

Photometric Test Report



MosaicoXL

540 W IP66 zoomable LED image projector
with CYM and framing shutter

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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:

14253 lm

Peak candela output:

29044 cd

Light quality:

CRI: 68,3

Color temperature:

6101 K

PRODUCT NAME:

Mosaico XL

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

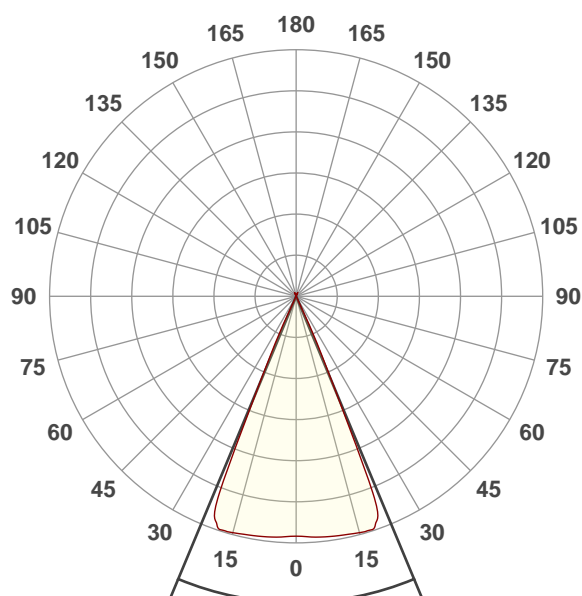
Full on

Operator:

Paolo Carvone

Date and time:

08/06/2020 11:14:42

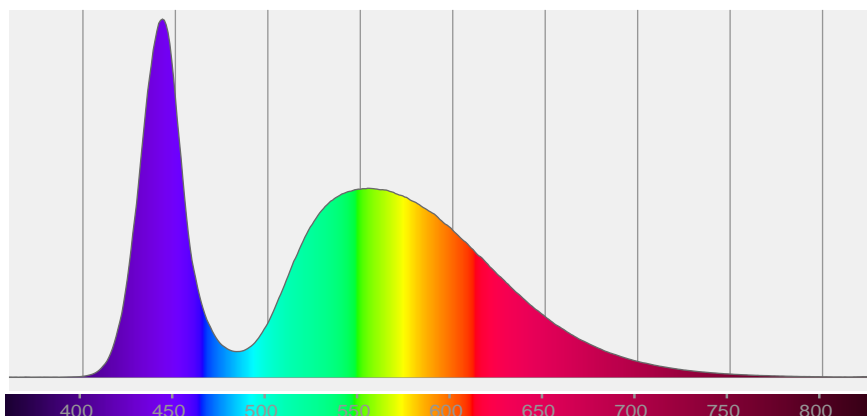


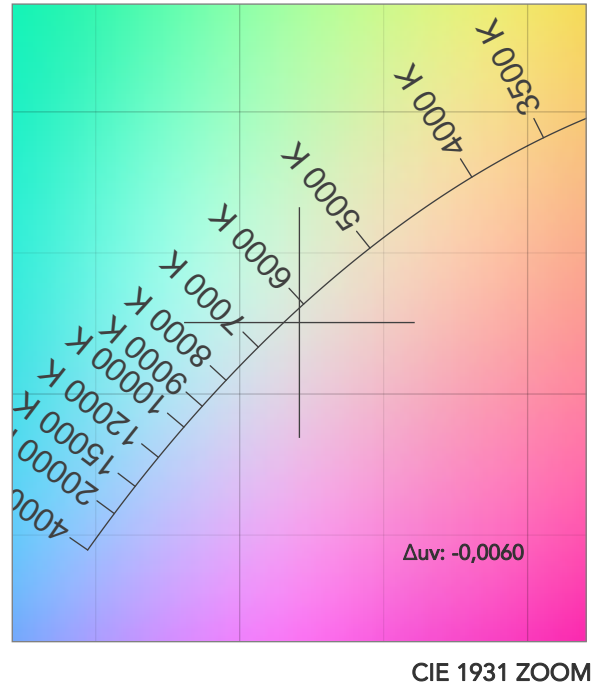
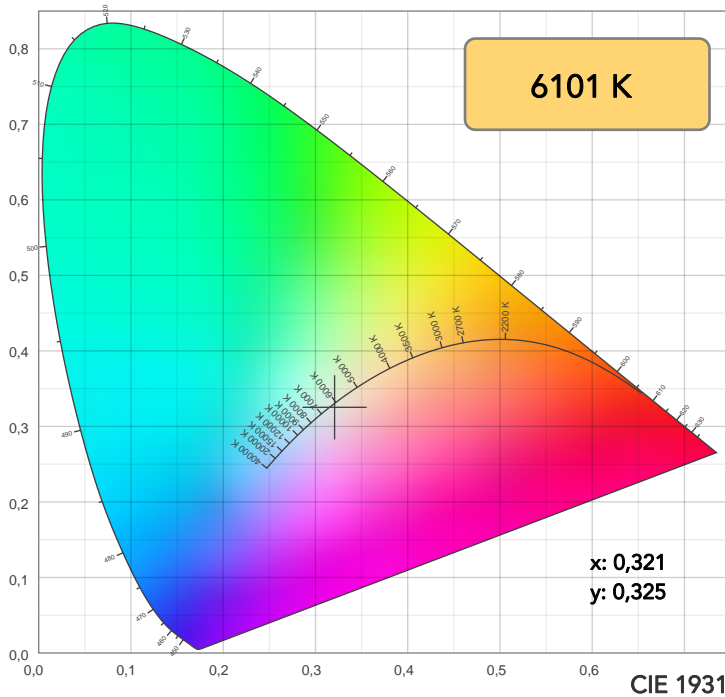
Beam angle 50%: 45,3°

Field angle 10%: 49,8°

Cut off angle 2.5%: 51,1°

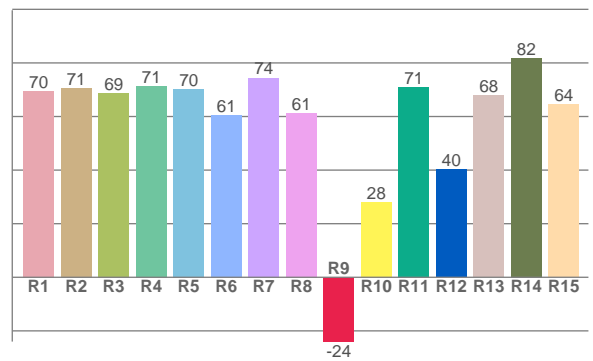
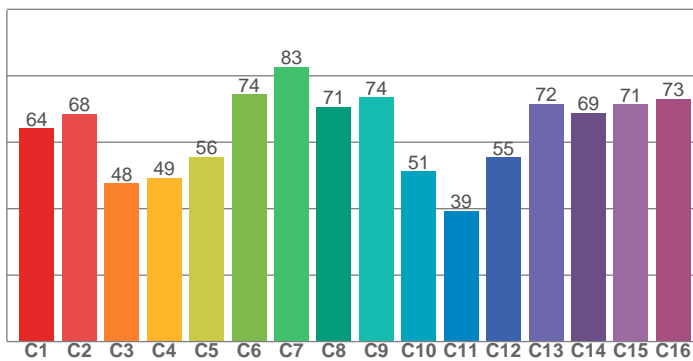
Spectra





TM30: 62,4

CRI: 68,3 (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
69,6	70,7	68,7	71,3	70,2	60,6	74,5	61,3	-24,0	28,0	70,9	40,3	67,8	81,8	64,5

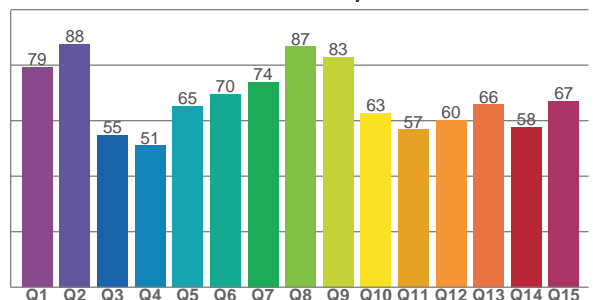
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
64,1	68,5	47,7	49,3	55,7	74,5	82,7	70,7	73,5	51,3	39,3	55,4	71,5	68,8	71,3	73,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
79,2	87,6	54,7	51,0	65,2	69,7	73,9	86,8	82,9	62,8	56,8	60,1	65,8	57,6	67,0

CQS: 66,1



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
6101 K	68,3	-24,0	62,4	96,6	66,1	41	0,321	0,325	-0,0060

TM30 DETAILS

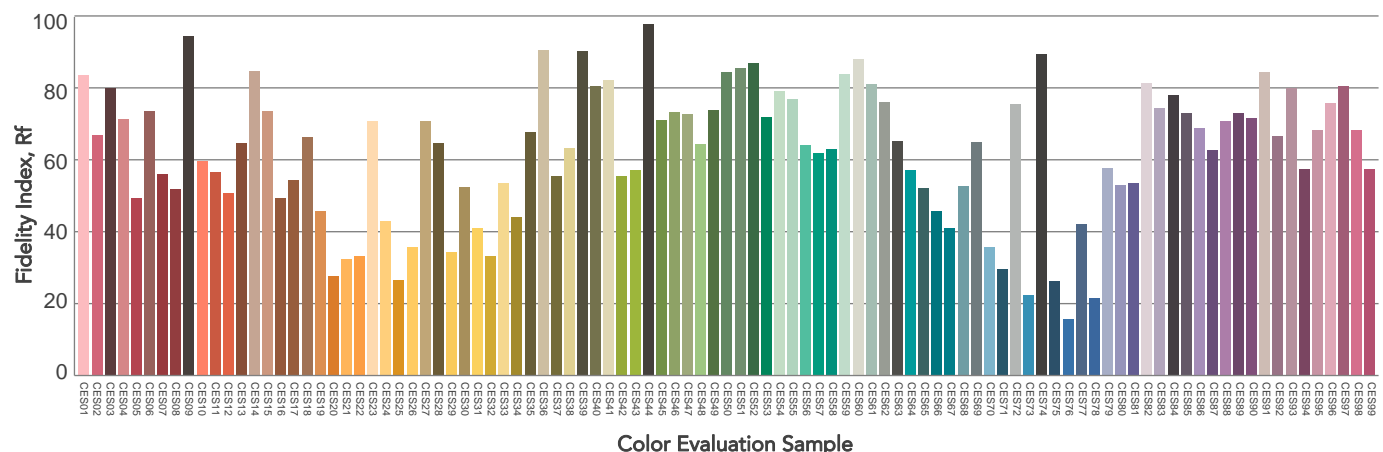
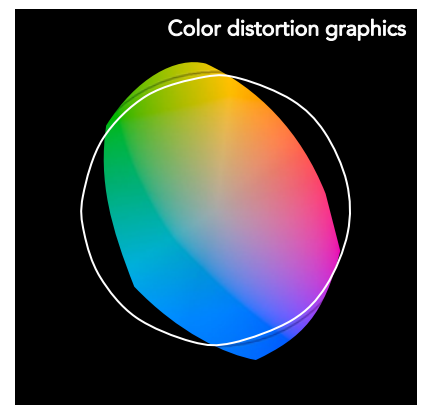
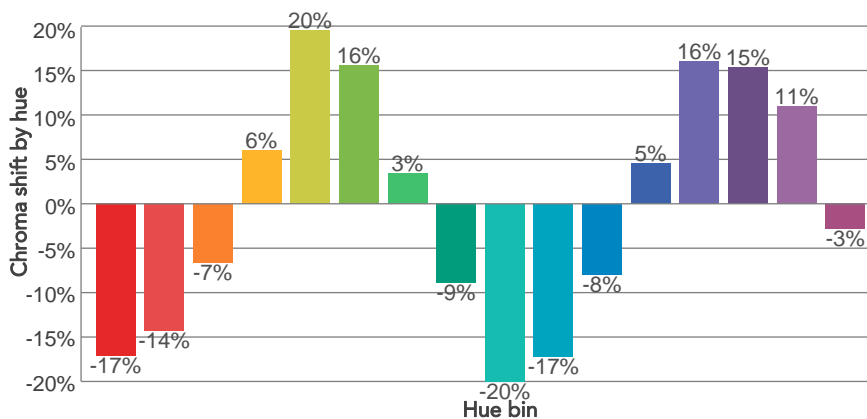
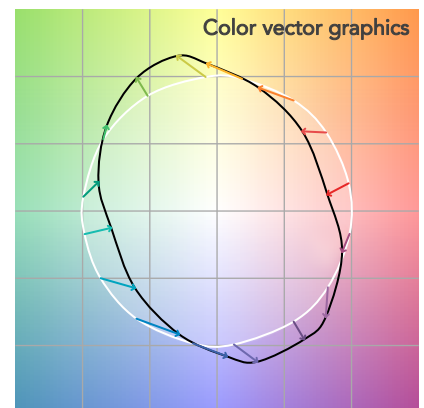
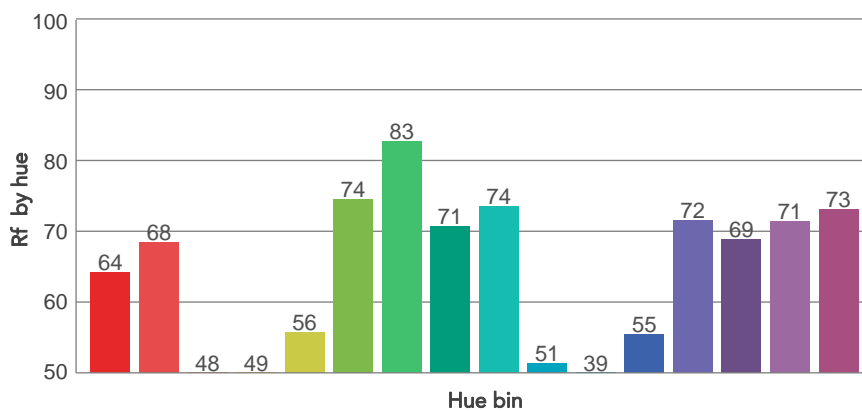
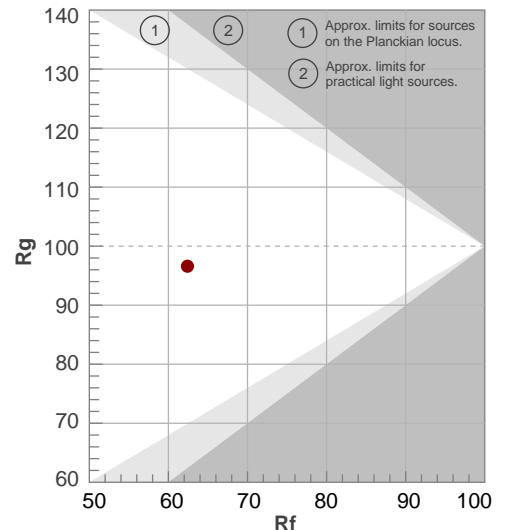
Rf 62,4

Fidelity index Rf

Rg 96,6

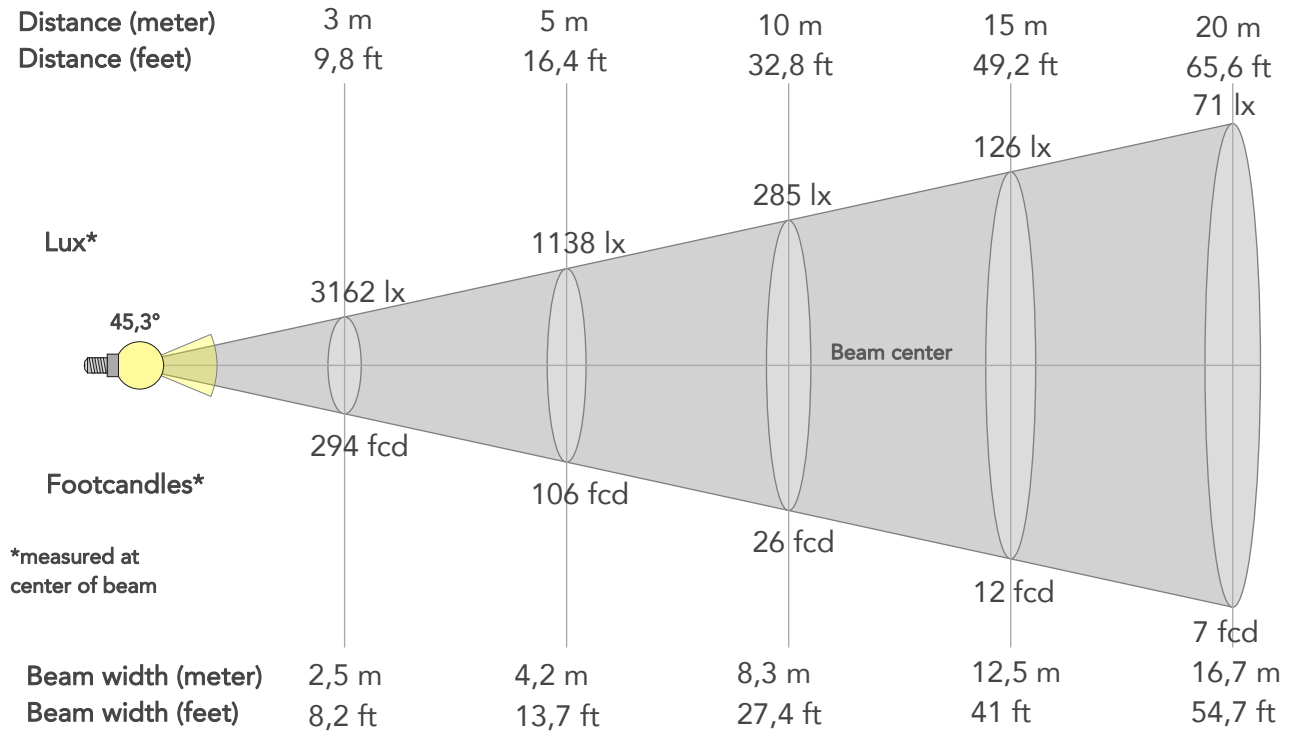
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	64	-17%	-5%
2	68	-14%	11%
3	48	-7%	27%
4	49	6%	28%
5	56	20%	18%
6	74	16%	-1%
7	83	3%	-10%
8	71	-9%	-13%
9	74	-20%	-1%
10	51	-17%	20%
11	39	-8%	33%
12	55	5%	27%
13	72	16%	14%
14	69	15%	-1%
15	71	11%	-19%
16	73	-3%	-14%



BEAM DETAILS

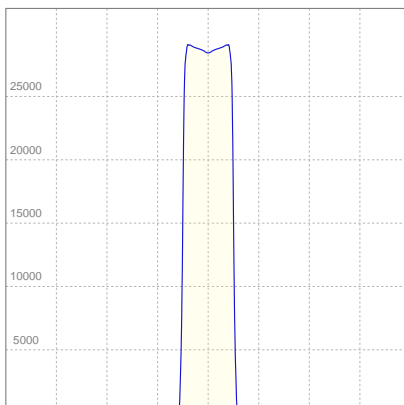
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
45,3°	49,8°	51,1°	99,3%	99,1%



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	28454lx	7113lx	3162lx	1778lx	1138lx	506lx	285lx	126lx	71lx	46lx	32lx	18lx	11lx
Footcand.	2643fcd	661fcd	294fcd	165fcd	106fcd	47fcd	26fcd	12fcd	7fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,8m	1,7m	2,5m	3,3m	4,2m	6,3m	8,3m	12,5m	16,7m	20,9m	25m	33,4m	41,7m
Beam wid.	2,8ft	5,5ft	8,2ft	10,9ft	13,7ft	20,5ft	27,4ft	41ft	54,7ft	68,4ft	82,1ft	109,4ft	136,8ft

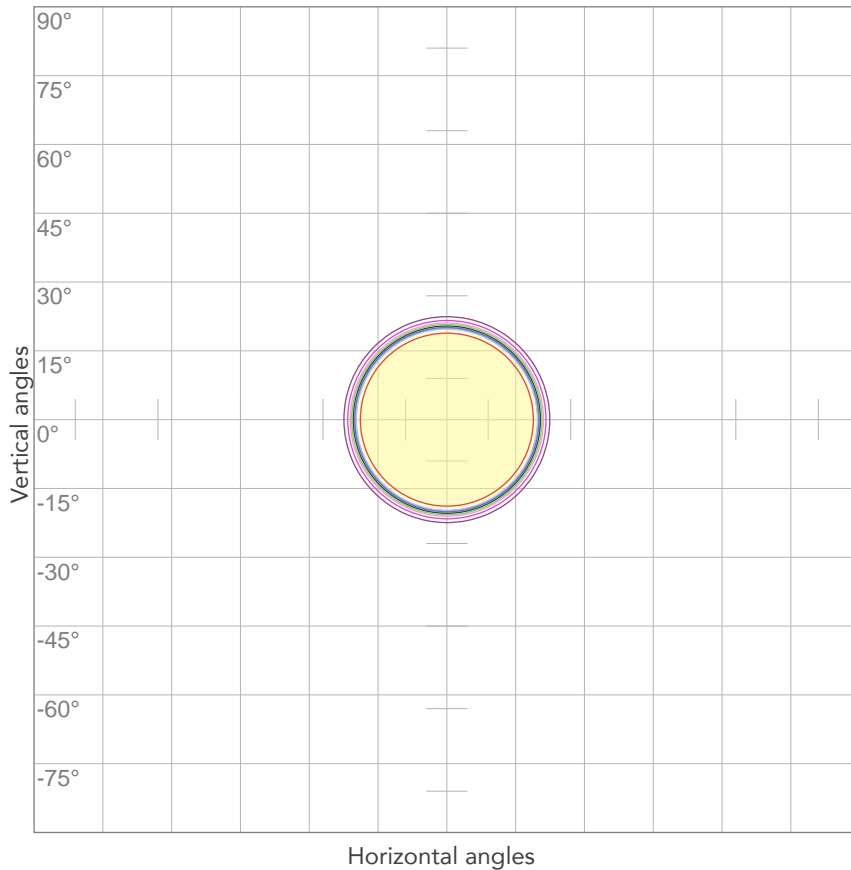
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Efficiency
223V	2,77A	595,4W	24lm/W
Power FC			
0,96			

ISO CANDELA DIAGRAM



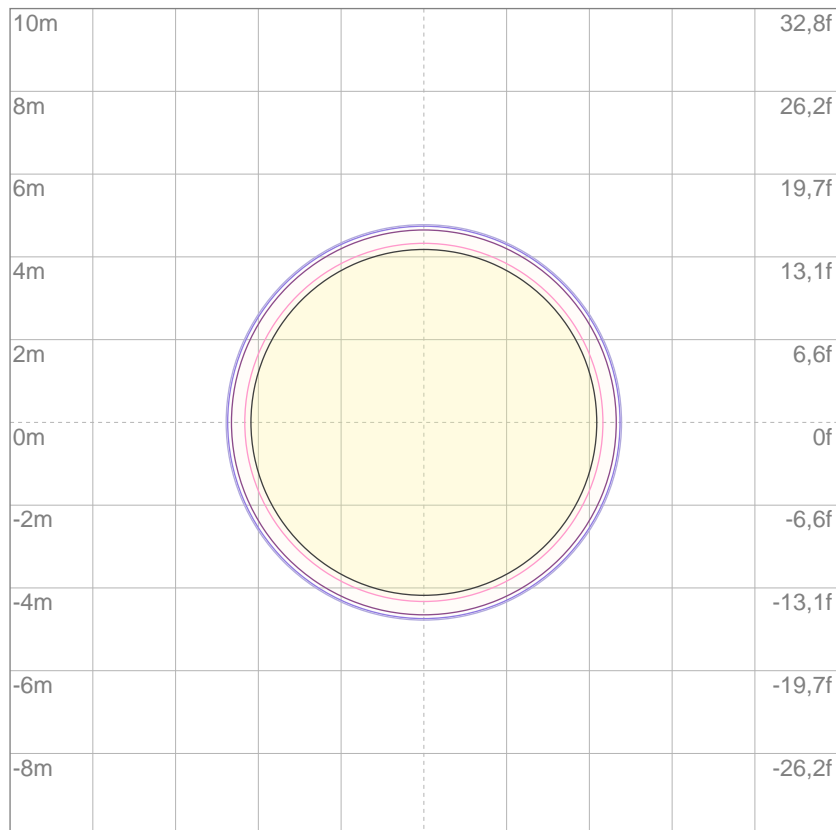
10%	2845 cd
20%	5691 cd
30%	8536 cd
40%	11381 cd
50%	14227 cd
60%	17072 cd
70%	19917 cd
80%	22763 cd

Conditions:

Number of c-planes: 2

Candela at center: 28454 cd

ISO LUX DIAGRAM



3%	8,54 lx
5%	14,2 lx
10%	28,5 lx
30%	85,4 lx
50%	142 lx

Conditions:

Number of c-planes: 2

Lux at center: 285 lx

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



Total lumen output:

13852 lm

Peak candela output:

192206 cd

Light quality:

CRI: 68,4

Color temperature:

6020 K

PRODUCT NAME:

Mosaico XL

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

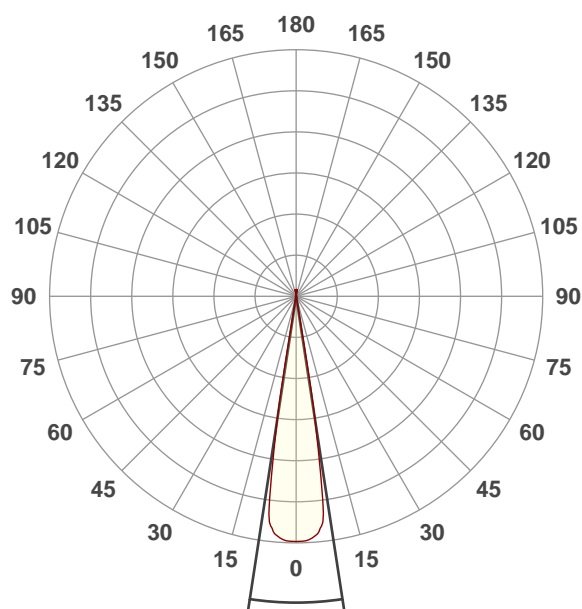
Full on

Operator:

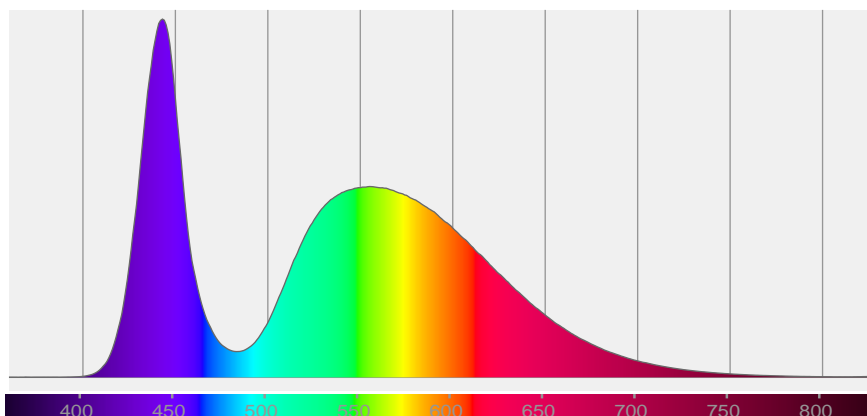
Paolo Carvone

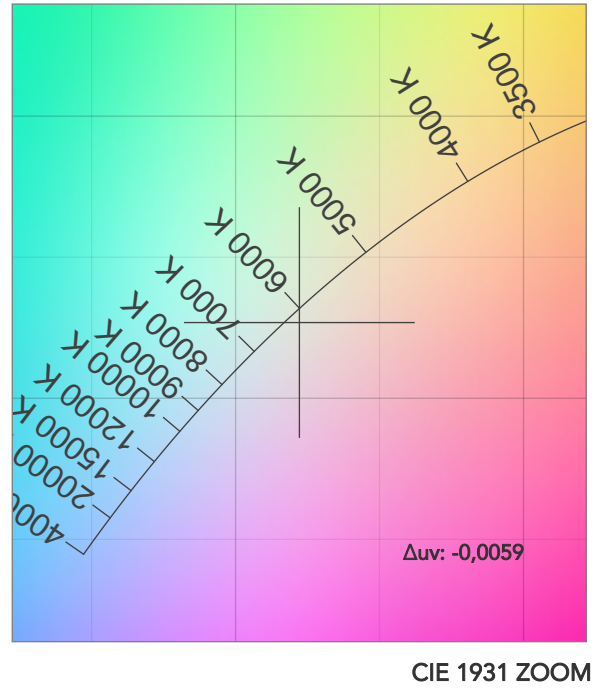
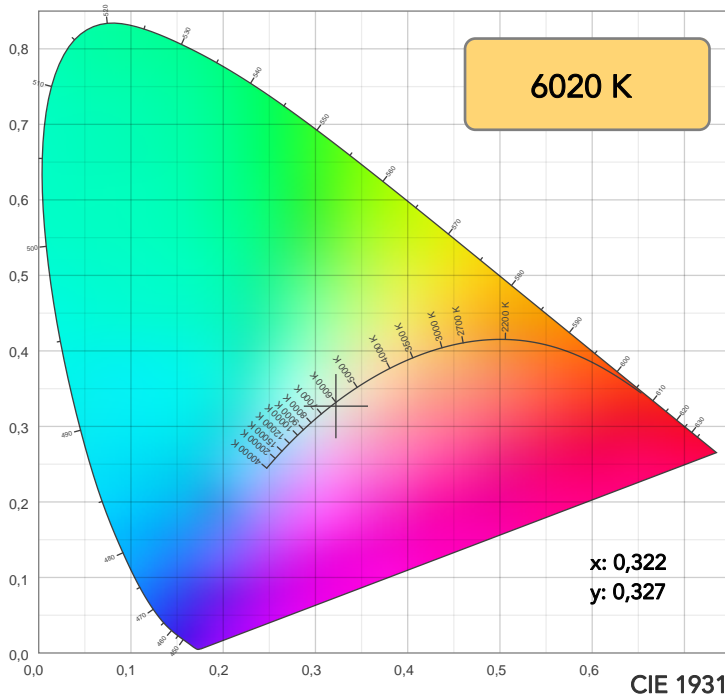
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08/06/2020 11:17:49



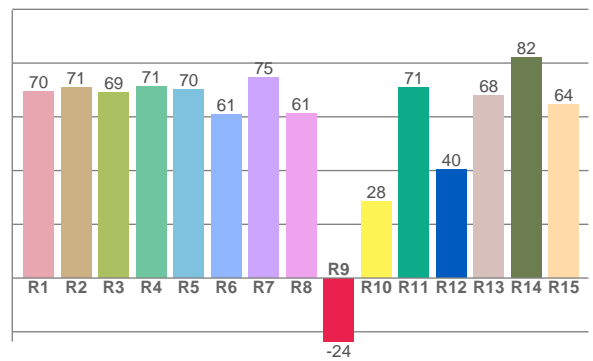
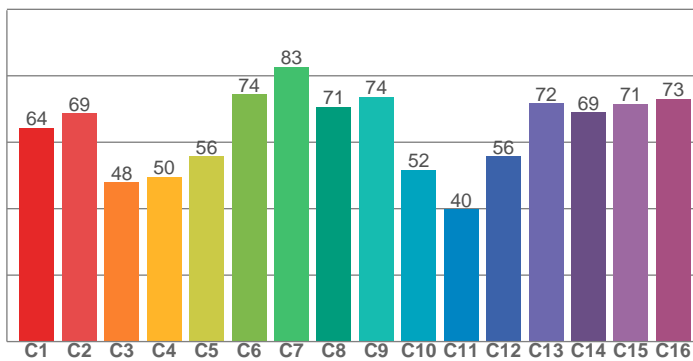
Spectra





TM30: 62,6

CRI: 68,4 (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
69,6	70,8	69,0	71,3	70,2	60,7	74,6	61,2	-23,6	28,5	70,9	40,4	67,9	82,0	64,5

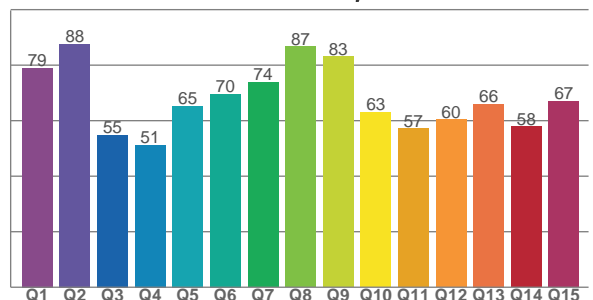
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
64,3	68,6	47,9	49,5	55,7	74,5	82,6	70,7	73,6	51,6	39,7	55,8	71,7	69,0	71,5	73,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
79,0	87,6	54,8	51,3	65,3	69,7	73,8	86,6	83,1	63,0	57,1	60,4	66,0	57,8	67,0

CQS: 66,2



COLOR PARAMETERS

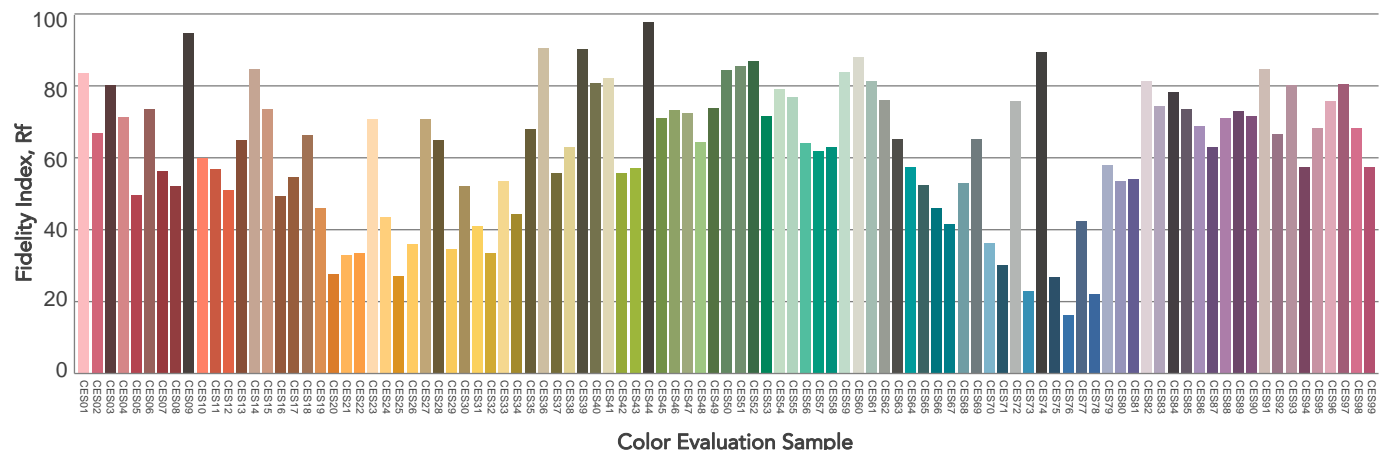
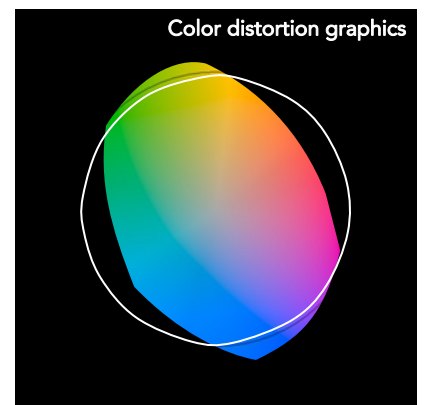
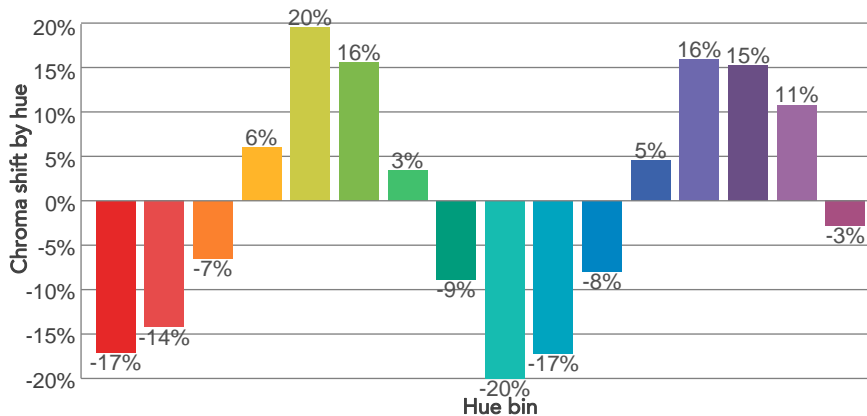
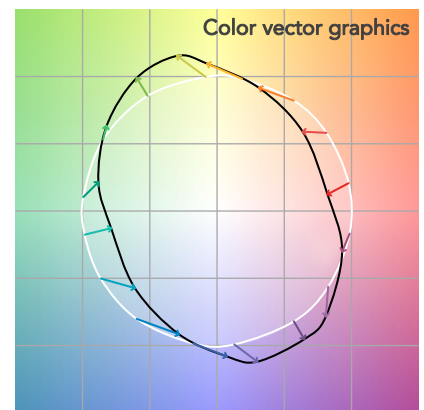
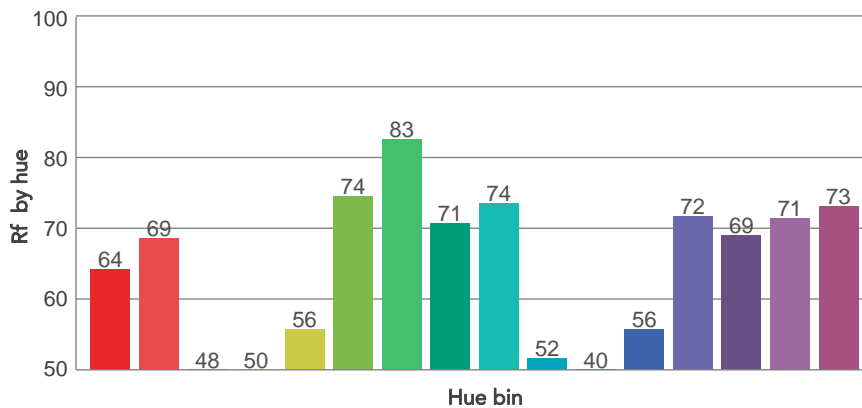
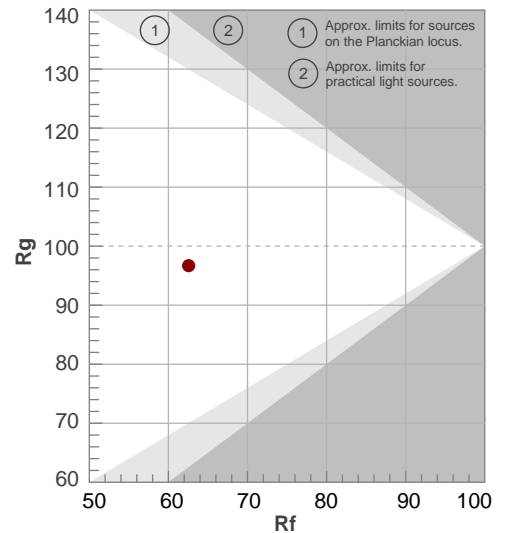
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6020 K	68,4	-23,6	62,6	96,7	66,2	41	0,322	0,327	-0,0059

TM30 DETAILS

Rf 62,6
Fidelity index Rf

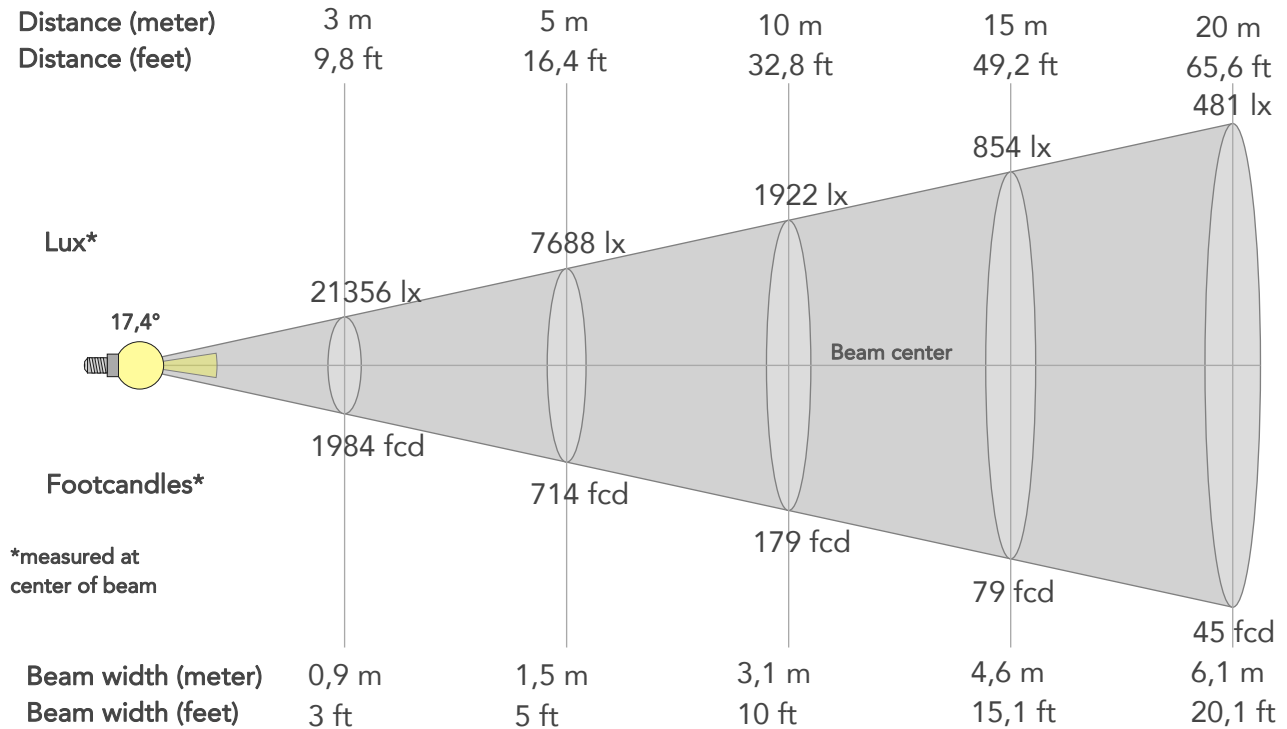
Rg 96,7
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	64	-17%	-5%
2	69	-14%	11%
3	48	-7%	27%
4	50	6%	28%
5	56	20%	18%
6	74	16%	-1%
7	83	3%	-10%
8	71	-9%	-13%
9	74	-20%	-1%
10	52	-17%	20%
11	40	-8%	33%
12	56	5%	27%
13	72	16%	14%
14	69	15%	-1%
15	71	11%	-19%
16	73	-3%	-14%



BEAM DETAILS

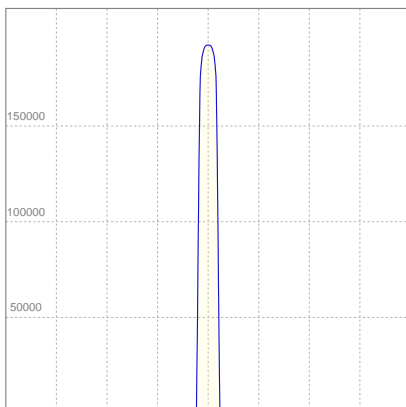
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,4°	20,2°	20,7°	98,7%	98,6%



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	192206lx	48051lx	21356lx	12013lx	7688lx	3417lx	1922lx	854lx	481lx	308lx	214lx	120lx	77lx
Footcand.	17857fcd	4464fcd	1984fcd	1116fcd	714fcd	317fcd	179fcd	79fcd	45fcd	29fcd	20fcd	11fcd	7fcd
Beam wid.	0,3m	0,6m	0,9m	1,2m	1,5m	2,3m	3,1m	4,6m	6,1m	7,7m	9,2m	12,2m	15,3m
Beam wid.	1ft	2ft	3ft	4ft	5ft	7,5ft	10ft	15,1ft	20,1ft	25,1ft	30,1ft	40,2ft	50,2ft

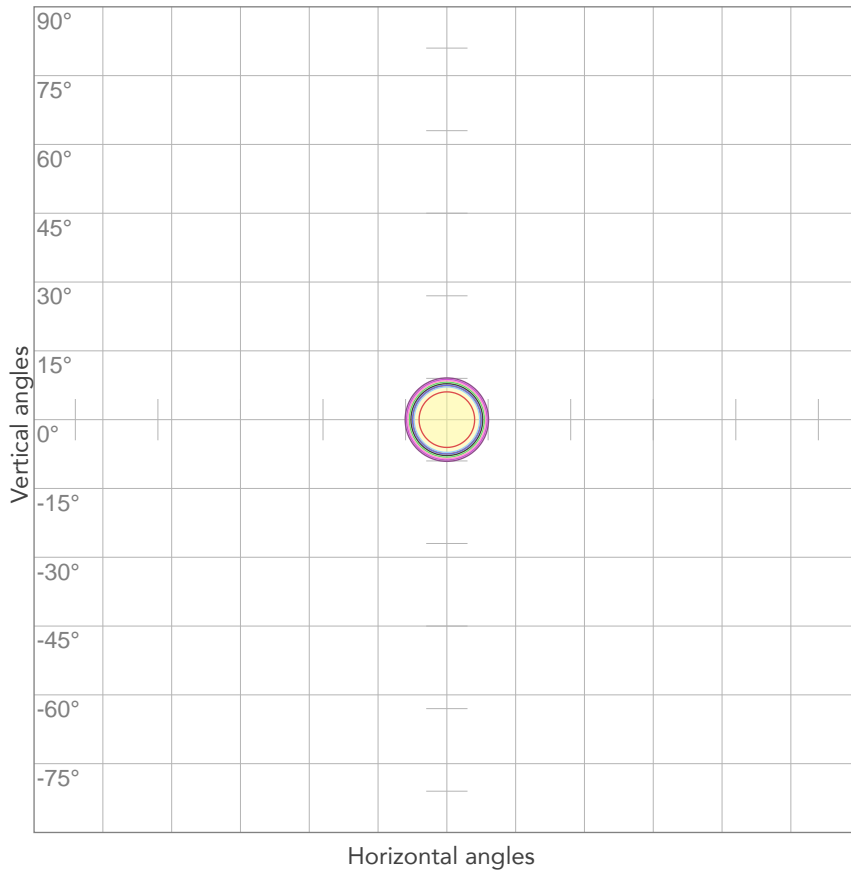
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,74A	590,1W	23lm/W
Power FC			
0,96			

ISO CANDELA DIAGRAM



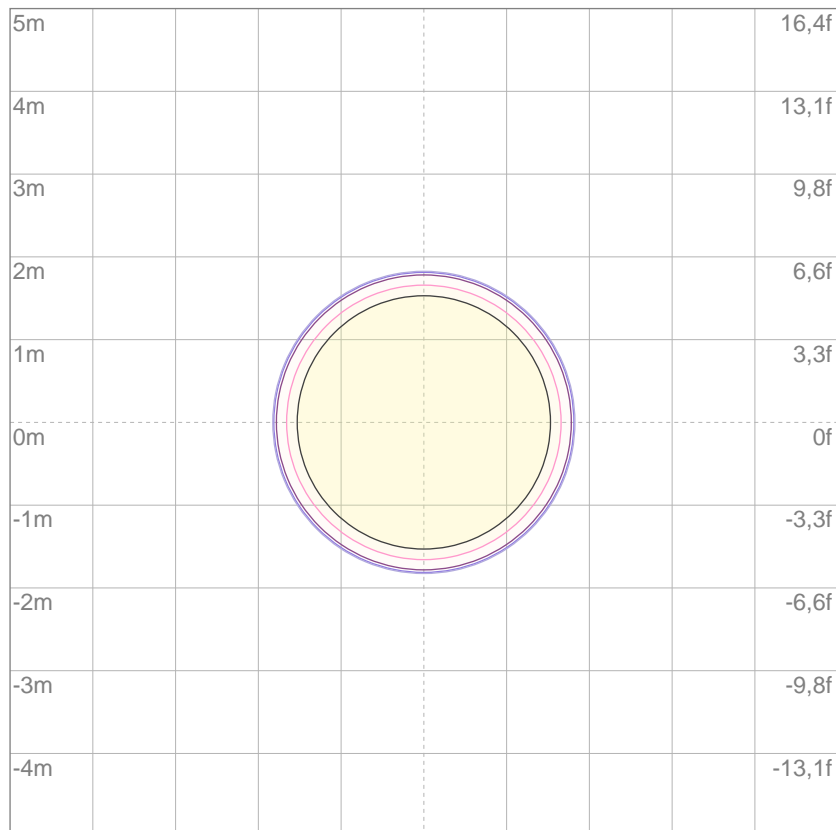
10%	19221 cd
20%	38441 cd
30%	57662 cd
40%	76882 cd
50%	96103 cd
60%	115323 cd
70%	134544 cd
80%	153765 cd

Conditions:

Number of c-planes: 2

Candela at center: 192206 cd

ISO LUX DIAGRAM



3%	57,7 lx
5%	96,1 lx
10%	192 lx
30%	577 lx
50%	961 lx

Conditions:

Number of c-planes: 2

Lux at center: 1922 lx

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



Total lumen output:

8812 lm

Peak candela output:

828448 cd

Light quality:

CRI: 68,5

Color temperature:

6004 K

PRODUCT NAME:

Mosaico XL

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

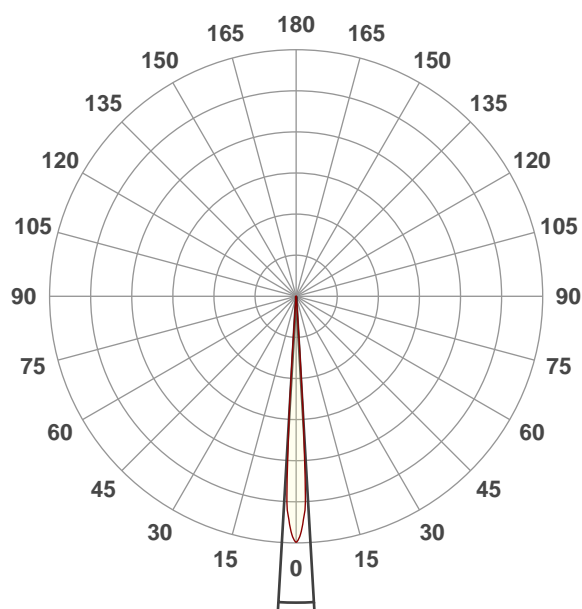
Full on

Operator:

Paolo Carvone

Date and time:

08/06/2020 11:20:53

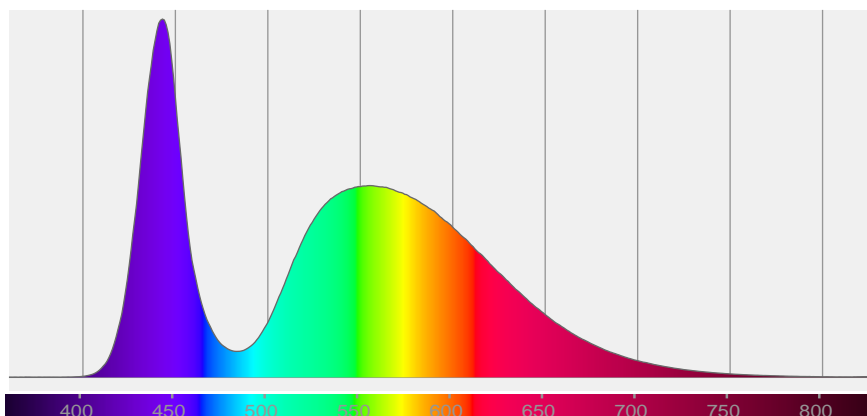


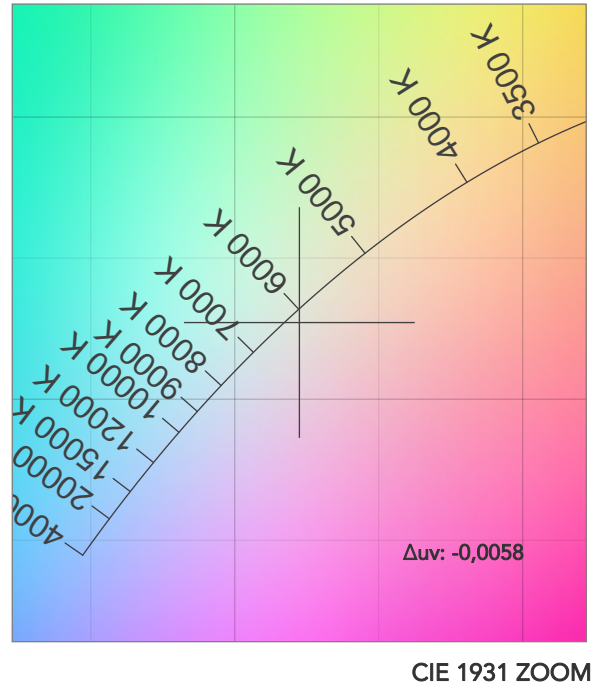
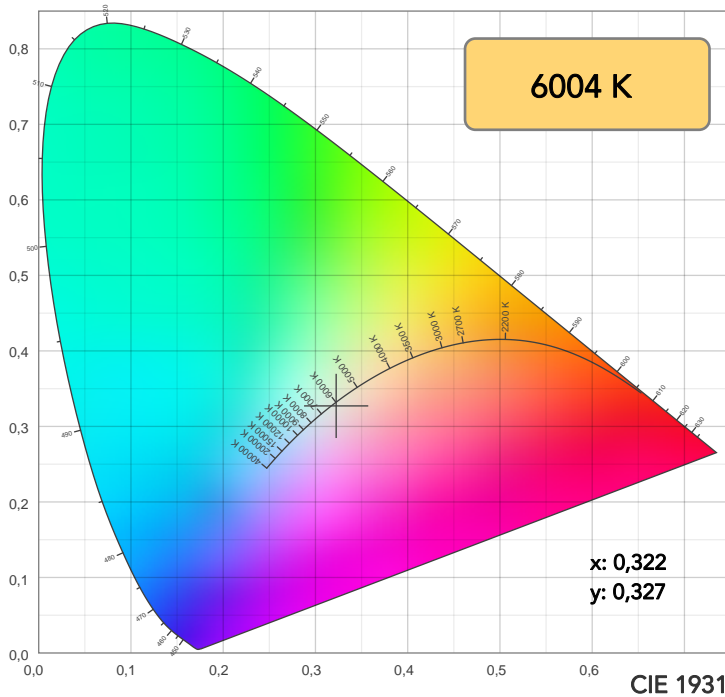
Beam angle 50%: 6,6°

Field angle 10%: 8,3°

Cut off angle 2.5%: 9,5°

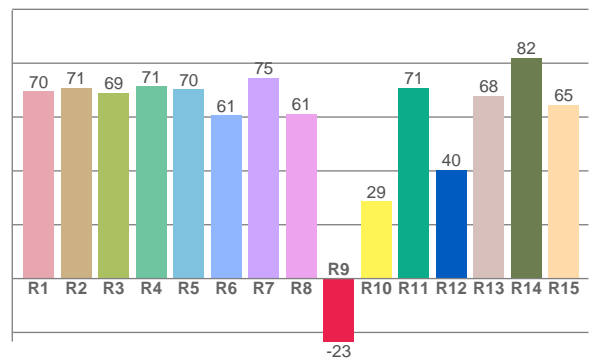
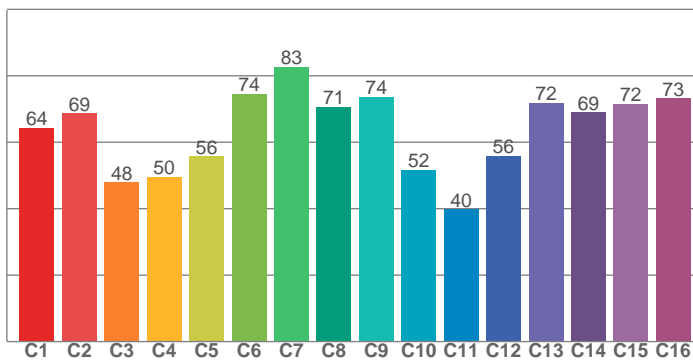
Spectra





TM30: 62,6

CRI: 68,5 (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
69,6	70,9	69,1	71,4	70,2	60,8	74,6	61,2	-23,4	28,6	70,9	40,4	67,9	82,1	64,5

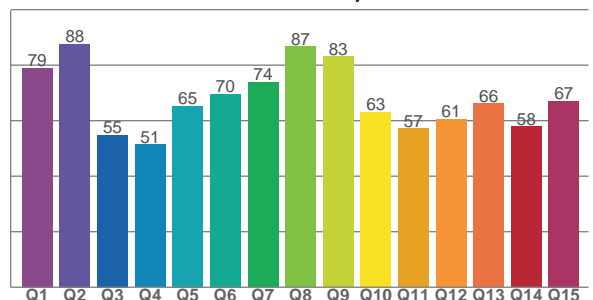
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
64,3	68,7	48,0	49,6	55,8	74,5	82,6	70,7	73,6	51,7	39,9	55,9	71,8	69,0	71,5	73,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
79,0	87,7	54,9	51,4	65,3	69,7	73,8	86,6	83,1	63,1	57,2	60,5	66,1	57,9	67,0

CQS: 66,3



COLOR PARAMETERS

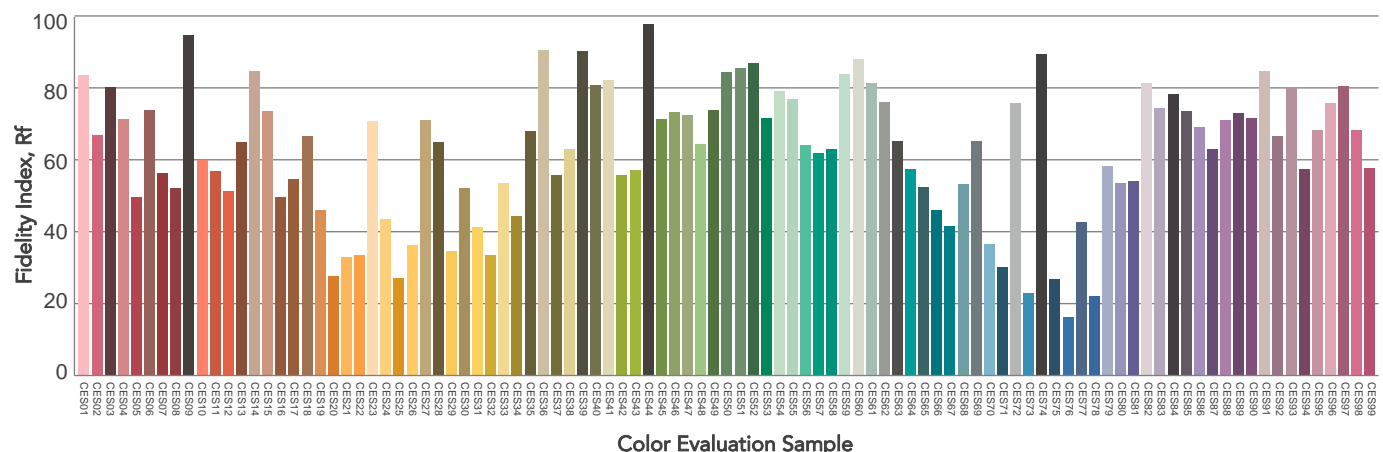
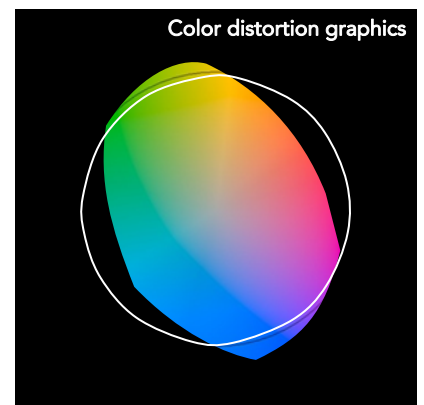
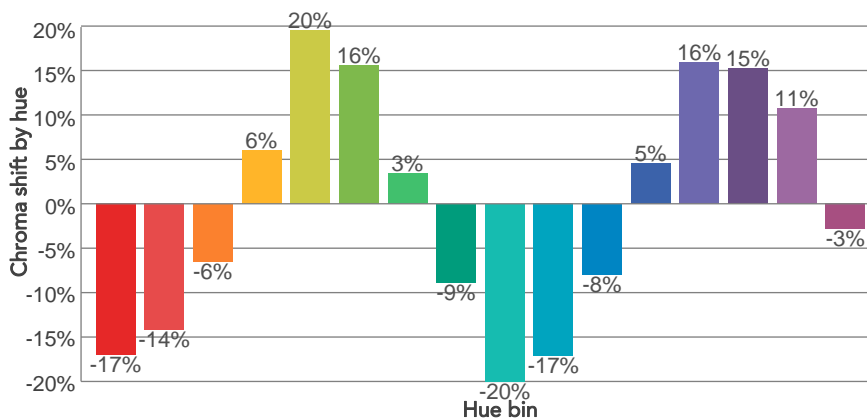
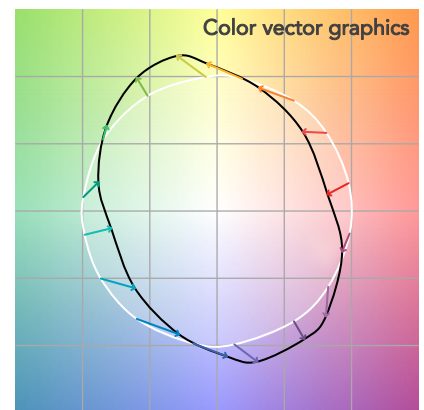
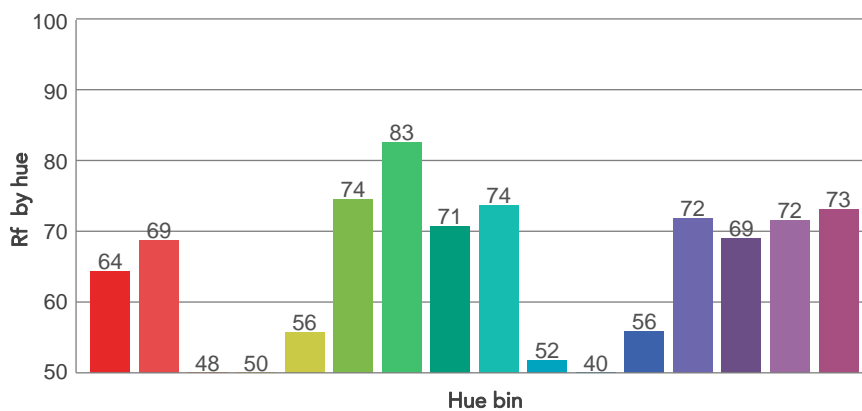
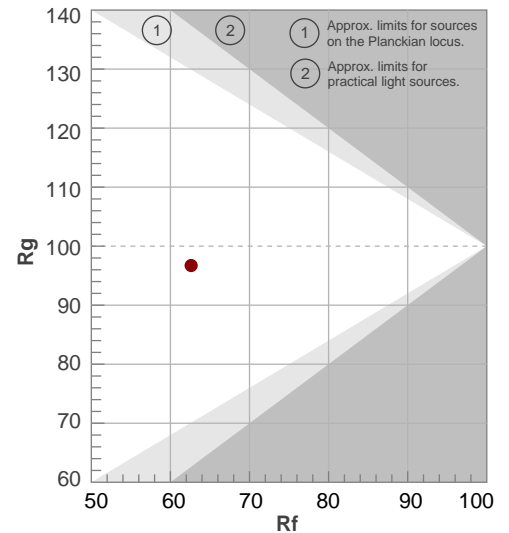
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6004 K	68,5	-23,4	62,6	96,7	66,3	42	0,322	0,327	-0,0058

TM30 DETAILS

Rf 62,6
Fidelity index Rf

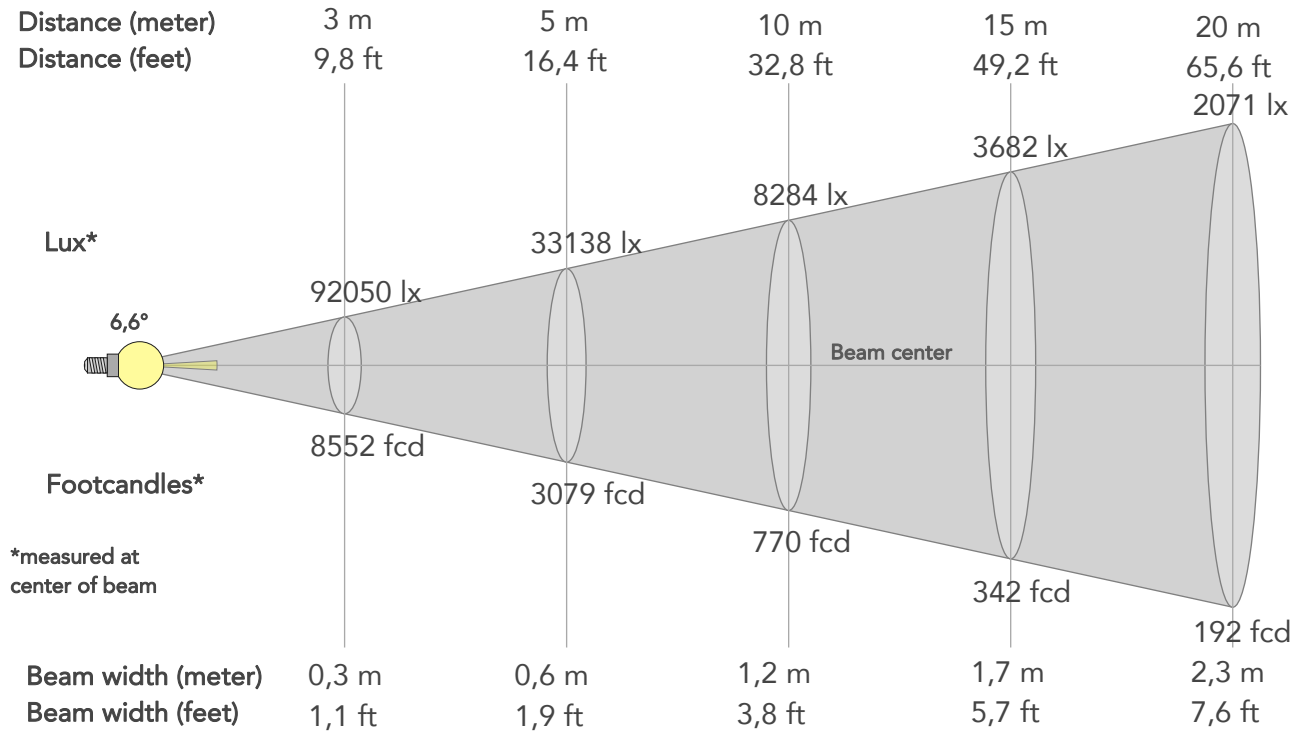
Rg 96,7
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	64	-17%	-5%
2	69	-14%	10%
3	48	-6%	27%
4	50	6%	28%
5	56	20%	18%
6	74	16%	-1%
7	83	3%	-10%
8	71	-9%	-13%
9	74	-20%	-1%
10	52	-17%	20%
11	40	-8%	32%
12	56	5%	26%
13	72	16%	14%
14	69	15%	-1%
15	72	11%	-19%
16	73	-3%	-14%



BEAM DETAILS

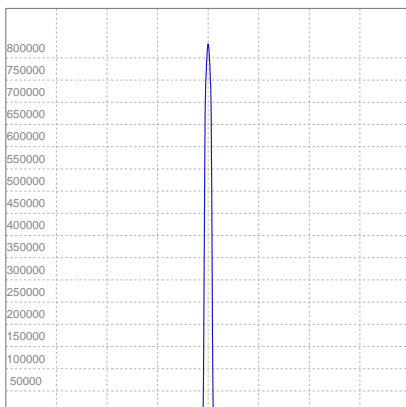
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,6°	8,3°	9,5°	100,0%	100,0%



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	828448lx	207112lx	92050lx	51778lx	33138lx	14728lx	8284lx	3682lx	2071lx	1326lx	920lx	518lx	331lx
Footcand.	76965fcd	19241fcd	8552fcd	4810fcd	3079fcd	1368fcd	770fcd	342fcd	192fcd	123fcd	86fcd	48fcd	31fcd
Beam wid.	0,1m	0,2m	0,3m	0,5m	0,6m	0,9m	1,2m	1,7m	2,3m	2,9m	3,5m	4,6m	5,8m
Beam wid.	0,4ft	0,8ft	1,1ft	1,5ft	1,9ft	2,9ft	3,8ft	5,7ft	7,6ft	9,5ft	11,4ft	15,2ft	19ft

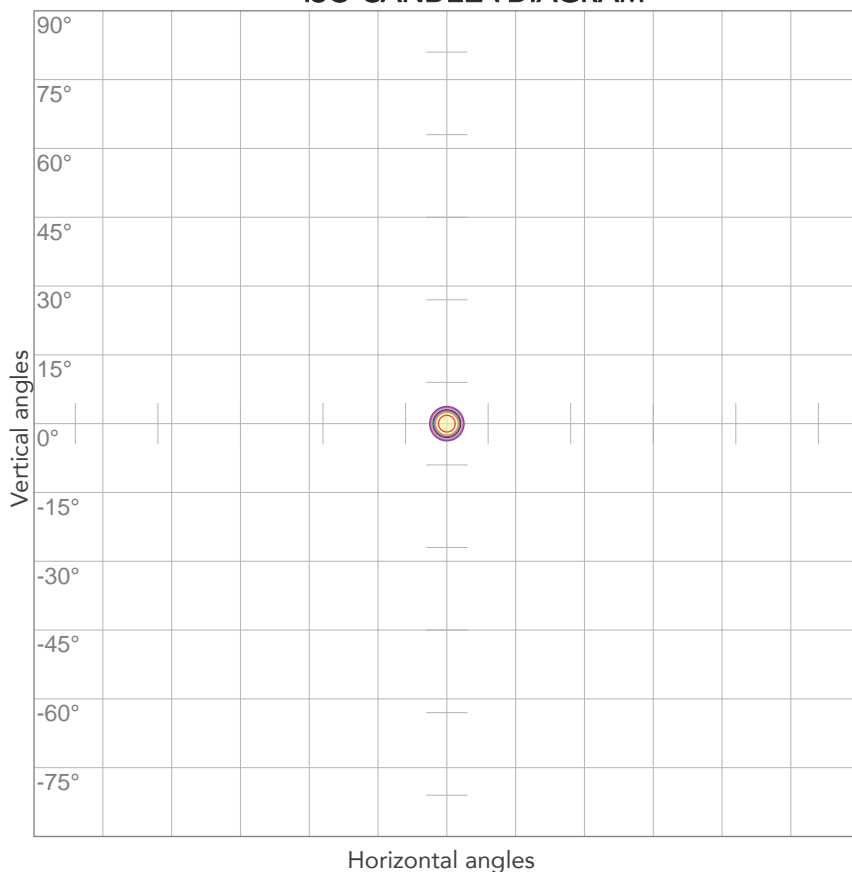
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	2,70A	580,8W	15lm/W
Power FC			
0,96			

ISO CANDELA DIAGRAM



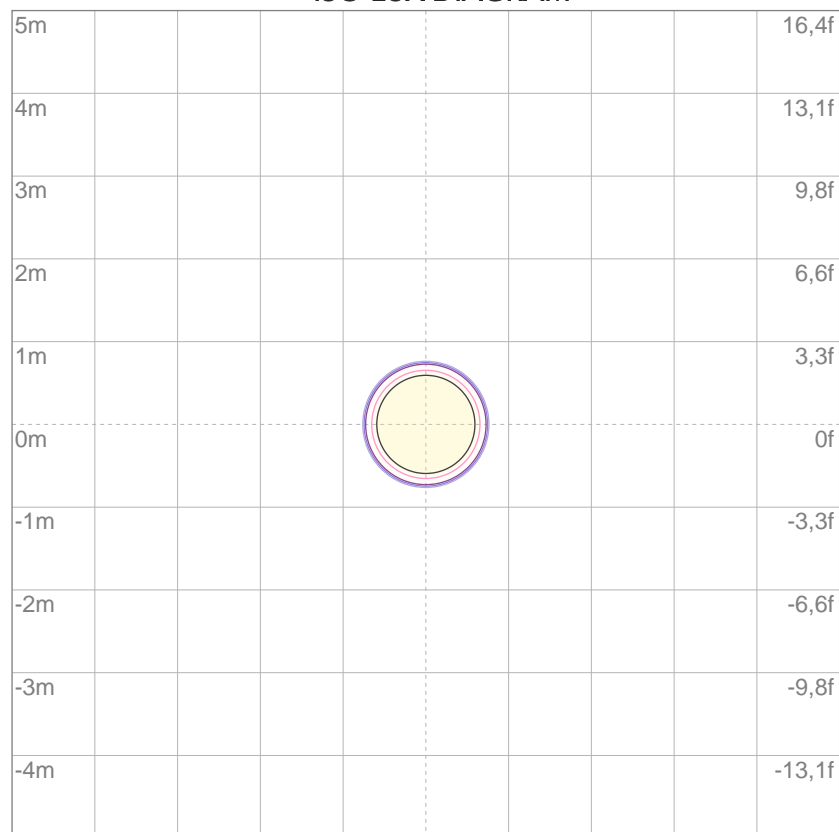
10%	82845 cd
20%	165690 cd
30%	248534 cd
40%	331379 cd
50%	414224 cd
60%	497069 cd
70%	579913 cd
80%	662758 cd

Conditions:

Number of c-planes: 2

Candela at center: 828448 cd

ISO LUX DIAGRAM



3%	249 lx
5%	414 lx
10%	828 lx
30%	2485 lx
50%	4142 lx

Conditions:

Number of c-planes: 2

Lux at center: 8284 lx

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