

Photometric Test Report



ECLCTPLUS IP PRL10

Waterproofed high quality six colours LED ellipsoidal, Tunable White and colour mixing

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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:

4790 lm

Peak candela output:

216566 cd

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL10

Target:

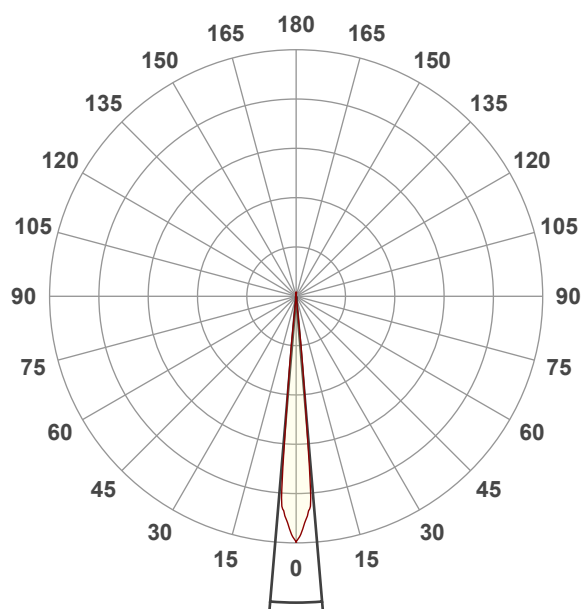
Full On HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 14:43:27

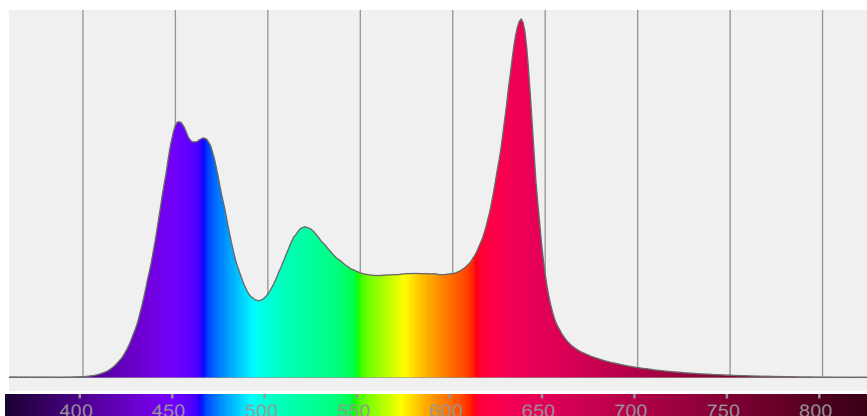


Beam angle 50%: 9,7°

Field angle 10%: 12°

Cut off angle 2.5%: 12,6°

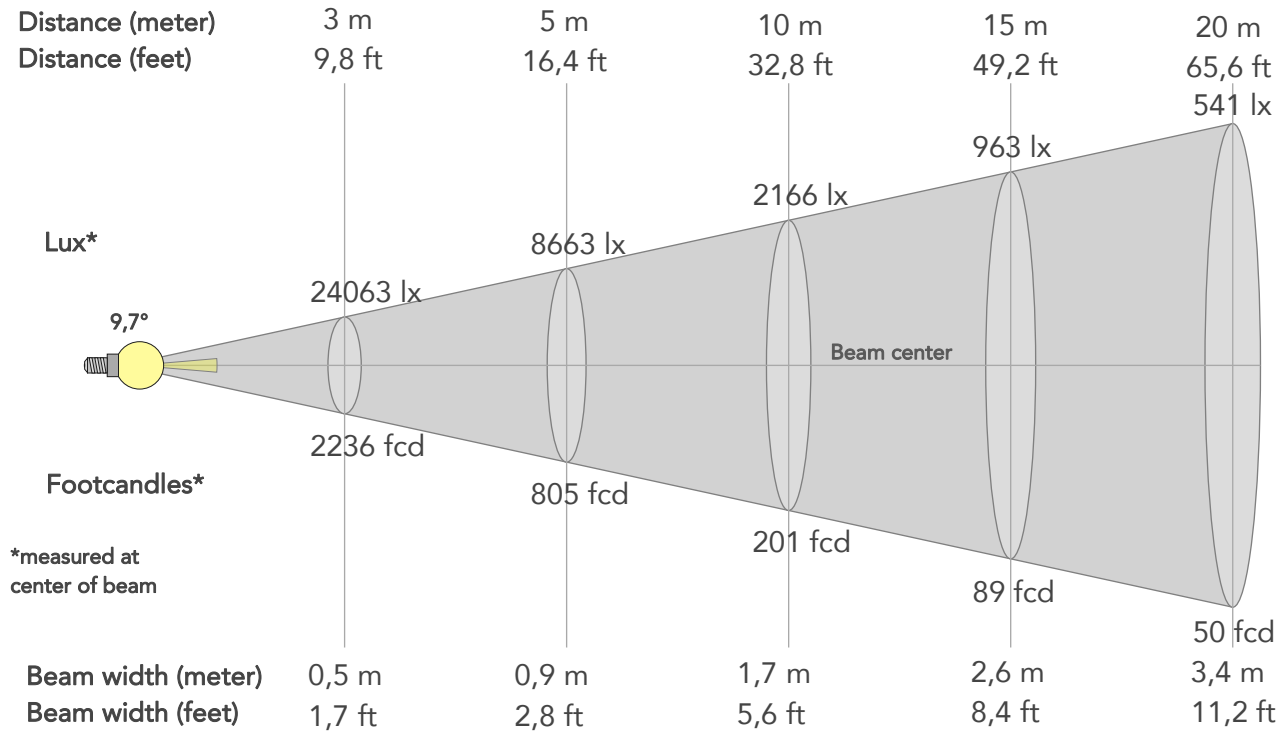
Spectra



BEAM DETAILS



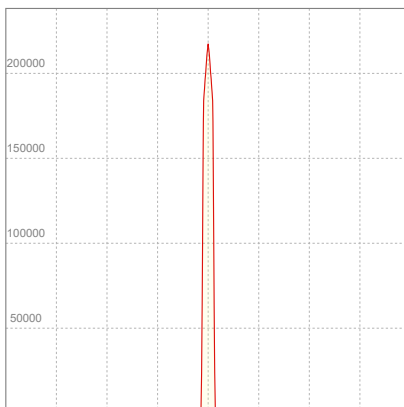
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,7°	12°	12,6°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	21656lx	54141lx	24063lx	13535lx	8663lx	3850lx	2166lx	963lx	541lx	347lx	241lx	135lx	87lx
Footcand.	20120fcd	5030fcd	2236fcd	1257fcd	805fcd	358fcd	201fcd	89fcd	50fcd	32fcd	22fcd	13fcd	8fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,9m	1,3m	1,7m	2,6m	3,4m	4,3m	5,1m	6,8m	8,5m
Beam wid.	0,6ft	1,1ft	1,7ft	2,2ft	2,8ft	4,2ft	5,6ft	8,4ft	11,2ft	13,9ft	16,7ft	22,3ft	27,9ft

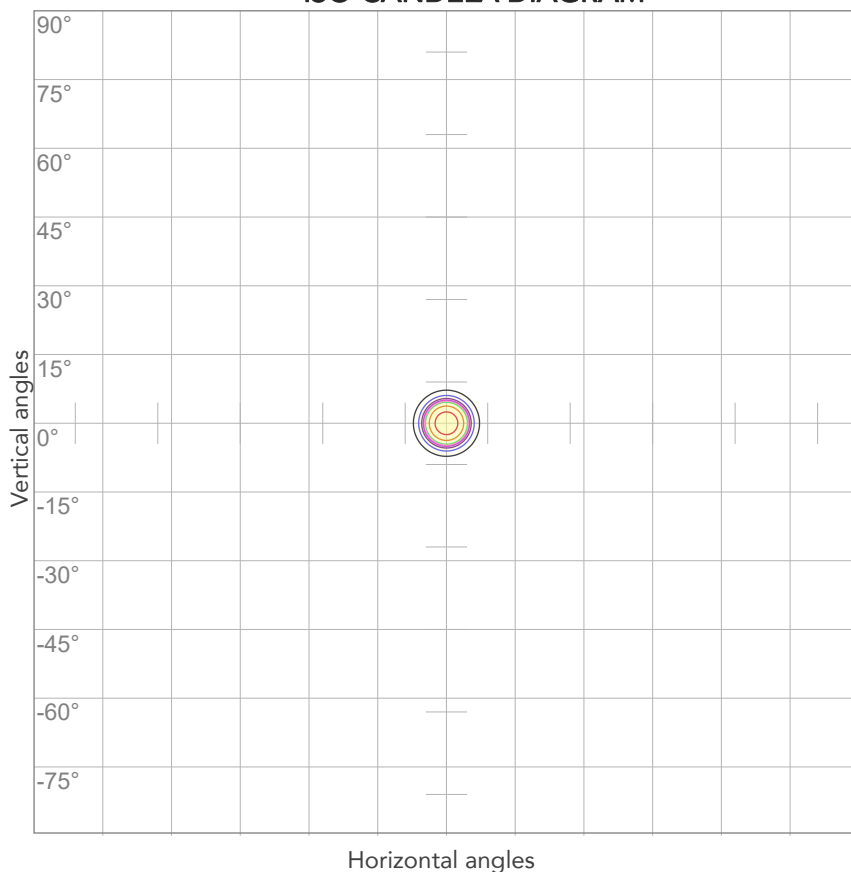
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	1,26A	268,4W	18lm/W
Power FC			
0,96			

ISO CANDELA DIAGRAM



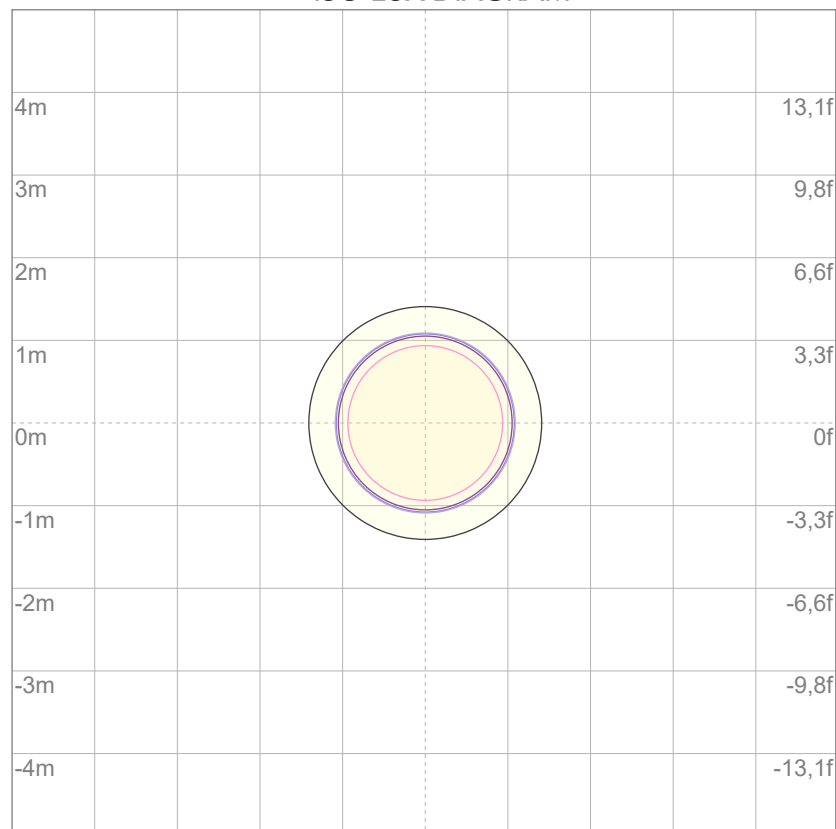
10%	21657 cd
20%	43313 cd
30%	64970 cd
40%	86626 cd
50%	108283 cd
60%	129940 cd
70%	151596 cd
80%	173253 cd

Conditions:

Number of c-planes: 2

Candela at center: 216566 cd

ISO LUX DIAGRAM



3%	65,0 lx
5%	108 lx
10%	217 lx
30%	650 lx
50%	1083 lx

Conditions:

Number of c-planes: 2

Lux at center: 2166 lx

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



Total lumen output:

732 lm

Peak candela output:

30009 cd

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL10

Target:

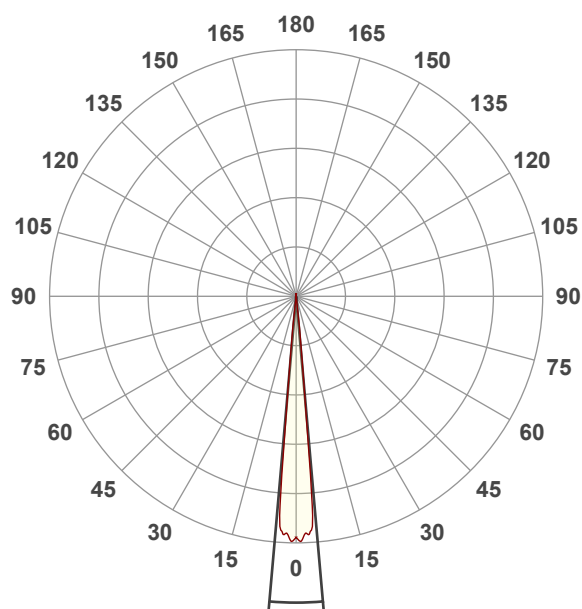
Red HQ

Operator:

Paolo Carvone

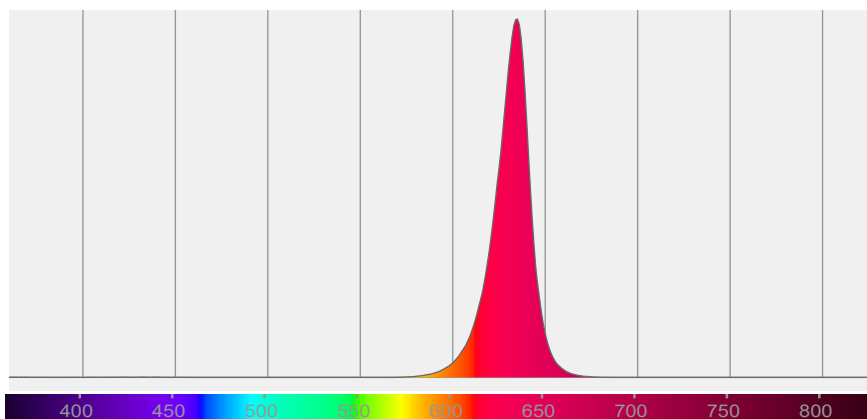
Date and time:

31/08/2020 14:49:10



Beam angle 50%: 10°
Field angle 10%: 12,2°
Cut off angle 2.5%: 13°

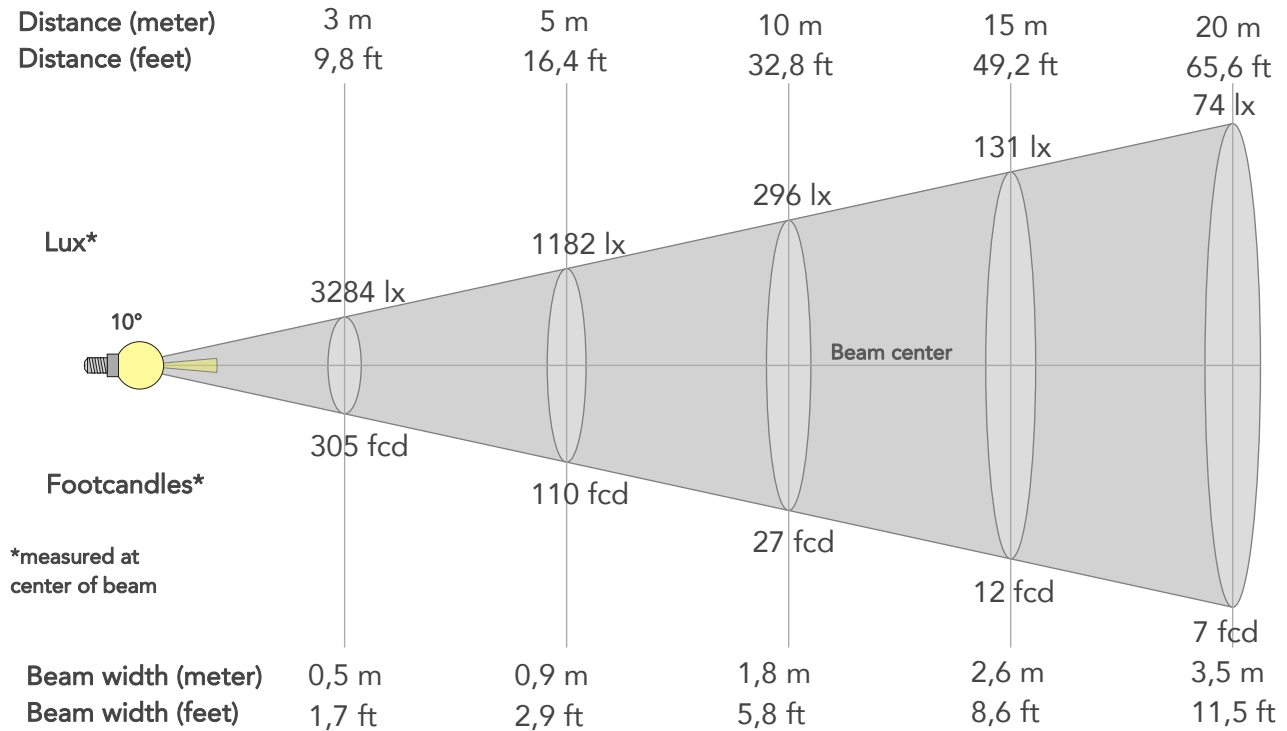
Spectra



BEAM DETAILS



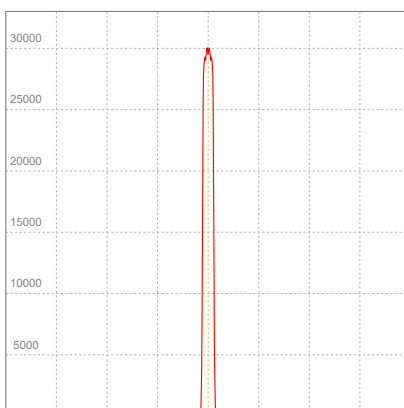
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10°	12,2°	13°	99,9%	99,9%



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	29556lx	7389lx	3284lx	1847lx	1182lx	525lx	296lx	131lx	74lx	47lx	33lx	18lx	12lx
Footcand.	2746fcd	686fcd	305fcd	172fcd	110fcd	49fcd	27fcd	12fcd	7fcd	4fcd	3fcd	2fcd	1fcd
Beam wid.	0,2m	0,4m	0,5m	0,7m	0,9m	1,3m	1,8m	2,6m	3,5m	4,4m	5,3m	7m	8,8m
Beam wid.	0,6ft	1,2ft	1,7ft	2,3ft	2,9ft	4,3ft	5,8ft	8,6ft	11,5ft	14,4ft	17,3ft	23ft	28,8ft

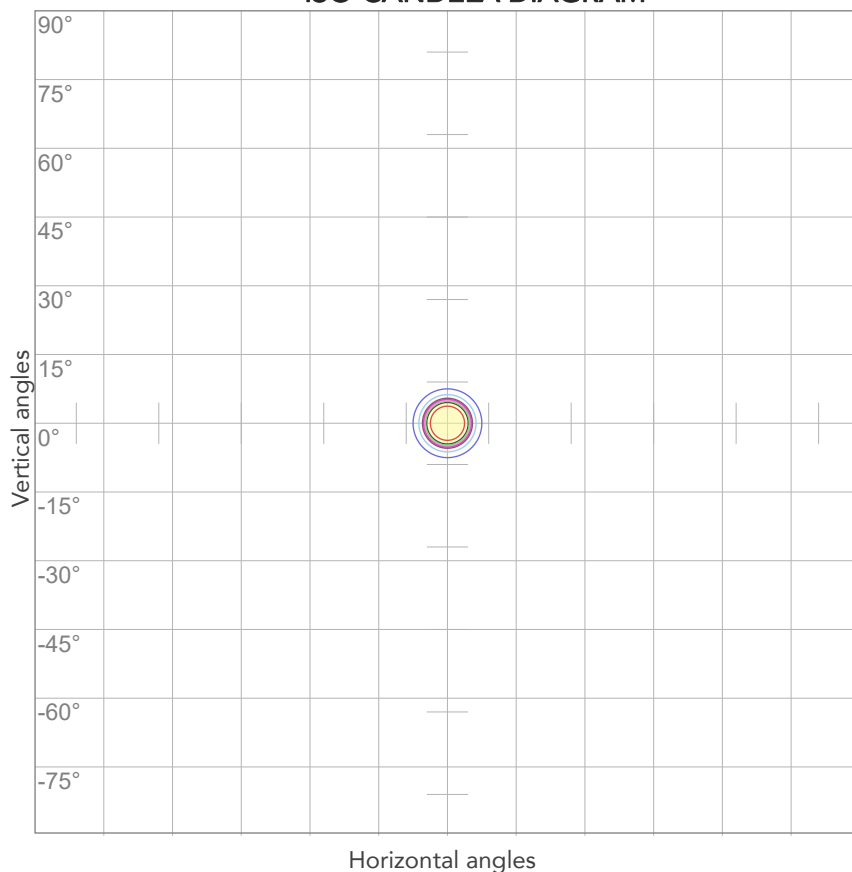
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,309A	49,6W	15lm/W
Power FC			
0,72			

ISO CANDELA DIAGRAM



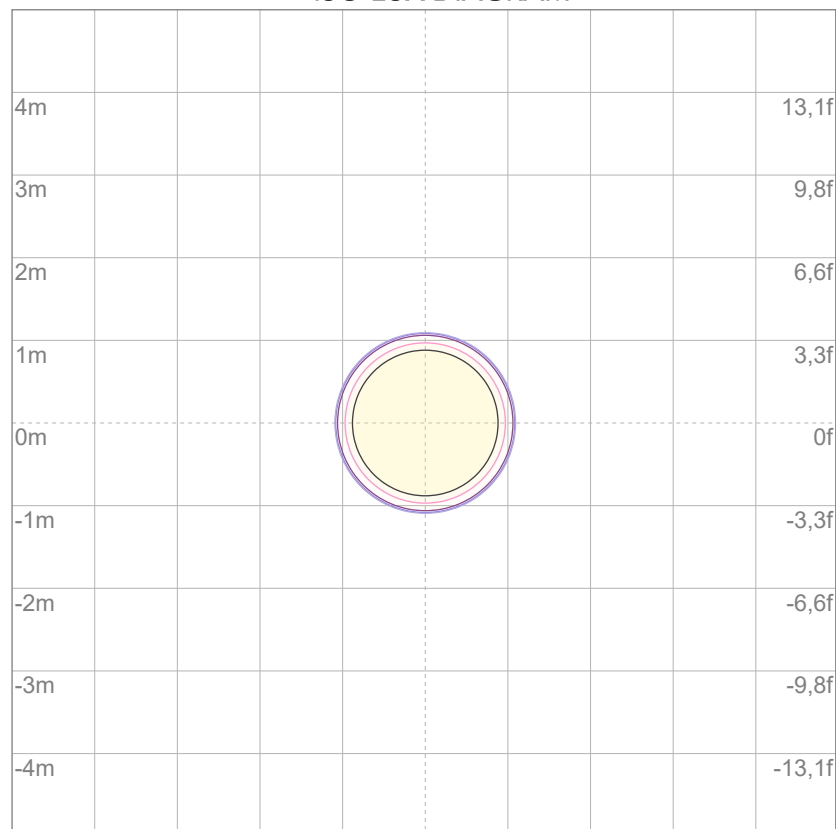
10%	2956 cd
20%	5911 cd
30%	8867 cd
40%	11822 cd
50%	14778 cd
60%	17734 cd
70%	20689 cd
80%	23645 cd

Conditions:

Number of c-planes: 2

Candela at center: 29556 cd

ISO LUX DIAGRAM



3%	8,87 lx
5%	14,8 lx
10%	29,6 lx
30%	88,7 lx
50%	148 lx

Conditions:

Number of c-planes: 2

Lux at center: 296 lx

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



Total lumen output:

837 lm

Peak candela output:

35360 cd

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL10

Target:

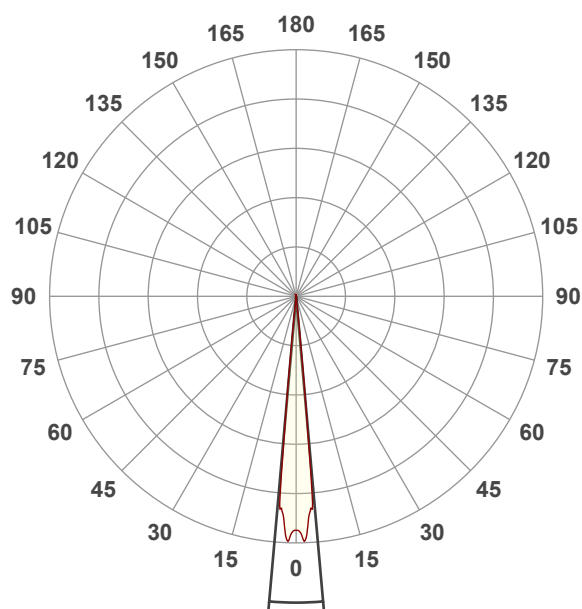
Green HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 14:50:59

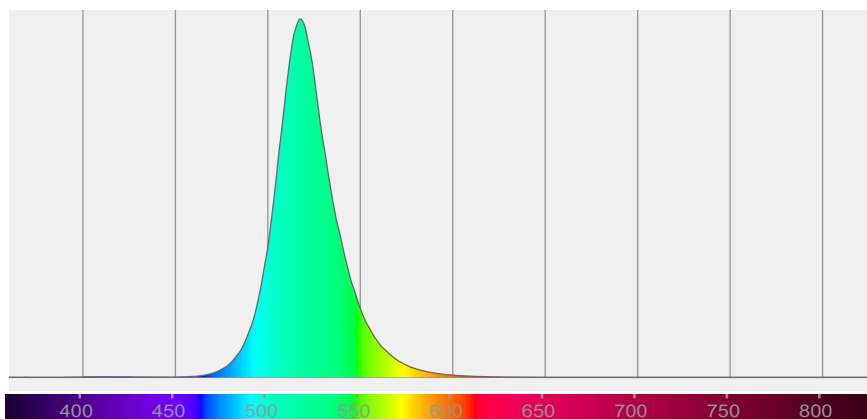


Beam angle 50%: 10,1°

Field angle 10%: 11,6°

Cut off angle 2.5%: 12°

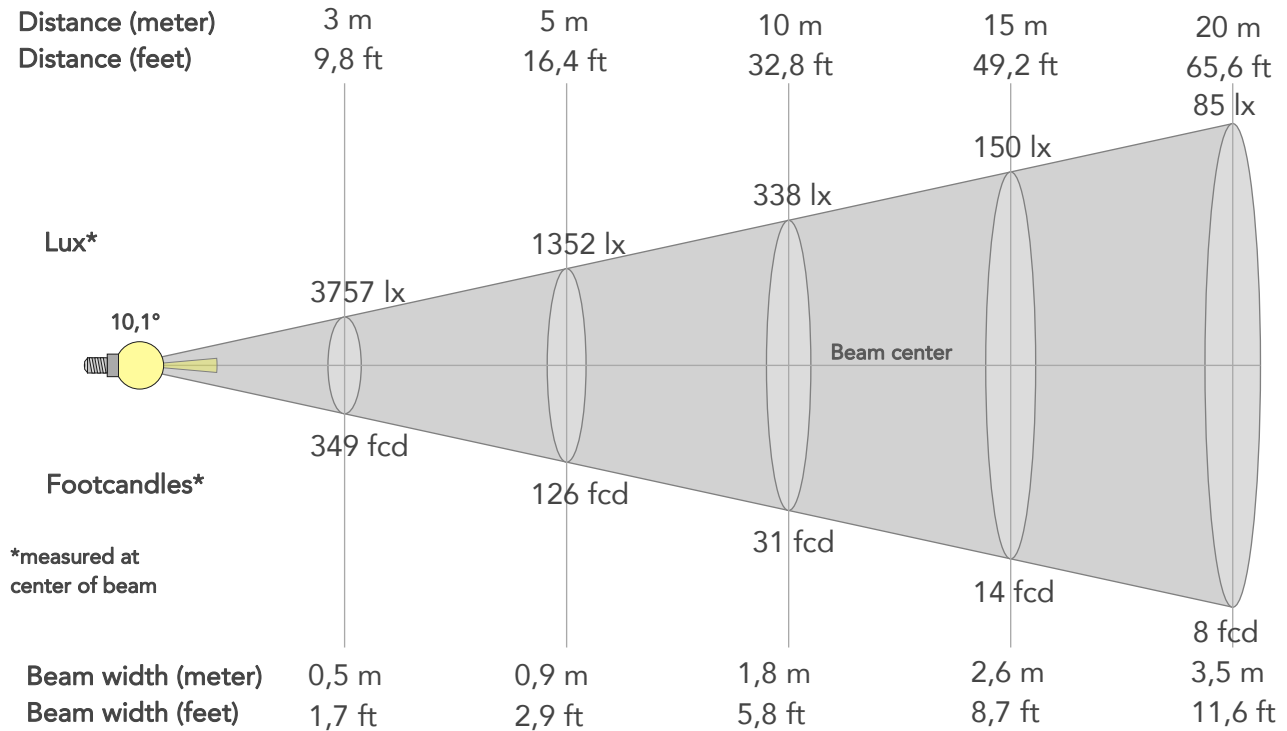
Spectra



BEAM DETAILS



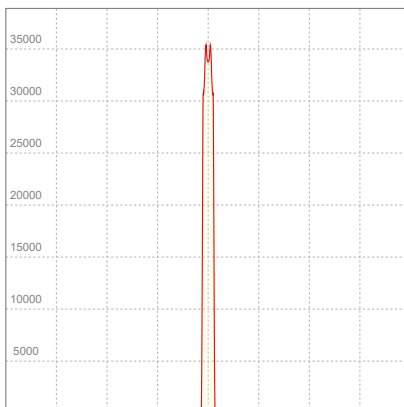
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10,1°	11,6°	12°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	33809lx	8452lx	3757lx	2113lx	1352lx	601lx	338lx	150lx	85lx	54lx	38lx	21lx	14lx
Footcand.	3141fcd	785fcd	349fcd	196fcd	126fcd	56fcd	31fcd	14fcd	8fcd	5fcd	3fcd	2fcd	1fcd
Beam wid.	0,2m	0,4m	0,5m	0,7m	0,9m	1,3m	1,8m	2,6m	3,5m	4,4m	5,3m	7,1m	8,8m
Beam wid.	0,6ft	1,2ft	1,7ft	2,3ft	2,9ft	4,3ft	5,8ft	8,7ft	11,6ft	14,5ft	17,4ft	23,2ft	29ft

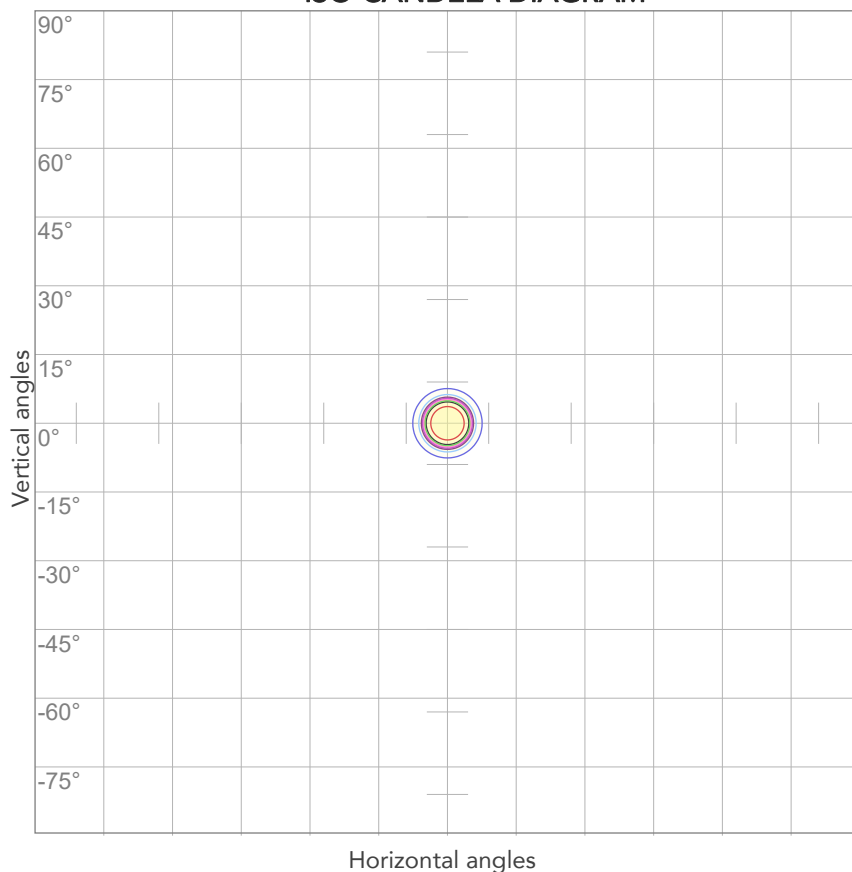
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,300A	47,4W	18lm/W
Power FC			
0,71			

ISO CANDELA DIAGRAM



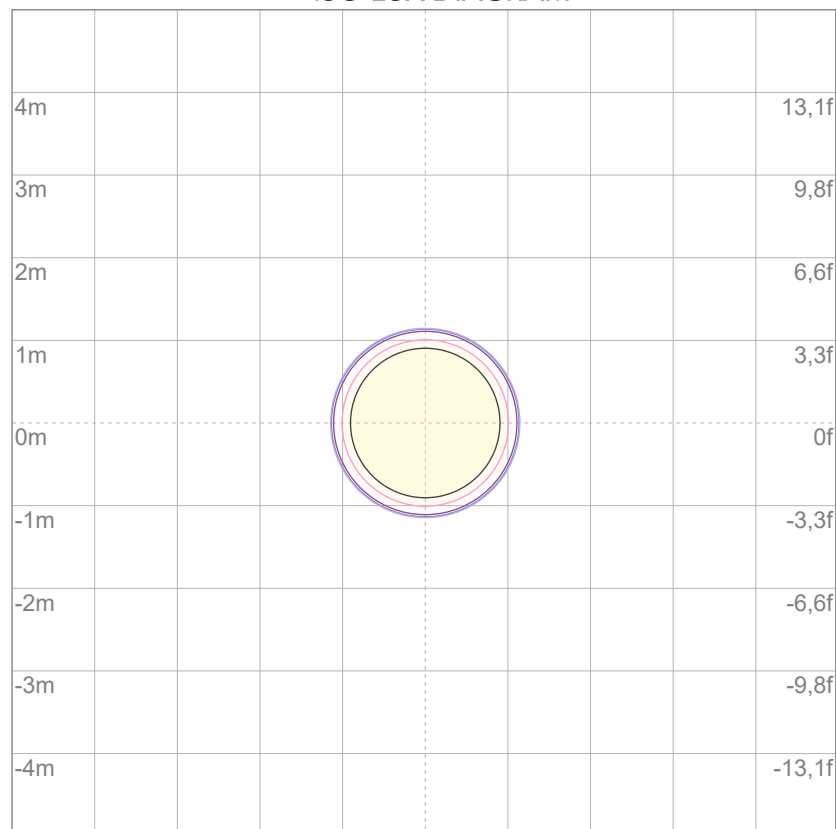
10%	3381 cd
20%	6762 cd
30%	10143 cd
40%	13524 cd
50%	16904 cd
60%	20285 cd
70%	23666 cd
80%	27047 cd

Conditions:

Number of c-planes: 2

Candela at center: 33809 cd

ISO LUX DIAGRAM



3%	10,1 lx
5%	16,9 lx
10%	33,8 lx
30%	101 lx
50%	169 lx

Conditions:

Number of c-planes: 2

Lux at center: 338 lx

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



Total lumen output:

99,1 lm

Peak candela output:

3920 cd

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL10

Target:

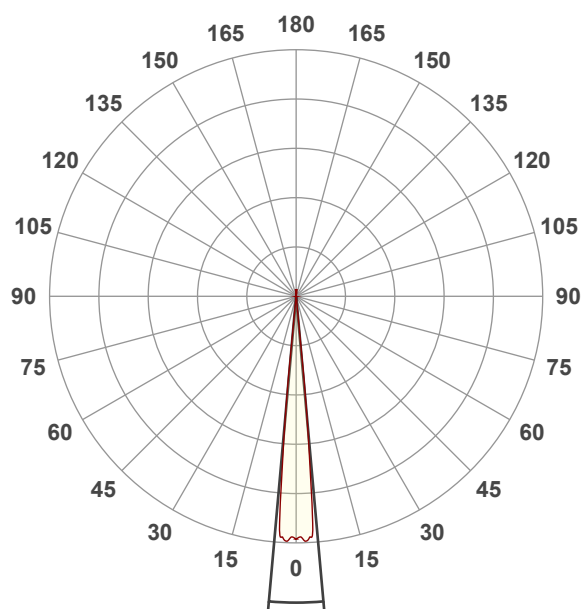
Blue HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 14:54:30

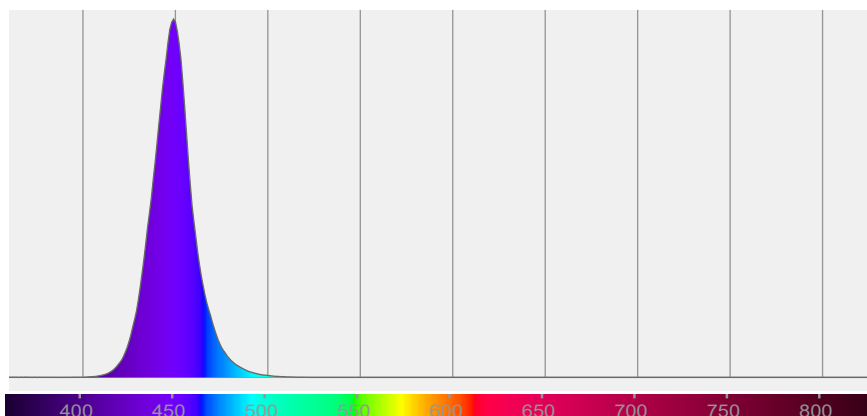


Beam angle 50%: 10,2°

Field angle 10%: 12°

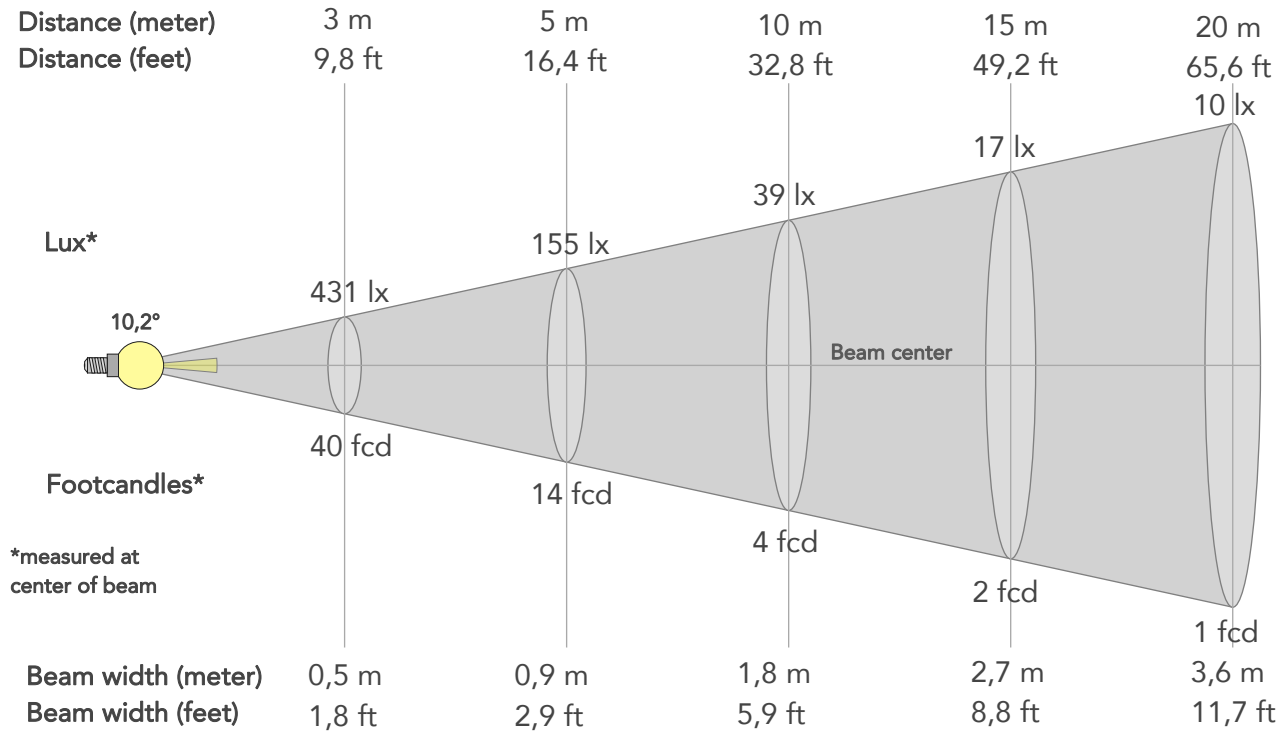
Cut off angle 2.5%: 12,4°

Spectra



BEAM DETAILS

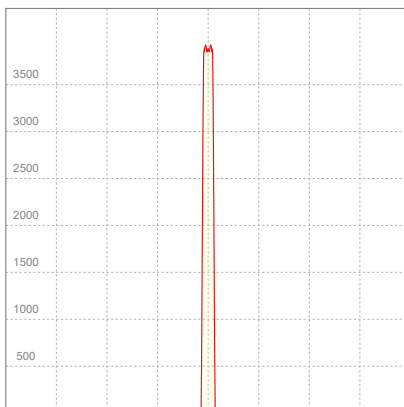
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10,2°	12°	12,4°	99,8%	99,7%



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	3878lx	969lx	431lx	242lx	155lx	69lx	39lx	17lx	10lx	6lx	4lx	2lx	2lx
Footcand.	360fcd	90fcd	40fcd	23fcd	14fcd	6fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,2m	0,4m	0,5m	0,7m	0,9m	1,3m	1,8m	2,7m	3,6m	4,5m	5,4m	7,2m	8,9m
Beam wid.	0,6ft	1,2ft	1,8ft	2,3ft	2,9ft	4,4ft	5,9ft	8,8ft	11,7ft	14,7ft	17,6ft	23,5ft	29,3ft

LINEAR DISTRIBUTION DIAGRAM

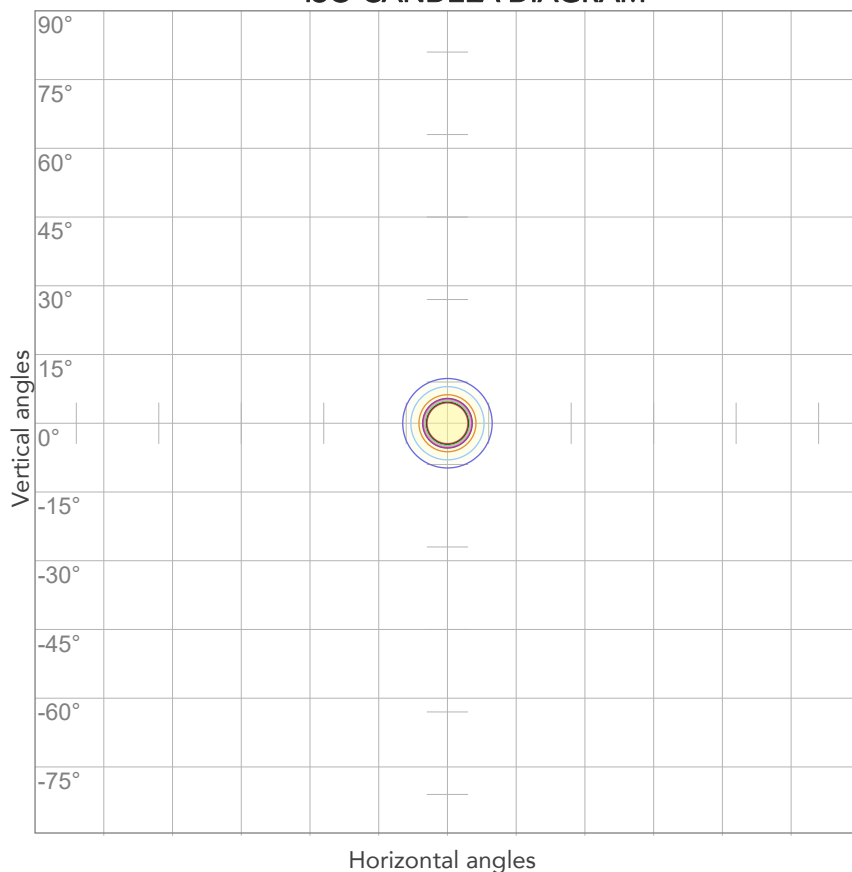


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,236A	32,3W	3lm/W

Power FC
0,61

ISO CANDELA DIAGRAM



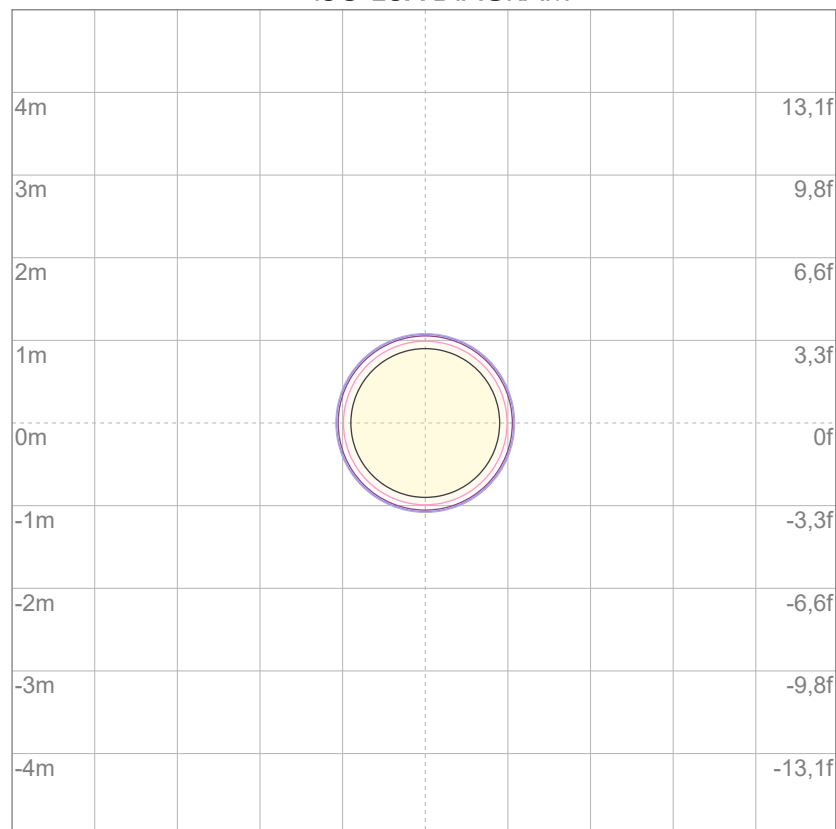
10%	388 cd
20%	776 cd
30%	1163 cd
40%	1551 cd
50%	1939 cd
60%	2327 cd
70%	2715 cd
80%	3102 cd

Conditions:

Number of c-planes: 2

Candela at center: 3878 cd

ISO LUX DIAGRAM



3%	1,16 lx
5%	1,94 lx
10%	3,88 lx
30%	11,6 lx
50%	19,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 38,8 lx

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



Total lumen output:

3802 lm

Peak candela output:

169206 cd

Light quality:

CRI: 92,0

Color temperature:

2748 K

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL10

Target:

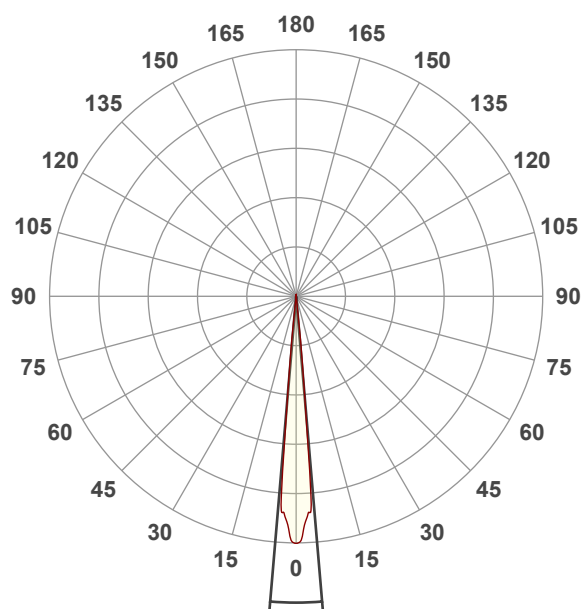
2800K HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 15:21:23

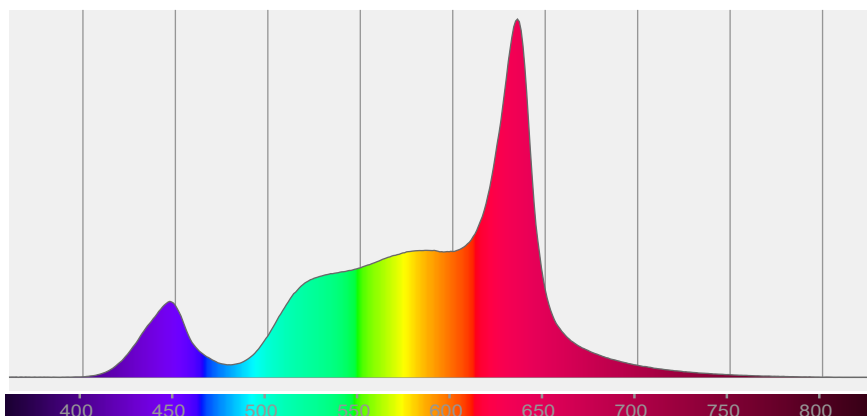


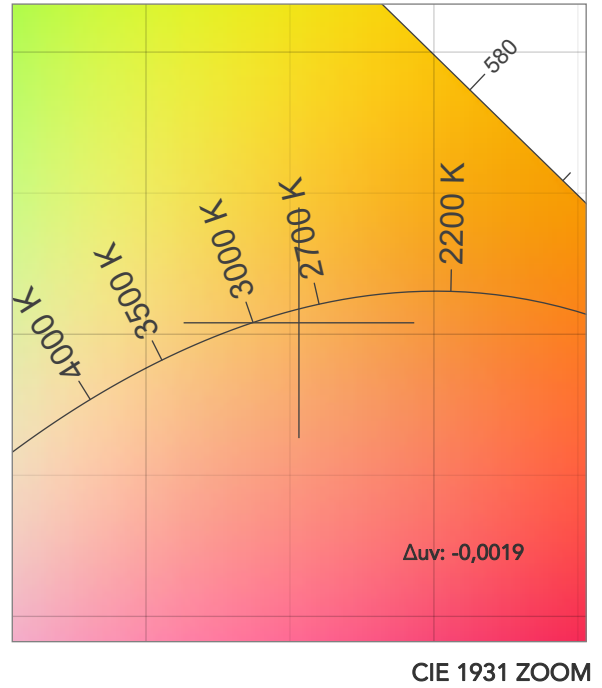
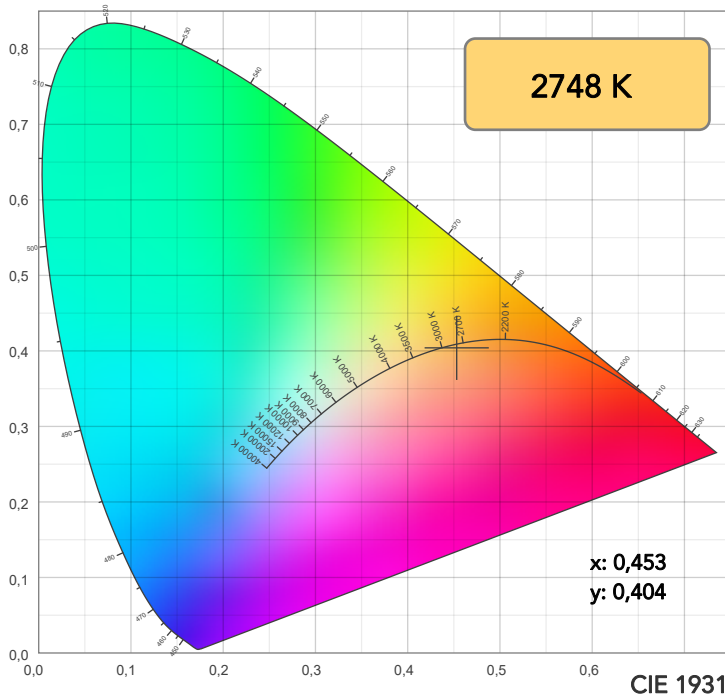
Beam angle 50%: 9,7°

Field angle 10%: 12,1°

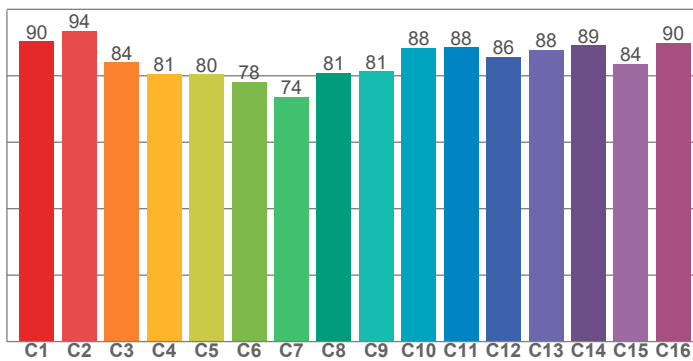
Cut off angle 2.5%: 12,7°

Spectra

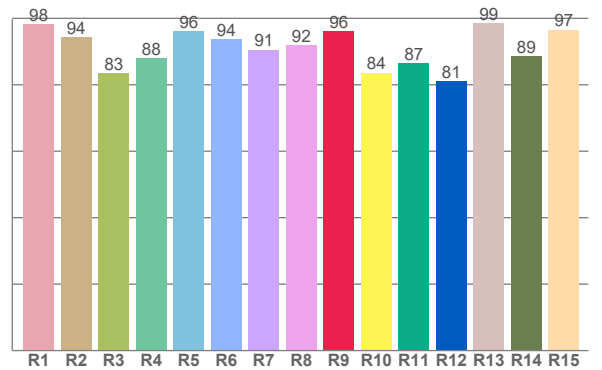




TM30: 85,4



CRI: 92,0 (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
98,2	94,4	83,4	88,0	96,0	93,8	90,6	91,9	96,1	83,7	86,5	81,2	98,6	88,5	96,6

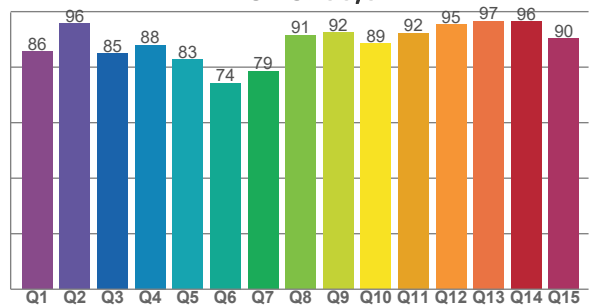
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90,3	93,5	84,1	80,6	80,5	78,1	73,7	80,8	81,4	88,3	88,5	85,7	87,8	89,2	83,7	89,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85,6	95,7	84,9	88,1	82,7	74,3	78,5	91,5	92,4	88,5	92,3	95,3	96,7	96,4	90,3

CQS: 86,8



COLOR PARAMETERS

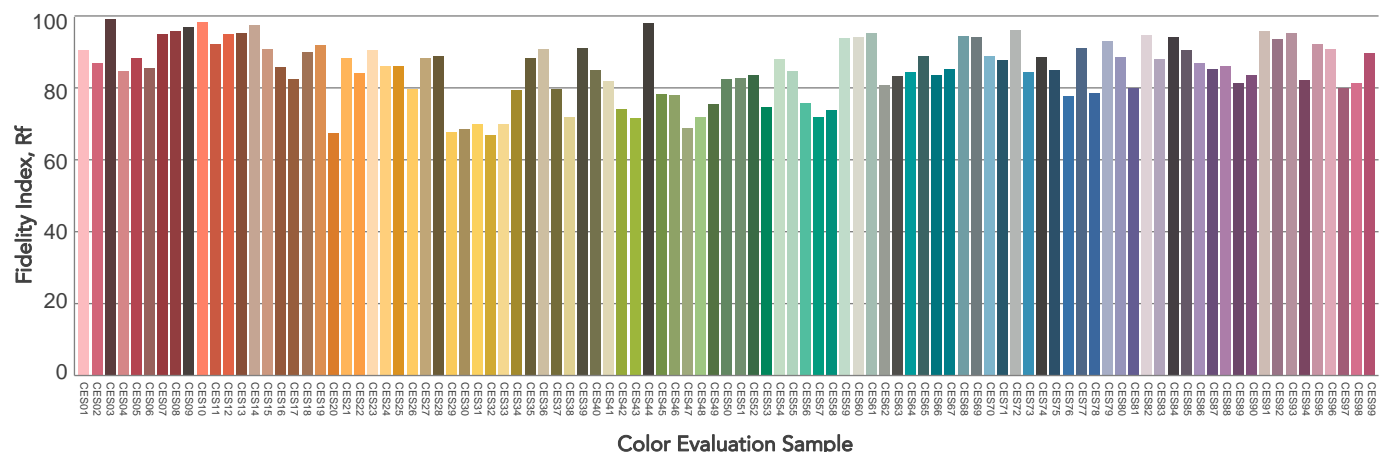
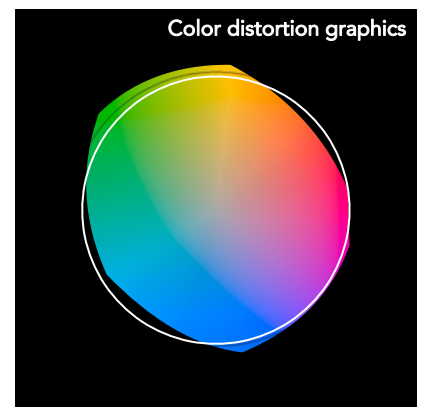
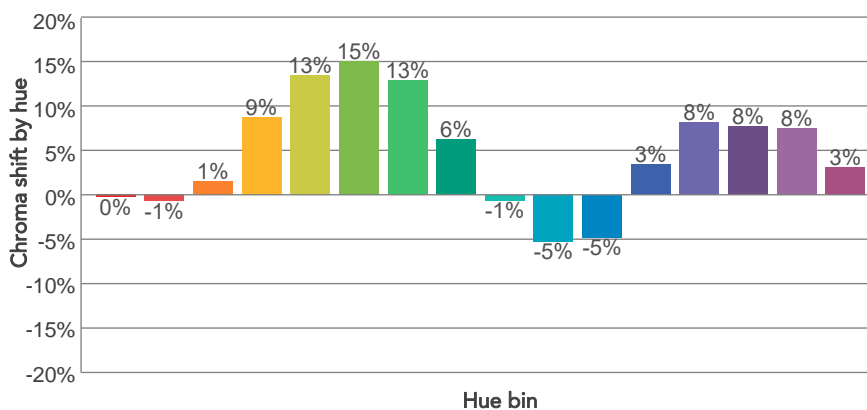
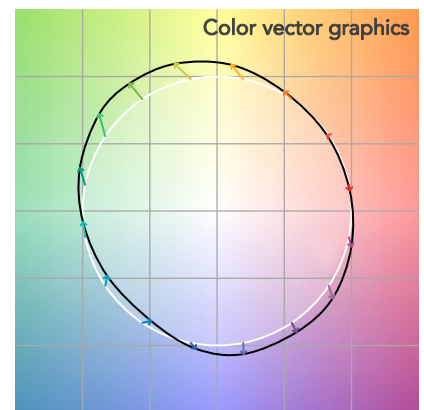
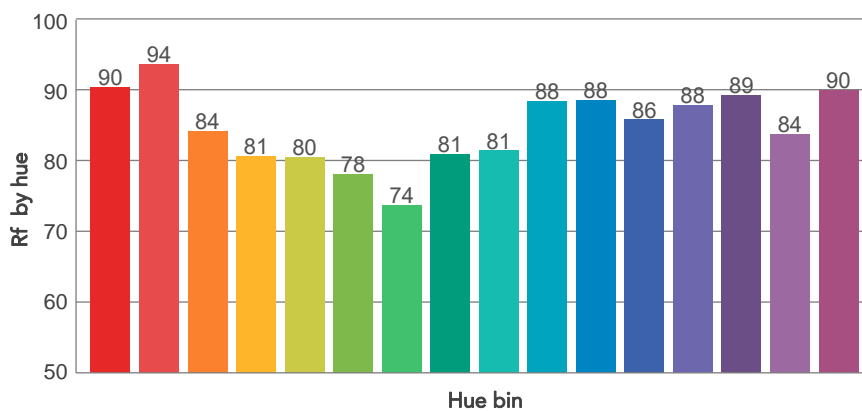
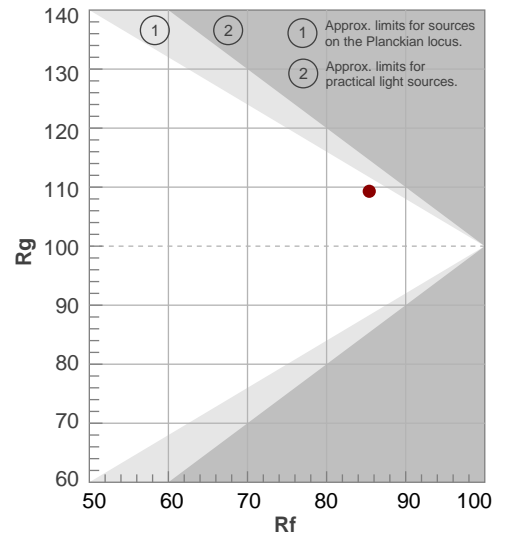
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2748 K	92,0	96,1	85,4	109,3	86,8	66	0,453	0,404	-0,0019

TM30 DETAILS

Rf 85,4
Fidelity index Rf

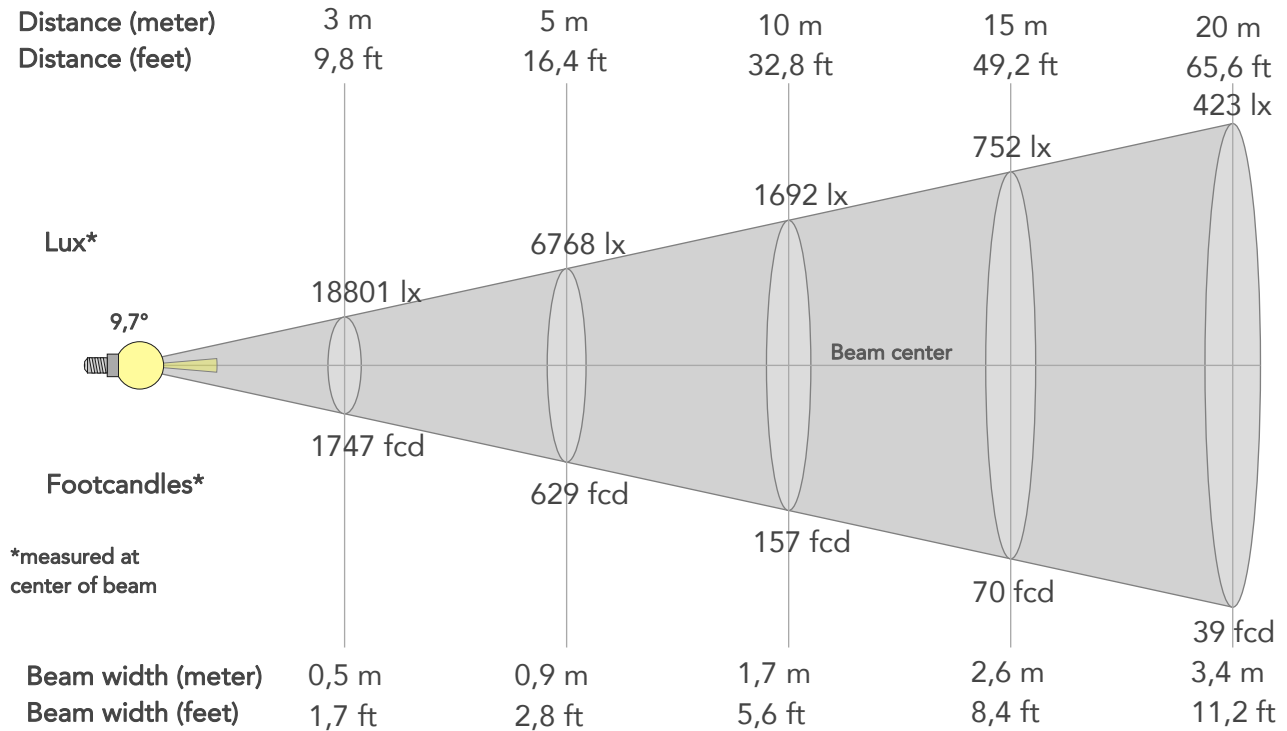
Rg 109,3
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	0%	-4%
2	94	-1%	1%
3	84	1%	8%
4	81	9%	11%
5	80	13%	10%
6	78	15%	1%
7	74	13%	-11%
8	81	6%	-11%
9	81	-1%	-11%
10	88	-5%	-5%
11	88	-5%	5%
12	86	3%	4%
13	88	8%	-1%
14	89	8%	-1%
15	84	8%	-6%
16	90	3%	-6%



BEAM DETAILS

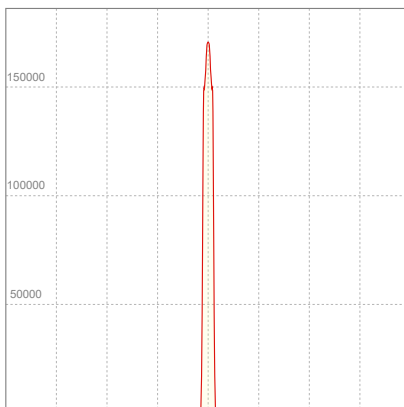
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,7°	12,1°	12,7°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	169206lx	42302lx	18801lx	10575lx	6768lx	3008lx	1692lx	752lx	423lx	271lx	188lx	106lx	68lx
Footcand.	15720fcd	3930fcd	1747fcd	982fcd	629fcd	279fcd	157fcd	70fcd	39fcd	25fcd	17fcd	10fcd	6fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,9m	1,3m	1,7m	2,6m	3,4m	4,3m	5,1m	6,8m	8,5m
Beam wid.	0,6ft	1,1ft	1,7ft	2,2ft	2,8ft	4,2ft	5,6ft	8,4ft	11,2ft	14ft	16,7ft	22,3ft	27,9ft

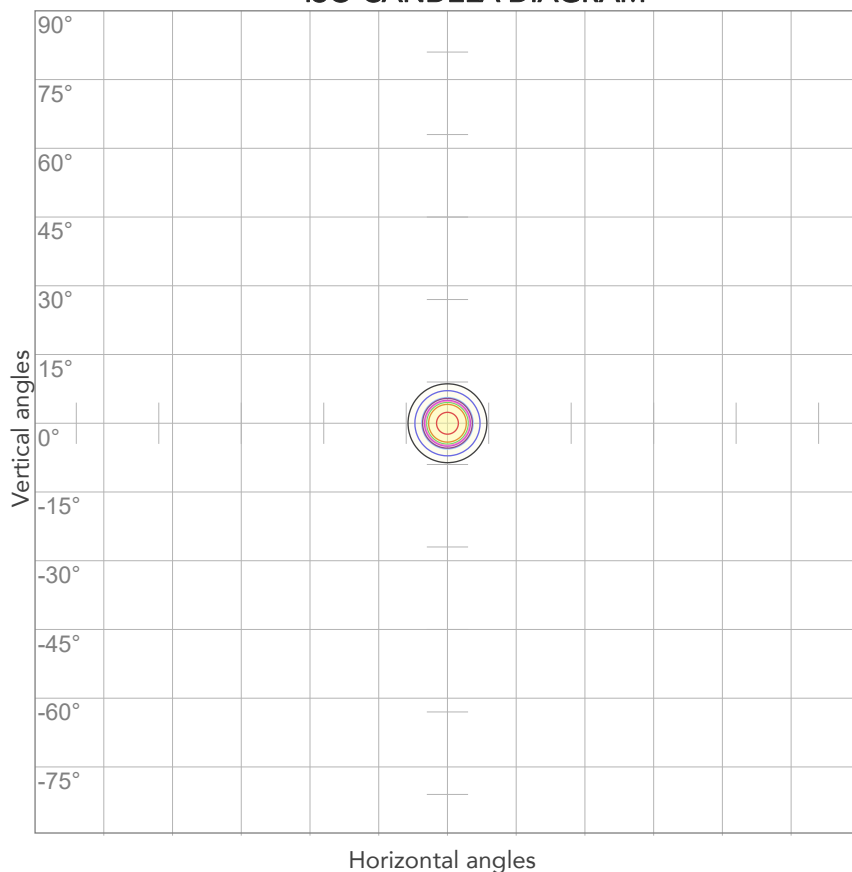
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,815A	168W	23lm/W

ISO CANDELA DIAGRAM



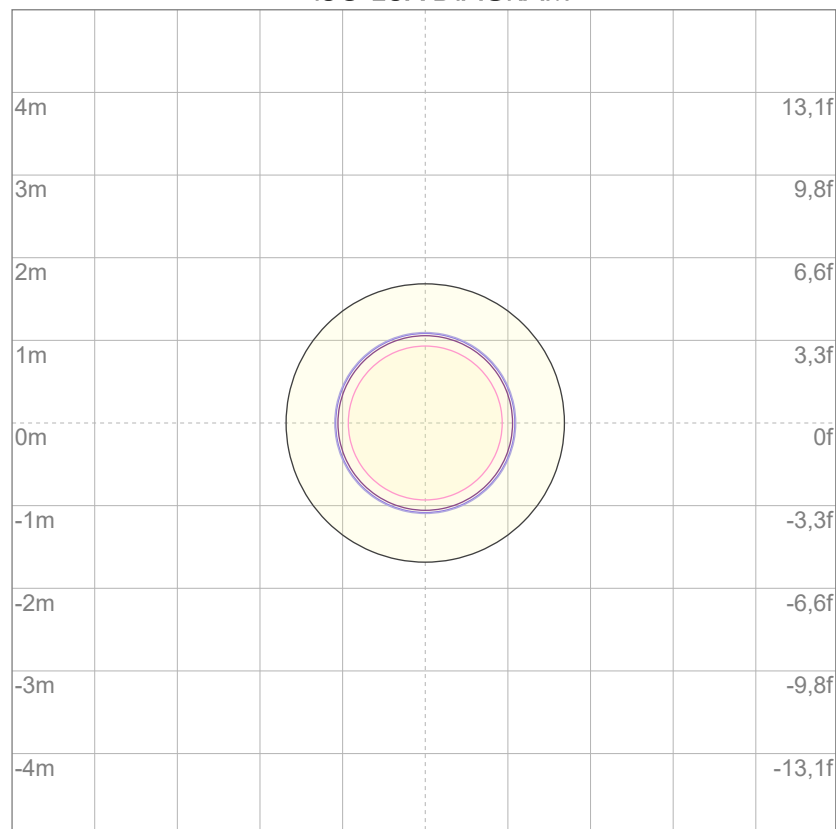
10%	16921 cd
20%	33841 cd
30%	50762 cd
40%	67682 cd
50%	84603 cd
60%	101524 cd
70%	118444 cd
80%	135365 cd

Conditions:

Number of c-planes: 2

Candela at center: 169206 cd

ISO LUX DIAGRAM



3%	50,8 lx
5%	84,6 lx
10%	169 lx
30%	508 lx
50%	846 lx

Conditions:

Number of c-planes: 2

Lux at center: 1692 lx

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



Total lumen output:

3897 lm

Peak candela output:

178192 cd

Light quality:

CRI: 92,8

Color temperature:

3172 K

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL10

Target:

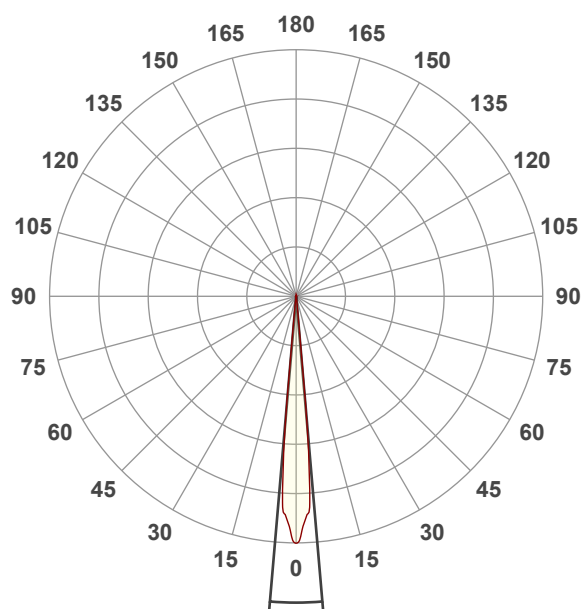
3200K HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 15:23:14

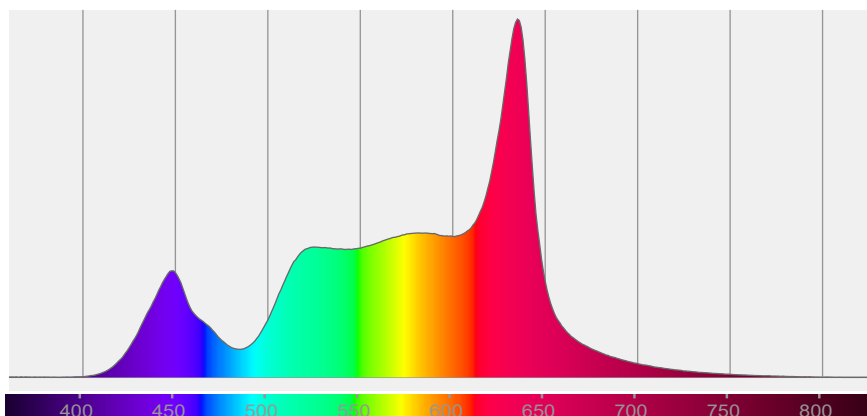


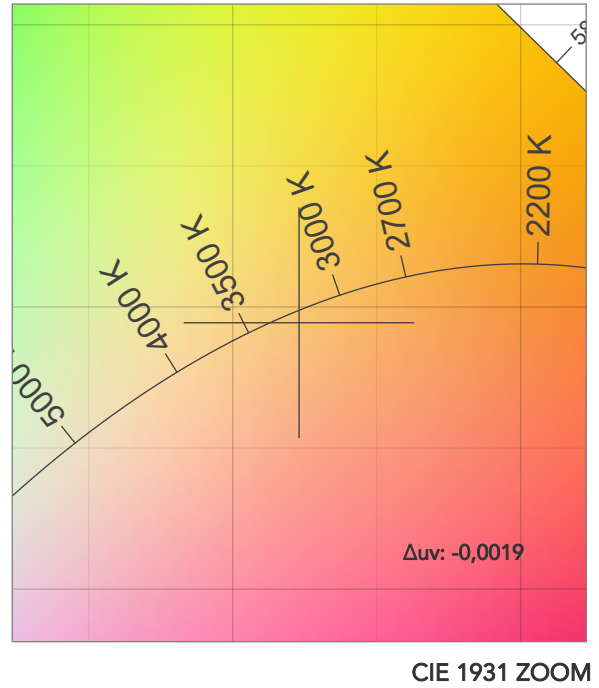
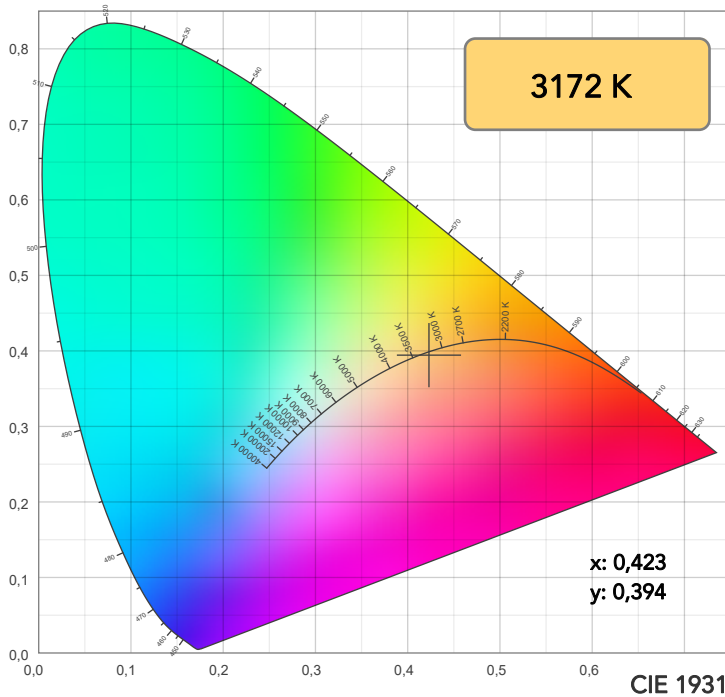
Beam angle 50%: 9,8°

Field angle 10%: 11,6°

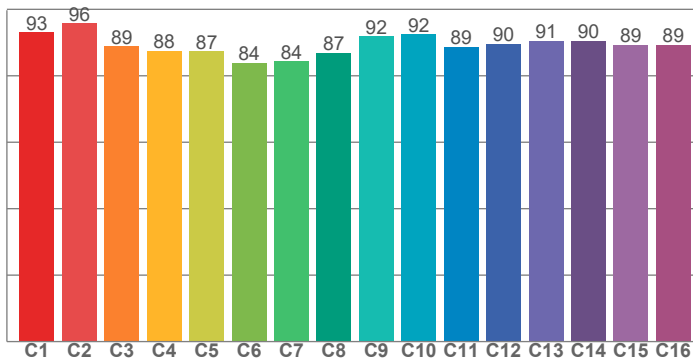
Cut off angle 2.5%: 13,2°

Spectra

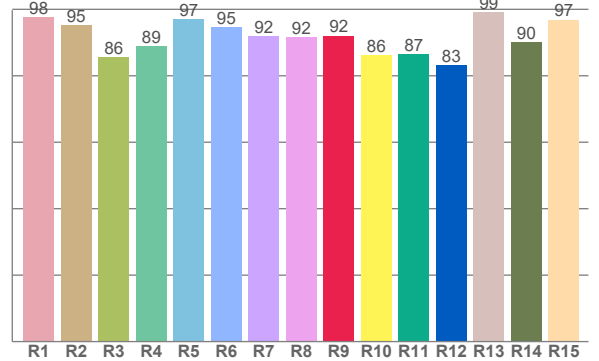




TM30: 89,7



CRI: 92,8 (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
97,6	95,2	85,5	89,0	97,1	94,6	91,8	91,6	92,1	86,3	86,6	83,3	99,2	90,1	96,9

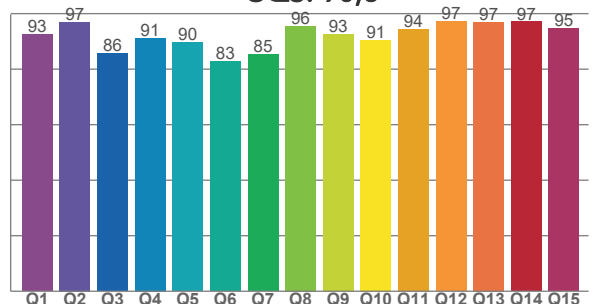
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,1	95,8	88,8	87,5	87,3	83,8	84,3	86,9	91,8	92,4	88,6	89,5	90,5	90,4	89,4	89,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92,5	97,0	85,7	91,2	89,7	82,8	85,3	95,5	92,6	90,6	94,5	97,2	97,0	97,1	94,7

CQS: 90,8



COLOR PARAMETERS

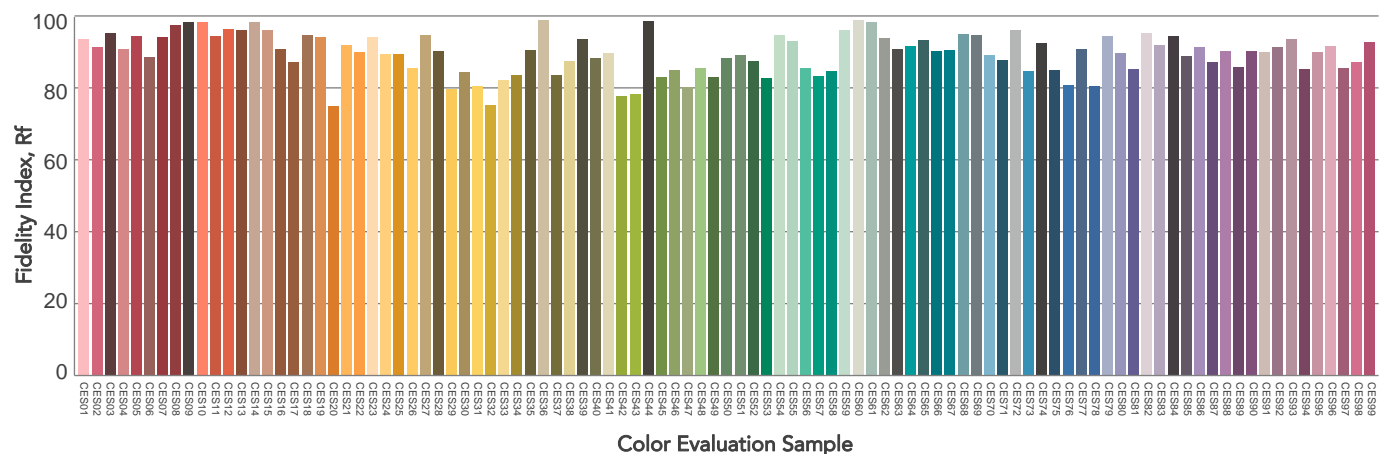
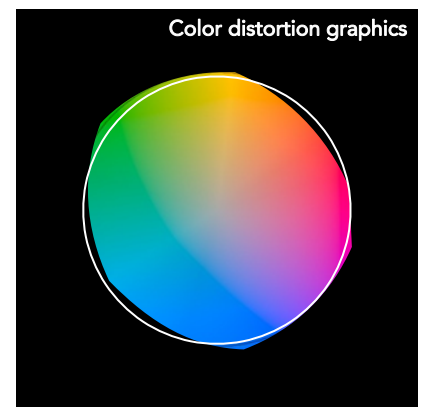
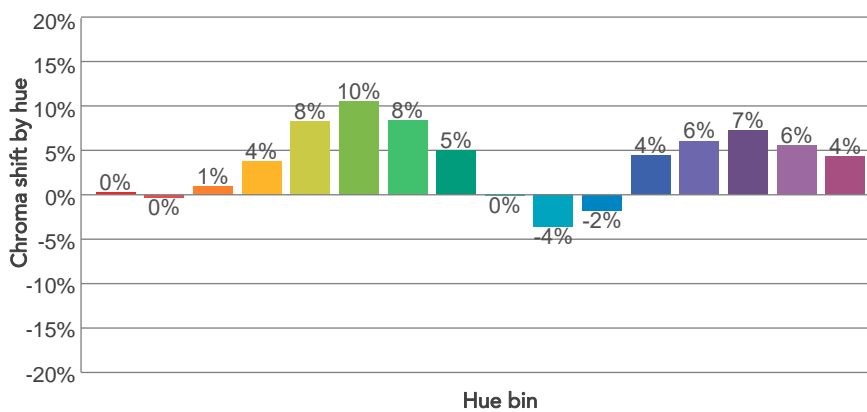
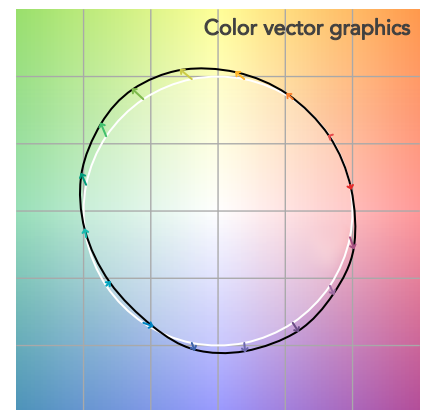
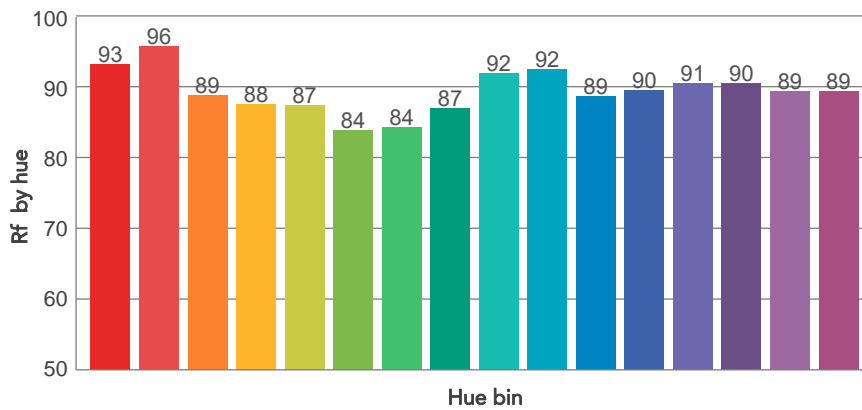
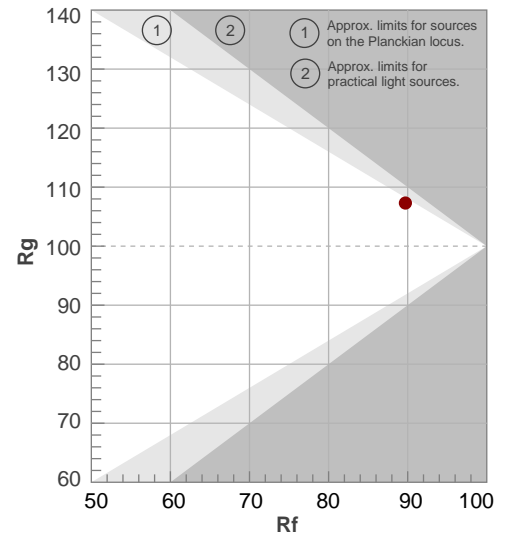
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3172 K	92,8	92,1	89,7	107,3	90,8	81	0,423	0,394	-0,0019

TM30 DETAILS

Rf 89,7
Fidelity index Rf

Rg 107,3
Gammut index

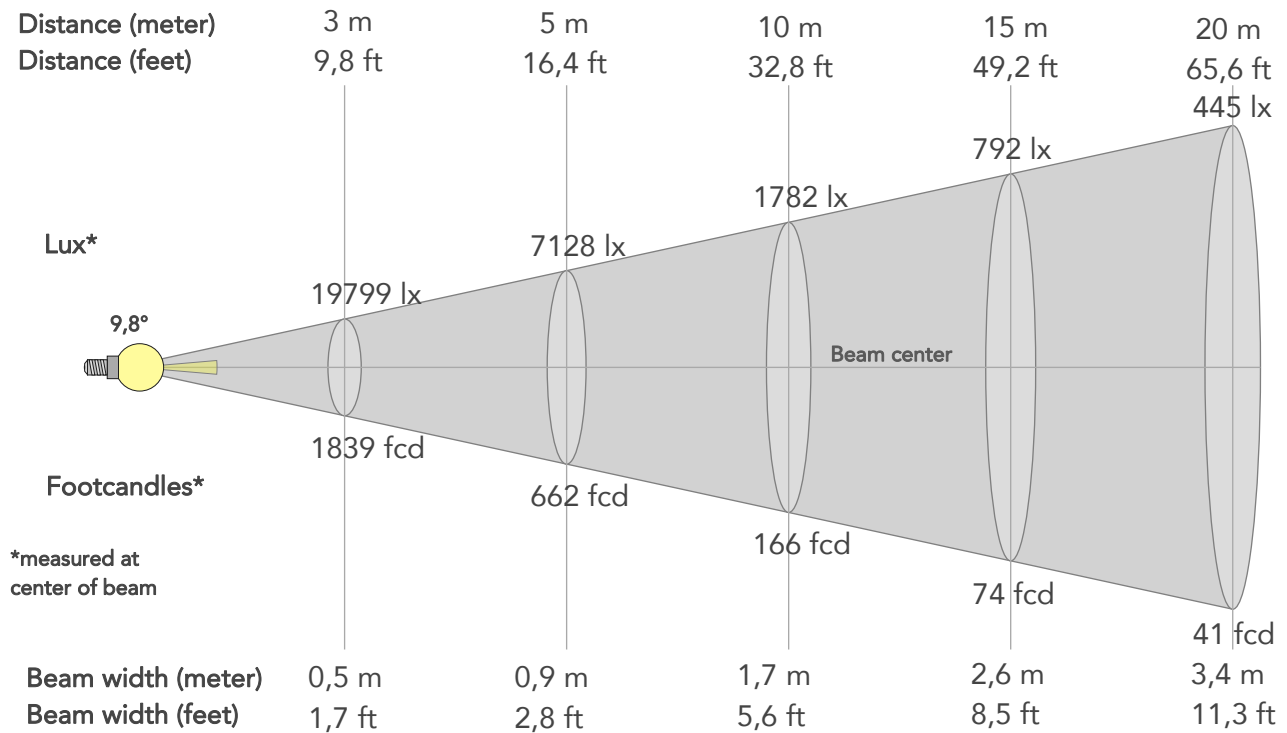
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	0%	-3%
2	96	0%	1%
3	89	1%	5%
4	88	4%	7%
5	87	8%	7%
6	84	10%	2%
7	84	8%	-6%
8	87	5%	-7%
9	92	0%	-6%
10	92	-4%	-1%
11	89	-2%	7%
12	90	4%	3%
13	91	6%	-1%
14	90	7%	0%
15	89	6%	-3%
16	89	4%	-7%



BEAM DETAILS



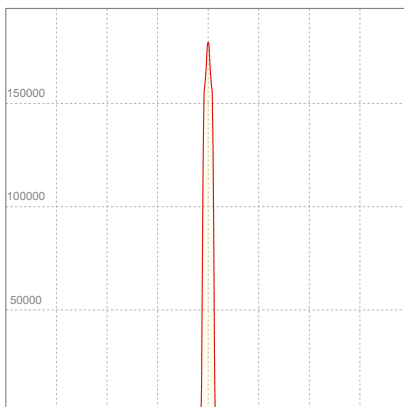
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,8°	11,6°	13,2°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	178192lx	44548lx	19799lx	11137lx	7128lx	3168lx	1782lx	792lx	445lx	285lx	198lx	111lx	71lx
Footcand.	16555fcd	4139fcd	1839fcd	1035fcd	662fcd	294fcd	166fcd	74fcd	41fcd	26fcd	18fcd	10fcd	7fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,9m	1,3m	1,7m	2,6m	3,4m	4,3m	5,2m	6,9m	8,6m
Beam wid.	0,6ft	1,1ft	1,7ft	2,3ft	2,8ft	4,2ft	5,6ft	8,5ft	11,3ft	14,1ft	16,9ft	22,5ft	28,2ft

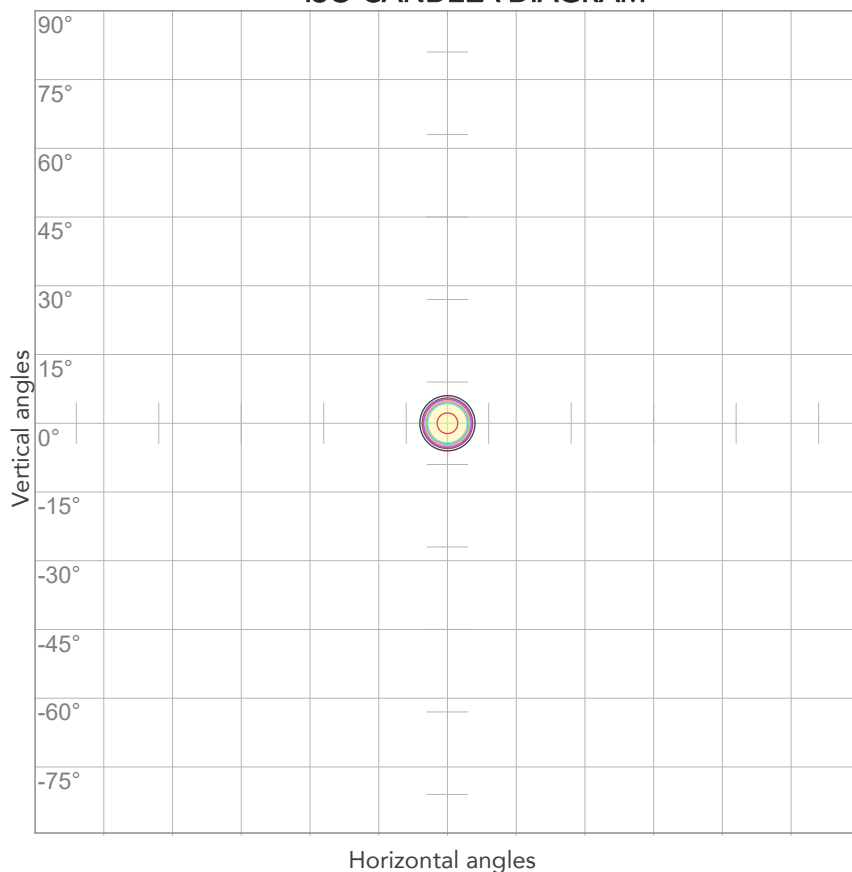
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	0,861A	178,8W	22lm/W

ISO CANDELA DIAGRAM



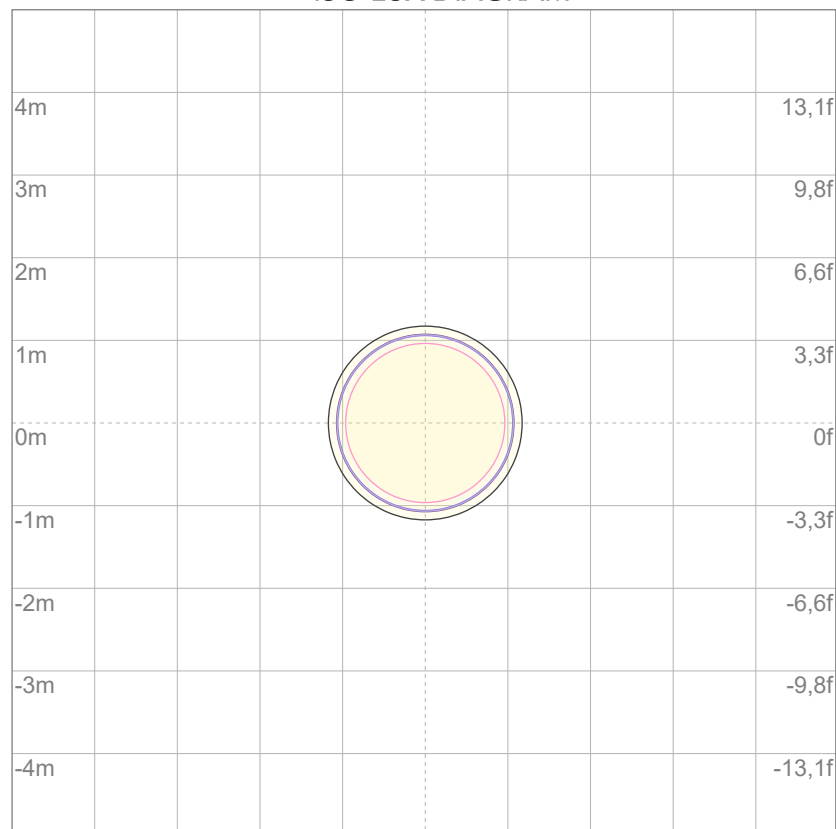
10%	17819 cd
20%	35638 cd
30%	53458 cd
40%	71277 cd
50%	89096 cd
60%	106915 cd
70%	124735 cd
80%	142554 cd

Conditions:

Number of c-planes: 2

Candela at center: 178192 cd

ISO LUX DIAGRAM



3%	53,5 lx
5%	89,1 lx
10%	178 lx
30%	535 lx
50%	891 lx

Conditions:

Number of c-planes: 2

Lux at center: 1782 lx

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



Total lumen output:

4155 lm

Peak candela output:

189311 cd

Light quality:

CRI: 94,6

Color temperature:

4200 K

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL10

Target:

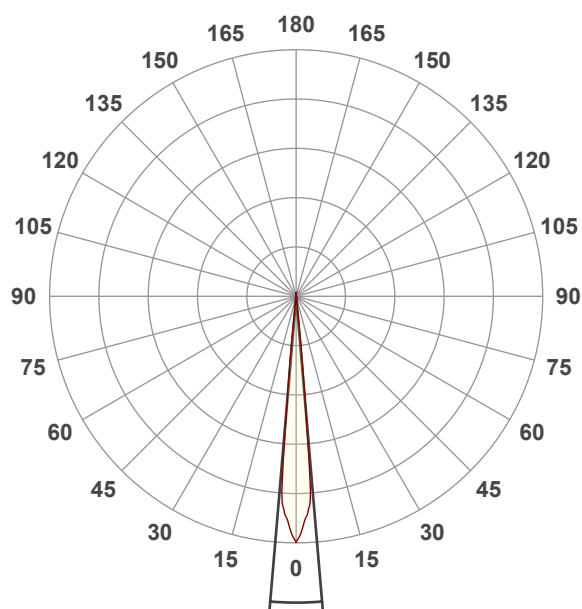
4000K HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 15:29:49

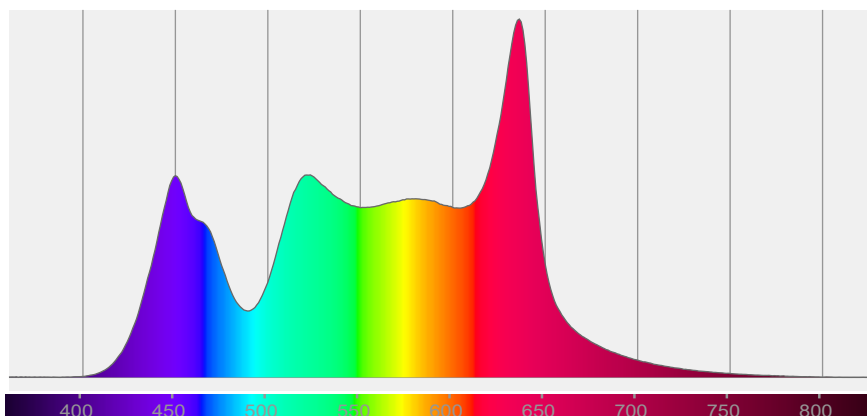


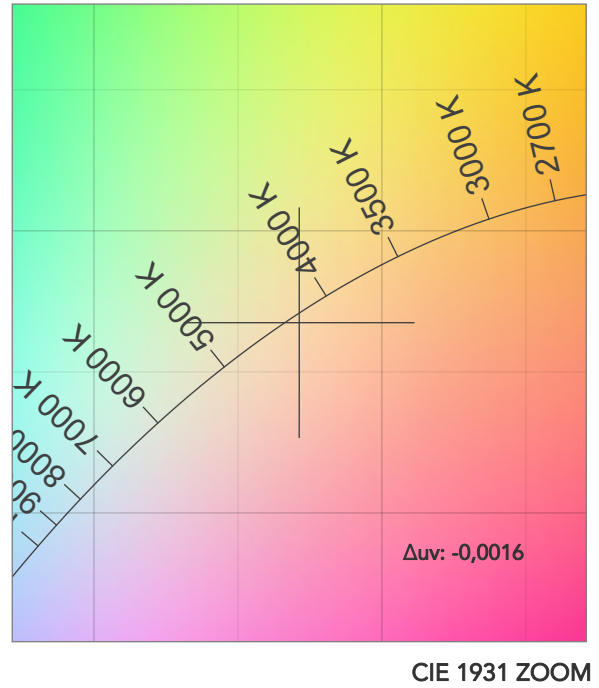
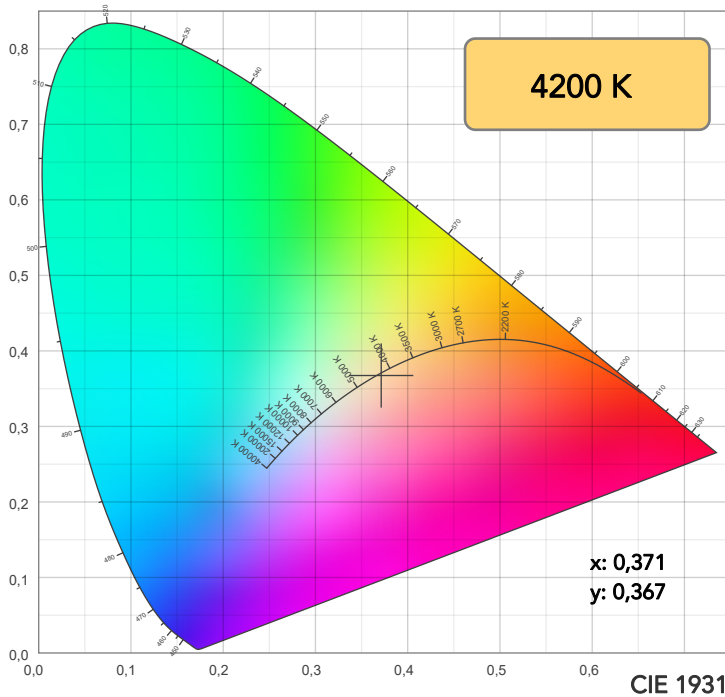
Beam angle 50%: 9,7°

Field angle 10%: 12°

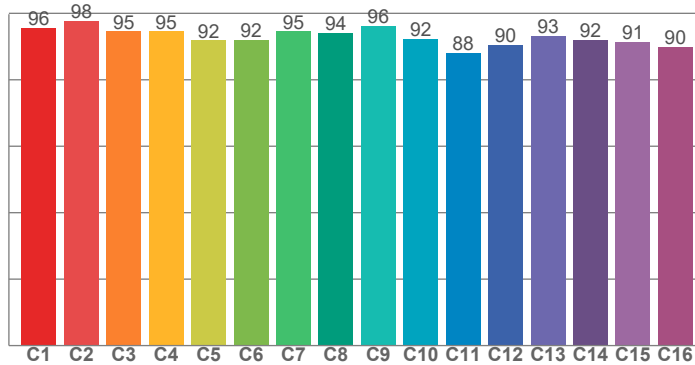
Cut off angle 2.5%: 12,6°

Spectra

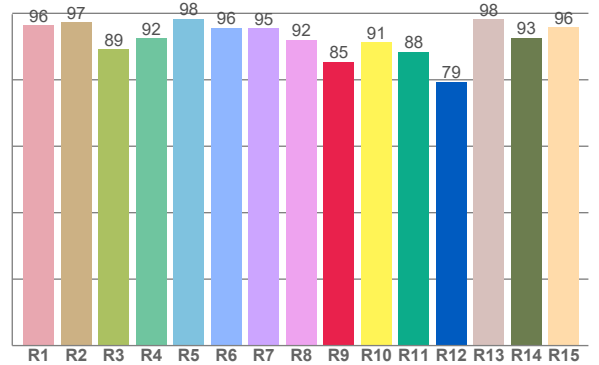




TM30: 93,1



CRI: 94,6 (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	97,2	89,3	92,5	98,4	95,7	95,4	92,0	85,4	91,4	88,4	79,4	98,2	92,6	95,8

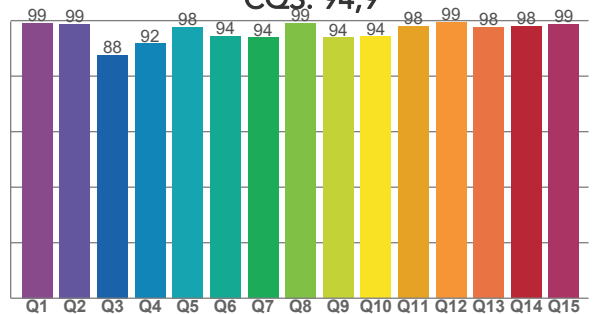
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,6	97,7	94,6	94,5	91,9	92,0	94,5	94,1	96,3	92,3	88,0	90,5	93,2	91,9	91,4	89,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99,2	98,8	87,6	91,8	97,7	94,4	93,9	99,1	93,9	94,3	97,9	99,4	97,6	98,0	98,7

CQS: 94,9



COLOR PARAMETERS

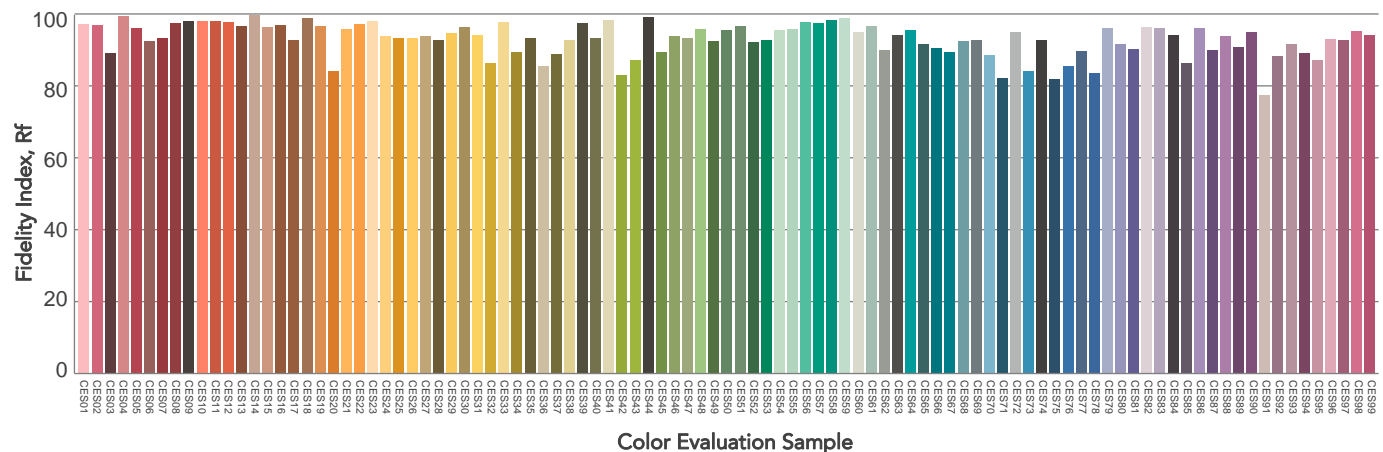
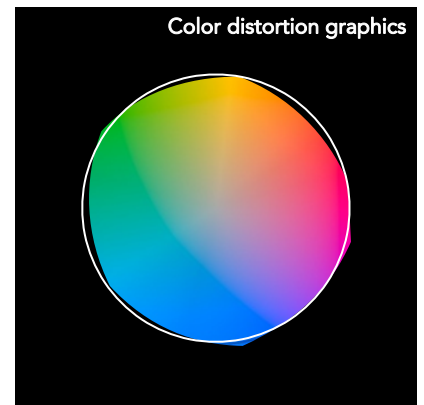
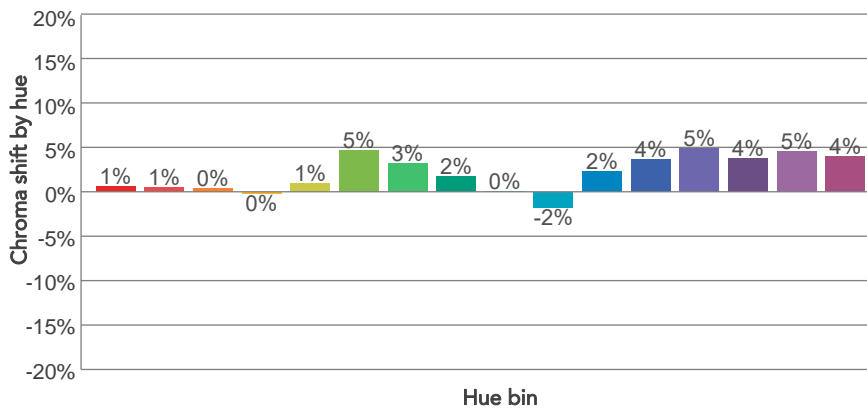
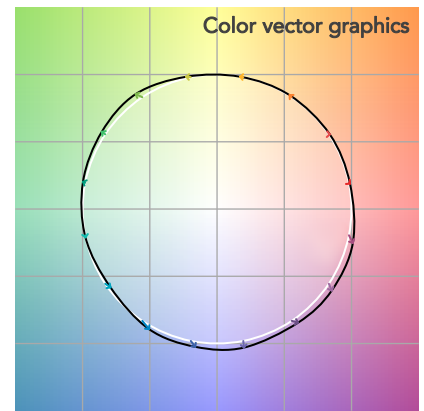
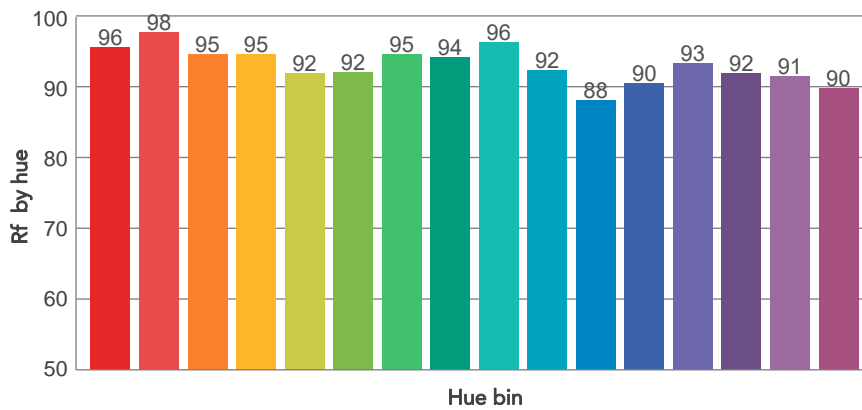
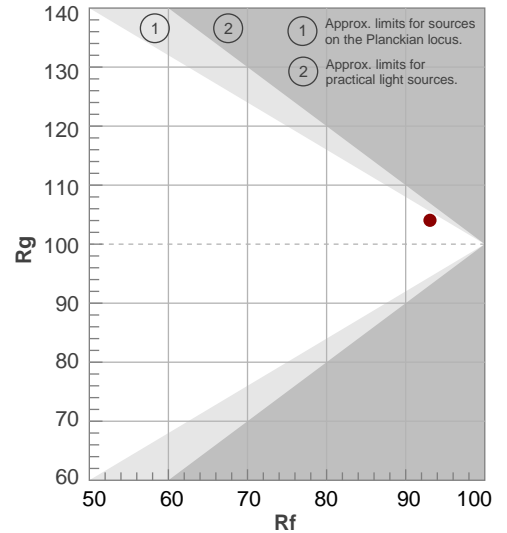
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
4200 K	94,6	85,4	93,1	104,0	94,9	92	0,371	0,367	-0,0016

TM30 DETAILS

Rf 93,1
Fidelity index Rf

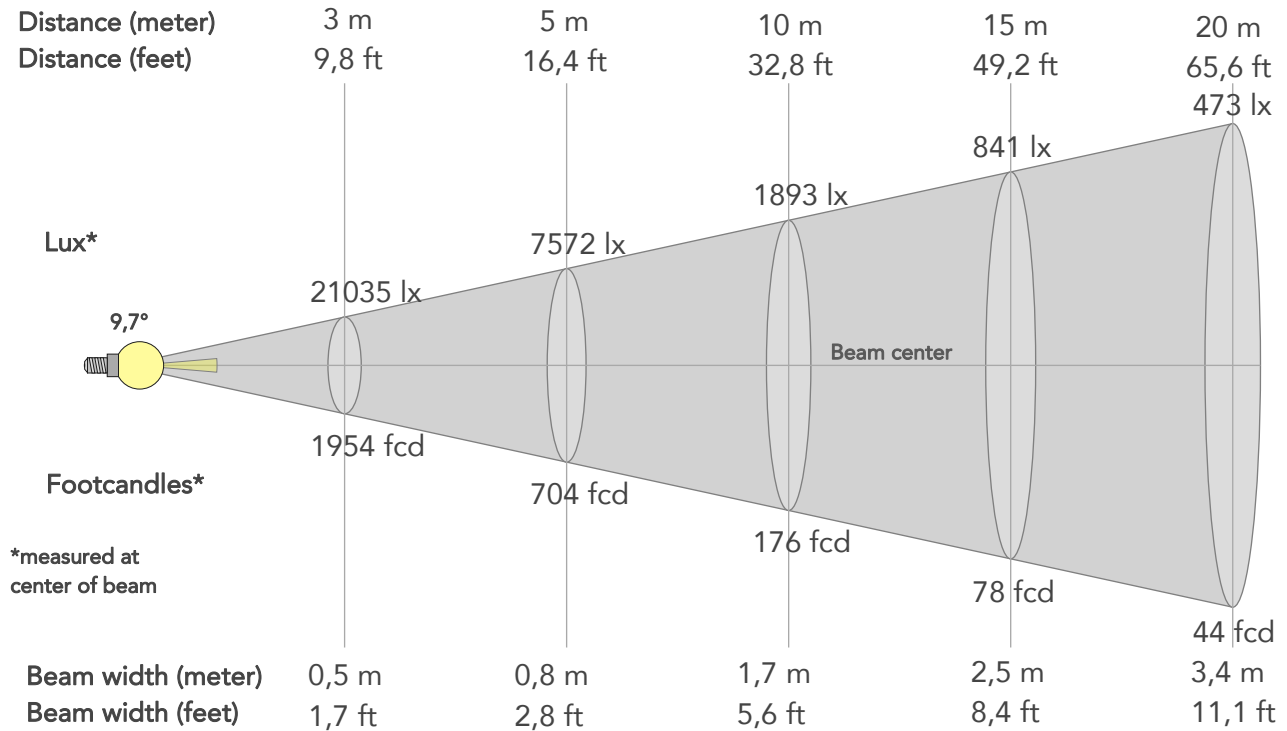
Rg 104,0
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	96	1%	-1%
2	98	1%	0%
3	95	0%	2%
4	95	0%	2%
5	92	1%	3%
6	92	5%	3%
7	95	3%	0%
8	94	2%	0%
9	96	0%	2%
10	92	-2%	4%
11	88	2%	8%
12	90	4%	4%
13	93	5%	0%
14	92	4%	3%
15	91	5%	-3%
16	90	4%	-5%



BEAM DETAILS

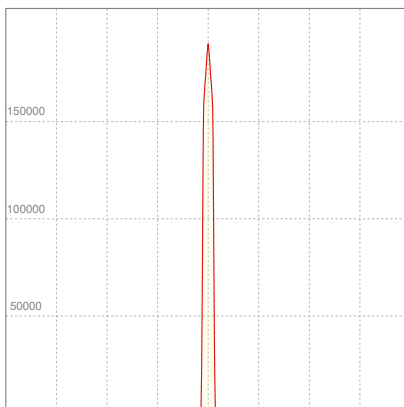
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,7°	12°	12,6°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	189311lx	47328lx	21035lx	11832lx	7572lx	3366lx	1893lx	841lx	473lx	303lx	210lx	118lx	76lx
Footcand.	17588fcd	4397fcd	1954fcd	1099fcd	704fcd	313fcd	176fcd	78fcd	44fcd	28fcd	20fcd	11fcd	7fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,8m	1,3m	1,7m	2,5m	3,4m	4,2m	5,1m	6,8m	8,5m
Beam wid.	0,6ft	1,1ft	1,7ft	2,2ft	2,8ft	4,2ft	5,6ft	8,4ft	11,1ft	13,9ft	16,7ft	22,3ft	27,8ft

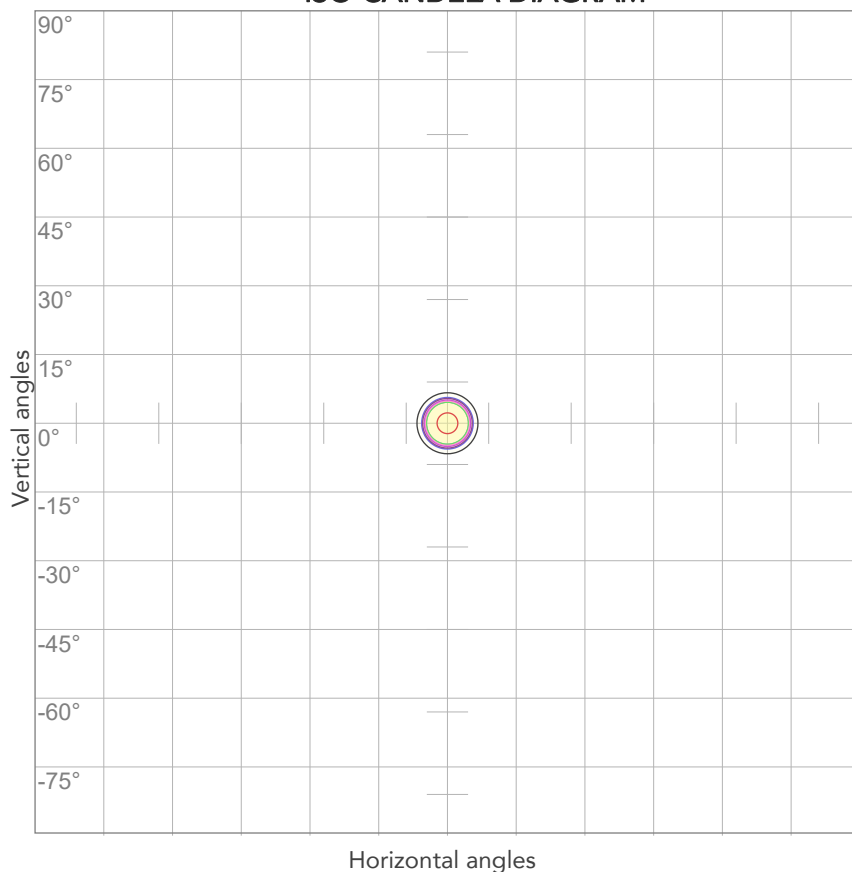
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	0,965A	202,1W	21lm/W

ISO CANDELA DIAGRAM



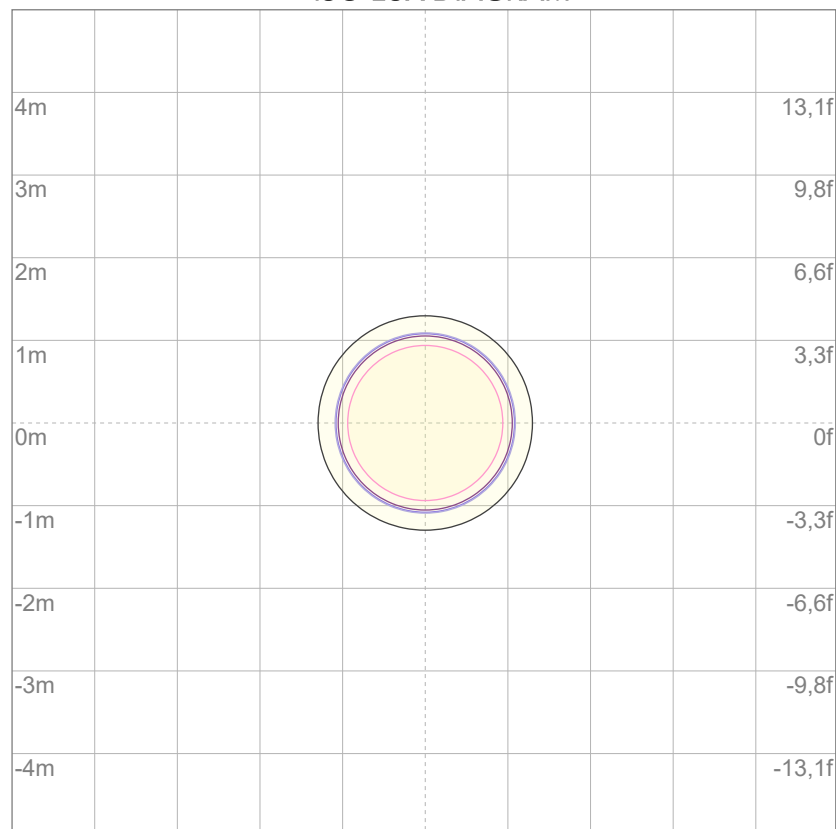
10%	18931 cd
20%	37862 cd
30%	56793 cd
40%	75724 cd
50%	94656 cd
60%	113587 cd
70%	132518 cd
80%	151449 cd

Conditions:

Number of c-planes: 2

Candela at center: 189311 cd

ISO LUX DIAGRAM



3%	56,8 lx
5%	94,7 lx
10%	189 lx
30%	568 lx
50%	947 lx

Conditions:

Number of c-planes: 2

Lux at center: 1893 lx

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



Total lumen output:

4466 lm

Peak candela output:

200389 cd

Light quality:

CRI: 96,3

Color temperature:

5630 K

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL10

Target:

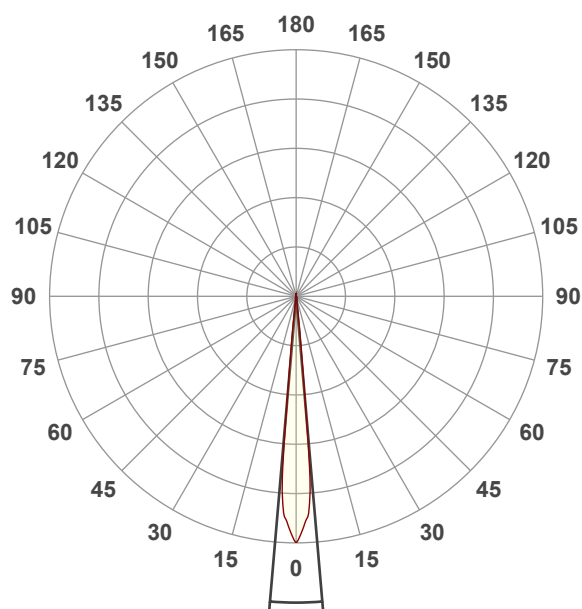
5600K HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 15:31:42

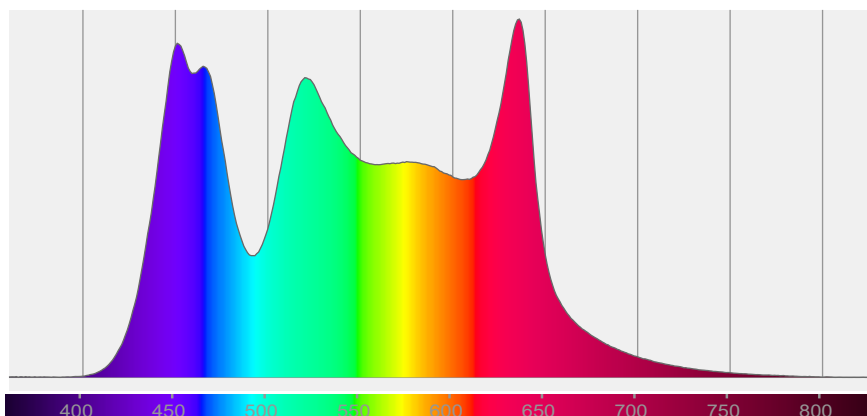


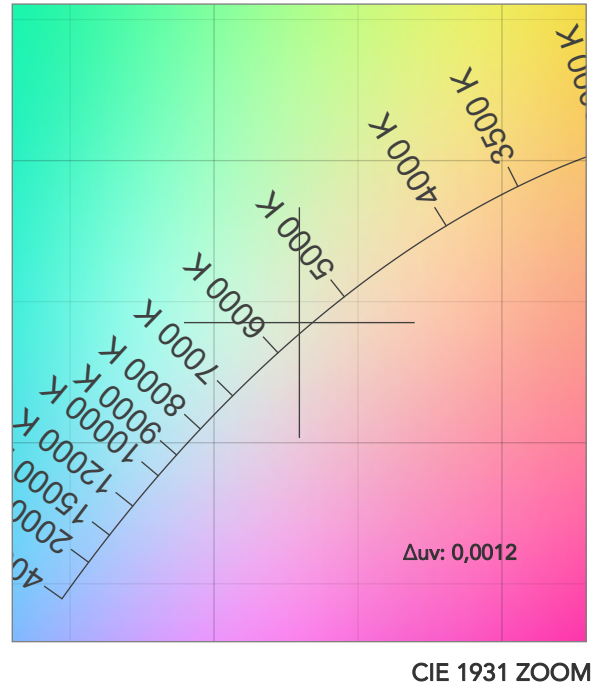
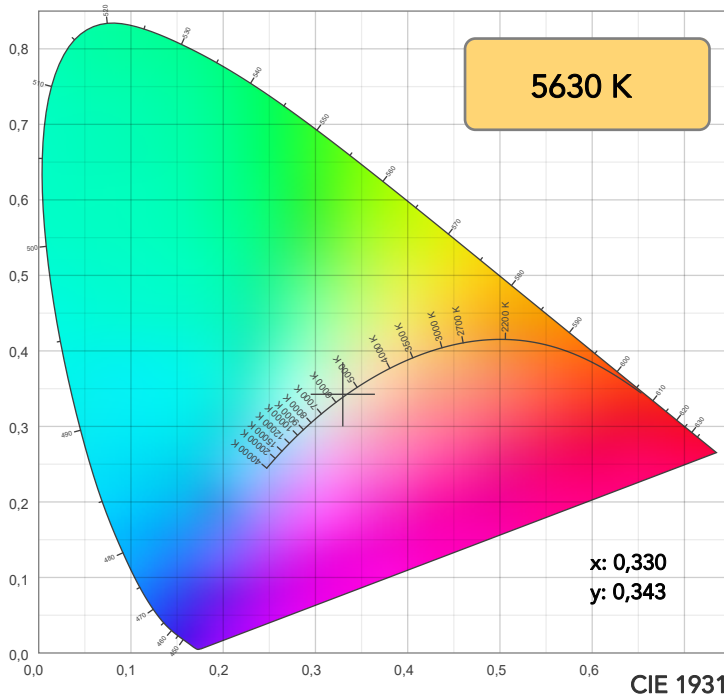
Beam angle 50%: 9,8°

Field angle 10%: 12,2°

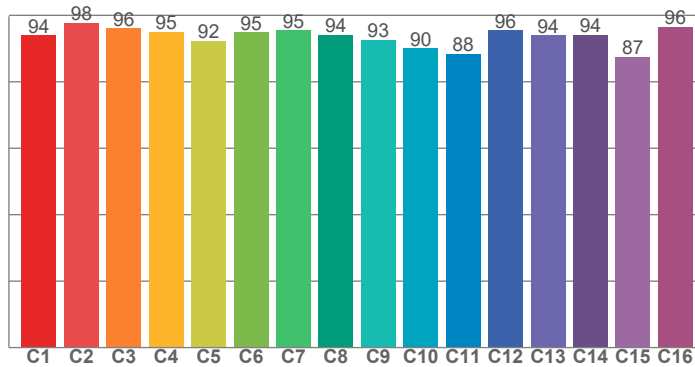
Cut off angle 2.5%: 12,9°

Spectra

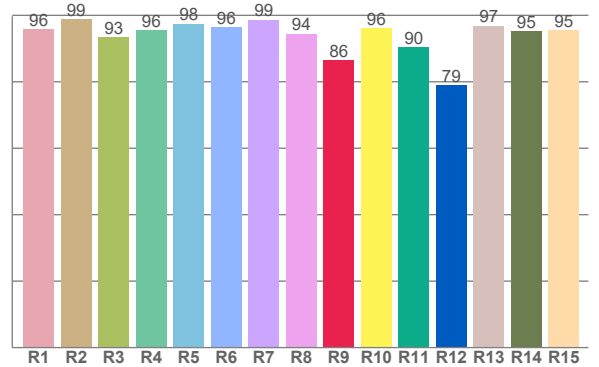




TM30: 93,4



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
95,9	98,9	93,3	95,5	97,5	96,4	98,7	94,5	86,5	96,0	90,4	79,0	96,9	95,2	95,4

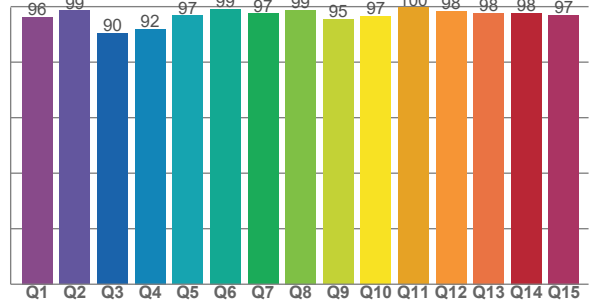
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94,0	97,6	96,1	95,0	92,4	94,9	95,5	94,1	92,6	90,1	88,4	95,5	94,0	94,1	87,5	96,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,2	98,6	90,4	91,9	96,8	99,1	97,5	98,8	95,5	96,6	99,7	98,5	97,7	97,7	97,1

CQS: 95,9



COLOR PARAMETERS

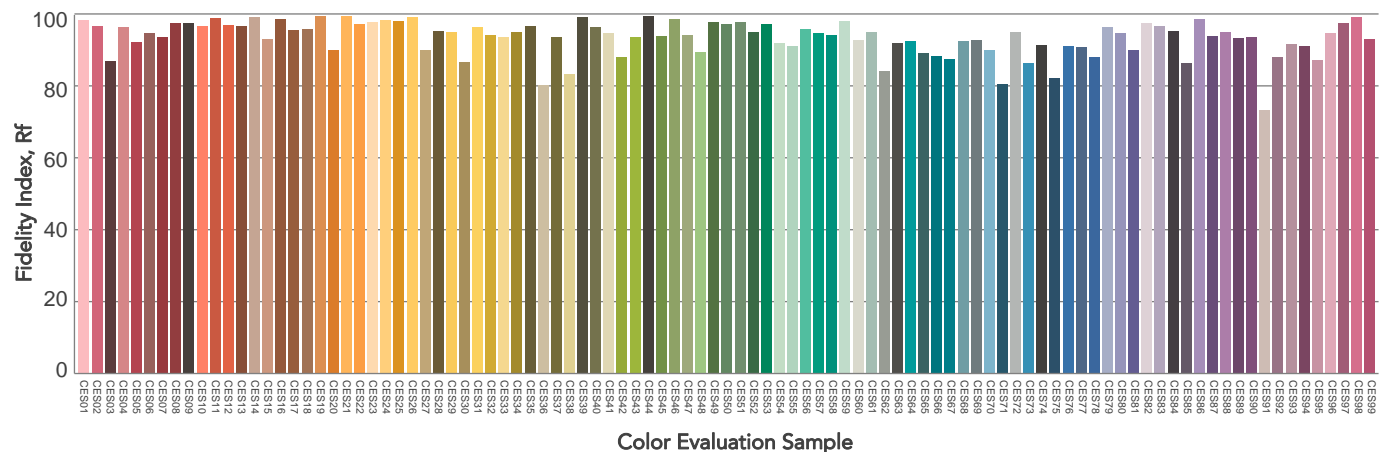
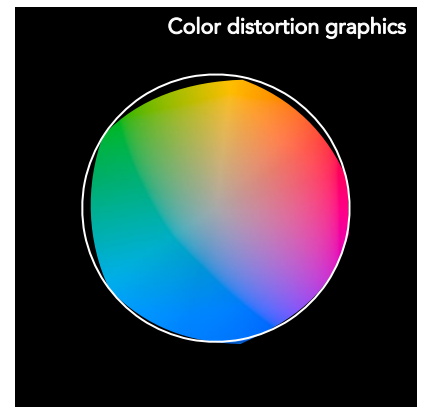
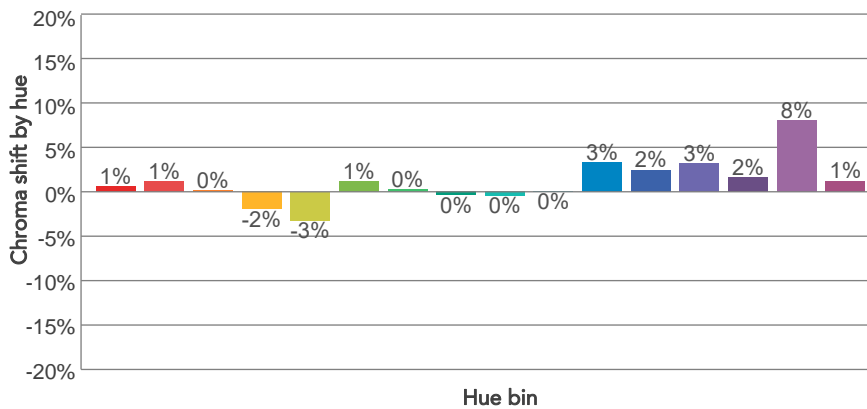
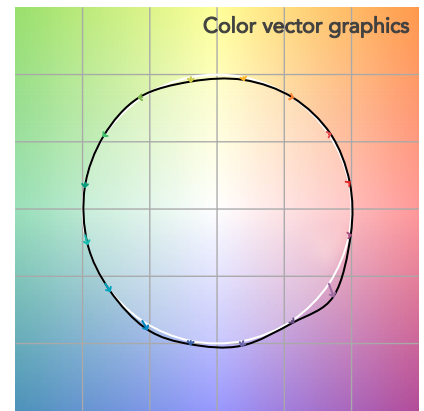
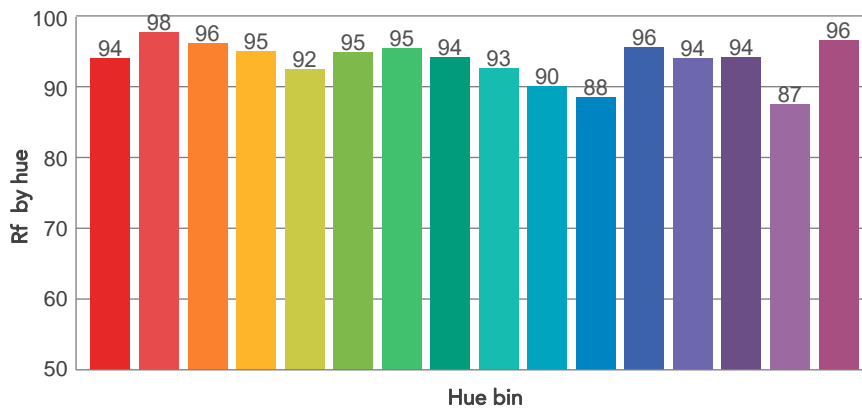
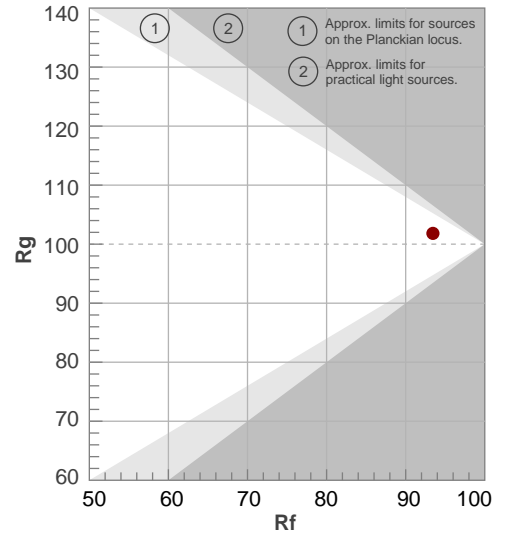
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5630 K	96,3	86,5	93,4	101,8	95,9	96	0,330	0,343	0,0012

TM30 DETAILS

Rf 93,4
Fidelity index Rf

Rg 101,8
Gammut index

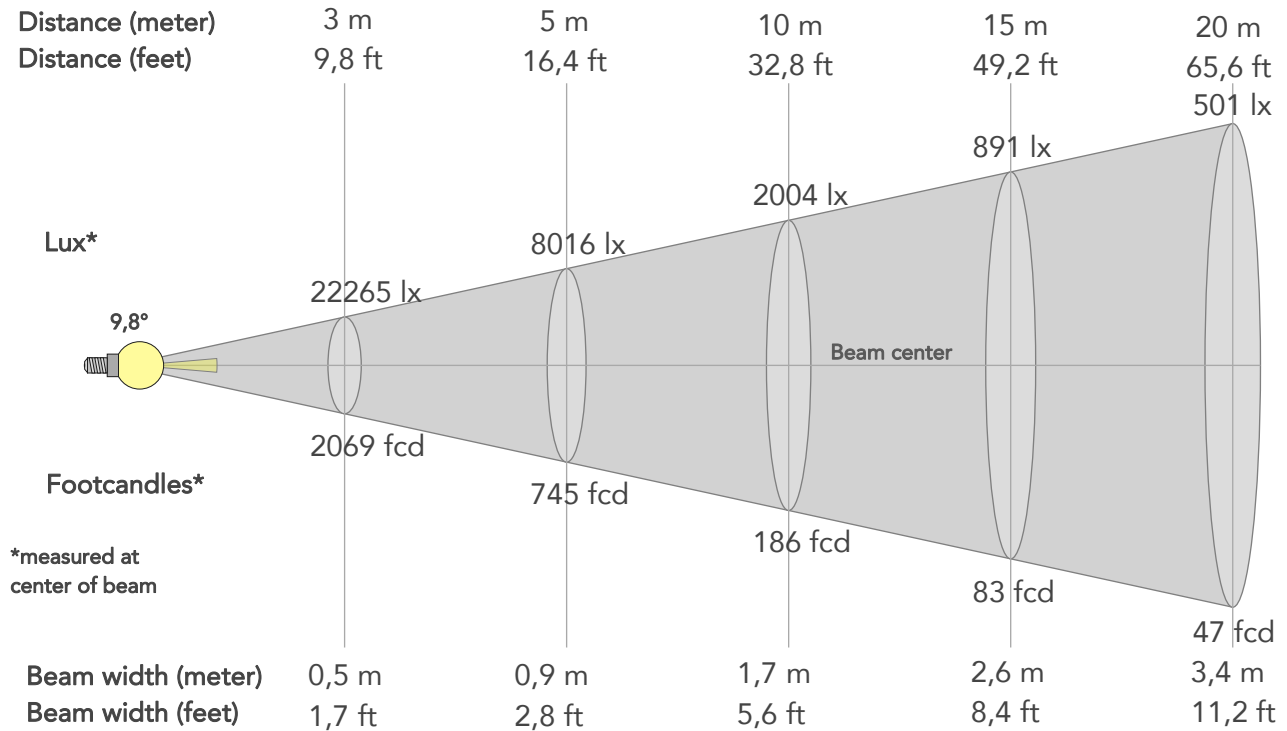
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	1%	0%
2	98	1%	0%
3	96	0%	-1%
4	95	-2%	-1%
5	92	-3%	1%
6	95	1%	2%
7	95	0%	2%
8	94	0%	3%
9	93	0%	7%
10	90	0%	6%
11	88	3%	6%
12	96	2%	0%
13	94	3%	-2%
14	94	2%	0%
15	87	8%	-6%
16	96	1%	0%



BEAM DETAILS



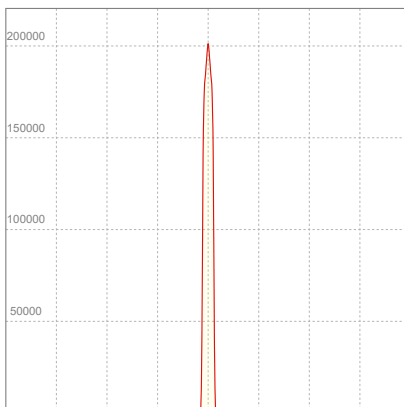
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
9,8°	12,2°	12,9°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	200389lx	50097lx	22265lx	12524lx	8016lx	3562lx	2004lx	891lx	501lx	321lx	223lx	125lx	80lx
Footcand.	18617fcd	4654fcd	2069fcd	1164fcd	745fcd	331fcd	186fcd	83fcd	47fcd	30fcd	21fcd	12fcd	7fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,9m	1,3m	1,7m	2,6m	3,4m	4,3m	5,1m	6,9m	8,6m
Beam wid.	0,6ft	1,1ft	1,7ft	2,2ft	2,8ft	4,2ft	5,6ft	8,4ft	11,2ft	14,1ft	16,9ft	22,5ft	28,1ft

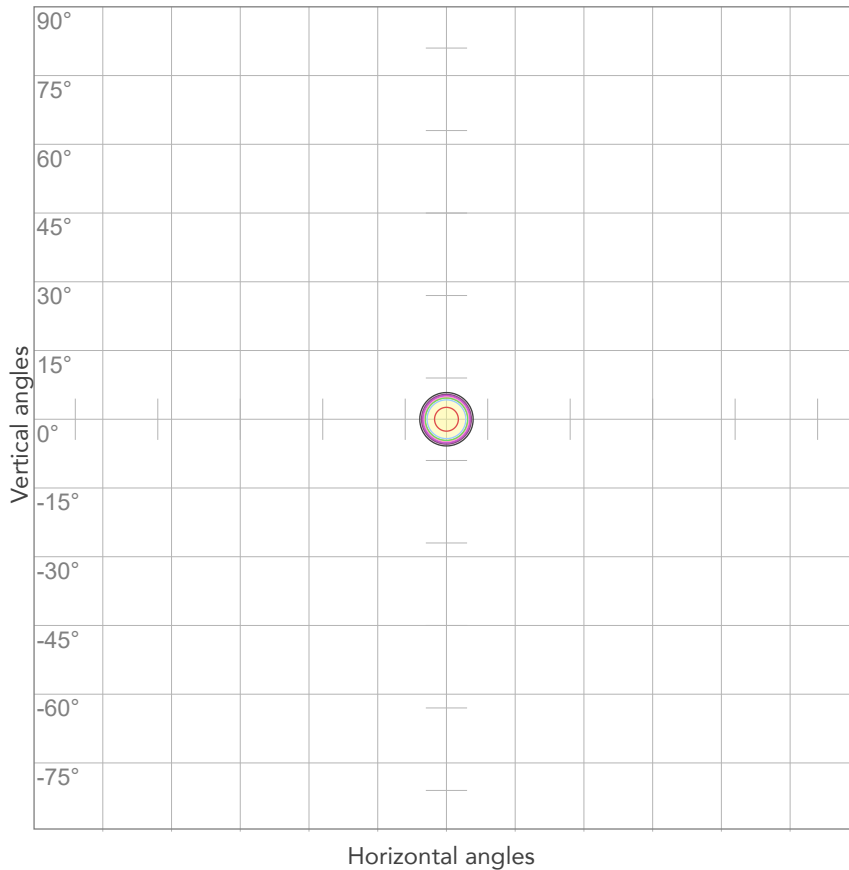
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	1,07A	226,2W	20lm/W

ISO CANDELA DIAGRAM



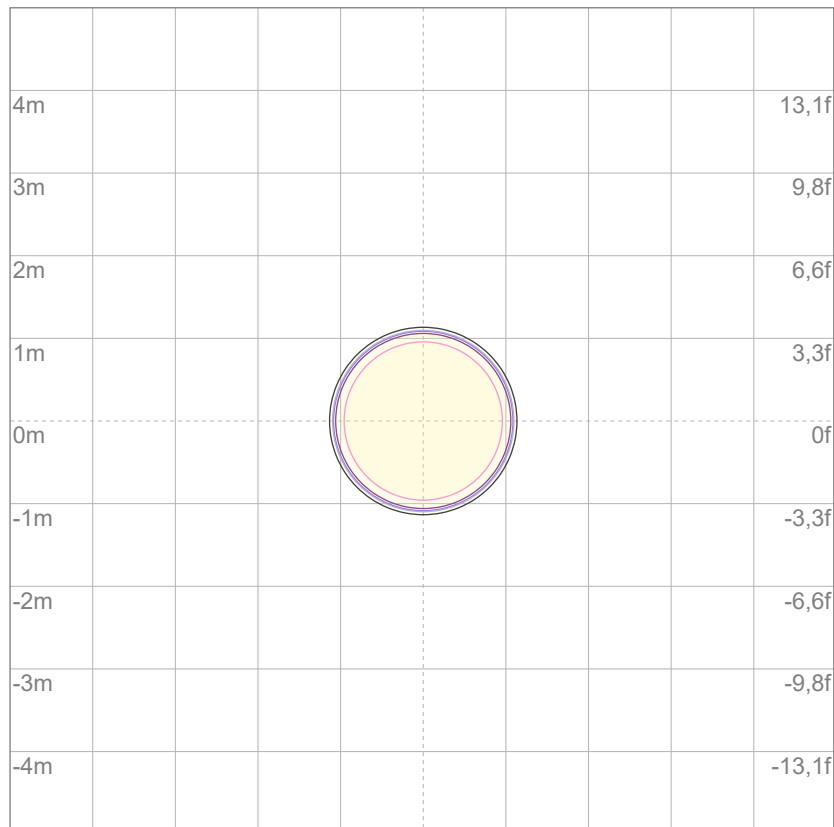
10%	20039 cd
20%	40078 cd
30%	60117 cd
40%	80156 cd
50%	100195 cd
60%	120234 cd
70%	140273 cd
80%	160312 cd

Conditions:

Number of c-planes: 2

Candela at center: 200389 cd

ISO LUX DIAGRAM



3%	60,1 lx
5%	100 lx
10%	200 lx
30%	601 lx
50%	1002 lx

Conditions:

Number of c-planes: 2

Lux at center: 2004 lx

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



Total lumen output:

4559 lm

Peak candela output:

199814 cd

Light quality:

CRI: 96,4

Color temperature:

6523 K

PRODUCT NAME:

ECLCTPLUS IP

MEASURAMENT CONDITIONS:

Beam angle:

PRL10

Target:

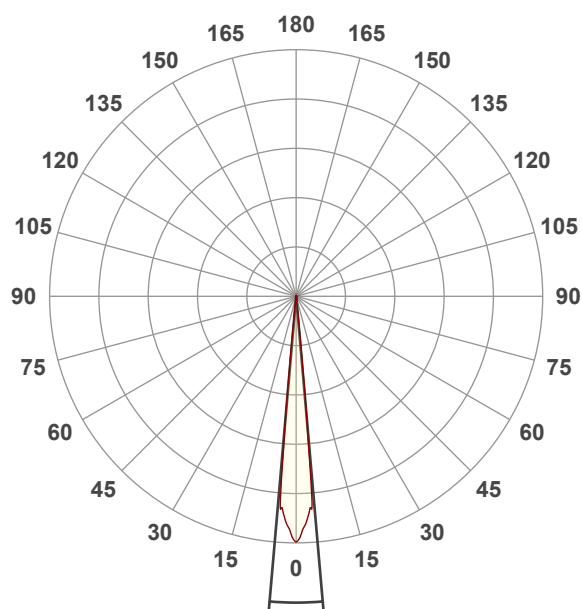
6000K HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 15:33:29

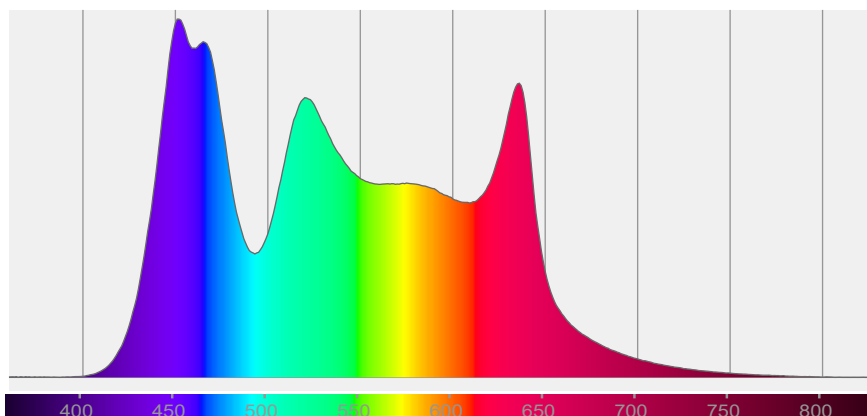


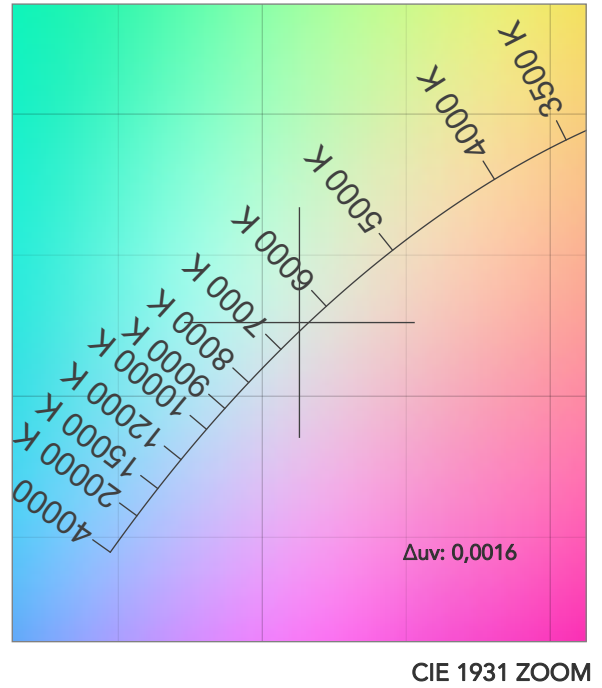
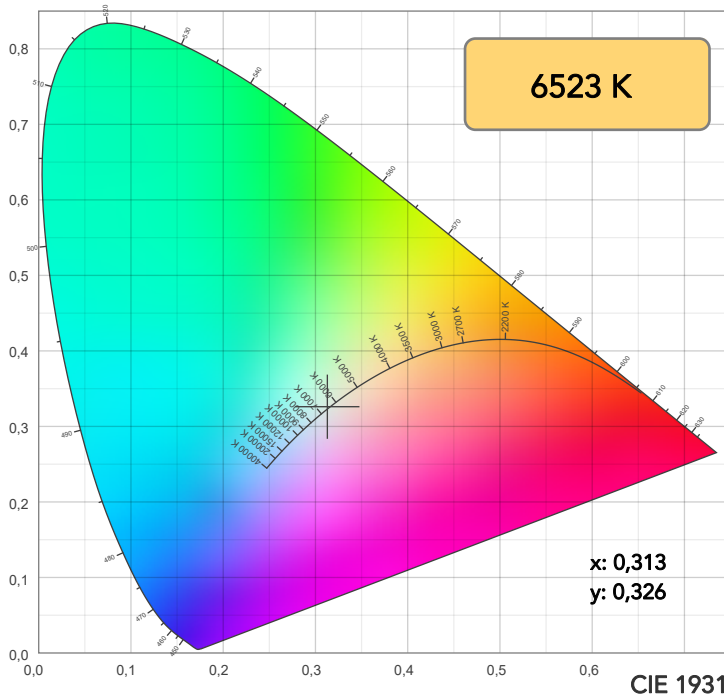
Beam angle 50%: 10°

Field angle 10%: 11,5°

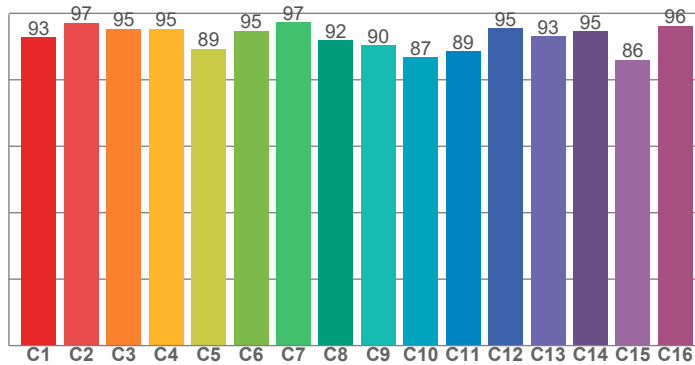
Cut off angle 2.5%: 12,5°

Spectra

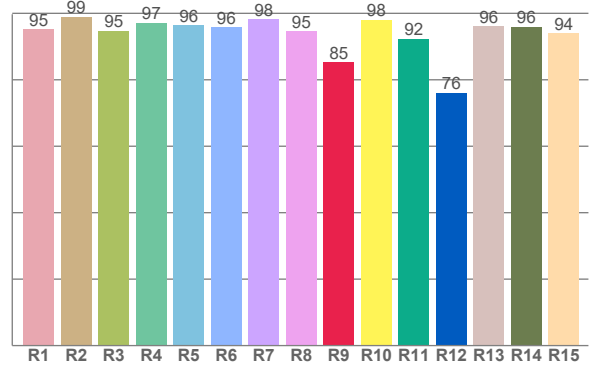




TM30: 92,4



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
95,3	99,0	94,7	97,1	96,5	95,8	98,3	94,7	85,3	98,0	92,4	76,1	96,0	96,0	94,0

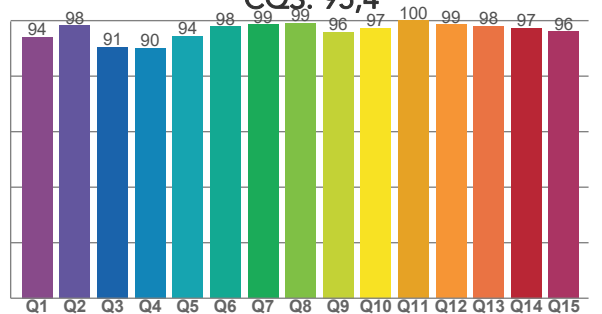
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,8	97,1	95,3	95,2	89,3	94,6	97,3	91,9	90,3	86,7	88,5	95,5	93,1	94,5	86,0	96,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,1	98,3	90,6	90,1	94,3	97,9	98,5	99,0	95,9	97,3	100,0	98,6	98,1	97,4	96,1

CQS: 95,4



COLOR PARAMETERS

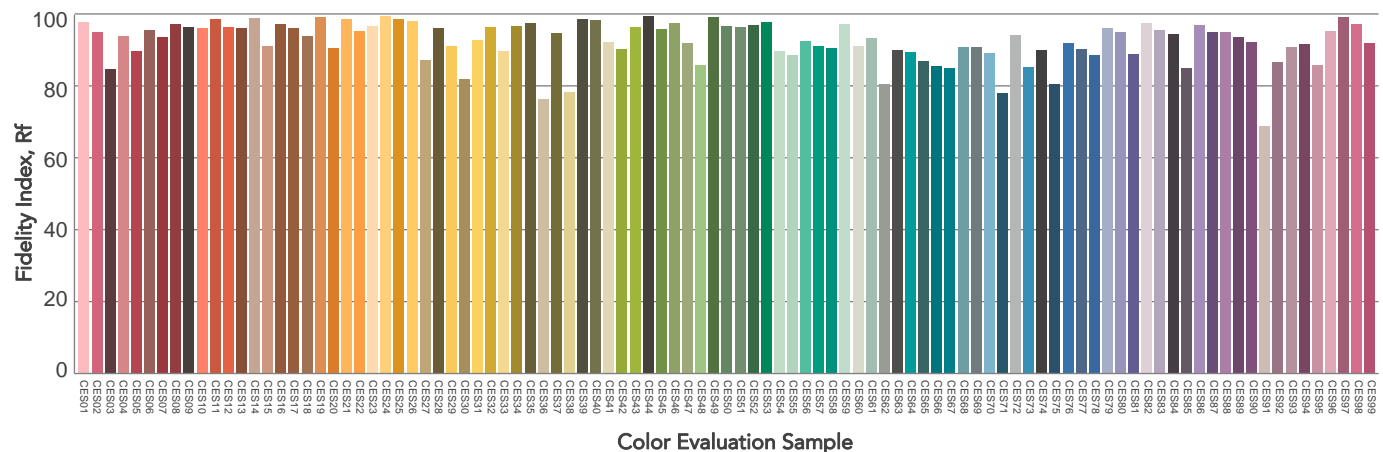
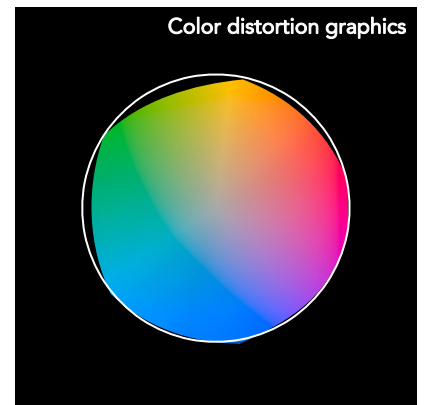
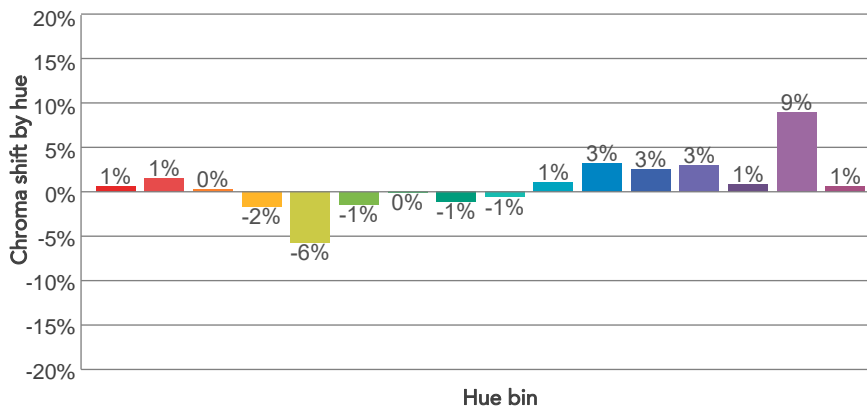
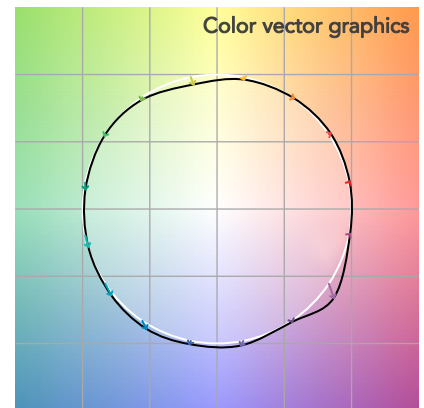
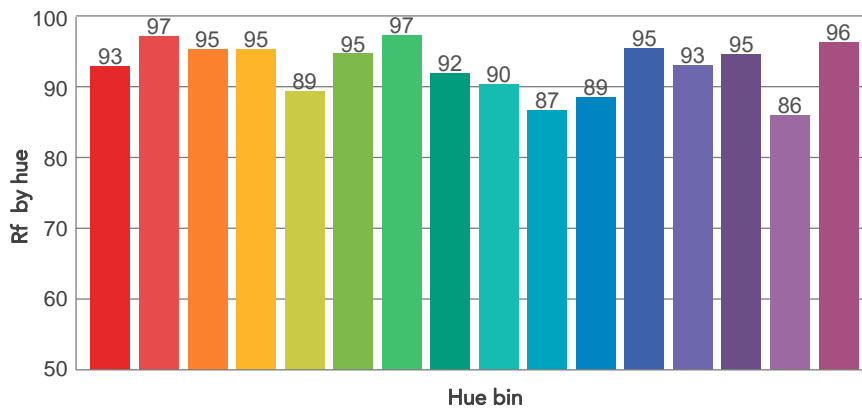
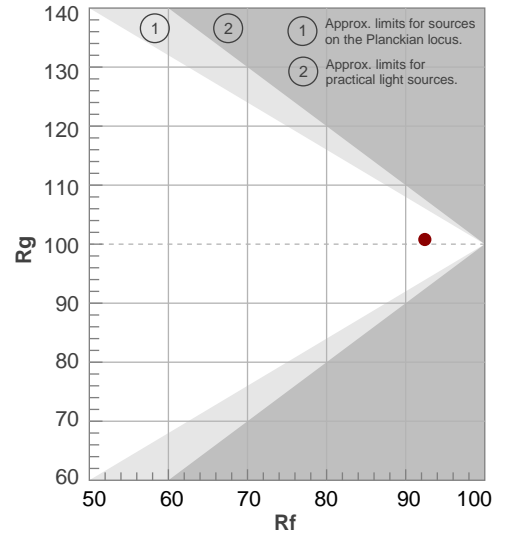
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6523 K	96,4	85,3	92,4	100,8	95,4	96	0,313	0,326	0,0016

TM30 DETAILS

Rf 92,4
Fidelity index Rf

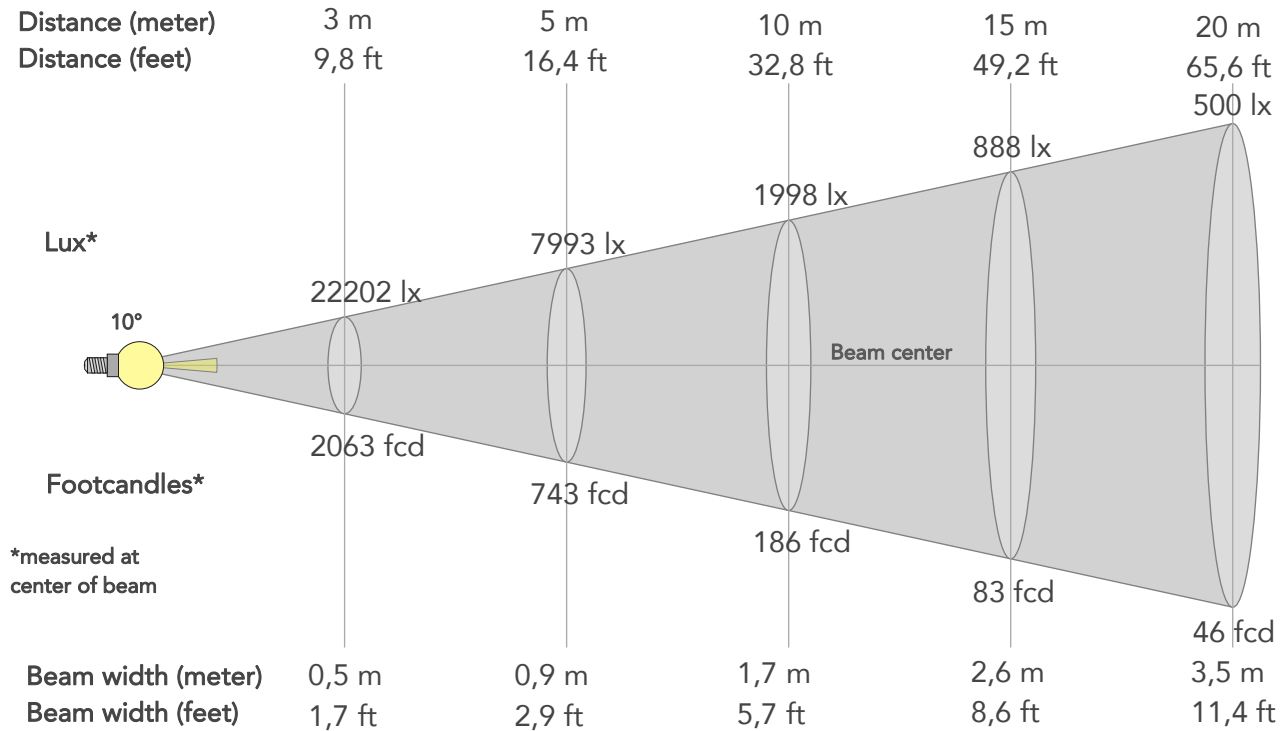
Rg 100,8
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	1%	1%
2	97	1%	0%
3	95	0%	-2%
4	95	-2%	-1%
5	89	-6%	-1%
6	95	-1%	2%
7	97	0%	1%
8	92	-1%	5%
9	90	-1%	9%
10	87	1%	9%
11	89	3%	6%
12	95	3%	-1%
13	93	3%	-2%
14	95	1%	0%
15	86	9%	-7%
16	96	1%	1%



BEAM DETAILS

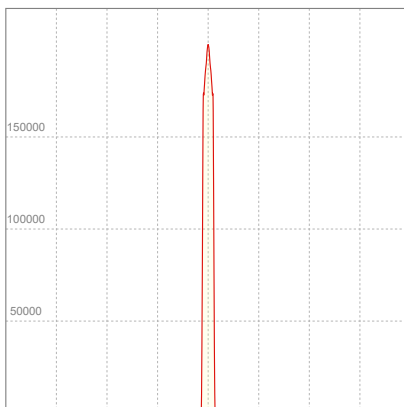
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10°	11,5°	12,5°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	199814lx	49953lx	22202lx	12488lx	7993lx	3552lx	1998lx	888lx	500lx	320lx	222lx	125lx	80lx
Footcand.	18563fcd	4641fcd	2063fcd	1160fcd	743fcd	330fcd	186fcd	83fcd	46fcd	30fcd	21fcd	12fcd	7fcd
Beam wid.	0,2m	0,3m	0,5m	0,7m	0,9m	1,3m	1,7m	2,6m	3,5m	4,4m	5,2m	7m	8,7m
Beam wid.	0,6ft	1,1ft	1,7ft	2,3ft	2,9ft	4,3ft	5,7ft	8,6ft	11,4ft	14,3ft	17,1ft	22,9ft	28,6ft

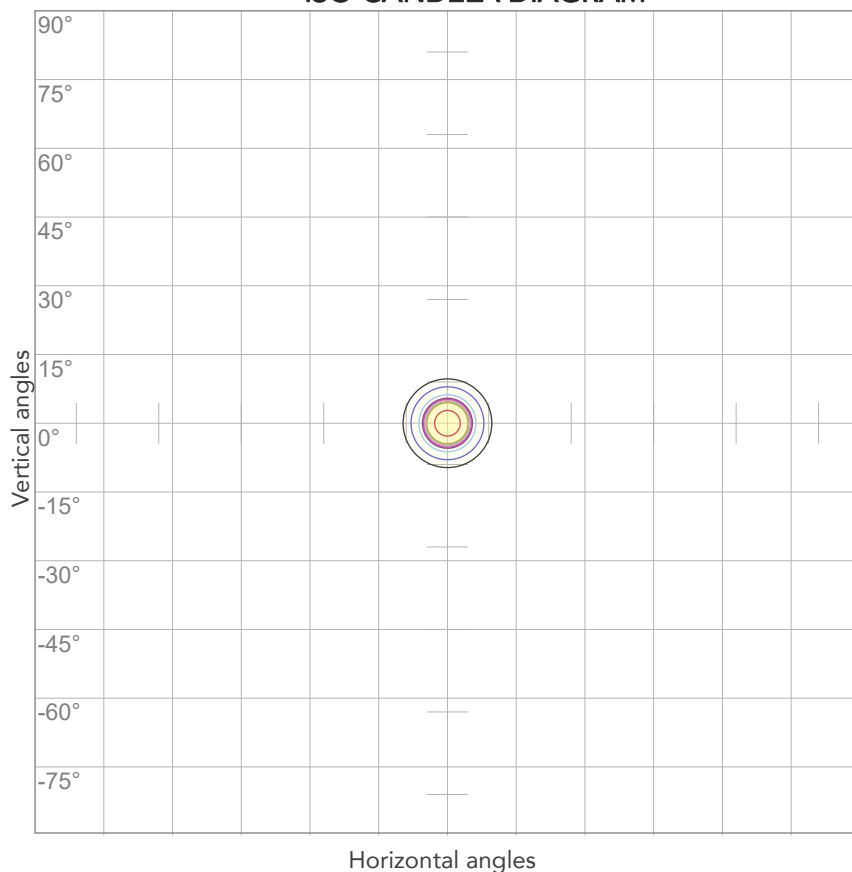
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
222V	1,10A	232,1W	20lm/W

ISO CANDELA DIAGRAM



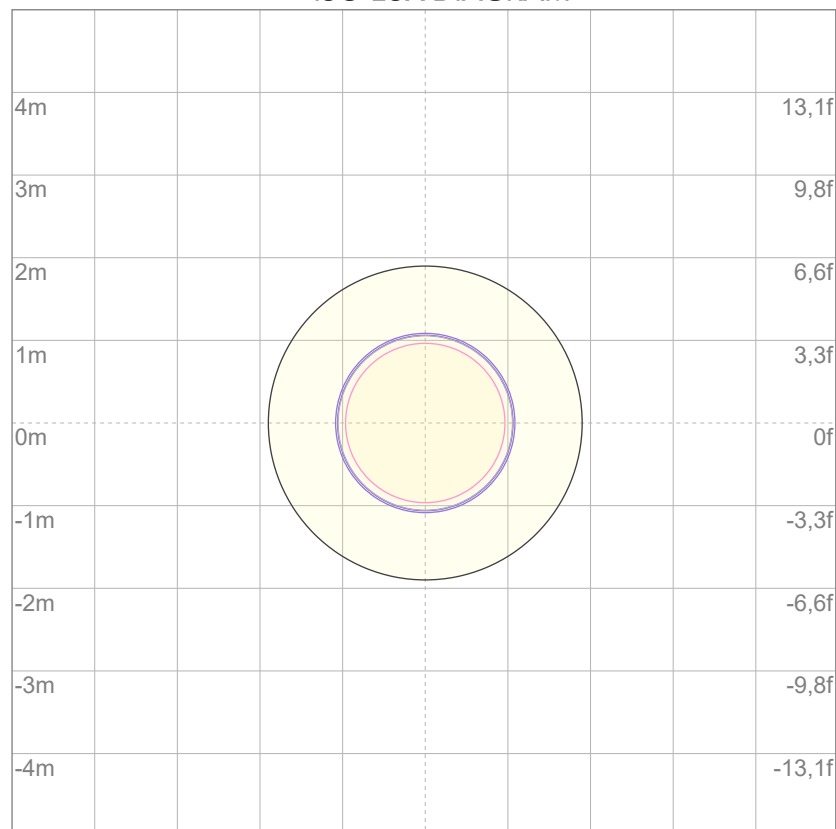
10%	19981 cd
20%	39963 cd
30%	59944 cd
40%	79925 cd
50%	99907 cd
60%	119888 cd
70%	139870 cd
80%	159851 cd

Conditions:

Number of c-planes: 2

Candela at center: 199814 cd

ISO LUX DIAGRAM



3%	59,9 lx
5%	99,9 lx
10%	200 lx
30%	599 lx
50%	999 lx

Conditions:

Number of c-planes: 2

Lux at center: 1998 lx

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