

Photometric Test Report



MosaicoJR

70 W IP66 zoomable LED image projector
with gobo and color wheel

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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:

2628 lm

Peak candela output:

7350 cd

Light quality:

CRI: 70,4

Color temperature:

7117 K

PRODUCT NAME:

Mosaico JR

MEASUREMENT CONDITIONS:

Beam angle:

Max Zoom

Target:

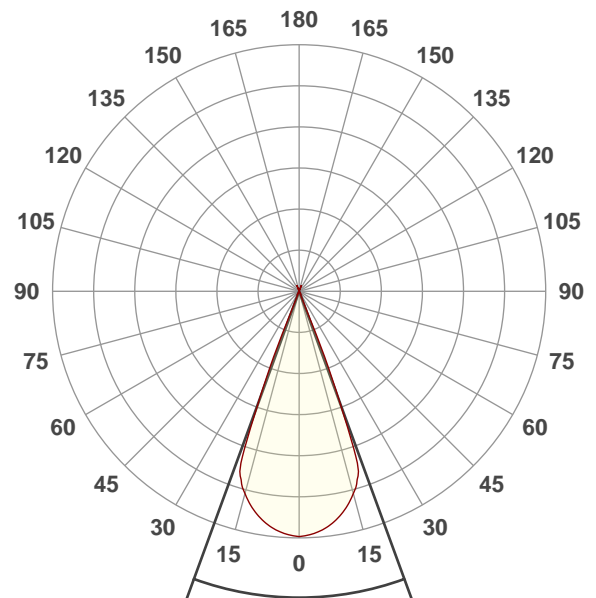
Full on

Operator:

Paolo Carvone

Date and time:

04/05/2020 12:31:36

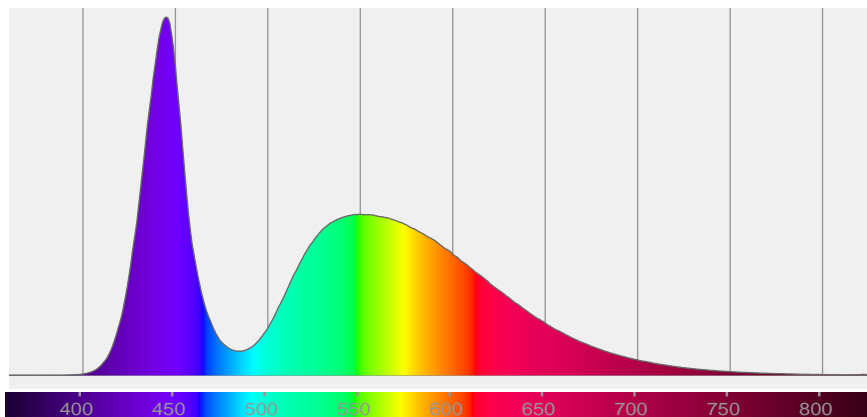


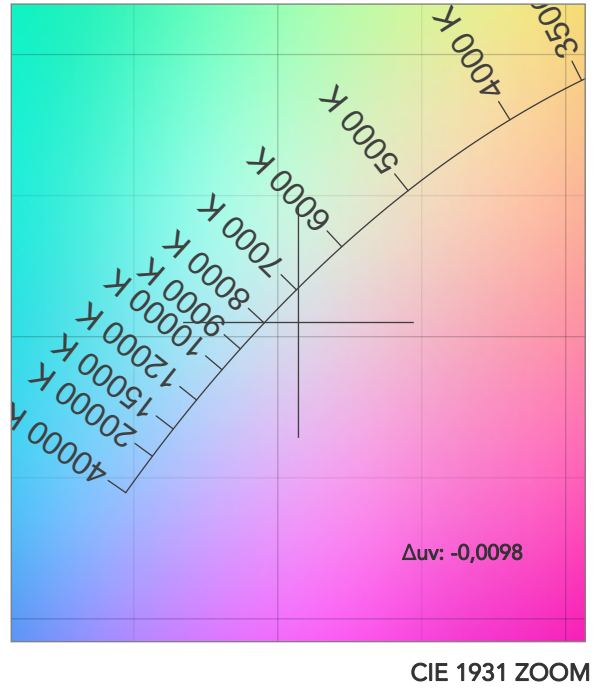
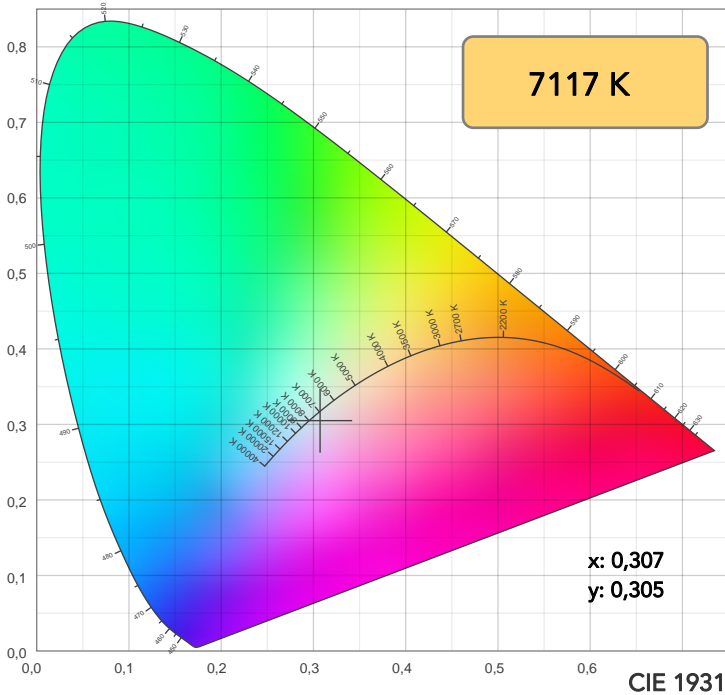
Beam angle 50%: 40,2°

Field angle 10%: 44,9°

Cut off angle 2.5%: 45,8°

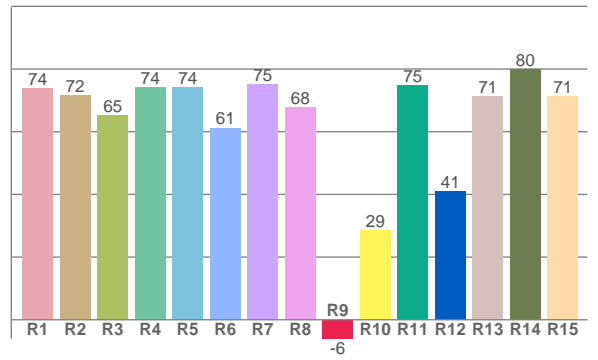
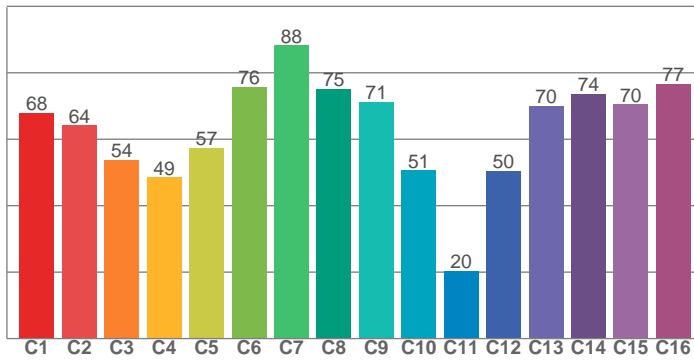
Spectra





TM30: 62,7

CRI: 70,4 (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
73,9	71,7	65,3	74,1	74,2	61,3	75,2	67,7	-6,0	28,5	74,9	41,0	71,3	79,8	71,2

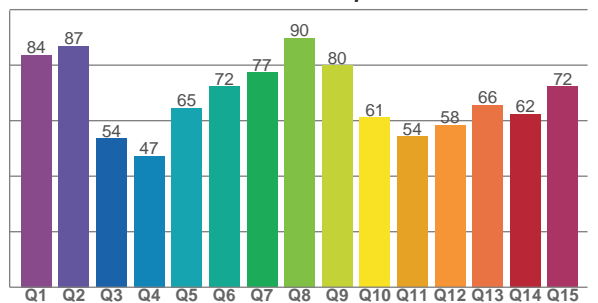
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
67,9	64,2	53,7	48,5	57,3	75,8	88,3	75,1	71,2	50,6	20,4	50,5	70,0	73,6	70,4	76,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,6	86,9	53,6	47,3	64,6	72,2	77,4	89,7	79,9	61,1	54,3	58,3	65,6	62,5	72,2

CQS: 66,2



COLOR PARAMETERS

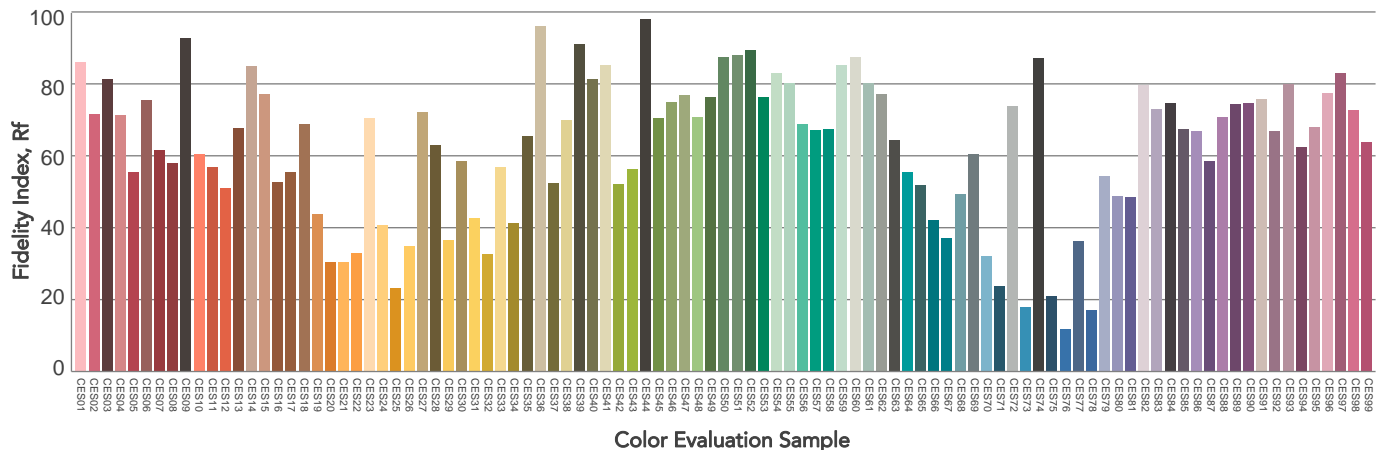
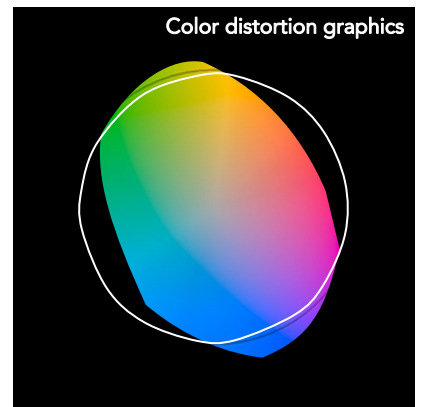
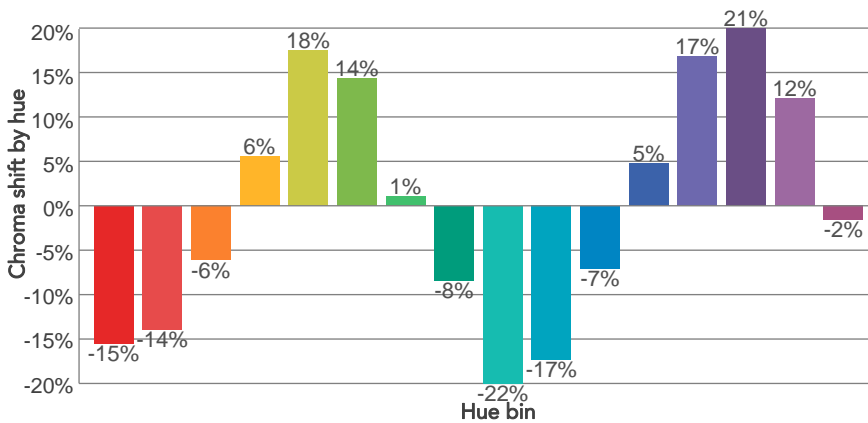
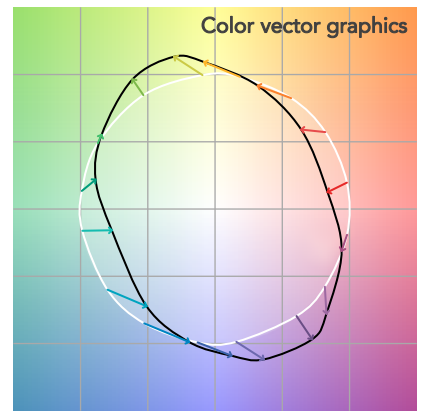
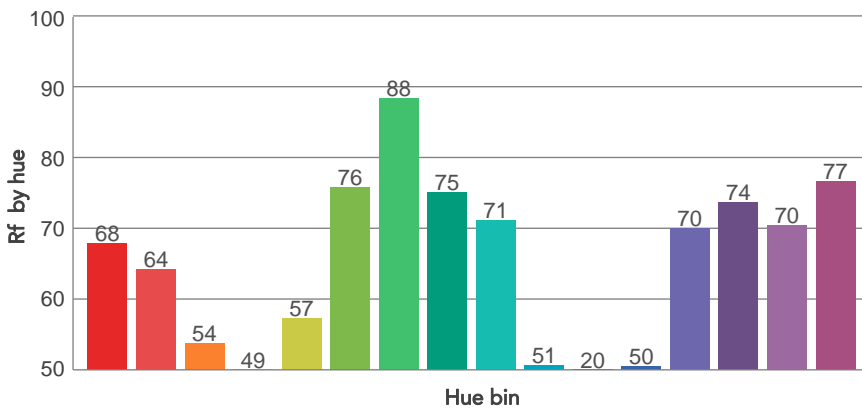
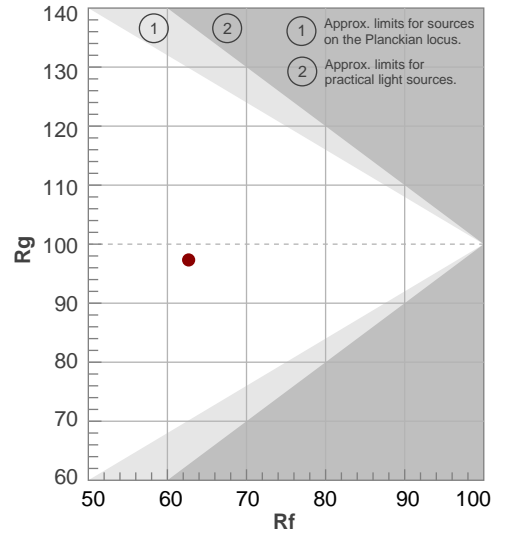
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7117 K	70,4	-6,0	62,7	97,3	66,2	44	0,307	0,305	-0,0098

TM30 DETAILS

Rf 62,7
Fidelity index Rf

Rg 97,3
Gammut index

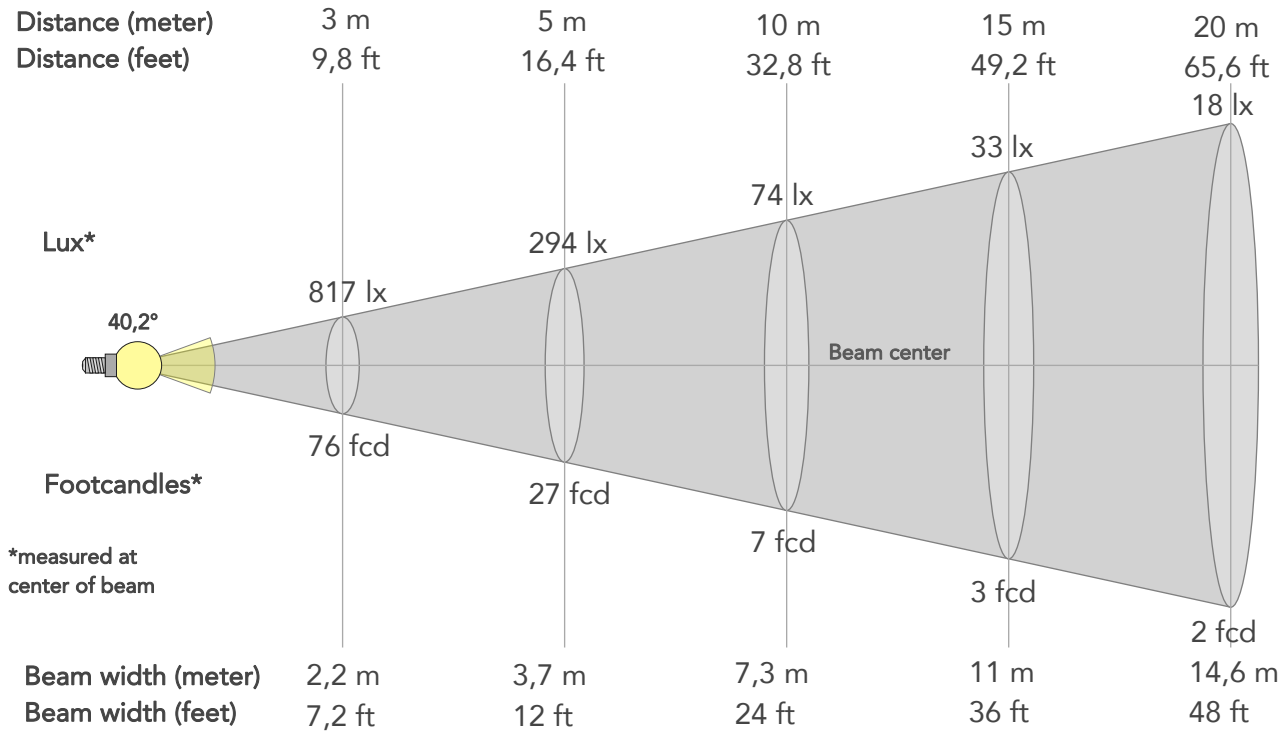
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	68	-15%	-4%
2	64	-14%	12%
3	54	-6%	26%
4	49	6%	28%
5	57	18%	18%
6	76	14%	0%
7	88	1%	-7%
8	75	-8%	-10%
9	71	-22%	4%
10	51	-17%	26%
12	50	5%	27%
13	70	17%	17%
14	74	21%	0%
15	70	12%	-16%
16	77	-2%	-12%



BEAM DETAILS



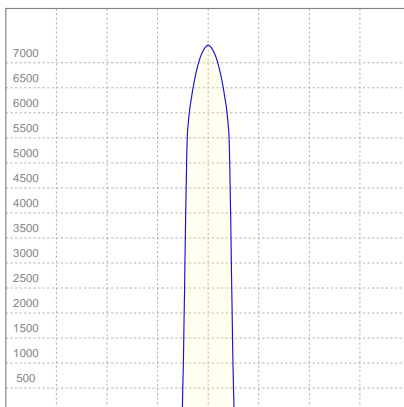
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
40,2°	44,9°	45,8°	98,8%	98,6%



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	7350lx	1838lx	817lx	459lx	294lx	131lx	74lx	33lx	18lx	12lx	8lx	5lx	3lx
Footcand.	683fcd	171fcd	76fcd	43fcd	27fcd	12fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,7m	1,5m	2,2m	2,9m	3,7m	5,5m	7,3m	11m	14,6m	18,3m	21,9m	29,3m	36,6m
Beam wid.	2,4ft	4,8ft	7,2ft	9,6ft	12ft	18ft	24ft	36ft	48ft	60ft	72ft	96ft	120ft

LINEAR DISTRIBUTION DIAGRAM

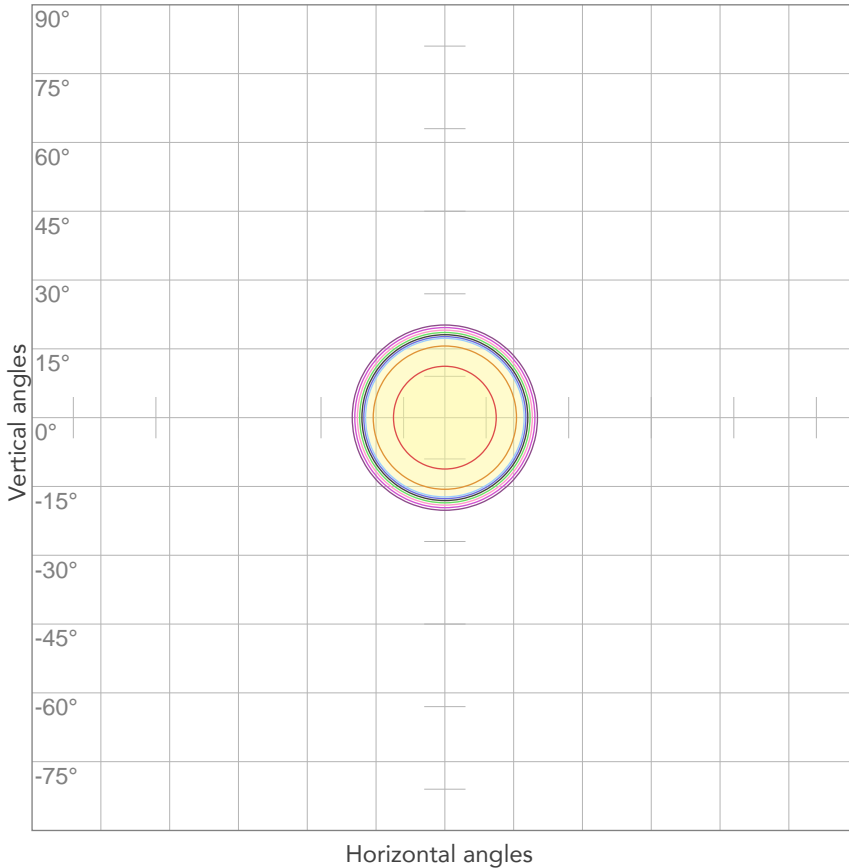


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,372A	78,5W	33lm/W

Power FC
0.92

ISO CANDELA DIAGRAM



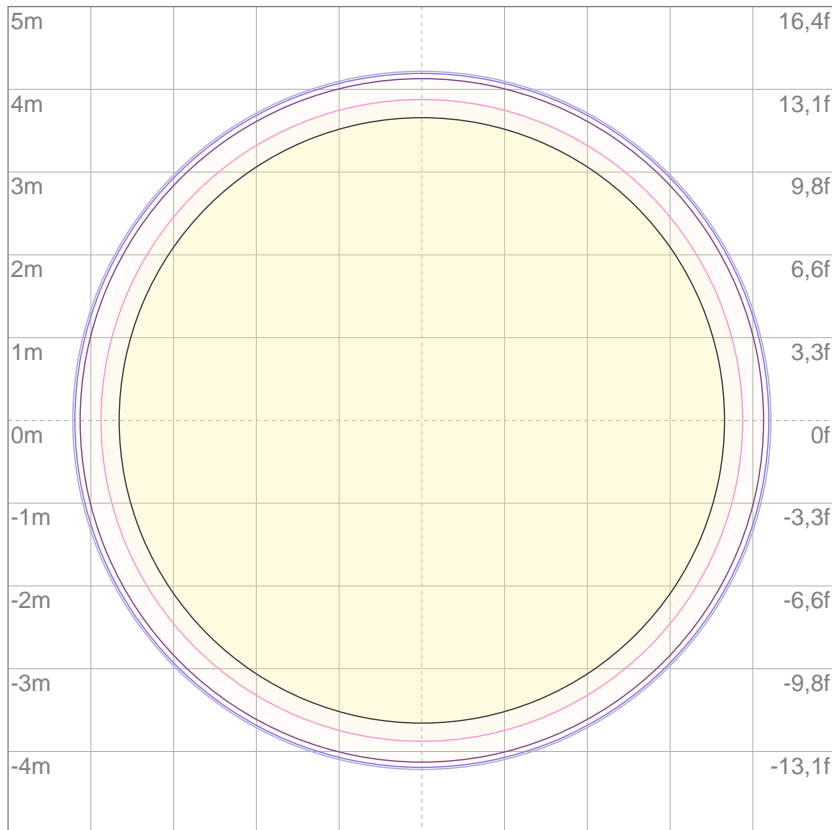
10%	735 cd
20%	1470 cd
30%	2205 cd
40%	2940 cd
50%	3675 cd
60%	4410 cd
70%	5145 cd
80%	5880 cd

Conditions:

Number of c-planes: 2

Candela at center: 7350 cd

ISO LUX DIAGRAM



3%	2,21 lx
5%	3,68 lx
10%	7,35 lx
30%	22,1 lx
50%	36,8 lx

Conditions:

Number of c-planes: 2

Lux at center: 73,5 lx

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

Mounting height: 10 meters (33 feet)



Total lumen output:

2645 lm

Peak candela output:

20233 cd

Light quality:

CRI: 70,5

Color temperature:

7172 K

PRODUCT NAME:

Mosaico JR

MEASUREMENT CONDITIONS:

Beam angle:

Med Zoom

Target:

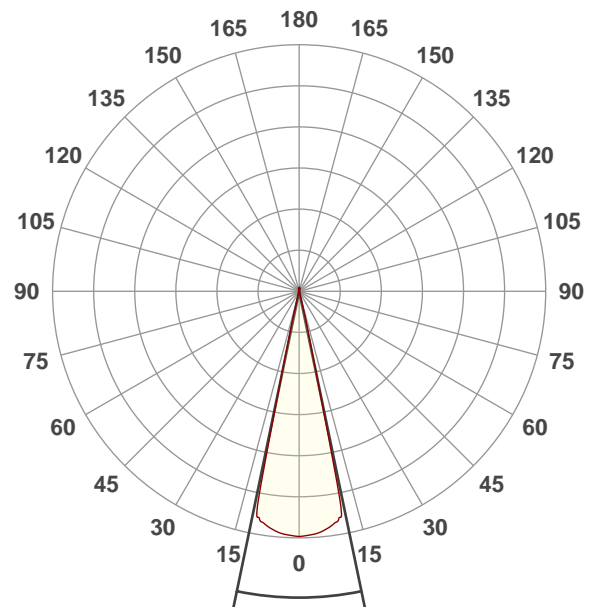
Full on

Operator:

Paolo Carvone

Date and time:

04/05/2020 12:33:14

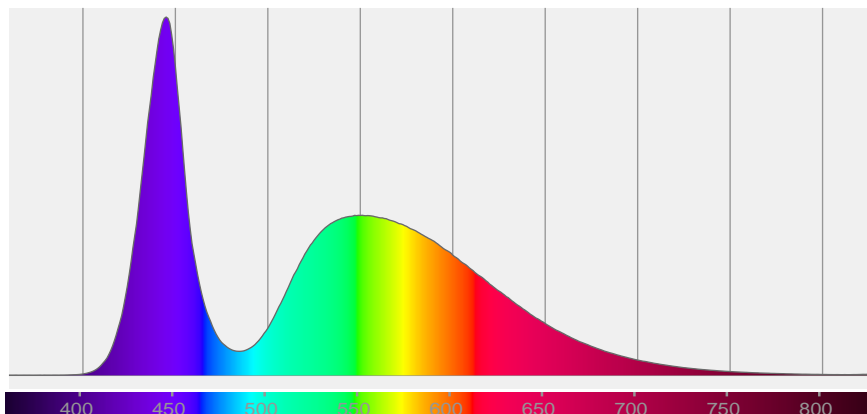


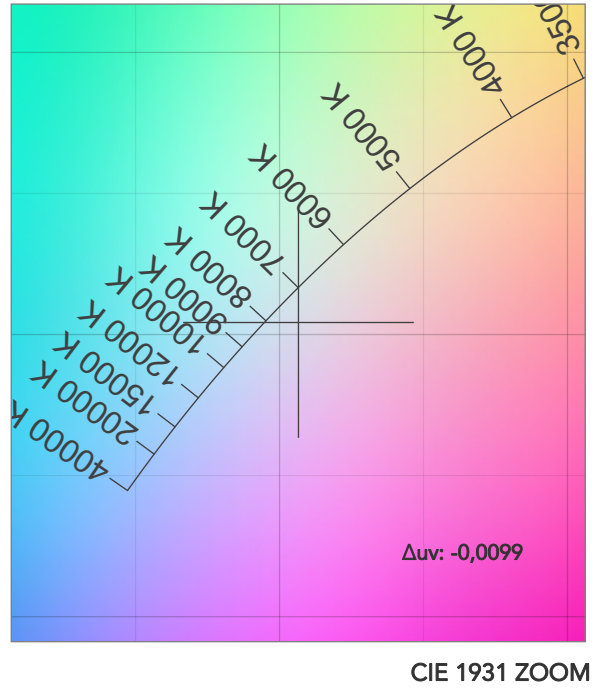
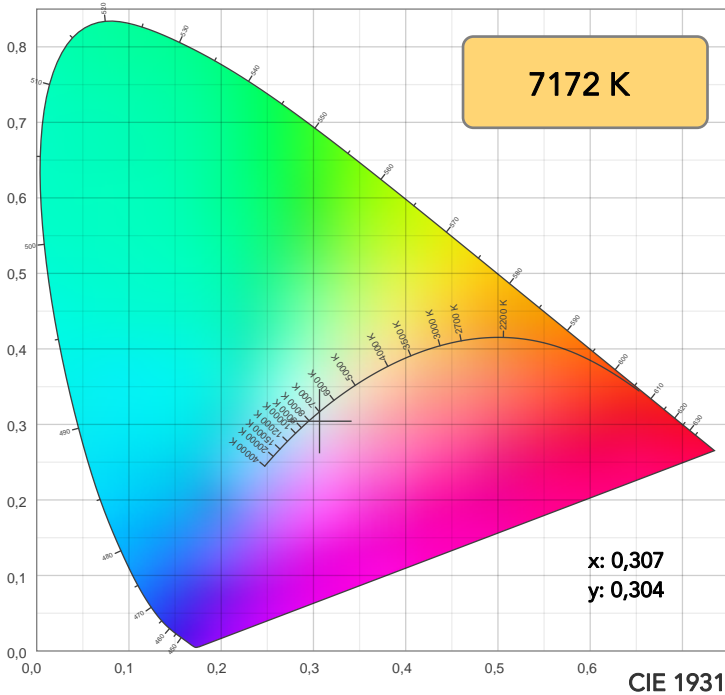
Beam angle 50%: 23,5°

Field angle 10%: 25,8°

Cut off angle 2.5%: 26,6°

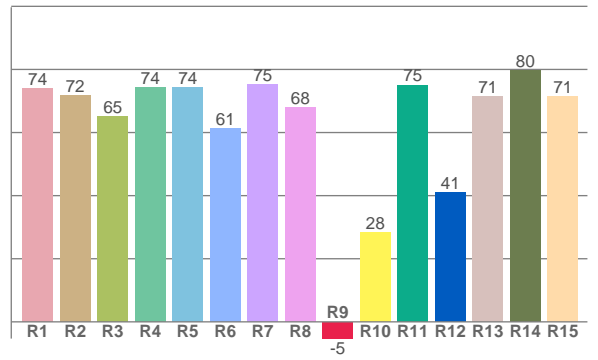
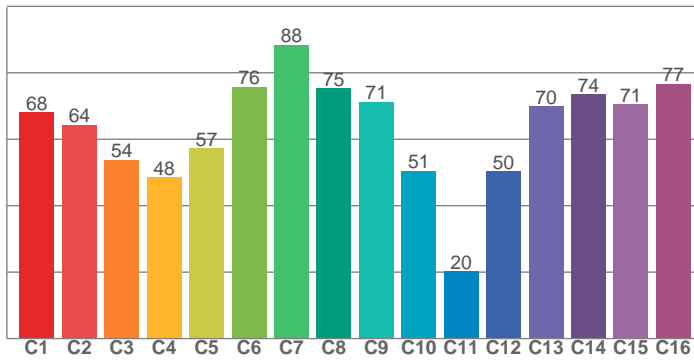
Spectra





TM30: 62,7

CRI: 70,5 (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
74,1	71,7	65,0	74,2	74,3	61,3	75,2	67,9	-5,3	28,4	75,1	41,0	71,4	79,7	71,4

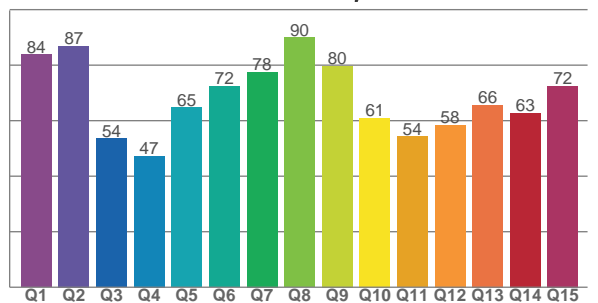
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
68,0	64,3	53,8	48,5	57,3	75,7	88,4	75,2	71,2	50,6	20,3	50,3	69,9	73,5	70,5	76,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,8	86,9	53,6	47,3	64,7	72,4	77,5	89,9	79,8	61,0	54,3	58,4	65,7	62,7	72,4

CQS: 66,3



COLOR PARAMETERS

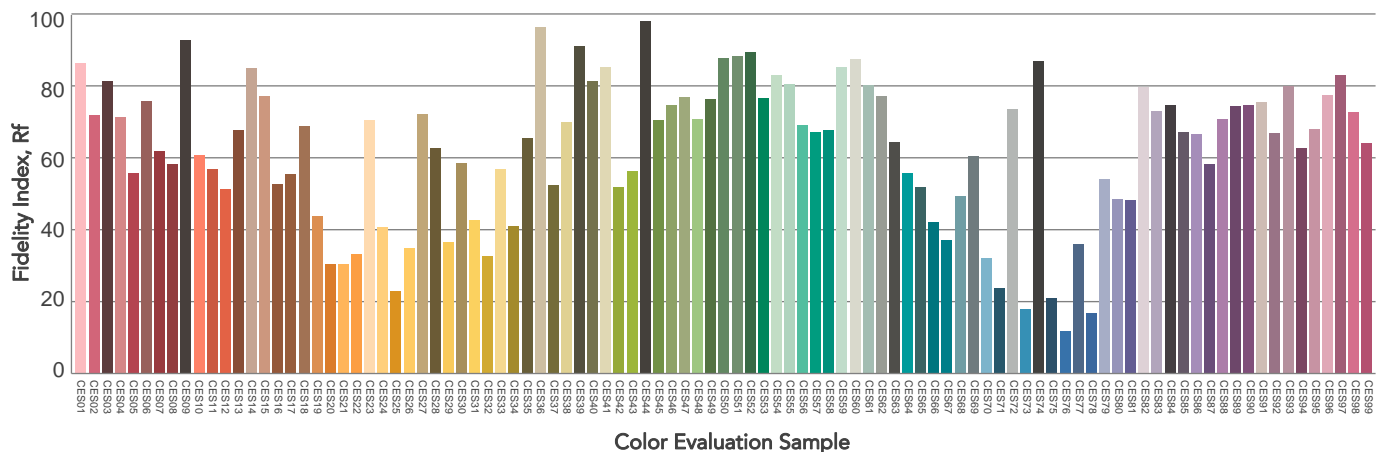
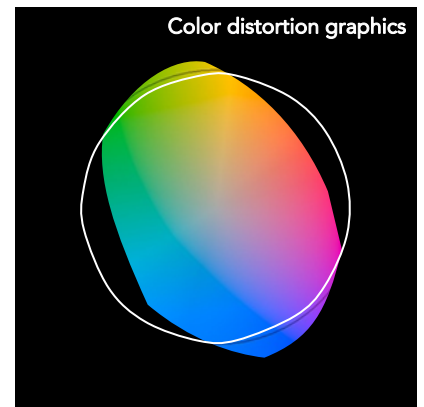
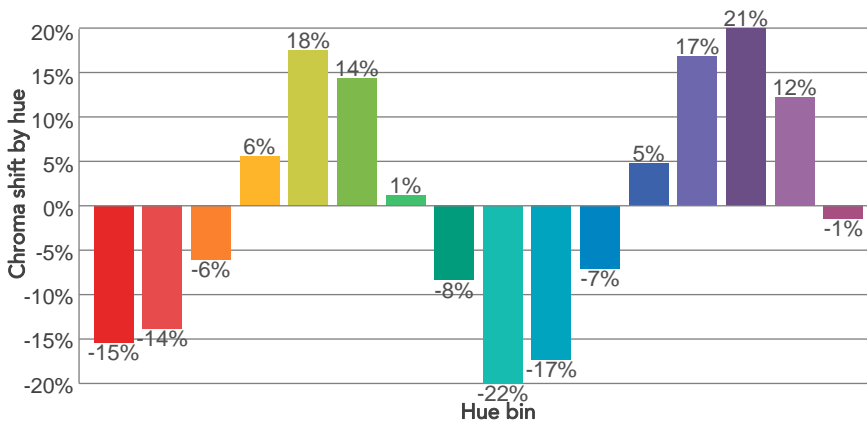
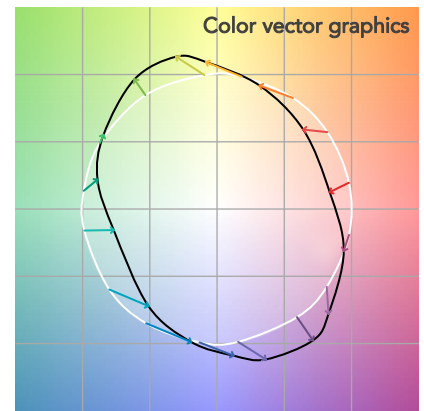
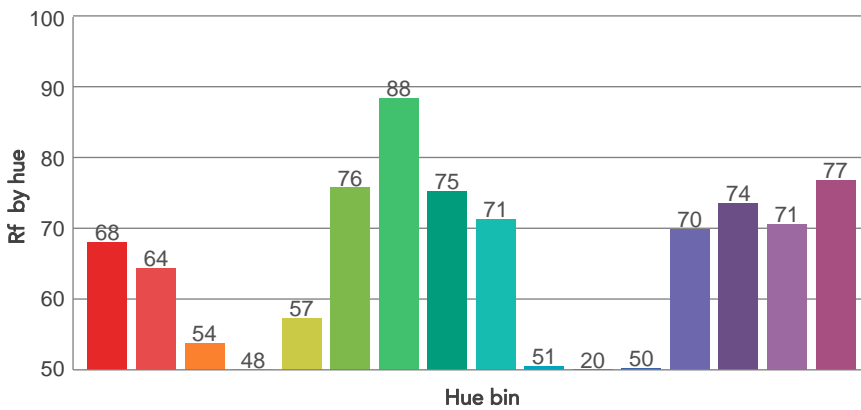
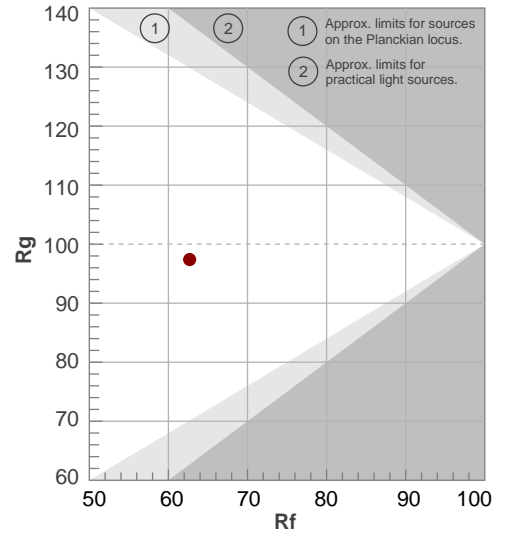
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7172 K	70,5	-5,3	62,7	97,4	66,3	44	0,307	0,304	-0,0099

TM30 DETAILS

Rf 62,7
Fidelity index Rf

Rg 97,4
Gammut index

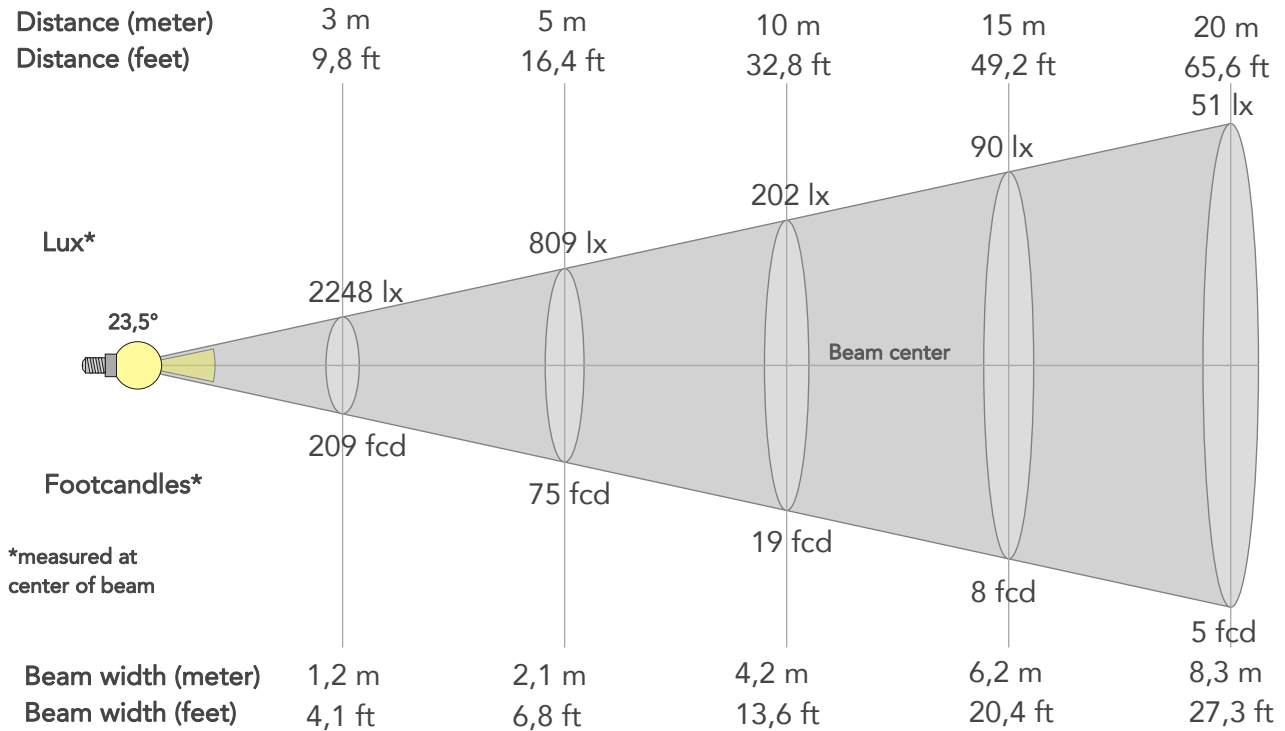
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	68	-15%	-4%
2	64	-14%	12%
3	54	-6%	26%
4	48	6%	28%
5	57	18%	18%
6	76	14%	0%
7	88	1%	-7%
8	75	-8%	-10%
9	71	-22%	4%
10	51	-17%	26%
12	50	5%	27%
13	70	17%	18%
14	74	21%	0%
15	71	12%	-16%
16	77	-1%	-12%



BEAM DETAILS

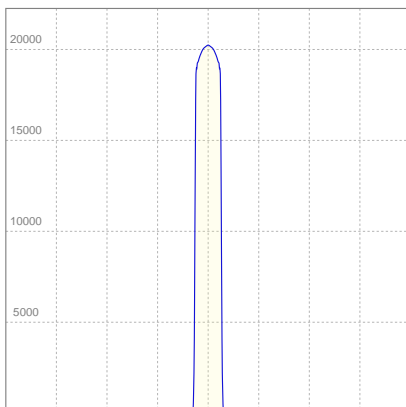


Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,5°	25,8°	26,6°	99,0%	98,8%



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	20233lx	5058lx	2248lx	1265lx	809lx	360lx	202lx	90lx	51lx	32lx	22lx	13lx	8lx
Footcand.	1880fcd	470fcd	209fcd	117fcd	75fcd	33fcd	19fcd	8fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,4m	0,8m	1,2m	1,7m	2,1m	3,1m	4,2m	6,2m	8,3m	10,4m	12,5m	16,6m	20,8m
Beam wid.	1,4ft	2,7ft	4,1ft	5,4ft	6,8ft	10,2ft	13,6ft	20,4ft	27,3ft	34,1ft	40,9ft	54,5ft	68,1ft

LINEAR DISTRIBUTION DIAGRAM

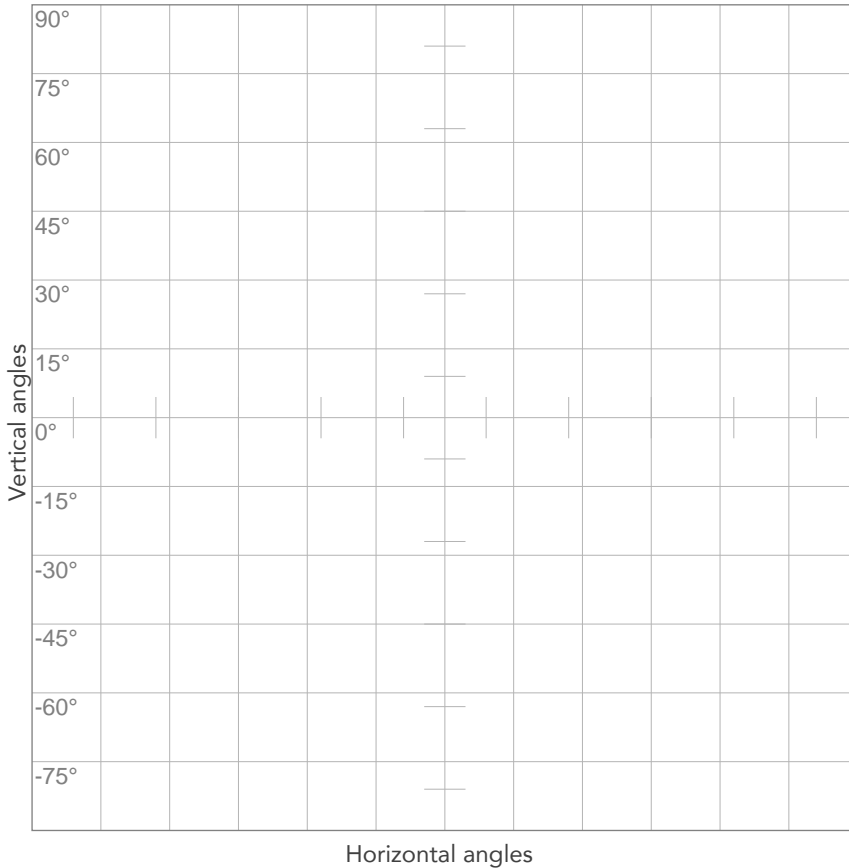


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,372A	78,4W	34lm/W

Power FC
0.92

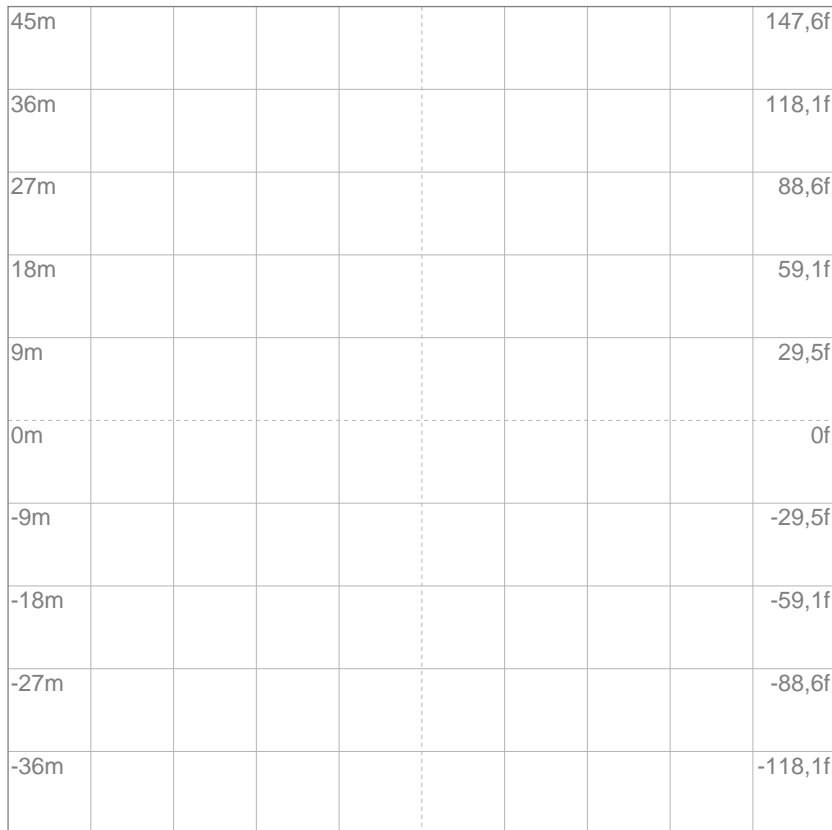
ISO CANDELA DIAGRAM



10%	2023 cd
20%	4047 cd
30%	6070 cd
40%	8093 cd
50%	10117 cd
60%	12140 cd
70%	14163 cd
80%	16187 cd

Conditions:
 Number of c-planes: 2
 Candela at center: 20233 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	6,07 lx
5%	10,1 lx
10%	20,2 lx
30%	60,7 lx
50%	101 lx

Conditions:
 Number of c-planes: 2
 Lux at center: 202 lx

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



Total lumen output:

2595 lm

Peak candela output:

48482 cd

Light quality:

CRI: 70,4

Color temperature:

7152 K

PRODUCT NAME:

Mosaico JR

MEASUREMENT CONDITIONS:

Beam angle:

Min Zoom

Target:

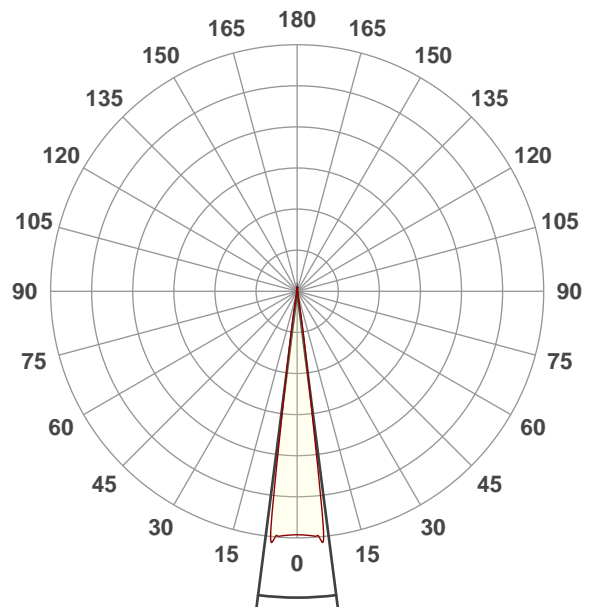
Full on

Operator:

Paolo Carvone

Date and time:

04/05/2020 12:29:57

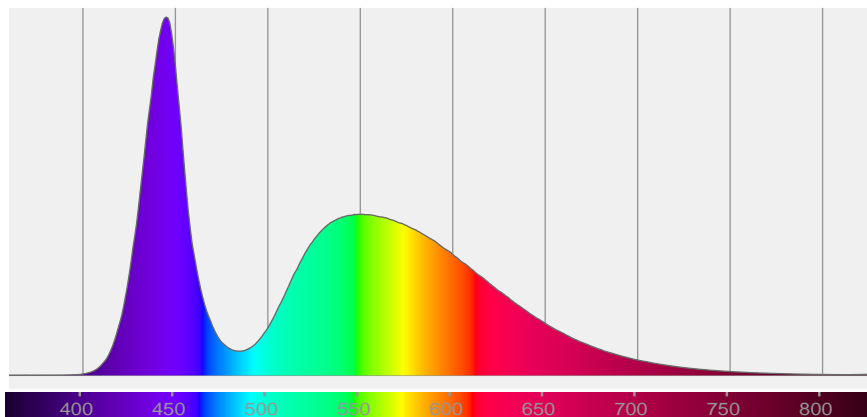


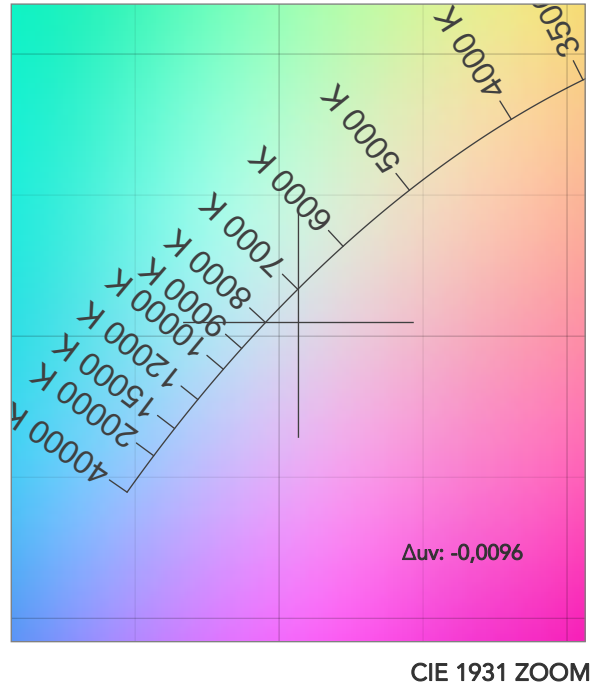
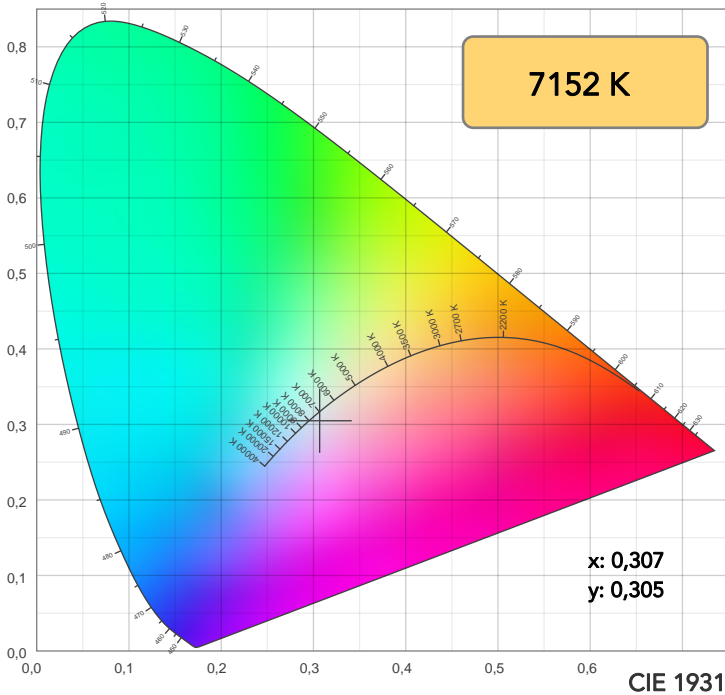
Beam angle 50%: 14,7°

Field angle 10%: 17,6°

Cut off angle 2.5%: 18,6°

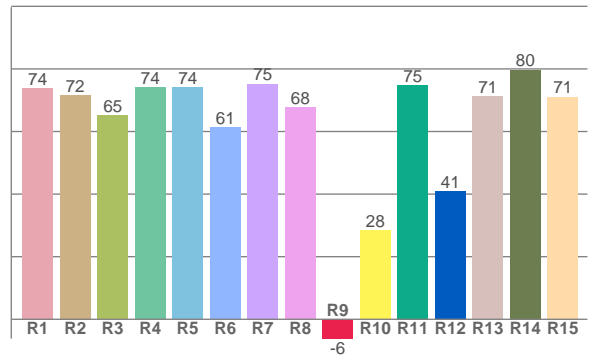
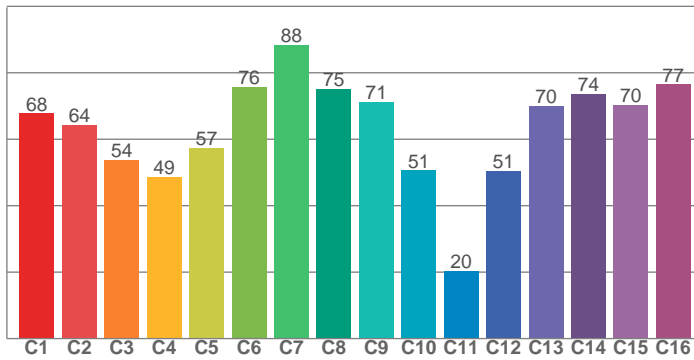
Spectra





TM30: 62,7

CRI: 70,4 (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
73,9	71,6	65,2	74,1	74,1	61,2	75,2	67,7	-6,2	28,4	74,9	40,9	71,2	79,7	71,1

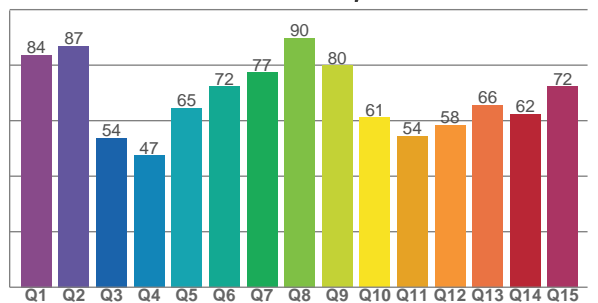
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
67,8	64,3	53,8	48,6	57,5	75,8	88,3	75,1	71,2	50,6	20,5	50,5	70,1	73,6	70,4	76,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,7	87,0	53,7	47,4	64,6	72,2	77,4	89,7	79,9	61,1	54,4	58,4	65,7	62,5	72,2

CQS: 66,2



COLOR PARAMETERS

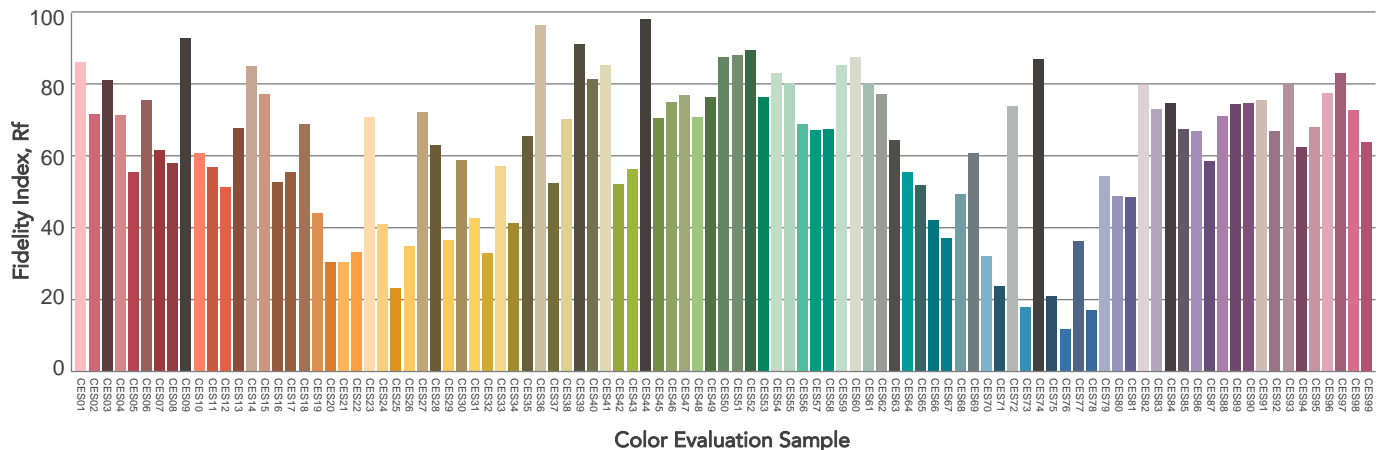
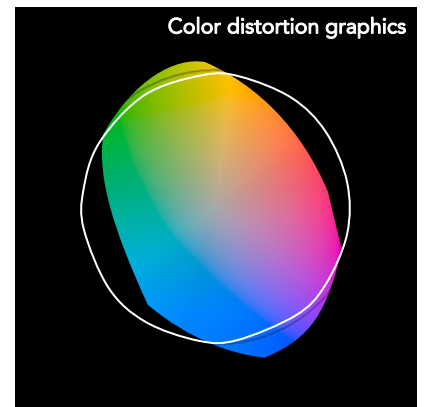
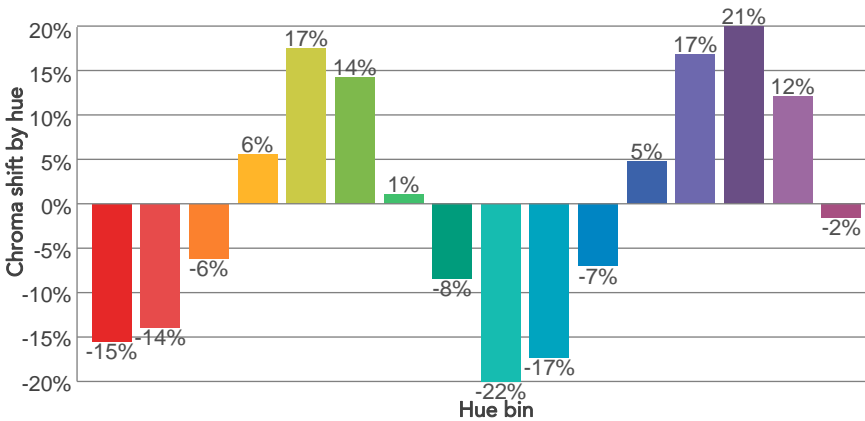
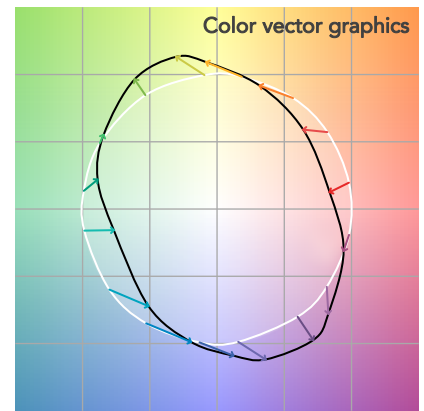
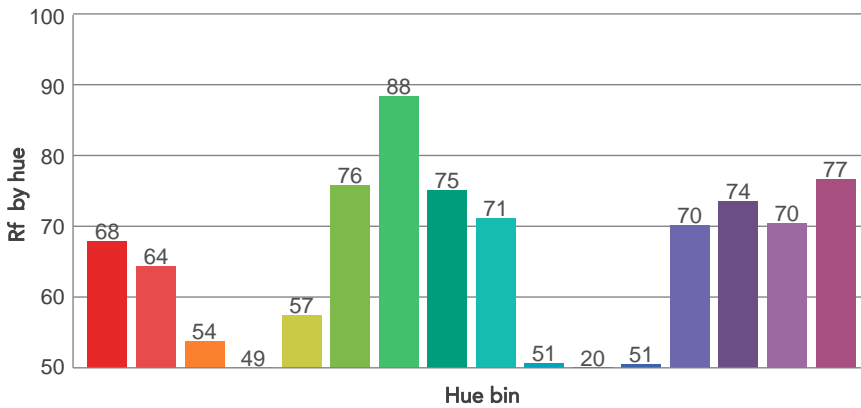
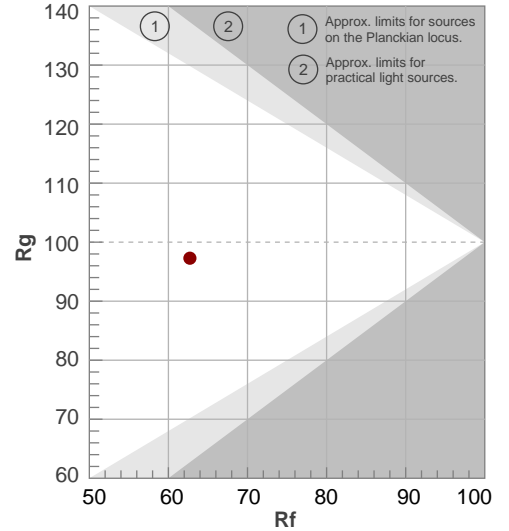
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7152 K	70,4	-6,2	62,7	97,3	66,2	44	0,307	0,305	-0,0096

TM30 DETAILS

Rf 62,7
Fidelity index Rf

Rg 97,3
Gammut index

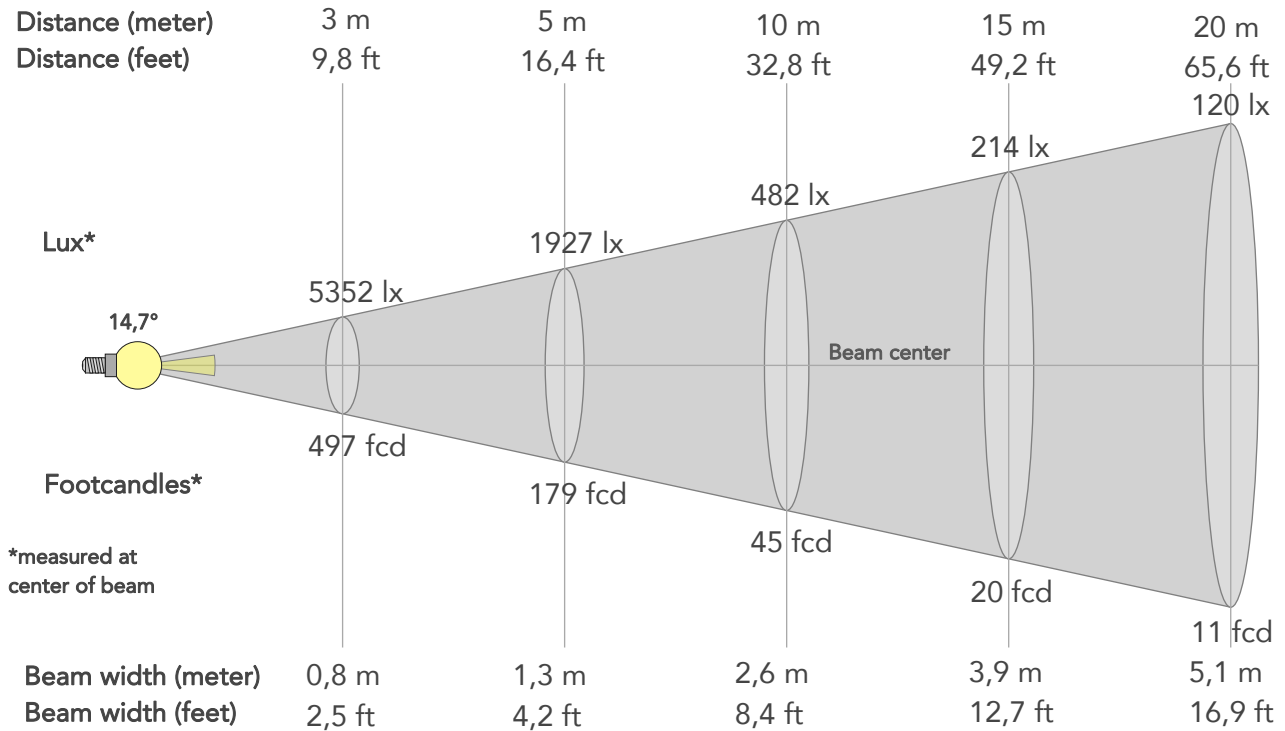
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	68	-15%	-4%
2	64	-14%	12%
3	54	-6%	26%
4	49	6%	28%
5	57	17%	18%
6	76	14%	0%
7	88	1%	-7%
8	75	-8%	-10%
9	71	-22%	4%
10	51	-17%	26%
12	51	5%	27%
13	70	17%	17%
14	74	21%	0%
15	70	12%	-16%
16	77	-2%	-12%



BEAM DETAILS



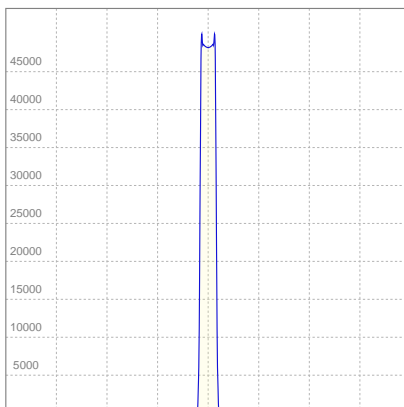
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
14,7°	17,6°	18,6°	99,5%	99,4%



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	48167lx	12042lx	5352lx	3010lx	1927lx	856lx	482lx	214lx	120lx	77lx	54lx	30lx	19lx
Footcand.	4475fcd	1119fcd	497fcd	280fcd	179fcd	80fcd	45fcd	20fcd	11fcd	7fcd	5fcd	3fcd	2fcd
Beam wid.	0,3m	0,5m	0,8m	1m	1,3m	1,9m	2,6m	3,9m	5,1m	6,4m	7,7m	10,3m	12,9m
Beam wid.	0,8ft	1,7ft	2,5ft	3,4ft	4,2ft	6,3ft	8,4ft	12,7ft	16,9ft	21,1ft	25,3ft	33,7ft	42,2ft

LINEAR DISTRIBUTION DIAGRAM

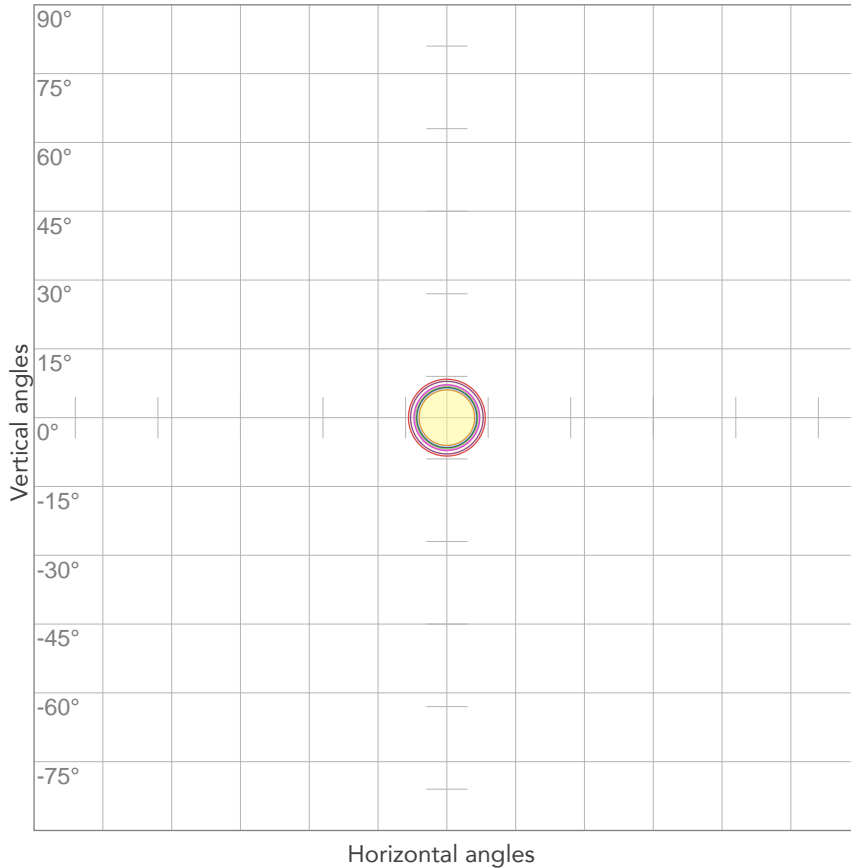


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
228V	0,372A	78,5W	33lm/W

Power FC
0.92

ISO CANDELA DIAGRAM



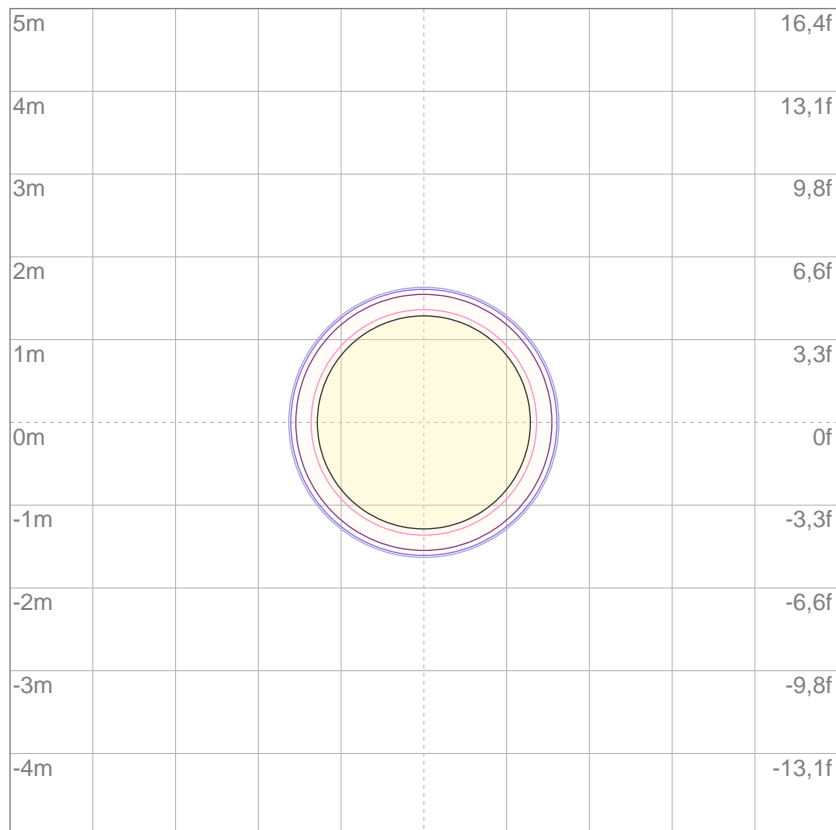
10%	4817 cd
20%	9633 cd
30%	14450 cd
40%	19267 cd
50%	24084 cd
60%	28900 cd
70%	33717 cd
80%	38534 cd

Conditions:

Number of c-planes: 2

Candela at center: 48167 cd

ISO LUX DIAGRAM



3%	14,5 lx
5%	24,1 lx
10%	48,2 lx
30%	145 lx
50%	241 lx

Conditions:

Number of c-planes: 2

Lux at center: 482 lx

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

Mounting height: 10 meters (33 feet)