



Photometric Test Report



ECLPENDANT DY

200W 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:

13646 lm

Peak candela output:

79535 cd

Light quality:

CRI: 94,0

Color temperature:

5608 K

PRODUCT NAME:

ECLPENDANT DY

MEASURAMENT CONDITIONS:

Beam angle:

20°

Target:

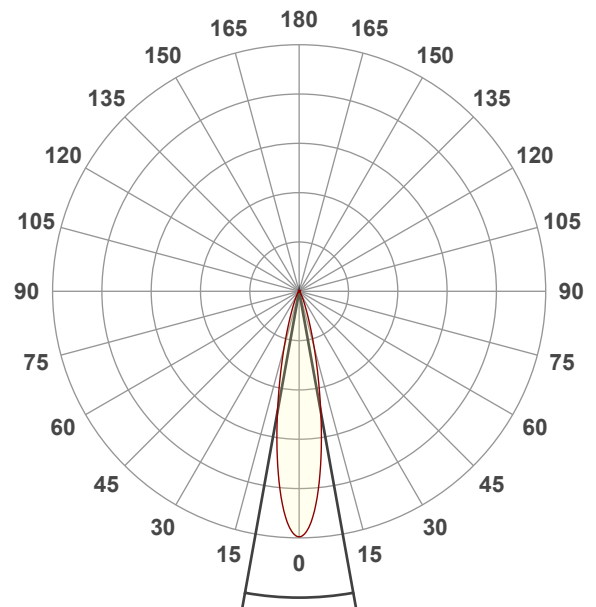
Full On

Operator:

Paolo Carvone

Date and time:

13/10/2022 11:11:33

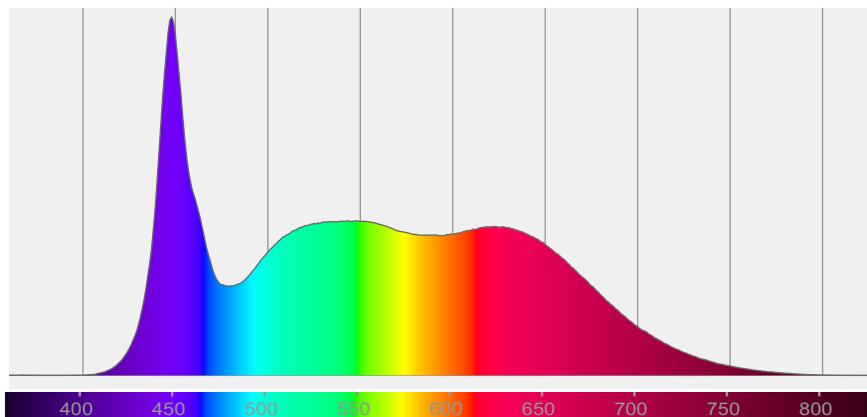


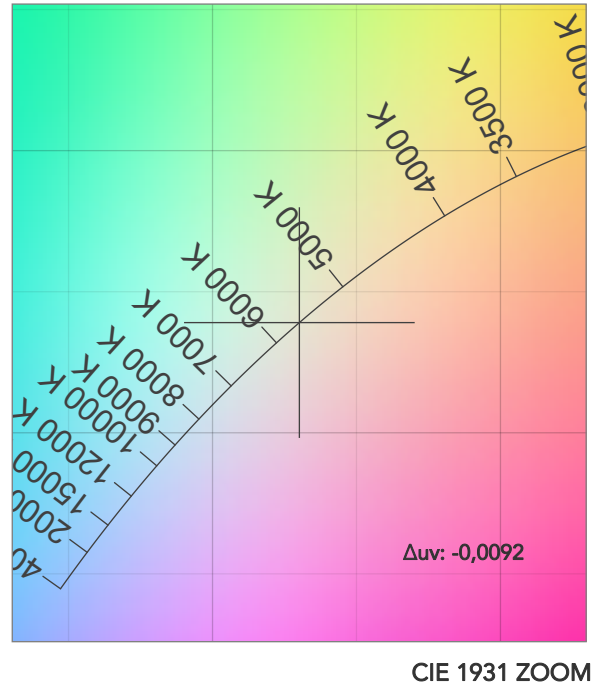
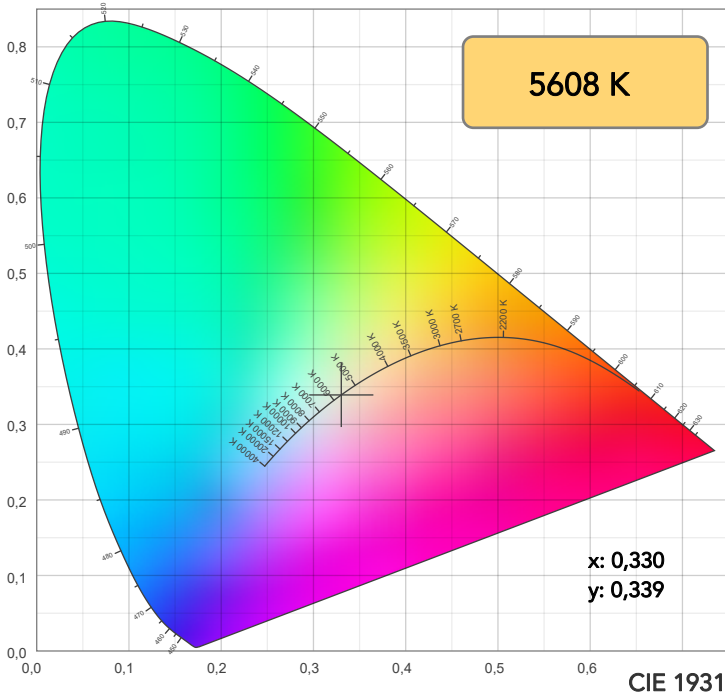
Beam angle 50%: 20,4°

Field angle 10%: 39,4°

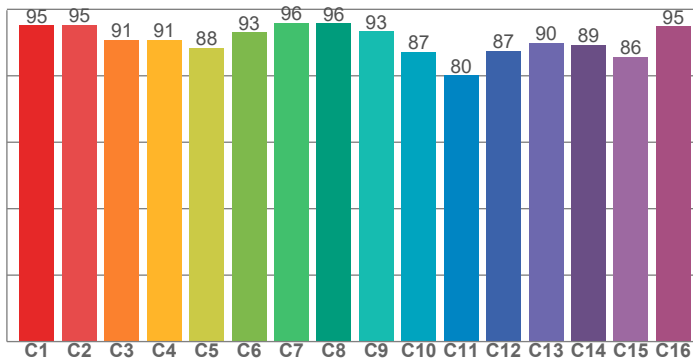
Cut off angle 2.5%: 57,3°

Spectra

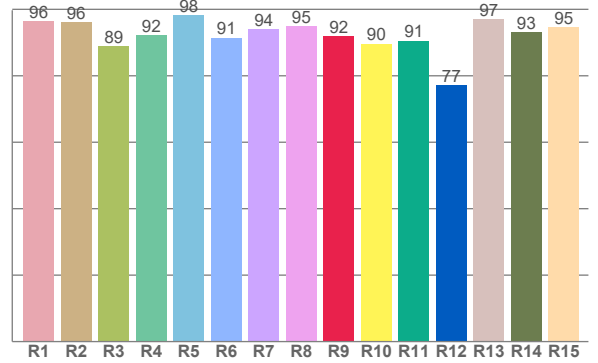




TM30: 90,7



CRI: 94,0 (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
96,5	96,0	88,9	92,2	98,1	91,4	94,0	94,8	91,9	89,7	90,6	77,1	97,1	93,2	94,6

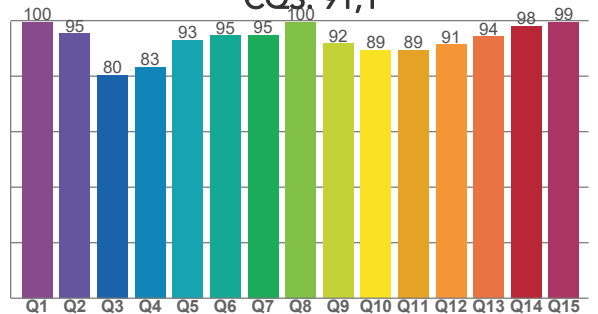
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,2	95,2	90,8	90,8	88,4	93,0	96,0	95,7	93,3	87,3	80,2	87,4	89,9	89,3	85,7	94,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,5	95,3	80,5	83,3	93,0	94,6	94,8	99,5	91,7	89,3	89,4	91,4	94,2	98,1	99,4

CQS: 91,1



COLOR PARAMETERS

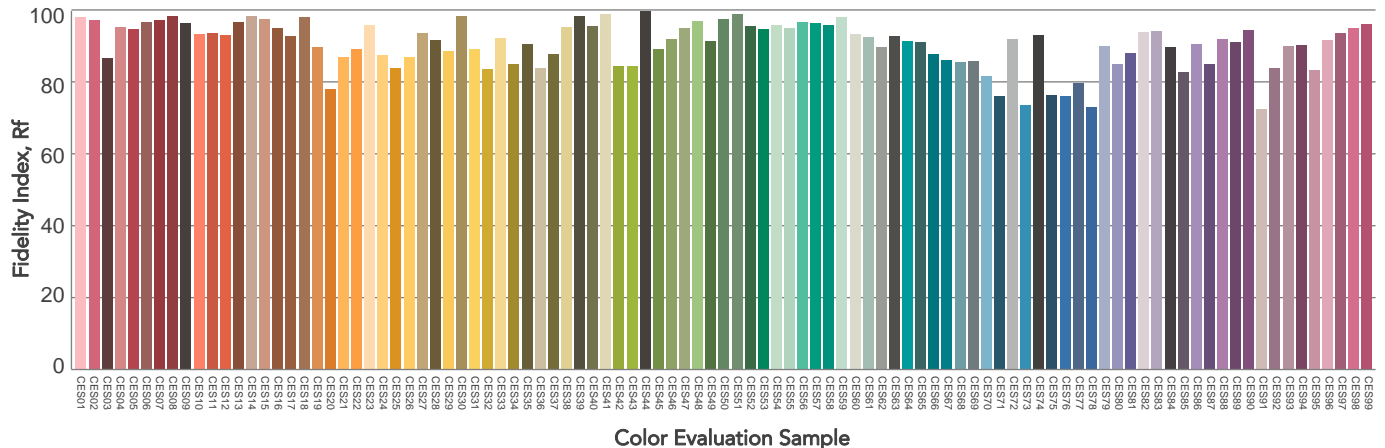
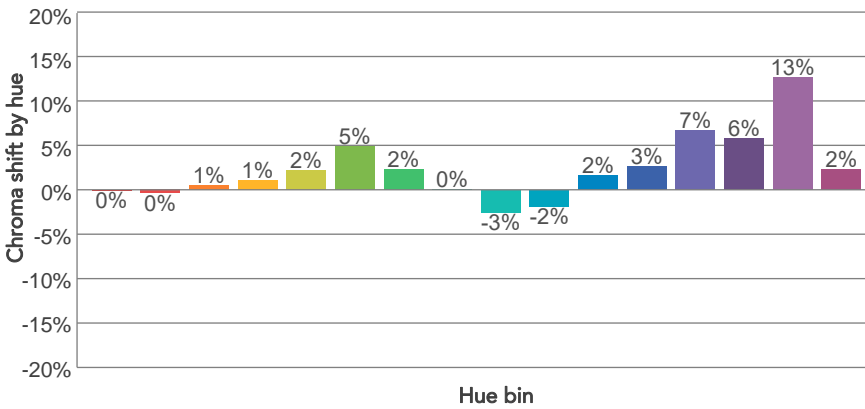
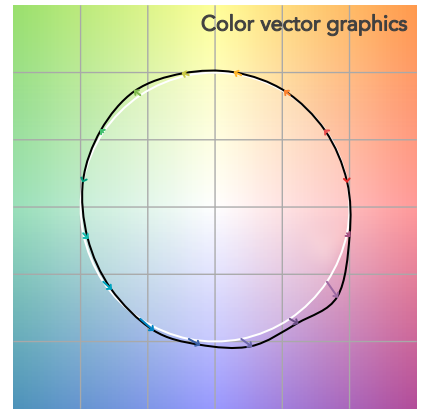
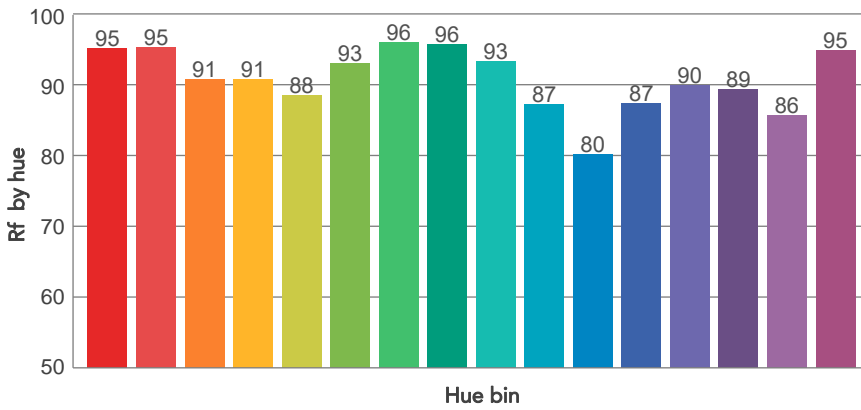
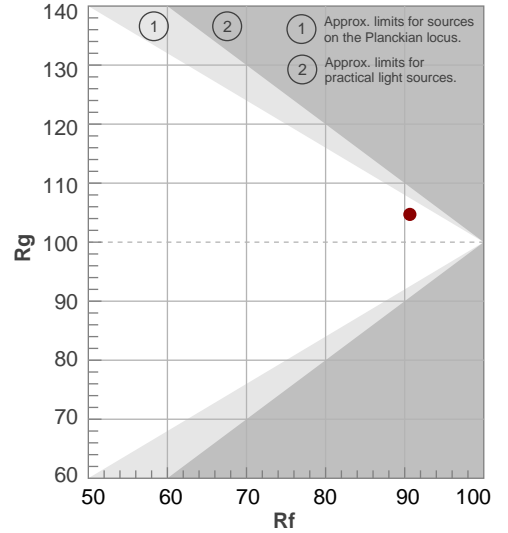
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5608 K	94,0	91,9	90,7	104,7	91,1	96	0,330	0,339	-0,0092

TM30 DETAILS

Rf 90,7
Fidelity index Rf

Rg 104,7
Gammut index

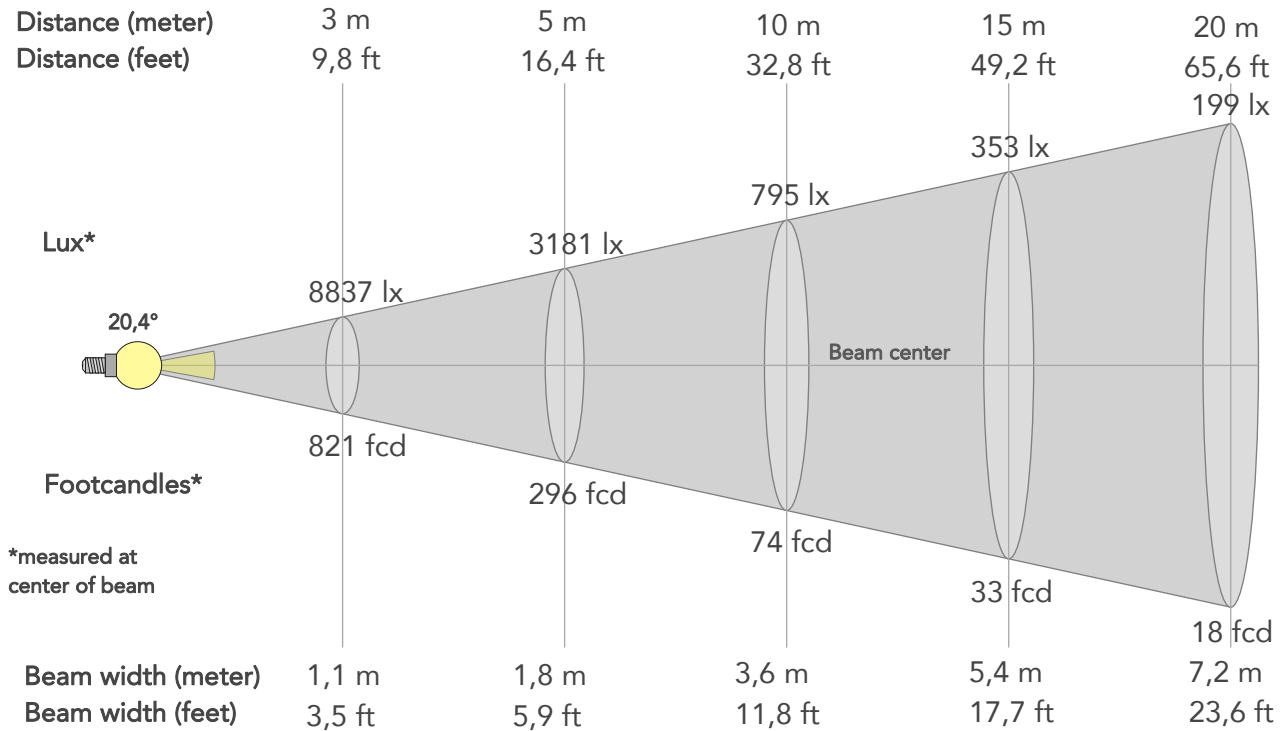
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	0%	-1%
2	95	0%	2%
3	91	1%	5%
4	91	1%	5%
5	88	2%	4%
6	93	5%	2%
7	96	2%	0%
8	96	0%	0%
9	93	-3%	4%
10	87	-2%	7%
11	80	2%	12%
12	87	3%	8%
13	90	7%	6%
14	89	6%	3%
15	86	13%	-5%
16	95	2%	-2%



BEAM DETAILS



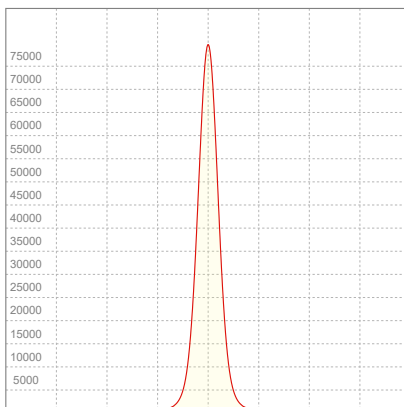
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
20,4°	39,4°	57,3°	99,9%	97,9%



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	79535lx	19884lx	8837lx	4971lx	3181lx	1414lx	795lx	353lx	199lx	127lx	88lx	50lx	32lx
Footcand.	7389fcd	1847fcd	821fcd	462fcd	296fcd	131fcd	74fcd	33fcd	18fcd	12fcd	8fcd	5fcd	3fcd
Beam wid.	0,4m	0,7m	1,1m	1,4m	1,8m	2,7m	3,6m	5,4m	7,2m	9m	10,8m	14,4m	18m
Beam wid.	1,2ft	2,4ft	3,5ft	4,7ft	5,9ft	8,8ft	11,8ft	17,7ft	23,6ft	29,5ft	35,3ft	47,1ft	58,9ft

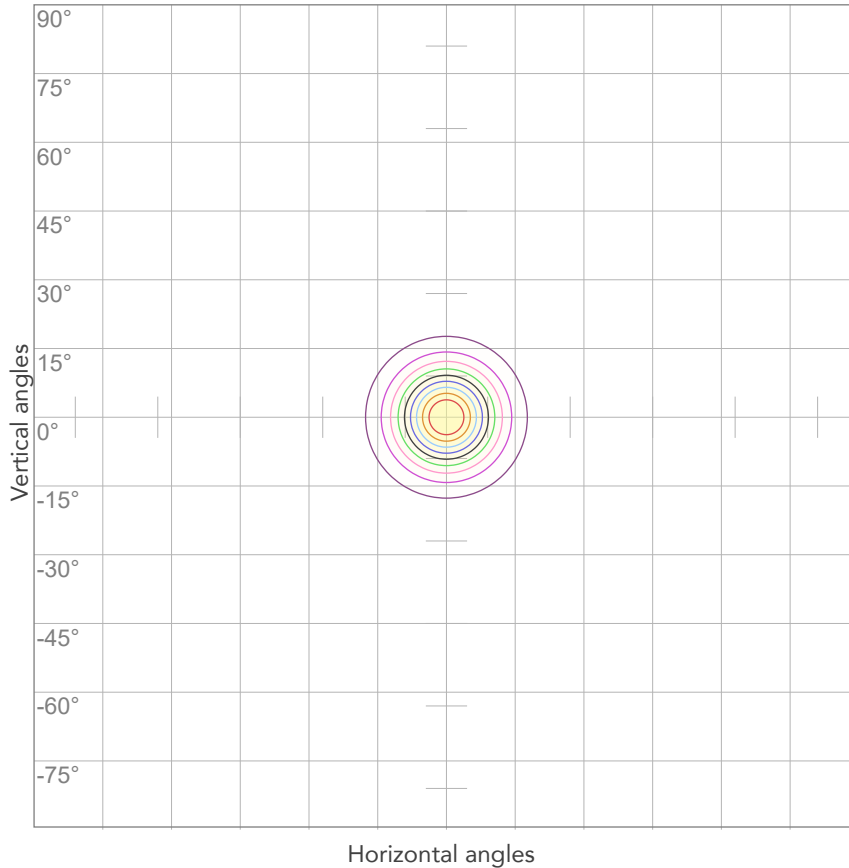
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,840A	183,3W	74lm/W

ISO CANDELA DIAGRAM



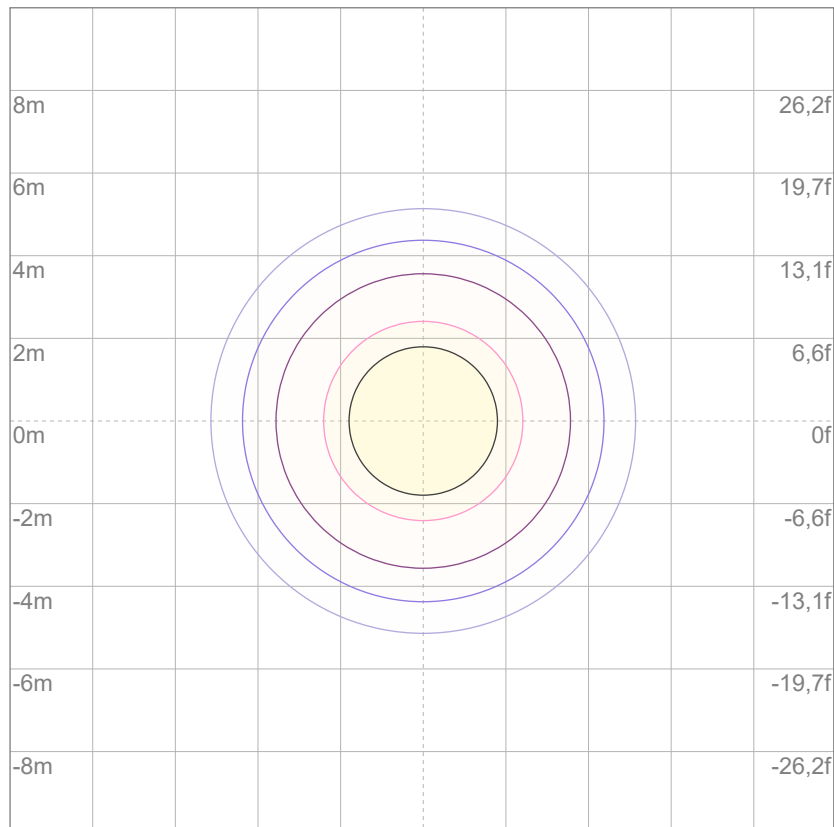
10%	7953 cd
20%	15907 cd
30%	23860 cd
40%	31814 cd
50%	39767 cd
60%	47721 cd
70%	55674 cd
80%	63628 cd

Conditions:

Number of c-planes: 2

Candela at center: 79535 cd

ISO LUX DIAGRAM



3%	23,9 lx
5%	39,8 lx
10%	79,5 lx
30%	239 lx
50%	398 lx

Conditions:

Number of c-planes: 2

Lux at center: 795 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:

12988 lm

Peak candela output:

25680 cd

Light quality:

CRI: 94,1

Color temperature:

5618 K

PRODUCT NAME:

ECLPENDANT DY

MEASURAMENT CONDITIONS:

Beam angle:

40°

Target:

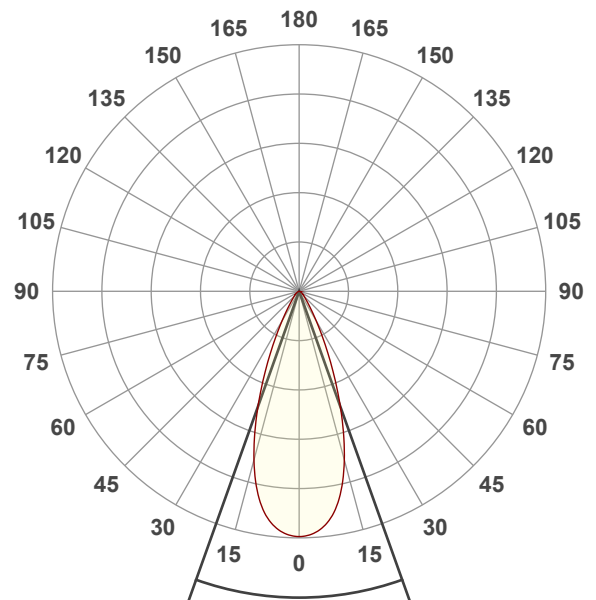
Full On

Operator:

Paolo Carvone

Date and time:

13/10/2022 11:15:06

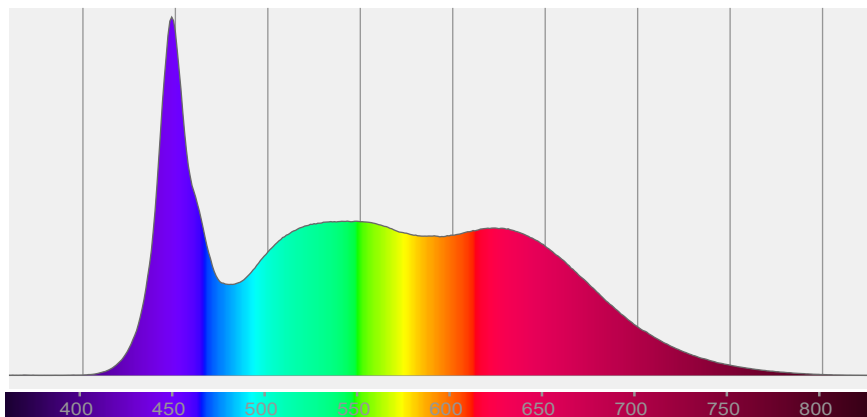


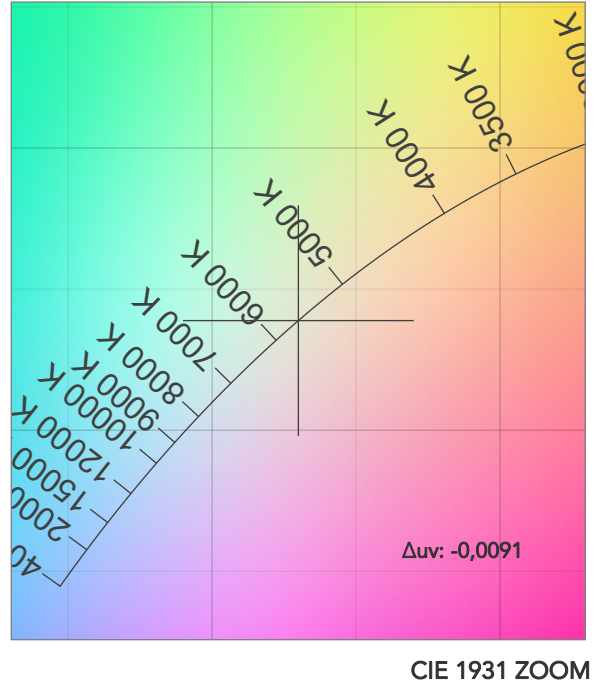
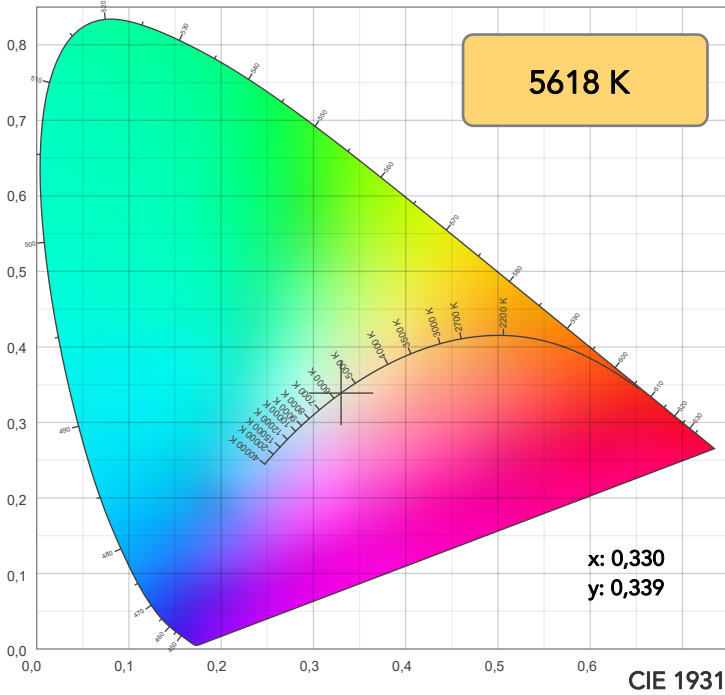
Beam angle 50%: 39,3°

Field angle 10%: 65°

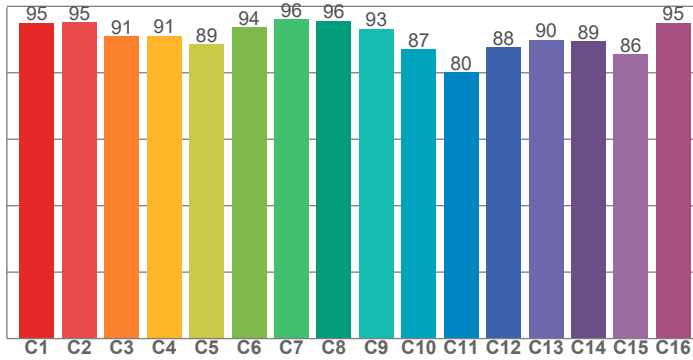
Cut off angle 2.5%: 93,9°

Spectra

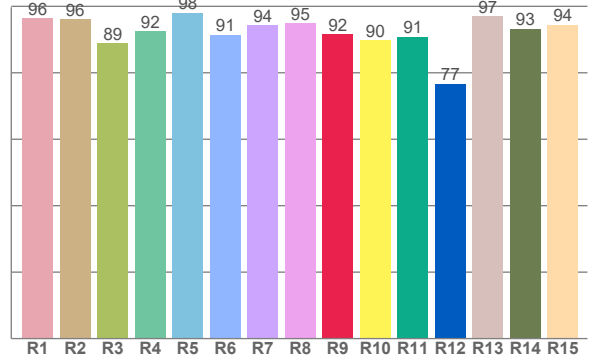




TM30: 90,7



CRI: 94,1 (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	96,1	89,0	92,5	98,0	91,4	94,2	94,9	91,5	89,8	90,8	76,7	97,0	93,2	94,5

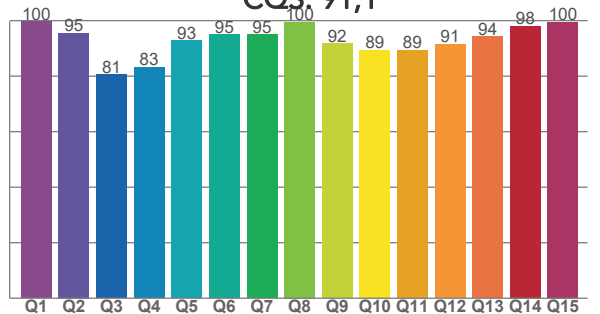
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,1	95,2	91,0	91,0	88,6	93,7	96,1	95,7	93,1	87,0	80,2	87,6	90,0	89,5	85,6	95,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,7	95,5	80,6	83,2	92,9	95,0	95,0	99,5	91,7	89,5	89,5	91,5	94,3	98,0	99,5

CQS: 91,1



COLOR PARAMETERS

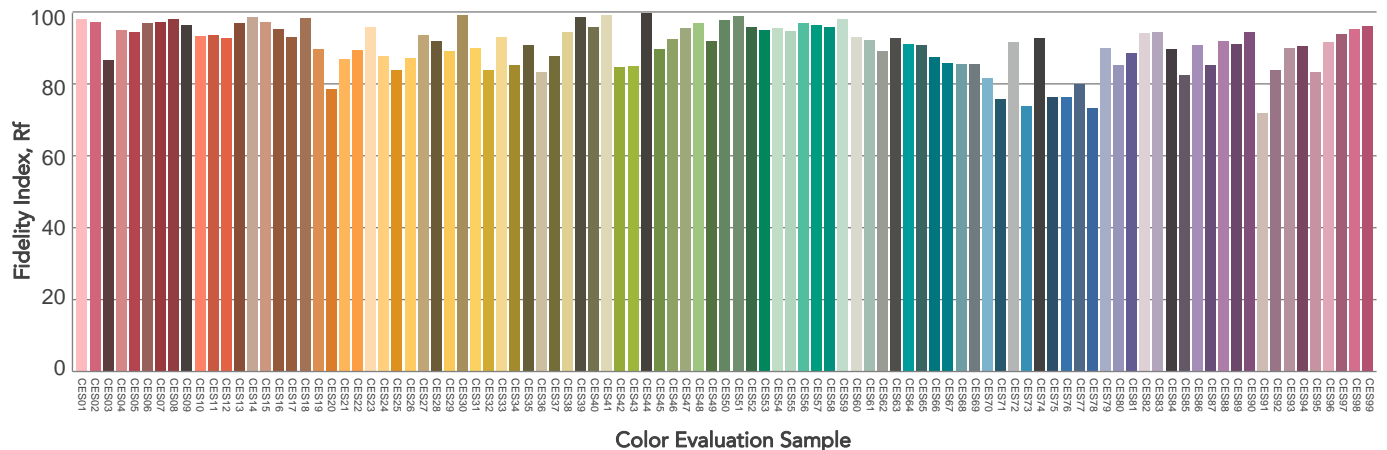
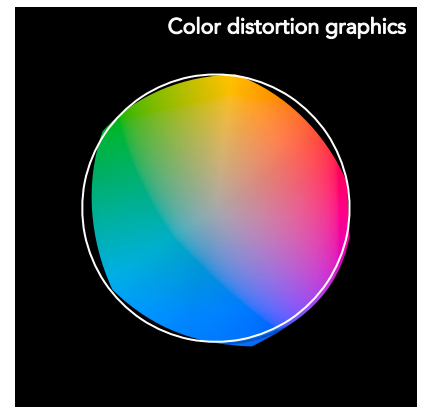
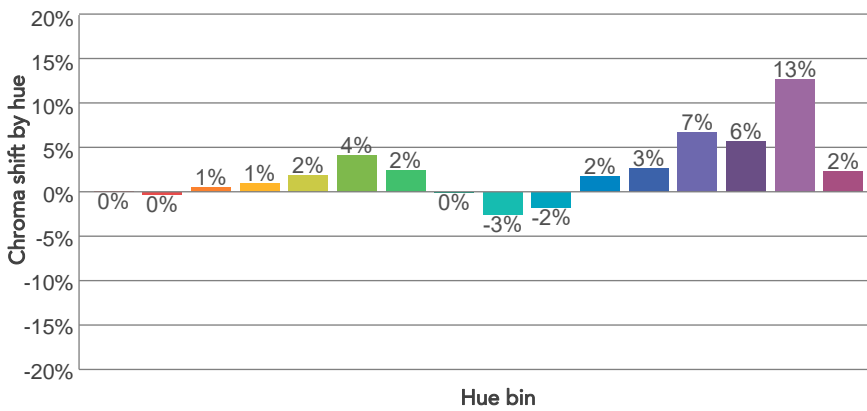
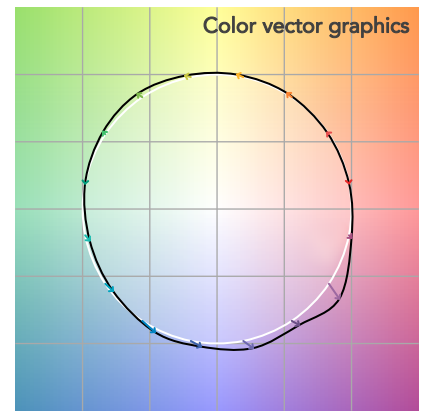
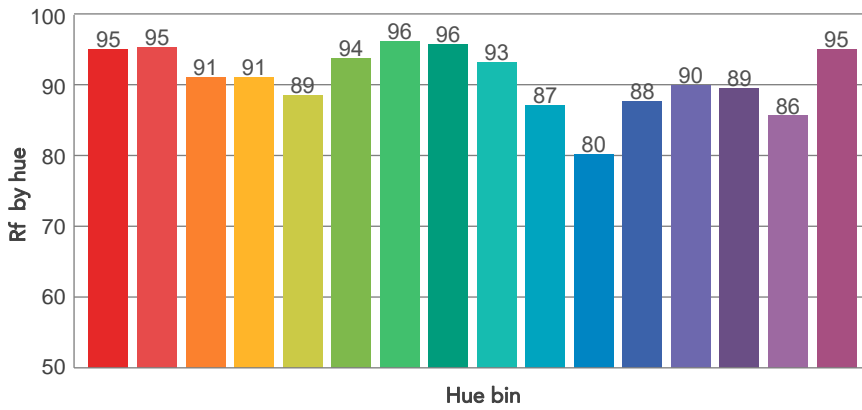
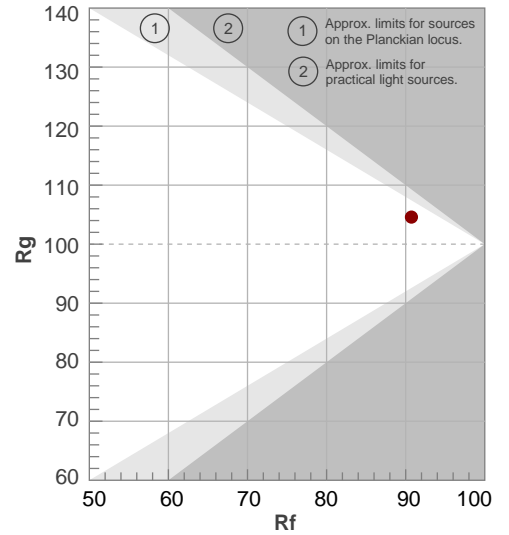
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5618 K	94,1	91,5	90,7	104,6	91,1	96	0,330	0,339	-0,0091

TM30 DETAILS

Rf 90,7
Fidelity index Rf

Rg 104,6
Gammut index

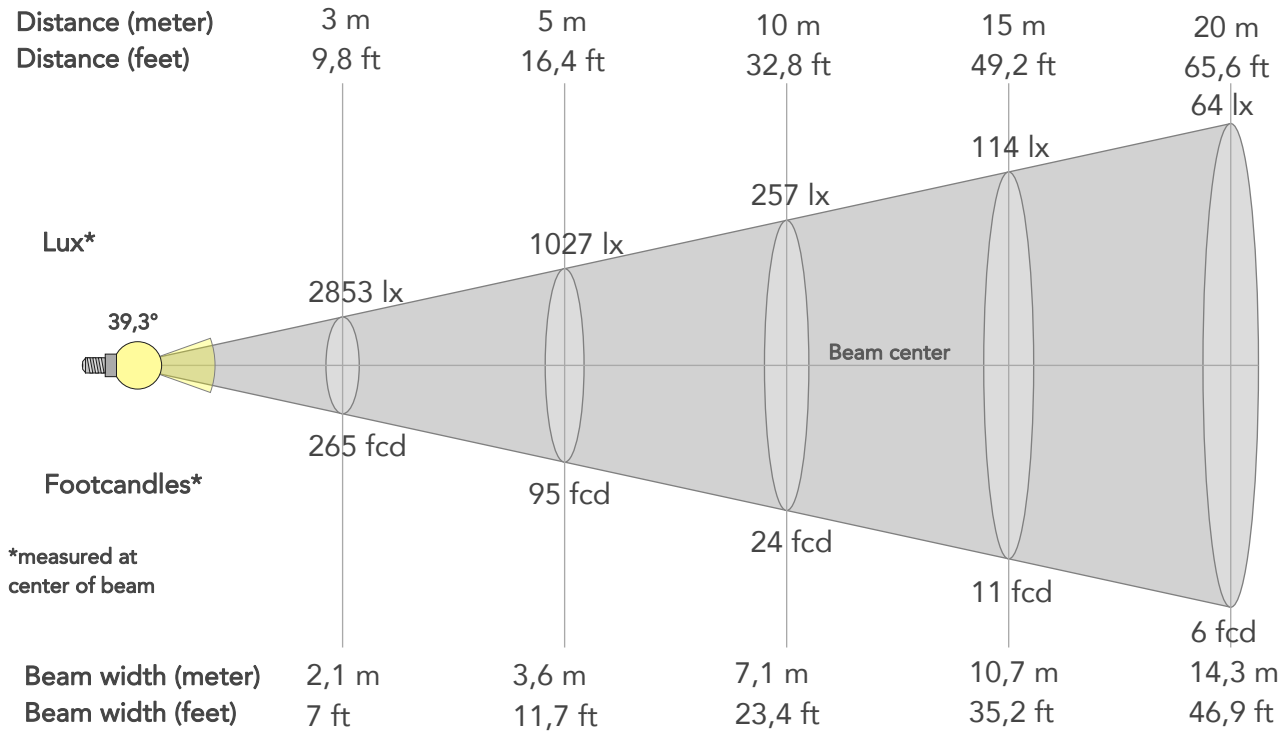
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	0%	0%
2	95	0%	2%
3	91	1%	4%
4	91	1%	5%
5	89	2%	4%
6	94	4%	2%
7	96	2%	-1%
8	96	0%	1%
9	93	-3%	4%
10	87	-2%	8%
11	80	2%	12%
12	88	3%	8%
13	90	7%	6%
14	89	6%	3%
15	86	13%	-5%
16	95	2%	-2%



BEAM DETAILS



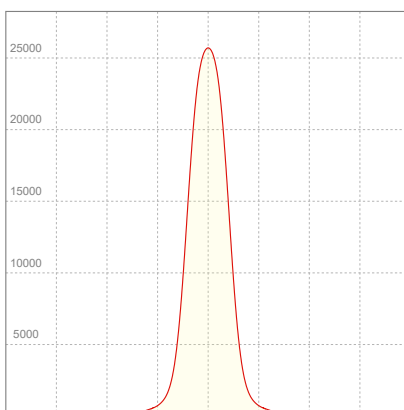
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
39,3°	65°	93,9°	98,2%	93,5%



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	25680lx	6420lx	2853lx	1605lx	1027lx	457lx	257lx	114lx	64lx	41lx	29lx	16lx	10lx
Footcand.	2386fcd	596fcd	265fcd	149fcd	95fcd	42fcd	24fcd	11fcd	6fcd	4fcd	3fcd	1fcd	1fcd
Beam wid.	0,7m	1,4m	2,1m	2,9m	3,6m	5,4m	7,1m	10,7m	14,3m	17,9m	21,4m	28,6m	35,7m
Beam wid.	2,4ft	4,7ft	7ft	9,4ft	11,7ft	17,6ft	23,4ft	35,2ft	46,9ft	58,6ft	70,3ft	93,7ft	117,2ft

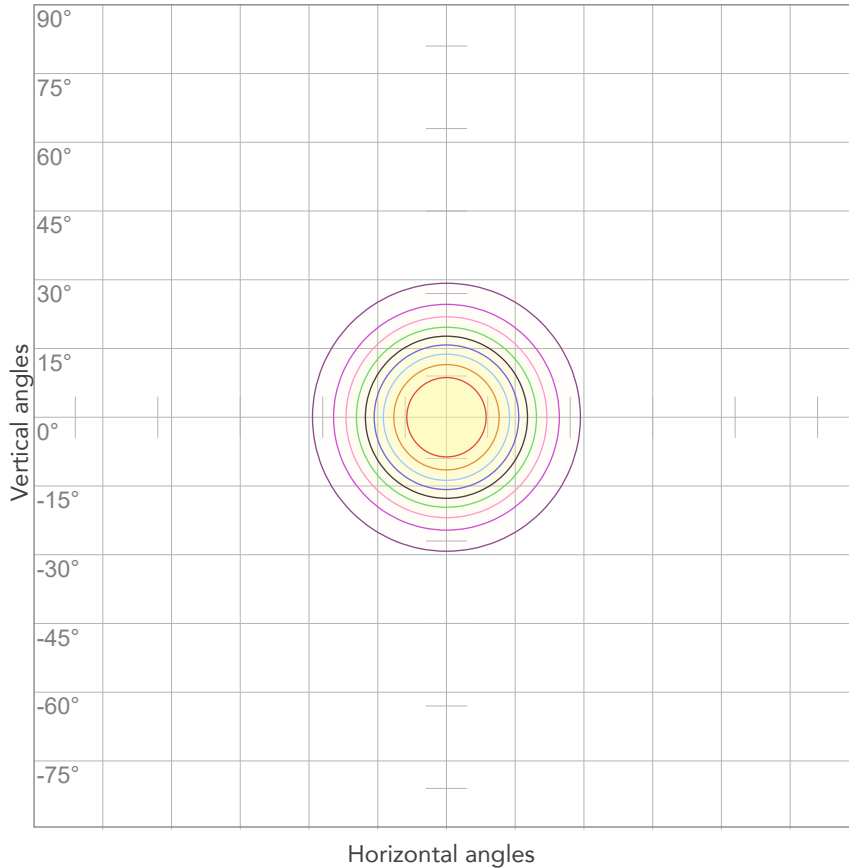
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,772A	167,5W	78lm/W

ISO CANDELA DIAGRAM



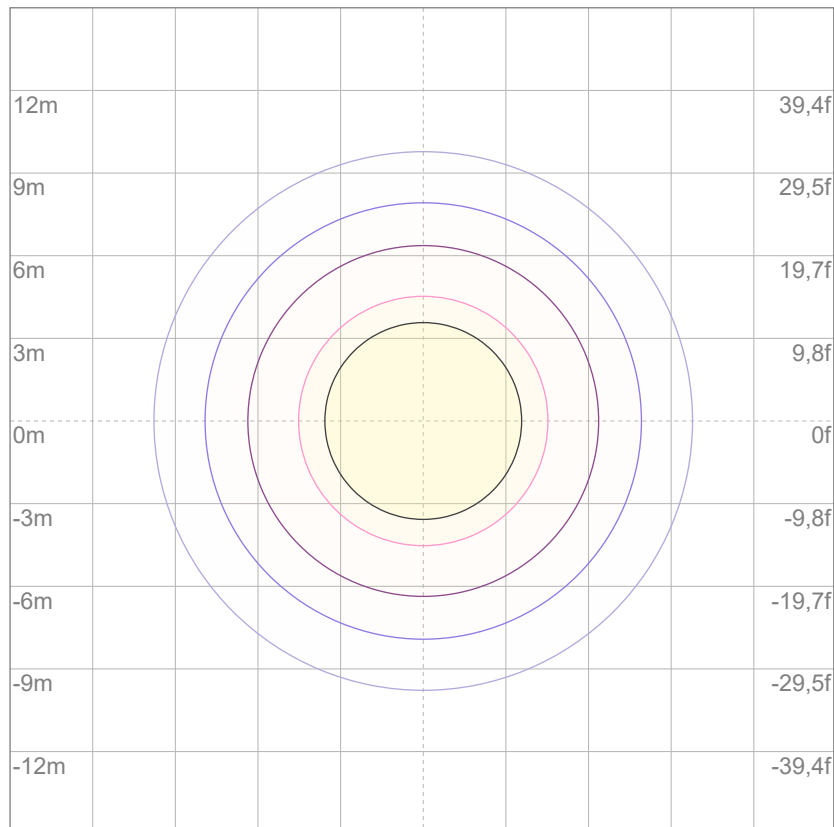
10%	2568 cd
20%	5136 cd
30%	7704 cd
40%	10272 cd
50%	12840 cd
60%	15408 cd
70%	17976 cd
80%	20544 cd

Conditions:

Number of c-planes: 2

Candela at center: 25680 cd

ISO LUX DIAGRAM



3%	7,70 lx
5%	12,8 lx
10%	25,7 lx
30%	77,0 lx
50%	128 lx

Conditions:

Number of c-planes: 2

Lux at center: 257 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:

12317 lm

Peak candela output:

13215 cd

Light quality:

CRI: 94,0

Color temperature:

5627 K

PRODUCT NAME:

ECLPENDANT DY

MEASURAMENT CONDITIONS:

Beam angle:

60°

Target:

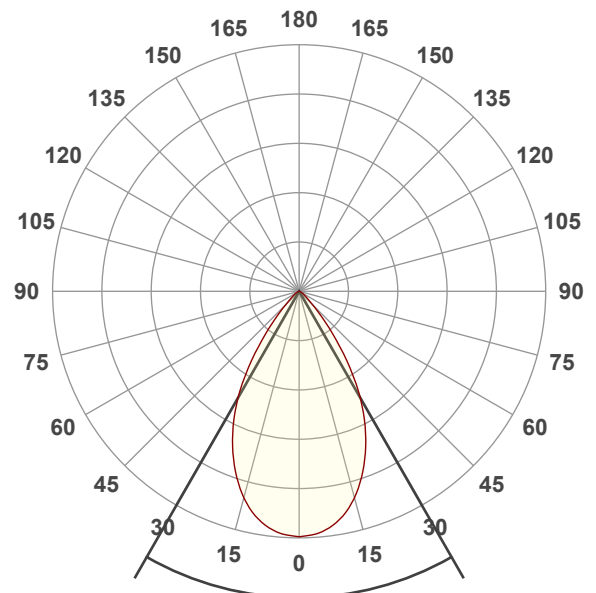
Full On

Operator:

Paolo Carvone

Date and time:

13/10/2022 11:18:07

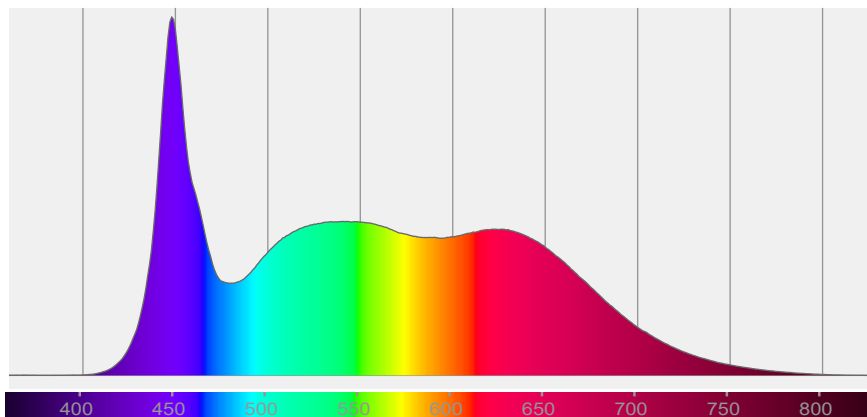


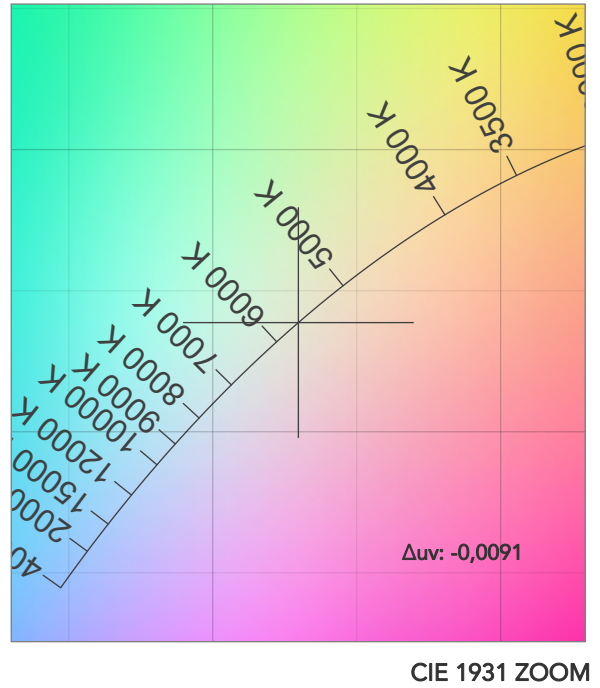
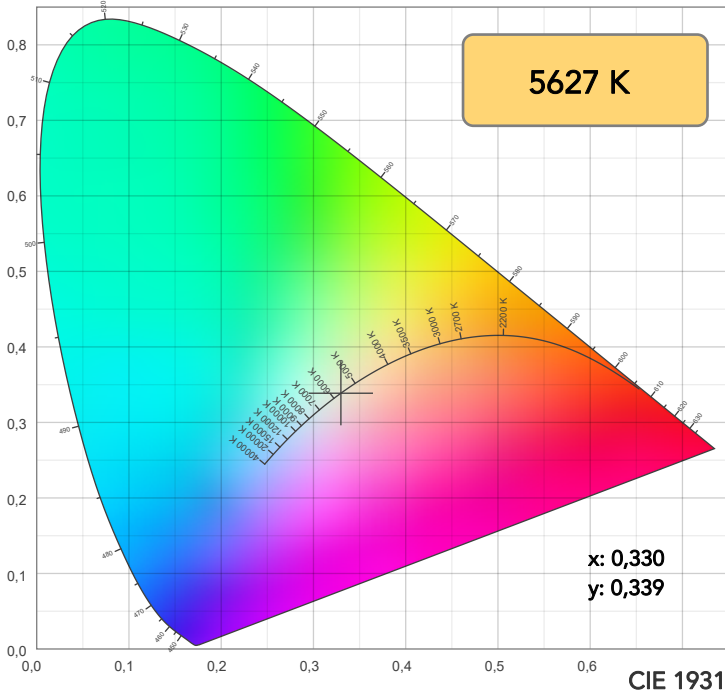
Beam angle 50%: 59,7°

Field angle 10%: 87,5°

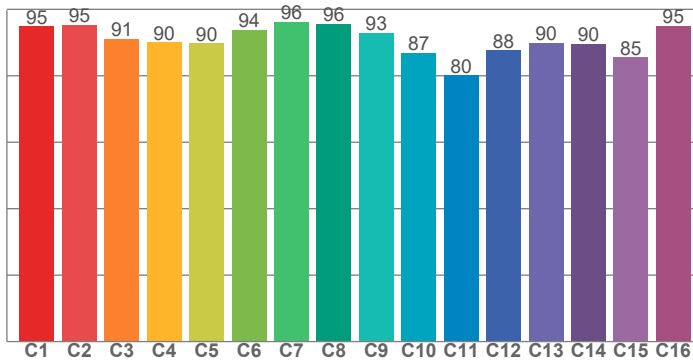
Cut off angle 2.5%: 109,8°

Spectra

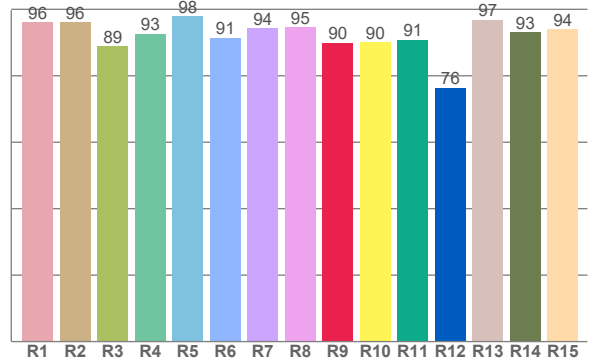




TM30: 90,7



CRI: 94,0 (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
96,2	96,2	88,9	92,6	97,8	91,4	94,4	94,6	90,0	90,0	90,9	76,4	96,9	93,2	94,0

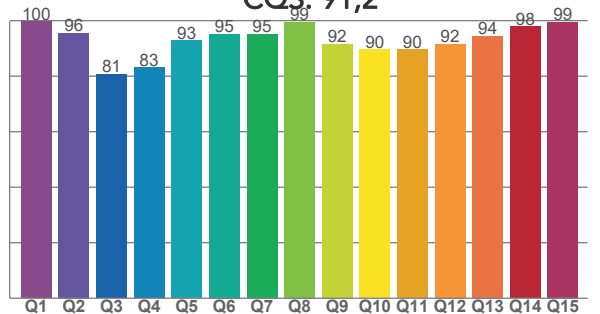
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,9	95,3	91,2	90,0	89,8	93,9	96,2	95,6	93,0	86,8	80,1	87,7	90,0	89,5	85,5	95,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,7	95,6	80,7	83,0	92,8	95,3	95,2	99,5	91,6	89,6	89,5	91,6	94,4	97,9	99,5

CQS: 91,2



COLOR PARAMETERS

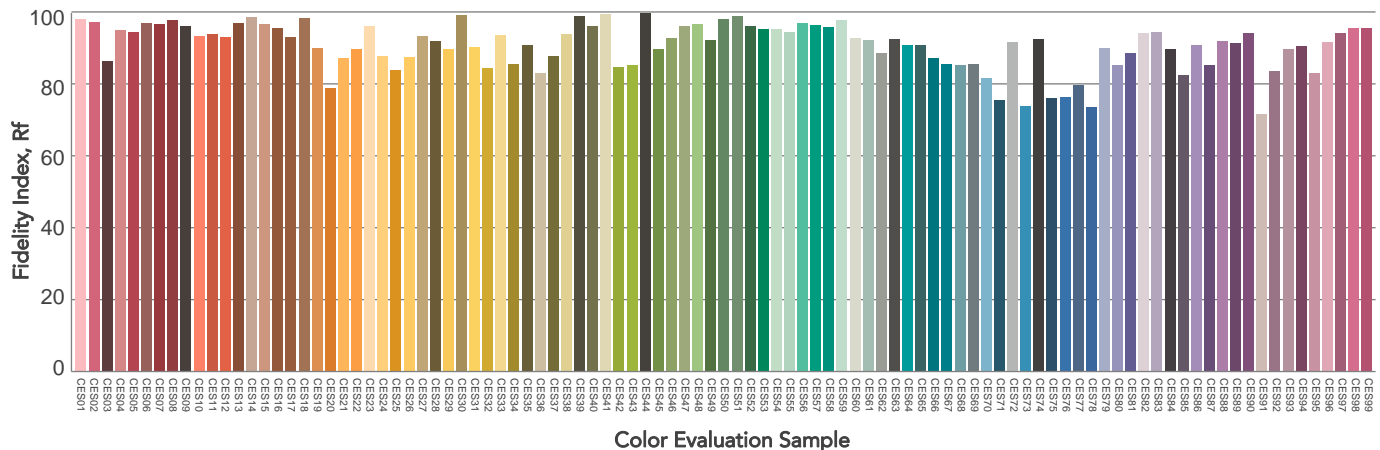
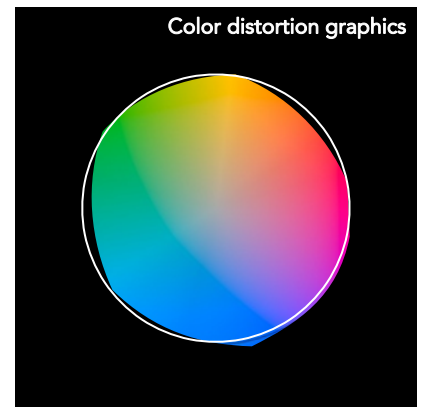
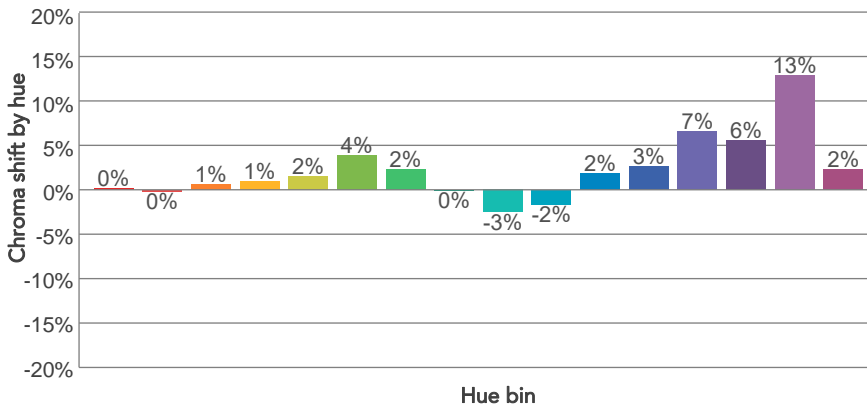
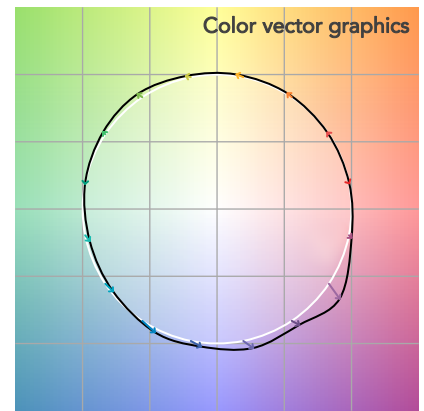
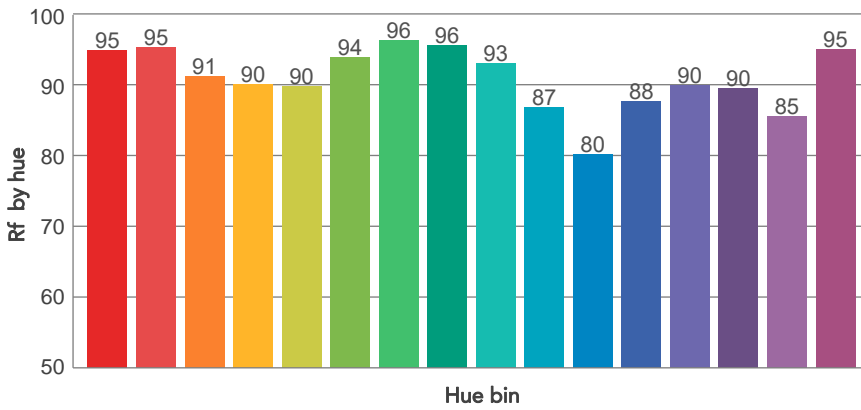
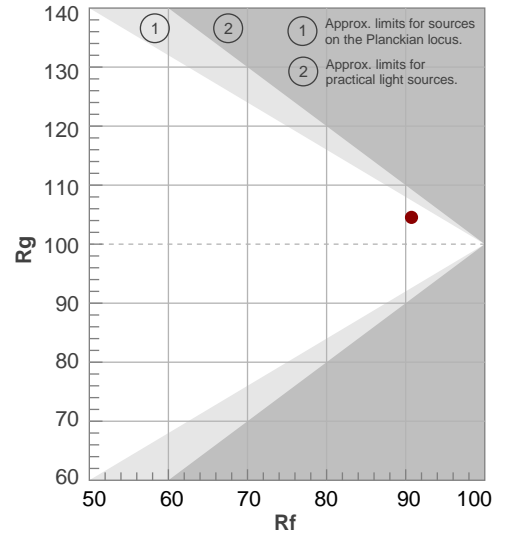
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5627 K	94,0	90,0	90,7	104,5	91,2	96	0,330	0,339	-0,0091

TM30 DETAILS

Rf 90,7
Fidelity index Rf

Rg 104,5
Gammut index

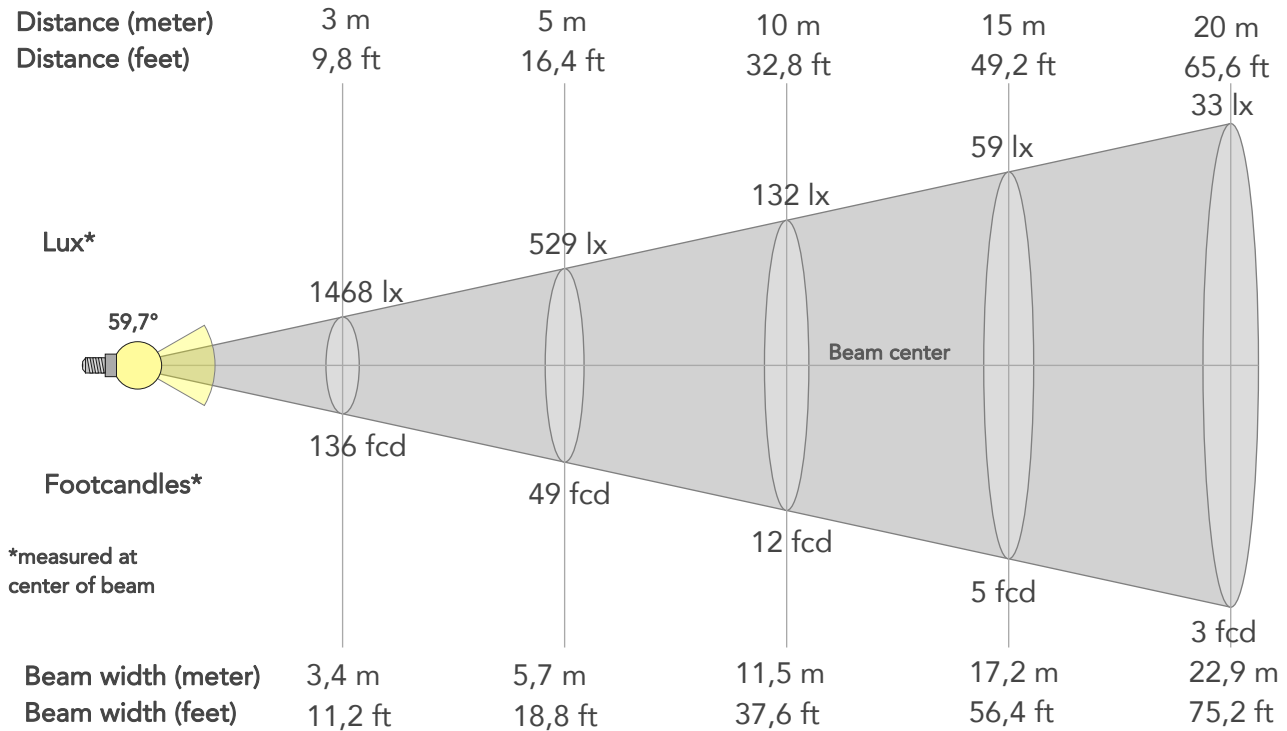
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	0%	0%
2	95	0%	2%
3	91	1%	4%
4	90	1%	5%
5	90	2%	3%
6	94	4%	2%
7	96	2%	-1%
8	96	0%	1%
9	93	-3%	5%
10	87	-2%	8%
11	80	2%	12%
12	88	3%	8%
13	90	7%	6%
14	90	6%	3%
15	85	13%	-5%
16	95	2%	-1%



BEAM DETAILS



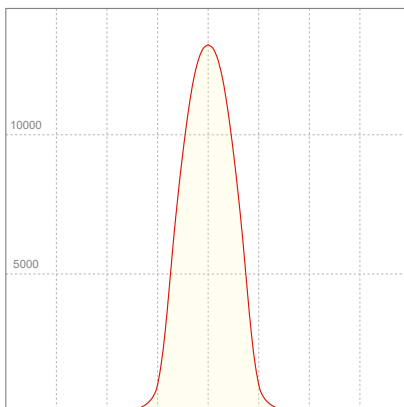
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
59,7°	87,5°	109,8°	98,7%	93,9%



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	13215lx	3304lx	1468lx	826lx	529lx	235lx	132lx	59lx	33lx	21lx	15lx	8lx	5lx
Footcand.	1228fcd	307fcd	136fcd	77fcd	49fcd	22fcd	12fcd	5fcd	3fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	1,1m	2,3m	3,4m	4,6m	5,7m	8,6m	11,5m	17,2m	22,9m	28,7m	34,4m	45,9m	57,4m
Beam wid.	3,8ft	7,6ft	11,2ft	15ft	18,8ft	28,2ft	37,6ft	56,4ft	75,2ft	94,1ft	112,9ft	150,5ft	188,1ft

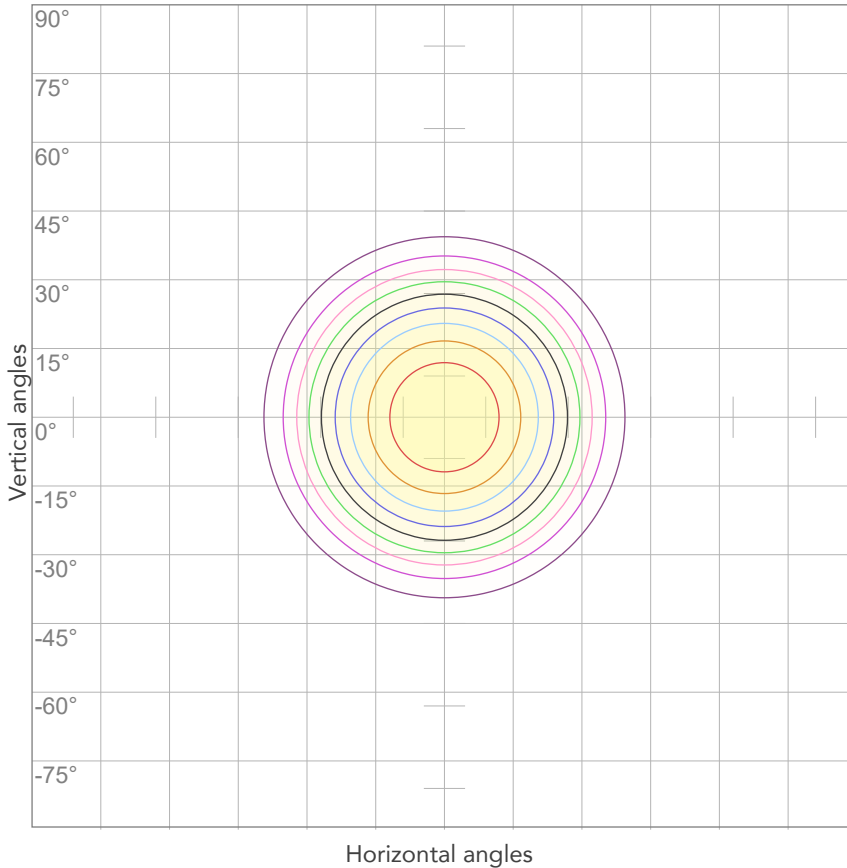
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,744A	160,6W	77lm/W

ISO CANDELA DIAGRAM



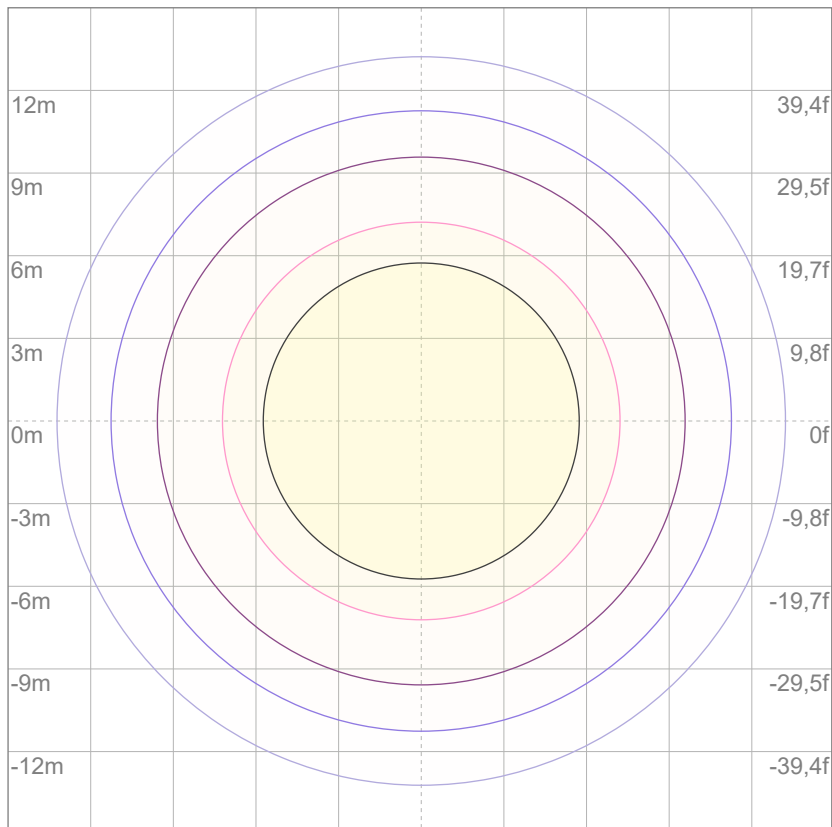
10%	1322 cd
20%	2643 cd
30%	3965 cd
40%	5286 cd
50%	6608 cd
60%	7929 cd
70%	9251 cd
80%	10572 cd

Conditions:

Number of c-planes: 2

Candela at center: 13215 cd

ISO LUX DIAGRAM



3%	3,96 lx
5%	6,61 lx
10%	13,2 lx
30%	39,6 lx
50%	66,1 lx

Conditions:

Number of c-planes: 2

Lux at center: 132 lx

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