



Photometric Test Report



ECLPENDANT NW

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:

14165 lm

Peak candela output:

73131 cd

Light quality:

CRI: 96,3

Color temperature:

4002 K

PRODUCT NAME:

ECLPENDANT NW

MEASURAMENT CONDITIONS:

Beam angle:

20°

Target:

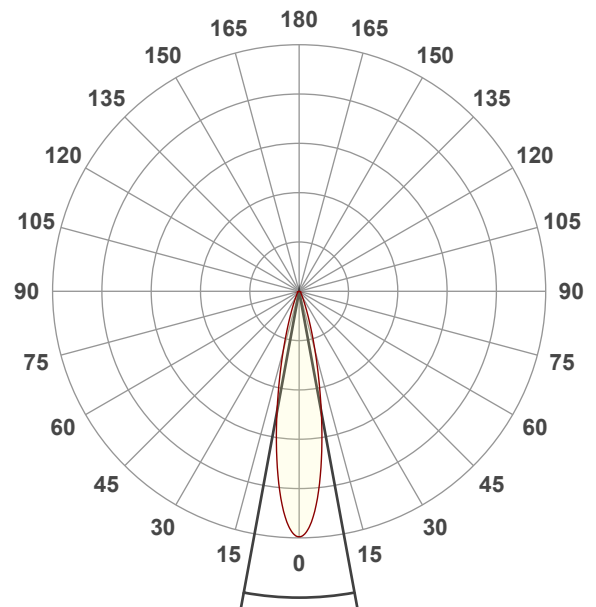
Full On

Operator:

Paolo Carvone

Date and time:

13/10/2022 14:47:44

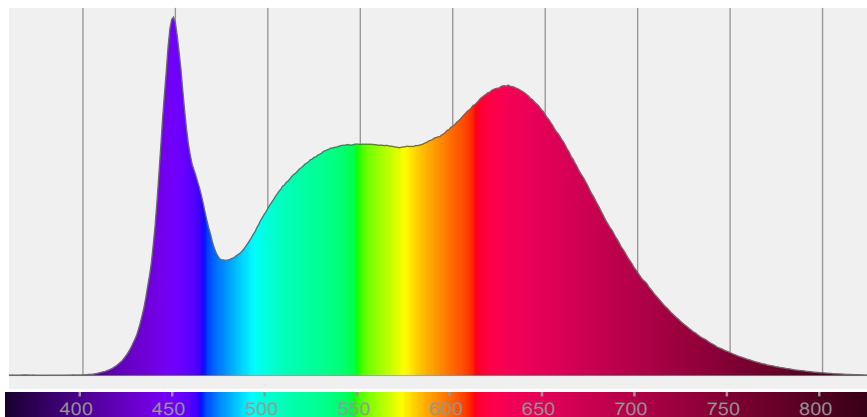


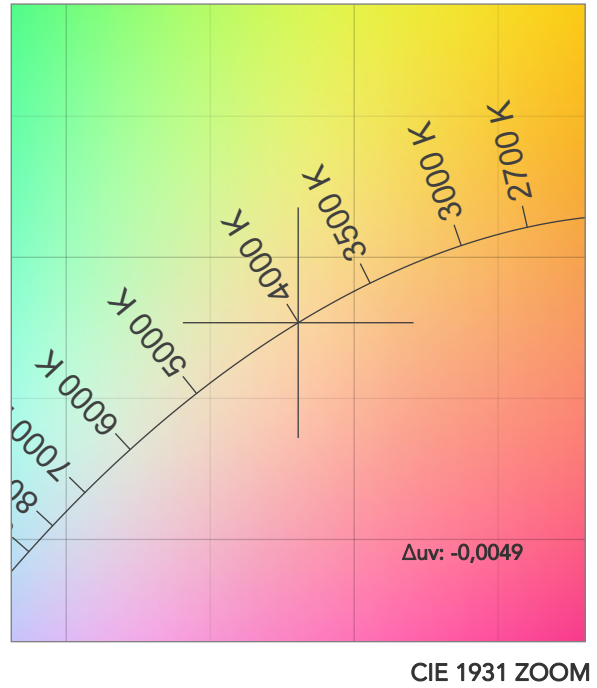
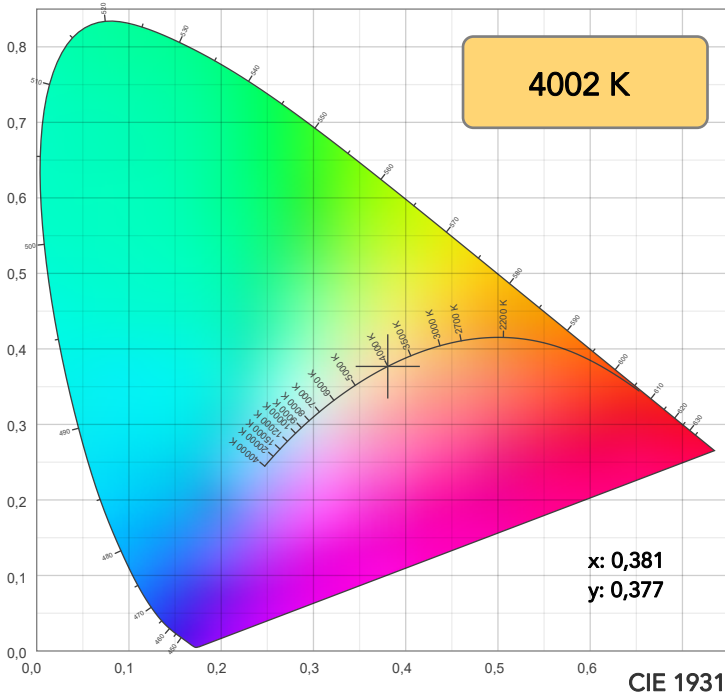
Beam angle 50%: 20,8°

Field angle 10%: 40,5°

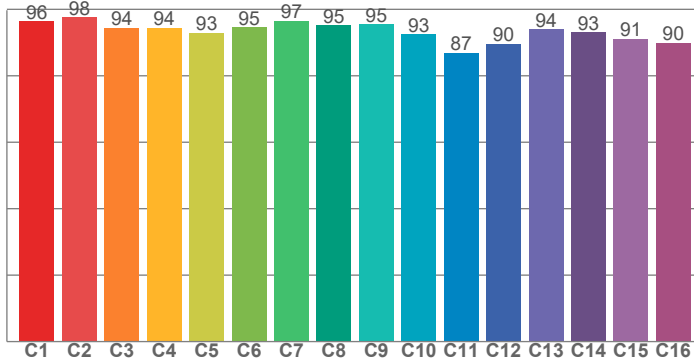
Cut off angle 2.5%: 61,3°

Spectra

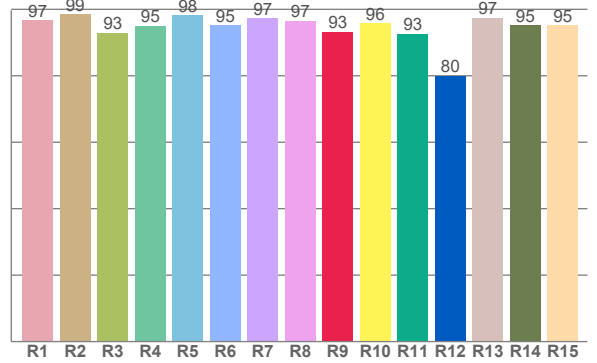




TM30: 93,4



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
96,7	98,5	93,0	95,1	98,3	95,3	97,3	96,5	93,3	95,8	92,7	80,0	97,4	95,2	95,3

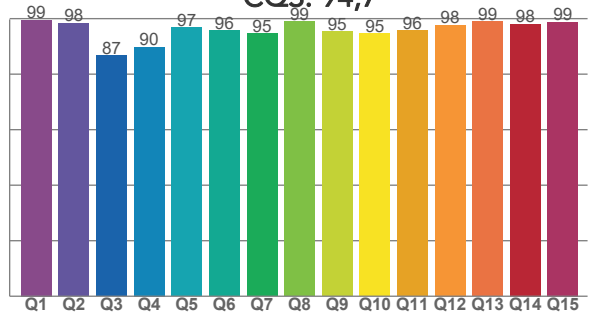
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,4	97,6	94,5	94,4	92,8	94,6	96,6	95,1	95,5	92,5	86,8	89,5	93,9	93,1	91,2	89,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,4	98,3	86,7	89,8	96,7	95,7	94,6	99,0	95,4	94,6	95,7	97,6	99,0	98,0	98,8

CQS: 94,7



COLOR PARAMETERS

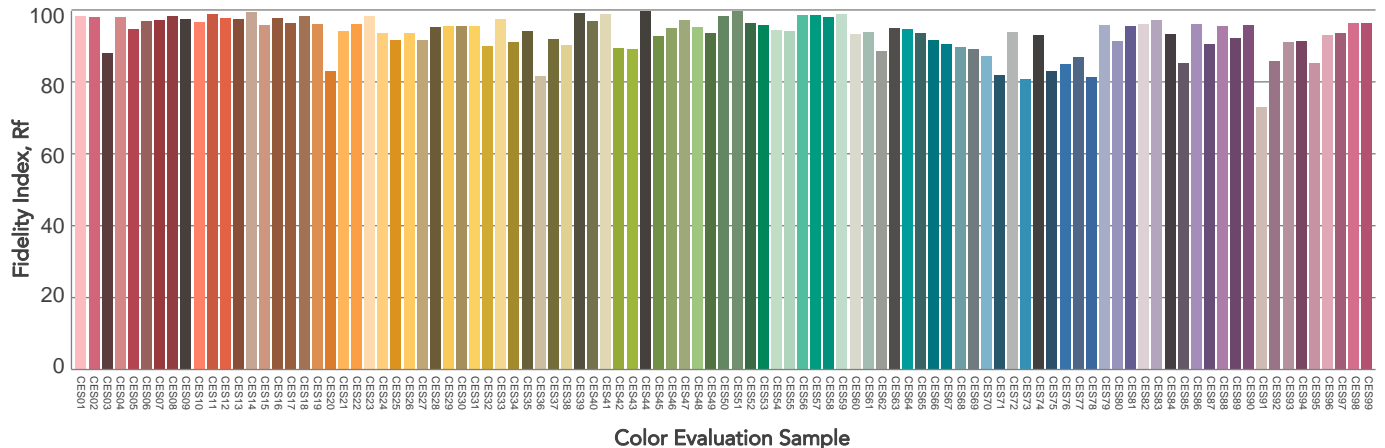
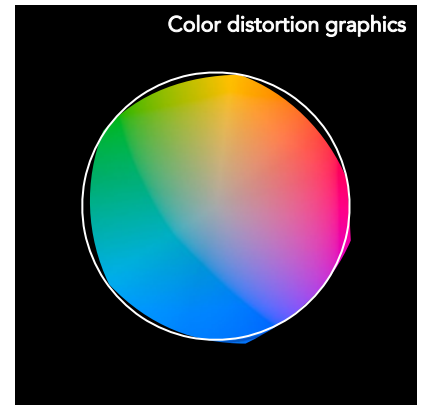
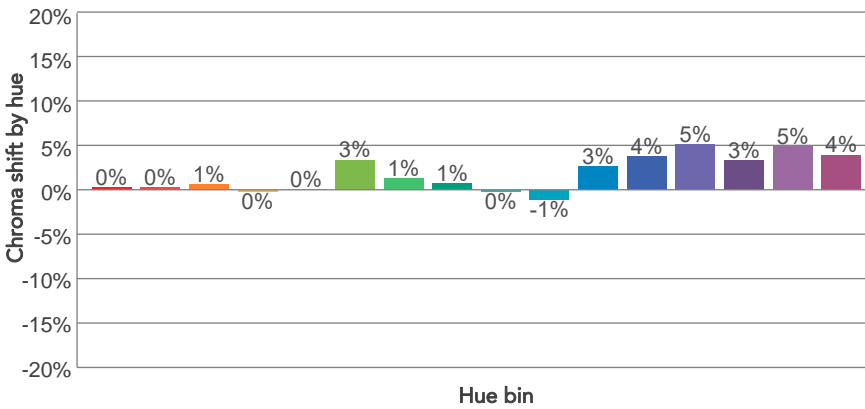
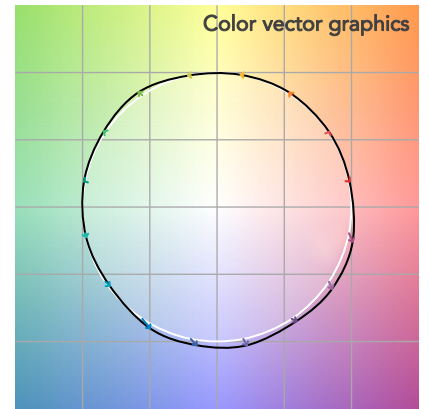
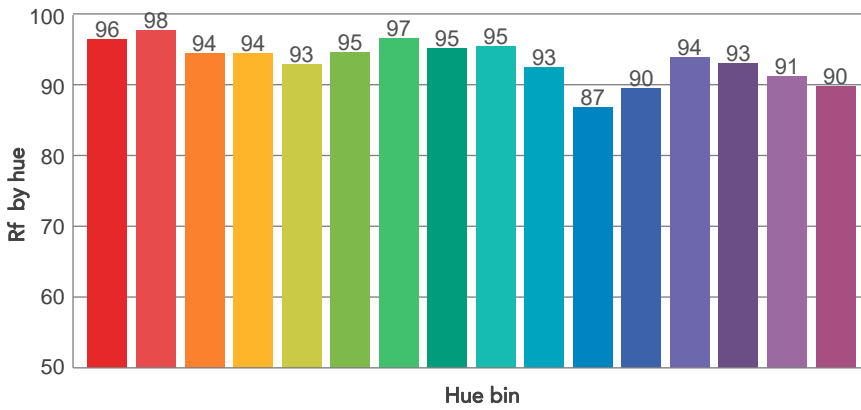
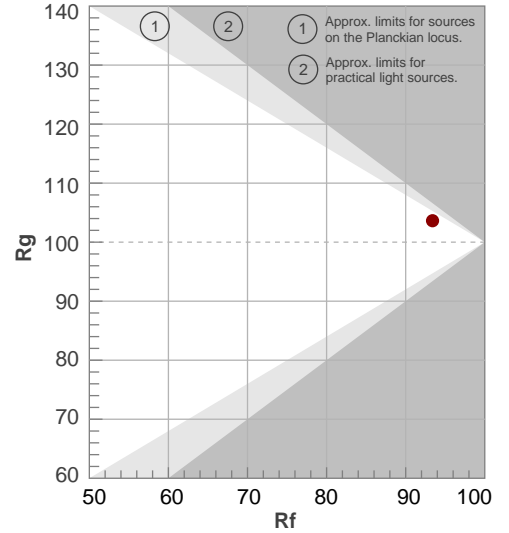
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4002 K	96,3	93,3	93,4	103,6	94,7	97	0,381	0,377	-0,0049

TM30 DETAILS

Rf 93,4
Fidelity index Rf

Rg 103,6
Gammut index

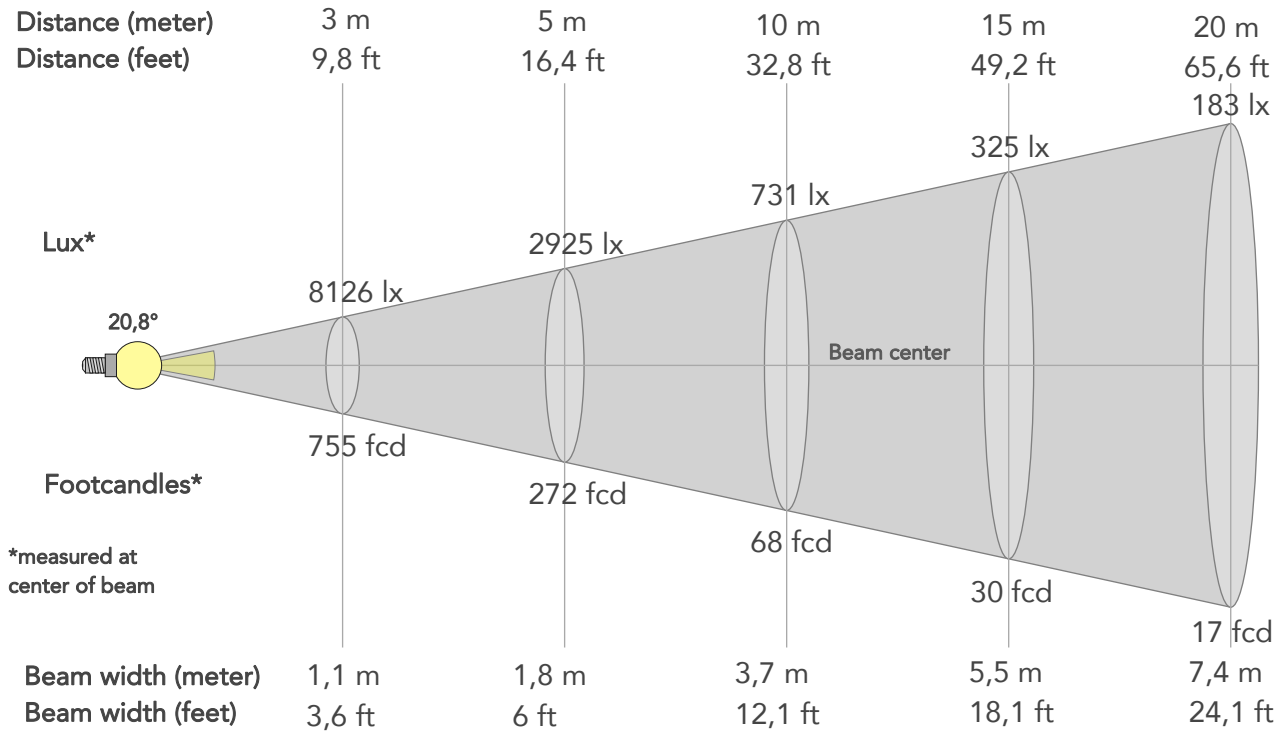
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	-1%
2	98	0%	0%
3	94	1%	2%
4	94	0%	2%
5	93	0%	2%
6	95	3%	1%
7	97	1%	0%
8	95	1%	1%
9	95	0%	3%
10	93	-1%	4%
11	87	3%	9%
12	90	4%	5%
13	94	5%	2%
14	93	3%	2%
15	91	5%	-3%
16	90	4%	-5%



BEAM DETAILS



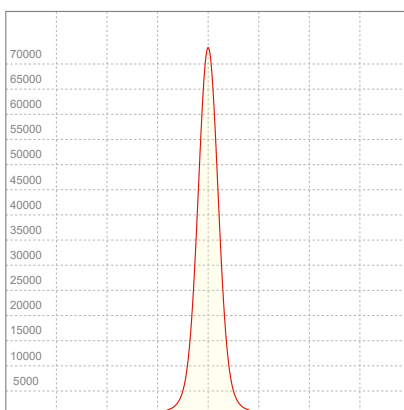
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
20,8°	40,5°	61,3°	98,1%	93,2%



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	73131lx	18283lx	8126lx	4571lx	2925lx	1300lx	731lx	325lx	183lx	117lx	81lx	46lx	29lx
Footcand.	6794fcd	1699fcd	755fcd	425fcd	272fcd	121fcd	68fcd	30fcd	17fcd	11fcd	8fcd	4fcd	3fcd
Beam wid.	0,4m	0,7m	1,1m	1,5m	1,8m	2,8m	3,7m	5,5m	7,4m	9,2m	11m	14,7m	18,4m
Beam wid.	1,2ft	2,4ft	3,6ft	4,8ft	6ft	9ft	12,1ft	18,1ft	24,1ft	30,2ft	36,2ft	48,2ft	60,3ft

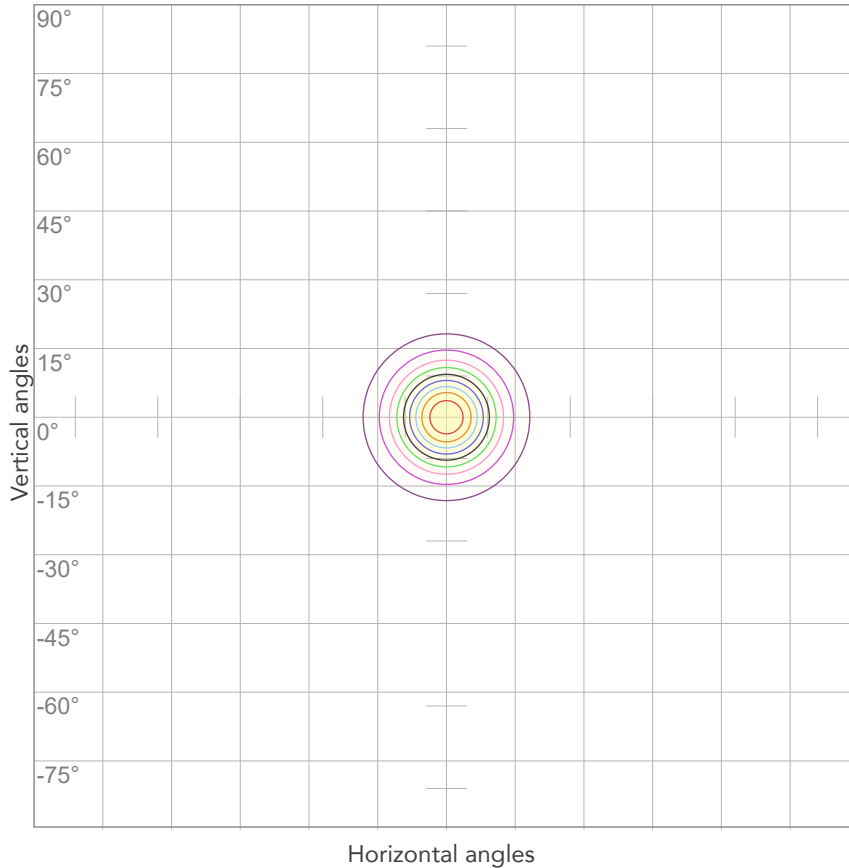
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,819A	179,2W	79lm/W

ISO CANDELA DIAGRAM



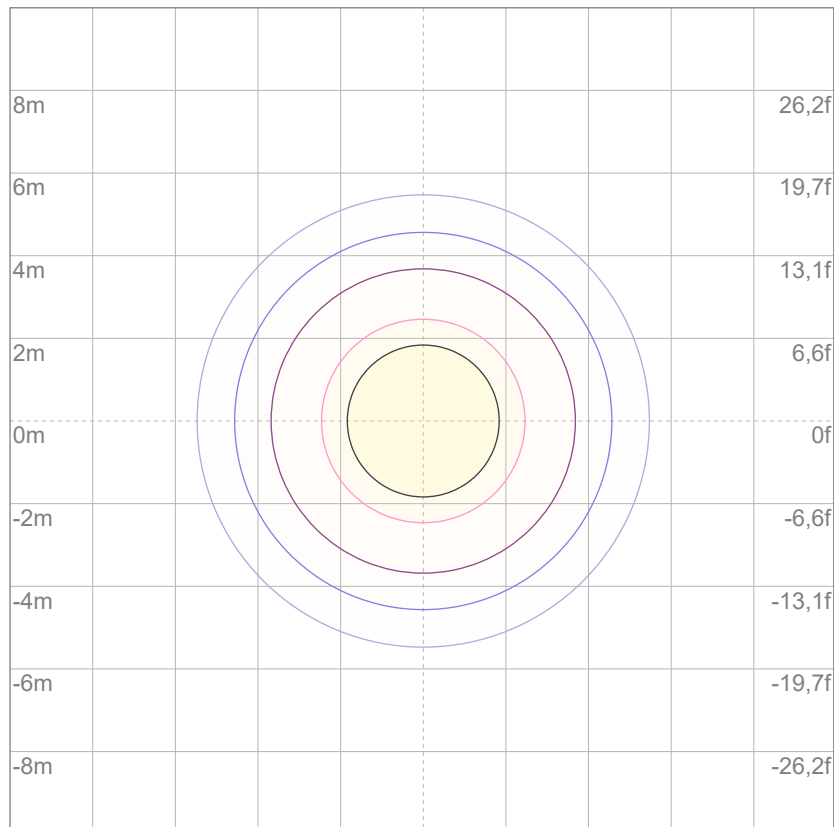
10%	7313 cd
20%	14626 cd
30%	21939 cd
40%	29253 cd
50%	36566 cd
60%	43879 cd
70%	51192 cd
80%	58505 cd

Conditions:

Number of c-planes: 2

Candela at center: 73131 cd

ISO LUX DIAGRAM



3%	21,9 lx
5%	36,6 lx
10%	73,1 lx
30%	219 lx
50%	366 lx

Conditions:

Number of c-planes: 2

Lux at center: 731 lx

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



Total lumen output:

14051 lm

Peak candela output:

26629 cd

Light quality:

CRI: 96,4

Color temperature:

4010 K

PRODUCT NAME:

ECLPENDANT NW

MEASURAMENT CONDITIONS:

Beam angle:

40°

Target:

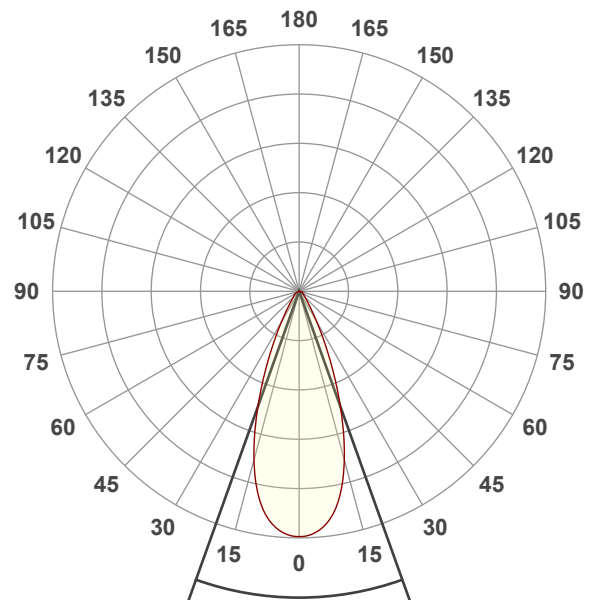
Full On

Operator:

Paolo Carvone

Date and time:

13/10/2022 15:00:43

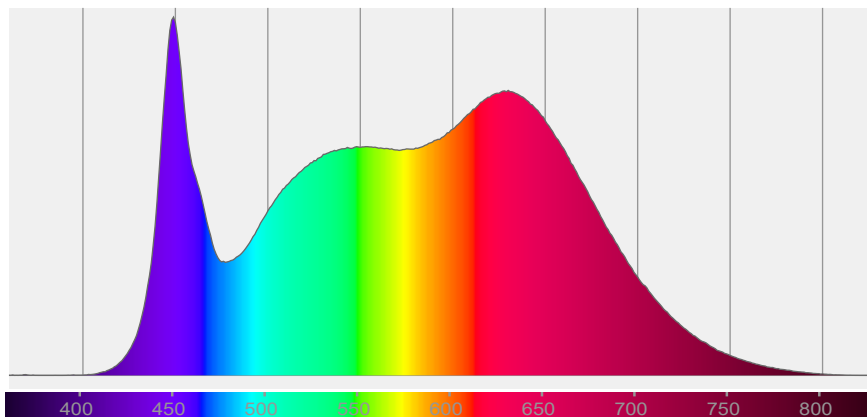


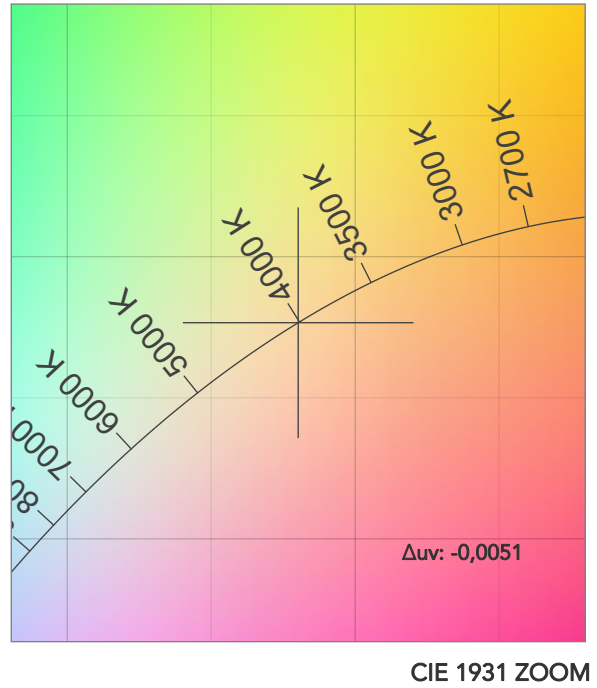
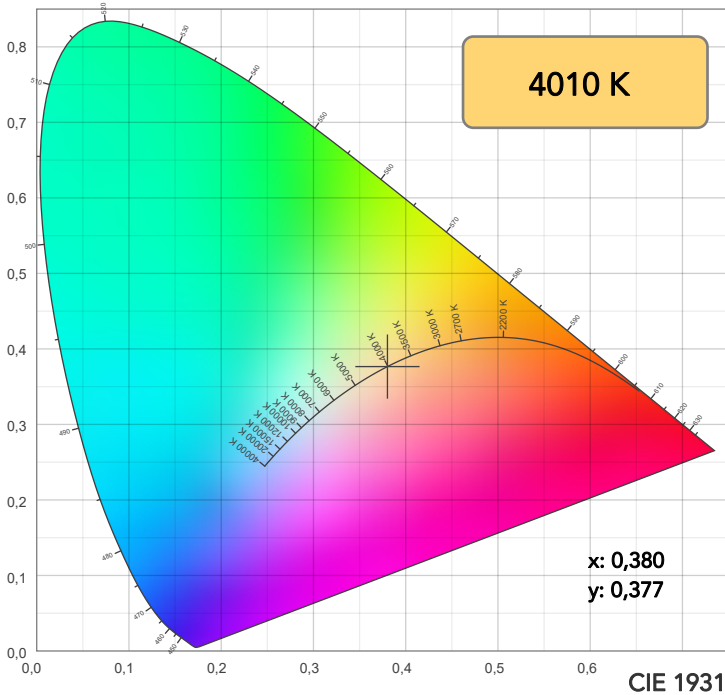
Beam angle 50%: 39,4°

Field angle 10%: 65,7°

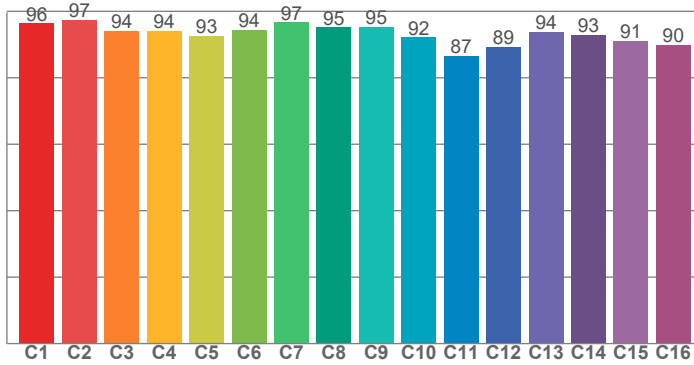
Cut off angle 2.5%: 102,4°

Spectra

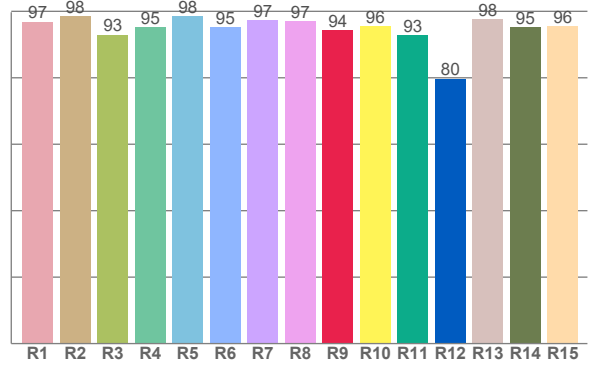




TM30: 93,2



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
96,9	98,4	92,9	95,2	98,4	95,1	97,3	97,0	94,3	95,5	92,9	79,7	97,6	95,2	95,5

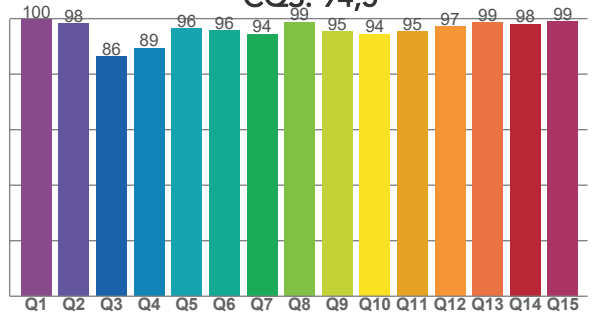
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,4	97,5	94,1	94,2	92,6	94,5	96,6	95,2	95,4	92,2	86,5	89,3	93,8	93,0	91,1	89,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,7	98,2	86,3	89,3	96,4	95,7	94,5	98,8	95,3	94,4	95,3	97,2	98,6	98,0	98,9

CQS: 94,5



COLOR PARAMETERS

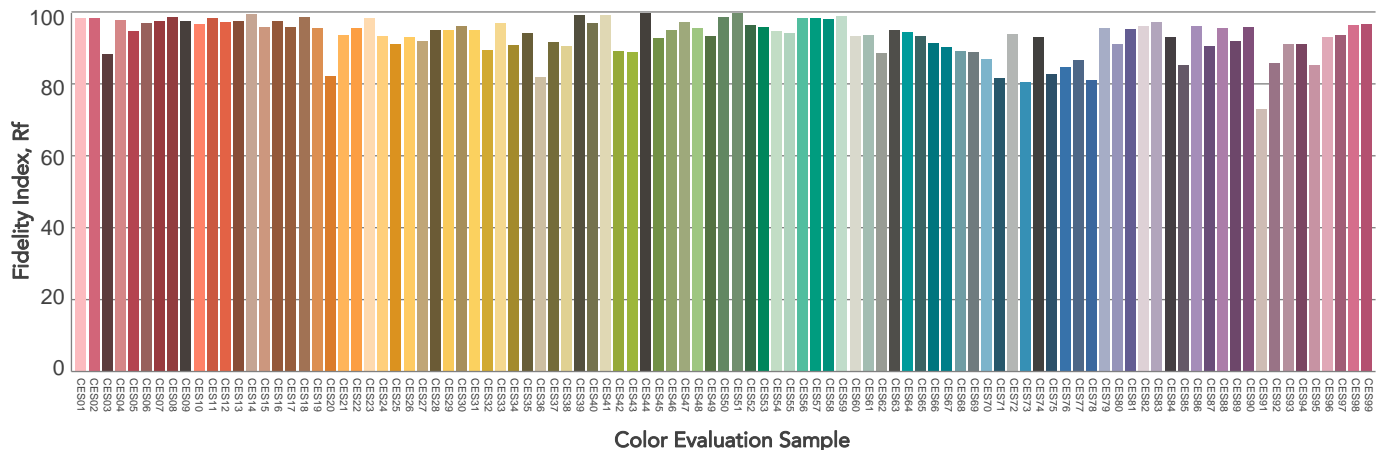
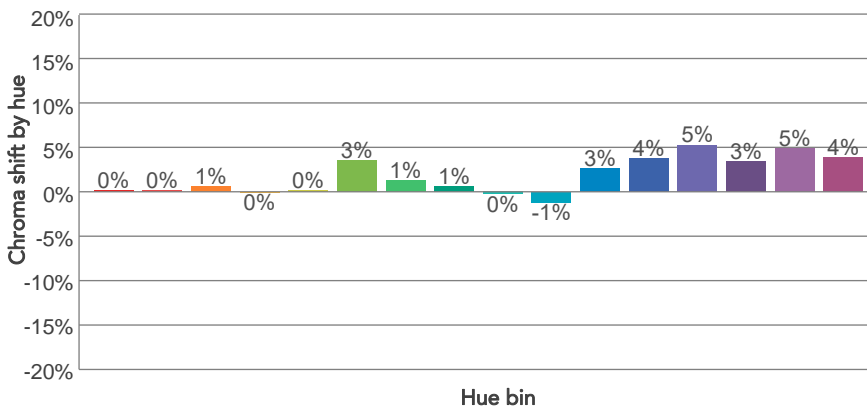
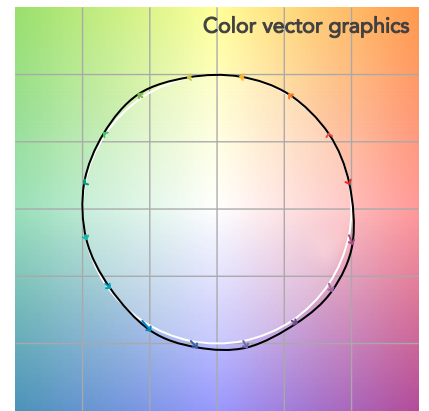
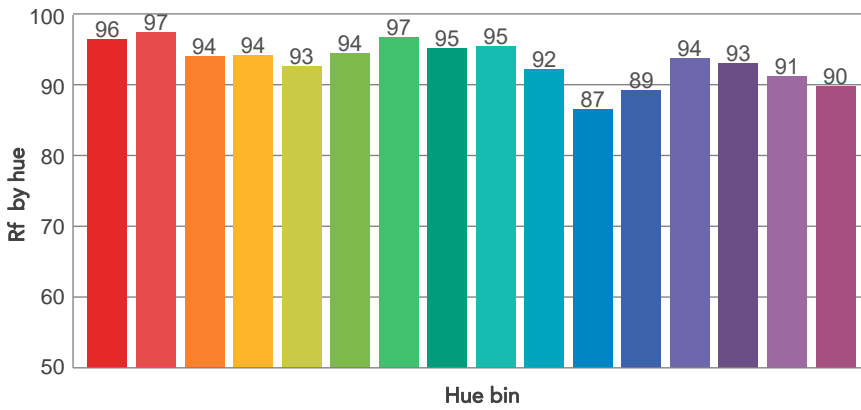
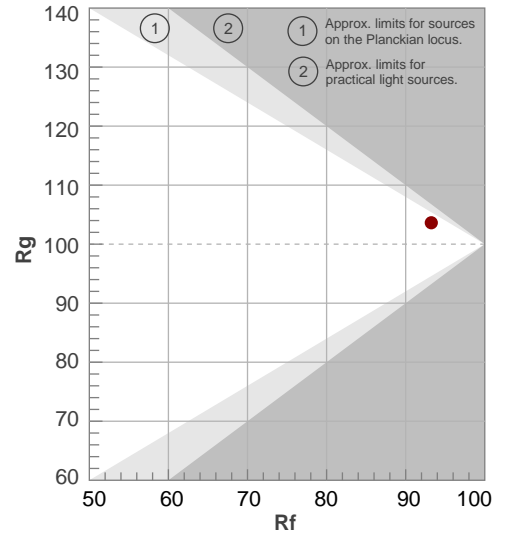
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4010 K	96,4	94,3	93,2	103,6	94,5	96	0,380	0,377	-0,0051

TM30 DETAILS

Rf 93,2
Fidelity index Rf

Rg 103,6
Gammut index

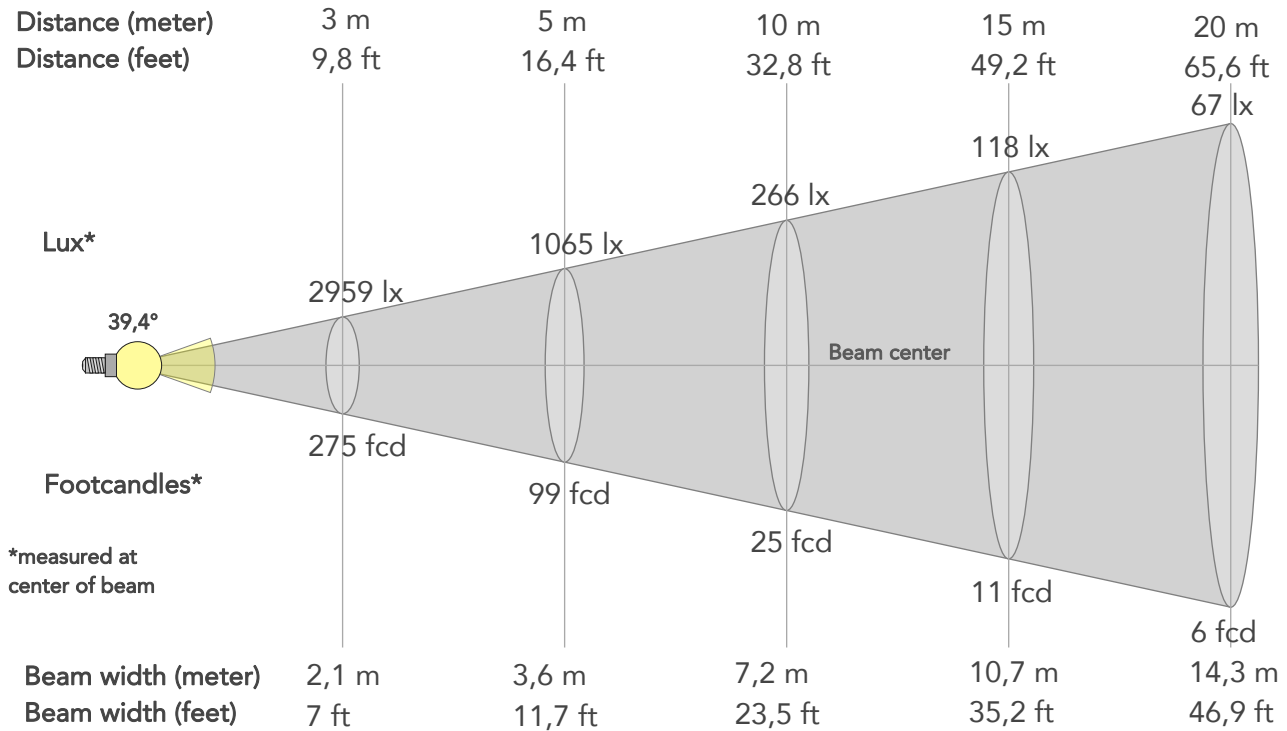
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	-1%
2	97	0%	0%
3	94	1%	3%
4	94	0%	2%
5	93	0%	2%
6	94	3%	1%
7	97	1%	0%
8	95	1%	1%
9	95	0%	3%
10	92	-1%	5%
11	87	3%	9%
12	89	4%	5%
13	94	5%	2%
14	93	3%	2%
15	91	5%	-3%
16	90	4%	-6%



BEAM DETAILS



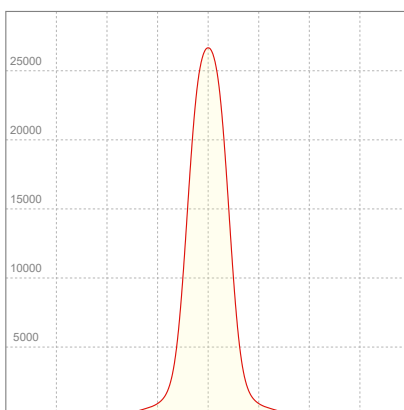
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
39,4°	65,7°	102,4°	96,8%	90,9%



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	26629lx	6657lx	2959lx	1664lx	1065lx	473lx	266lx	118lx	67lx	43lx	30lx	17lx	11lx
Footcand.	2474fcd	618fcd	275fcd	155fcd	99fcd	44fcd	25fcd	11fcd	6fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,7m	1,4m	2,1m	2,9m	3,6m	5,4m	7,2m	10,7m	14,3m	17,9m	21,5m	28,6m	35,8m
Beam wid.	2,4ft	4,7ft	7ft	9,4ft	11,7ft	17,6ft	23,5ft	35,2ft	46,9ft	58,7ft	70,4ft	93,9ft	117,3ft

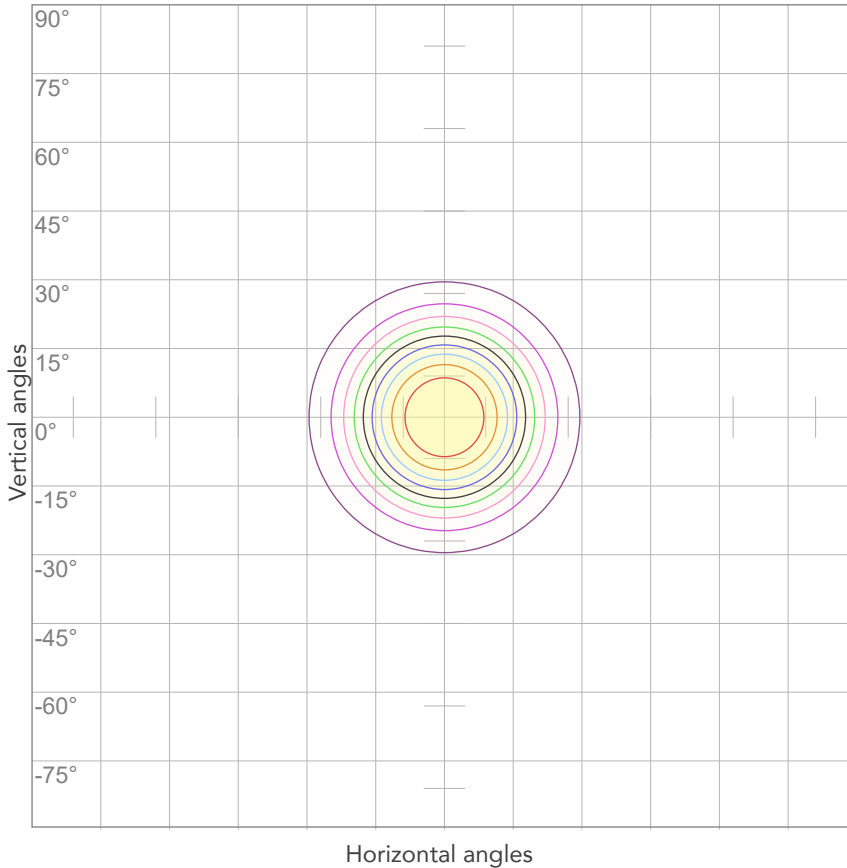
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,821A	179,4W	78lm/W

ISO CANDELA DIAGRAM



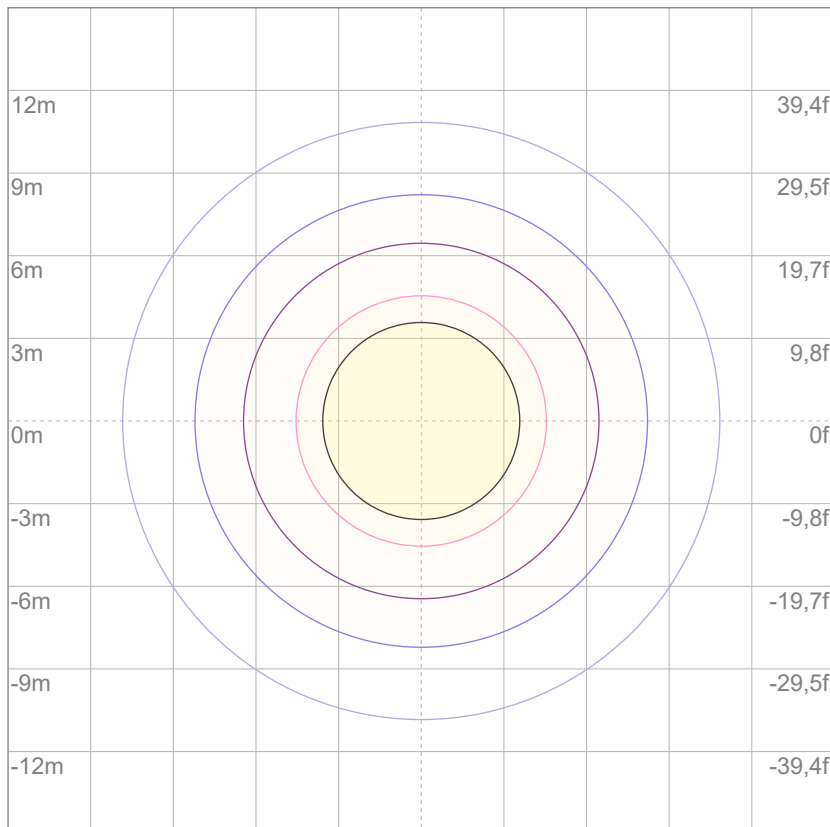
10%	2663 cd
20%	5326 cd
30%	7989 cd
40%	10652 cd
50%	13315 cd
60%	15978 cd
70%	18641 cd
80%	21303 cd

Conditions:

Number of c-planes: 2

Candela at center: 26629 cd

ISO LUX DIAGRAM



3%	7,99 lx
5%	13,3 lx
10%	26,6 lx
30%	79,9 lx
50%	133 lx

Conditions:

Number of c-planes: 2

Lux at center: 266 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:

13781 lm

Peak candela output:

14148 cd

Light quality:

CRI: 96,5

Color temperature:

4018 K

PRODUCT NAME:
ECLPENDANT NW

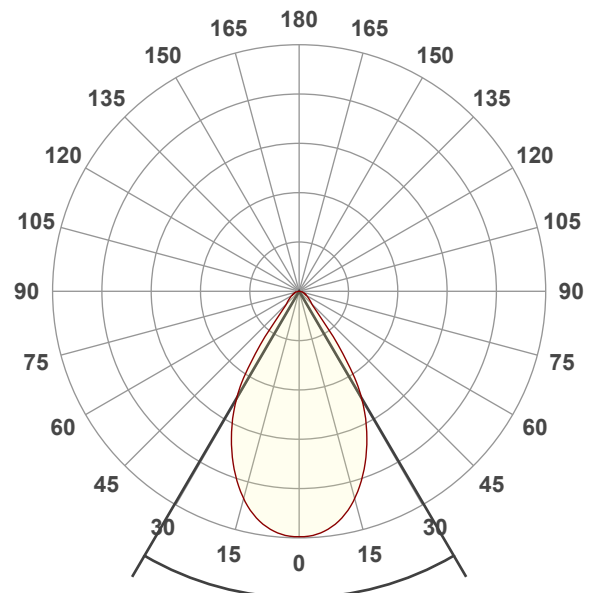
MEASURAMENT CONDITIONS:

Beam angle:
60°

Target:
Full On

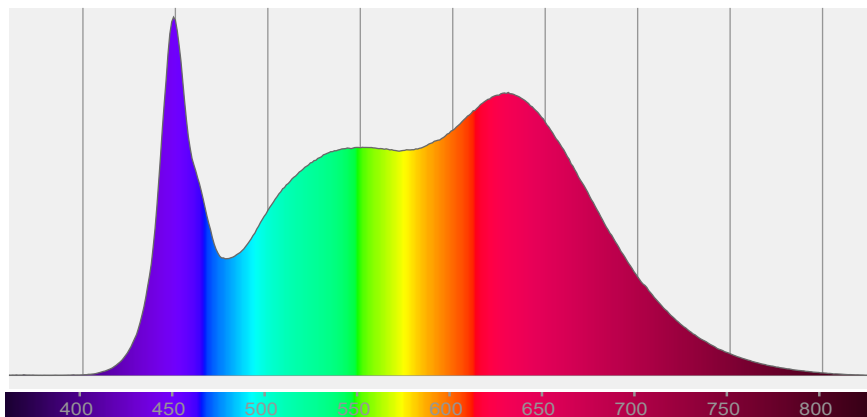
Operator:
Paolo Carvone

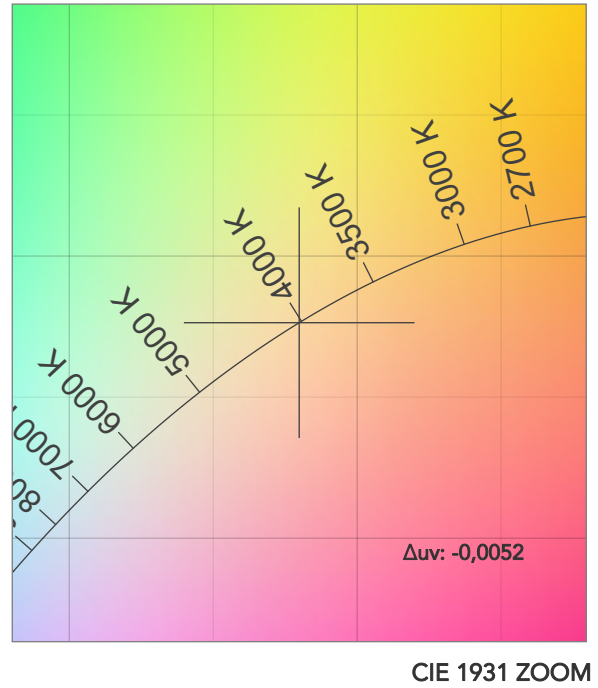
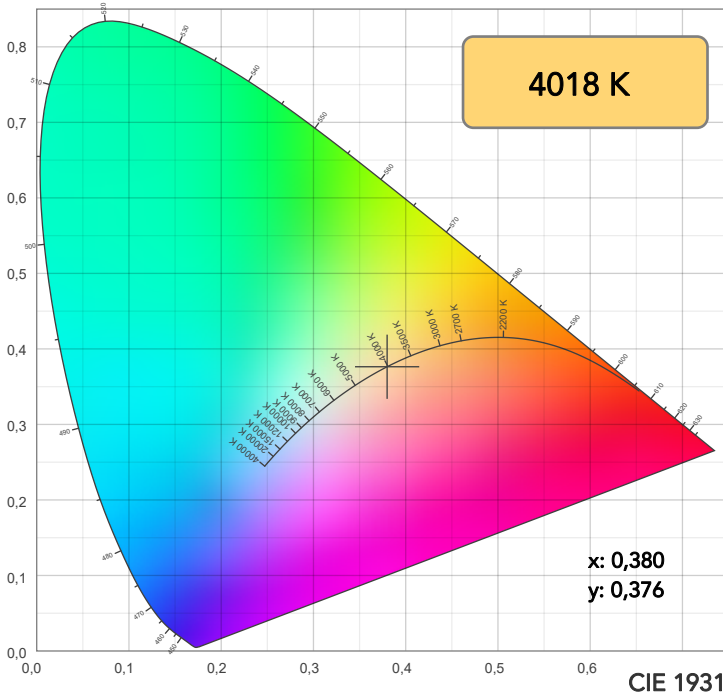
Date and time:
13/10/2022 15:03:23



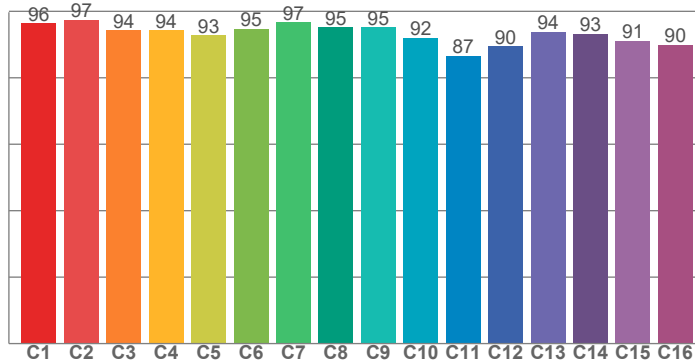
Beam angle 50%: 60,7°
Field angle 10%: 84,1°
Cut off angle 2.5%: 132,6°

Spectra

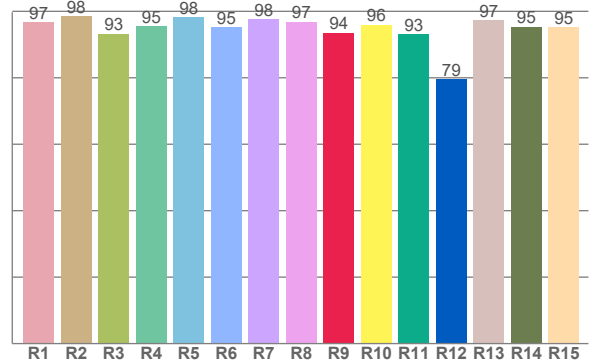




TM30: 93,3



CRI: 96,5 (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
96,6	98,5	93,2	95,4	98,2	95,1	97,6	96,9	93,5	96,0	93,0	79,5	97,3	95,4	95,2

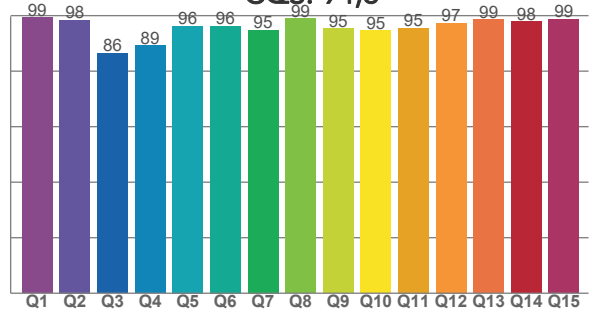
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96,3	97,3	94,2	94,3	92,8	94,7	96,7	95,2	95,2	92,1	86,6	89,5	93,9	93,1	91,2	90,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,3	98,4	86,4	89,3	96,3	96,2	94,8	98,9	95,4	94,6	95,5	97,3	98,6	97,9	98,7

CQS: 94,6



COLOR PARAMETERS

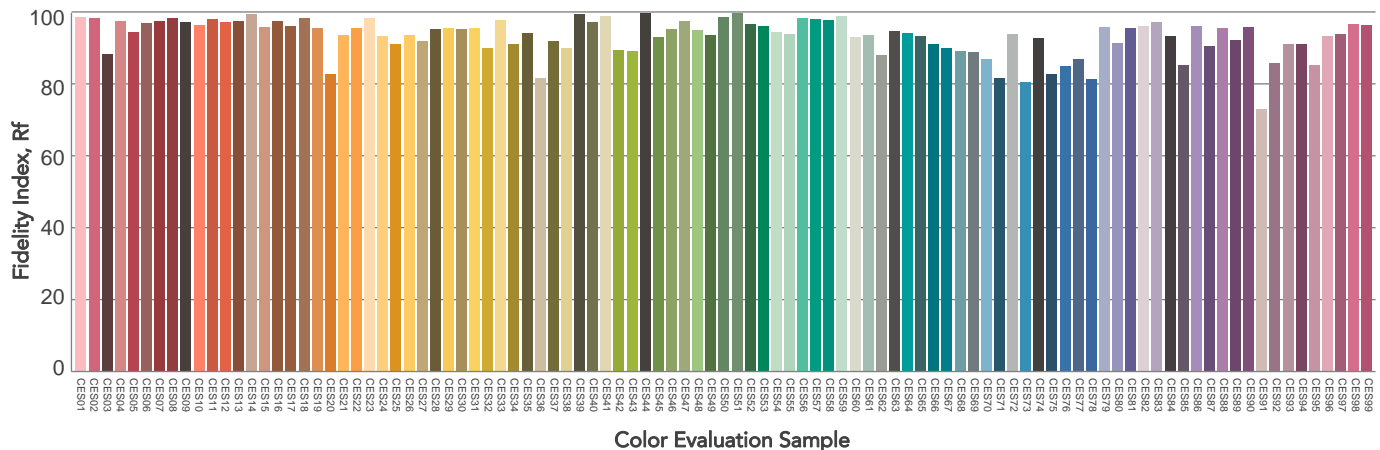
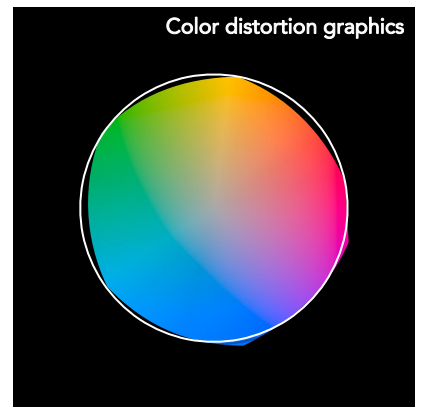
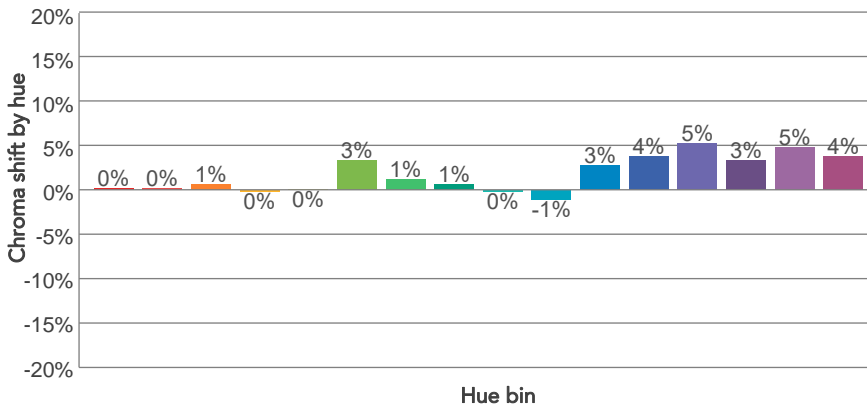
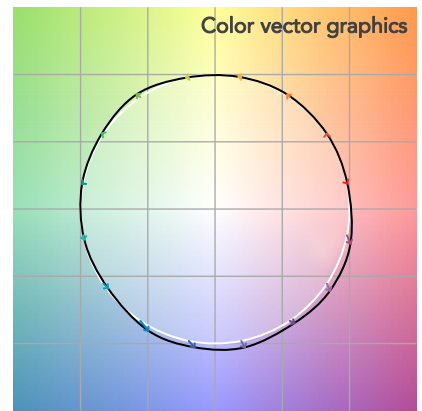
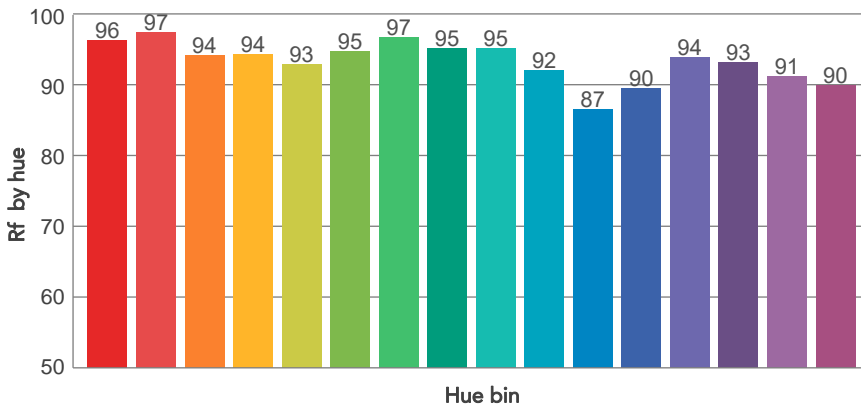
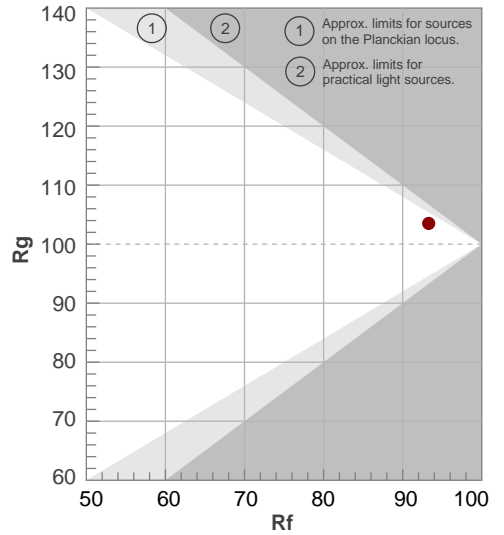
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4018 K	96,5	93,5	93,3	103,5	94,6	96	0,380	0,376	-0,0052

TM30 DETAILS

Rf 93,3
Fidelity index Rf

Rg 103,5
Gammut index

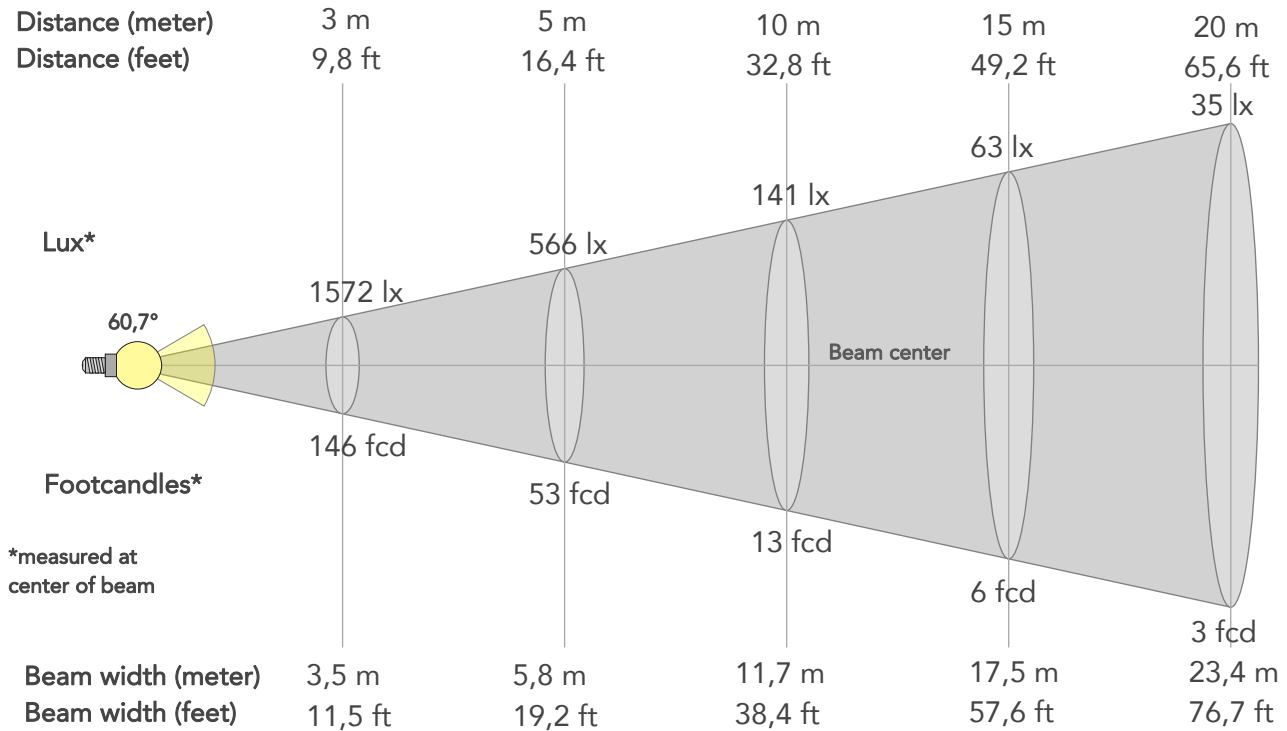
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	0%	0%
2	97	0%	0%
3	94	1%	3%
4	94	0%	2%
5	93	0%	2%
6	95	3%	1%
7	97	1%	0%
8	95	1%	1%
9	95	0%	3%
10	92	-1%	5%
11	87	3%	9%
12	90	4%	5%
13	94	5%	2%
14	93	3%	2%
15	91	5%	-3%
16	90	4%	-5%



BEAM DETAILS



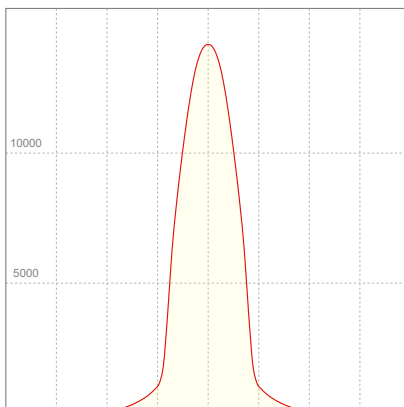
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
60,7°	84,1°	132,6°	95,4%	88,6%



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	14148lx	3537lx	1572lx	884lx	566lx	252lx	141lx	63lx	35lx	23lx	16lx	9lx	6lx
Footcand.	1314fcd	329fcd	146fcd	82fcd	53fcd	23fcd	13fcd	6fcd	3fcd	2fcd	1fcd	1fcd	1fcd
Beam wid.	1,2m	2,3m	3,5m	4,7m	5,8m	8,8m	11,7m	17,5m	23,4m	29,2m	35,1m	46,8m	58,5m
Beam wid.	3,9ft	7,7ft	11,5ft	15,3ft	19,2ft	28,8ft	38,4ft	57,6ft	76,7ft	95,9ft	115,1ft	153,5ft	191,9ft

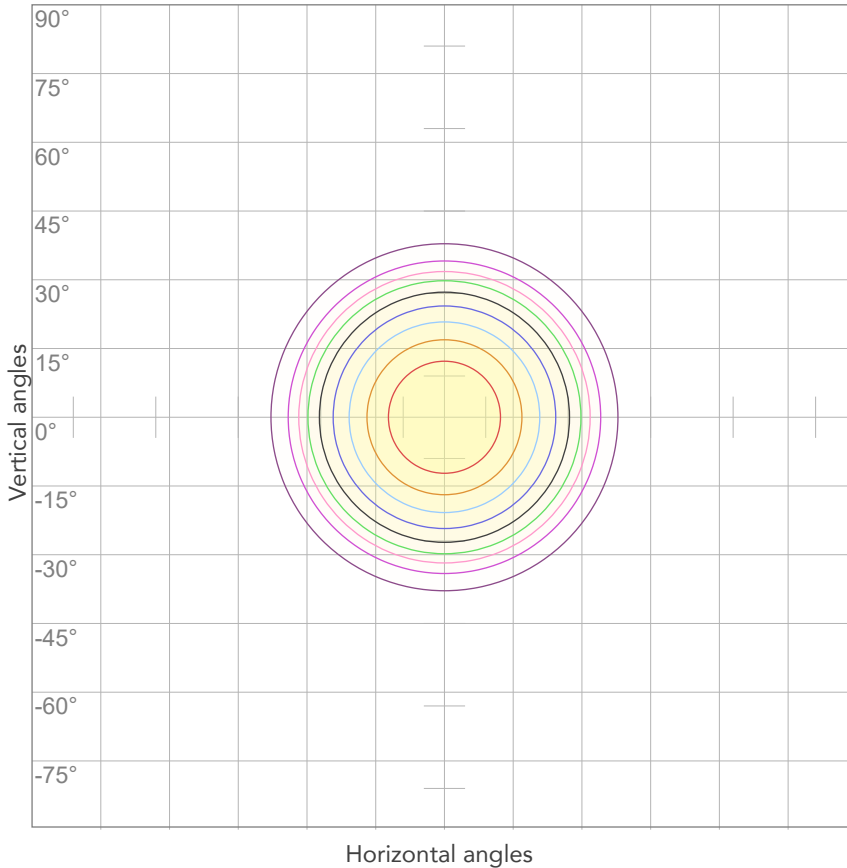
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,810A	176,9W	78lm/W

ISO CANDELA DIAGRAM



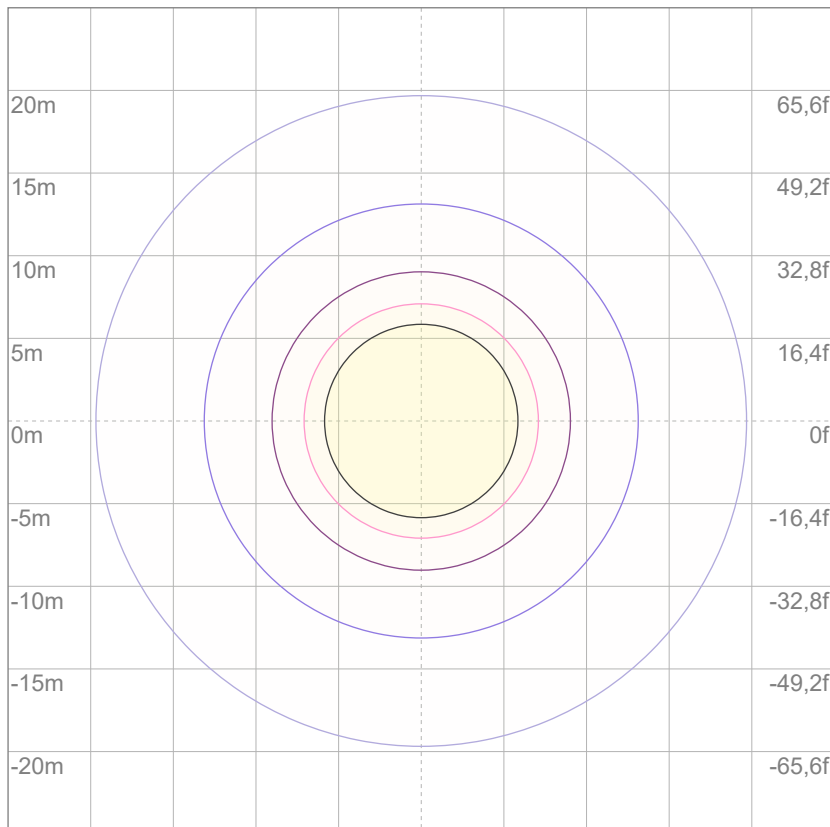
10%	1415 cd
20%	2830 cd
30%	4244 cd
40%	5659 cd
50%	7074 cd
60%	8489 cd
70%	9903 cd
80%	11318 cd

Conditions:

Number of c-planes: 2

Candela at center: 14148 cd

ISO LUX DIAGRAM



3%	4,24 lx
5%	7,07 lx
10%	14,1 lx
30%	42,4 lx
50%	70,7 lx

Conditions:

Number of c-planes: 2

Lux at center: 141 lx

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

Mounting height: 10 meters (33 feet)