

Photometric Test Report



MOSAICOL

300 W IP66 zoomable LED image projector
with an animation wheel and framing shutters

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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:

11729 lm

Peak candela output:

23182 cd

Light quality:

CRI: 74,2

Color temperature:

7637 K

PRODUCT NAME:

MOSAICO L

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

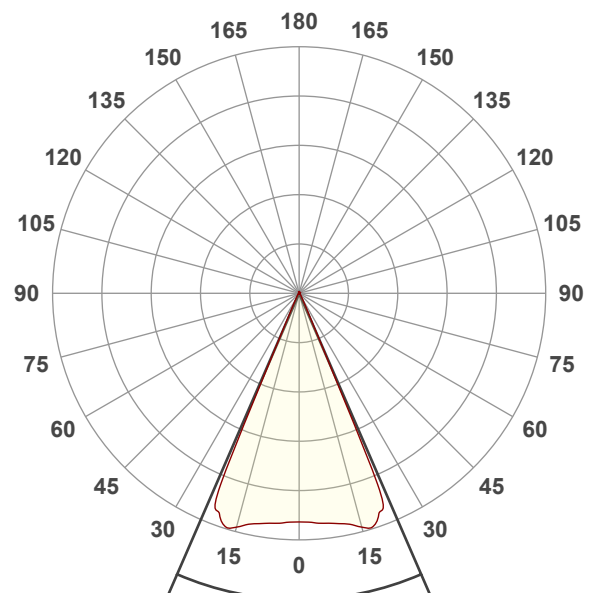
Full on

Operator:

Paolo Carvone

Date and time:

22/02/2022 09:50:35

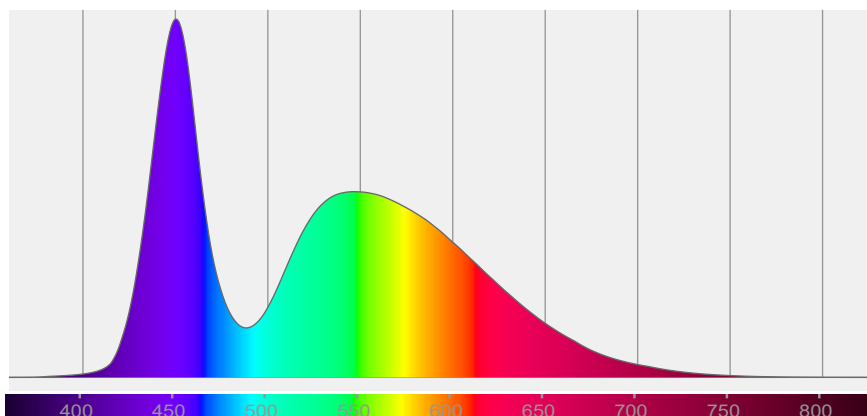


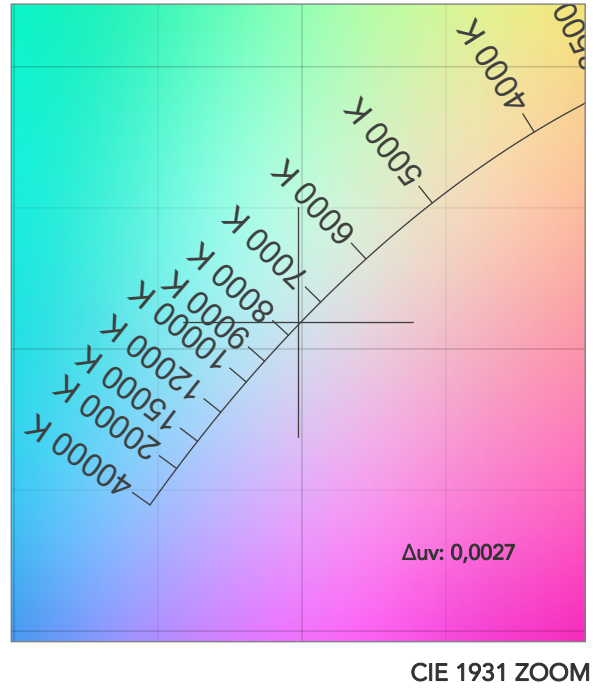
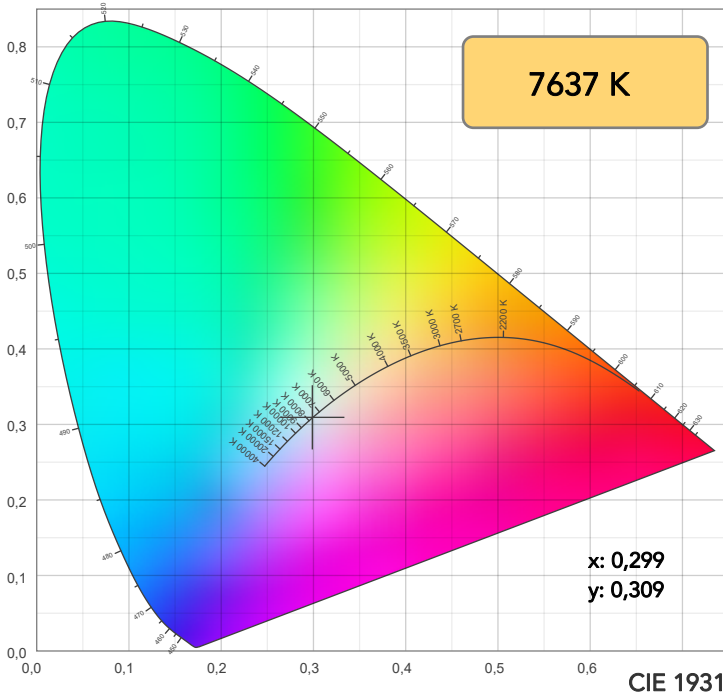
Beam angle 50%: 46,9°

Field angle 10%: 49,6°

Cut off angle 2.5%: 53,3°

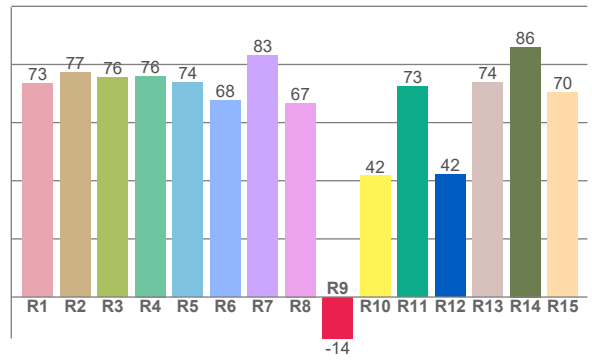
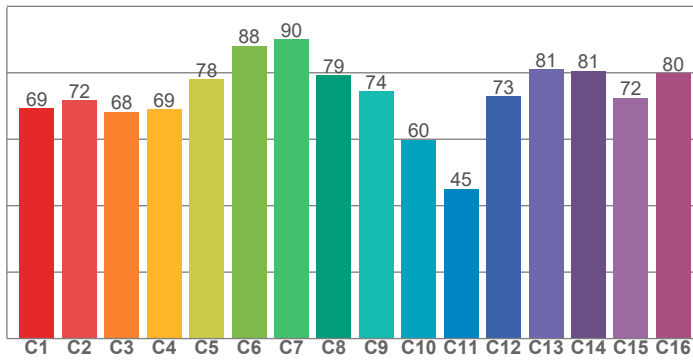
Spectra



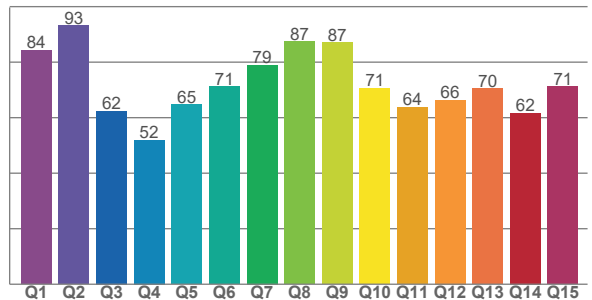


TM30: 73,3

CRI: 74,2 (R1-R8)



CQS: 70,2



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
73,4	77,1	75,5	76,0	73,7	67,6	83,1	66,7	-14,3	41,7	72,6	42,0	73,9	86,0	70,2

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
69,2	71,7	68,3	68,9	78,0	88,1	90,0	79,3	74,4	59,9	45,1	73,0	81,1	80,6	72,4	79,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,3	93,2	62,4	51,9	64,7	71,3	78,9	87,4	87,0	70,6	63,7	66,3	70,5	61,7	71,2

COLOR PARAMETERS

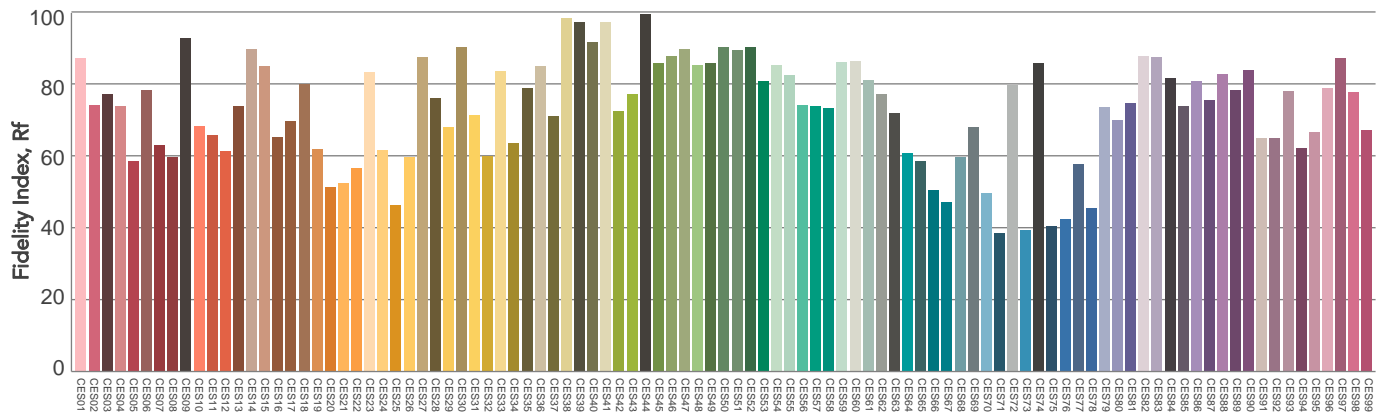
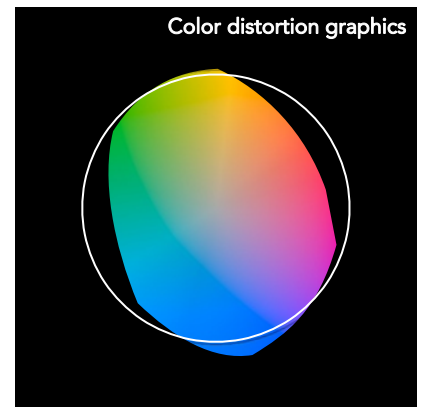
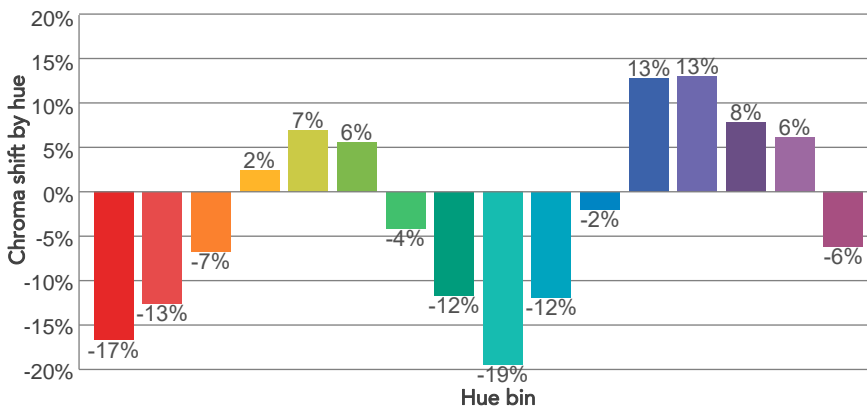
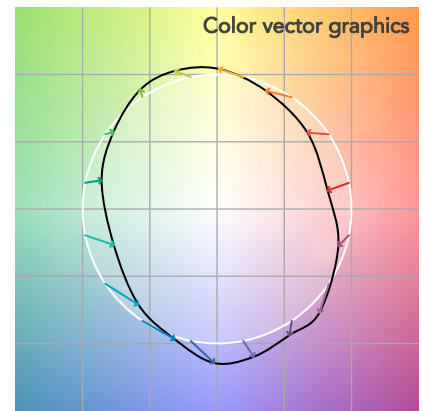
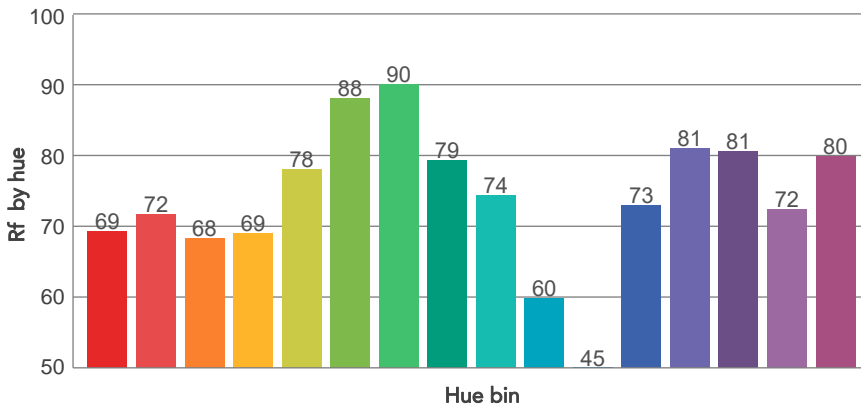
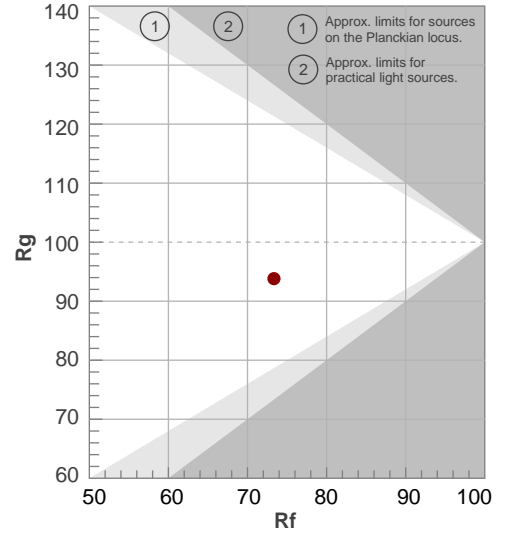
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7637 K	74,2	-14,3	73,3	93,8	70,2	50	0,299	0,309	0,0027

TM30 DETAILS

Rf 73,3
Fidelity index Rf

Rg 93,8
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	69	-17%	-3%
2	72	-13%	10%
3	68	-7%	19%
4	69	2%	19%
5	78	7%	10%
6	88	6%	-2%
7	90	-4%	-5%
8	79	-12%	-4%
9	74	-19%	11%
10	60	-12%	27%
11	45	-2%	28%
12	73	13%	20%
13	81	13%	5%
14	81	8%	-7%
15	72	6%	-22%
16	80	-6%	-9%

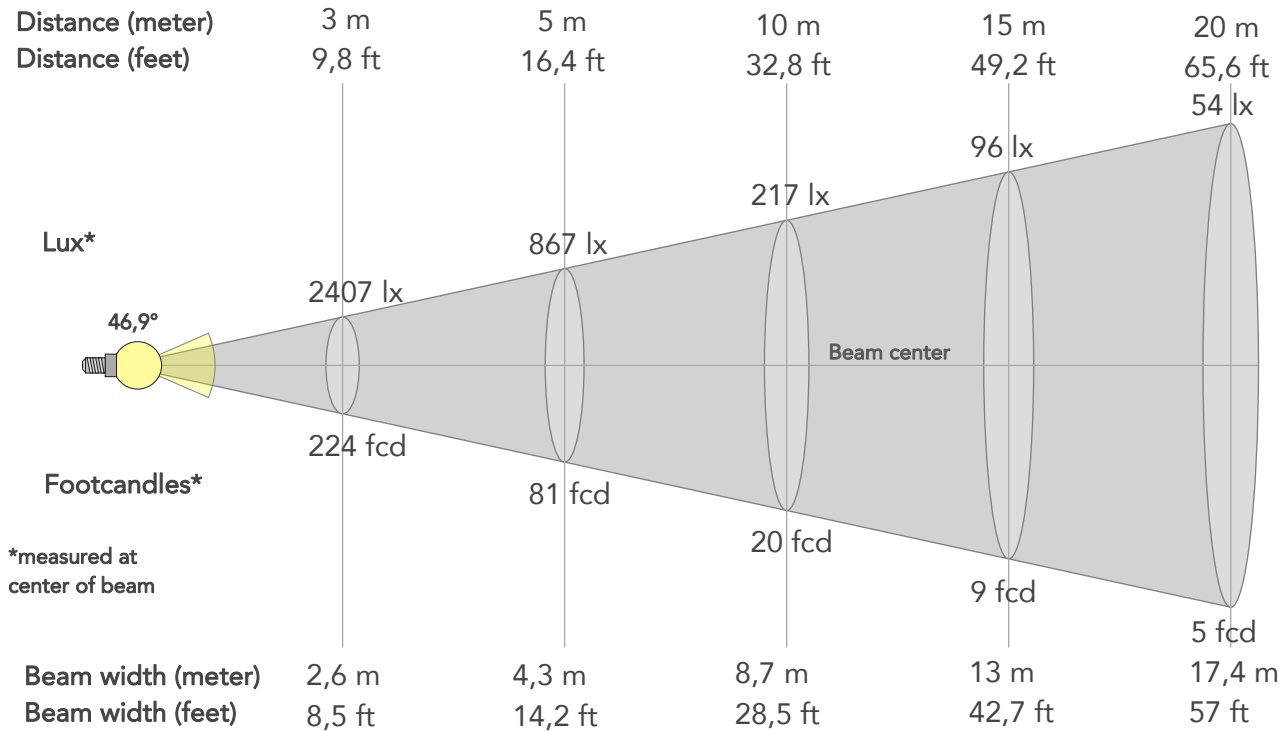


Color Evaluation Sample

BEAM DETAILS



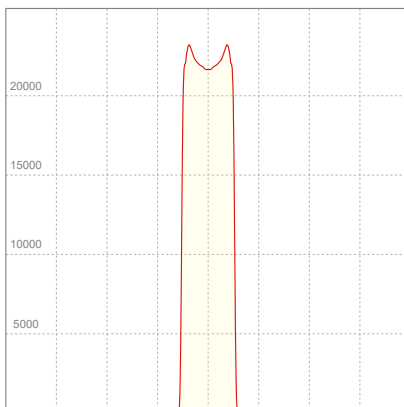
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,9°	49,6°	53,3°	100,0%	100,0%



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	21666lx	5416lx	2407lx	1354lx	867lx	385lx	217lx	96lx	54lx	35lx	24lx	14lx	9lx
Footcand.	2013fcd	503fcd	224fcd	126fcd	81fcd	36fcd	20fcd	9fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,9m	1,7m	2,6m	3,5m	4,3m	6,5m	8,7m	13m	17,4m	21,7m	26,1m	34,7m	43,4m
Beam wid.	2,9ft	5,7ft	8,5ft	11,4ft	14,2ft	21,4ft	28,5ft	42,7ft	57ft	71,2ft	85,5ft	113,9ft	142,4ft

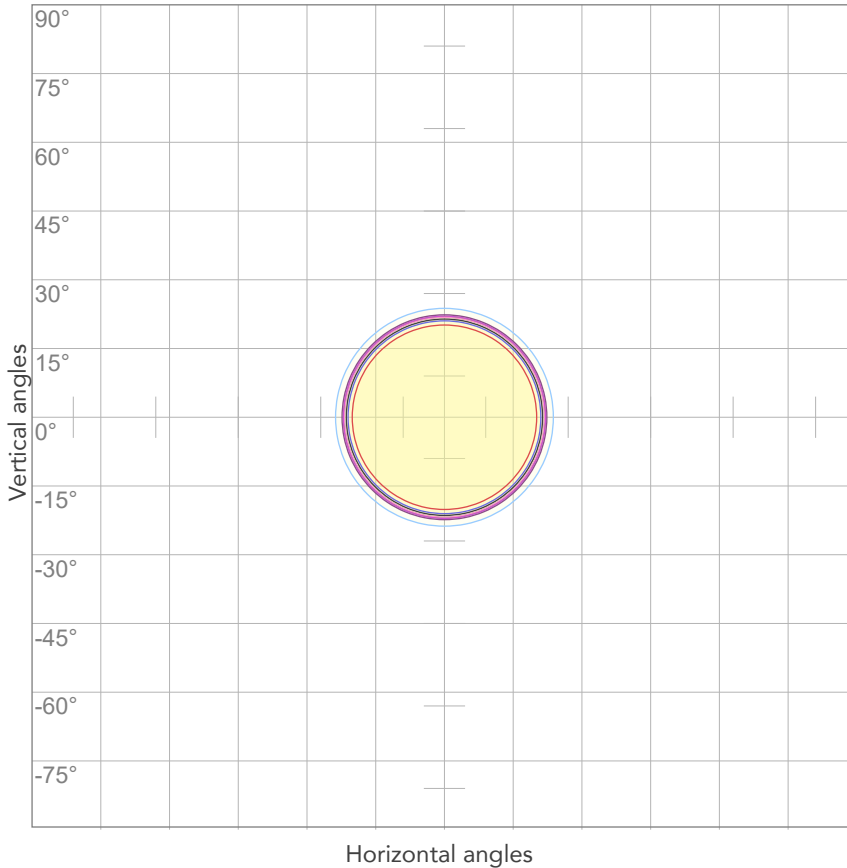
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,89A	416,9W	28lm/W

ISO CANDELA DIAGRAM



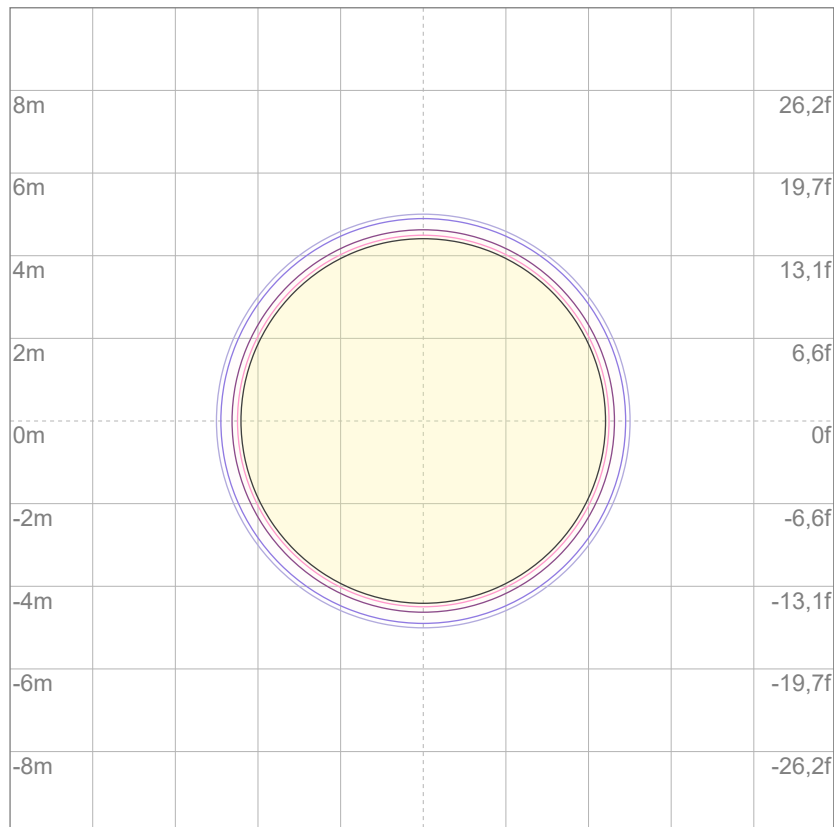
10%	2167 cd
20%	4333 cd
30%	6500 cd
40%	8666 cd
50%	10833 cd
60%	12999 cd
70%	15166 cd
80%	17332 cd

Conditions:

Number of c-planes: 2

Candela at center: 21666 cd

ISO LUX DIAGRAM



3%	6,50 lx
5%	10,8 lx
10%	21,7 lx
30%	65,0 lx
50%	108 lx

Conditions:

Number of c-planes: 2

Lux at center: 217 lx

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



Total lumen output:

11672 lm

Peak candela output:

128300 cd

Light quality:

CRI: 74,2

Color temperature:

7603 K

PRODUCT NAME:

MOSAICO L

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

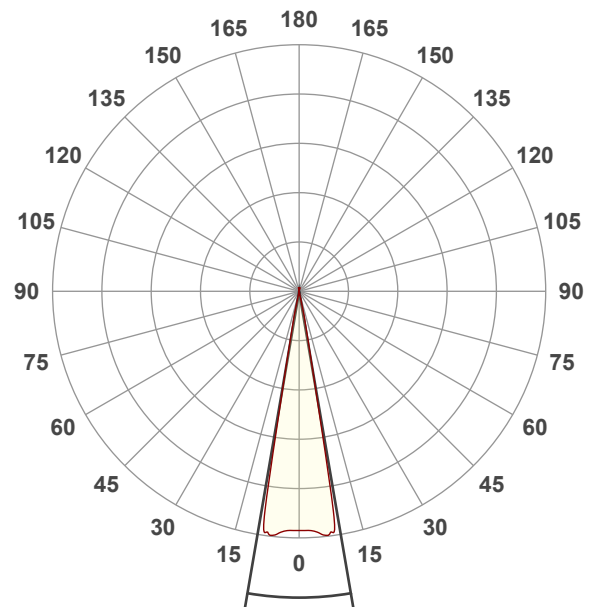
Full on

Operator:

Paolo Carvone

Date and time:

22/02/2022 09:47:42

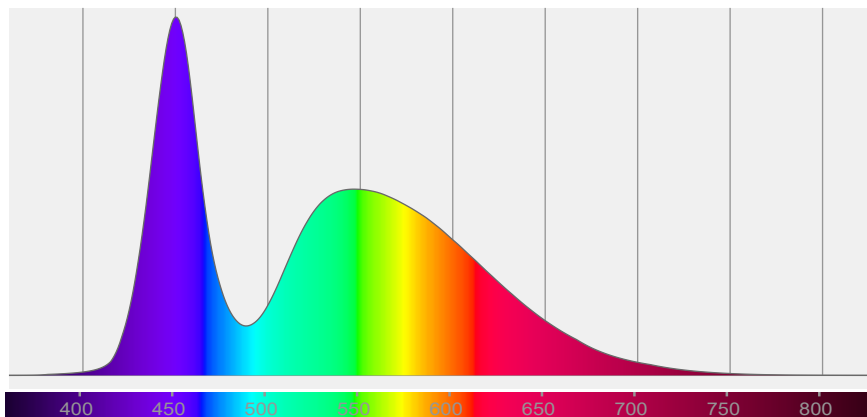


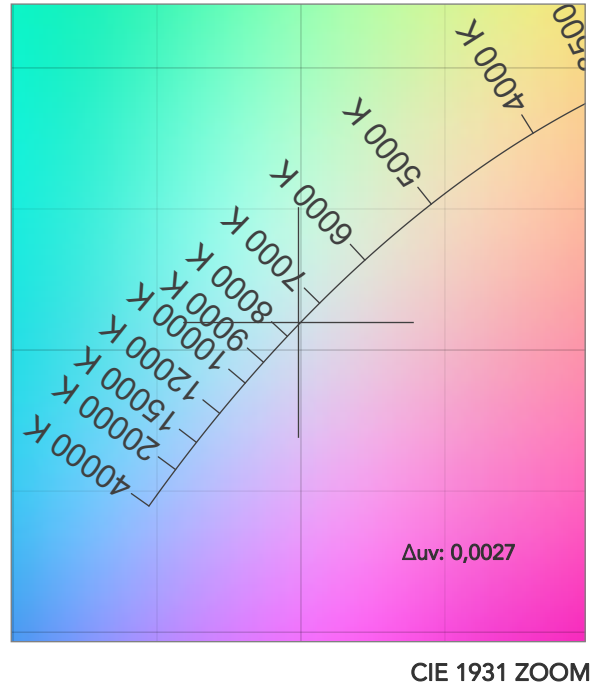
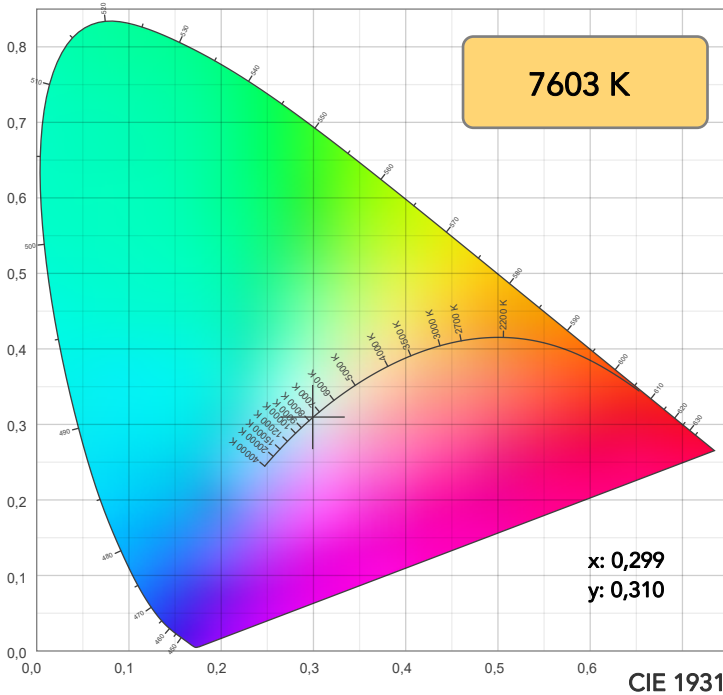
Beam angle 50%: 19,4°

Field angle 10%: 22,2°

Cut off angle 2.5%: 23,3°

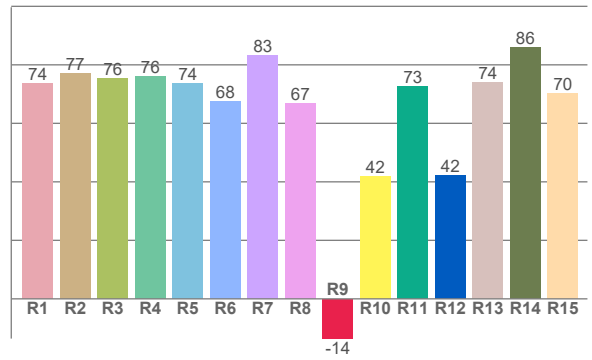
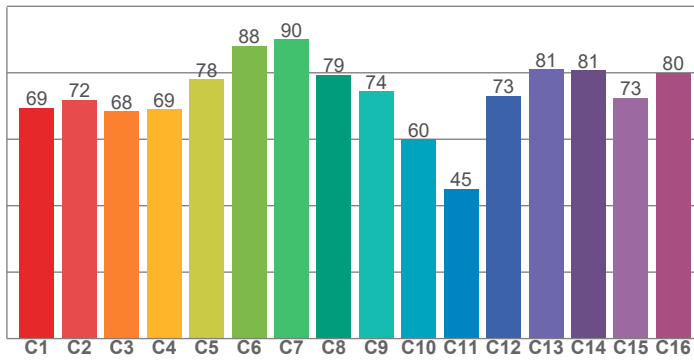
Spectra





TM30: 73,4

CRI: 74,2 (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
73,5	77,2	75,5	76,1	73,8	67,6	83,2	66,9	-13,6	41,8	72,7	42,1	73,9	86,0	70,4

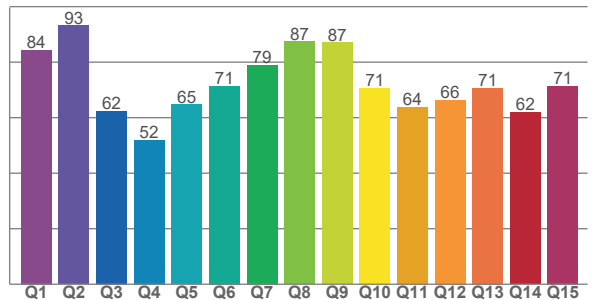
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
69,4	71,8	68,4	69,0	78,0	88,1	90,1	79,3	74,4	59,9	45,1	73,0	81,1	80,7	72,5	79,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,3	93,2	62,4	52,0	64,8	71,4	78,9	87,4	87,0	70,6	63,8	66,4	70,6	61,9	71,4

CQS: 70,2



COLOR PARAMETERS

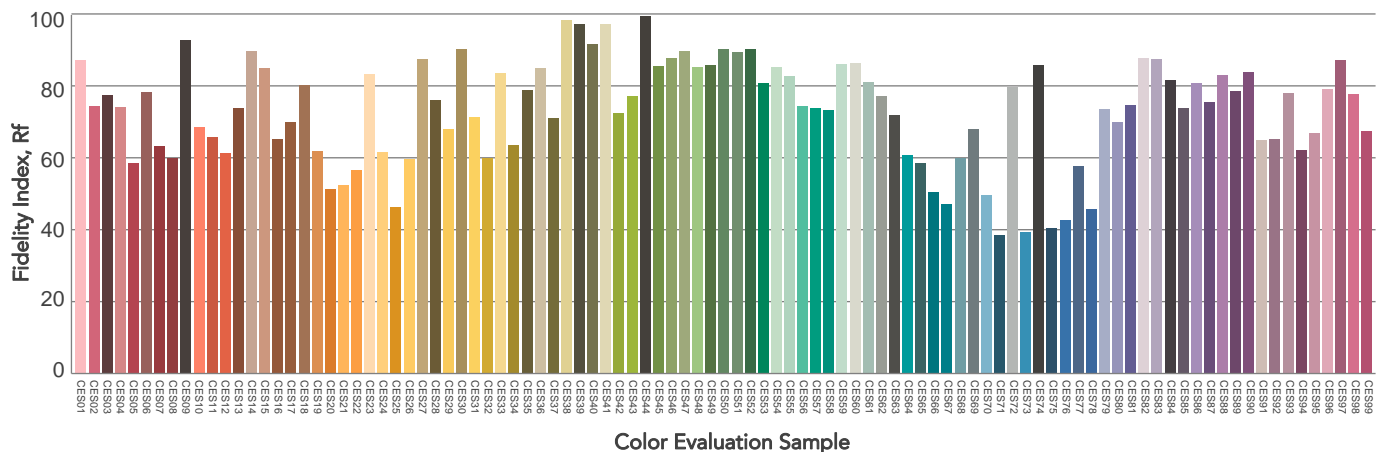
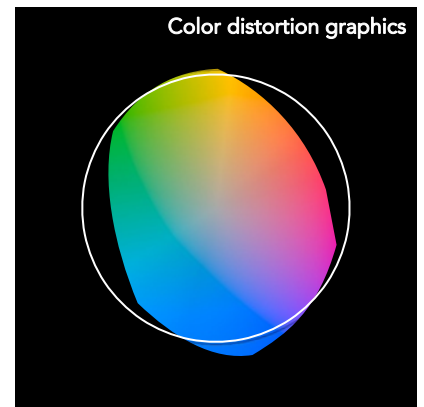
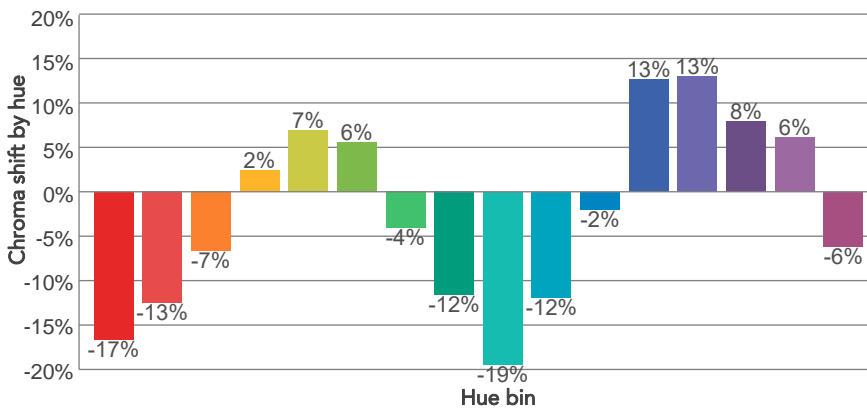
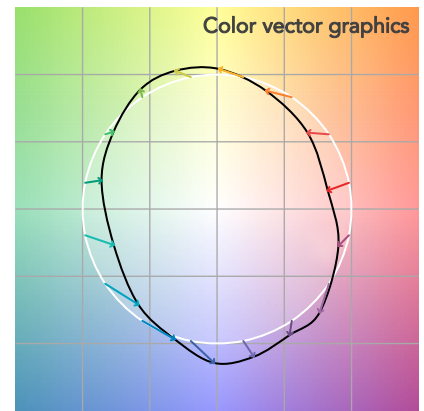
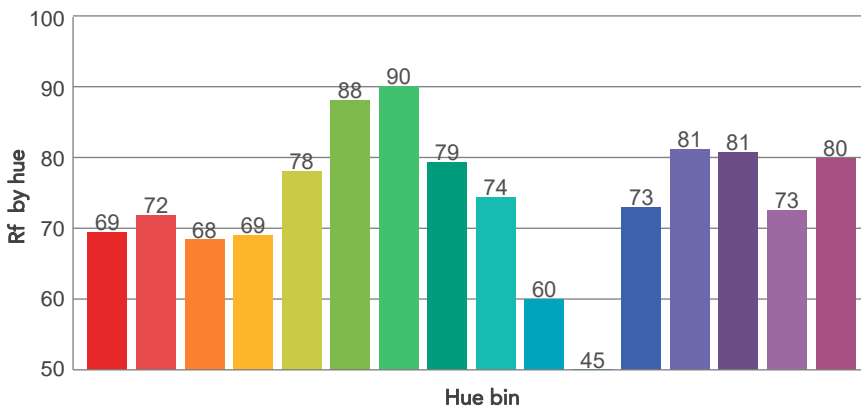
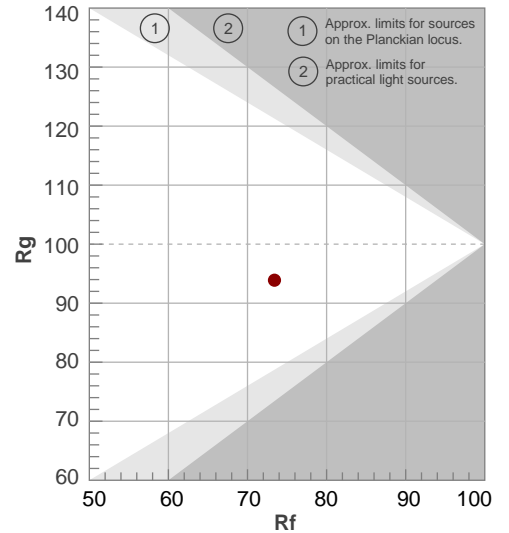
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7603 K	74,2	-13,6	73,4	93,9	70,2	51	0,299	0,310	0,0027

TM30 DETAILS

Rf 73,4
Fidelity index Rf

Rg 93,9
Gammut index

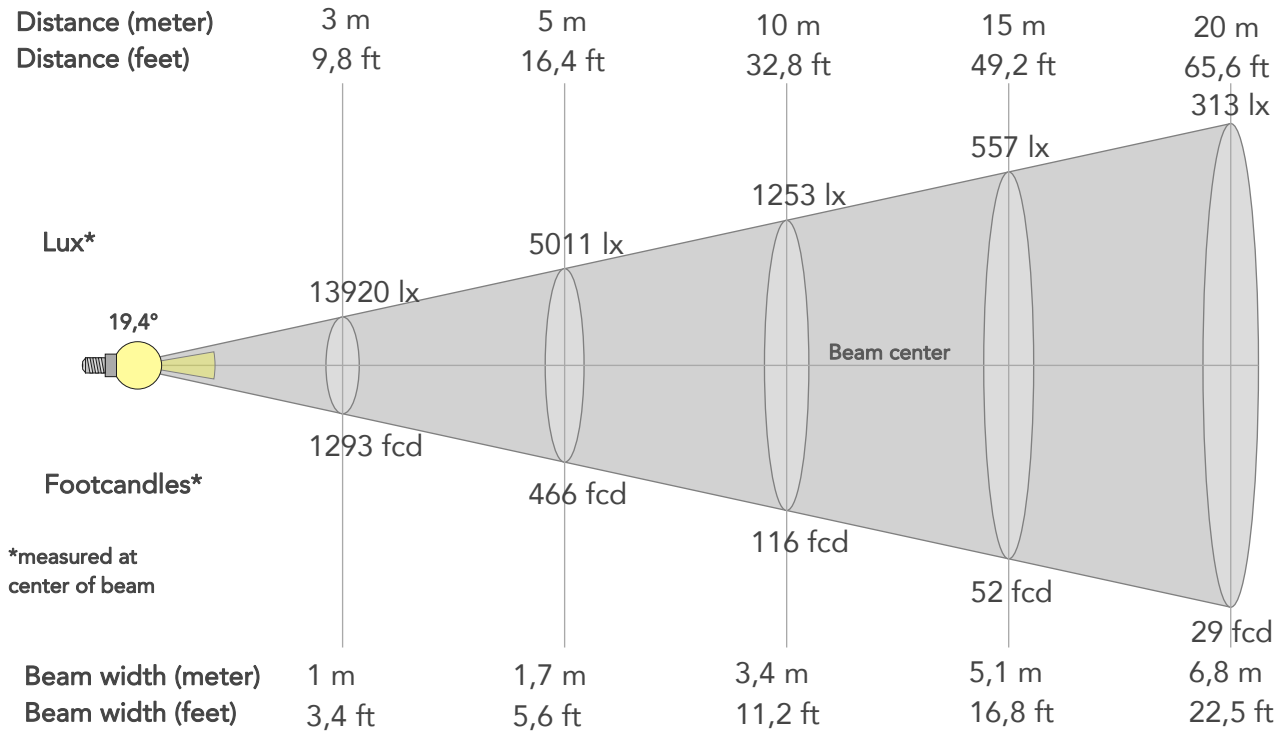
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	69	-17%	-3%
2	72	-13%	10%
3	68	-7%	19%
4	69	2%	19%
5	78	7%	10%
6	88	6%	-2%
7	90	-4%	-5%
8	79	-12%	-4%
9	74	-19%	11%
10	60	-12%	27%
11	45	-2%	28%
12	73	13%	20%
13	81	13%	5%
14	81	8%	-7%
15	73	6%	-21%
16	80	-6%	-9%



BEAM DETAILS



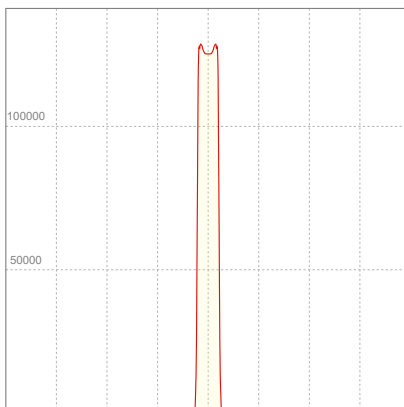
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
19,4°	22,2°	23,3°	100,0%	100,0%



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	125282lx	31320lx	13920lx	7830lx	5011lx	2227lx	1253lx	557lx	313lx	200lx	139lx	78lx	50lx
Footcand.	11639fcd	2910fcd	1293fcd	727fcd	466fcd	207fcd	116fcd	52fcd	29fcd	19fcd	13fcd	7fcd	5fcd
Beam wid.	0,3m	0,7m	1m	1,4m	1,7m	2,6m	3,4m	5,1m	6,8m	8,6m	10,3m	13,7m	17,1m
Beam wid.	1,1ft	2,3ft	3,4ft	4,5ft	5,6ft	8,4ft	11,2ft	16,8ft	22,5ft	28,1ft	33,7ft	44,9ft	56,2ft

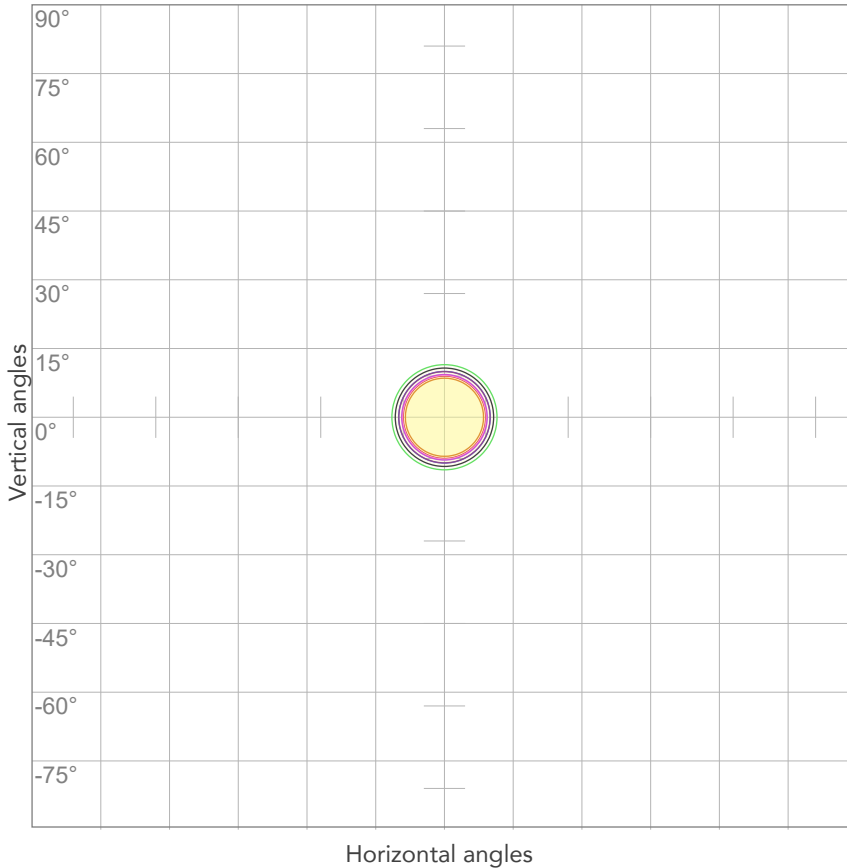
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	1,89A	417,7W	28lm/W

ISO CANDELA DIAGRAM



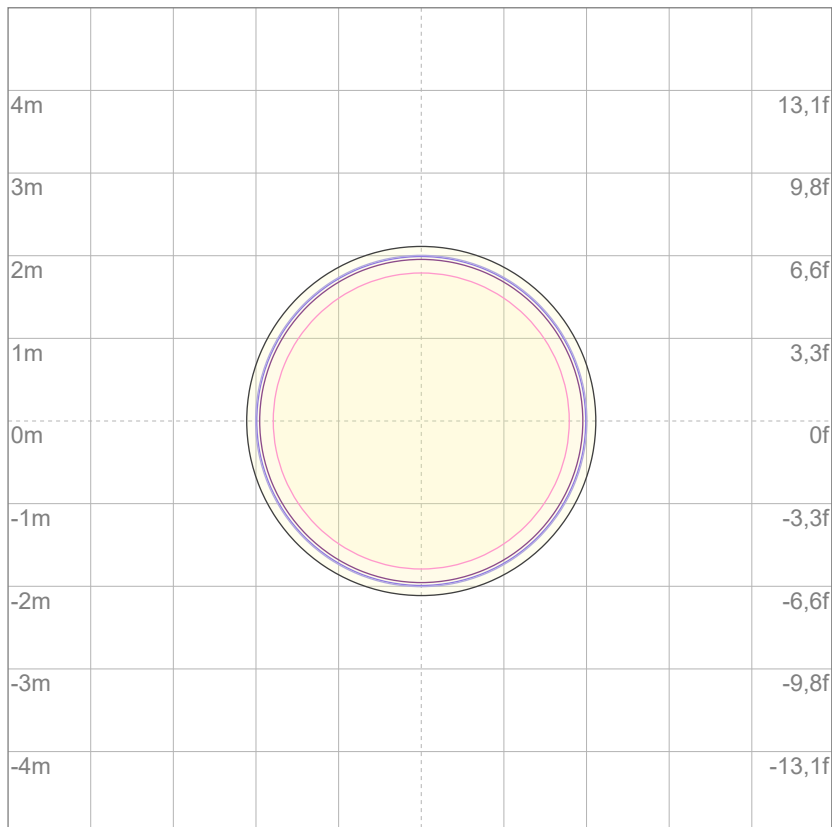
10%	12528 cd
20%	25056 cd
30%	37585 cd
40%	50113 cd
50%	62641 cd
60%	75169 cd
70%	87697 cd
80%	100226 cd

Conditions:

Number of c-planes: 2

Candela at center: 125282 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	37,6 lx
5%	62,6 lx
10%	125 lx
30%	376 lx
50%	626 lx

Conditions:

Number of c-planes: 2

Lux at center: 1253 lx

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



Total lumen output:

8536 lm

Peak candela output:

710473 cd

Light quality:

CRI: 74,9

Color temperature:

7852 K

PRODUCT NAME:

MOSAICO L

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

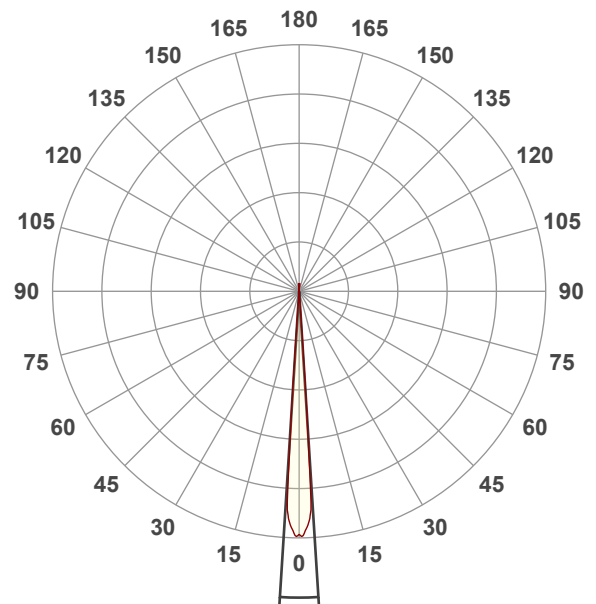
Full on

Operator:

Paolo Carvone

Date and time:

22/02/2022 09:43:08

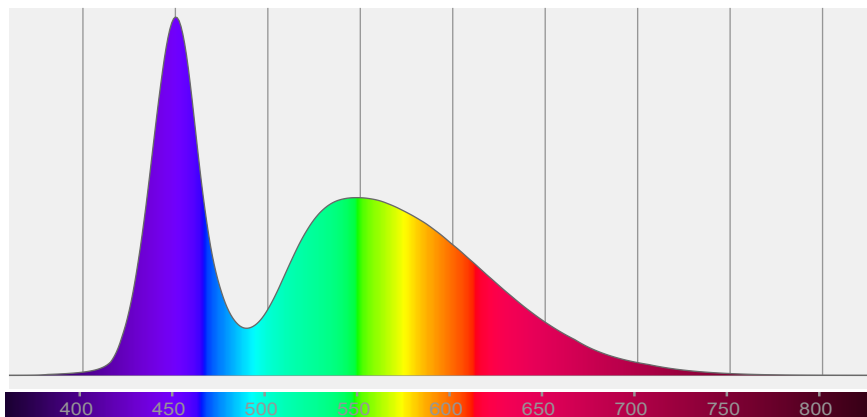


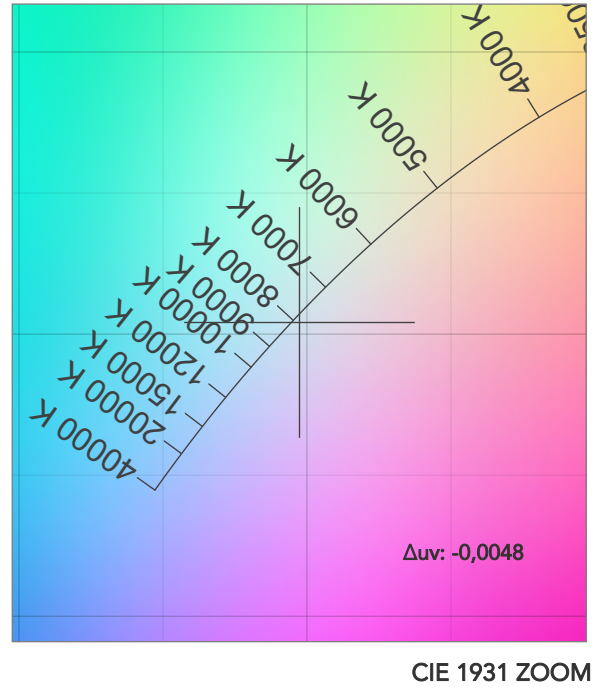
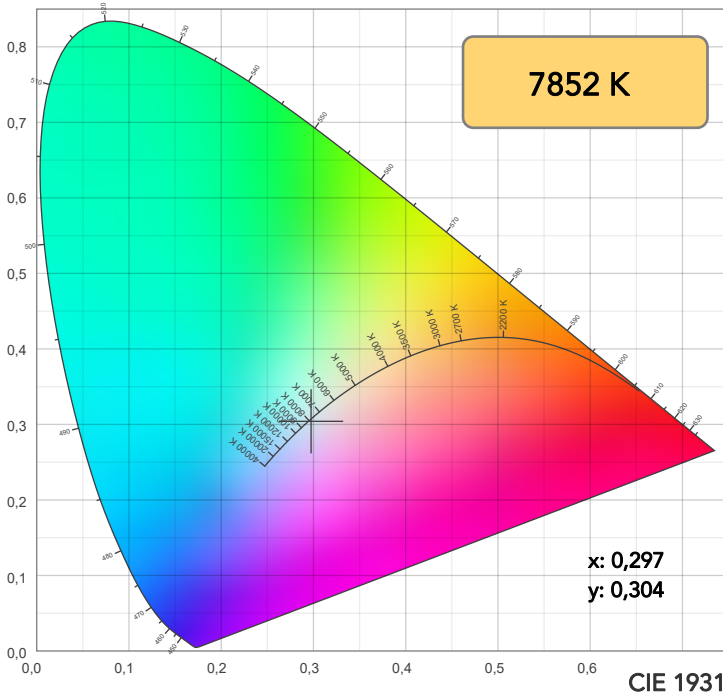
Beam angle 50%: 7,2°

Field angle 10%: 8,1°

Cut off angle 2.5%: 8,3°

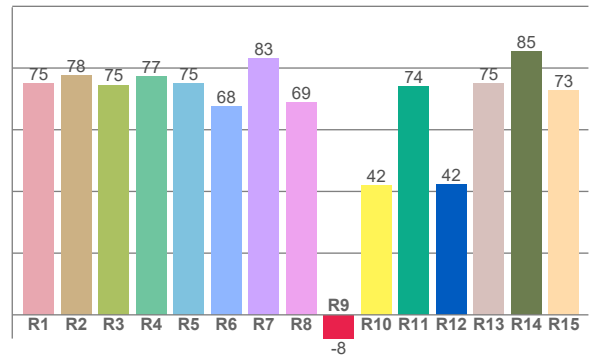
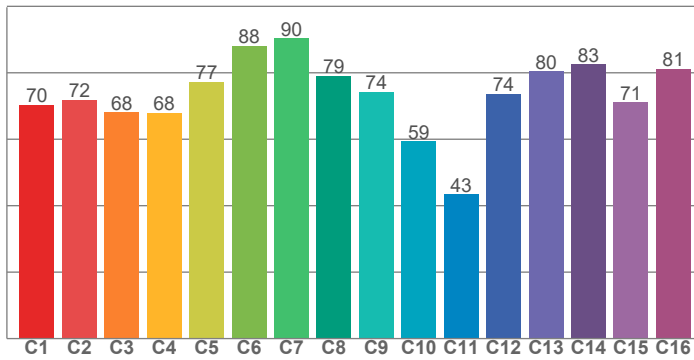
Spectra





TM30: 73,2

CRI: 74,9 (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
75,0	77,6	74,5	77,3	74,9	67,7	83,2	68,8	-7,7	42,1	74,0	42,4	75,1	85,4	72,7

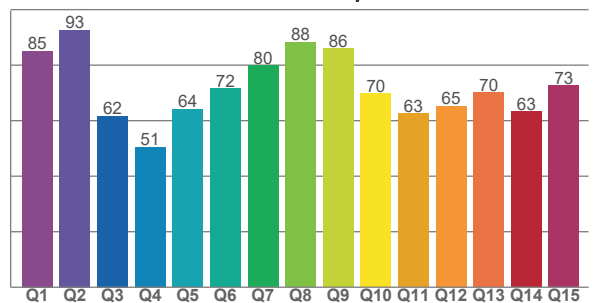
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
70,3	71,8	68,1	68,0	77,2	88,1	90,4	79,0	74,3	59,4	43,4	73,7	80,5	82,5	71,1	81,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85,2	92,7	61,6	50,6	64,1	71,6	79,9	88,2	85,9	69,8	62,5	65,3	70,1	63,3	72,7

CQS: 70,0



COLOR PARAMETERS

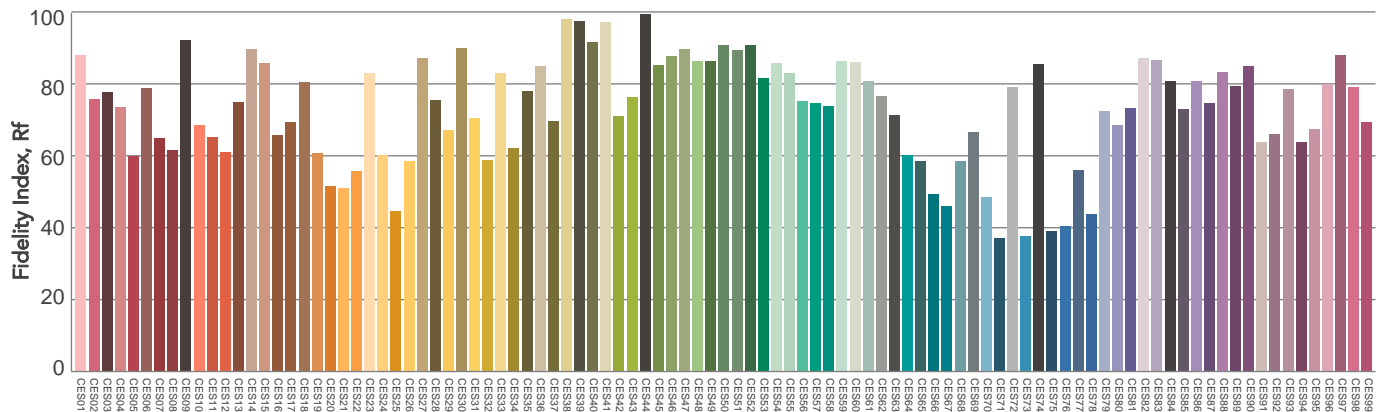
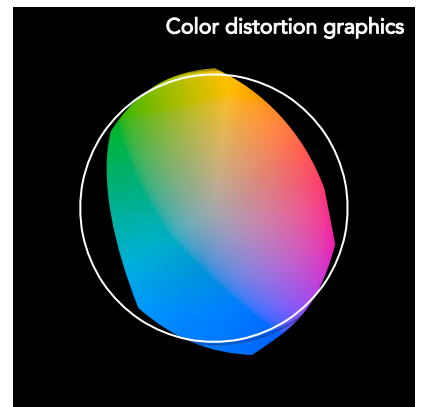
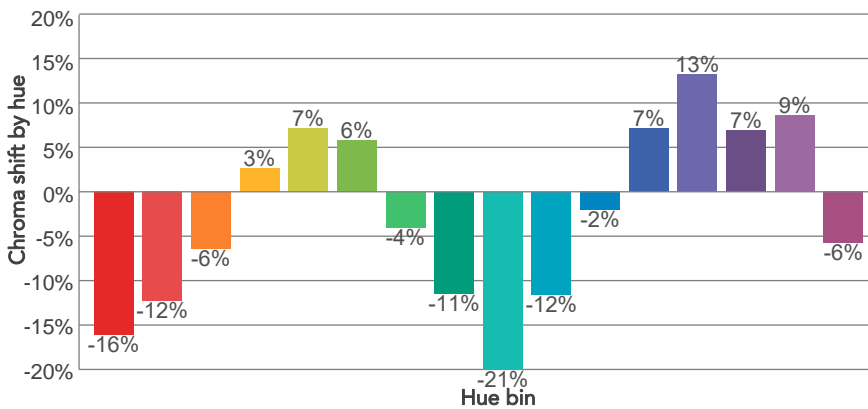
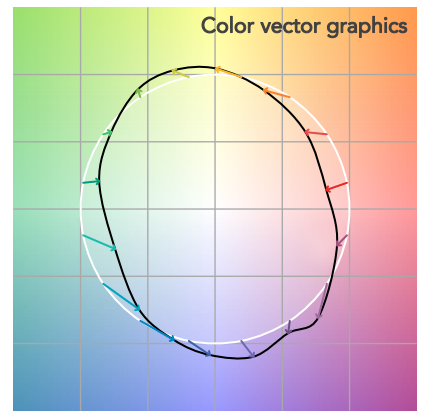
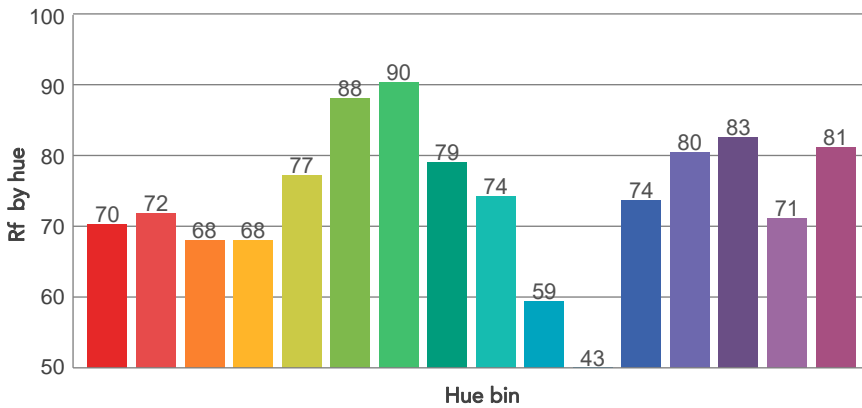
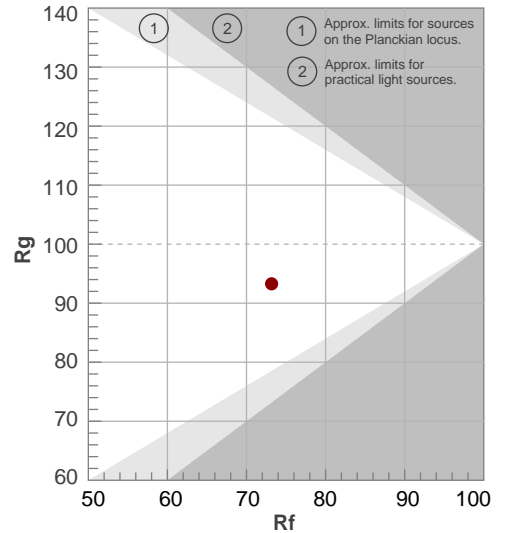
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7852 K	74,9	-7,7	73,2	93,3	70,0	50	0,297	0,304	-0,0048

TM30 DETAILS

Rf 73,2
Fidelity index Rf

Rg 93,3
Gammut index

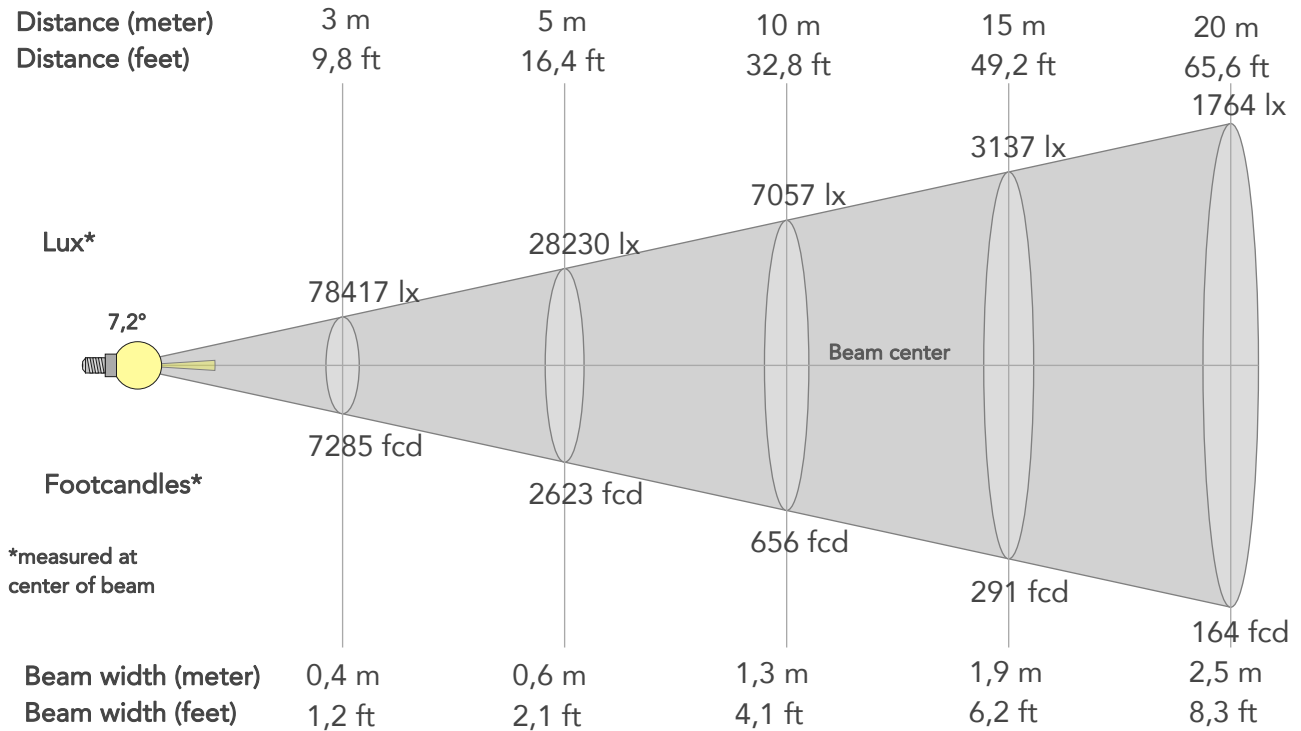
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	70	-16%	-2%
2	72	-12%	10%
3	68	-6%	19%
4	68	3%	20%
5	77	7%	11%
6	88	6%	-2%
7	90	-4%	-5%
8	79	-11%	-4%
9	74	-21%	15%
10	59	-12%	31%
11	43	-2%	28%
12	74	7%	17%
13	80	13%	7%
14	83	7%	-6%
15	71	9%	-25%
16	81	-6%	-9%



BEAM DETAILS



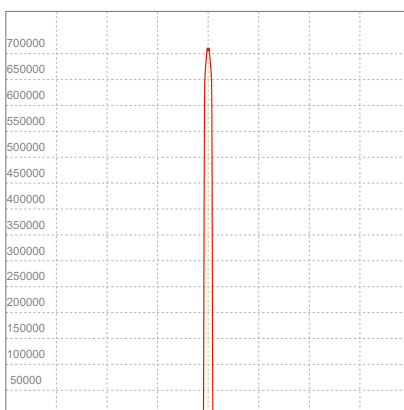
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
7,2°	8,1°	8,3°	100,0%	100,0%



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	705749lx	176437lx	78417lx	44109lx	28230lx	12547lx	7057lx	3137lx	1764lx	1129lx	784lx	441lx	282lx
Footcand.	65566fcd	16392fcd	7285fcd	4098fcd	2623fcd	1166fcd	656fcd	291fcd	164fcd	105fcd	73fcd	41fcd	26fcd
Beam wid.	0,1m	0,3m	0,4m	0,5m	0,6m	0,9m	1,3m	1,9m	2,5m	3,1m	3,8m	5m	6,3m
Beam wid.	0,4ft	0,8ft	1,2ft	1,7ft	2,1ft	3,1ft	4,1ft	6,2ft	8,3ft	10,3ft	12,4ft	16,5ft	20,7ft

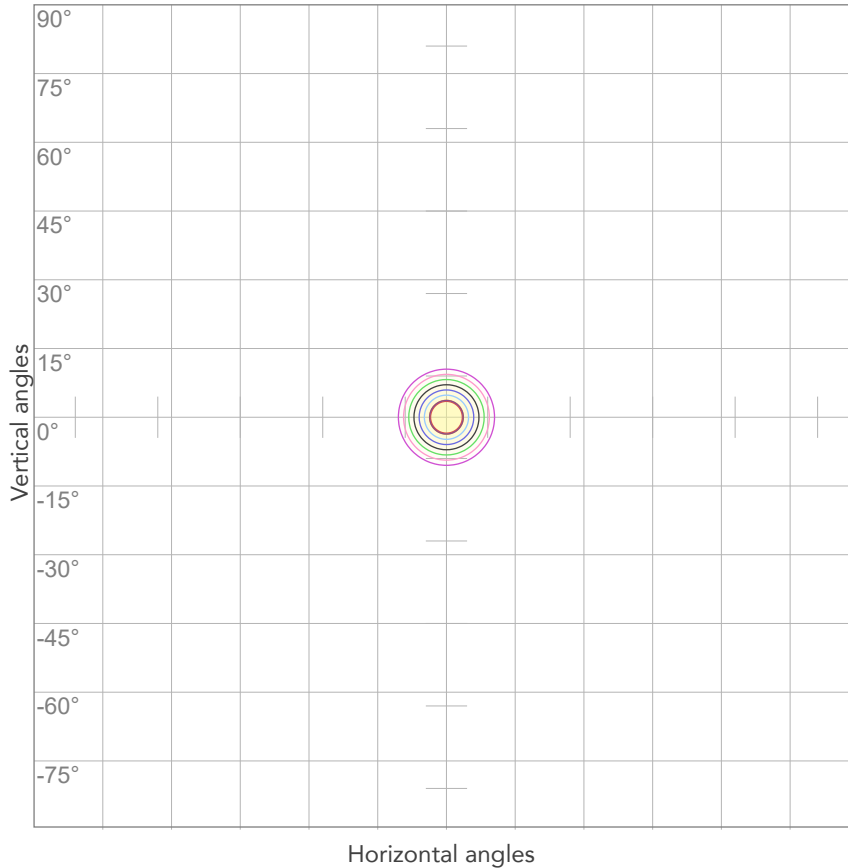
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,90A	418,2W	20lm/W

ISO CANDELA DIAGRAM



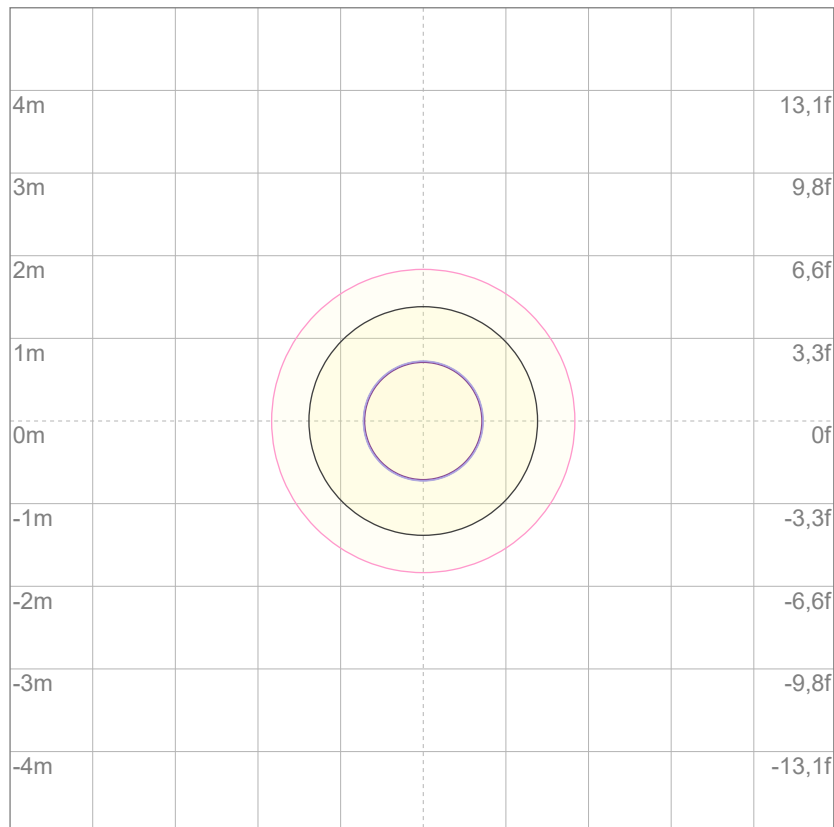
10%	70575 cd
20%	141150 cd
30%	211725 cd
40%	282300 cd
50%	352874 cd
60%	423449 cd
70%	494024 cd
80%	564599 cd

Conditions:

Number of c-planes: 2

Candela at center: 705749 cd

ISO LUX DIAGRAM



3%	212 lx
5%	353 lx
10%	706 lx
30%	2117 lx
50%	3529 lx

Conditions:

Number of c-planes: 2

Lux at center: 7057 lx

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

Mounting height: 10 meters (33 feet)