



Photometric Test Report



ECLPENDANT S TU

50W Single Color House Light with
Passive Cooling

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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 20°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:

2814 lm

Peak candela output:

19890 cd

Light quality:

CRI: 98,1

Color temperature:

3080 K

PRODUCT NAME:
ECLPENDANTS TU

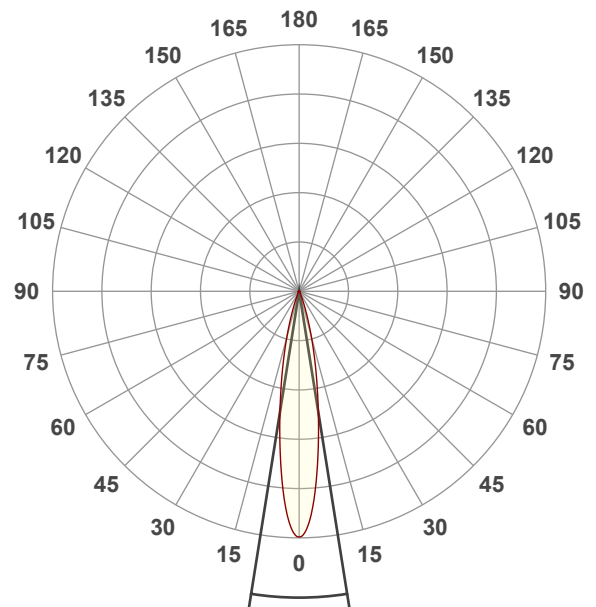
MEASURAMENT CONDITIONS:

Beam angle:
20°

Target:
Full On

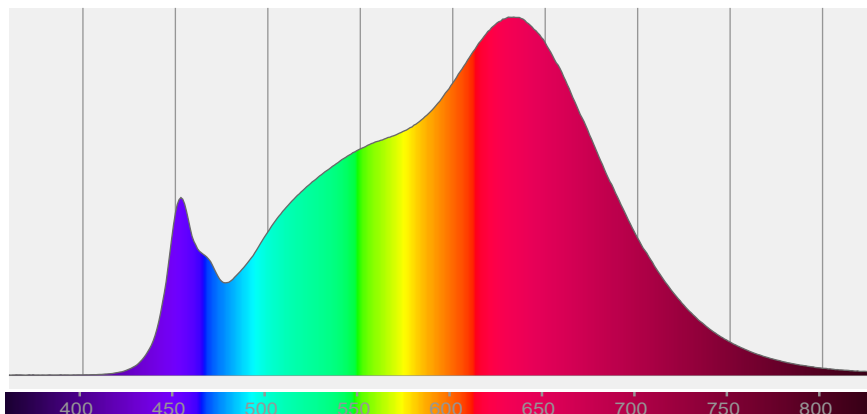
Operator:
Salvatore Giglio

Date and time:
05/02/2024 14:08:21

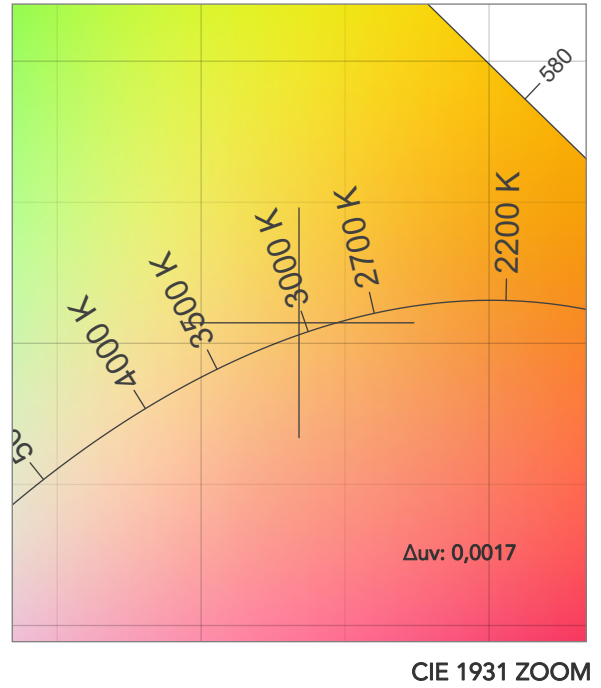
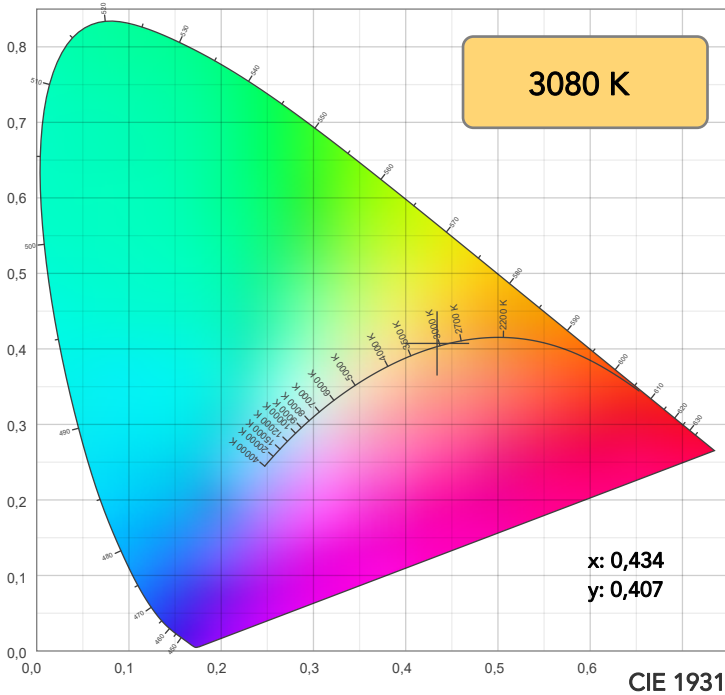


Beam angle 50%: 18°
Field angle 10%: 36,1°
Cut off angle 2.5%: 47,4°

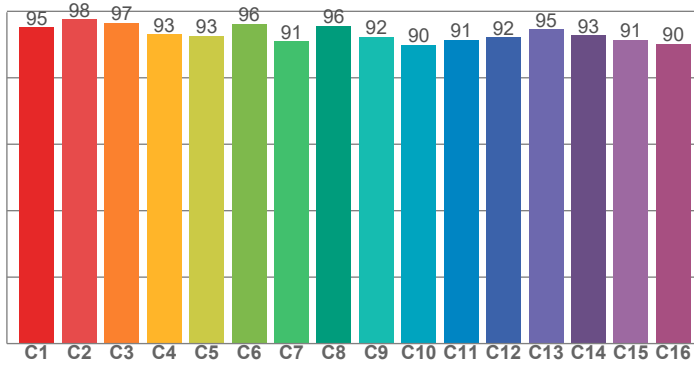
Spectra



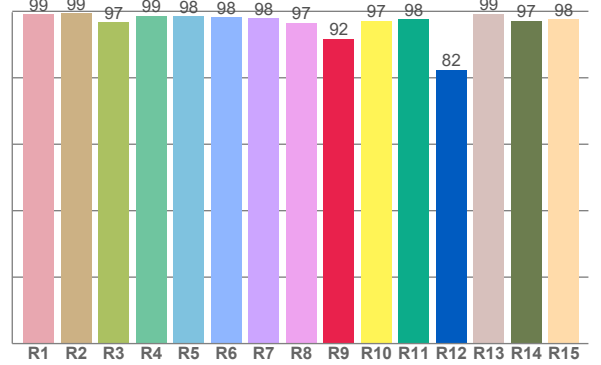
COLOR DETAILS



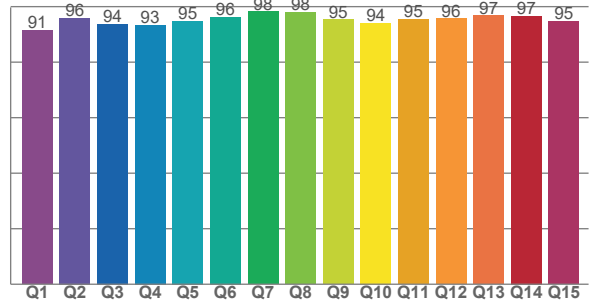
TM30: 93,4



CRI: 98,1 (R1-R8)



CQS: 94,9



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
99,1	99,4	96,7	98,7	98,5	98,2	97,9	96,6	91,8	97,2	97,6	82,4	99,2	97,1	97,6

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
95,1	97,6	96,5	93,1	92,6	96,2	91,0	95,5	92,3	89,9	91,3	92,2	94,5	92,7	91,4	90,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91,5	96,0	93,7	93,4	94,9	96,2	98,2	97,9	95,4	94,2	95,4	95,8	96,8	96,5	94,7

COLOR PARAMETERS

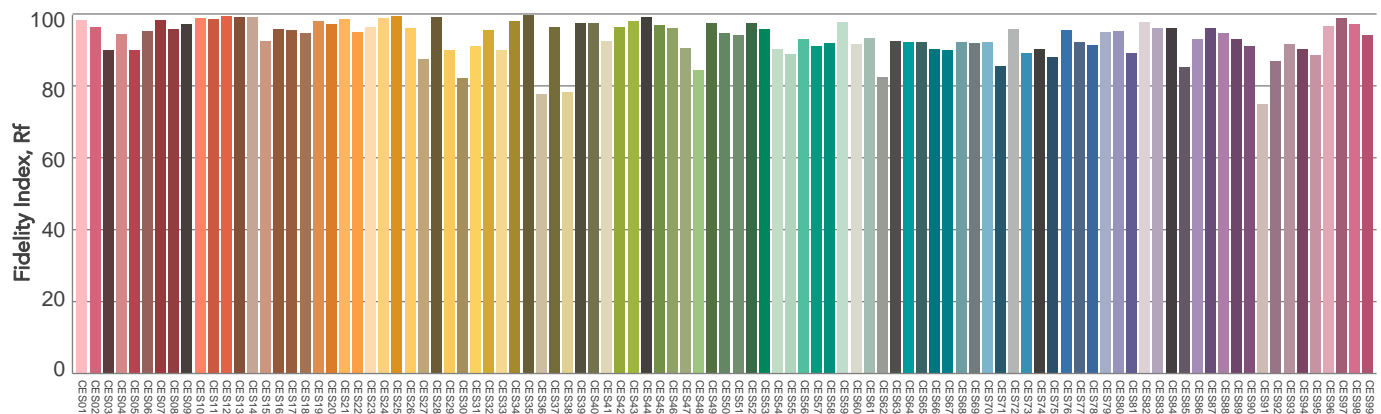
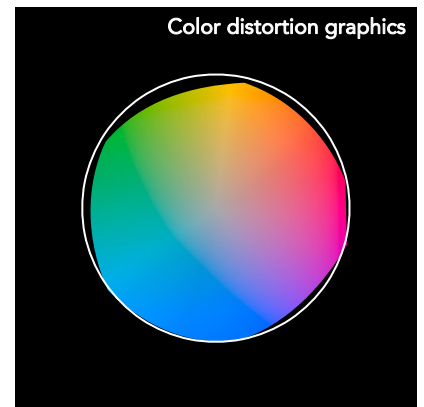
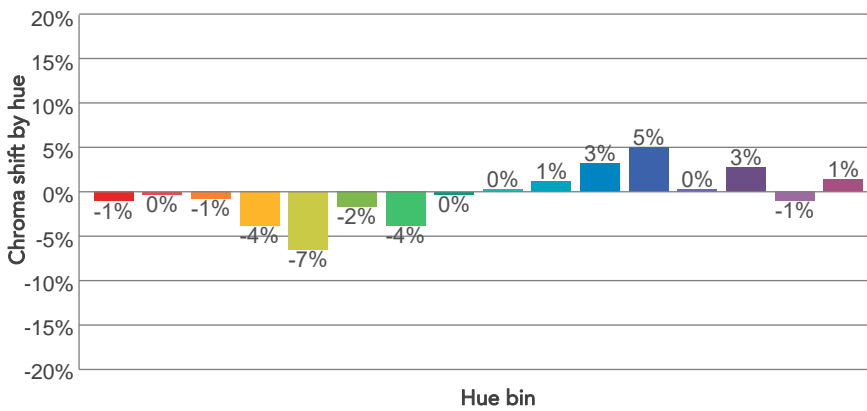
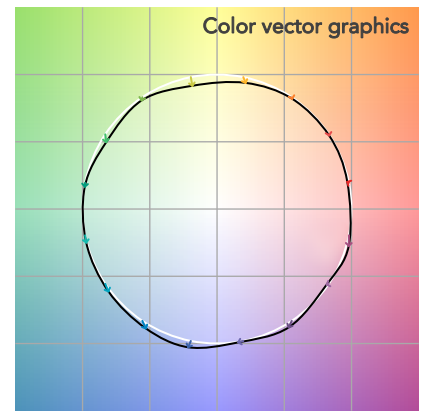
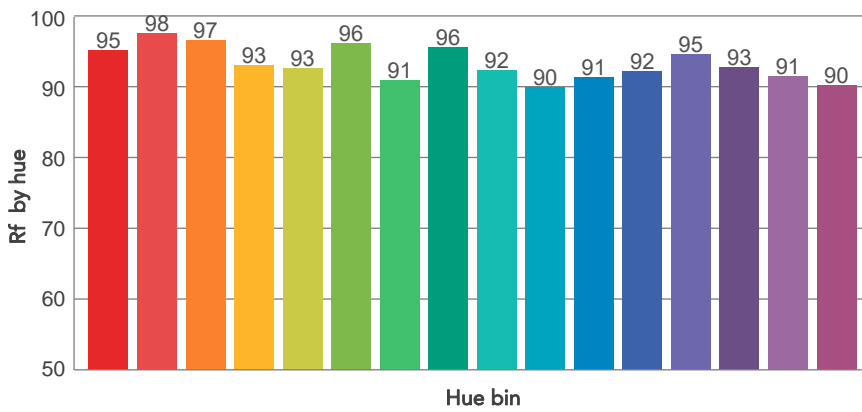
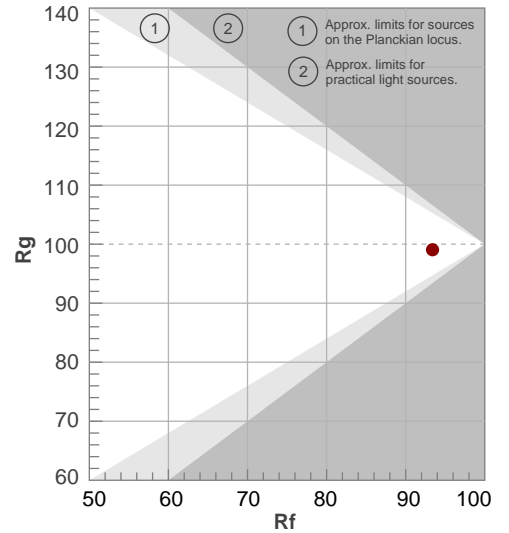
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3080 K	98,1	91,8	93,4	99,1	94,9	98	0,434	0,407	0,0017

TM30 DETAILS

Rf 93,4
Fidelity index Rf

Rg 99,1
Gammut index

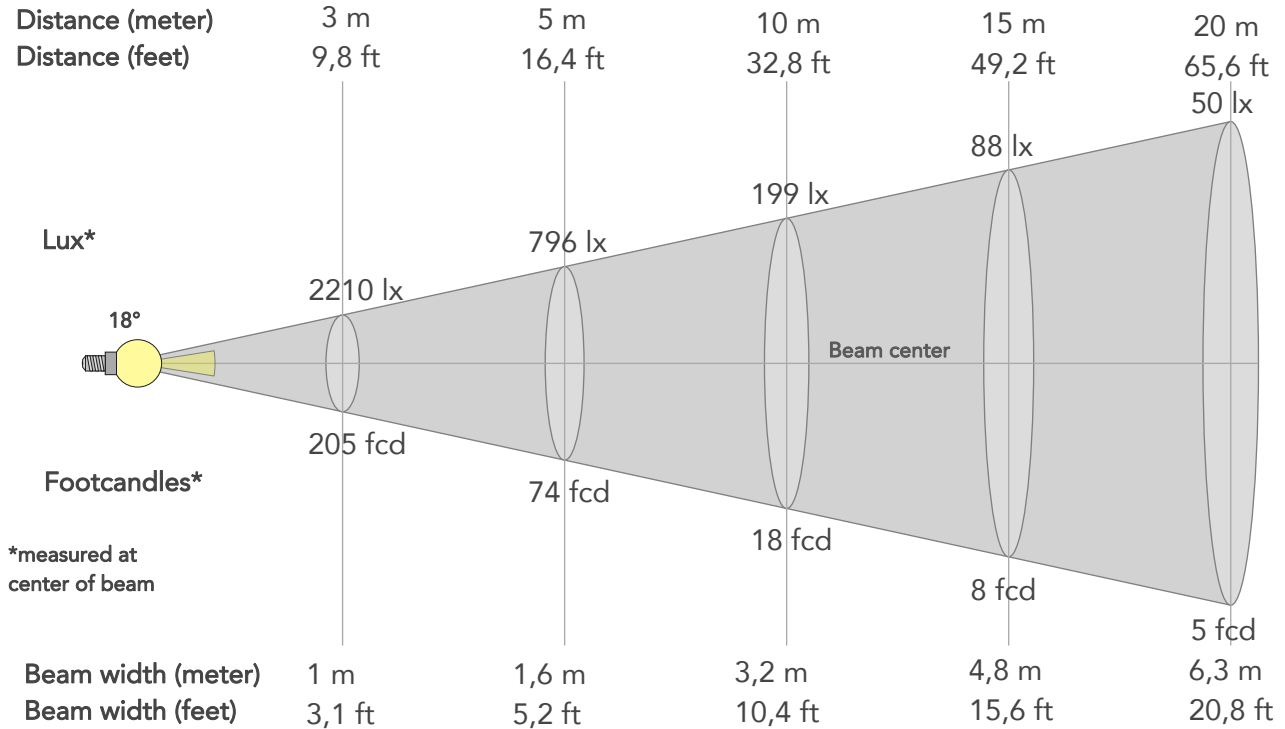
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	98	0%	-1%
3	97	-1%	-1%
4	93	-4%	-3%
5	93	-7%	0%
6	96	-2%	2%
7	91	-4%	4%
8	96	0%	3%
9	92	0%	5%
10	90	1%	6%
11	91	3%	5%
12	92	5%	-1%
13	95	0%	-4%
14	93	3%	-5%
15	91	-1%	-1%
16	90	1%	-8%



BEAM DETAILS



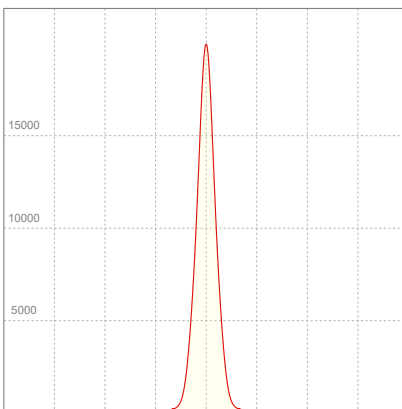
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
18°	36,1°	47,4°	98,1%	95,4%



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	19890lx	4972lx	2210lx	1243lx	796lx	354lx	199lx	88lx	50lx	32lx	22lx	12lx	8lx
Footcand.	1848fcd	462fcd	205fcd	115fcd	74fcd	33fcd	18fcd	8fcd	5fcd	3fcd	2fcd	1fcd	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

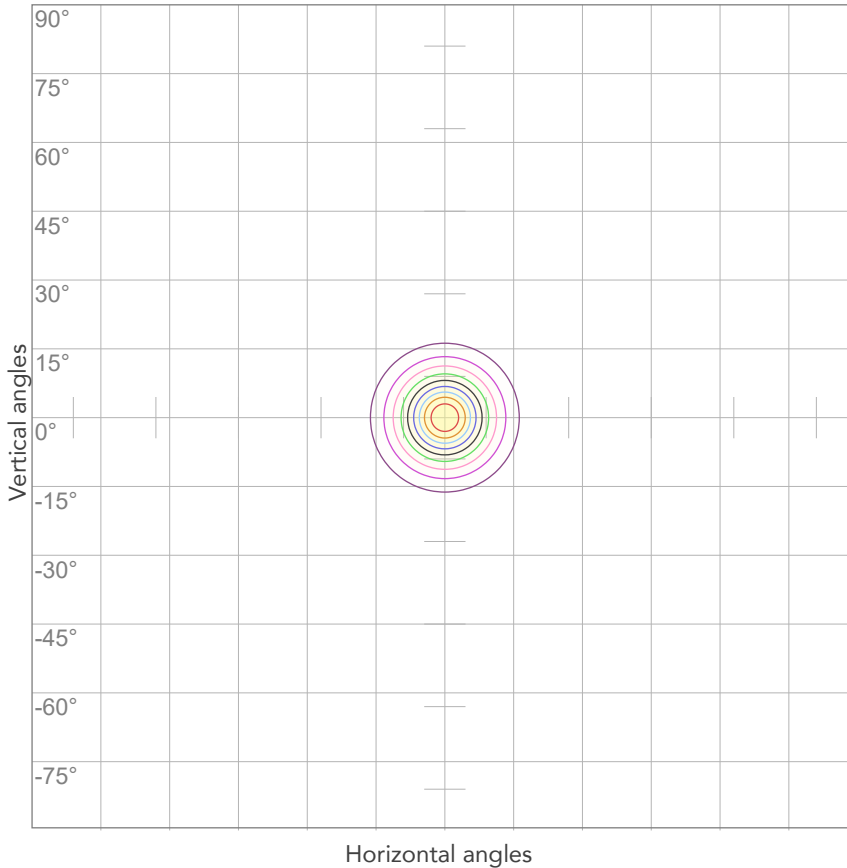


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
222V	0,294A	61,1W	0,94	46lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



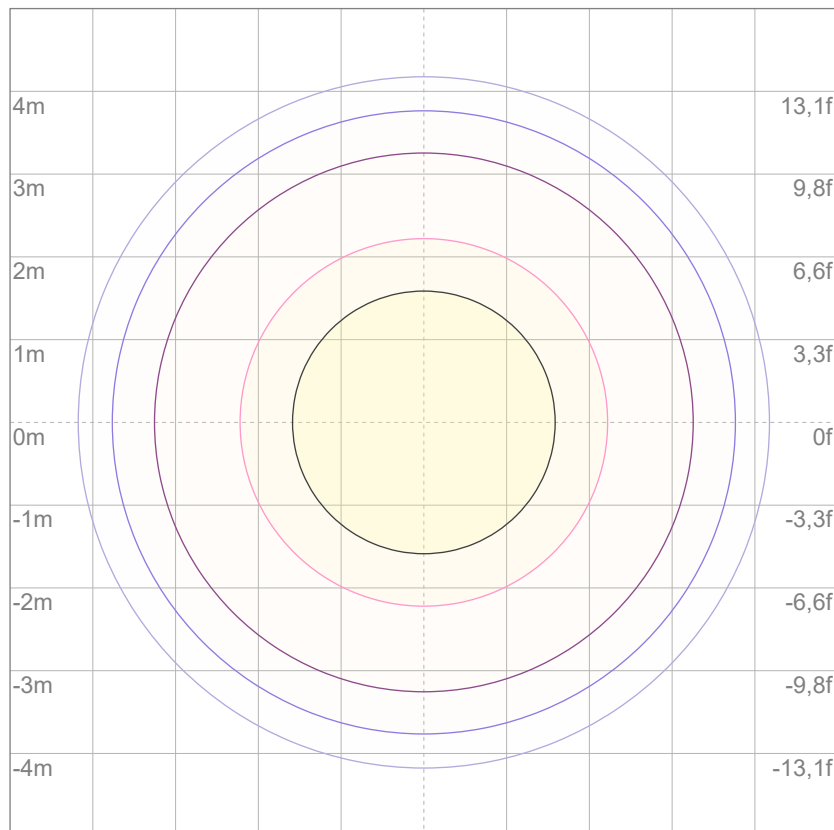
10%	1989 cd
20%	3978 cd
30%	5967 cd
40%	7956 cd
50%	9945 cd
60%	11934 cd
70%	13923 cd
80%	15912 cd

Conditions:

Number of c-planes: 2

Candela at center: 19890 cd

ISO LUX DIAGRAM



3%	5,97 lx
5%	9,94 lx
10%	19,9 lx
30%	59,7 lx
50%	99,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 199 lx

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



Total lumen output:

2750 lm

Peak candela output:

5995 cd

Light quality:

CRI: 98,1

Color temperature:

3076 K

PRODUCT NAME:
ECLPENDANTS TU

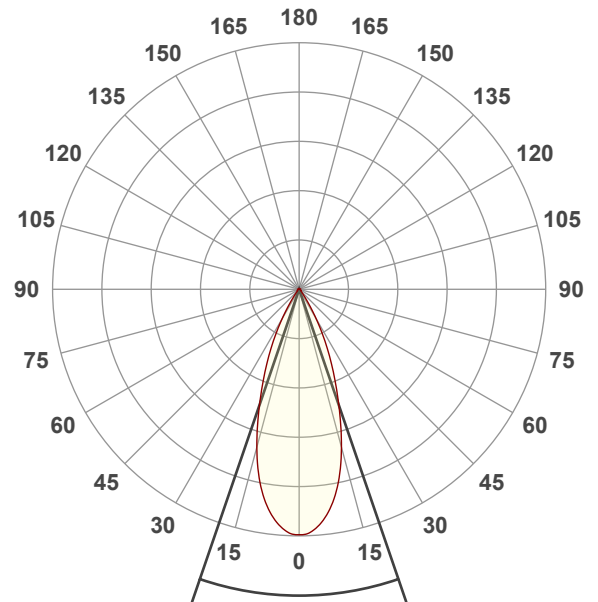
MEASURAMENT CONDITIONS:

Beam angle:
40°

Target:
Full On

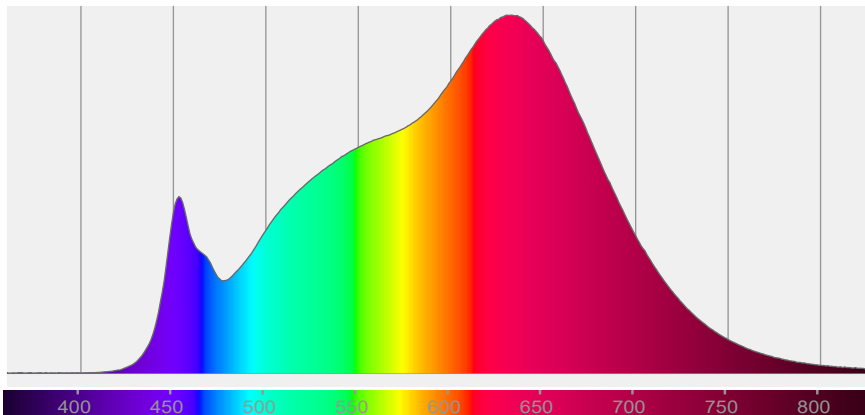
Operator:
Salvatore Giglio

Date and time:
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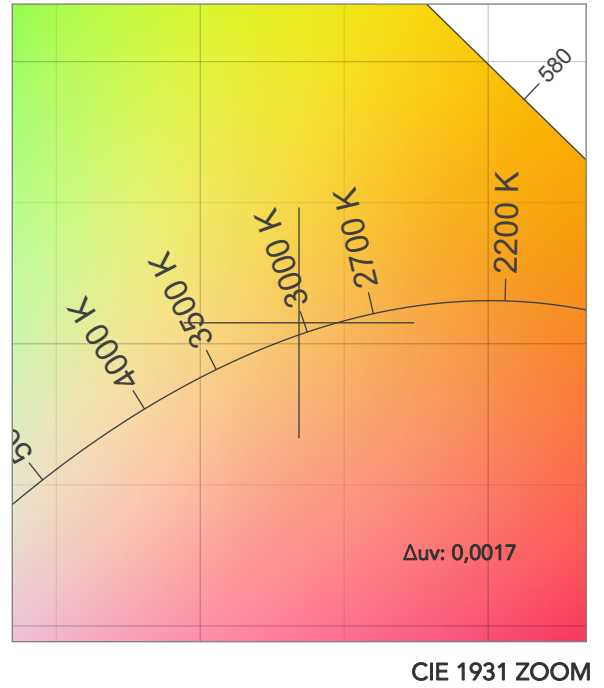
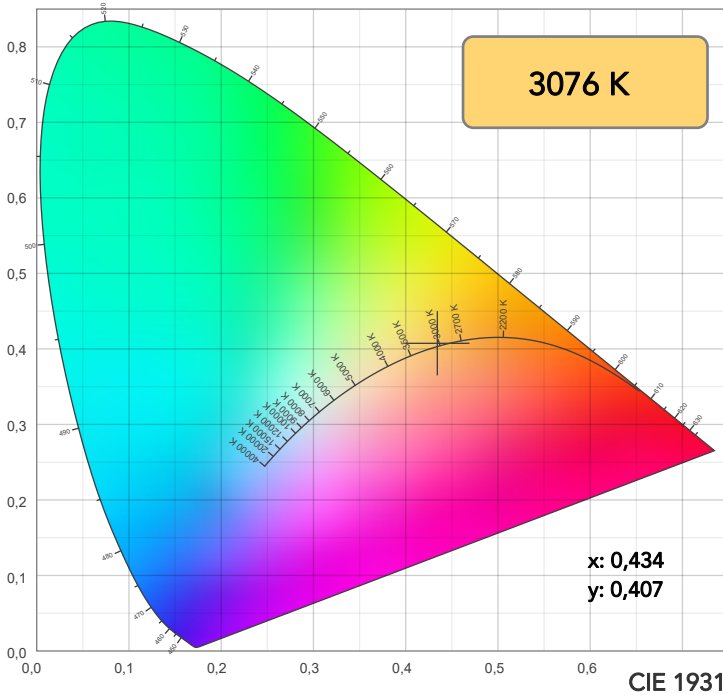


Beam angle 50%: 37,8°
Field angle 10%: 63,6°
Cut off angle 2.5%: 77,6°

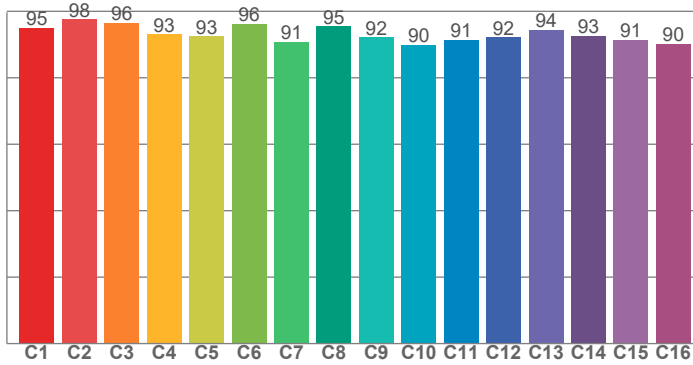
Spectra



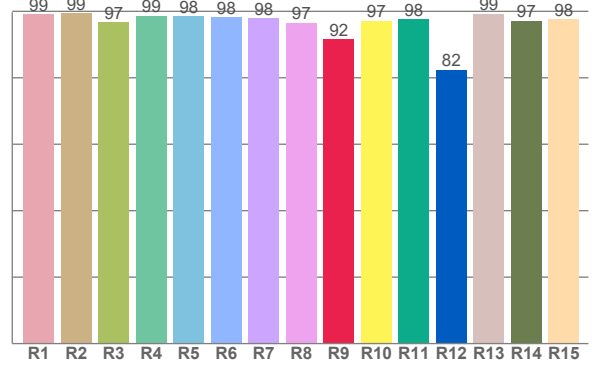
COLOR DETAILS



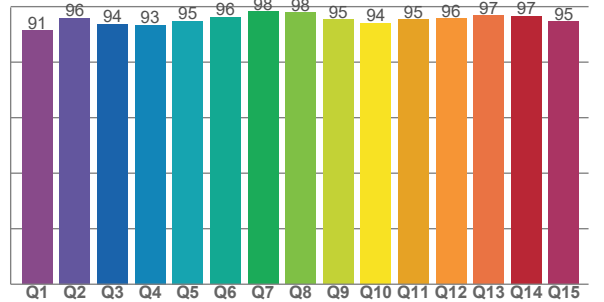
TM30: 93,4



CRI: 98,1 (R1-R8)



CQS: 94,9



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
99,1	99,5	96,7	98,7	98,4	98,2	97,8	96,5	91,7	97,2	97,7	82,4	99,2	97,2	97,5

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
95,1	97,6	96,5	93,0	92,5	96,1	90,9	95,5	92,2	89,8	91,3	92,1	94,5	92,7	91,4	90,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91,4	95,9	93,8	93,4	94,8	96,1	98,2	97,9	95,3	94,1	95,4	95,7	96,8	96,5	94,7

COLOR PARAMETERS

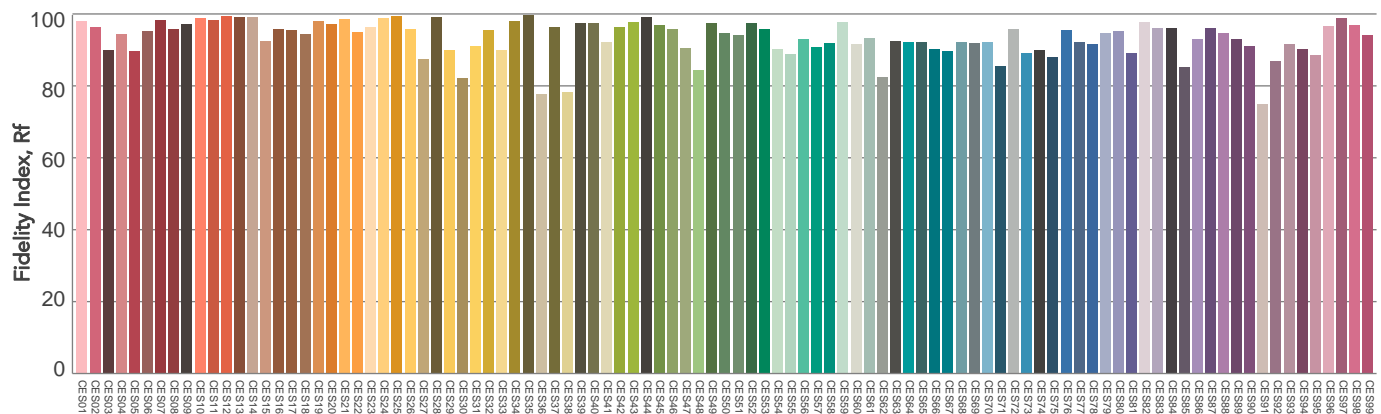
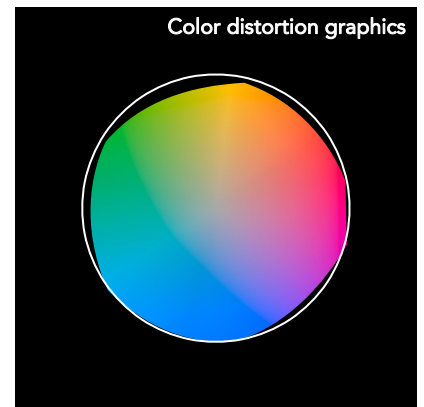
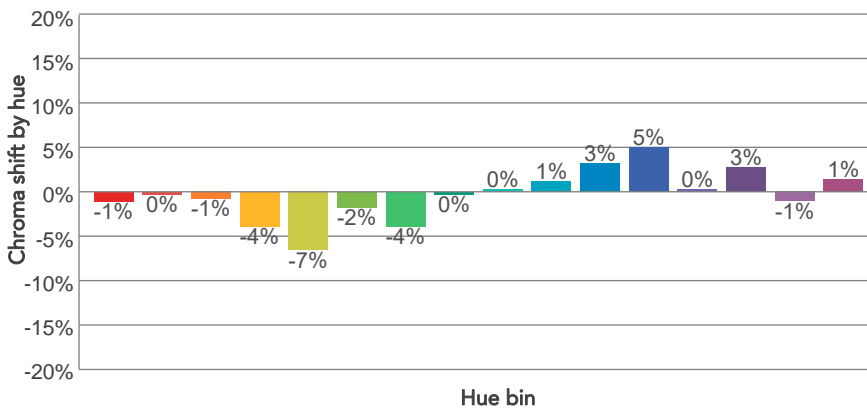
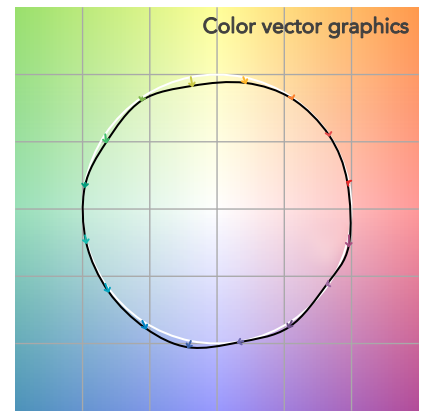
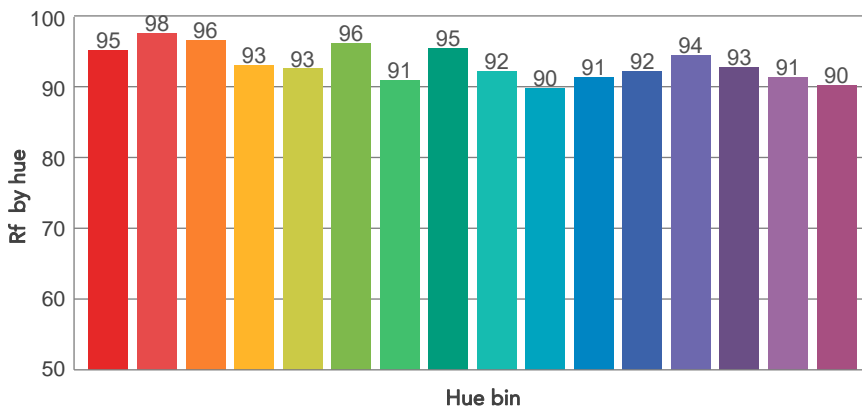
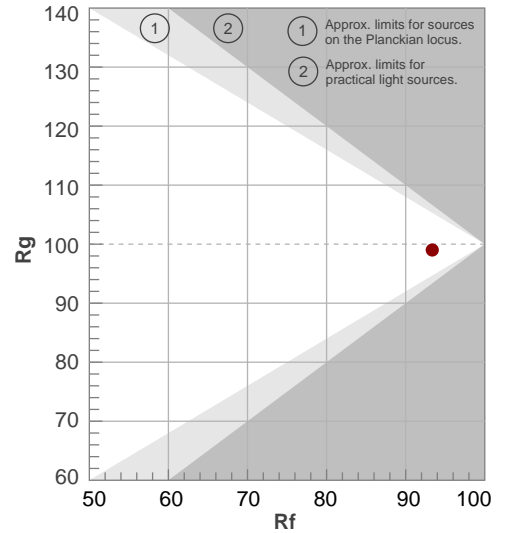
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3076 K	98,1	91,7	93,4	99,0	94,9	98	0,434	0,407	0,0017

TM30 DETAILS

Rf 93,4
Fidelity index Rf

Rg 99,0
Gammut index

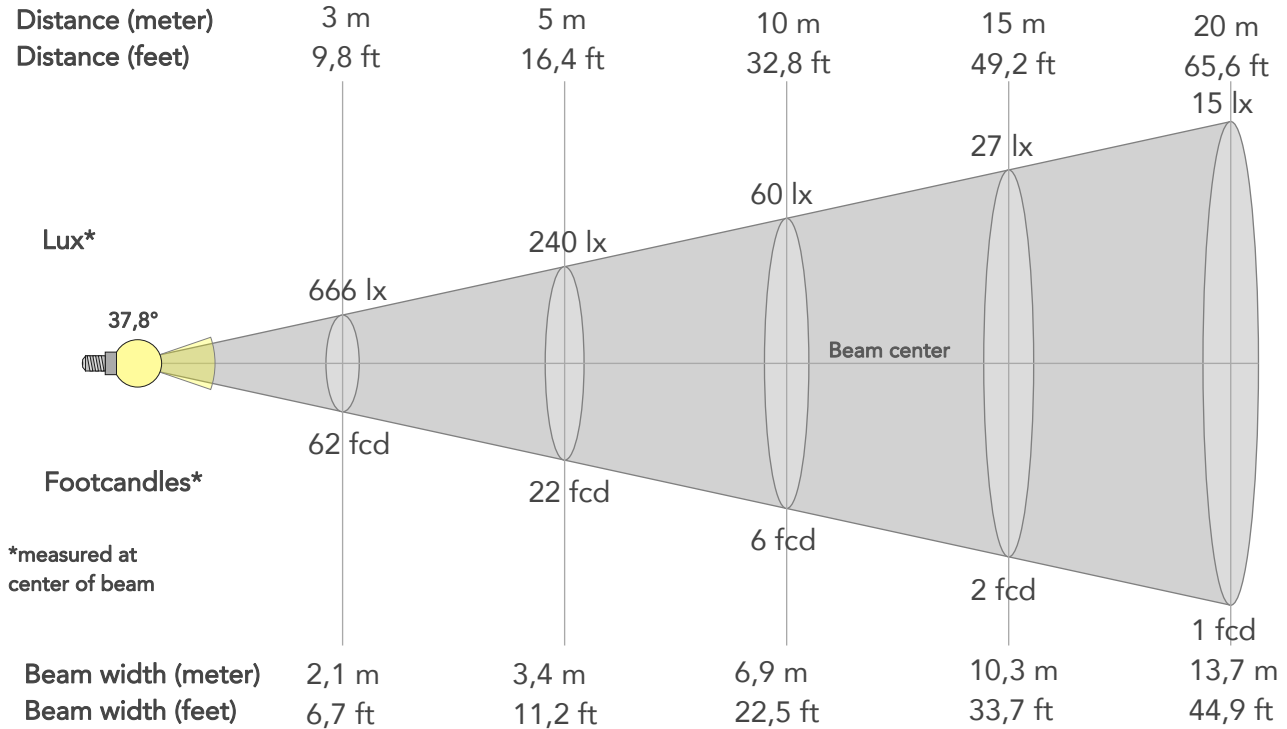
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	98	0%	-1%
3	96	-1%	-1%
4	93	-4%	-3%
5	93	-7%	0%
6	96	-2%	2%
7	91	-4%	4%
8	95	0%	3%
9	92	0%	6%
10	90	1%	6%
11	91	3%	5%
12	92	5%	-1%
13	94	0%	-4%
14	93	3%	-5%
15	91	-1%	-1%
16	90	1%	-8%



BEAM DETAILS



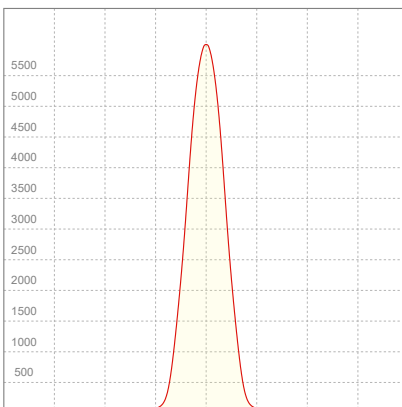
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
37,8°	63,6°	77,6°	98,7%	96,0%



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	5995lx	1499lx	666lx	375lx	240lx	107lx	60lx	27lx	15lx	10lx	7lx	4lx	2lx
Footcand.	557fcd	139fcd	62fcd	35fcd	22fcd	10fcd	6fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,7m	1,4m	2,1m	2,7m	3,4m	5,1m	6,9m	10,3m	13,7m	17,1m	20,6m	27,4m	34,3m
Beam wid.	2,3ft	4,5ft	6,7ft	9ft	11,2ft	16,9ft	22,5ft	33,7ft	44,9ft	56,2ft	67,4ft	89,9ft	112,4ft

LINEAR DISTRIBUTION DIAGRAM

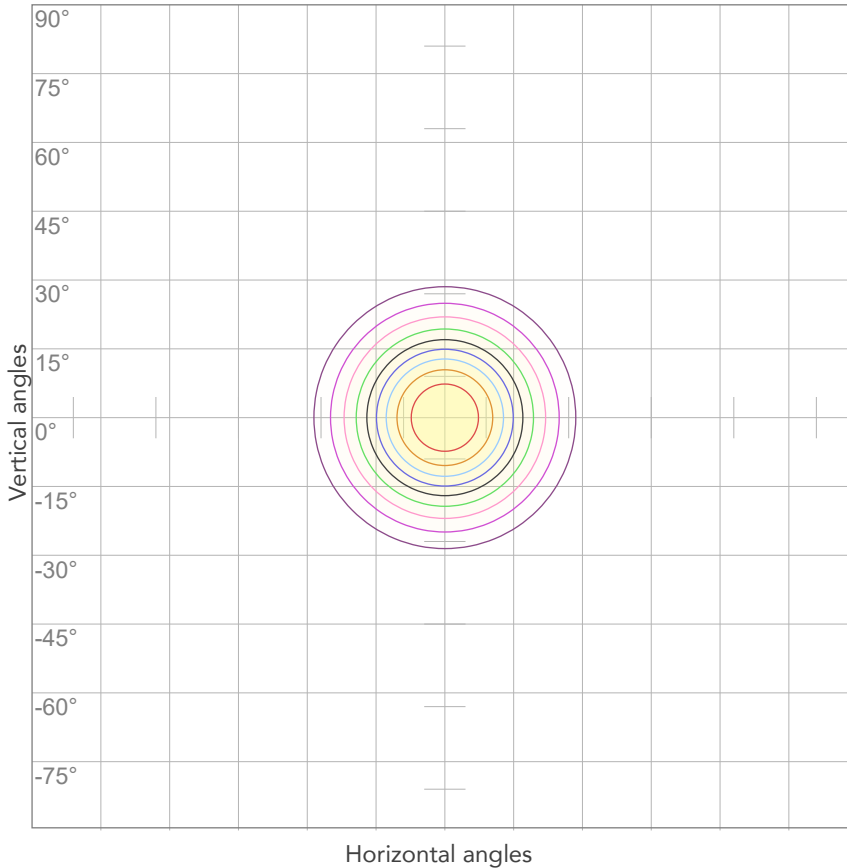


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
222V	0,293A	60,8W	0,93	45lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



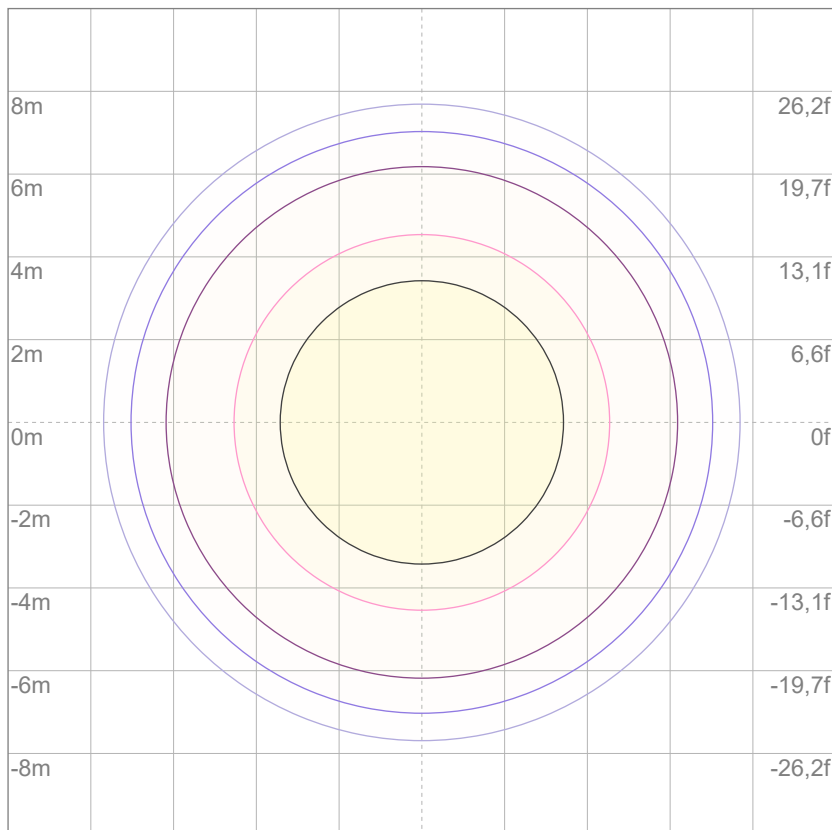
10%	600 cd
20%	1199 cd
30%	1799 cd
40%	2398 cd
50%	2998 cd
60%	3597 cd
70%	4197 cd
80%	4796 cd

Conditions:

Number of c-planes: 2

Candela at center: 5995 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	1,80 lx
5%	3,00 lx
10%	6,00 lx
30%	18,0 lx
50%	30,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 60,0 lx

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



Total lumen output:

2652 lm

Peak candela output:

2463 cd

Light quality:

CRI: 98,1

Color temperature:

3078 K

PRODUCT NAME:
ECLPENDANTS TU

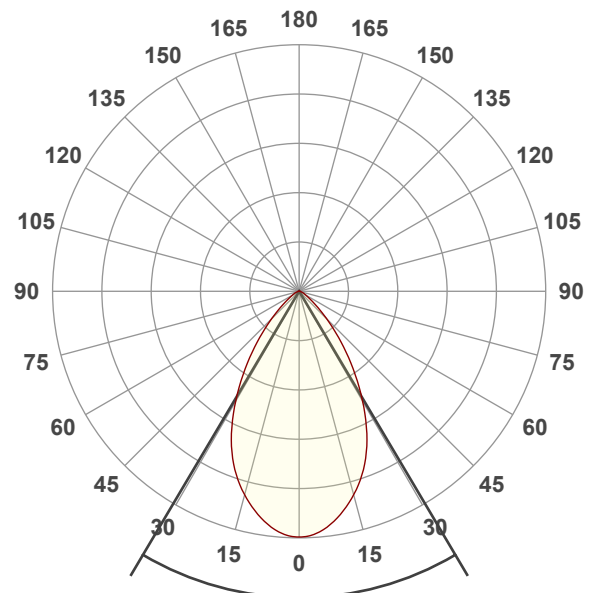
MEASURAMENT CONDITIONS:

Beam angle:
60°

Target:
Full On

Operator:
Salvatore Giglio

Date and time:
05/02/2024 14:38:04

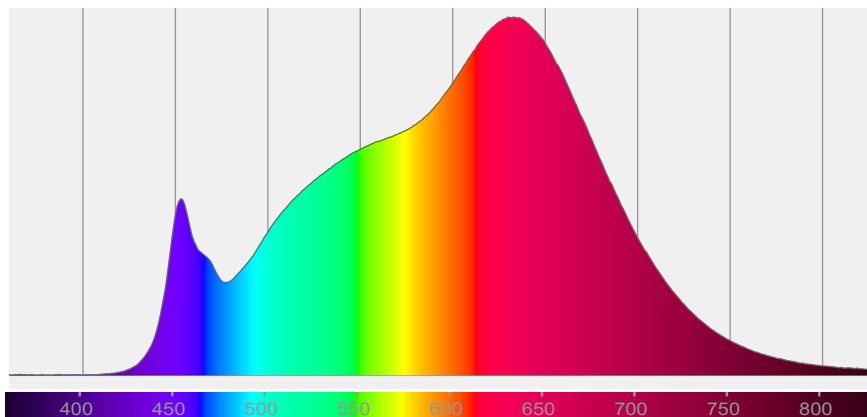


Beam angle 50%: 61,3°

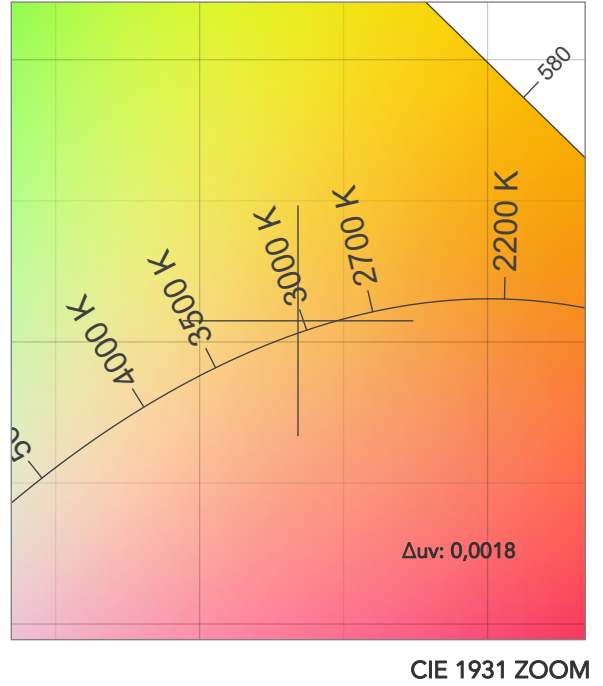
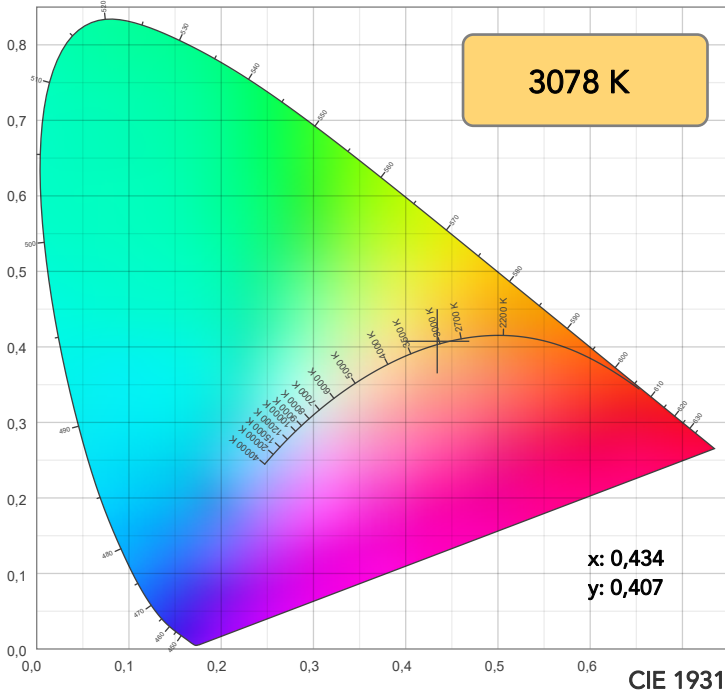
Field angle 10%: 98,7°

Cut off angle 2.5%: 126,5°

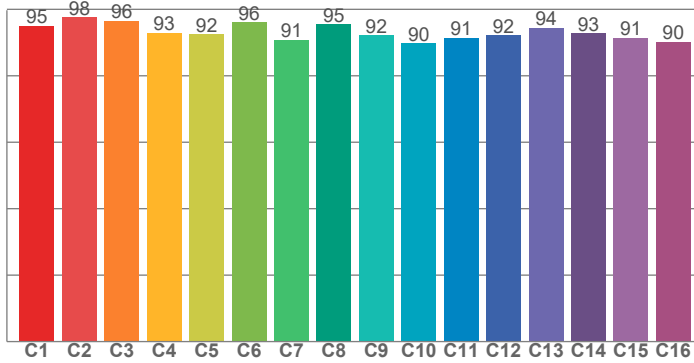
Spectra



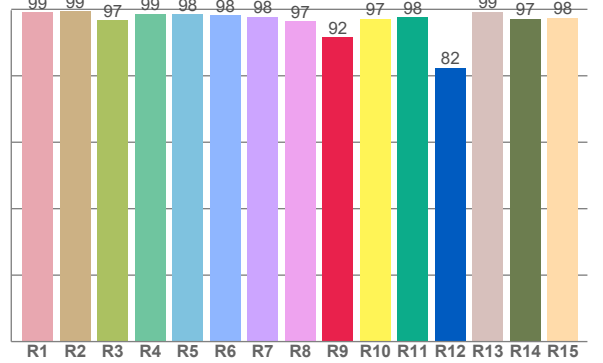
COLOR DETAILS



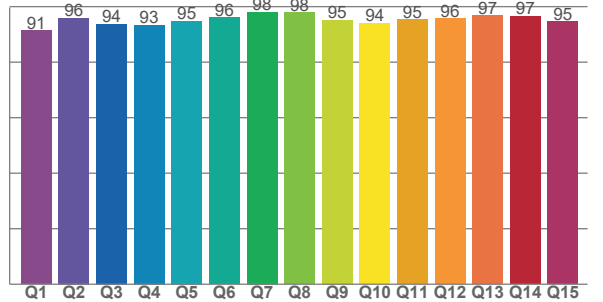
TM30: 93,3



CRI: 98,1 (R1-R8)



CQS: 94,9



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
99,1	99,4	96,7	98,7	98,4	98,2	97,8	96,5	91,6	97,2	97,7	82,4	99,2	97,2	97,5

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
95,1	97,5	96,5	93,0	92,5	96,1	90,8	95,4	92,2	89,8	91,3	92,1	94,5	92,7	91,4	90,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91,4	95,9	93,8	93,5	94,8	96,1	98,1	97,9	95,2	94,0	95,3	95,7	96,7	96,5	94,7

COLOR PARAMETERS

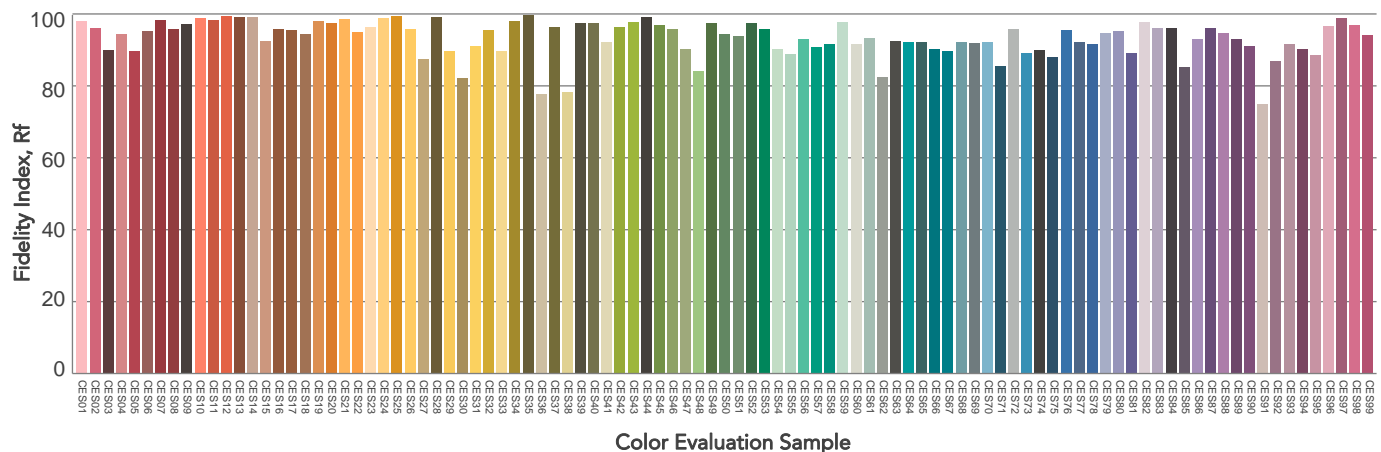
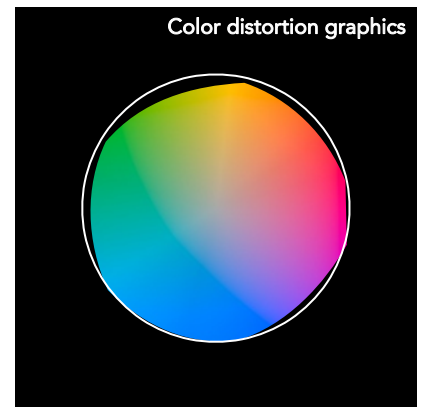
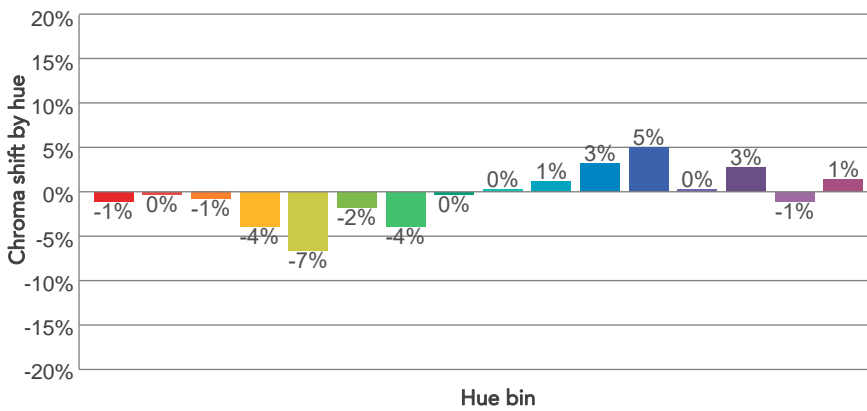
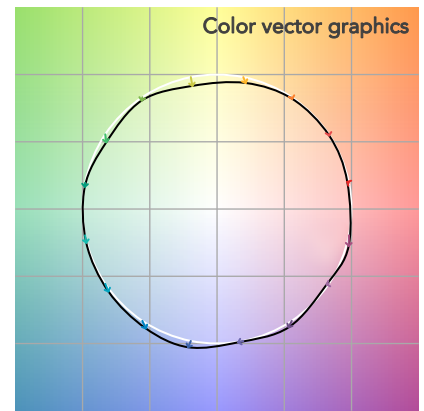
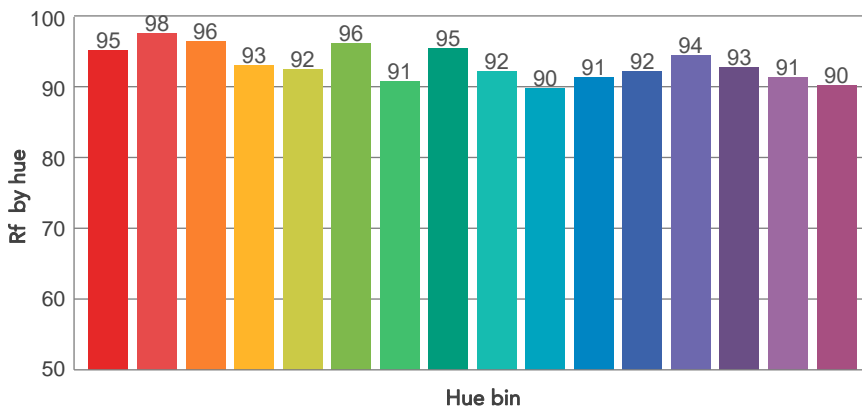
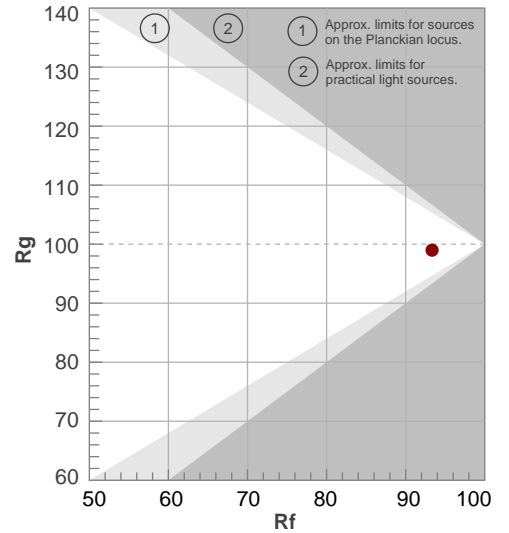
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3078 K	98,1	91,6	93,3	99,0	94,9	98	0,434	0,407	0,0018

TM30 DETAILS

Rf 93,3
Fidelity index Rf

Rg 99,0
Gammut index

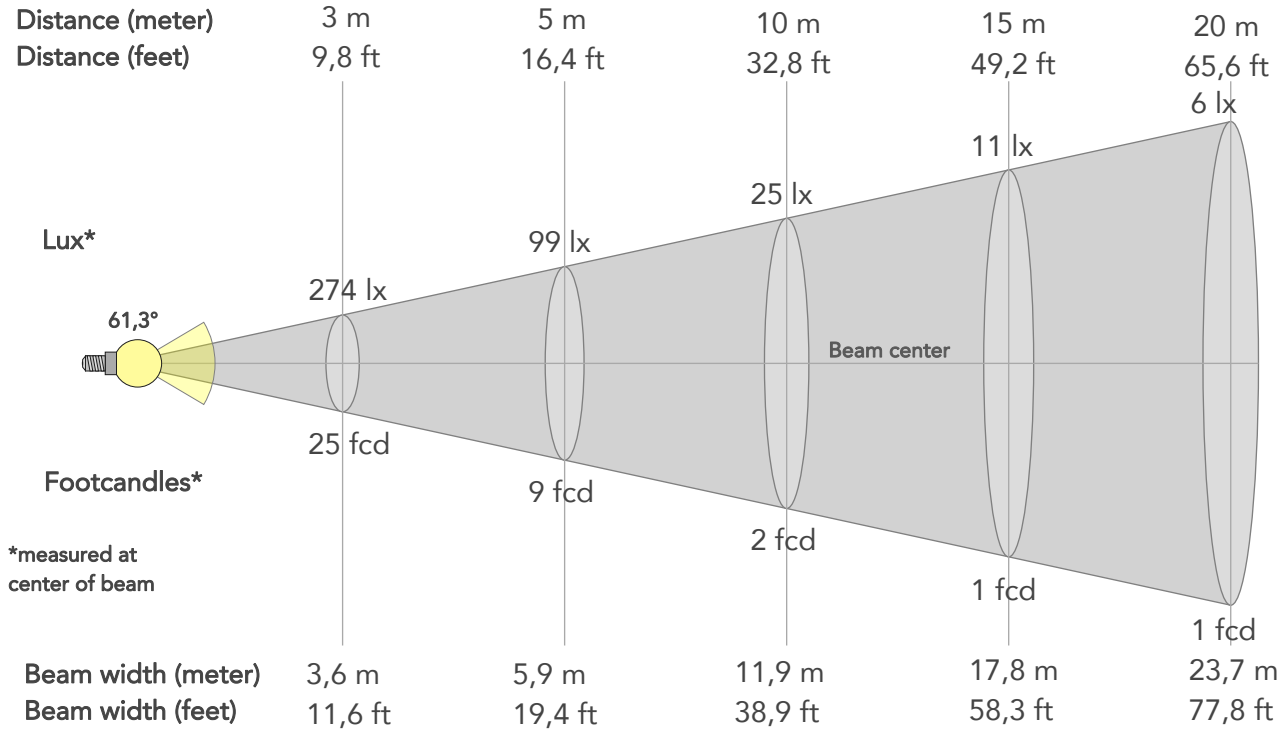
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	98	0%	-1%
3	96	-1%	-1%
4	93	-4%	-3%
5	92	-7%	0%
6	96	-2%	2%
7	91	-4%	4%
8	95	0%	3%
9	92	0%	6%
10	90	1%	6%
11	91	3%	5%
12	92	5%	-1%
13	94	0%	-4%
14	93	3%	-5%
15	91	-1%	-1%
16	90	1%	-8%



BEAM DETAILS



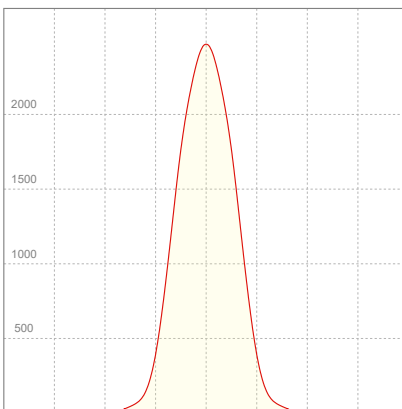
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
61,3°	98,7°	126,5°	96,9%	87,8%



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	2463lx	616lx	274lx	154lx	99lx	44lx	25lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	229fcd	57fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,2m	2,4m	3,6m	4,7m	5,9m	8,9m	11,9m	17,8m	23,7m	29,6m	35,6m	47,4m	59,3m
Beam wid.	3,9ft	7,8ft	11,6ft	15,5ft	19,4ft	29,2ft	38,9ft	58,3ft	77,8ft	97,2ft	116,6ft	155,5ft	194,4ft

LINEAR DISTRIBUTION DIAGRAM

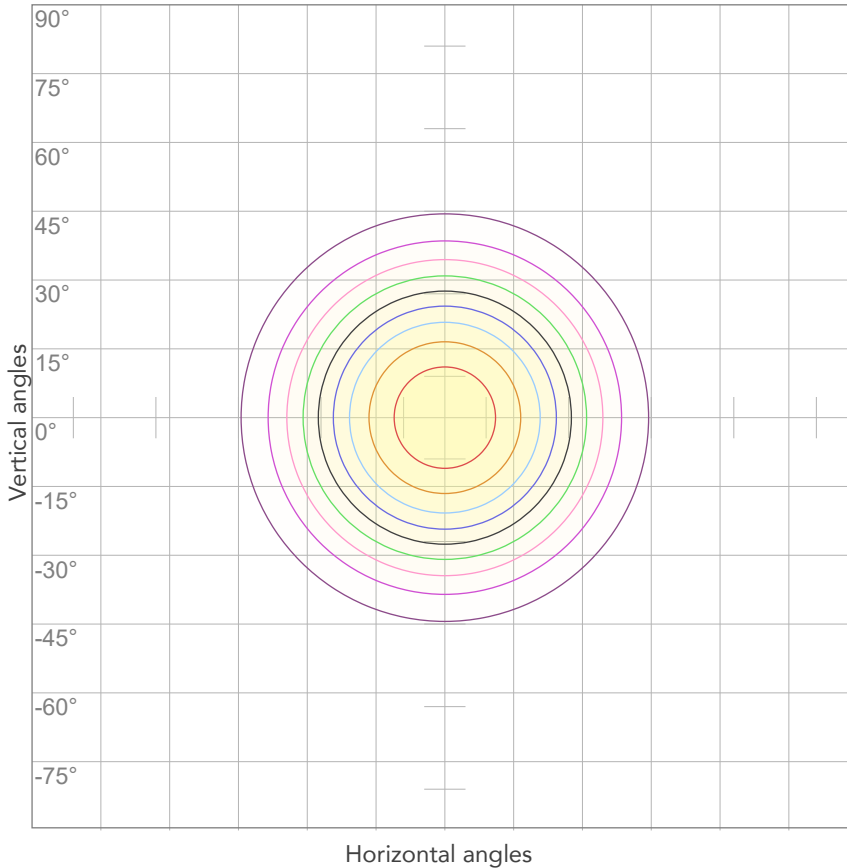


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Efficiency
222V	0,292A	60,8W	0,94	44lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



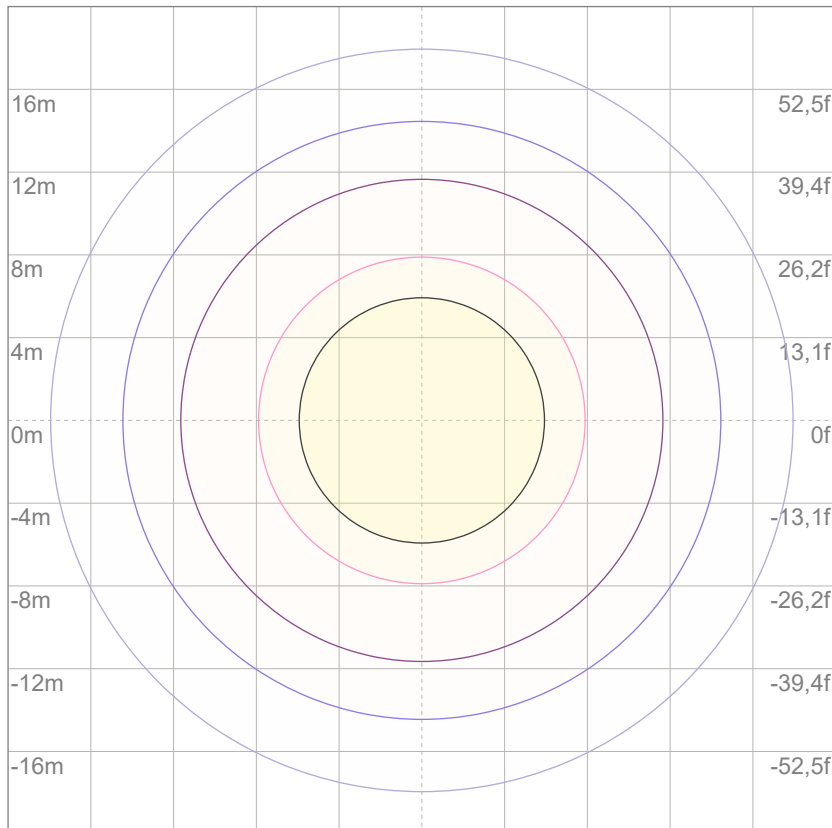
10%	246 cd
20%	493 cd
30%	739 cd
40%	985 cd
50%	1232 cd
60%	1478 cd
70%	1724 cd
80%	1971 cd

Conditions:

Number of c-planes: 2

Candela at center: 2463 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,739 lx
5%	1,23 lx
10%	2,46 lx
30%	7,39 lx
50%	12,3 lx

Conditions:

Number of c-planes: 2

Lux at center: 24,6 lx

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