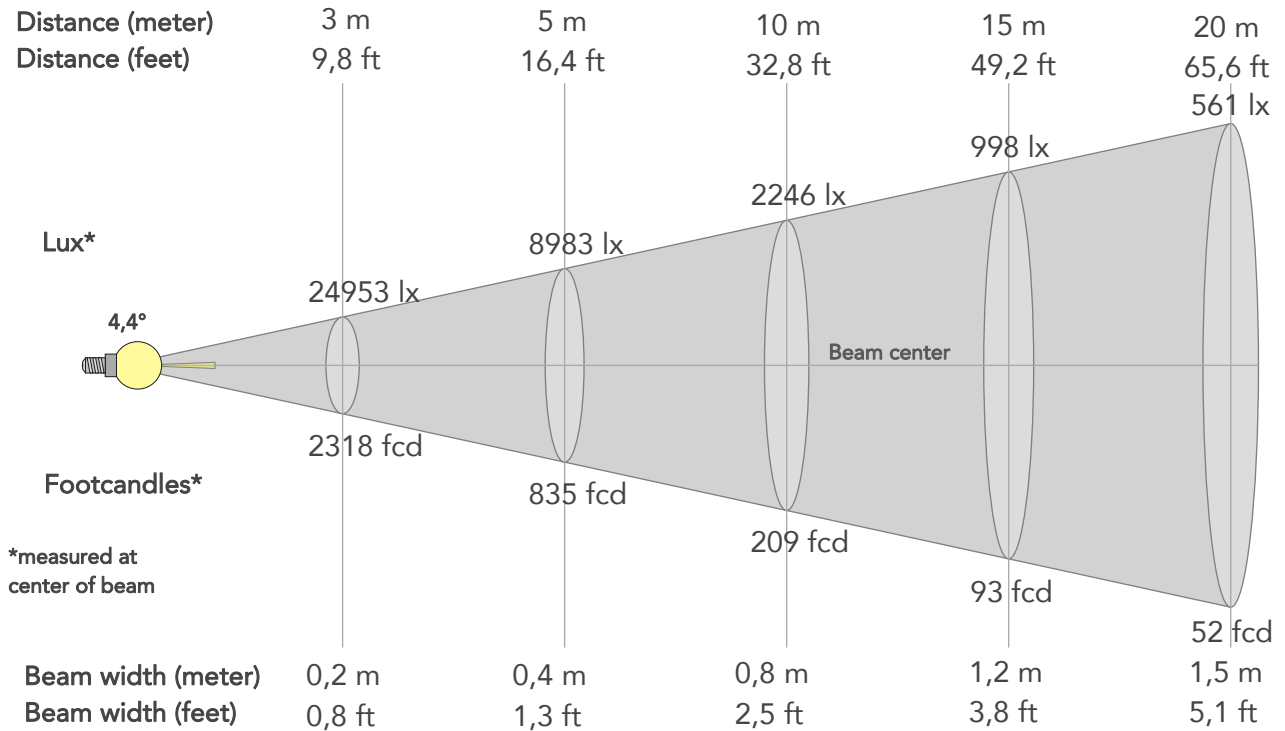
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-2%	-2%
2	97	-1%	1%
3	92	0%	5%
4	92	1%	4%
5	90	3%	4%
6	88	8%	4%
7	87	9%	0%
8	93	3%	-3%
9	94	-1%	-2%
10	94	-2%	2%
11	84	1%	10%
12	91	3%	5%
13	92	7%	1%
14	89	6%	2%
15	85	10%	-9%
16	93	3%	-3%



BEAM DETAILS



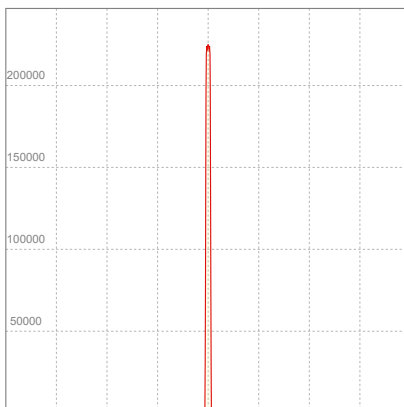
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
4,4°	5,4°	5,7°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	224574lx	56143lx	24953lx	14036lx	8983lx	3992lx	2246lx	998lx	561lx	359lx	250lx	140lx	90lx
Footcand.	20864fcd	5216fcd	2318fcd	1304fcd	835fcd	371fcd	209fcd	93fcd	52fcd	33fcd	23fcd	13fcd	8fcd
Beam wid.	0,1m	0,2m	0,2m	0,3m	0,4m	0,6m	0,8m	1,2m	1,5m	1,9m	2,3m	3,1m	3,9m
Beam wid.	0,3ft	0,5ft	0,8ft	1ft	1,3ft	1,9ft	2,5ft	3,8ft	5,1ft	6,3ft	7,6ft	10,1ft	12,7ft

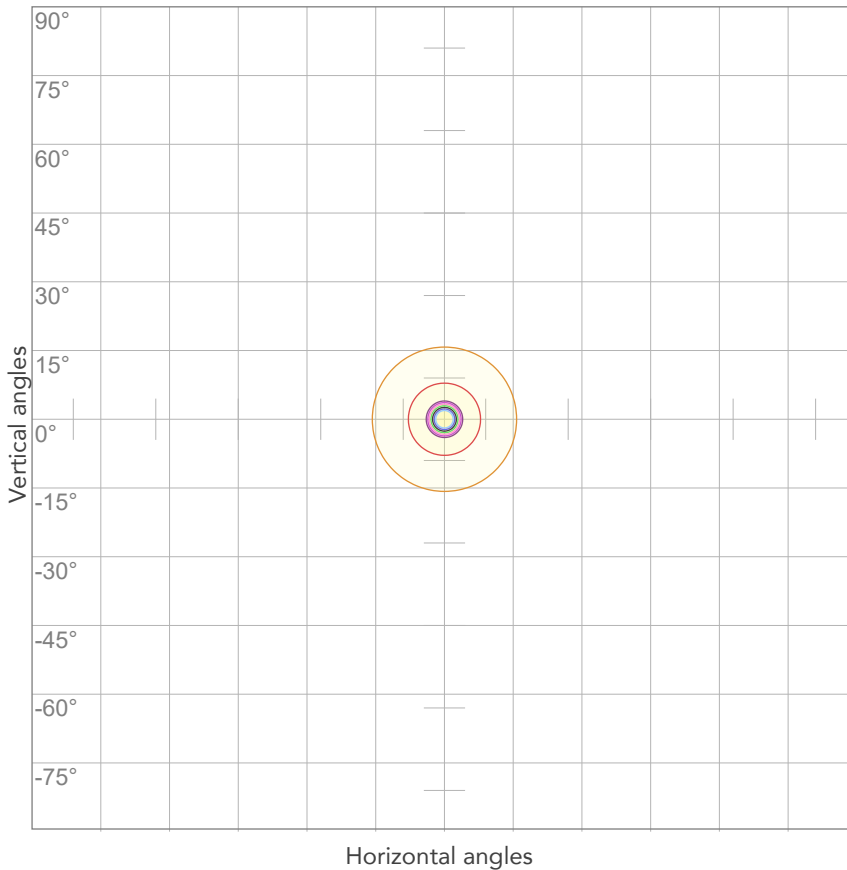
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,616A	121,7W	9lm/W

ISO CANDELA DIAGRAM



10%	22457 cd
20%	44915 cd
30%	67372 cd
40%	89830 cd
50%	112287 cd
60%	134744 cd
70%	157202 cd
80%	179659 cd

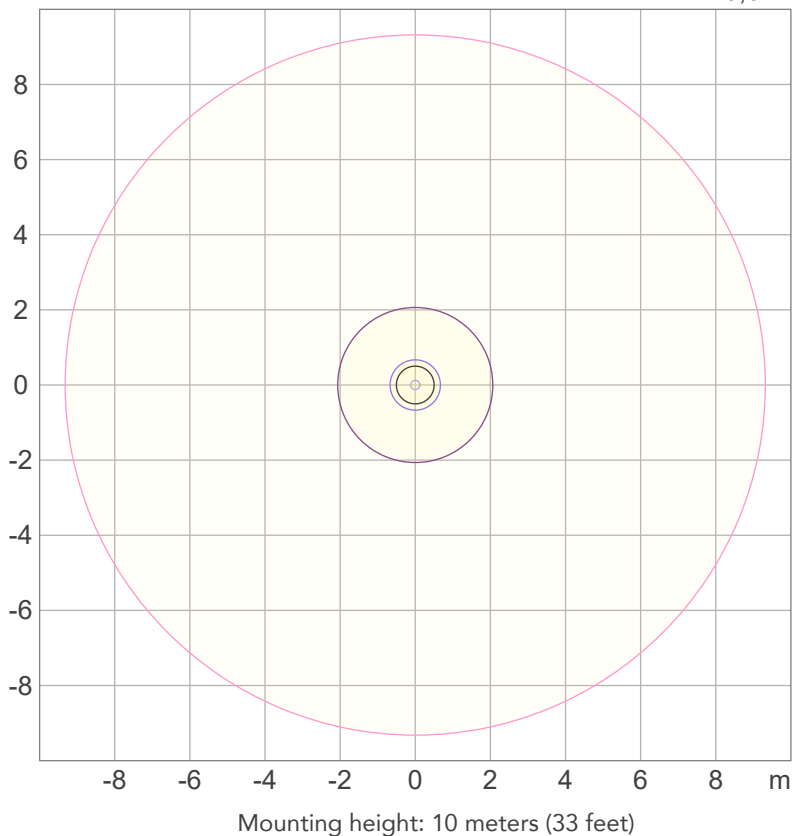
Conditions:

Number of c-planes: 2

Candela at center: 224574 cd

ISO LUX DIAGRAM

MH: 10,0 m



3%	67,4 lx
5%	112 lx
10%	225 lx
30%	674 lx
50%	1123 lx

Conditions:

Number of c-planes: 2

Lux at center: 2246 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.