

Photometric Test Report



ECLCTPLUS PRL5

High quality six colours full spectrum
ellipsoidal LED

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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:

3805 lm

Peak candela output:

365957 cd

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

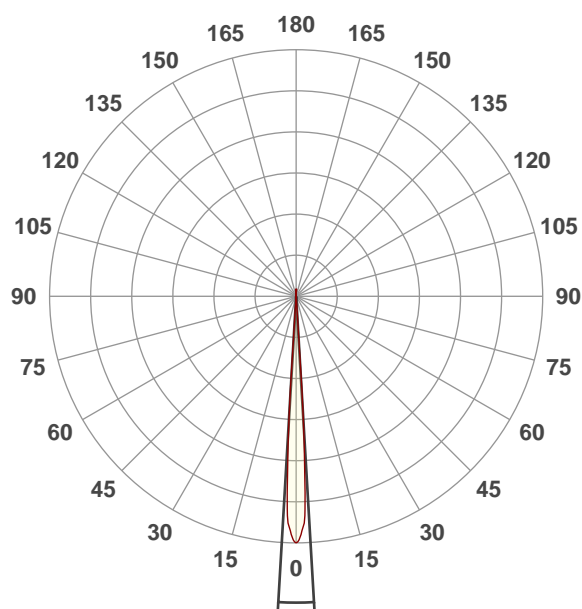
Full On HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 16:21:25

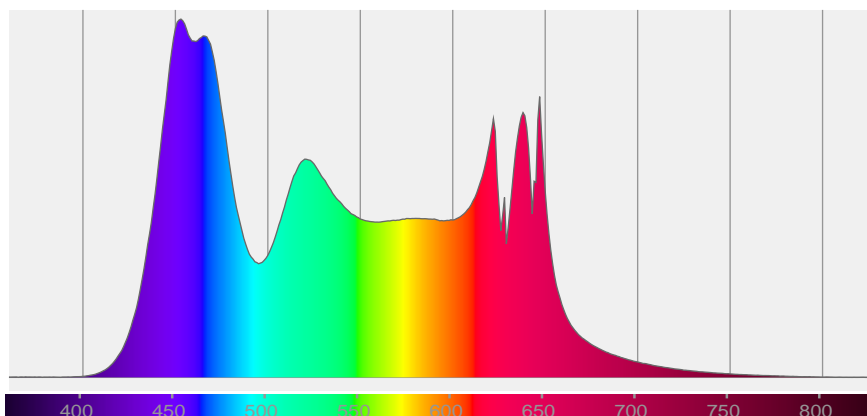


Beam angle 50%: 6,7°

Field angle 10%: 8,3°

Cut off angle 2.5%: 8,6°

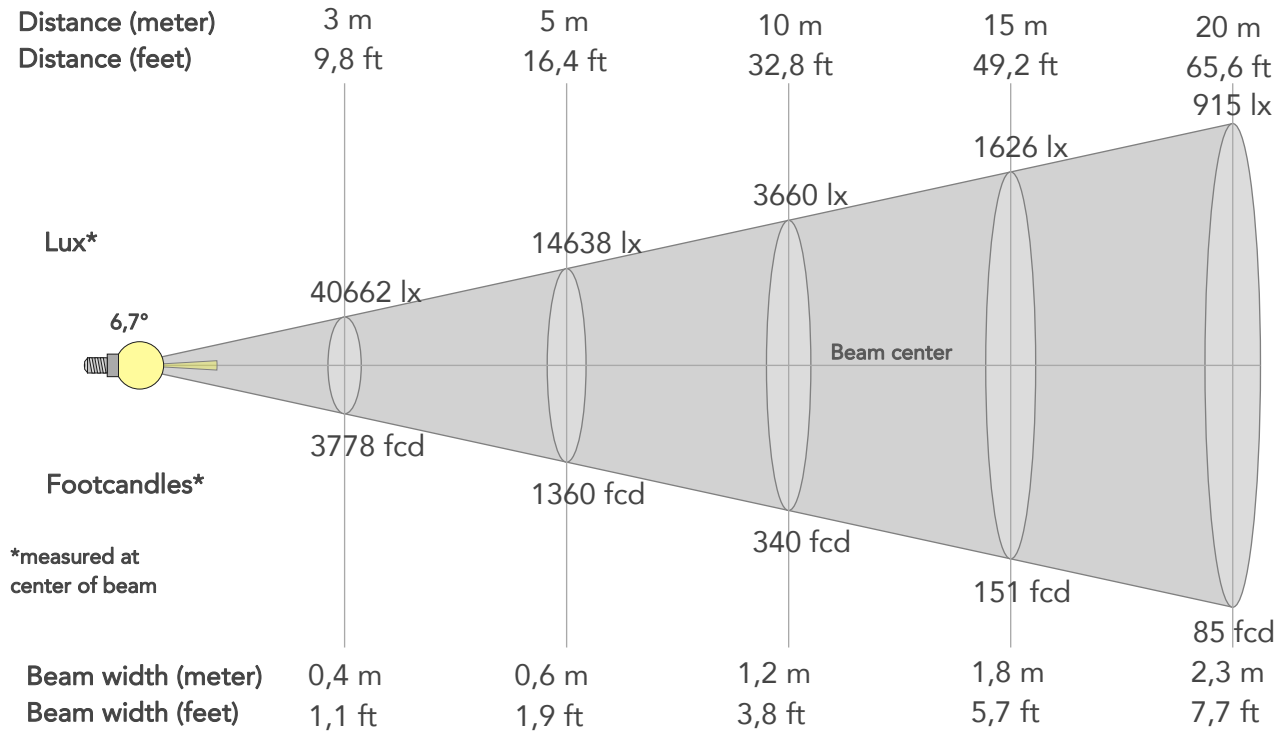
Spectra



BEAM DETAILS



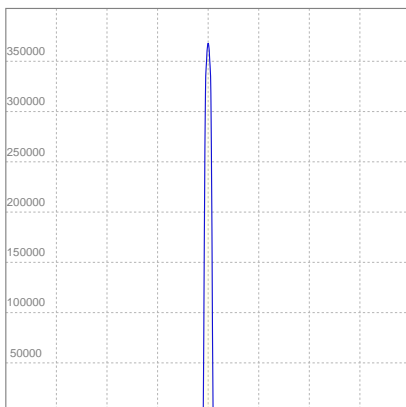
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,7°	8,3°	8,6°	100,0%	100,0%



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	365957lx	91489lx	40662lx	22872lx	14638lx	6506lx	3660lx	1626lx	915lx	586lx	407lx	229lx	146lx
Footcand.	33999fcd	8500fcd	3778fcd	2125fcd	1360fcd	604fcd	340fcd	151fcd	85fcd	54fcd	38fcd	21fcd	14fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,3m	2,9m	3,5m	4,7m	5,8m
Beam wid.	0,4ft	0,8ft	1,1ft	1,5ft	1,9ft	2,9ft	3,8ft	5,7ft	7,7ft	9,6ft	11,5ft	15,3ft	19,1ft

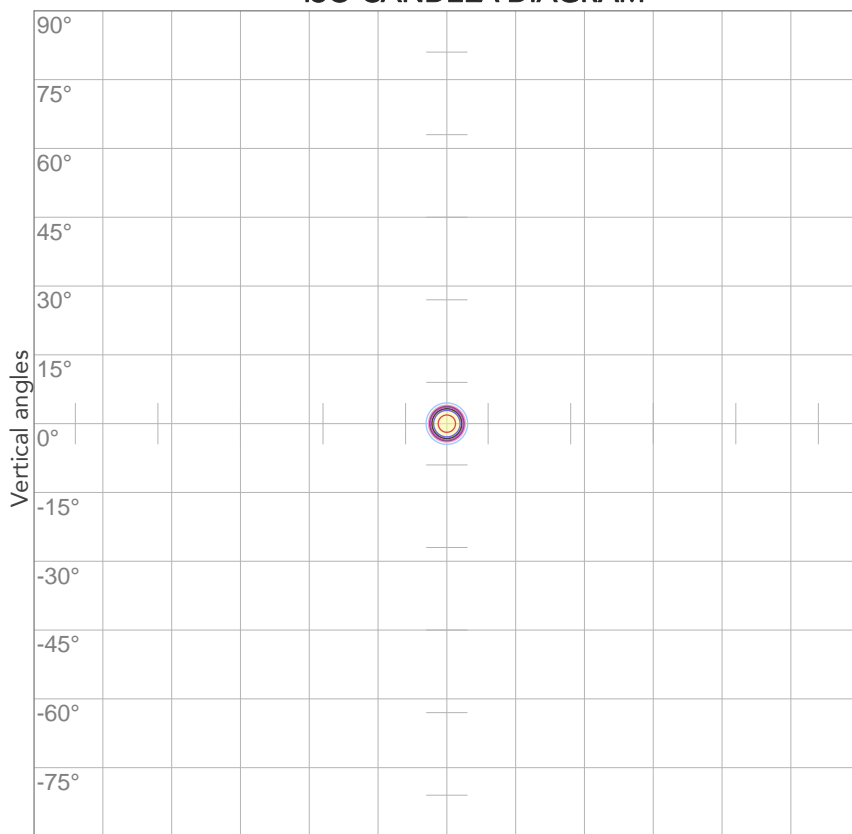
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
223V	1,24A	264,2W	14lm/W
Power FC			
0,96			

ISO CANDELA DIAGRAM



Horizontal angles

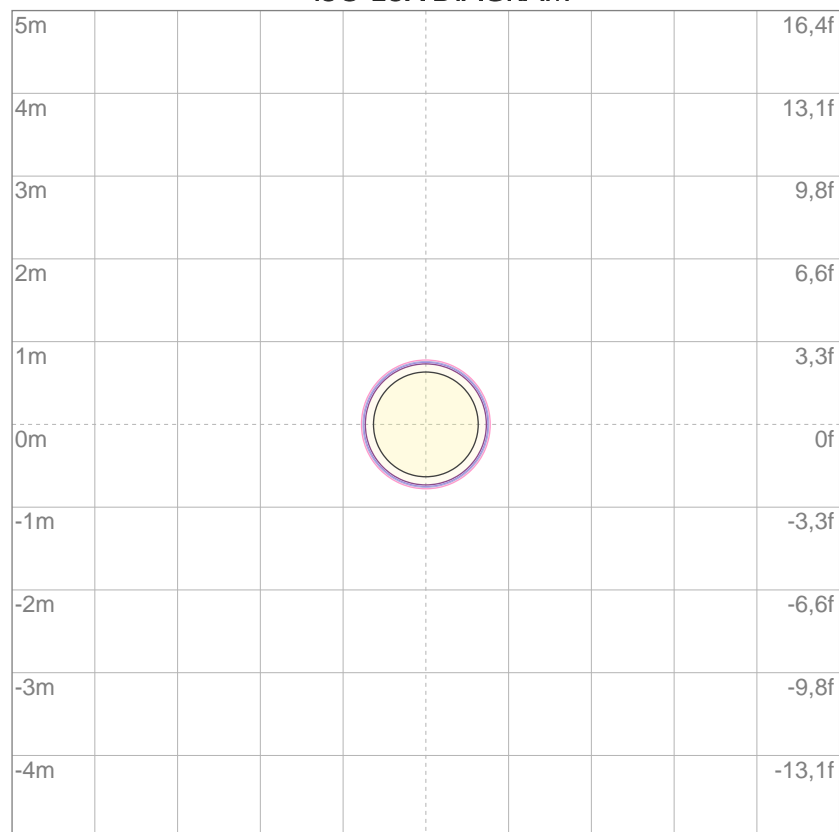
10%	36596 cd
20%	73191 cd
30%	109787 cd
40%	146383 cd
50%	182979 cd
60%	219574 cd
70%	256170 cd
80%	292766 cd

Conditions:

Number of c-planes: 2

Candela at center: 365957 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	110 lx
5%	183 lx
10%	366 lx
30%	1098 lx
50%	1830 lx

Conditions:

Number of c-planes: 2

Lux at center: 3660 lx

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



Total lumen output:

635 lm

Peak candela output:

56271 cd

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

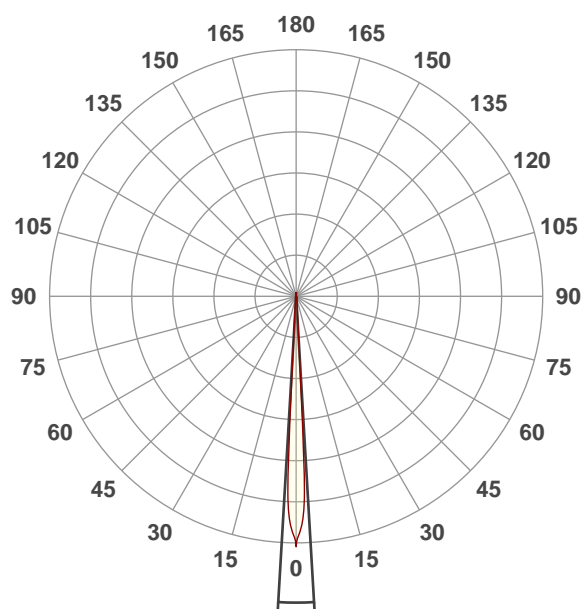
Red HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 16:26:13

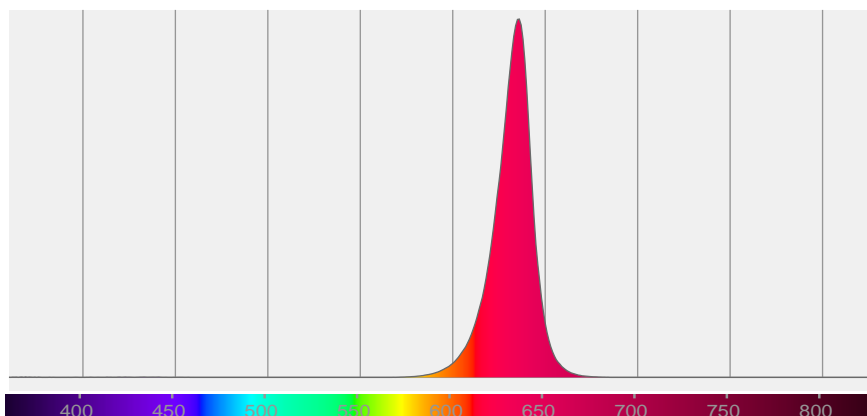


Beam angle 50%: 6,7°

Field angle 10%: 9,2°

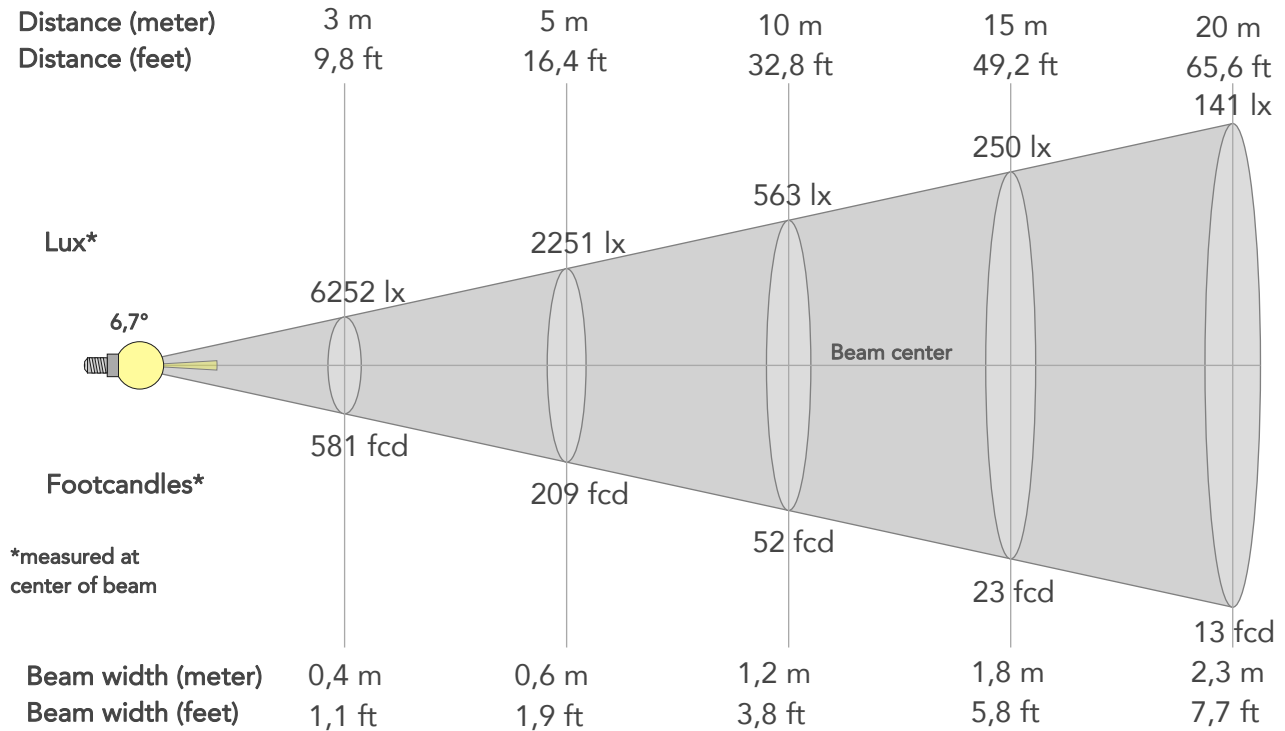
Cut off angle 2.5%: 12°

Spectra



BEAM DETAILS

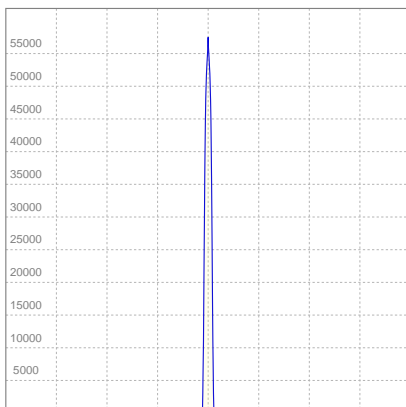
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,7°	9,2°	12°	99,9%	99,8%



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	56271lx	14068lx	6252lx	3517lx	2251lx	1000lx	563lx	250lx	141lx	90lx	63lx	35lx	23lx
Footcand.	5228fcd	1307fcd	581fcd	327fcd	209fcd	93fcd	52fcd	23fcd	13fcd	8fcd	6fcd	3fcd	2fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,3m	2,9m	3,5m	4,7m	5,9m
Beam wid.	0,4ft	0,8ft	1,1ft	1,5ft	1,9ft	2,9ft	3,8ft	5,8ft	7,7ft	9,6ft	11,5ft	15,4ft	19,2ft

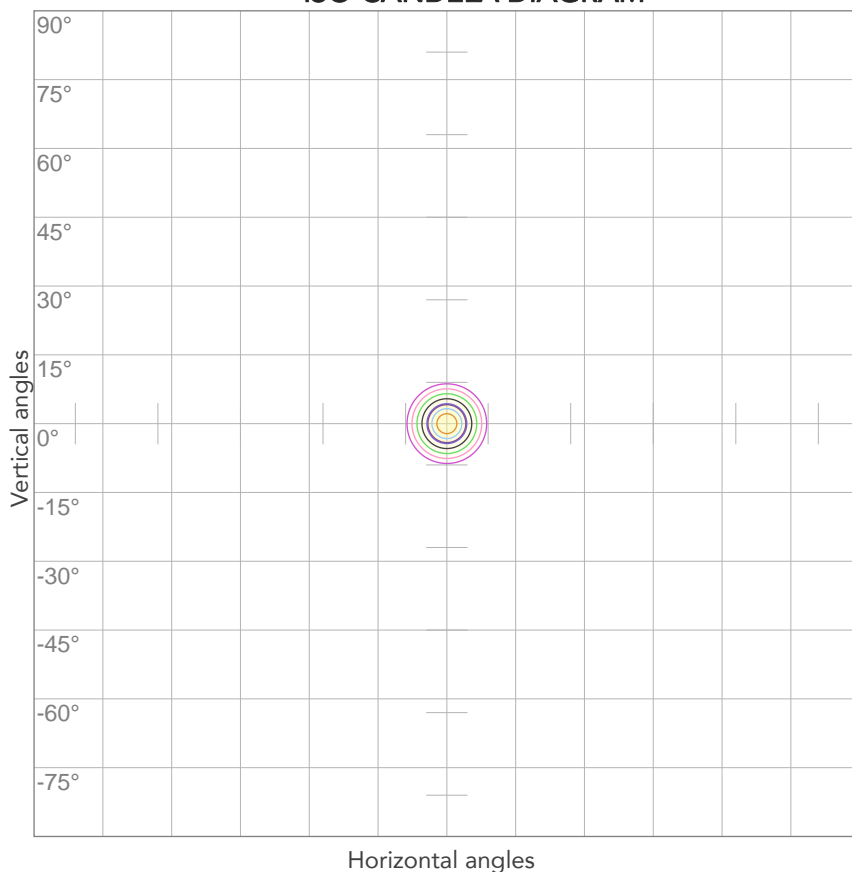
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,321A	52,4W	12lm/W

ISO CANDELA DIAGRAM



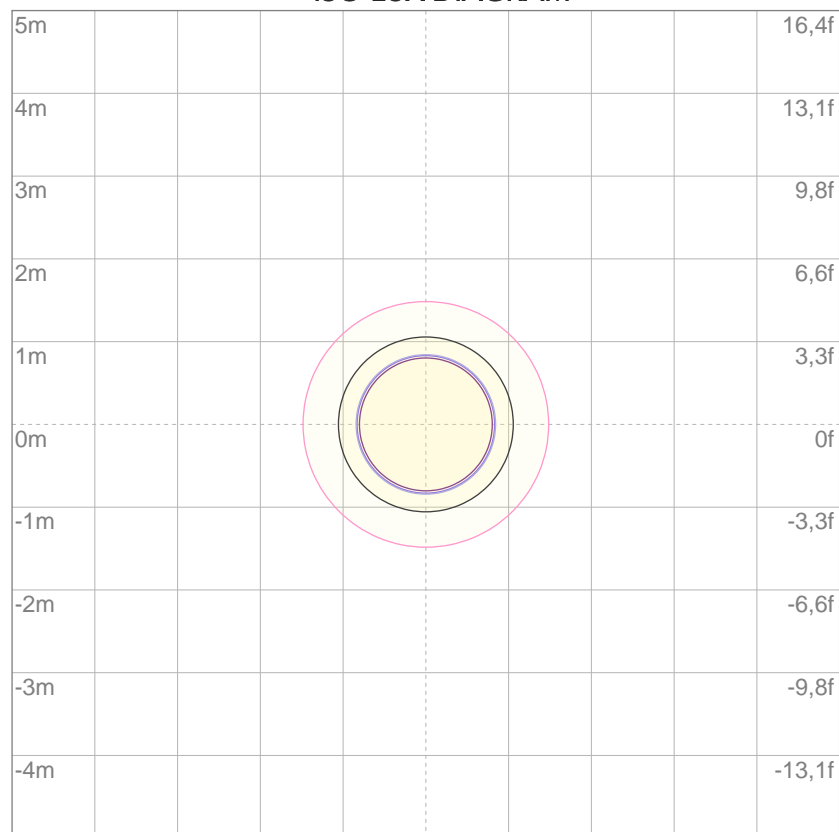
10%	5627 cd
20%	11254 cd
30%	16881 cd
40%	22509 cd
50%	28136 cd
60%	33763 cd
70%	39390 cd
80%	45017 cd

Conditions:

Number of c-planes: 2

Candela at center: 56271 cd

ISO LUX DIAGRAM



3%	16,9 lx
5%	28,1 lx
10%	56,3 lx
30%	169 lx
50%	281 lx

Conditions:

Number of c-planes: 2

Lux at center: 563 lx

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



Total lumen output:

743 lm

Peak candela output:

65472 cd

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

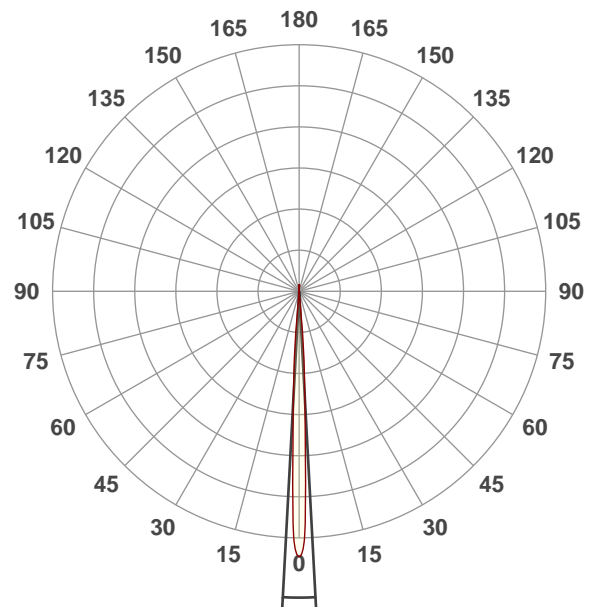
Green HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 16:28:30

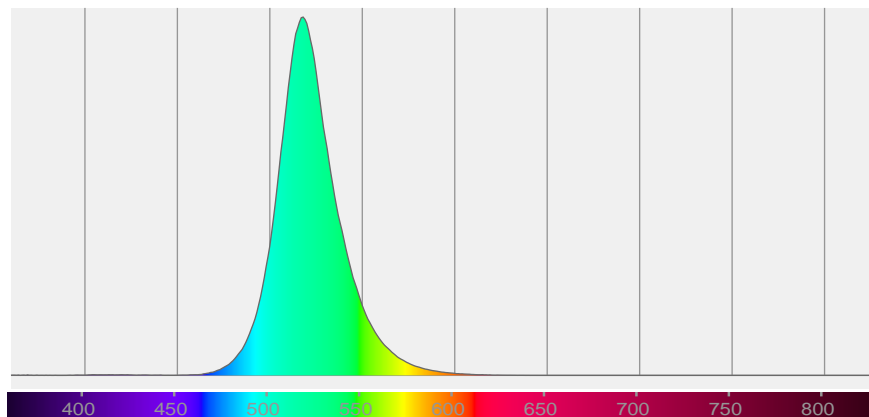


Beam angle 50%: 6,1°

Field angle 10%: 10,6°

Cut off angle 2.5%: 11,7°

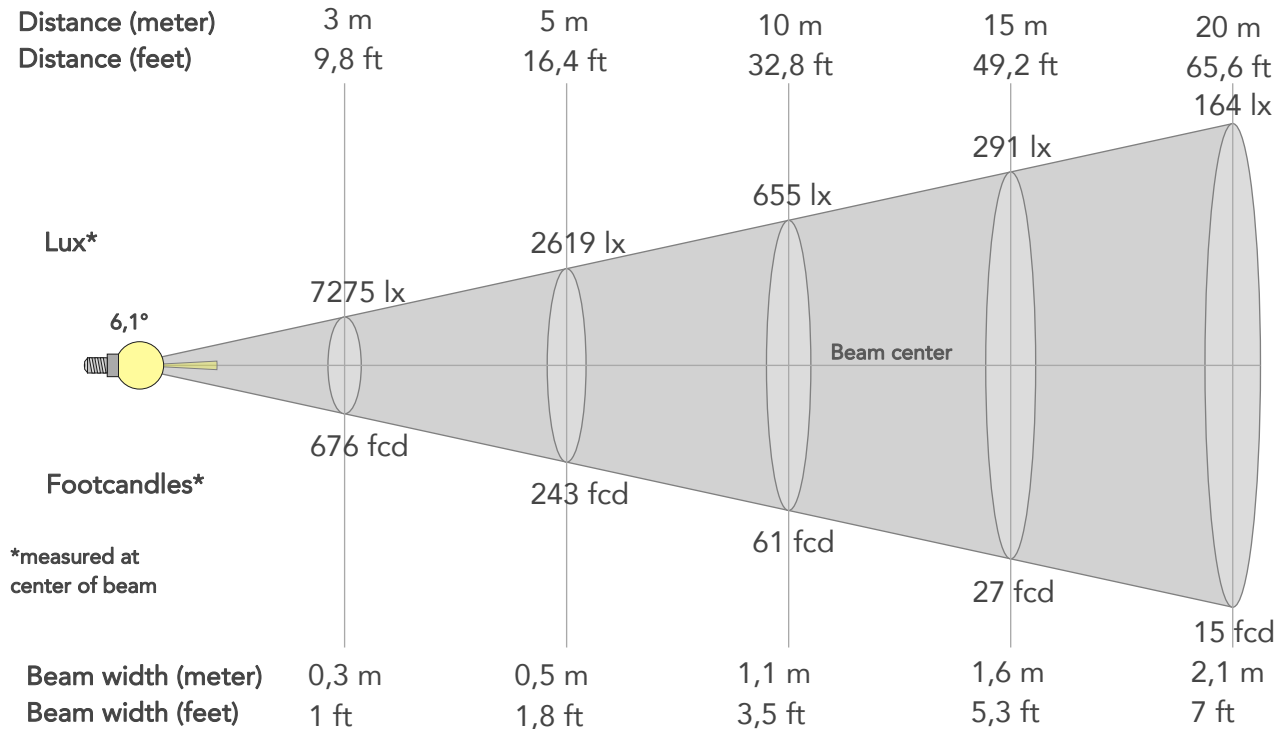
Spectra



BEAM DETAILS



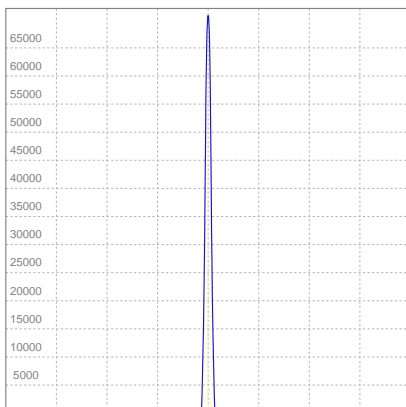
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,1°	10,6°	11,7°	100,0%	100,0%



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	65472lx	16368lx	7275lx	4092lx	2619lx	1164lx	655lx	291lx	164lx	105lx	73lx	41lx	26lx
Footcand.	6083fcd	1521fcd	676fcd	380fcd	243fcd	108fcd	61fcd	27fcd	15fcd	10fcd	7fcd	4fcd	2fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,5m	0,8m	1,1m	1,6m	2,1m	2,7m	3,2m	4,3m	5,3m
Beam wid.	0,4ft	0,7ft	1ft	1,4ft	1,8ft	2,6ft	3,5ft	5,3ft	7ft	8,8ft	10,5ft	14ft	17,5ft

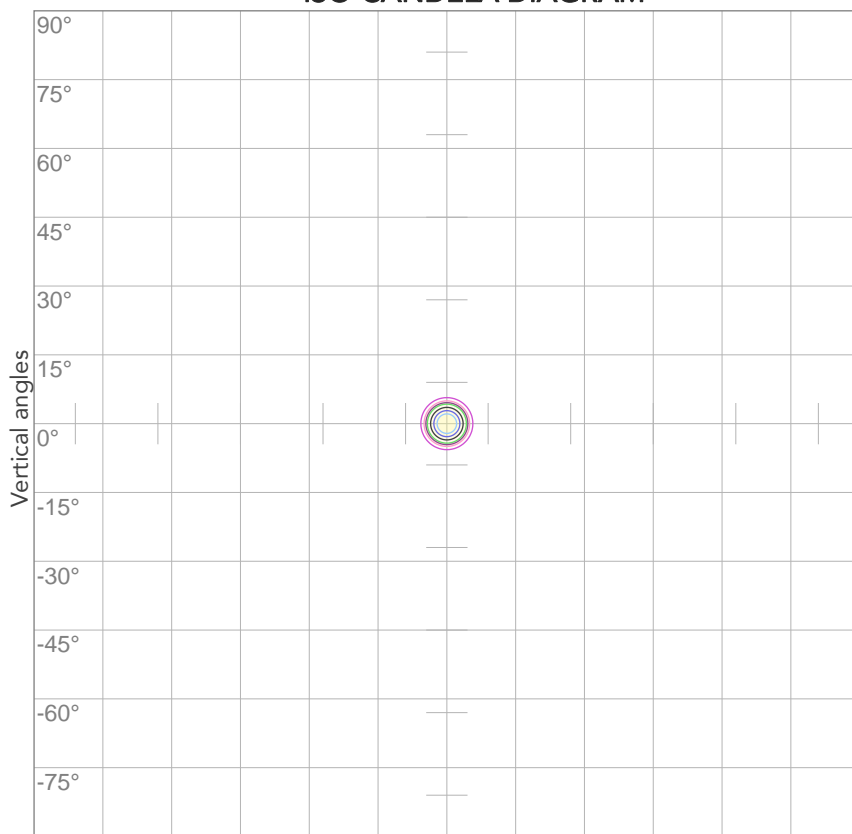
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,310A	49,7W	15lm/W

ISO CANDELA DIAGRAM



Horizontal angles

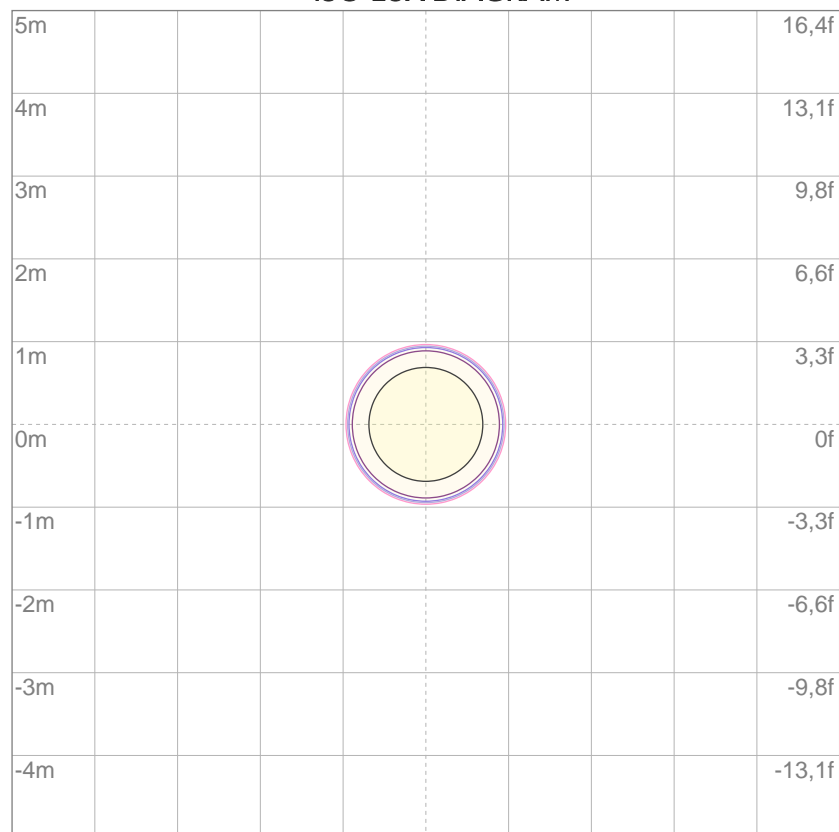
10%	6547 cd
20%	13094 cd
30%	19642 cd
40%	26189 cd
50%	32736 cd
60%	39283 cd
70%	45830 cd
80%	52377 cd

Conditions:

Number of c-planes: 2

Candela at center: 65472 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	19,6 lx
5%	32,7 lx
10%	65,5 lx
30%	196 lx
50%	327 lx

Conditions:

Number of c-planes: 2

Lux at center: 655 lx

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



Total lumen output:

84,5 lm

Peak candela output:

7385 cd

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

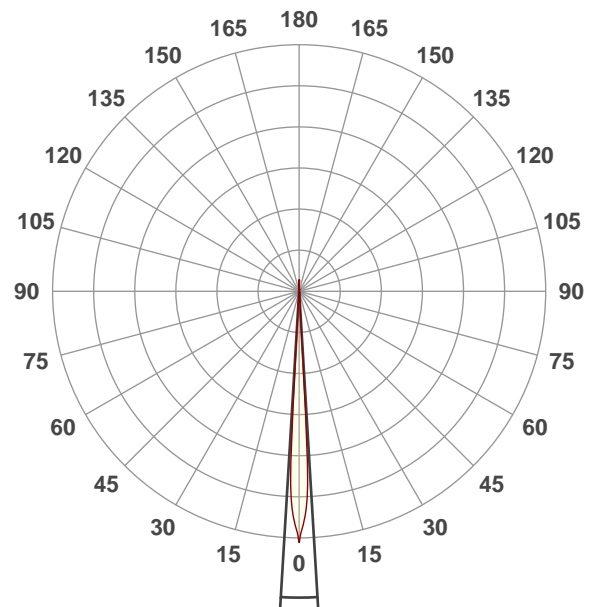
Blue HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 16:30:42

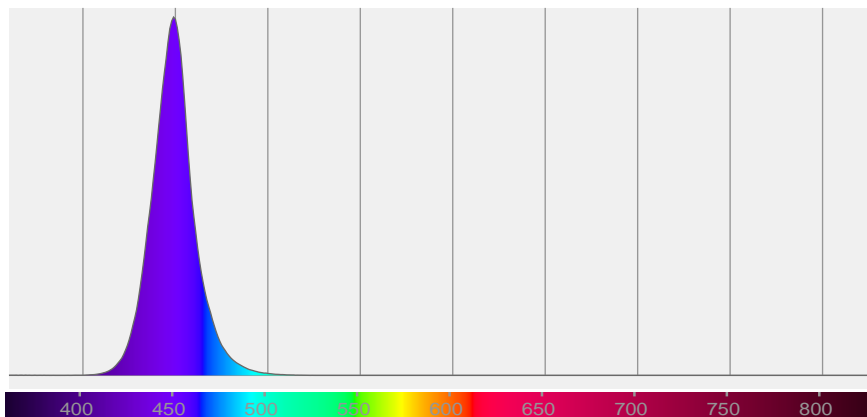


Beam angle 50%: 6,9°

Field angle 10%: 9,4°

Cut off angle 2.5%: 9,9°

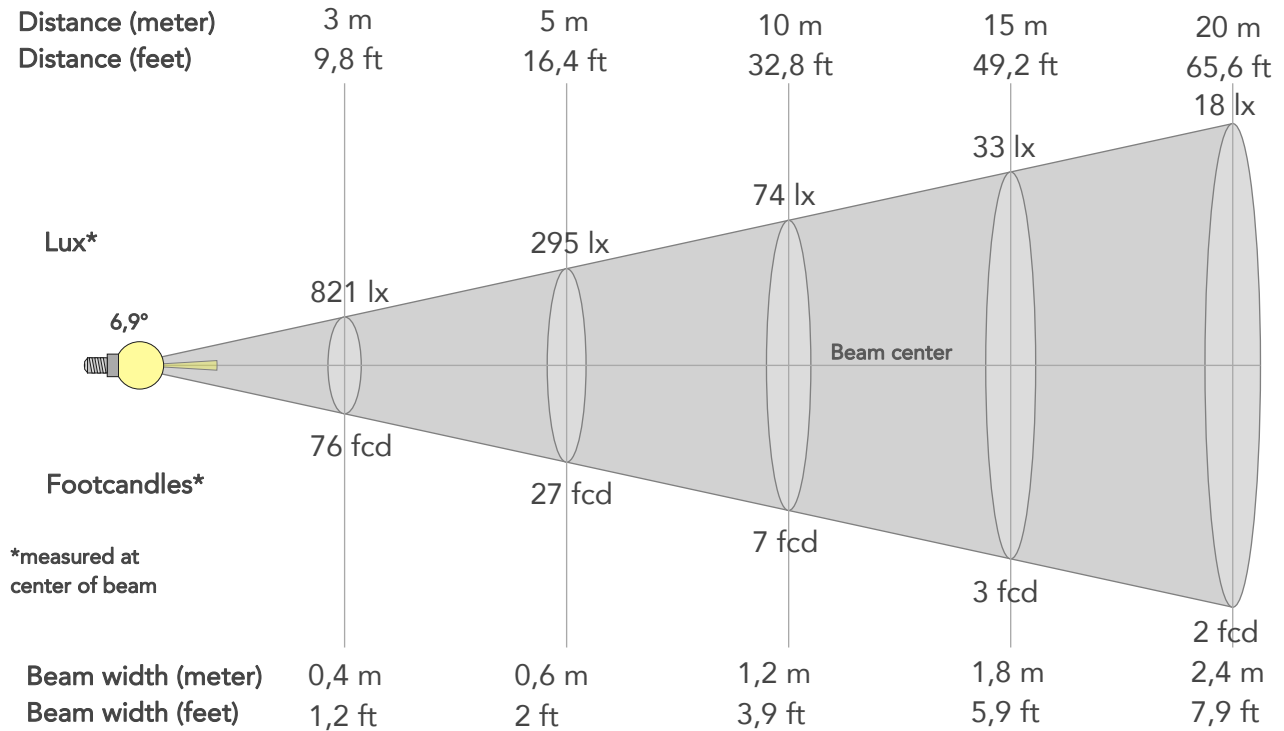
Spectra



BEAM DETAILS



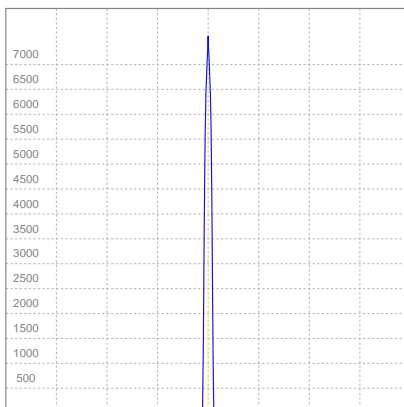
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,9°	9,4°	9,9°	99,5%	99,3%



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	7385lx	1846lx	821lx	462lx	295lx	131lx	74lx	33lx	18lx	12lx	8lx	5lx	3lx
Footcand.	686fcd	172fcd	76fcd	43fcd	27fcd	12fcd	7fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,4m	3m	3,6m	4,8m	6m
Beam wid.	0,4ft	0,8ft	1,2ft	1,6ft	2ft	3ft	3,9ft	5,9ft	7,9ft	9,8ft	11,8ft	15,7ft	19,7ft

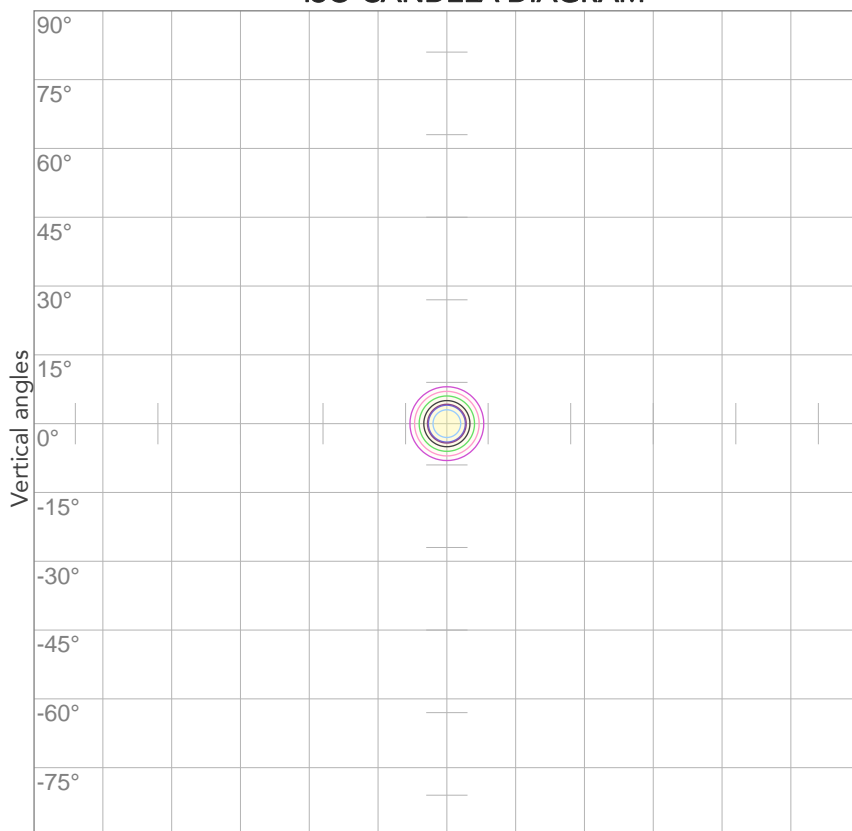
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,235A	32,0W	3lm/W

ISO CANDELA DIAGRAM



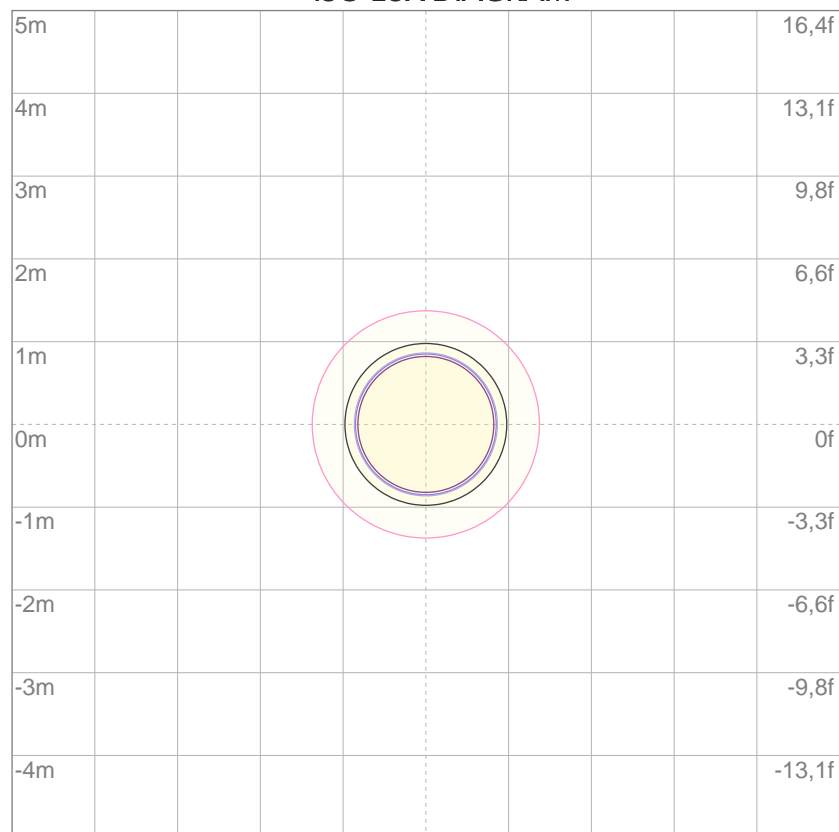
10%	739 cd
20%	1477 cd
30%	2216 cd
40%	2954 cd
50%	3693 cd
60%	4431 cd
70%	5170 cd
80%	5908 cd

Conditions:

Number of c-planes: 2

Candela at center: 7385 cd

ISO LUX DIAGRAM



3%	2,22 lx
5%	3,69 lx
10%	7,39 lx
30%	22,2 lx
50%	36,9 lx

Conditions:

Number of c-planes: 2

Lux at center: 73,9 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:

3475 lm

Peak candela output:

294015 cd

Light quality:

CRI: 92,1

Color temperature:

2777 K

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

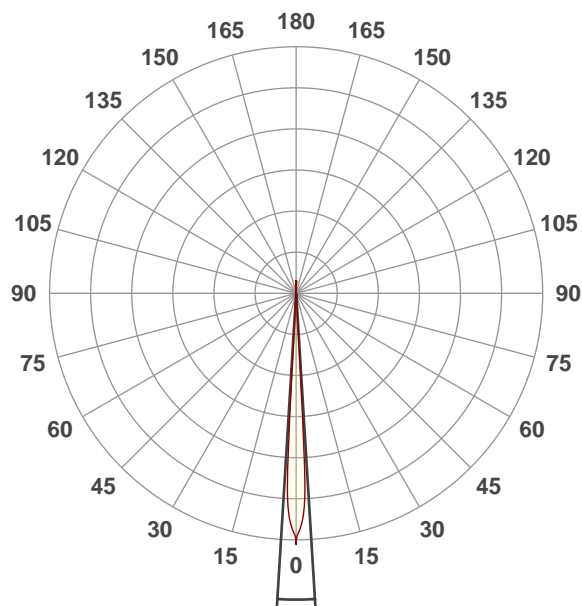
2800K HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 16:33:58

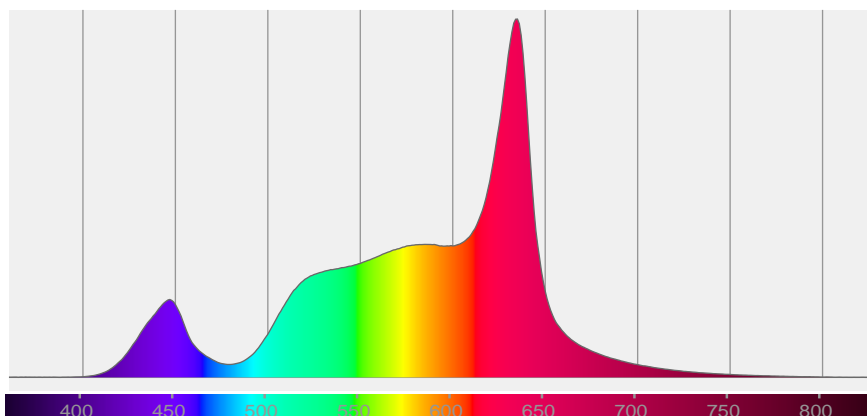


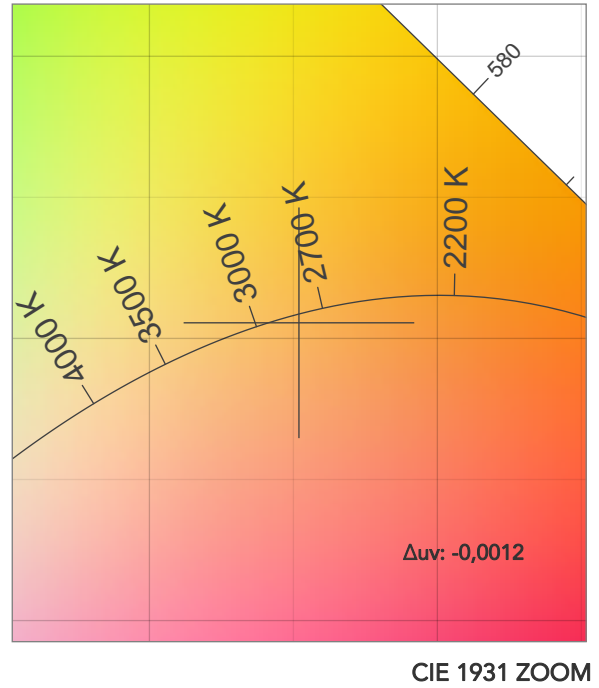
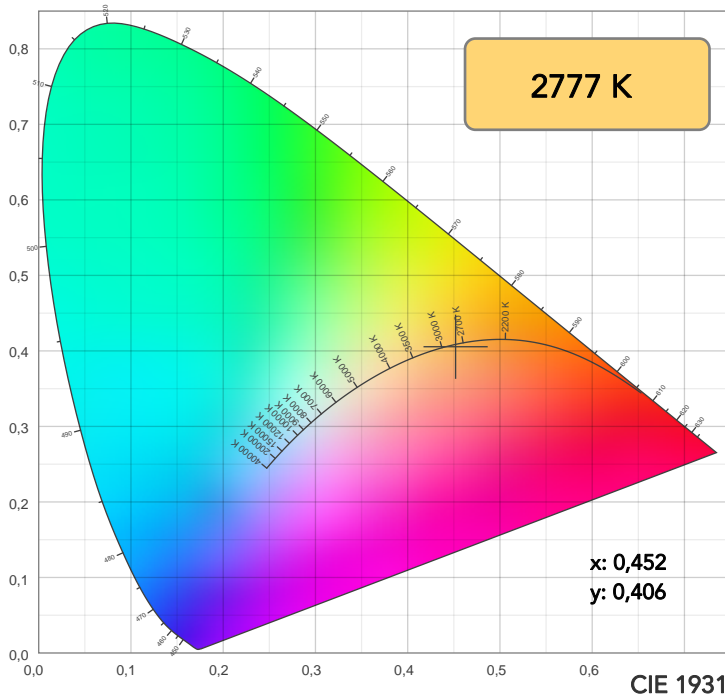
Beam angle 50%: 7°

Field angle 10%: 9,6°

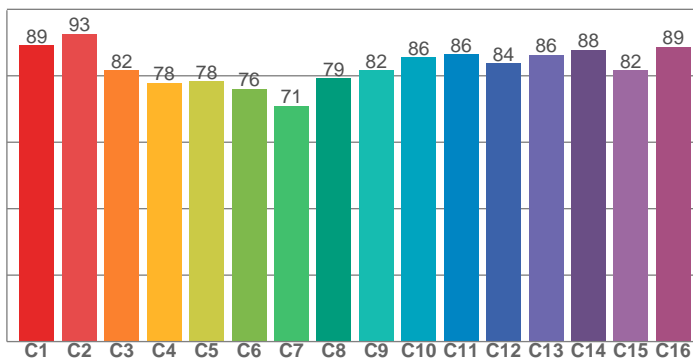
Cut off angle 2.5%: 10,1°

Spectra

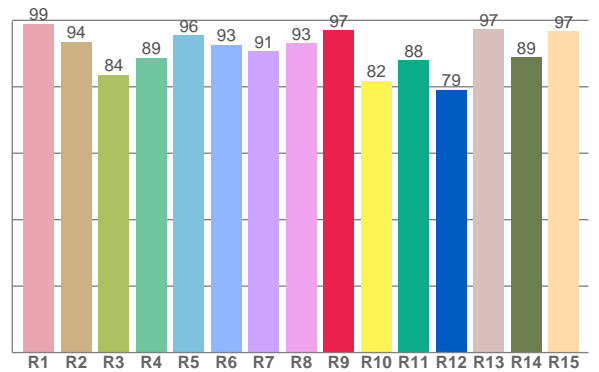




TM30: 83,6



CRI: 92,1 (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
99,0	93,5	83,7	88,8	95,5	92,7	90,7	93,2	96,9	81,8	87,9	79,1	97,3	88,8	96,8

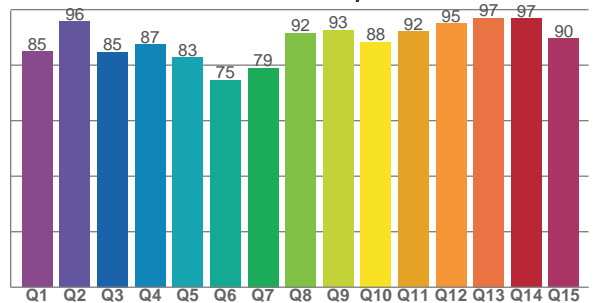
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,1	92,6	81,6	78,0	78,3	76,1	70,9	79,3	81,6	85,5	86,4	83,7	86,2	87,8	81,7	88,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,8	95,7	84,8	87,5	82,7	74,7	78,9	91,5	92,6	88,4	92,1	95,0	97,0	96,7	89,6

CQS: 86,8



COLOR PARAMETERS

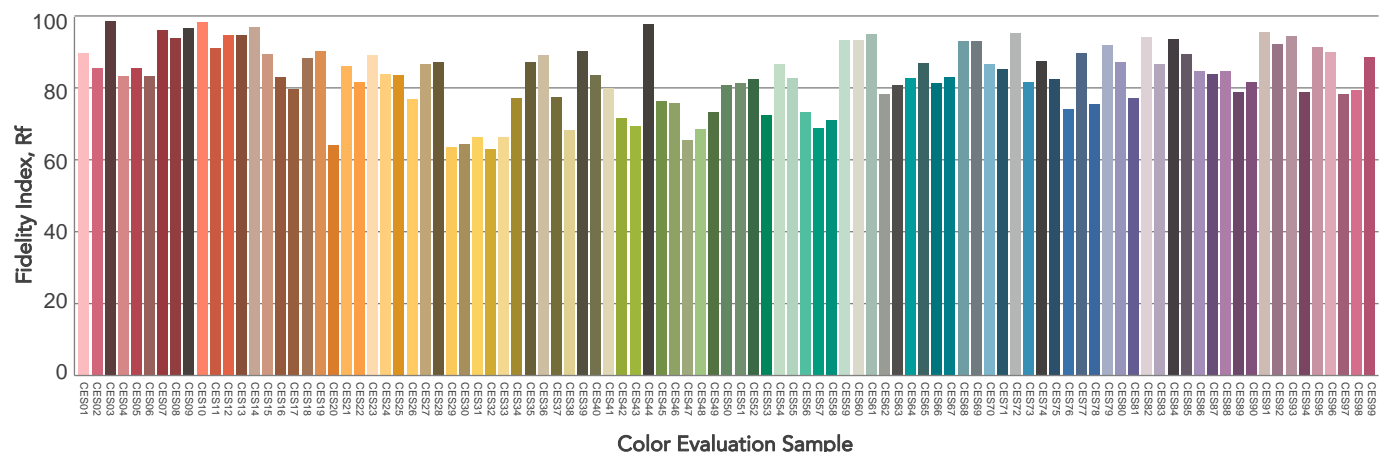
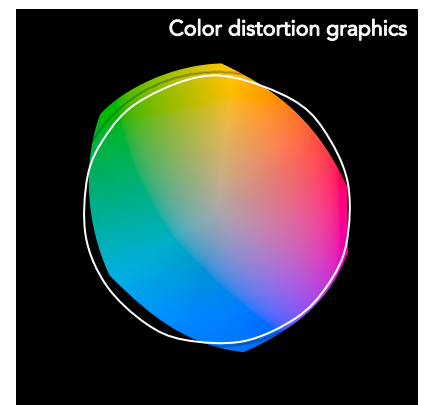
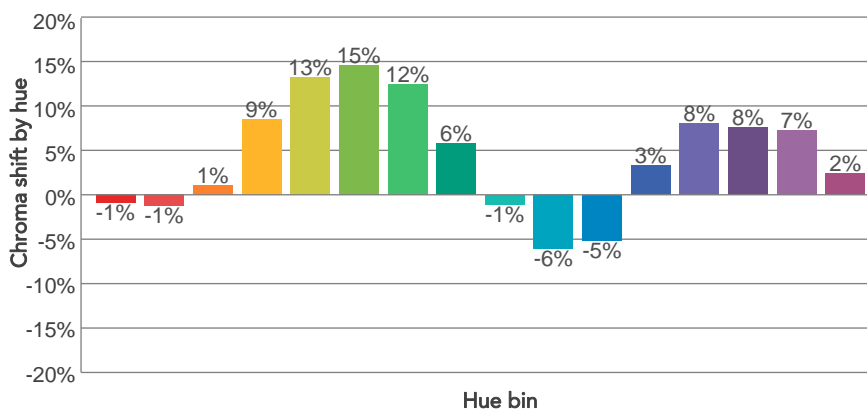
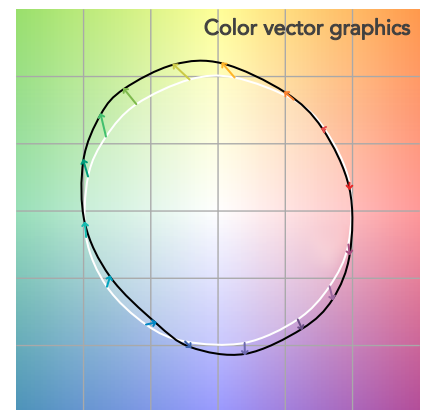
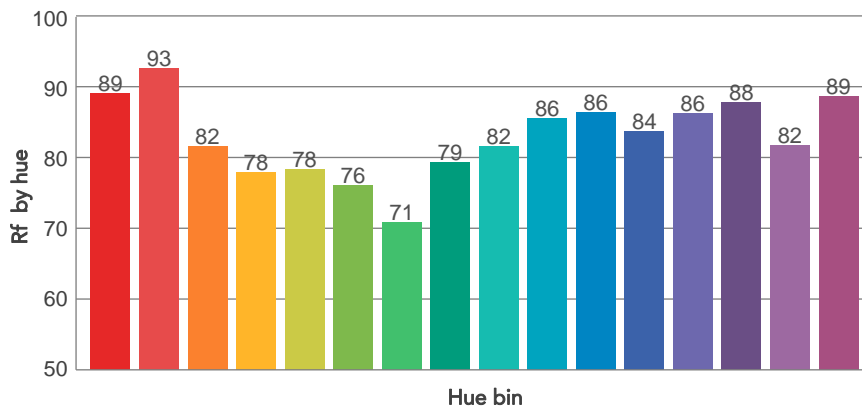
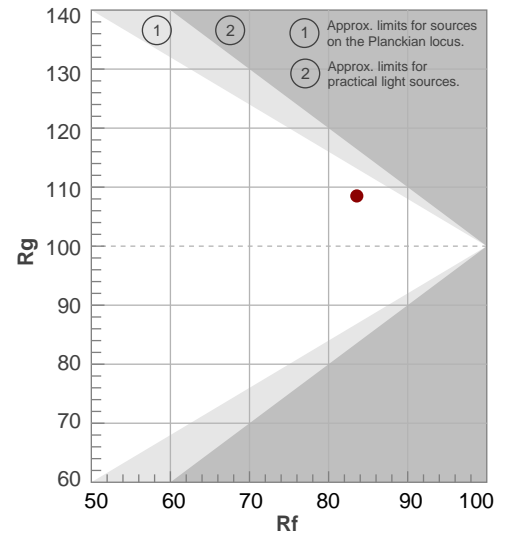
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2777 K	92,1	96,9	83,6	108,5	86,8	66	0,452	0,406	-0,0012

TM30 DETAILS

Rf 83,6
Fidelity index Rf

Rg 108,5
Gammut index

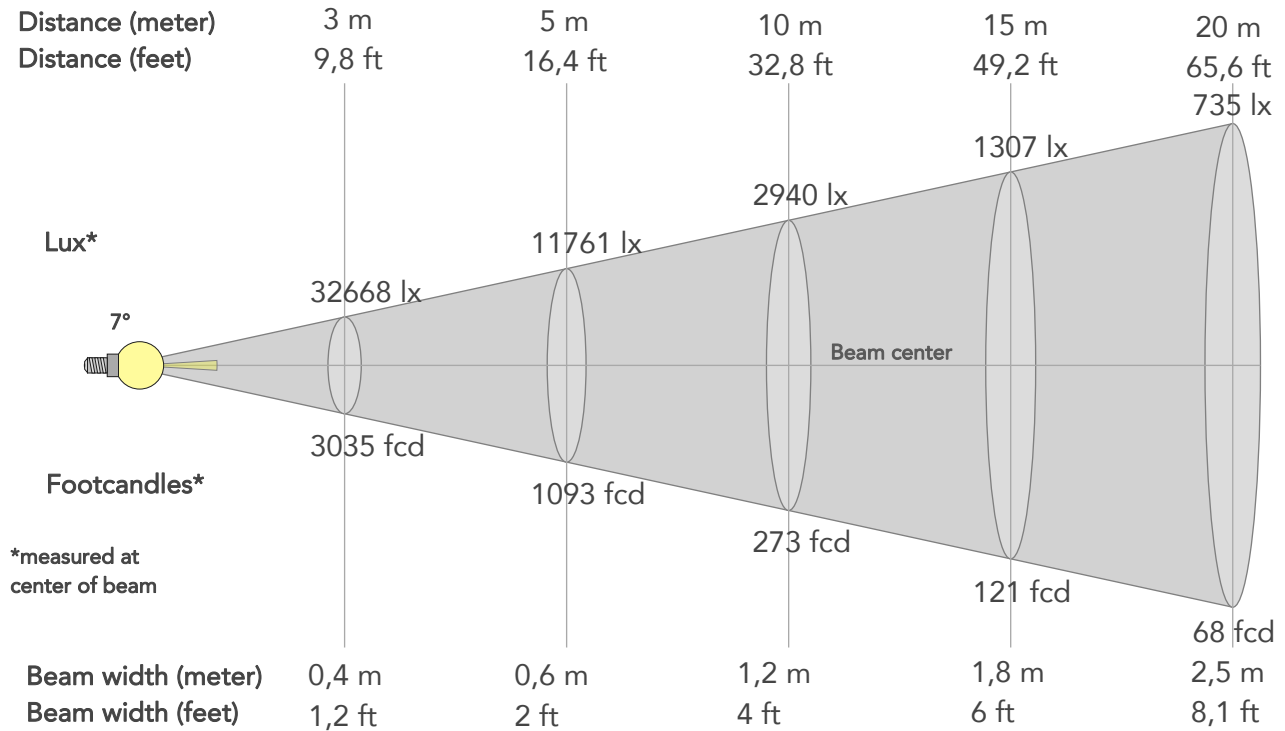
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-1%	-4%
2	93	-1%	2%
3	82	1%	8%
4	78	9%	11%
5	78	13%	9%
6	76	15%	1%
7	71	12%	-11%
8	79	6%	-11%
9	82	-1%	-11%
10	86	-6%	-5%
11	86	-5%	5%
12	84	3%	5%
13	86	8%	-1%
14	88	8%	-1%
15	82	7%	-7%
16	89	2%	-7%



BEAM DETAILS



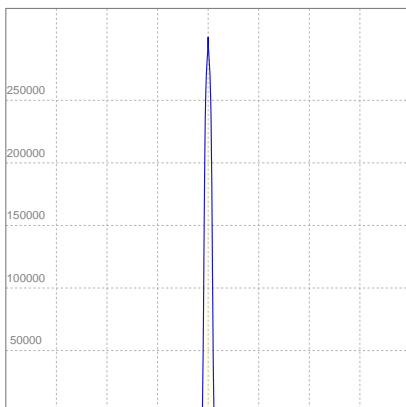
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
7°	9,6°	10,1°	100,0%	100,0%



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	294015lx	73504lx	32668lx	18376lx	11761lx	5227lx	2940lx	1307lx	735lx	470lx	327lx	184lx	118lx
Footcand.	27315fcd	6829fcd	3035fcd	1707fcd	1093fcd	486fcd	273fcd	121fcd	68fcd	44fcd	30fcd	17fcd	11fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,5m	3,1m	3,7m	4,9m	6,1m
Beam wid.	0,4ft	0,8ft	1,2ft	1,6ft	2ft	3ft	4ft	6ft	8,1ft	10,1ft	12,1ft	16,1ft	20,2ft

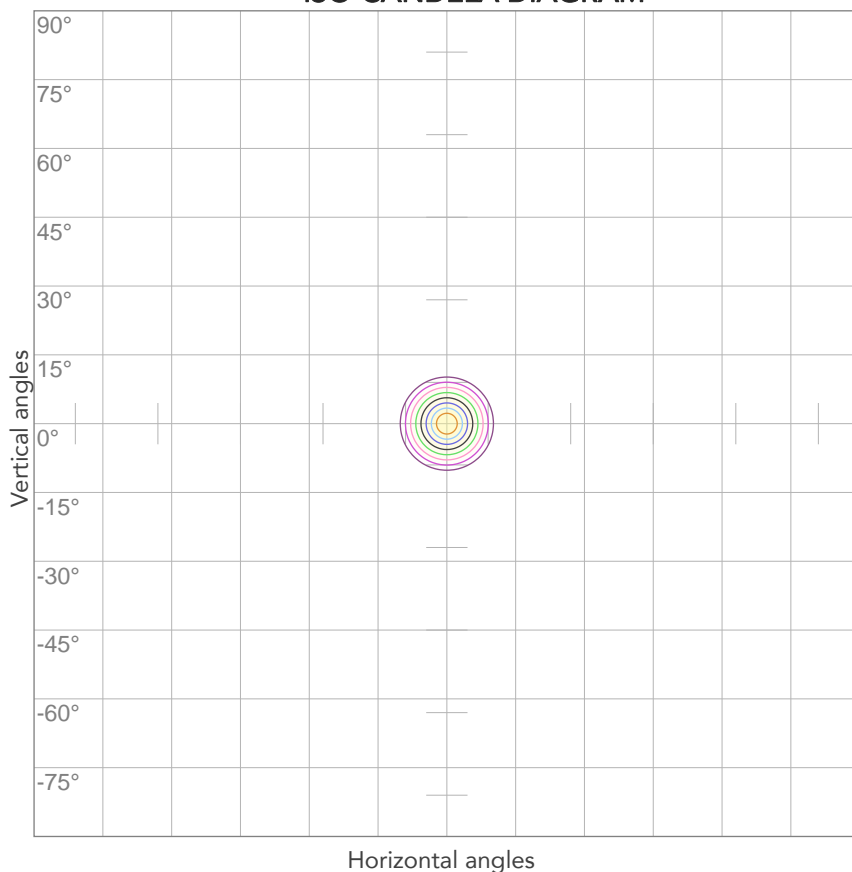
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
221V	0,811A	166,6W	21lm/W

ISO CANDELA DIAGRAM



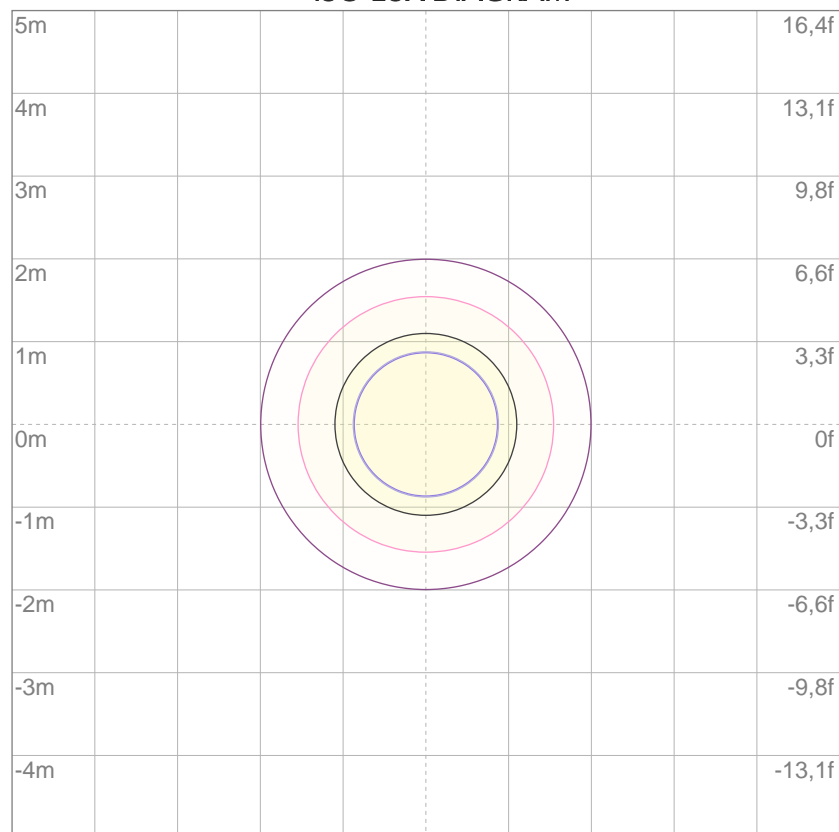
10%	29401 cd
20%	58803 cd
30%	88204 cd
40%	117606 cd
50%	147007 cd
60%	176409 cd
70%	205810 cd
80%	235212 cd

Conditions:

Number of c-planes: 2

Candela at center: 294015 cd

ISO LUX DIAGRAM



3%	88,2 lx
5%	147 lx
10%	294 lx
30%	882 lx
50%	1470 lx

Conditions:

Number of c-planes: 2

Lux at center: 2940 lx

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



Total lumen output:

3846 lm

Peak candela output:

263565 cd

Light quality:

CRI: 93,2

Color temperature:

3173 K

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

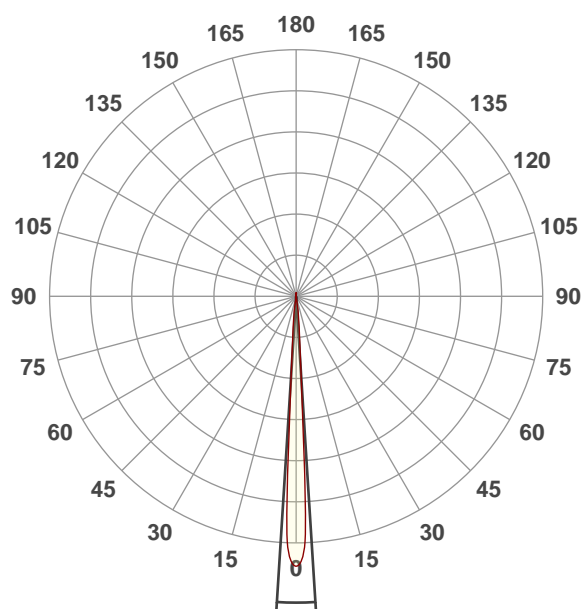
3200K HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 16:35:42

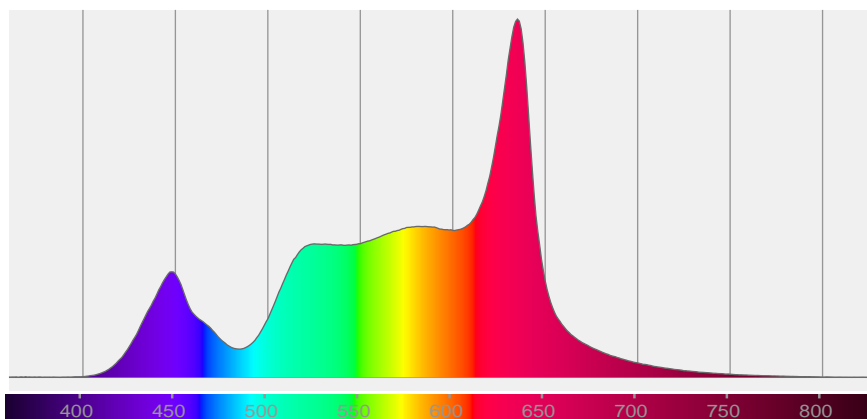


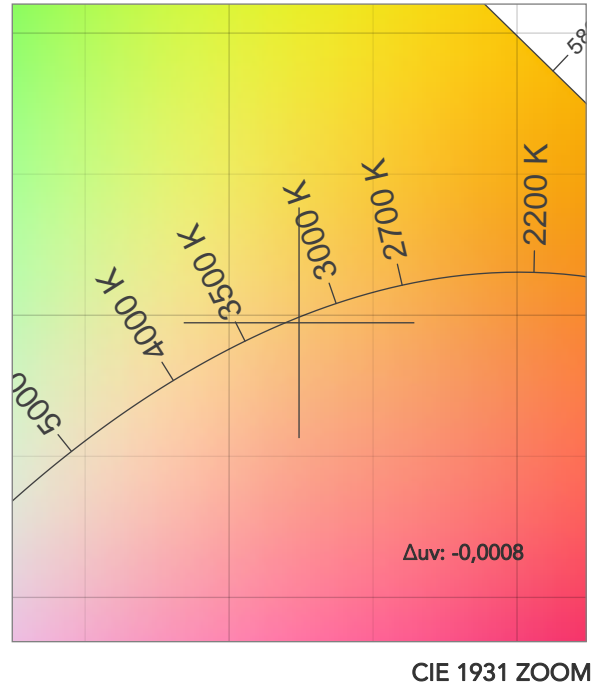
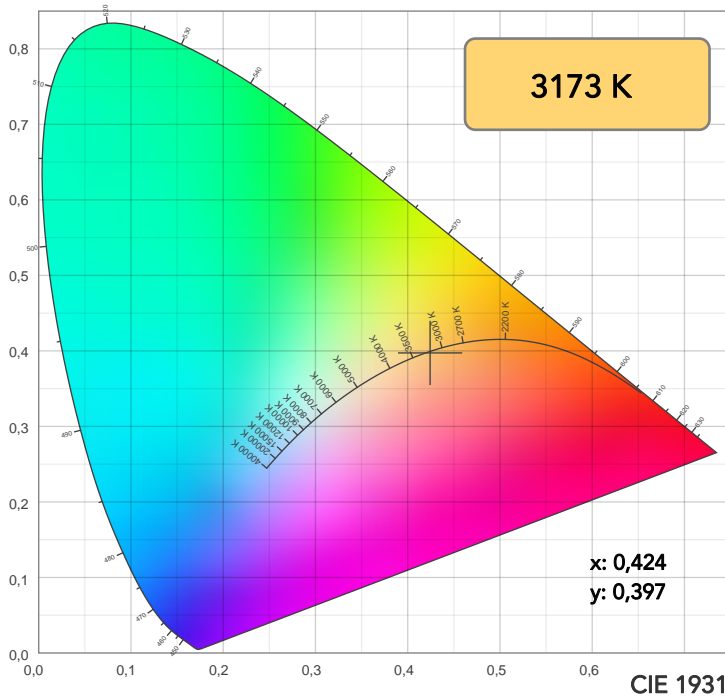
Beam angle 50%: 7,2°

Field angle 10%: 11,4°

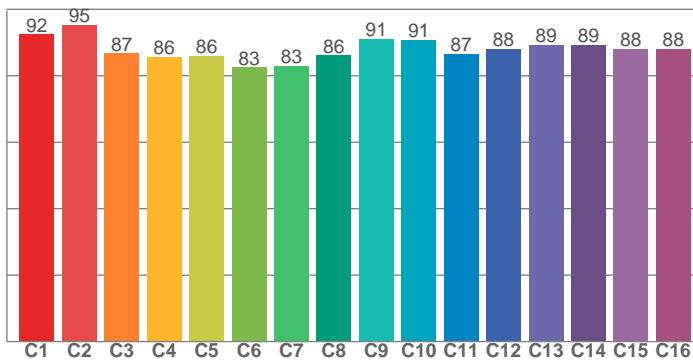
Cut off angle 2.5%: 13,5°

Spectra

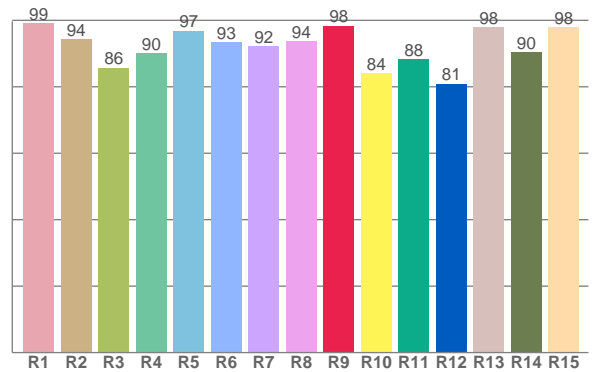




TM30: 88,4



CRI: 93,2 (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
99,2	94,2	85,7	90,2	96,9	93,4	92,1	93,7	98,3	84,1	88,4	80,9	98,0	90,3	97,9

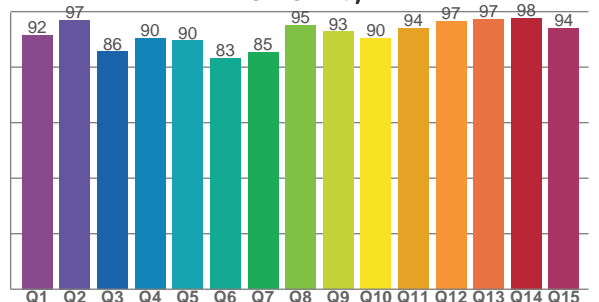
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,4	95,2	86,8	85,7	86,0	82,6	82,9	86,1	91,2	90,8	86,5	88,2	89,3	89,3	88,0	88,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91,6	96,9	85,6	90,4	89,5	83,3	85,4	95,1	92,8	90,4	94,1	96,7	97,4	97,7	94,1

CQS: 90,7



COLOR PARAMETERS

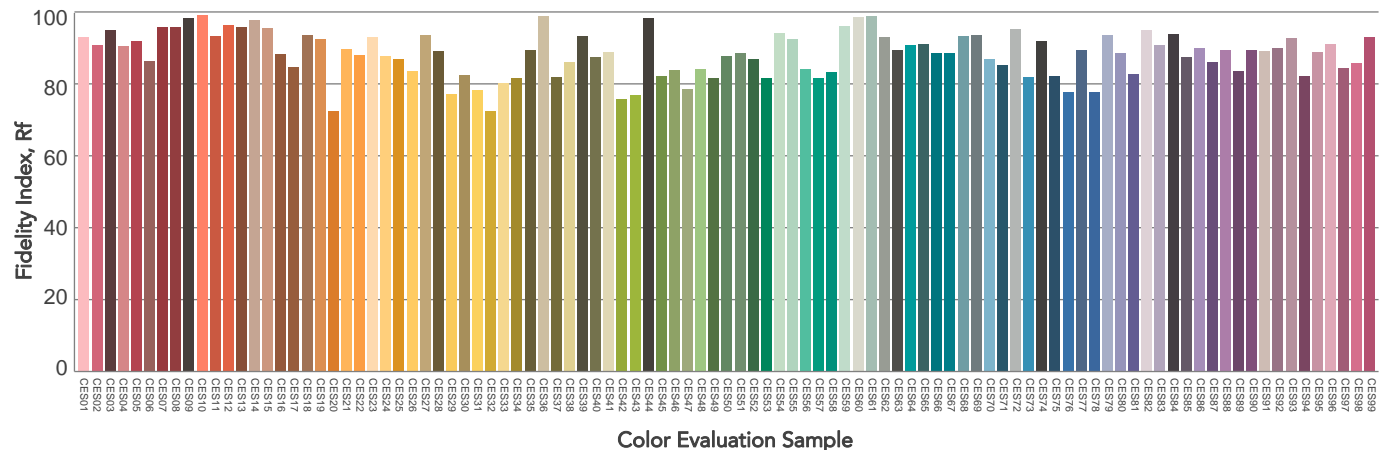
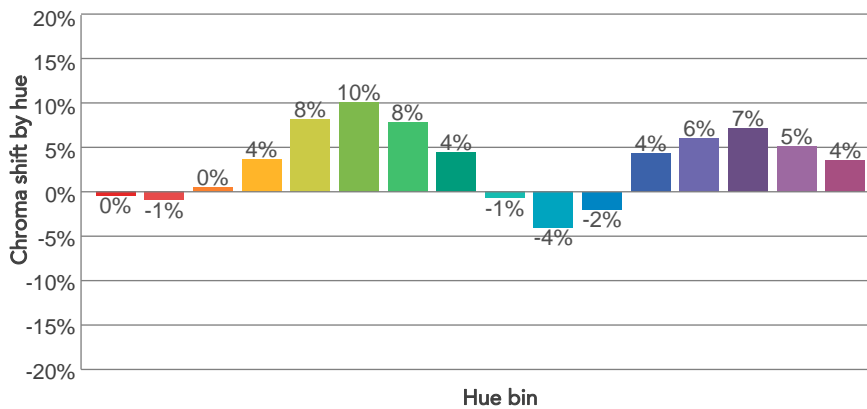
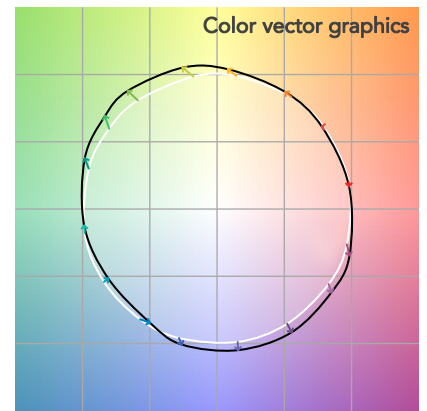
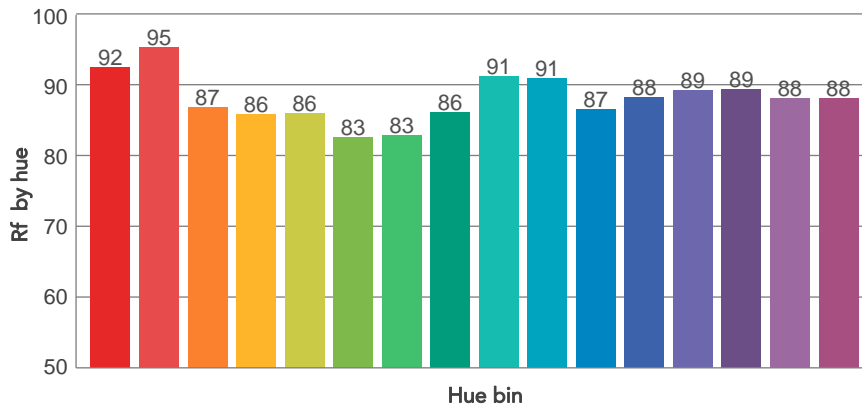
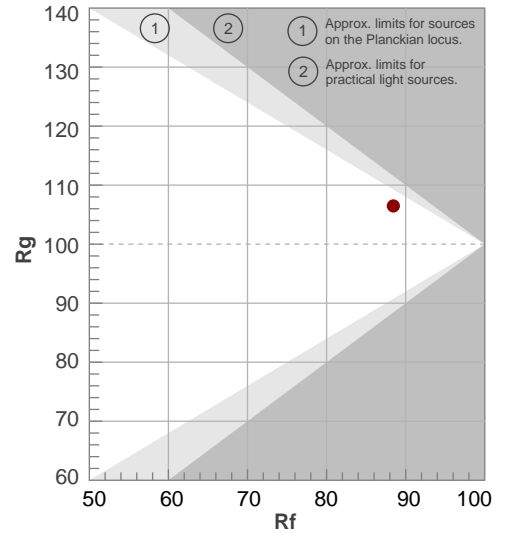
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3173 K	93,2	98,3	88,4	106,5	90,7	81	0,424	0,397	-0,0008

TM30 DETAILS

Rf 88,4
Fidelity index Rf

Rg 106,5
Gammut index

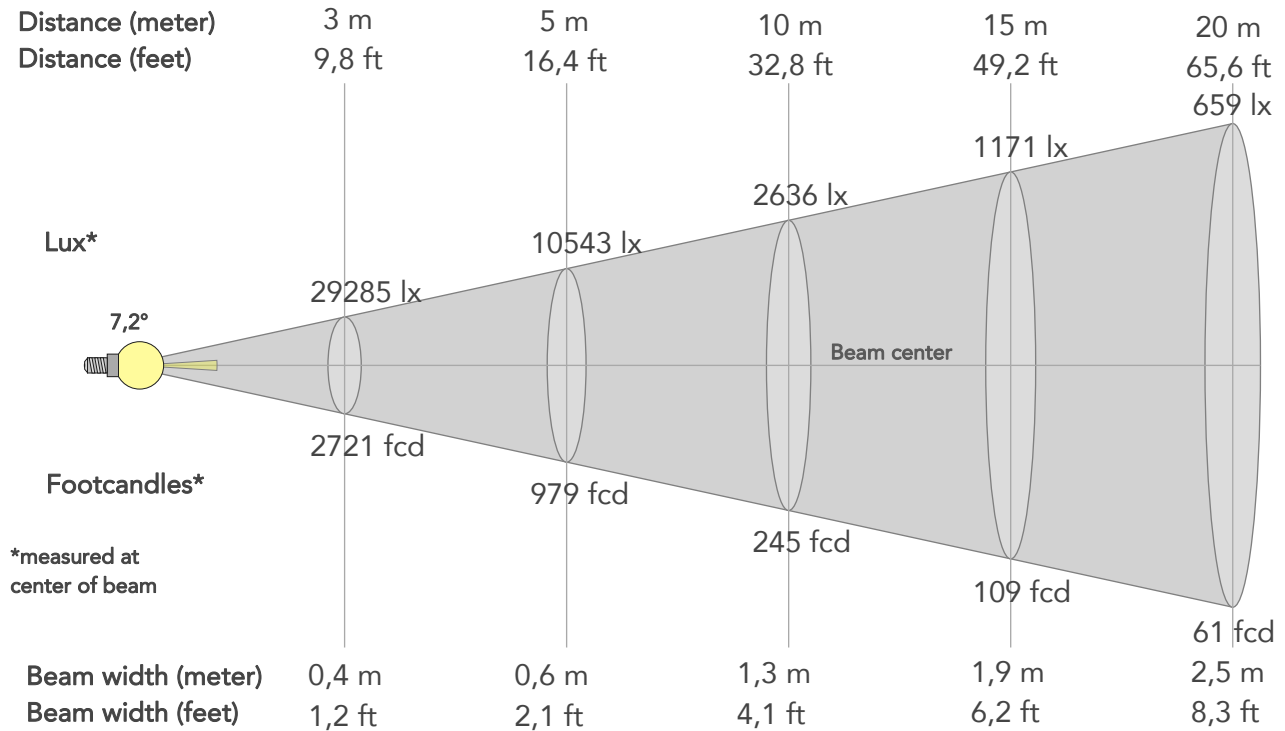
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	92	0%	-3%
2	95	-1%	1%
3	87	0%	6%
4	86	4%	7%
5	86	8%	7%
6	83	10%	2%
7	83	8%	-6%
8	86	4%	-7%
9	91	-1%	-6%
10	91	-4%	0%
11	87	-2%	7%
12	88	4%	3%
13	89	6%	-1%
14	89	7%	-1%
15	88	5%	-4%
16	88	4%	-8%



BEAM DETAILS



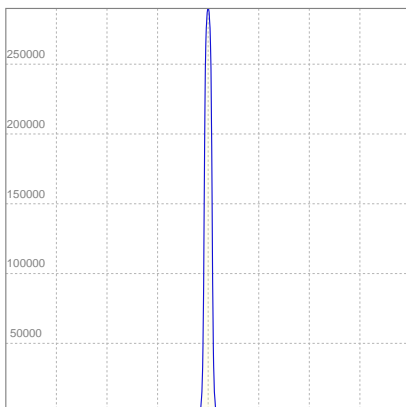
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
7,2°	11,4°	13,5°	100,0%	100,0%



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	263565lx	65891lx	29285lx	16473lx	10543lx	4686lx	2636lx	1171lx	659lx	422lx	293lx	165lx	105lx
Footcand.	24486fcd	6122fcd	2721fcd	1530fcd	979fcd	435fcd	245fcd	109fcd	61fcd	39fcd	27fcd	15fcd	10fcd
Beam wid.	0,1m	0,3m	0,4m	0,5m	0,6m	0,9m	1,3m	1,9m	2,5m	3,2m	3,8m	5m	6,3m
Beam wid.	0,4ft	0,8ft	1,2ft	1,7ft	2,1ft	3,1ft	4,1ft	6,2ft	8,3ft	10,3ft	12,4ft	16,5ft	20,7ft

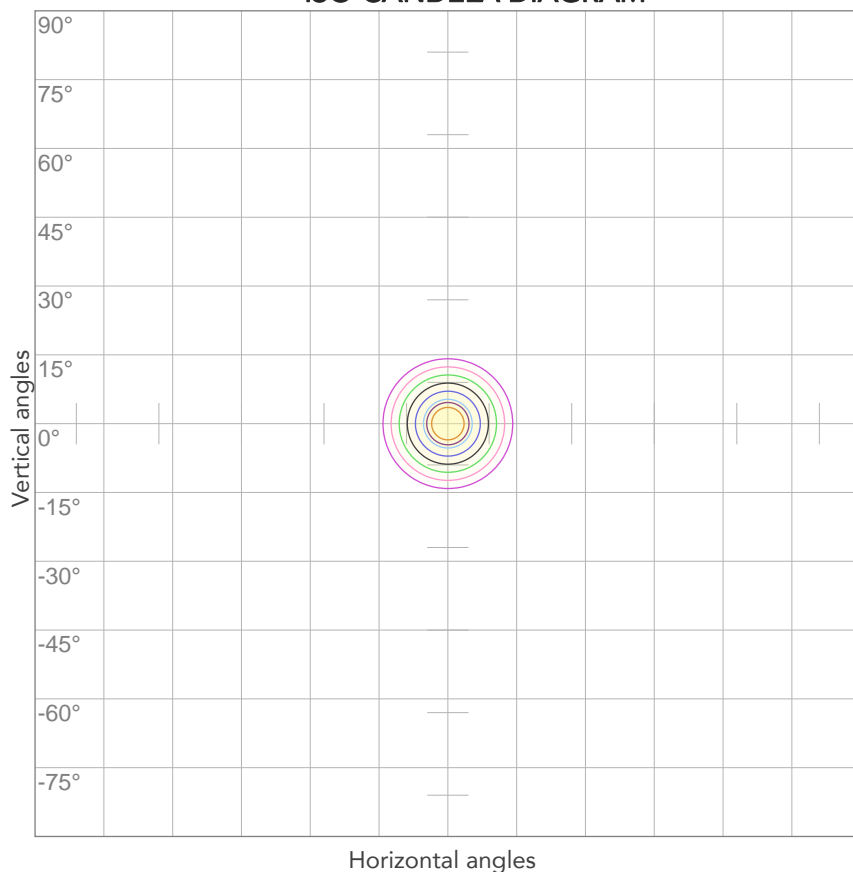
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
221V	0,861A	178,1W	22lm/W

ISO CANDELA DIAGRAM



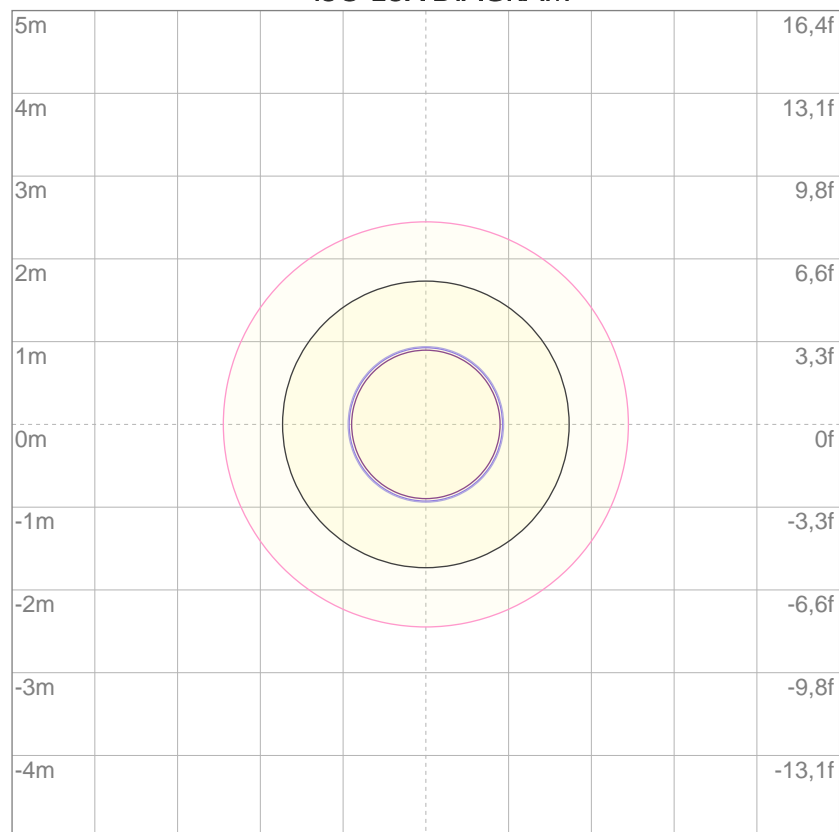
10%	26357 cd
20%	52713 cd
30%	79070 cd
40%	105426 cd
50%	131783 cd
60%	158139 cd
70%	184496 cd
80%	210852 cd

Conditions:

Number of c-planes: 2

Candela at center: 263565 cd

ISO LUX DIAGRAM



3%	79,1 lx
5%	132 lx
10%	264 lx
30%	791 lx
50%	1318 lx

Conditions:

Number of c-planes: 2

Lux at center: 2636 lx

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



Total lumen output:

3944 lm

Peak candela output:

342753 cd

Light quality:

CRI: 95,4

Color temperature:

3940 K

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

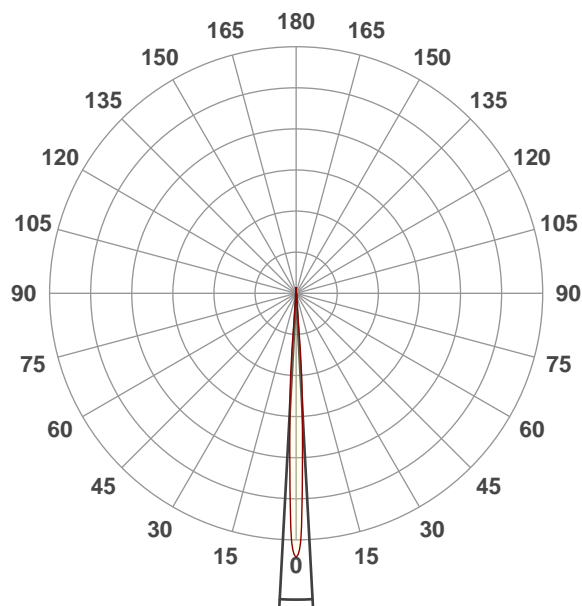
4000K HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 16:37:44

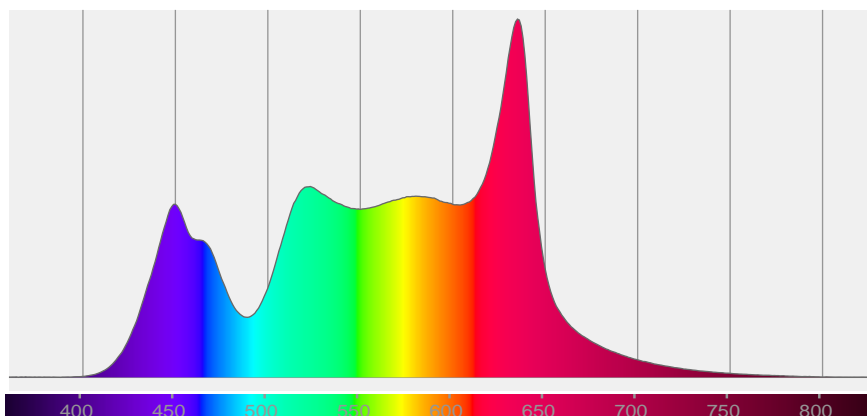


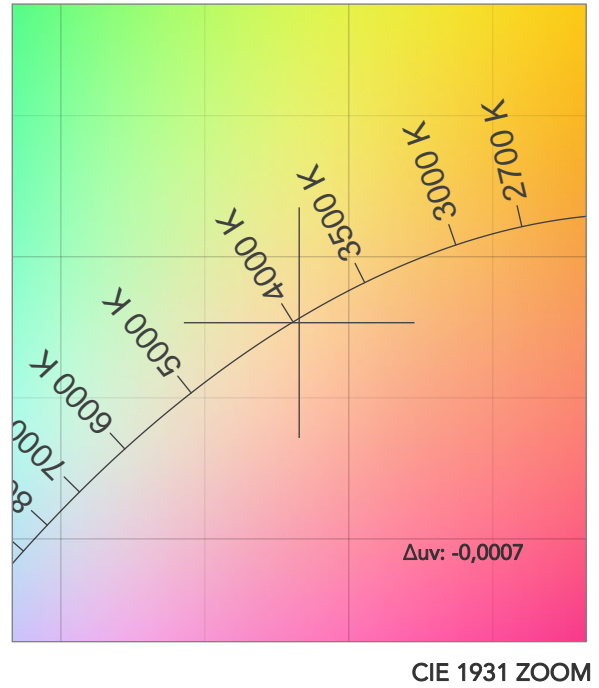
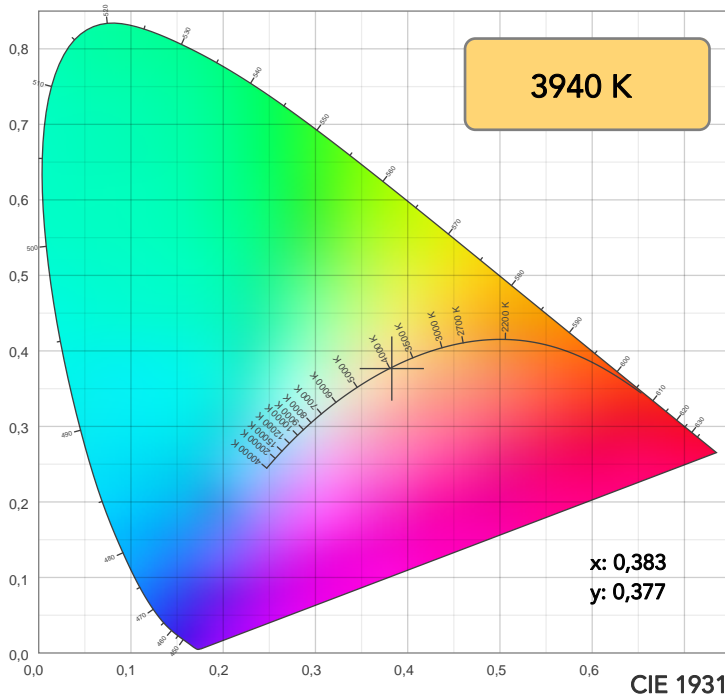
Beam angle 50%: 6,1°

Field angle 10%: 10,5°

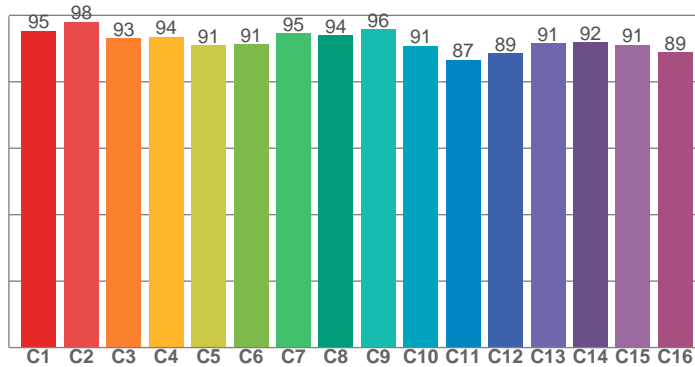
Cut off angle 2.5%: 11,4°

Spectra

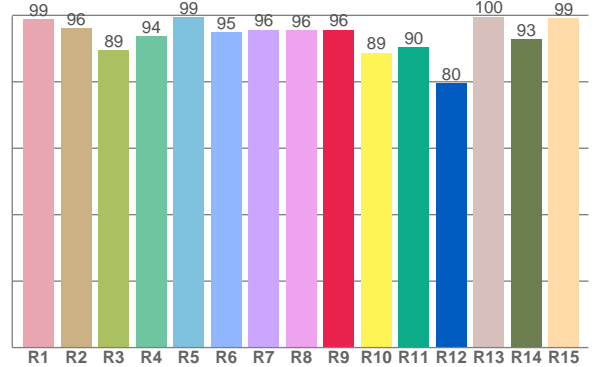




TM30: 92,2



CRI: 95,4 (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
98,7	96,1	89,4	93,6	99,3	94,9	95,7	95,5	95,7	88,8	90,3	79,5	99,6	92,8	99,1

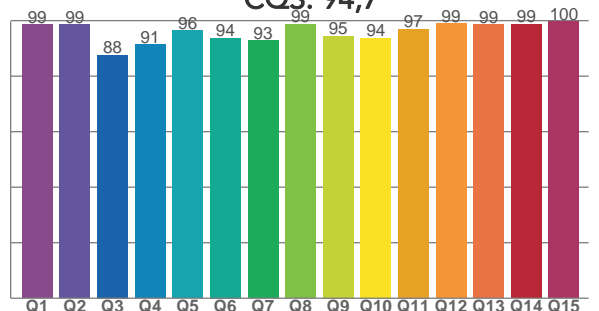
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,3	98,0	93,0	93,6	90,9	91,3	94,5	94,0	95,8	90,7	86,6	88,5	91,5	91,8	91,1	88,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
98,6	98,6	87,6	91,4	96,5	93,7	92,8	98,7	94,5	93,8	97,0	99,0	98,6	98,7	99,6

CQS: 94,7



COLOR PARAMETERS

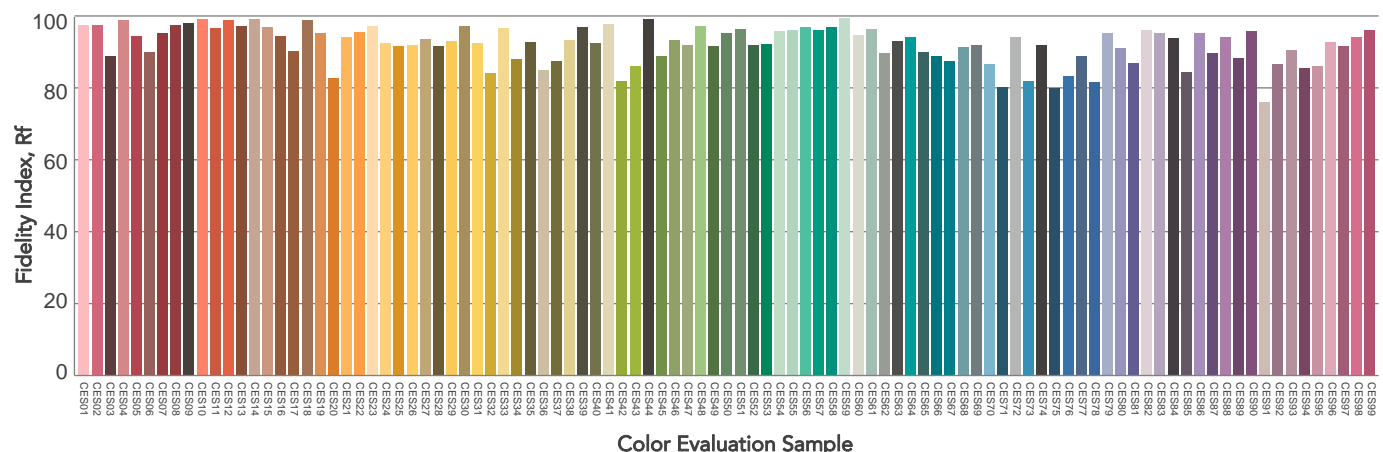
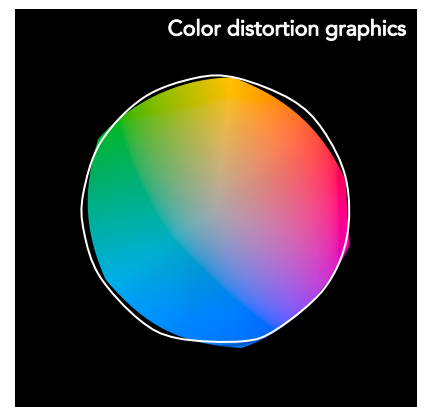
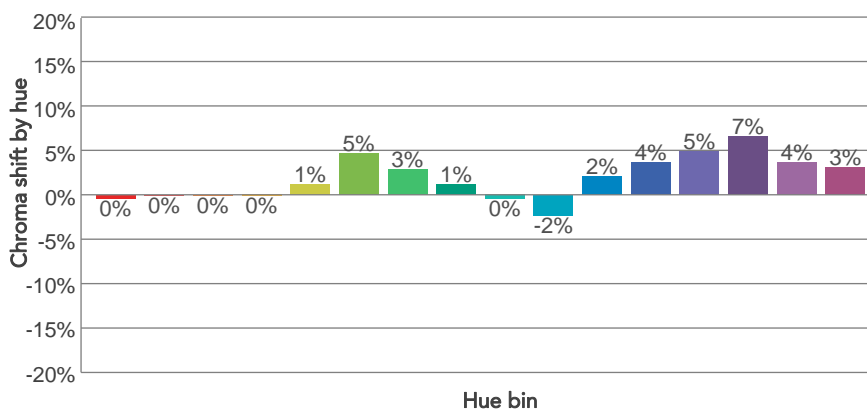
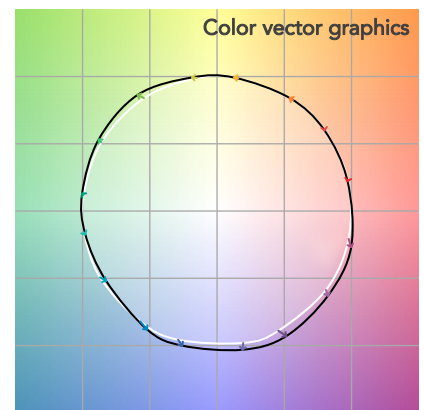
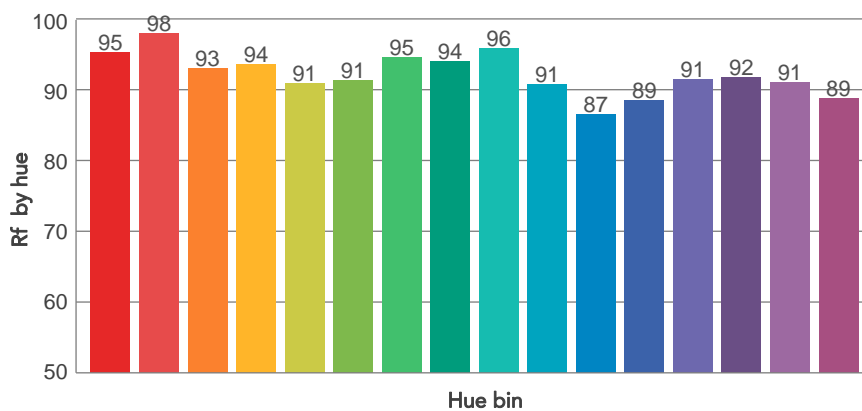
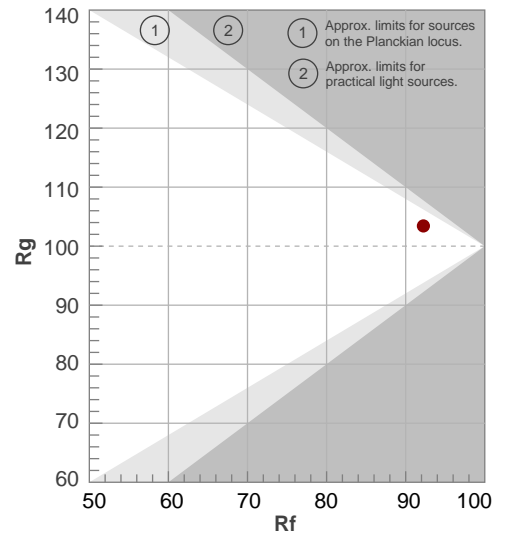
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3940 K	95,4	95,7	92,2	103,4	94,7	90	0,383	0,377	-0,0007

TM30 DETAILS

Rf 92,2
Fidelity index Rf

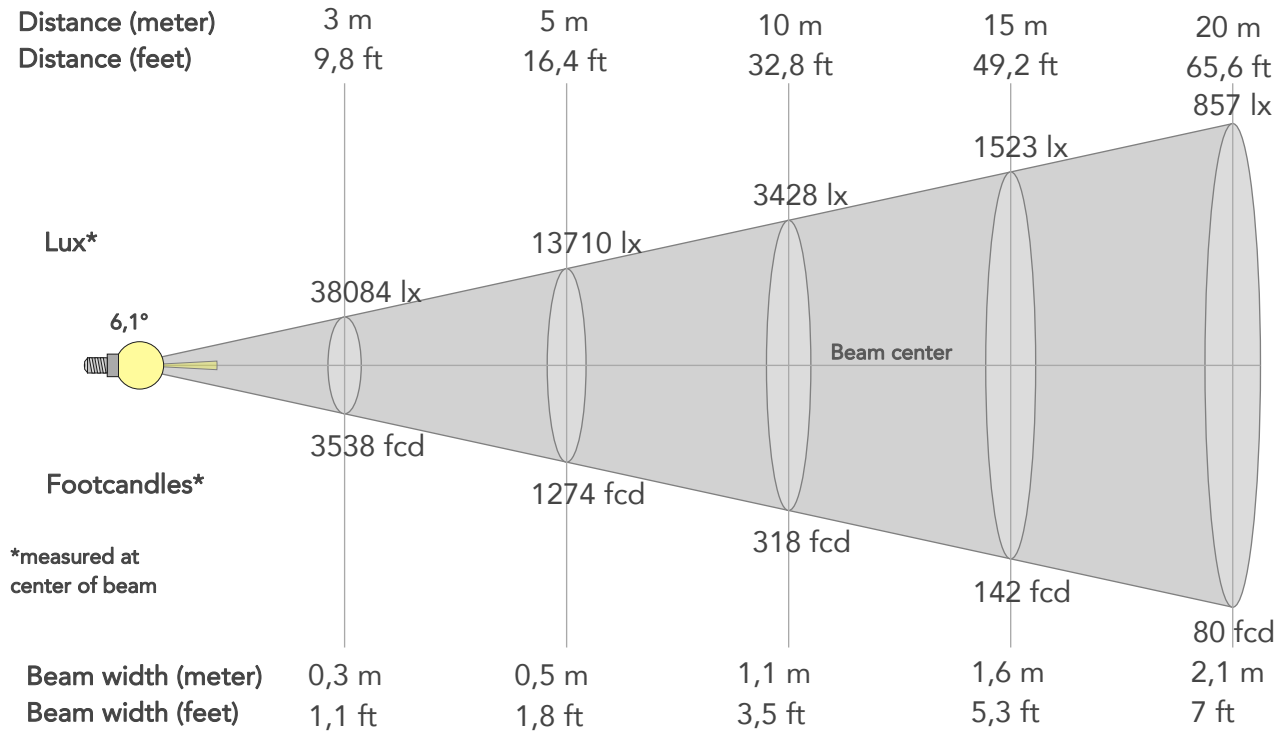
Rg 103,4
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	0%	-1%
2	98	0%	0%
3	93	0%	3%
4	94	0%	3%
5	91	1%	4%
6	91	5%	3%
7	95	3%	-1%
8	94	1%	-1%
9	96	0%	1%
10	91	-2%	5%
11	87	2%	7%
12	89	4%	4%
13	91	5%	-2%
14	92	7%	3%
15	91	4%	-3%
16	89	3%	-6%



BEAM DETAILS

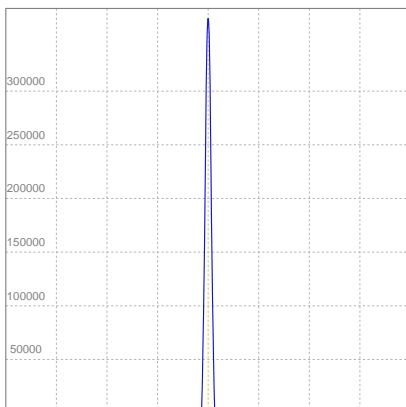
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,1°	10,5°	11,4°	100,0%	100,0%



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	342753lx	85688lx	38084lx	21422lx	13710lx	6093lx	3428lx	1523lx	857lx	548lx	381lx	214lx	137lx
Footcand.	31843fcd	7961fcd	3538fcd	1990fcd	1274fcd	566fcd	318fcd	142fcd	80fcd	51fcd	35fcd	20fcd	13fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,5m	0,8m	1,1m	1,6m	2,1m	2,7m	3,2m	4,3m	5,4m
Beam wid.	0,4ft	0,7ft	1,1ft	1,4ft	1,8ft	2,6ft	3,5ft	5,3ft	7ft	8,8ft	10,6ft	14,1ft	17,6ft

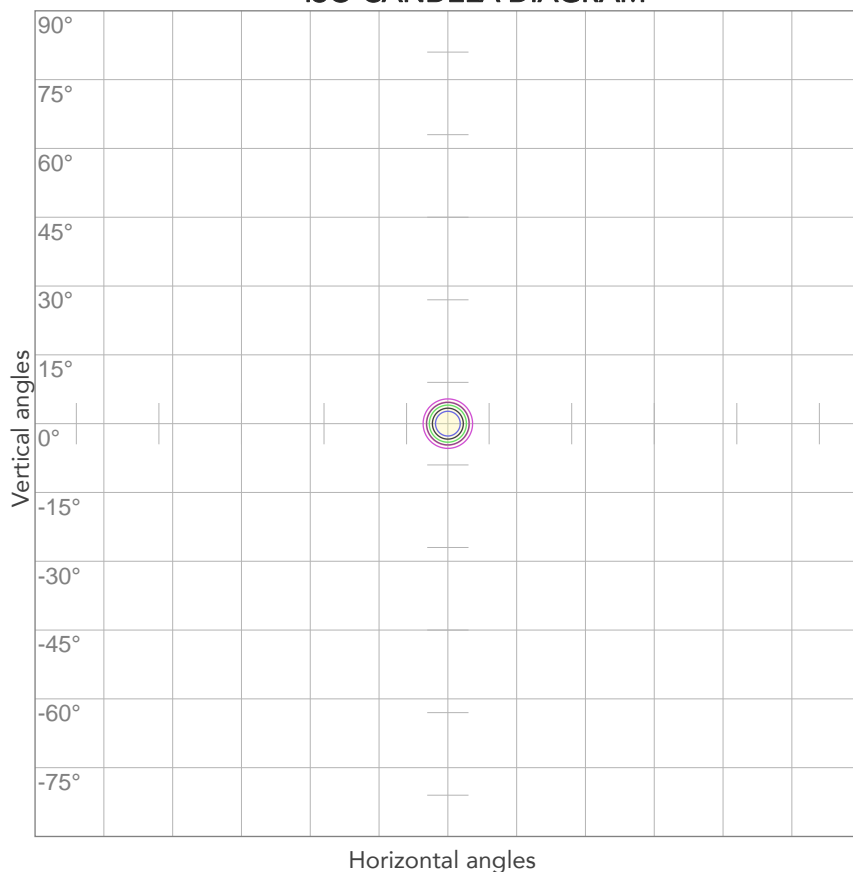
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
221V	0,938A	195,3W	20lm/W

ISO CANDELA DIAGRAM



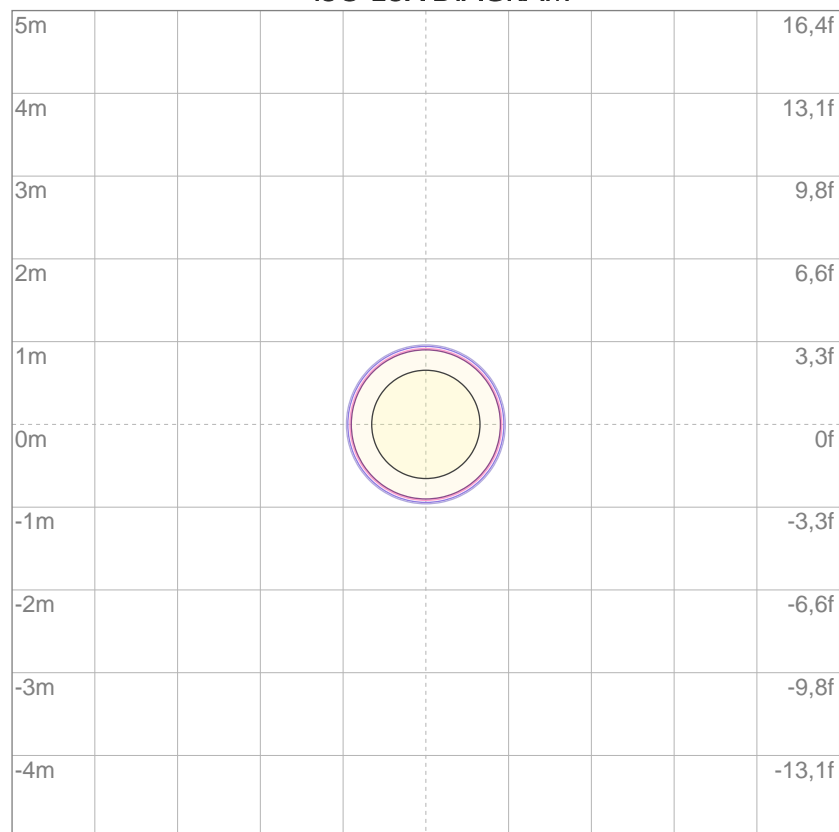
10%	34275 cd
20%	68551 cd
30%	102826 cd
40%	137101 cd
50%	171377 cd
60%	205652 cd
70%	239927 cd
80%	274203 cd

Conditions:

Number of c-planes: 2

Candela at center: 342753 cd

ISO LUX DIAGRAM



3%	103 lx
5%	171 lx
10%	343 lx
30%	1028 lx
50%	1714 lx

Conditions:

Number of c-planes: 2

Lux at center: 3428 lx

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



Total lumen output:

4311 lm

Peak candela output:

359406 cd

Light quality:

CRI: 97,2

Color temperature:

5501 K

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

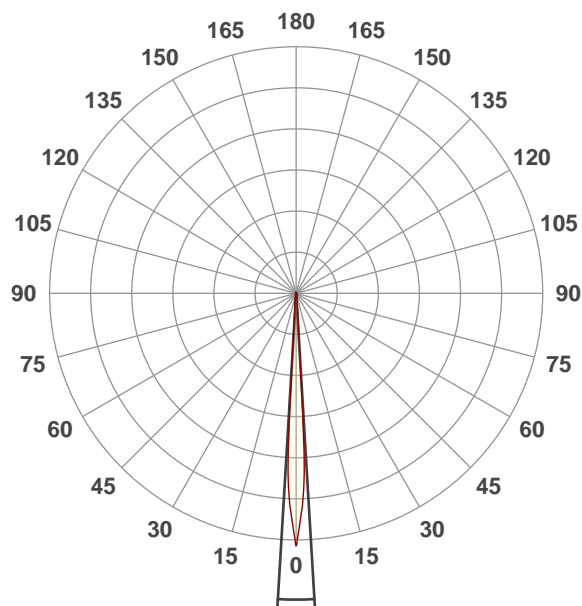
5600K HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 16:39:25

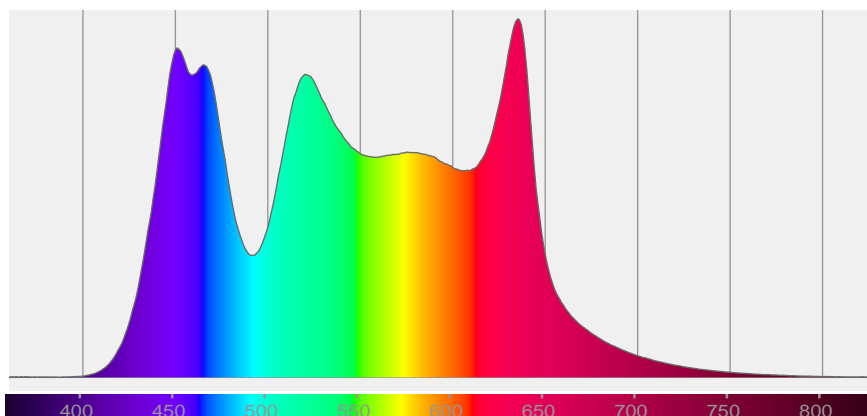


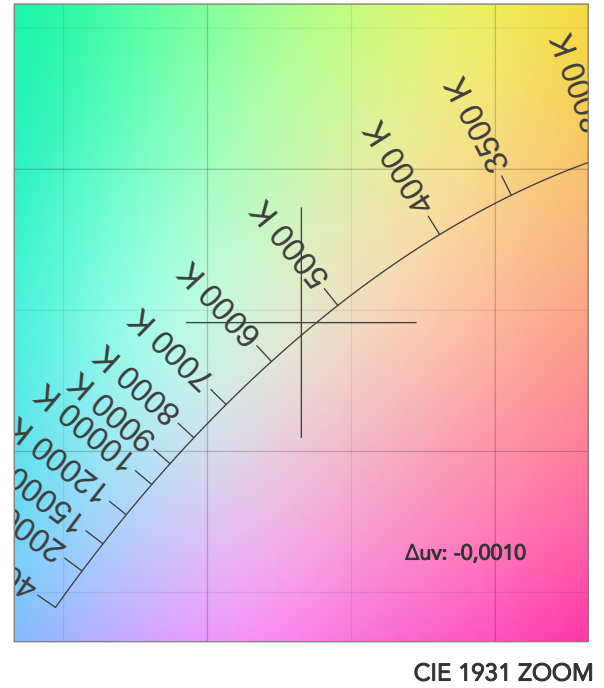
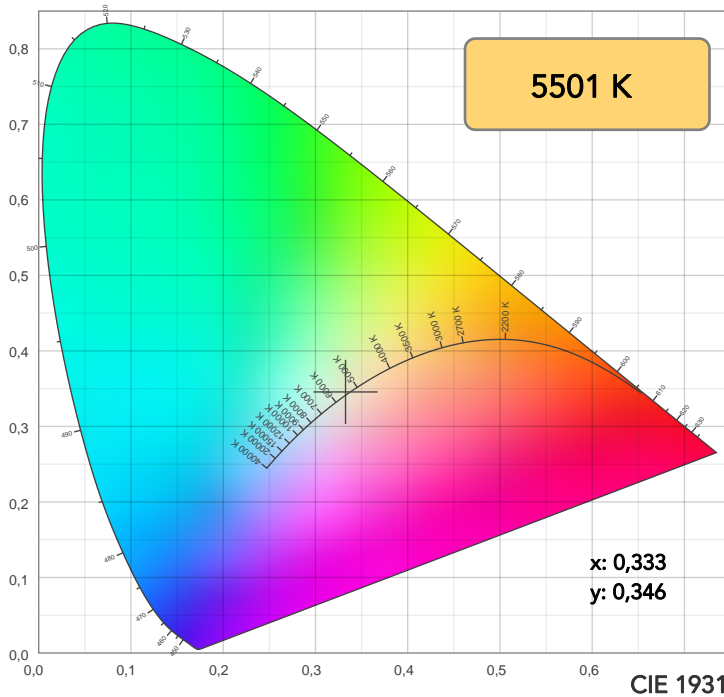
Beam angle 50%: 6,8°

Field angle 10%: 9,7°

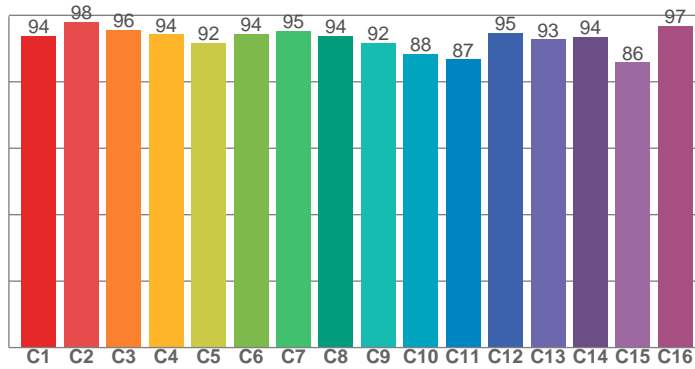
Cut off angle 2.5%: 12,8°

Spectra

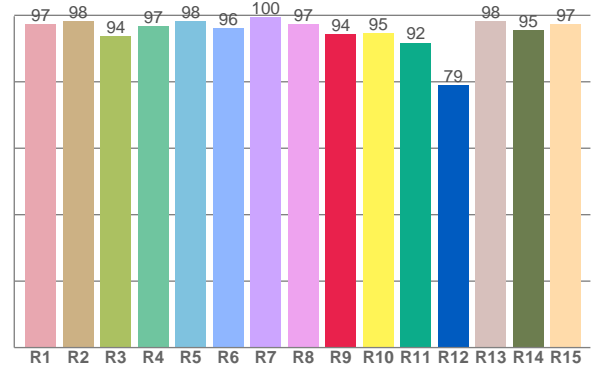




TM30: 92,8



CRI: 97,2 (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
97,3	98,3	93,7	96,7	98,3	96,2	99,5	97,4	94,3	94,6	91,7	78,9	98,3	95,5	97,3

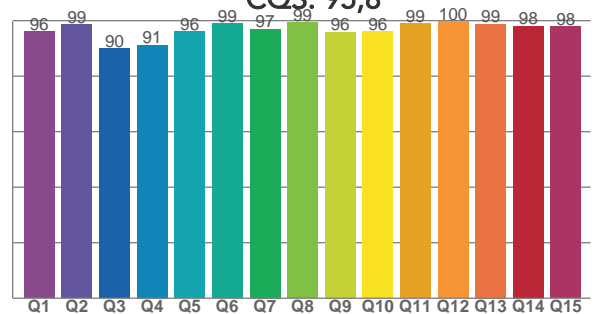
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93,9	98,0	95,7	94,3	91,7	94,5	95,3	93,7	91,8	88,4	86,8	94,7	92,7	93,6	85,8	96,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,1	98,6	90,0	91,2	96,0	98,9	96,9	99,4	95,8	96,1	99,0	99,7	98,8	98,1	97,9

CQS: 95,8



COLOR PARAMETERS

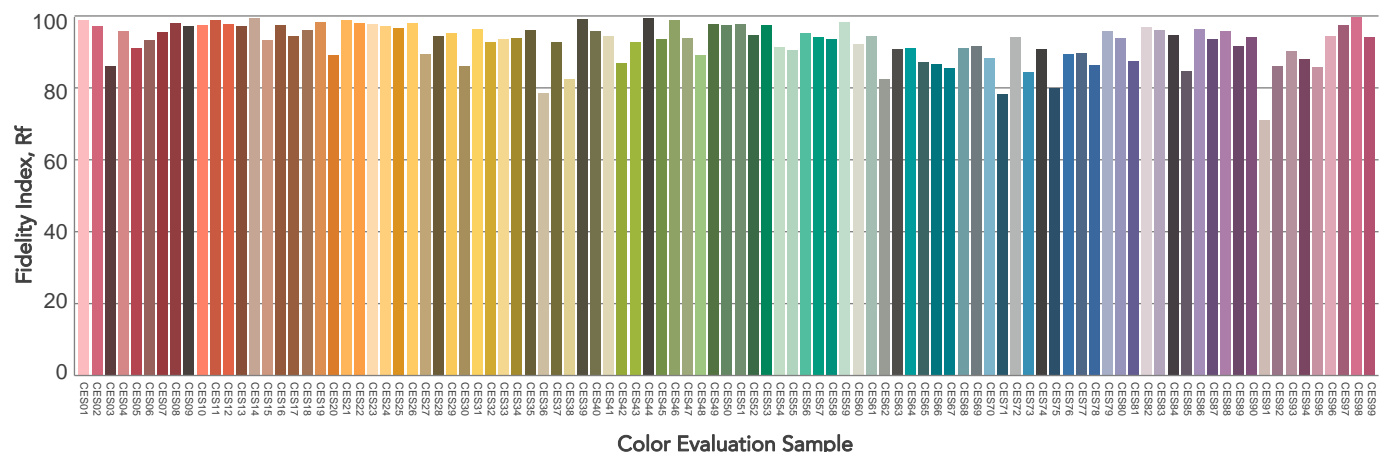
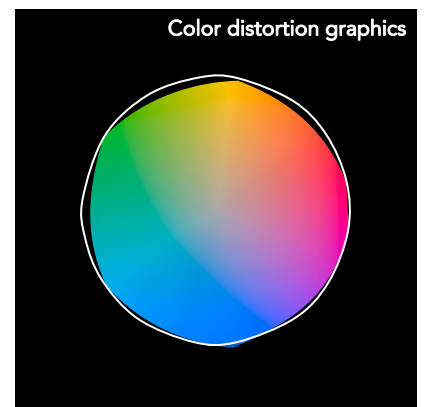
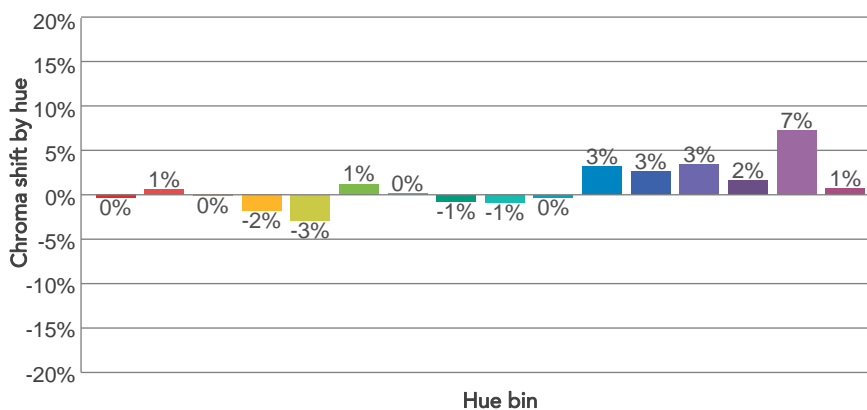
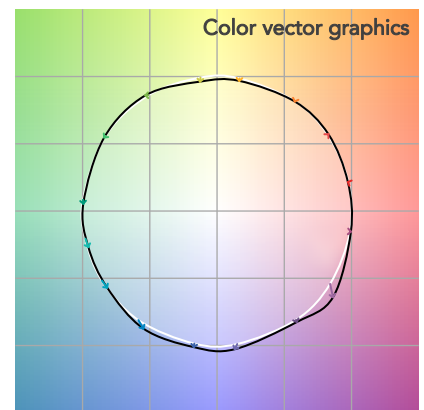
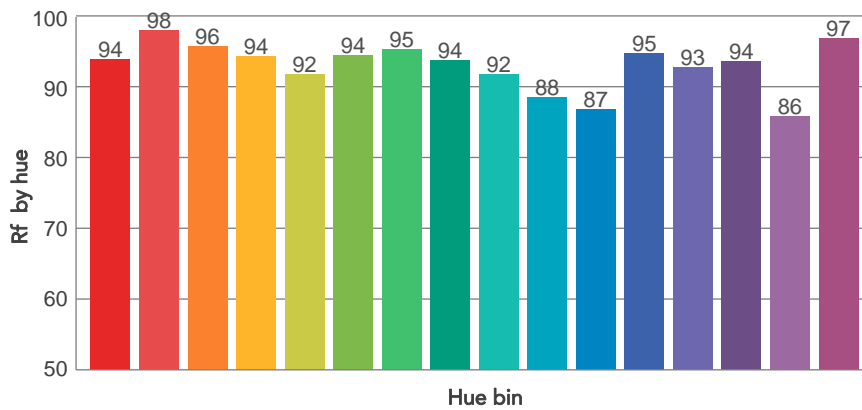
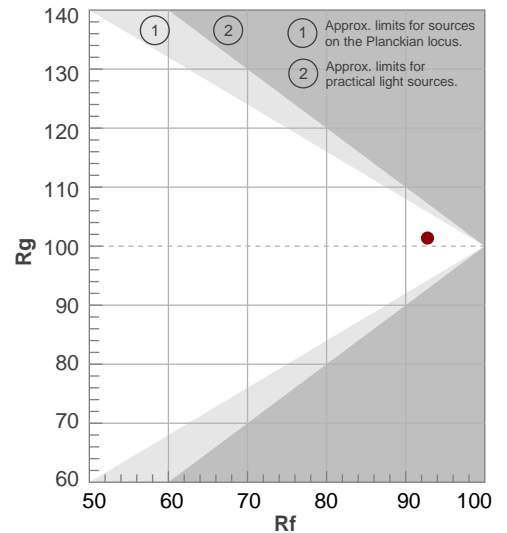
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5501 K	97,2	94,3	92,8	101,4	95,8	95	0,333	0,346	-0,0010

TM30 DETAILS

Rf 92,8
Fidelity index Rf

Rg 101,4
Gammut index

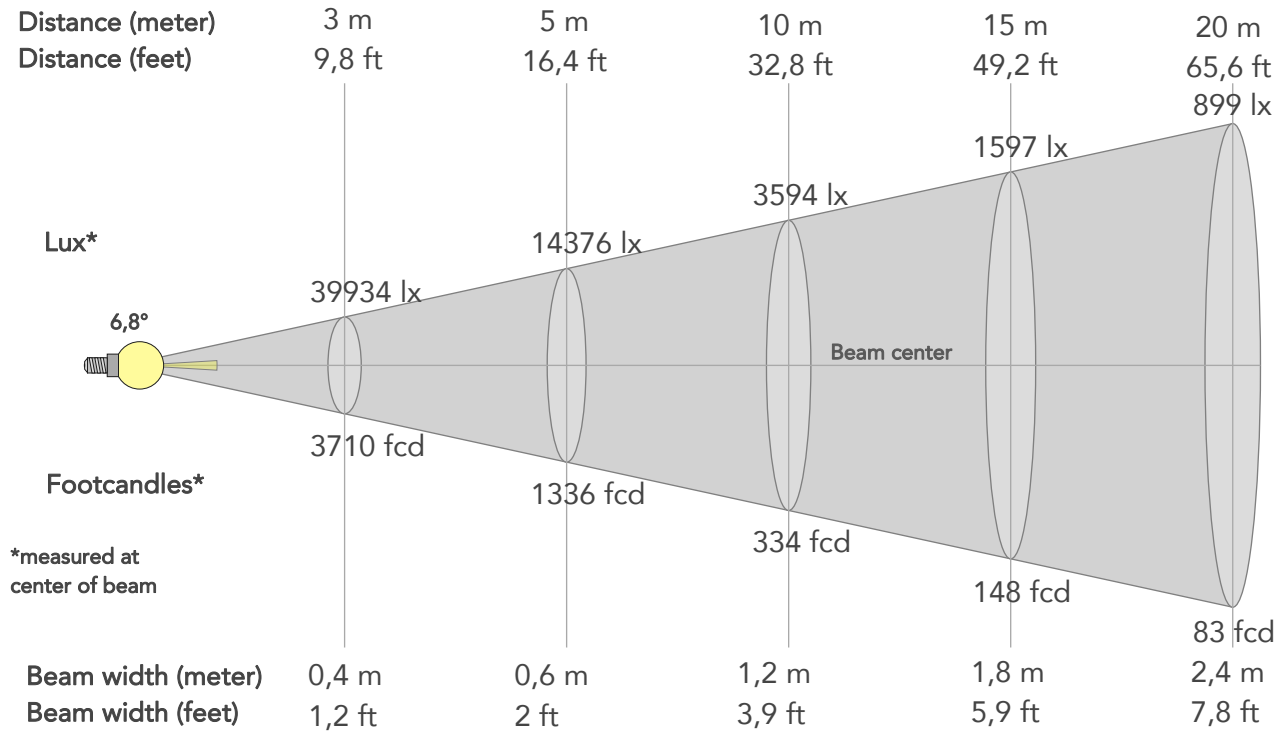
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	94	0%	0%
2	98	1%	0%
3	96	0%	0%
4	94	-2%	0%
5	92	-3%	1%
6	94	1%	2%
7	95	0%	2%
8	94	-1%	3%
9	92	-1%	6%
10	88	0%	7%
11	87	3%	7%
12	95	3%	0%
13	93	3%	-3%
14	94	2%	0%
15	86	7%	-7%
16	97	1%	0%



BEAM DETAILS



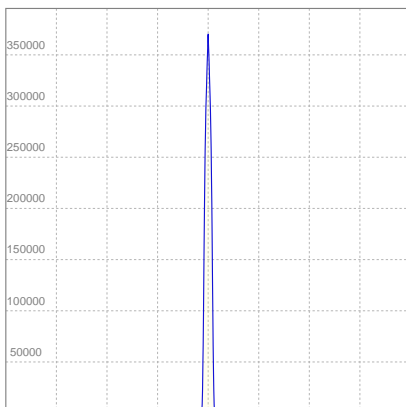
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,8°	9,7°	12,8°	100,0%	100,0%



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	359406lx	89852lx	39934lx	22463lx	14376lx	6389lx	3594lx	1597lx	899lx	575lx	399lx	225lx	144lx
Footcand.	33390fcd	8347fcd	3710fcd	2087fcd	1336fcd	594fcd	334fcd	148fcd	83fcd	53fcd	37fcd	21fcd	13fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,4m	3m	3,6m	4,8m	6m
Beam wid.	0,4ft	0,8ft	1,2ft	1,6ft	2ft	2,9ft	3,9ft	5,9ft	7,8ft	9,8ft	11,8ft	15,7ft	19,6ft

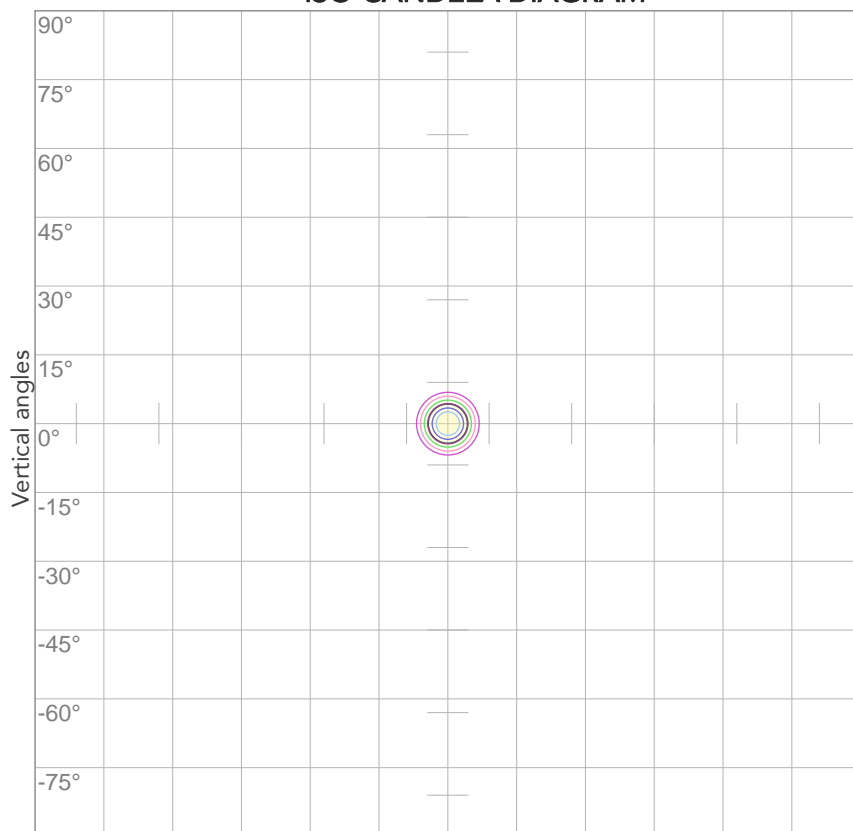
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
221V	1,07A	225,1W	19lm/W

ISO CANDELA DIAGRAM



Horizontal angles

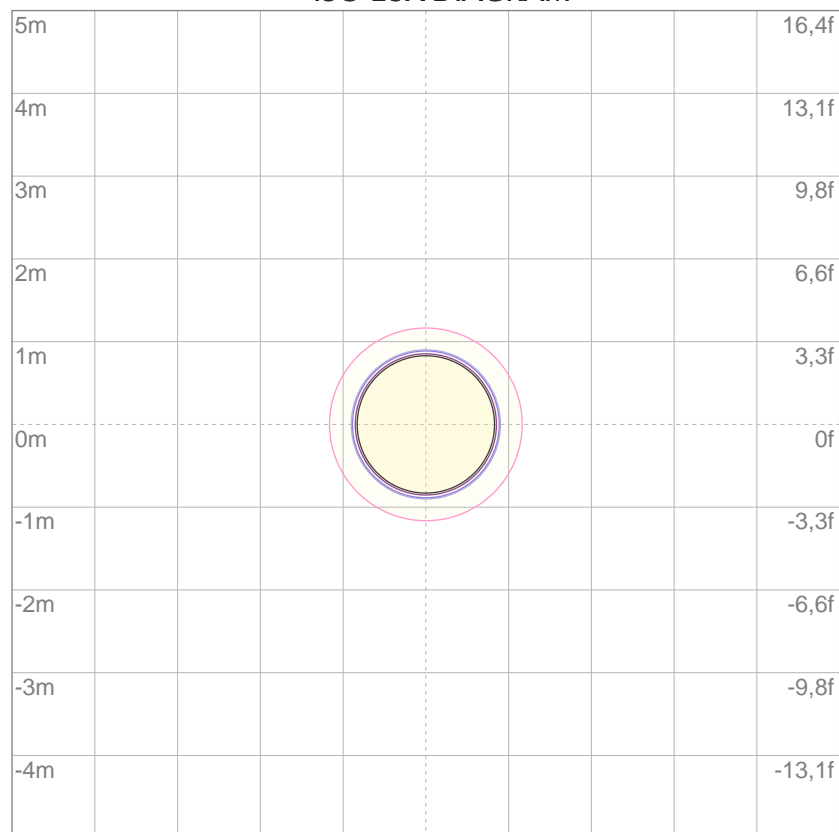
10%	35941 cd
20%	71881 cd
30%	107822 cd
40%	143762 cd
50%	179703 cd
60%	215644 cd
70%	251584 cd
80%	287525 cd

Conditions:

Number of c-planes: 2

Candela at center: 359406 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	108 lx
5%	180 lx
10%	359 lx
30%	1078 lx
50%	1797 lx

Conditions:

Number of c-planes: 2

Lux at center: 3594 lx

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



Total lumen output:

4119 lm

Peak candela output:

334677 cd

Light quality:

CRI: 97,1

Color temperature:

6272 K

PRODUCT NAME:

ECLCTPLUS

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

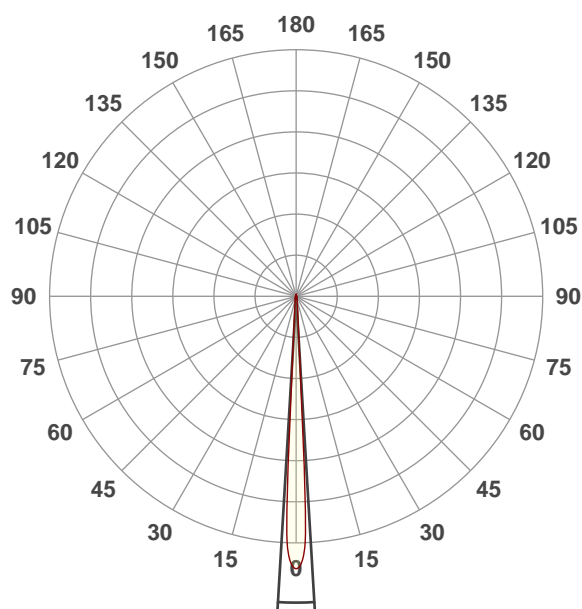
6000K HQ

Operator:

Paolo Carvone

Date and time:

31/08/2020 16:41:59

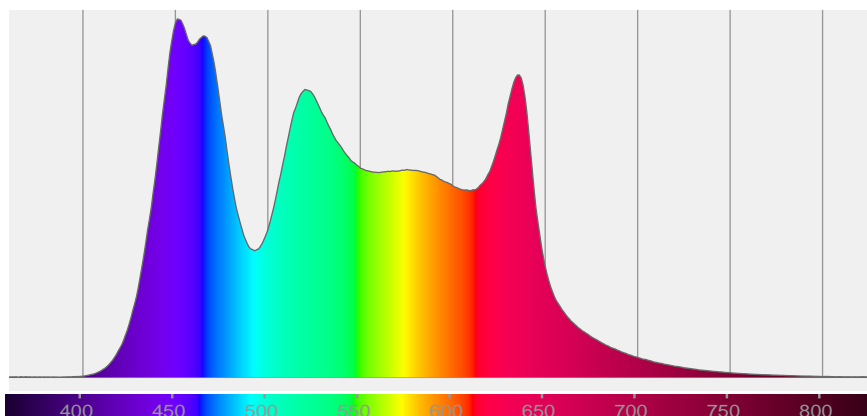


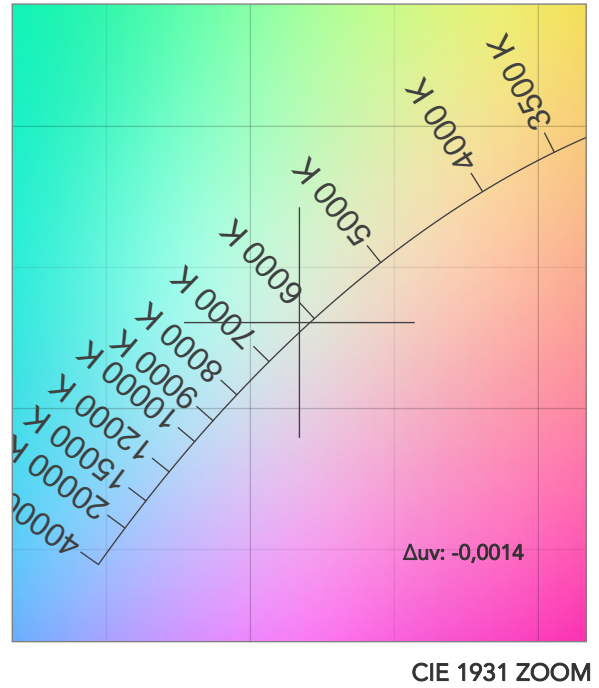
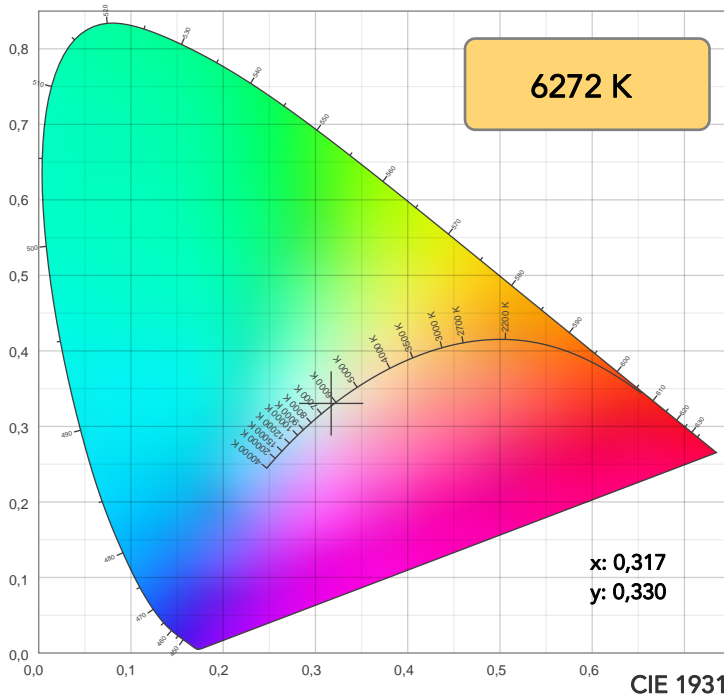
Beam angle 50%: 6,8°

Field angle 10%: 9°

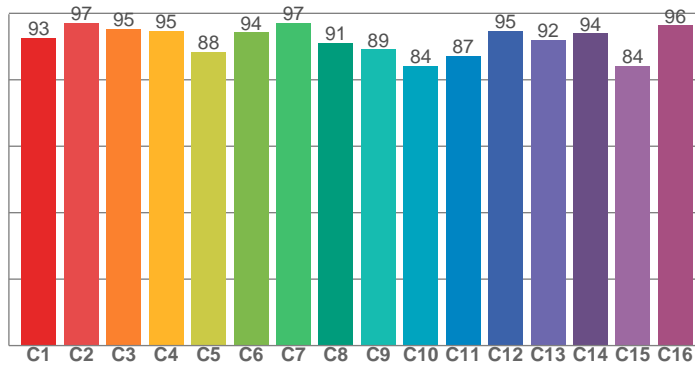
Cut off angle 2.5%: 12,4°

Spectra

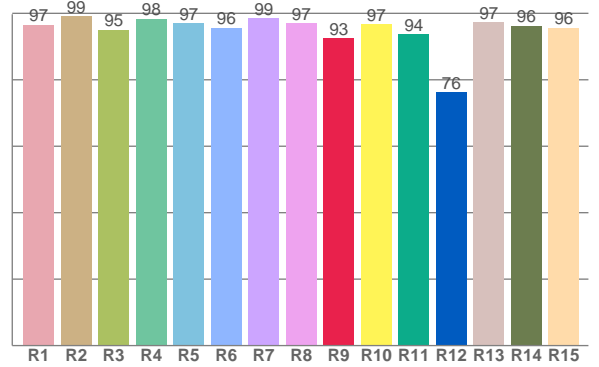




TM30: 91,7



CRI: 97,1 (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
96,6	99,0	95,0	98,4	96,9	95,7	98,5	96,9	92,5	96,7	93,7	76,2	97,3	96,2	95,6

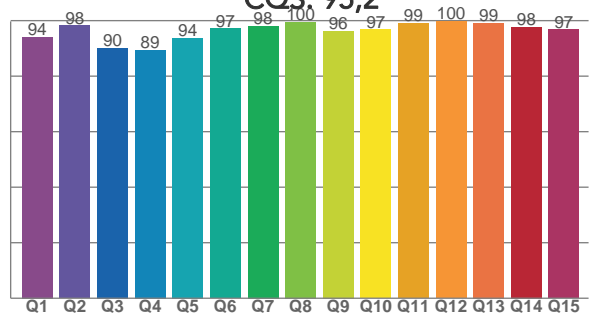
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,6	97,2	95,3	94,7	88,4	94,2	97,2	91,2	89,2	84,2	87,2	94,7	91,9	93,9	84,2	96,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,1	98,2	90,2	89,4	93,7	97,2	98,0	99,6	96,2	96,8	99,0	99,7	99,2	97,7	96,8

CQS: 95,2



COLOR PARAMETERS

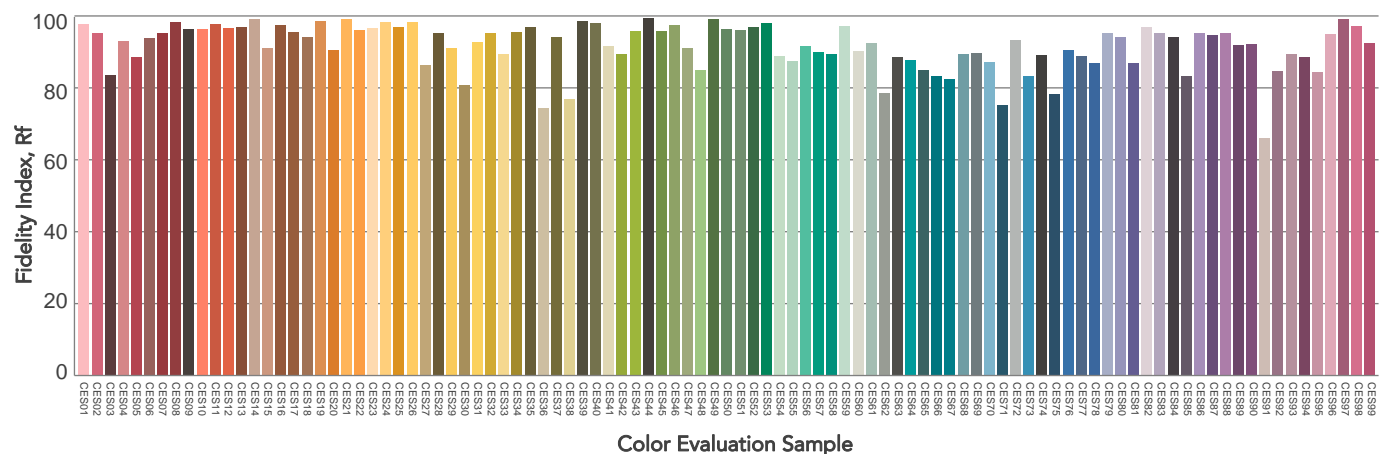
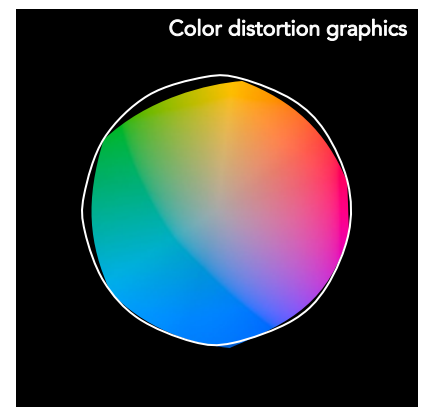
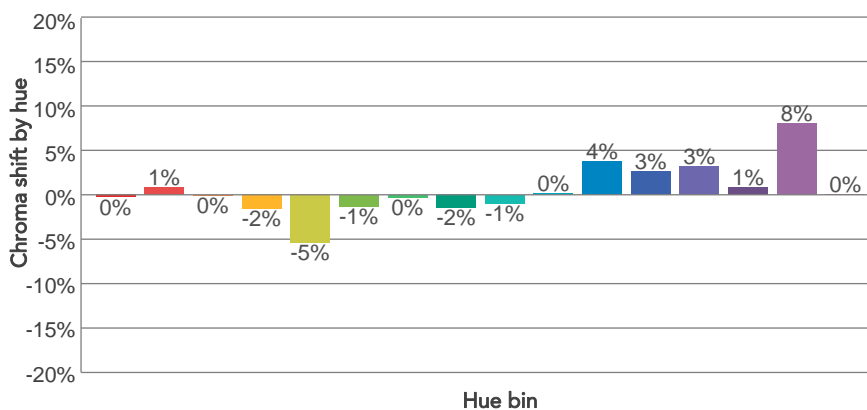
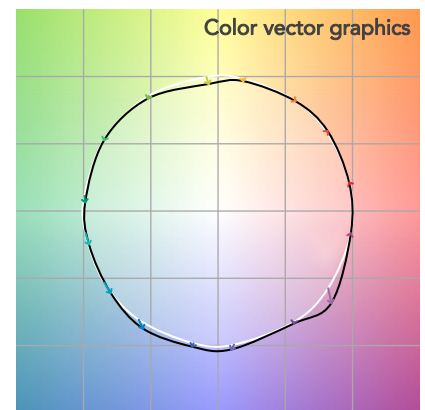
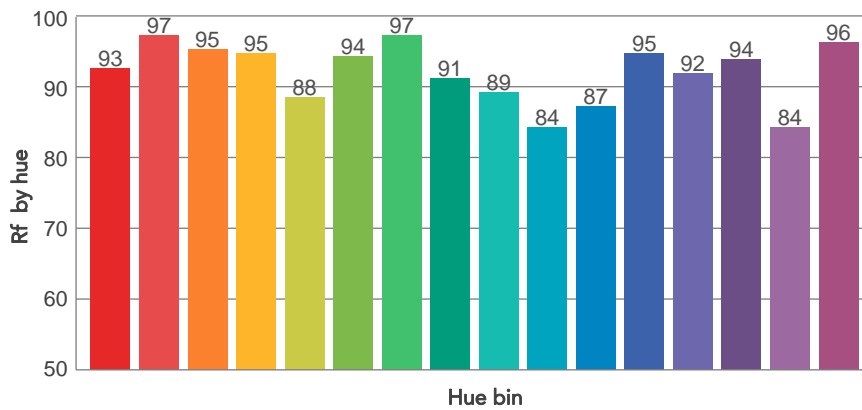
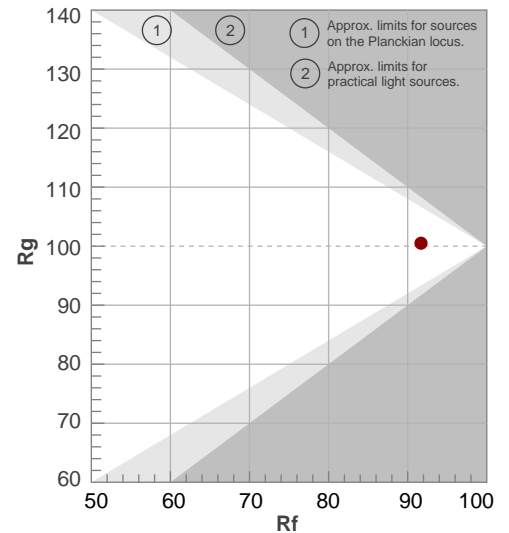
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6272 K	97,1	92,5	91,7	100,5	95,2	96	0,317	0,330	-0,0014

TM30 DETAILS

Rf 91,7
Fidelity index Rf

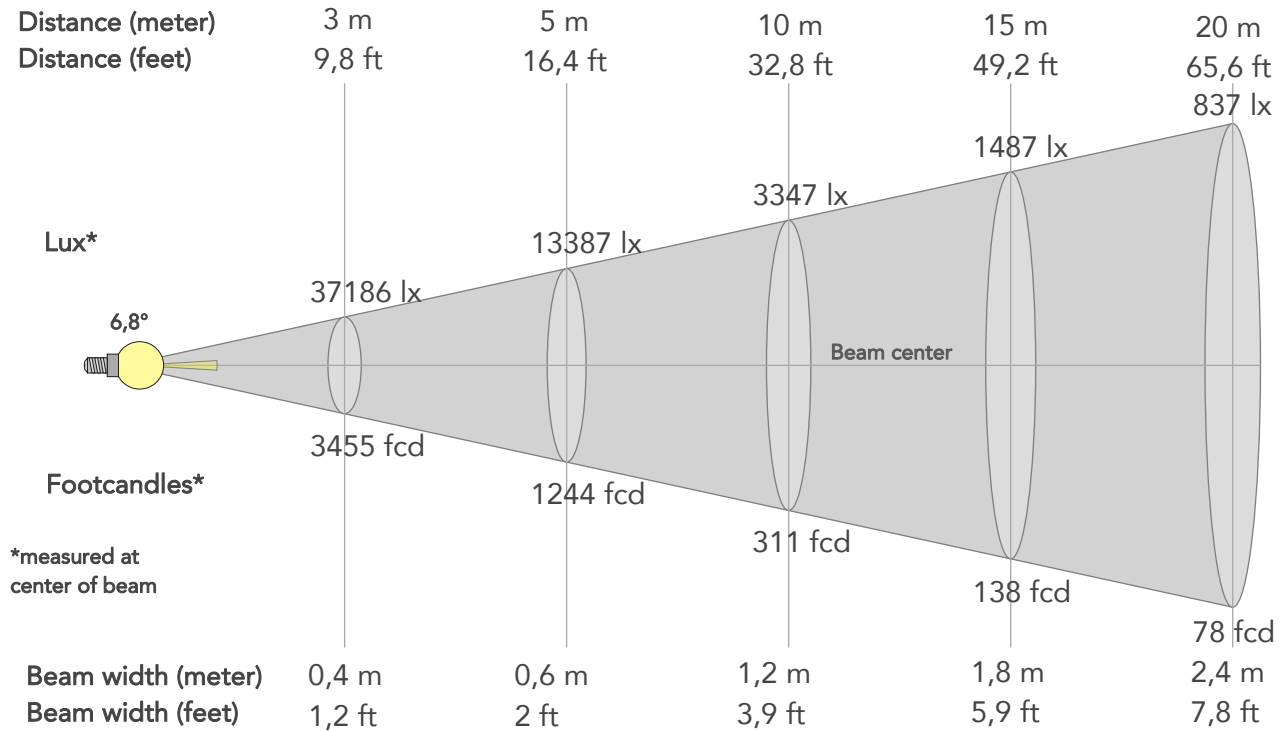
Rg 100,5
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	0%	1%
2	97	1%	0%
3	95	0%	-1%
4	95	-2%	-1%
5	88	-5%	-1%
6	94	-1%	2%
7	97	0%	1%
8	91	-2%	4%
9	89	-1%	9%
10	84	0%	9%
11	87	4%	6%
12	95	3%	-1%
13	92	3%	-3%
14	94	1%	-1%
15	84	8%	-8%
16	96	0%	1%



BEAM DETAILS

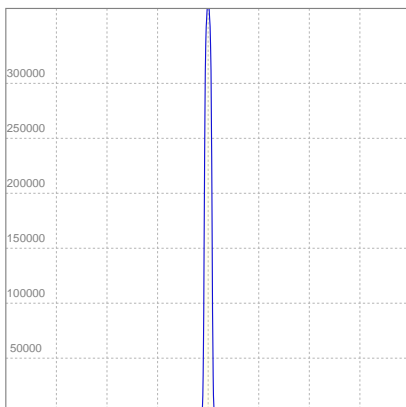
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,8°	9°	12,4°	100,0%	100,0%



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	334677lx	83669lx	37186lx	20917lx	13387lx	5950lx	3347lx	1487lx	837lx	535lx	372lx	209lx	134lx
Footcand.	31093fcd	7773fcd	3455fcd	1943fcd	1244fcd	553fcd	311fcd	138fcd	78fcd	50fcd	35fcd	19fcd	12fcd
Beam wid.	0,1m	0,2m	0,4m	0,5m	0,6m	0,9m	1,2m	1,8m	2,4m	3m	3,6m	4,8m	5,9m
Beam wid.	0,4ft	0,8ft	1,2ft	1,6ft	2ft	2,9ft	3,9ft	5,9ft	7,8ft	9,8ft	11,7ft	15,6ft	19,5ft

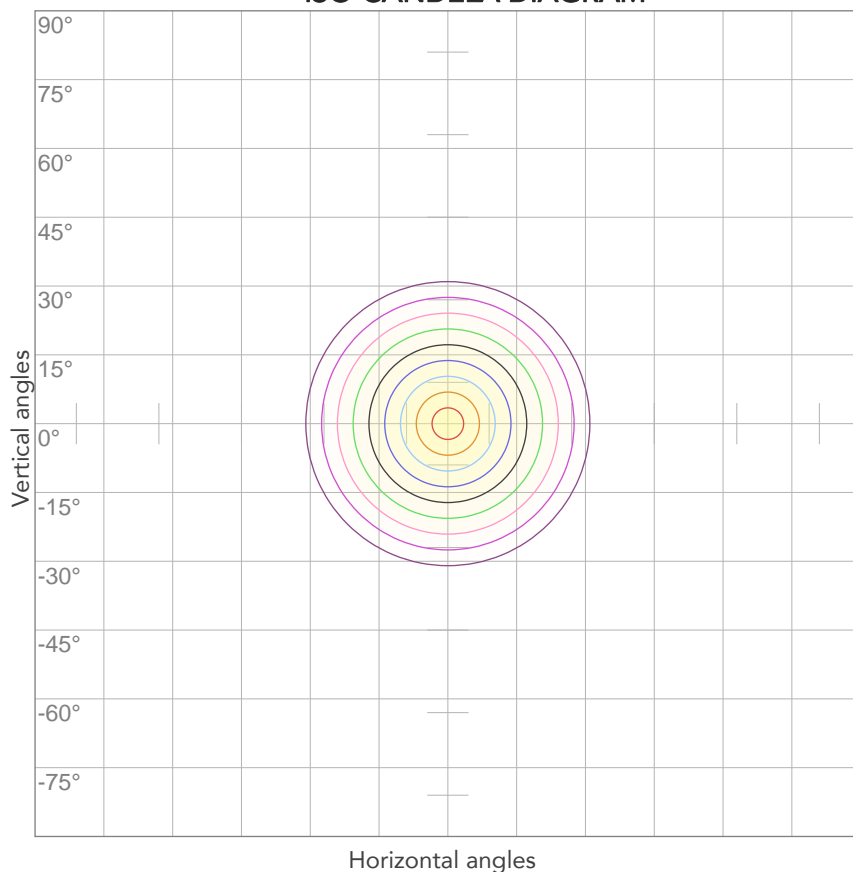
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
221V	1,10A	231,6W	18lm/W

ISO CANDELA DIAGRAM



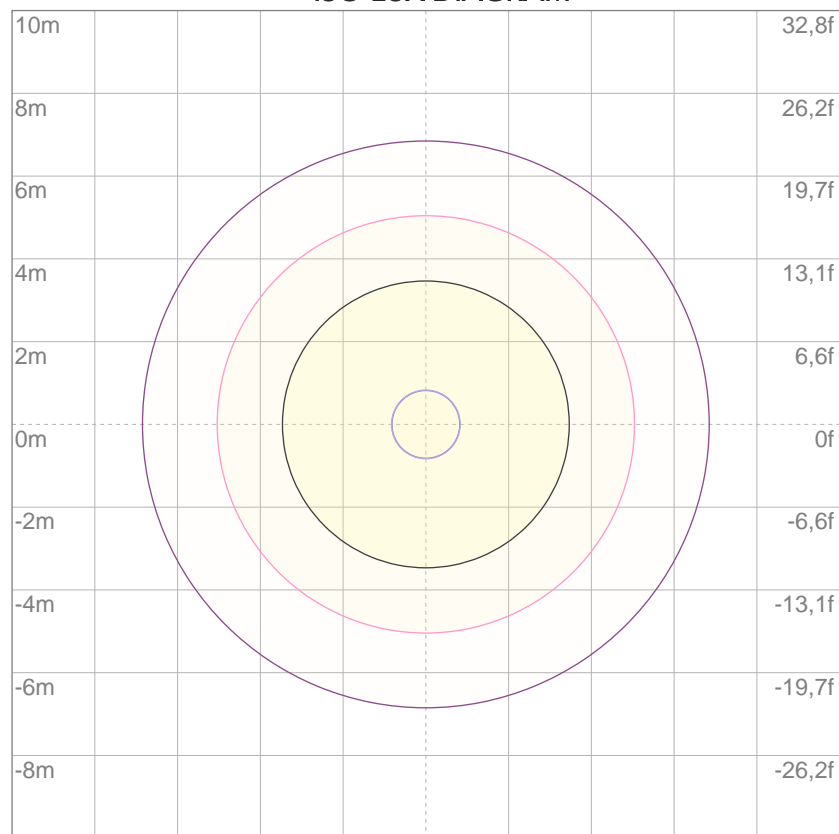
10%	33468 cd
20%	66935 cd
30%	100403 cd
40%	133871 cd
50%	167339 cd
60%	200806 cd
70%	234274 cd
80%	267742 cd

Conditions:

Number of c-planes: 2

Candela at center: 334677 cd

ISO LUX DIAGRAM



3%	100 lx
5%	167 lx
10%	335 lx
30%	1004 lx
50%	1673 lx

Conditions:

Number of c-planes: 2

Lux at center: 3347 lx

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