



Photometric Test Report



ECLPENDANTJR TU

100W White LED source

innovative pendant light

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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:

6948 lm

Peak candela output:

34311 cd

Light quality:

CRI: 96,4

Color temperature:

3022 K

PRODUCT NAME:

ECLPENDANTJR TU

MEASURAMENT CONDITIONS:

Beam angle:

20°

Target:

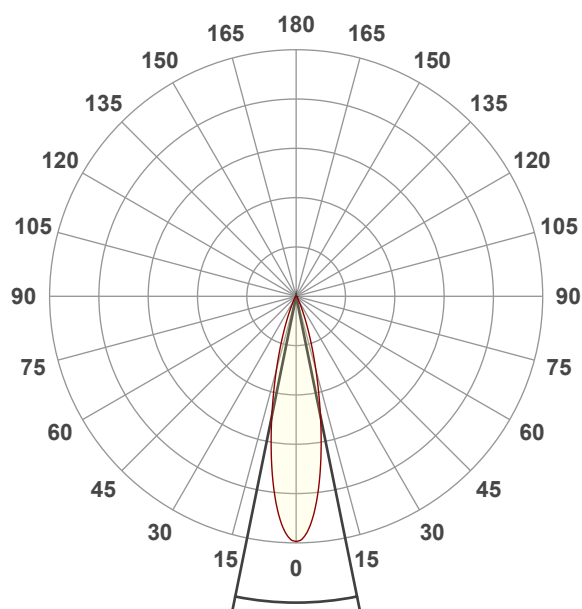
Full On

Operator:

Paolo Carvone

Date and time:

13/10/2022 12:33:53

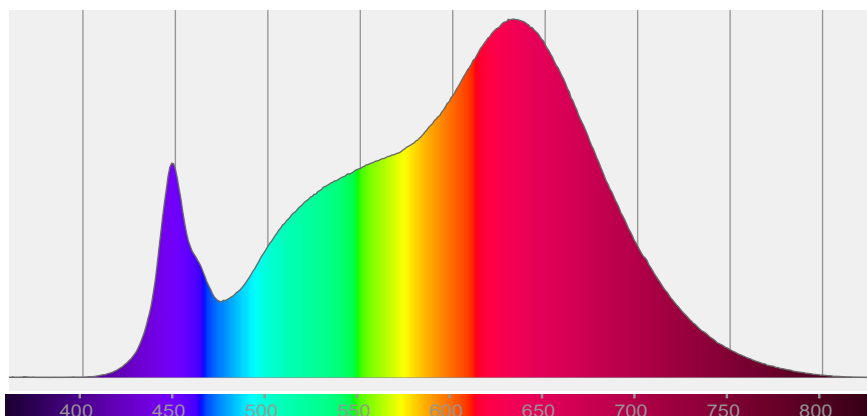


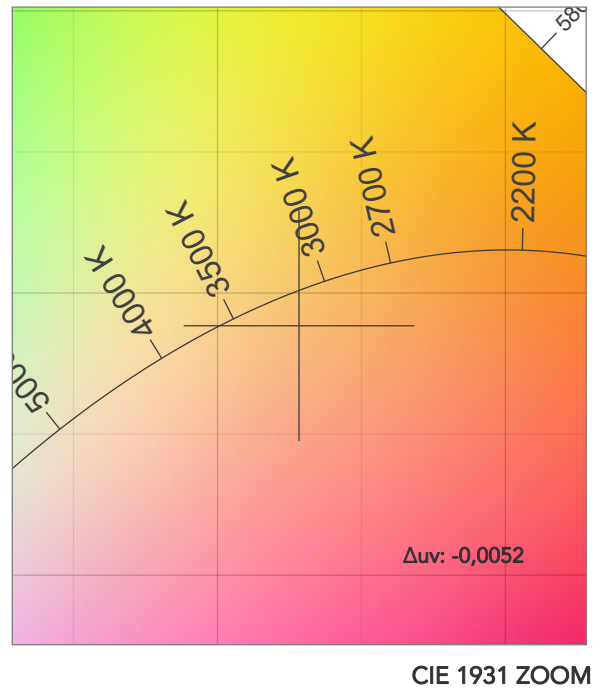
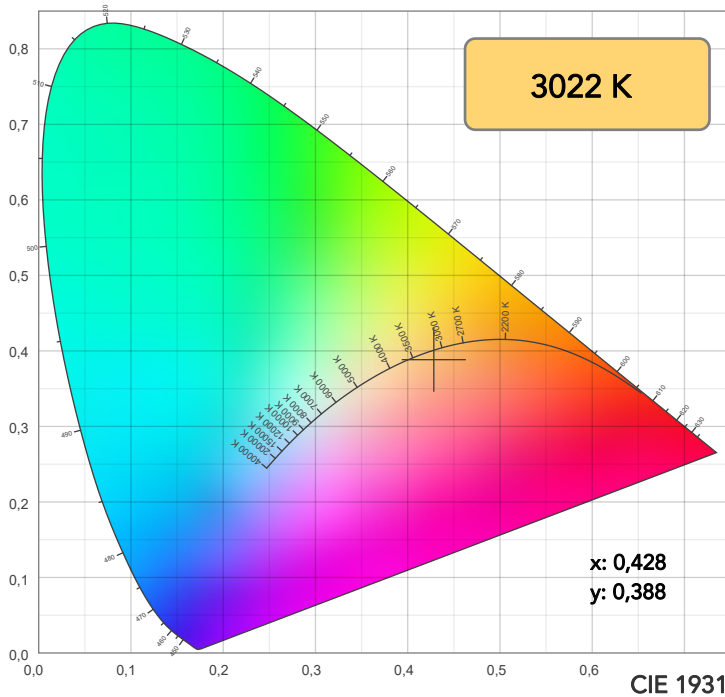
Beam angle 50%: 22,9°

Field angle 10%: 43°

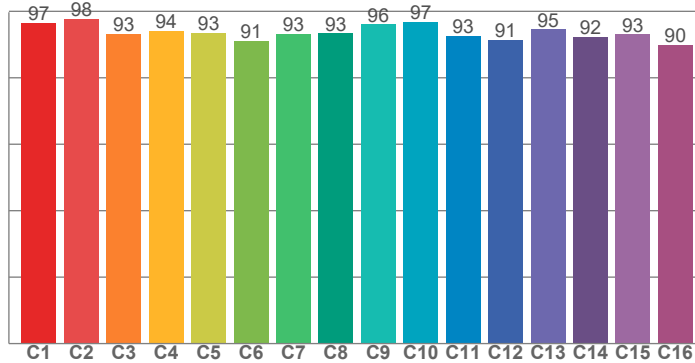
Cut off angle 2.5%: 57,5°

Spectra

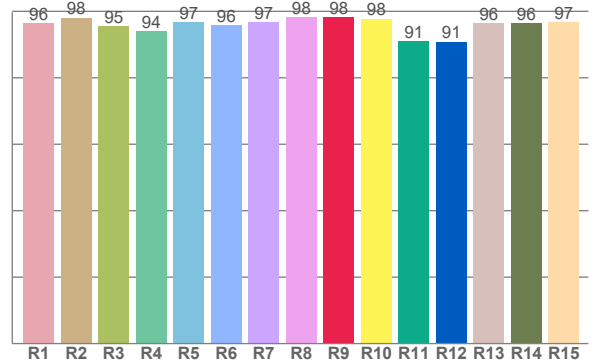




TM30: 94,0



CRI: 96,4 (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
96,4	98,1	95,5	93,9	96,6	95,8	96,8	98,1	98,3	97,7	91,0	90,8	96,5	96,4	96,8

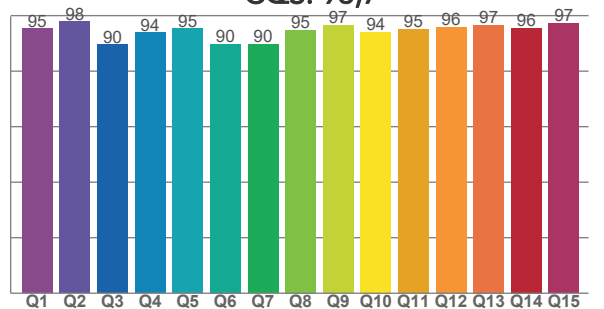
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,6	97,7	93,3	94,1	93,5	91,1	93,2	93,4	96,1	96,9	92,6	91,4	94,6	92,4	93,1	89,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,3	97,8	89,5	93,9	95,3	89,8	89,7	94,8	96,6	94,2	95,1	95,9	96,6	95,6	97,2

CQS: 93,7



COLOR PARAMETERS

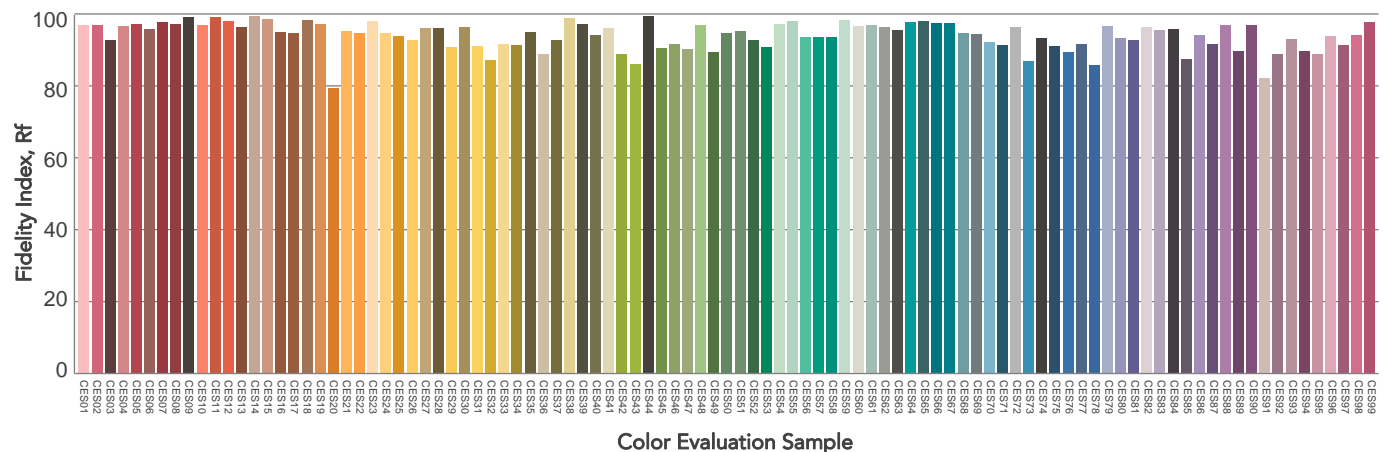
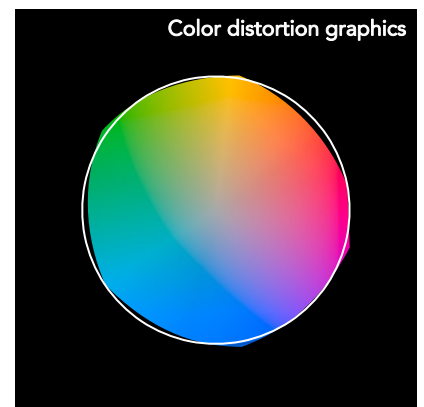
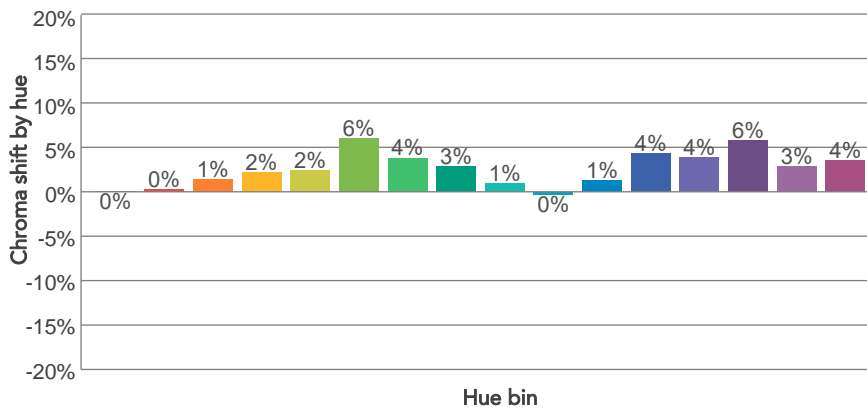
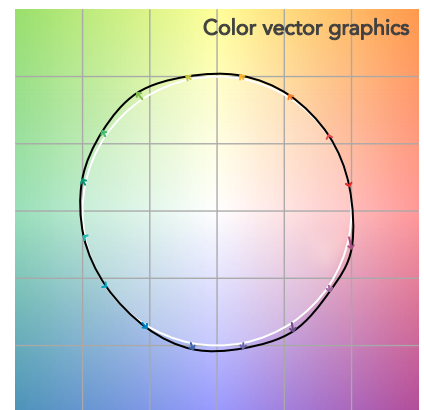
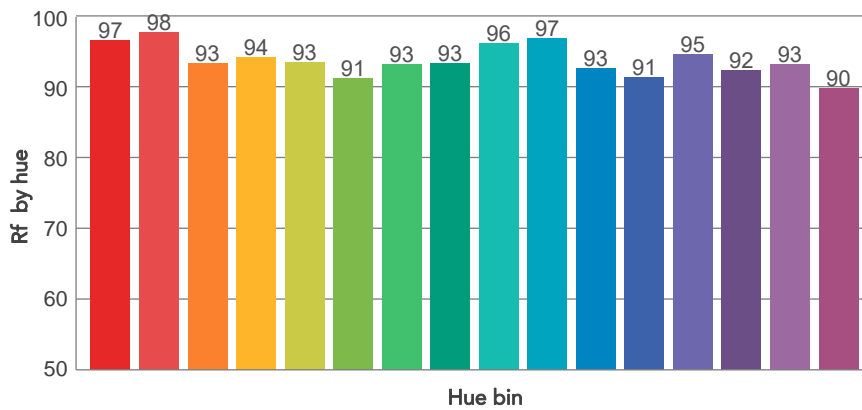
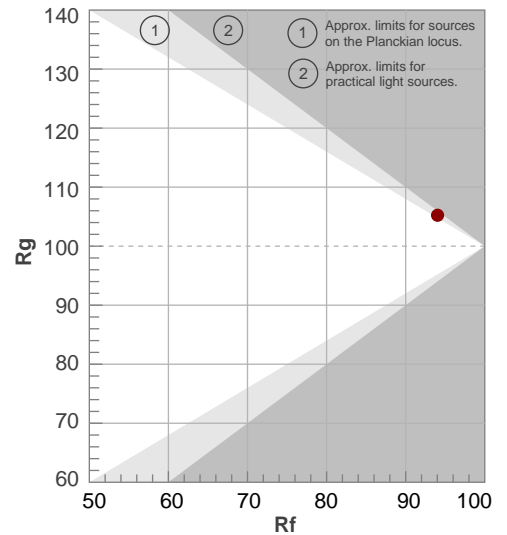
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3022 K	96,4	98,3	94,0	105,2	93,7	95	0,428	0,388	-0,0052

TM30 DETAILS

Rf 94,0
Fidelity index Rf

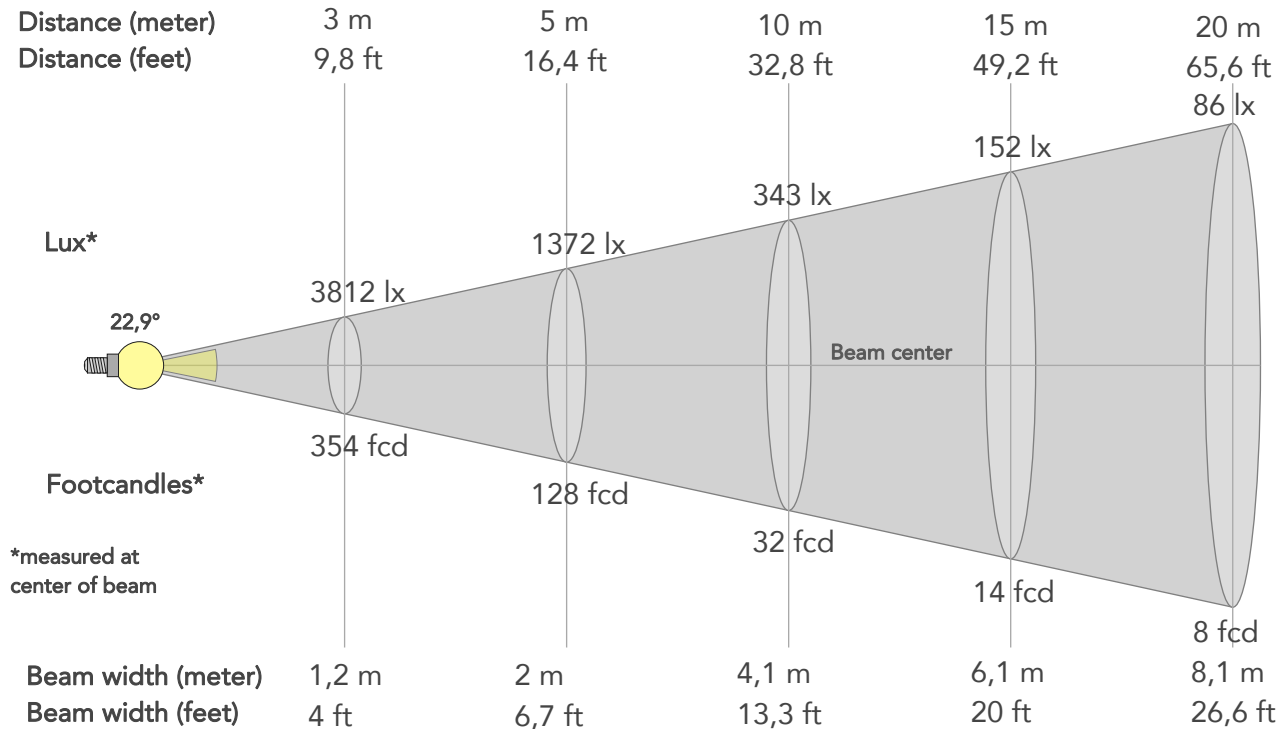
Rg 105,2
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	-1%
2	98	0%	1%
3	93	1%	3%
4	94	2%	3%
5	93	2%	3%
6	91	6%	1%
7	93	4%	-2%
8	93	3%	-3%
9	96	1%	-1%
10	97	0%	1%
11	93	1%	5%
12	91	4%	2%
13	95	4%	-1%
14	92	6%	-2%
15	93	3%	-3%
16	90	4%	-8%



BEAM DETAILS

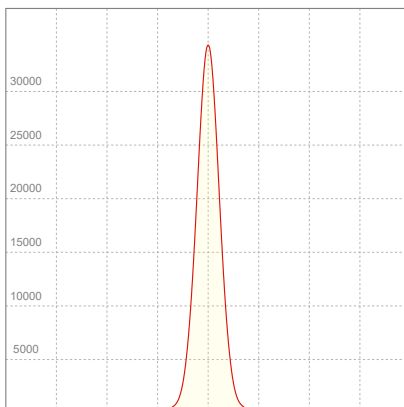
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,9°	43°	57,5°	99,6%	97,2%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	34311lx	8578lx	3812lx	2144lx	1372lx	610lx	343lx	152lx	86lx	55lx	38lx	21lx	14lx
Footcand.	3188fcd	797fcd	354fcd	199fcd	128fcd	57fcd	32fcd	14fcd	8fcd	5fcd	4fcd	2fcd	1fcd
Beam wid.	0,4m	0,8m	1,2m	1,6m	2m	3m	4,1m	6,1m	8,1m	10,1m	12,2m	16,2m	20,3m
Beam wid.	1,3ft	2,7ft	4ft	5,3ft	6,7ft	10ft	13,3ft	20ft	26,6ft	33,3ft	39,9ft	53,2ft	66,5ft

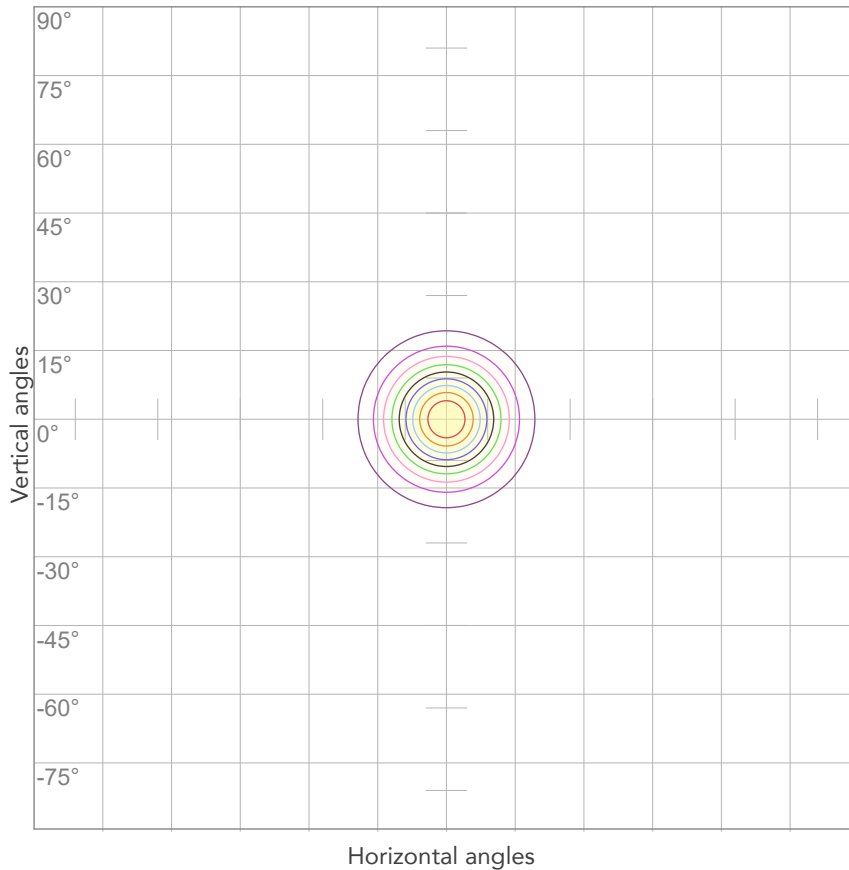
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,511A	106,3W	65lm/W

ISO CANDELA DIAGRAM



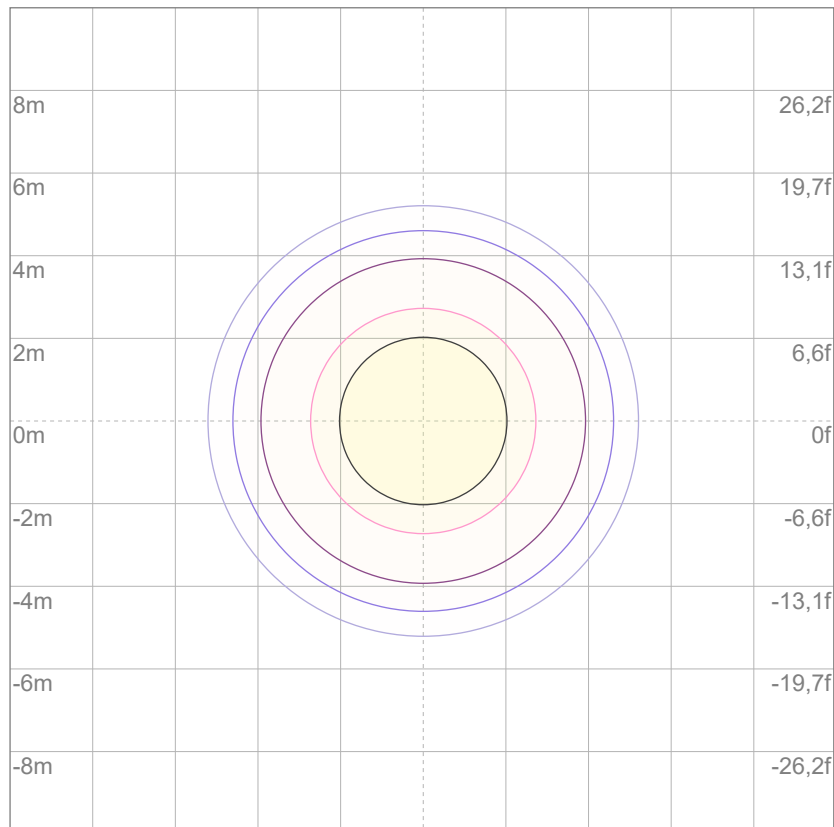
10%	3431 cd
20%	6862 cd
30%	10293 cd
40%	13724 cd
50%	17155 cd
60%	20587 cd
70%	24018 cd
80%	27449 cd

Conditions:

Number of c-planes: 2

Candela at center: 34311 cd

ISO LUX DIAGRAM



3%	10,3 lx
5%	17,2 lx
10%	34,3 lx
30%	103 lx
50%	172 lx

Conditions:

Number of c-planes: 2

Lux at center: 343 lx

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



Total lumen output:

7091 lm

Peak candela output:

13730 cd

Light quality:

CRI: 96,3

Color temperature:

3024 K

PRODUCT NAME:

ECLPENDANTJR TU

MEASURAMENT CONDITIONS:

Beam angle:

40°

Target:

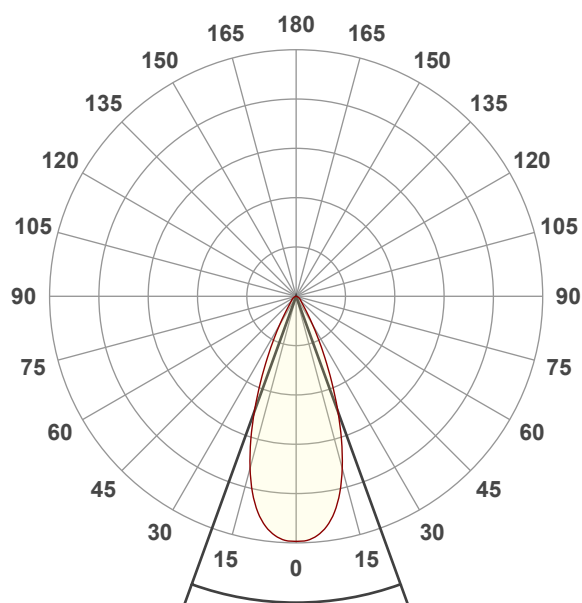
Full On

Operator:

Paolo Carvone

Date and time:

13/10/2022 12:52:22

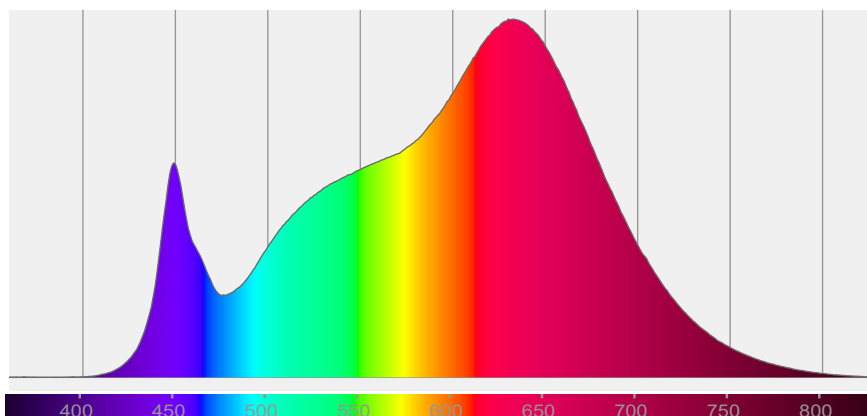


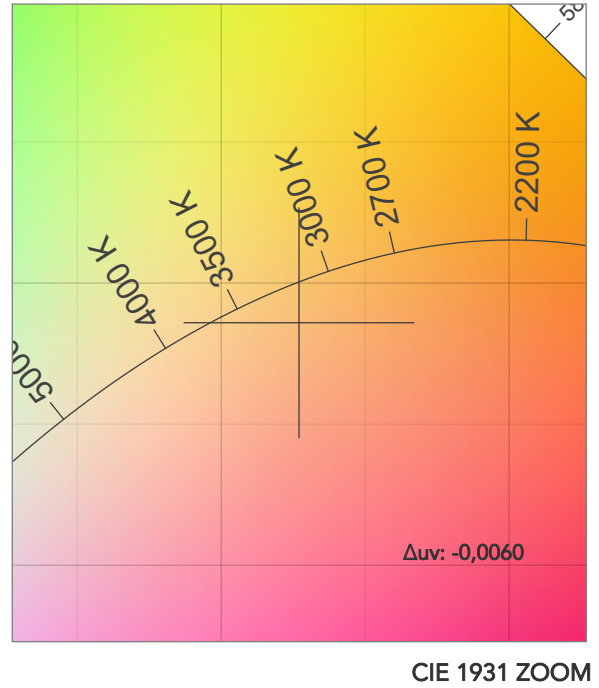
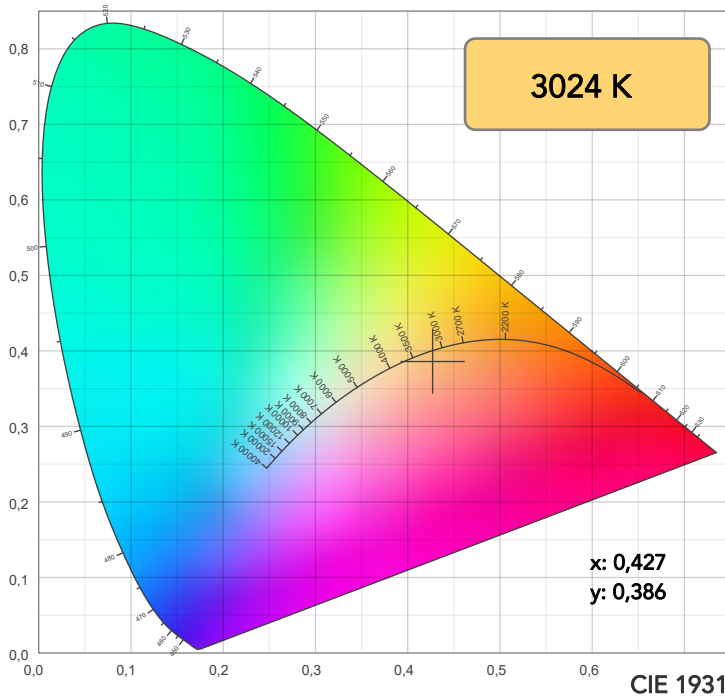
Beam angle 50%: 39,9°

Field angle 10%: 64,2°

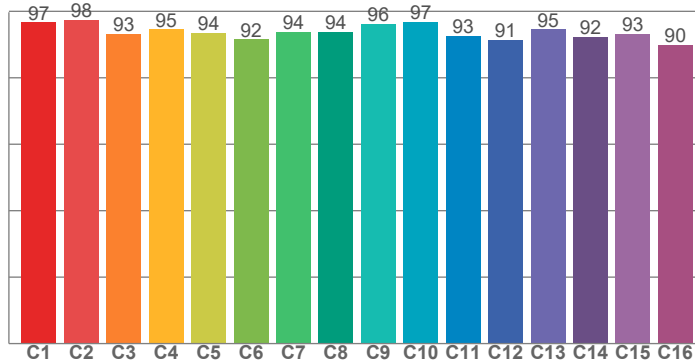
Cut off angle 2.5%: 96,1°

Spectra

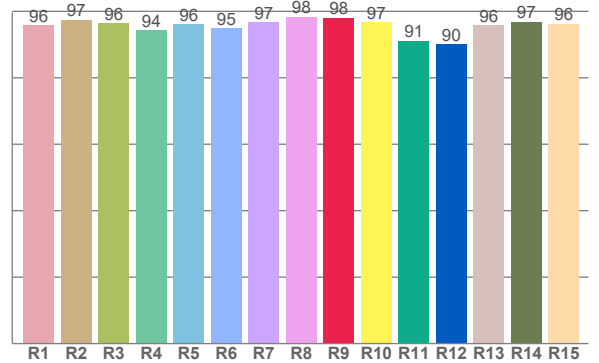




TM30: 94,2



CRI: 96,3 (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
95,9	97,4	96,3	94,2	96,1	94,9	96,8	98,4	98,1	96,8	91,2	90,0	95,8	96,9	96,3

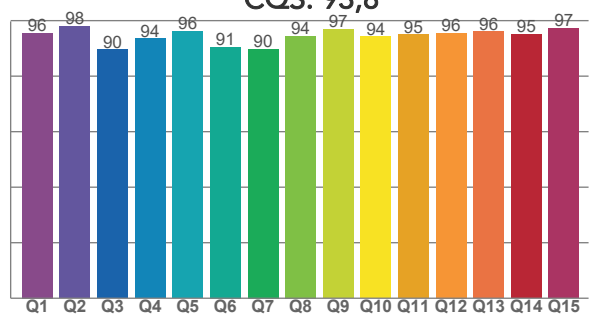
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,7	97,5	93,3	94,6	93,5	91,5	93,8	93,8	96,2	96,9	92,6	91,4	94,5	92,4	93,3	89,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,6	97,9	89,6	93,6	96,2	90,5	89,7	94,5	96,9	94,2	94,9	95,5	96,1	95,1	97,3

CQS: 93,8



COLOR PARAMETERS

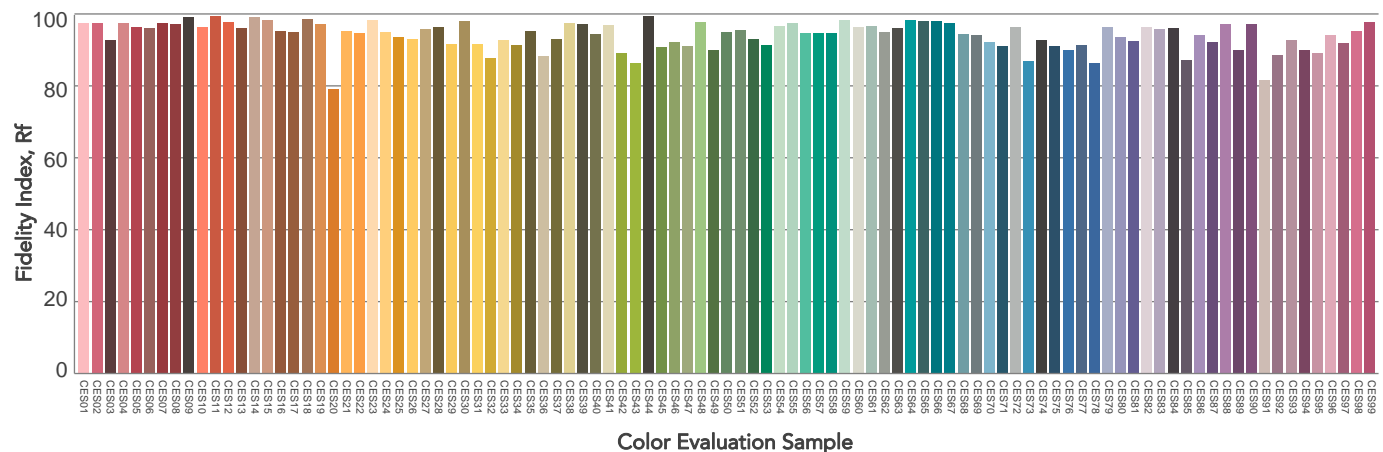
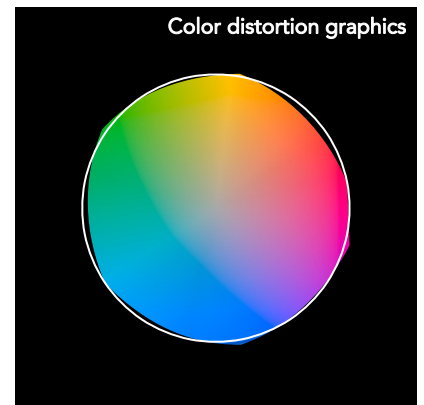
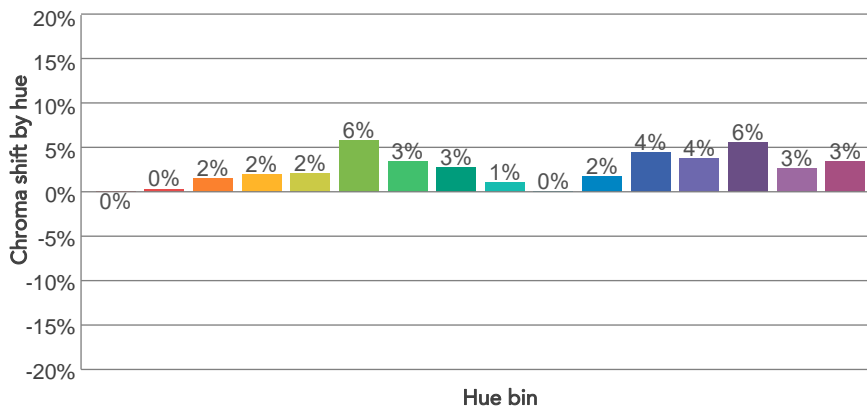
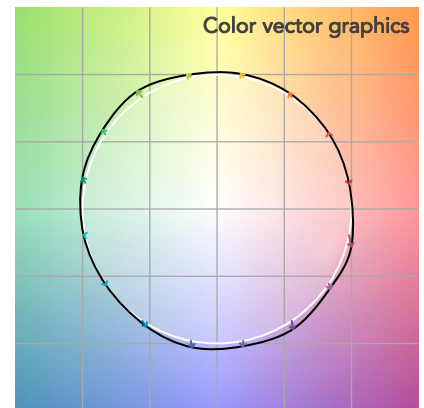
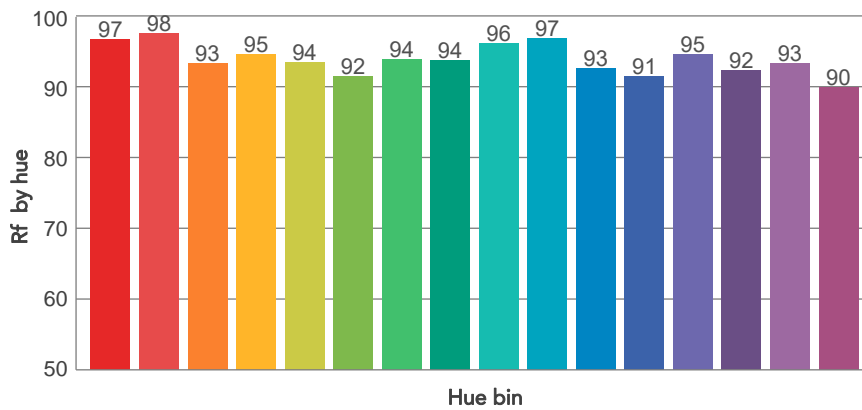
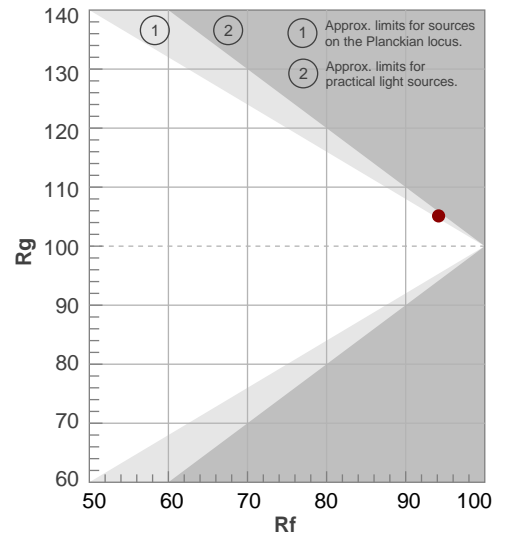
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3024 K	96,3	98,1	94,2	105,1	93,8	95	0,427	0,386	-0,0060

TM30 DETAILS

Rf 94,2
Fidelity index Rf

Rg 105,1
Gammut index

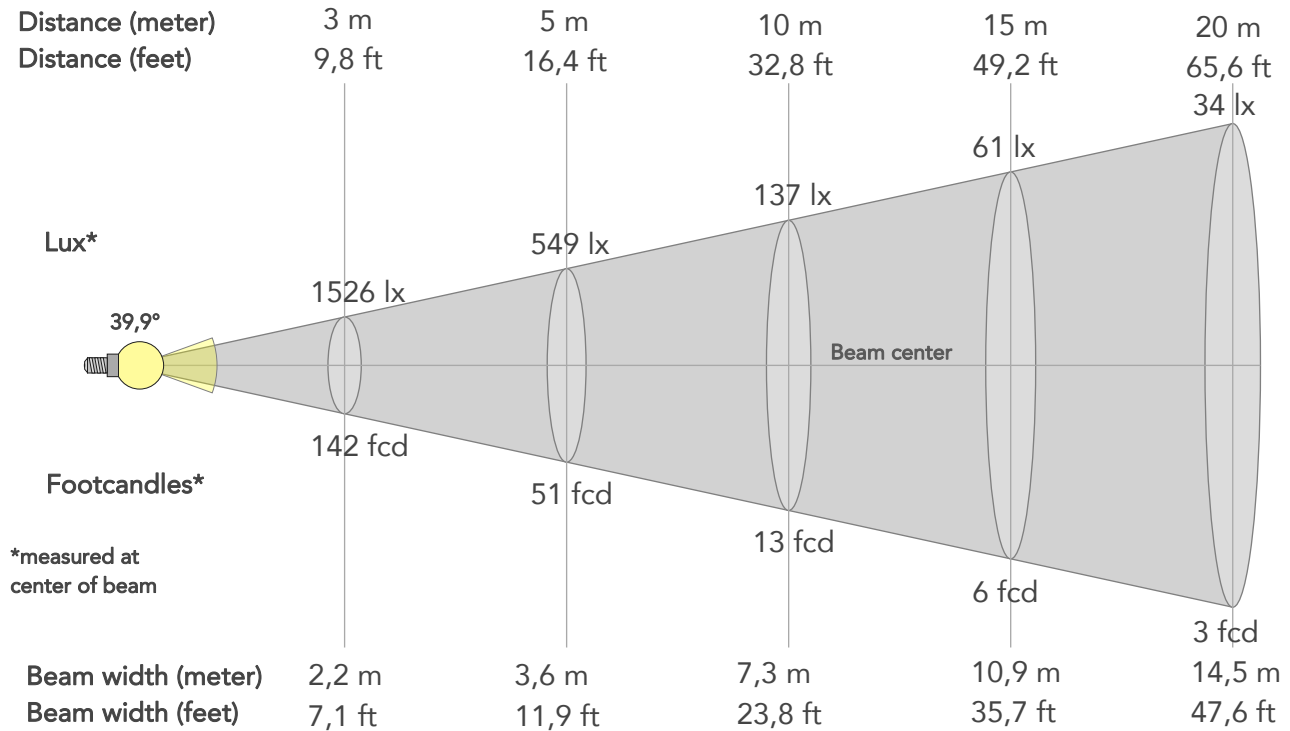
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	-1%
2	98	0%	1%
3	93	2%	3%
4	95	2%	2%
5	94	2%	2%
6	92	6%	1%
7	94	3%	-2%
8	94	3%	-3%
9	96	1%	0%
10	97	0%	1%
11	93	2%	5%
12	91	4%	2%
13	95	4%	-1%
14	92	6%	-3%
15	93	3%	-3%
16	90	3%	-8%



BEAM DETAILS



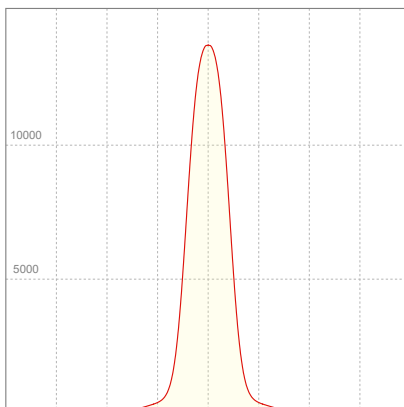
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
39,9°	64,2°	96,1°	97,2%	92,0%



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	13730lx	3432lx	1526lx	858lx	549lx	244lx	137lx	61lx	34lx	22lx	15lx	9lx	5lx
Footcand.	1276fcd	319fcd	142fcd	80fcd	51fcd	23fcd	13fcd	6fcd	3fcd	2fcd	1fcd	1fcd	1fcd
Beam wid.	0,7m	1,5m	2,2m	2,9m	3,6m	5,4m	7,3m	10,9m	14,5m	18,1m	21,8m	29m	36,3m
Beam wid.	2,4ft	4,8ft	7,1ft	9,5ft	11,9ft	17,8ft	23,8ft	35,7ft	47,6ft	59,5ft	71,4ft	95,1ft	118,9ft

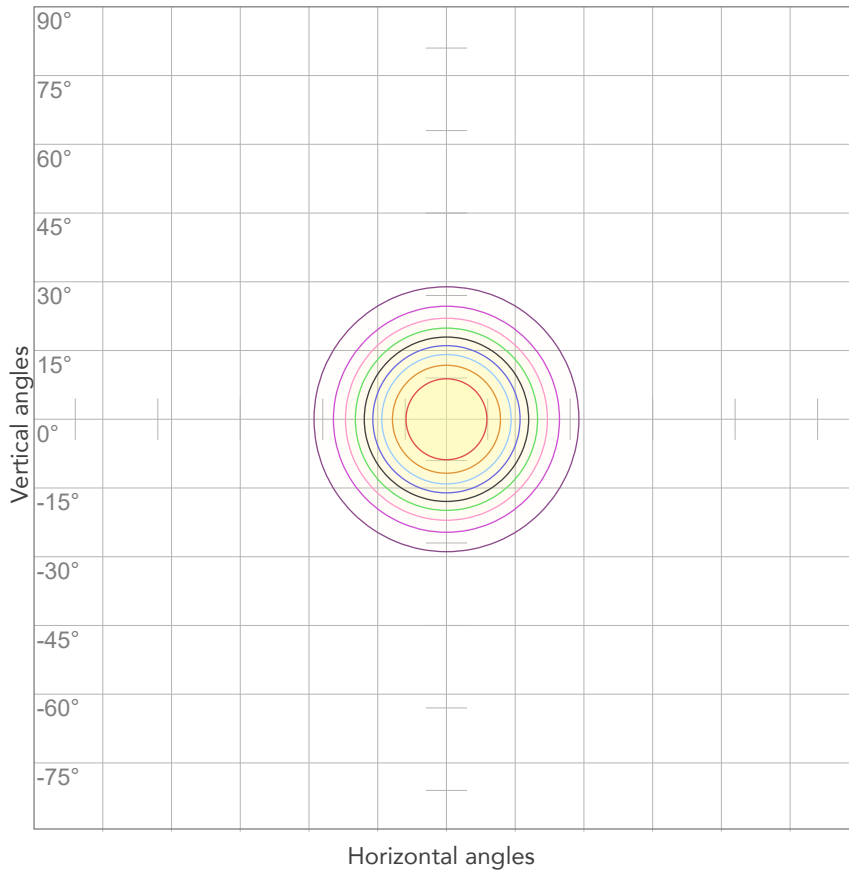
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,501A	104W	68lm/W

ISO CANDELA DIAGRAM



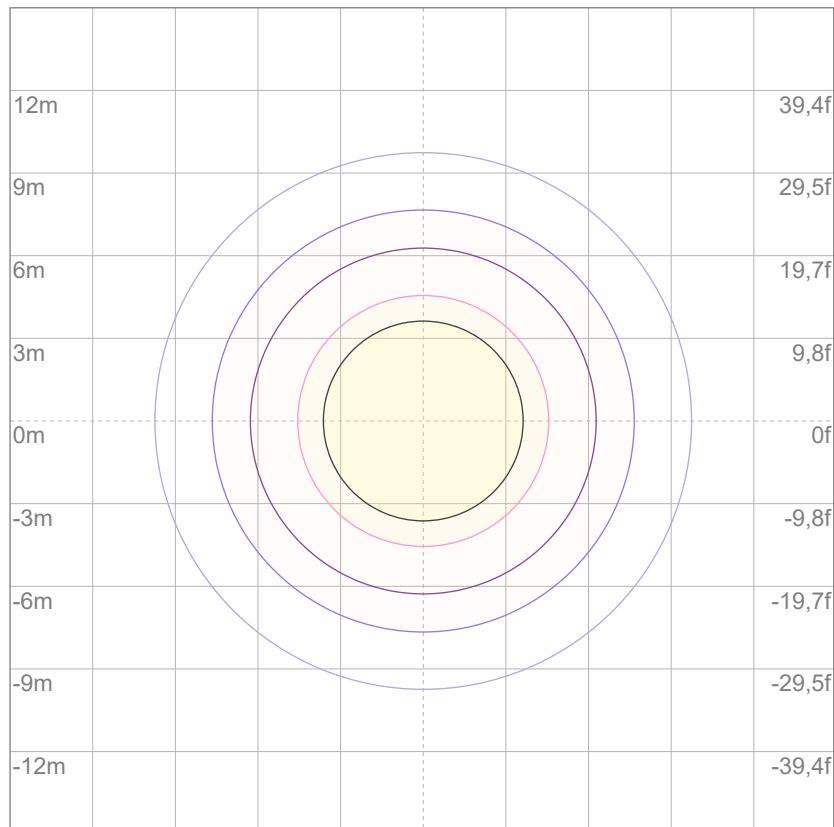
10%	1373 cd
20%	2746 cd
30%	4119 cd
40%	5492 cd
50%	6865 cd
60%	8238 cd
70%	9611 cd
80%	10984 cd

Conditions:

Number of c-planes: 2

Candela at center: 13730 cd

ISO LUX DIAGRAM



3%	4,12 lx
5%	6,86 lx
10%	13,7 lx
30%	41,2 lx
50%	68,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 137 lx

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



Total lumen output:

7270 lm

Peak candela output:

8069 cd

Light quality:

CRI: 96,4

Color temperature:

3038 K

PRODUCT NAME:

ECLPENDANTJR TU

MEASURAMENT CONDITIONS:

Beam angle:

60°

Target:

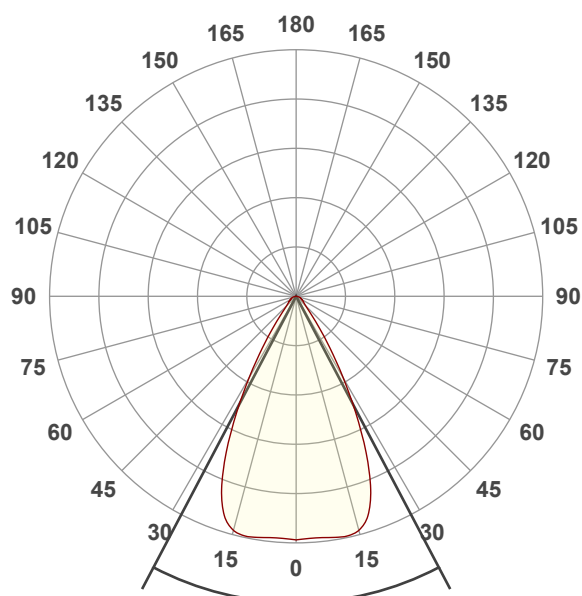
Full On

Operator:

Paolo Carvone

Date and time:

13/10/2022 13:33:11

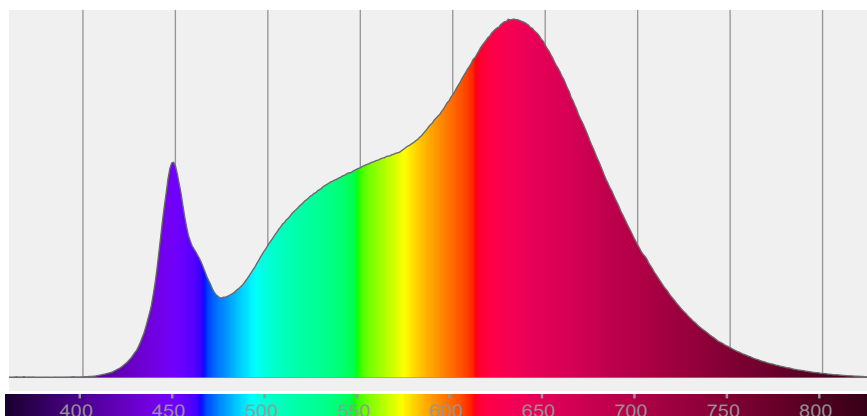


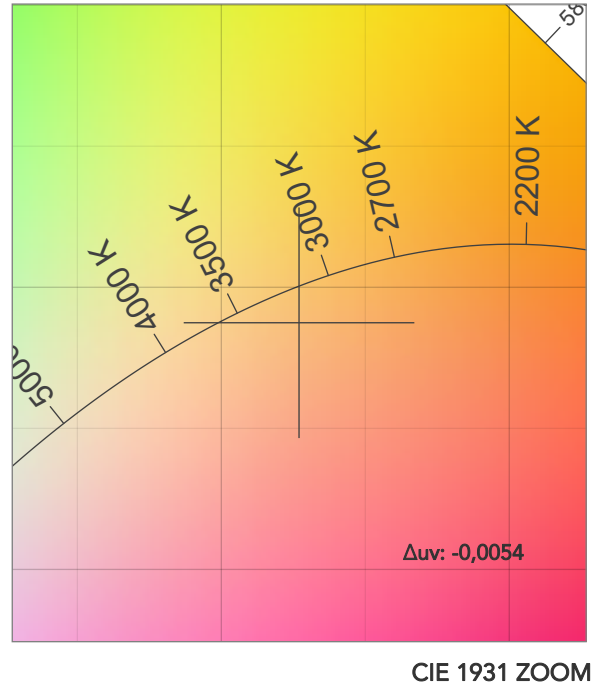
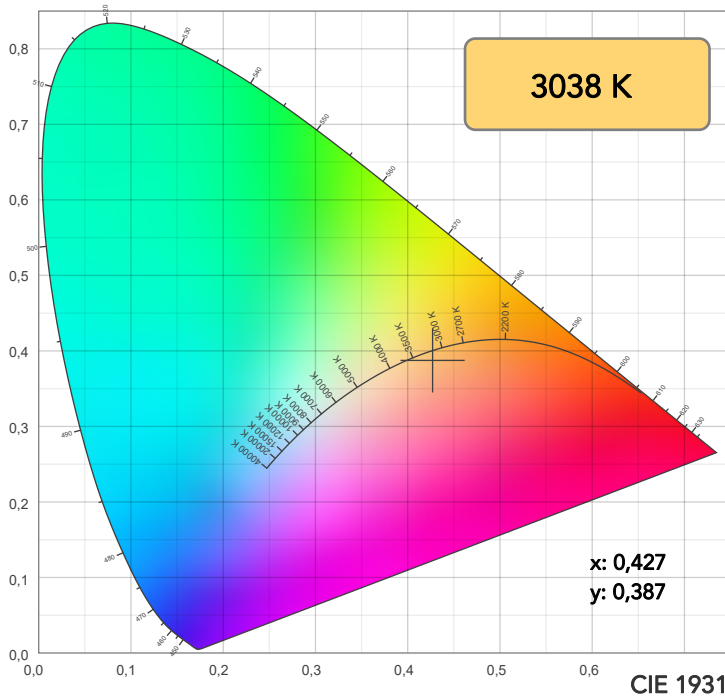
Beam angle 50%: 55,5°

Field angle 10%: 79,2°

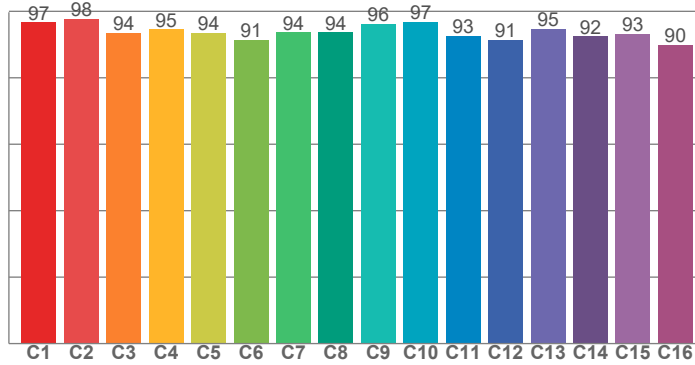
Cut off angle 2.5%: 123,2°

Spectra

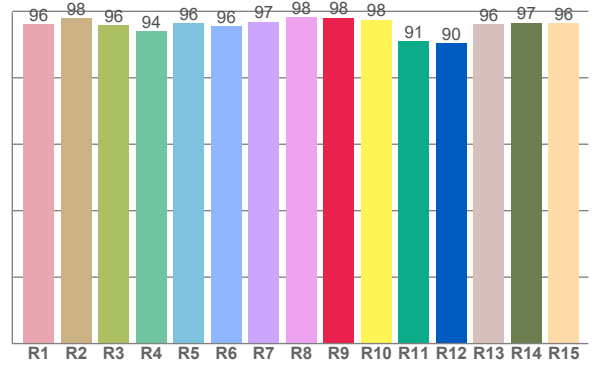




TM30: 94,2



CRI: 96,4 (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
96,1	97,9	95,8	94,0	96,4	95,5	96,9	98,3	98,1	97,5	91,1	90,5	96,2	96,5	96,5

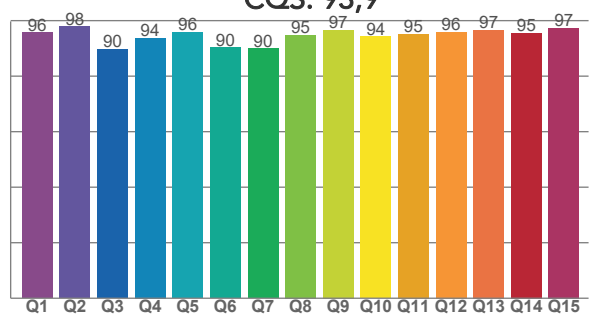
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,7	97,7	93,5	94,5	93,6	91,5	93,7	93,7	96,1	96,9	92,6	91,5	94,7	92,5	93,3	89,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,7	97,9	89,7	93,8	95,8	90,3	90,0	94,9	96,7	94,3	95,2	96,0	96,6	95,5	97,4

CQS: 93,9



COLOR PARAMETERS

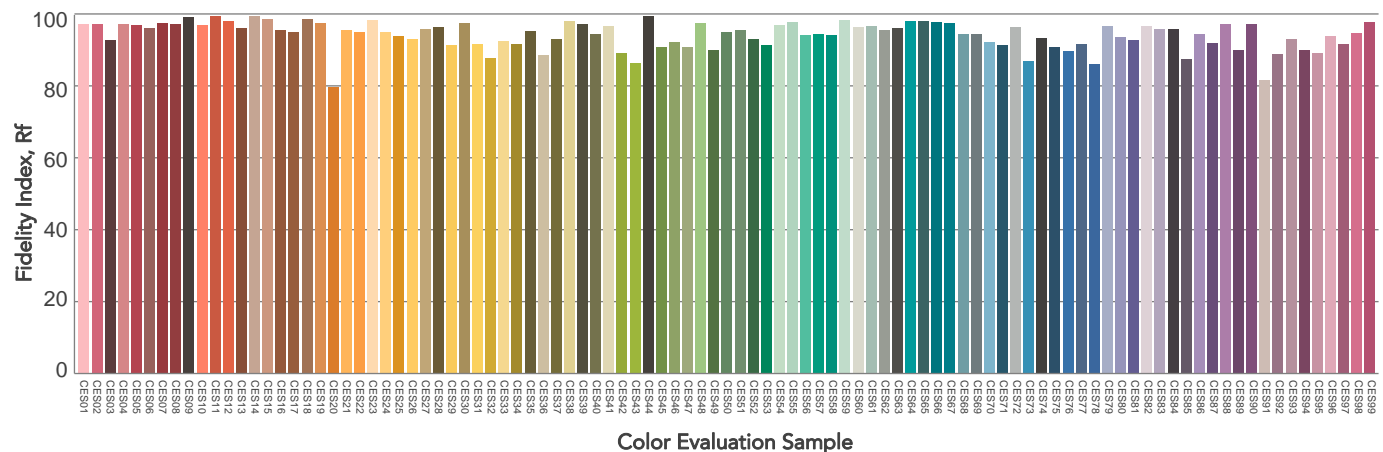
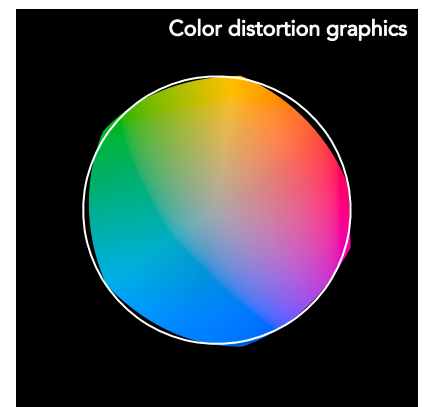
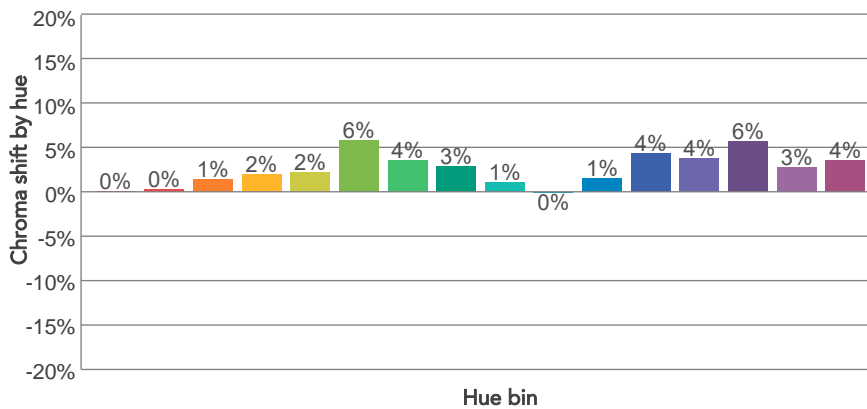
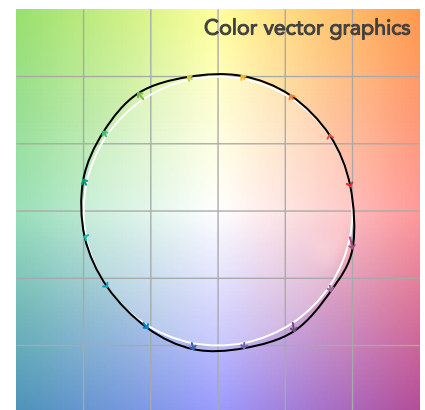
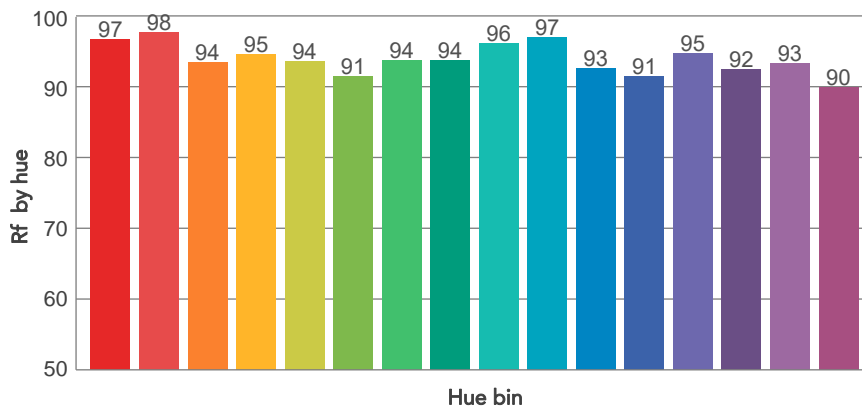
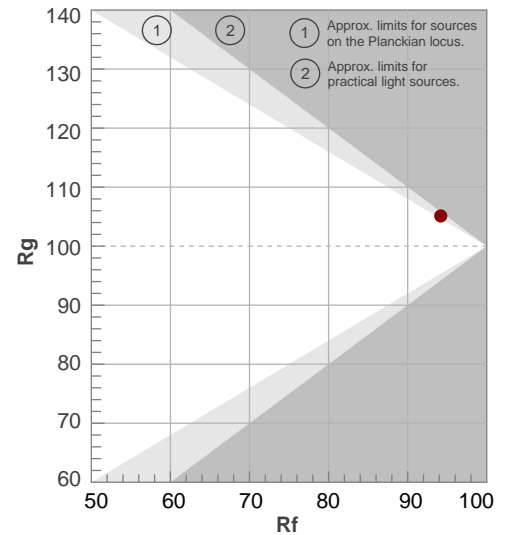
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3038 K	96,4	98,1	94,2	105,1	93,9	95	0,427	0,387	-0,0054

TM30 DETAILS

Rf 94,2
Fidelity index Rf

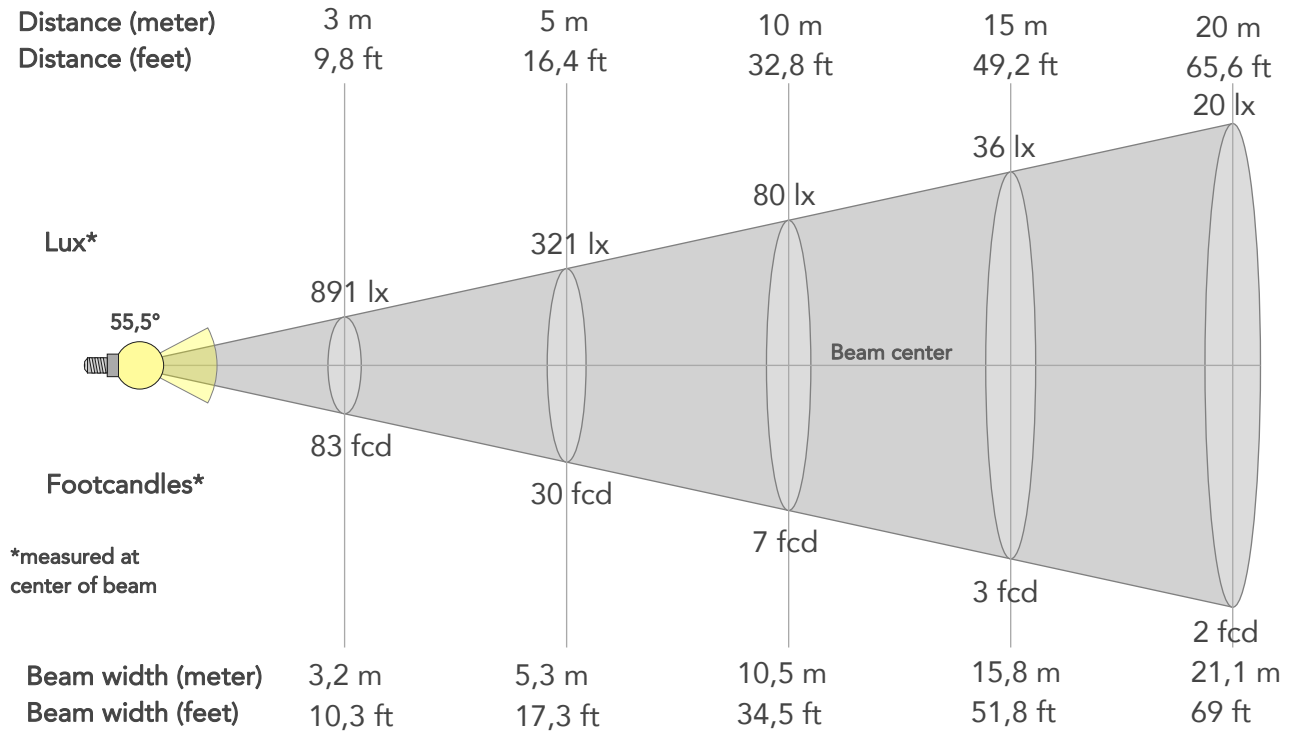
Rg 105,1
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	-1%
2	98	0%	1%
3	94	1%	3%
4	95	2%	2%
5	94	2%	3%
6	91	6%	1%
7	94	4%	-2%
8	94	3%	-3%
9	96	1%	-1%
10	97	0%	1%
11	93	1%	5%
12	91	4%	2%
13	95	4%	-1%
14	92	6%	-2%
15	93	3%	-3%
16	90	4%	-8%



BEAM DETAILS

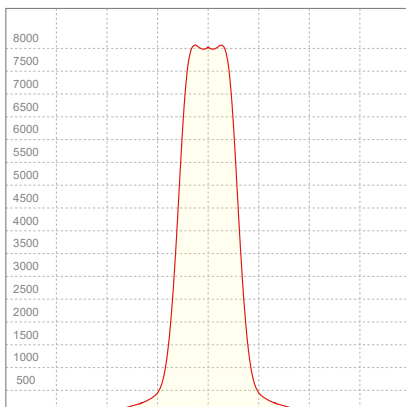
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
55,5°	79,2°	123,2°	95,8%	90,4%



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	8018lx	2005lx	891lx	501lx	321lx	143lx	80lx	36lx	20lx	13lx	9lx	5lx	3lx
Footcand.	745fcd	186fcd	83fcd	47fcd	30fcd	13fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	1,1m	2,1m	3,2m	4,2m	5,3m	7,9m	10,5m	15,8m	21,1m	26,3m	31,6m	42,1m	52,6m
Beam wid.	3,5ft	6,9ft	10,3ft	13,8ft	17,3ft	25,9ft	34,5ft	51,8ft	69ft	86,3ft	103,6ft	138,1ft	172,6ft

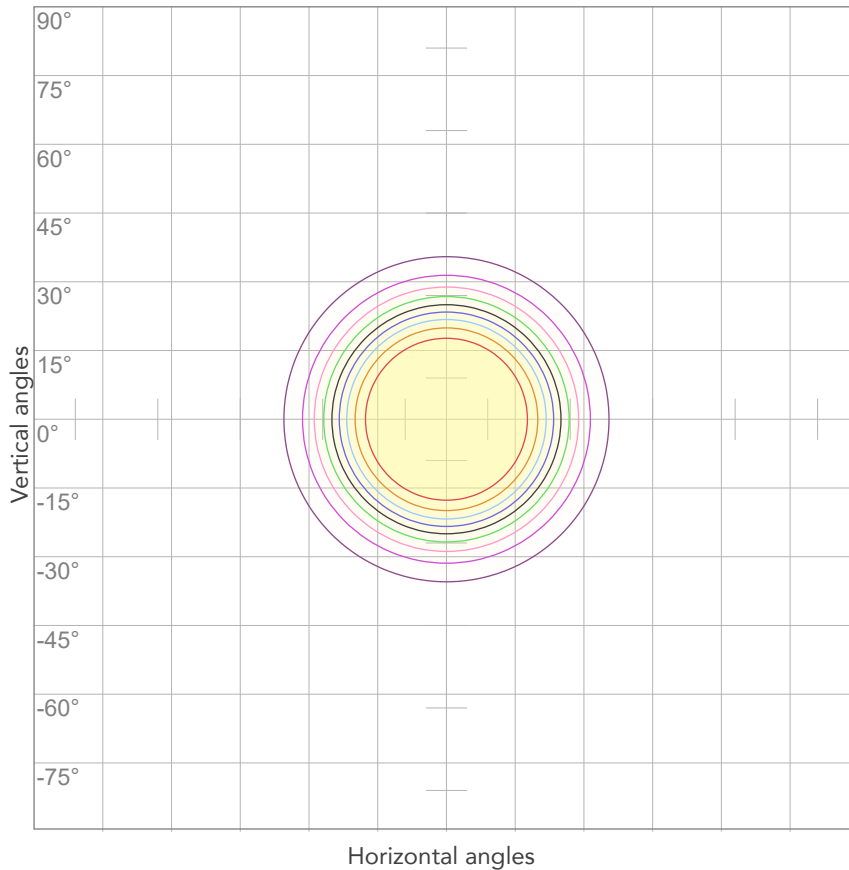
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,506A	105,4W	69lm/W

ISO CANDELA DIAGRAM



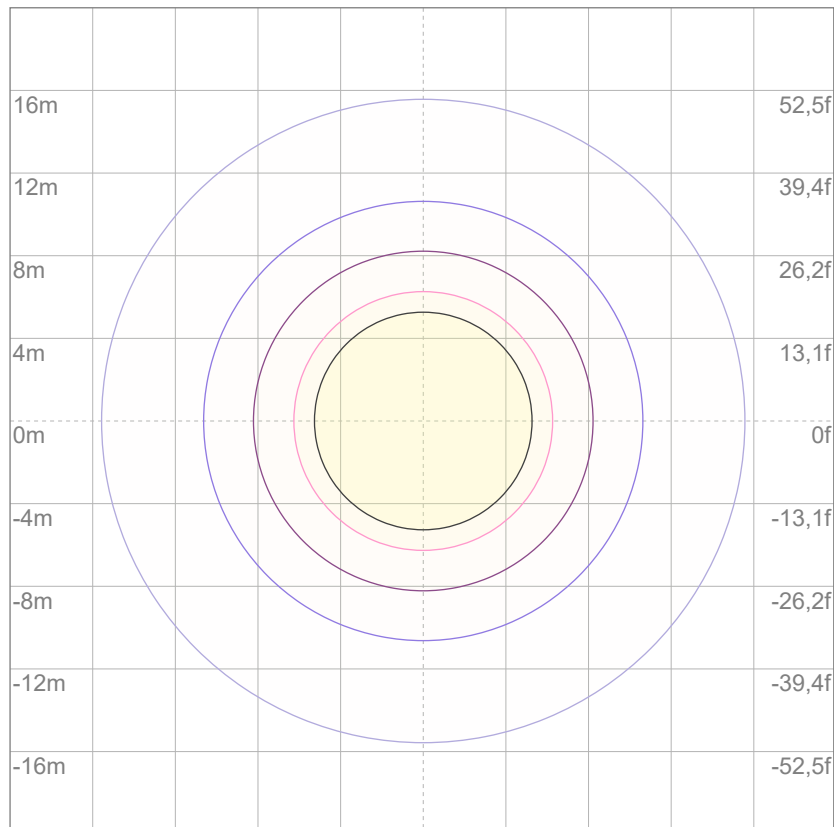
10%	802 cd
20%	1604 cd
30%	2405 cd
40%	3207 cd
50%	4009 cd
60%	4811 cd
70%	5613 cd
80%	6415 cd

Conditions:

Number of c-planes: 2

Candela at center: 8018 cd

ISO LUX DIAGRAM



3%	2,41 lx
5%	4,01 lx
10%	8,02 lx
30%	24,1 lx
50%	40,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 80,2 lx

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