



Photometric Test Report



ECLPARDY

Single source multipurpose LED PAR

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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:

13739 lm

Peak candela output:

148664 cd

Light quality:

CRI: 96,7

Color temperature:

5508 K

PRODUCT NAME:

ECLPAR DY

MEASURAMENT CONDITIONS:

Beam angle:

Narrow Lens

Target:

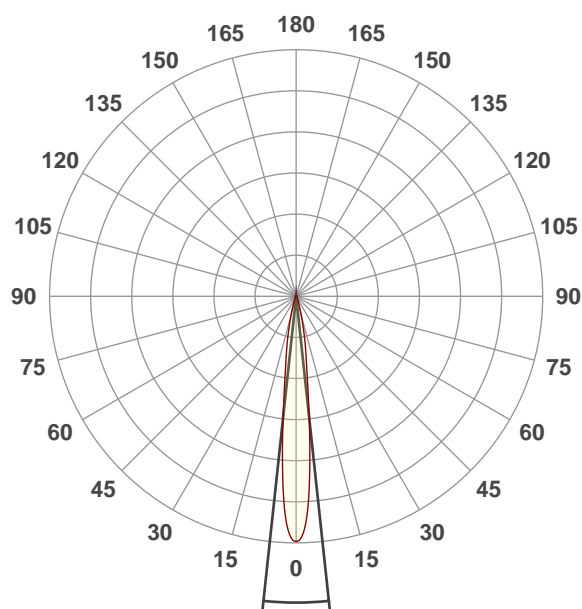
Full On

Operator:

Paolo Carvone

Date and time:

08/05/2020 13:09:02

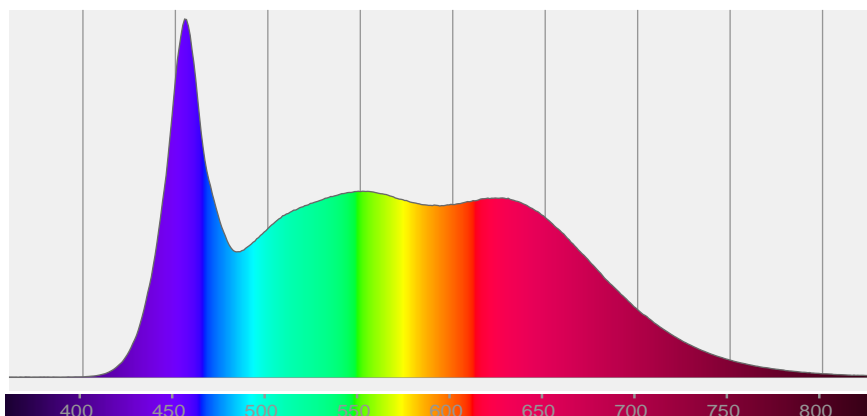


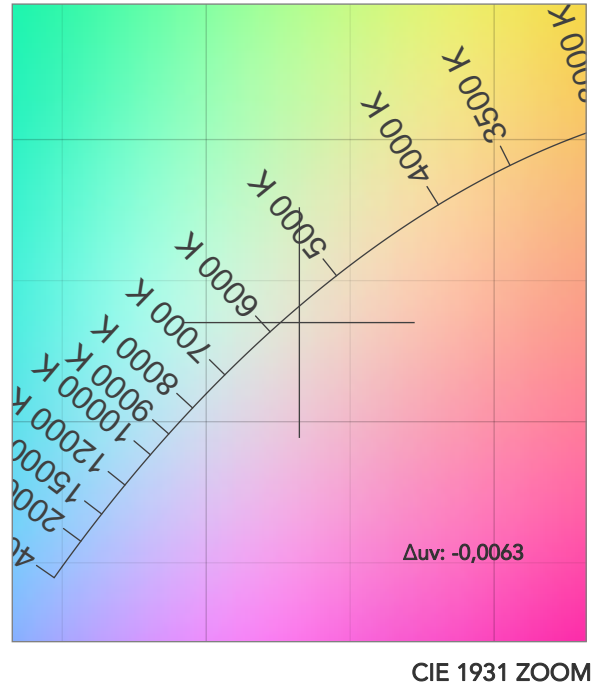
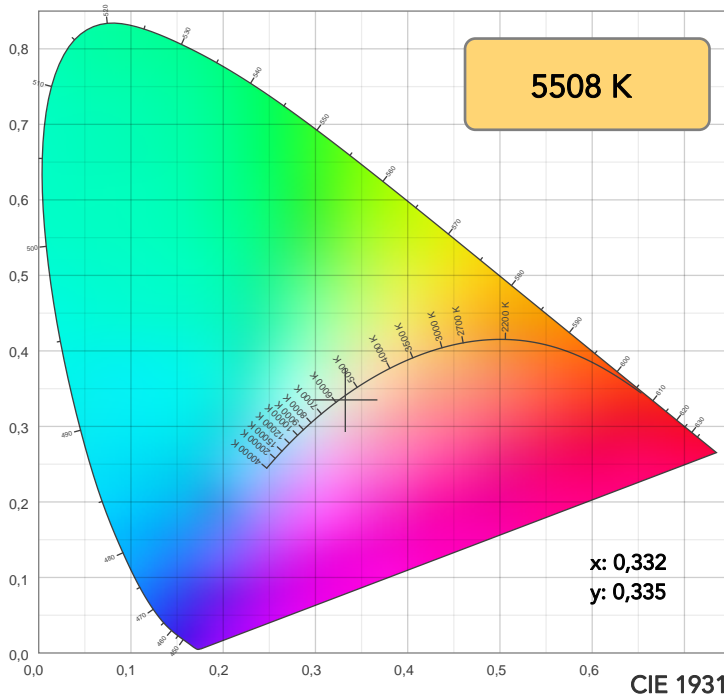
Beam angle 50%: 12,3°

Field angle 10%: 28,1°

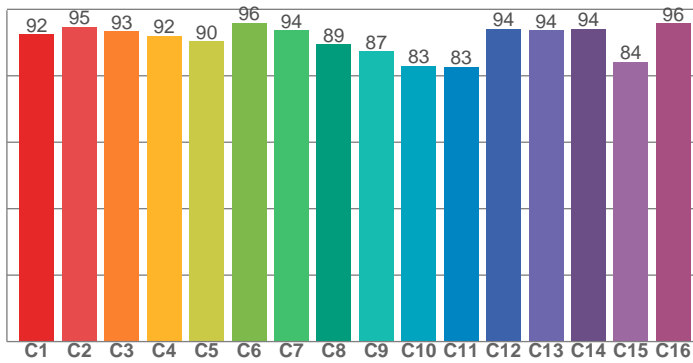
Cut off angle 2.5%: 43,4°

Spectra

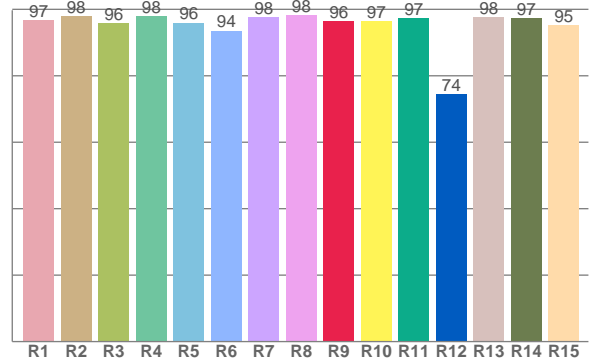




TM30: 90,7



CRI: 96,7 (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
96,8	97,9	95,8	97,9	96,0	93,5	97,7	98,2	96,5	96,5	97,3	74,5	97,7	97,3	95,3

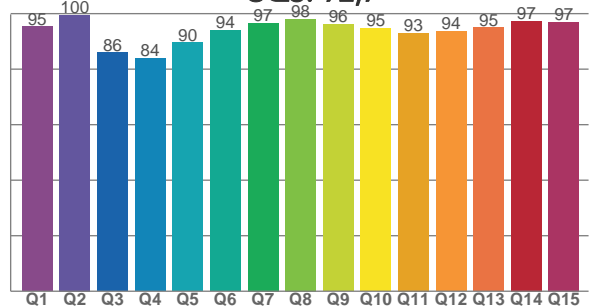
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,4	94,8	93,4	91,9	90,4	95,9	93,6	89,5	87,4	83,1	82,7	94,1	93,6	94,1	84,2	95,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,4	99,5	86,0	83,9	89,5	94,0	96,7	98,1	96,1	94,7	93,1	93,7	95,0	97,3	97,0

CQS: 92,7



COLOR PARAMETERS

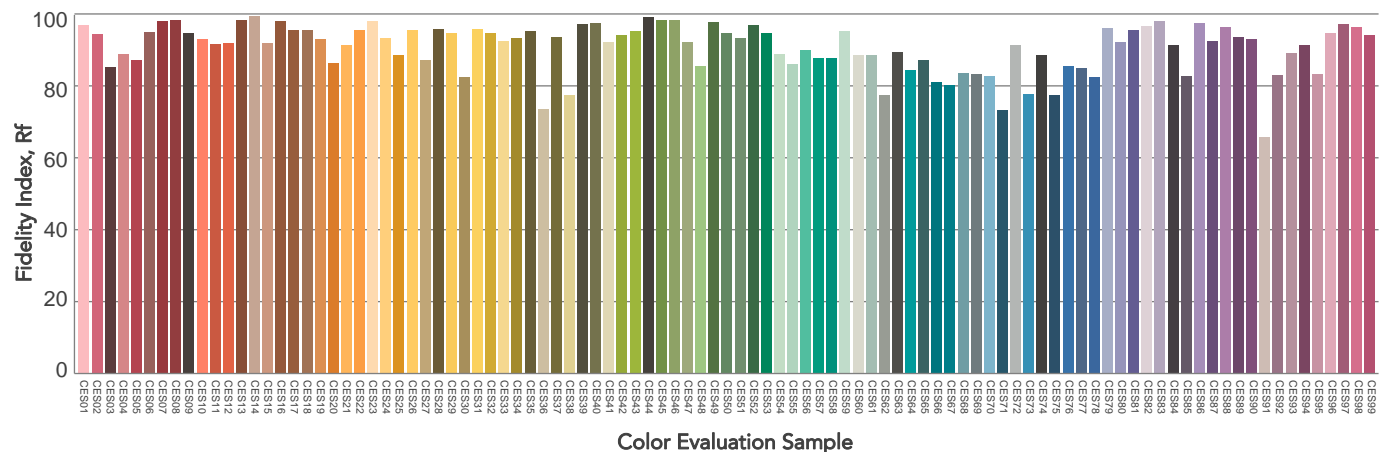
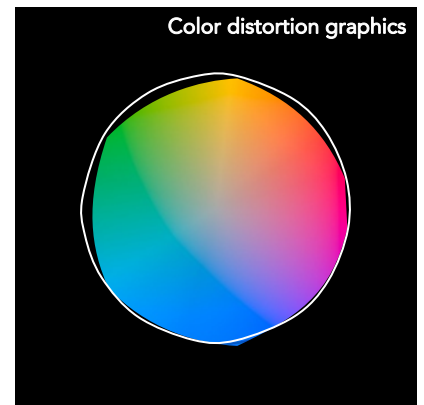
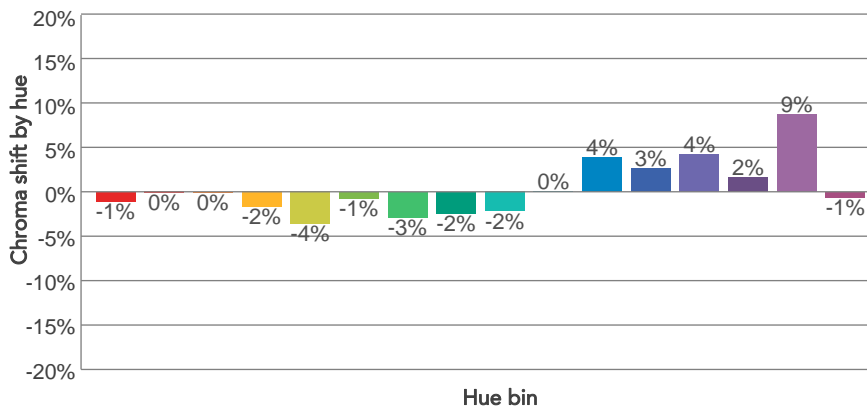
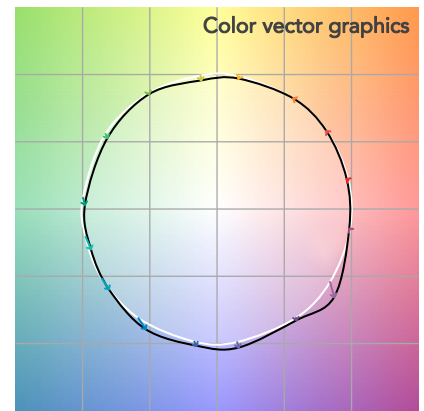
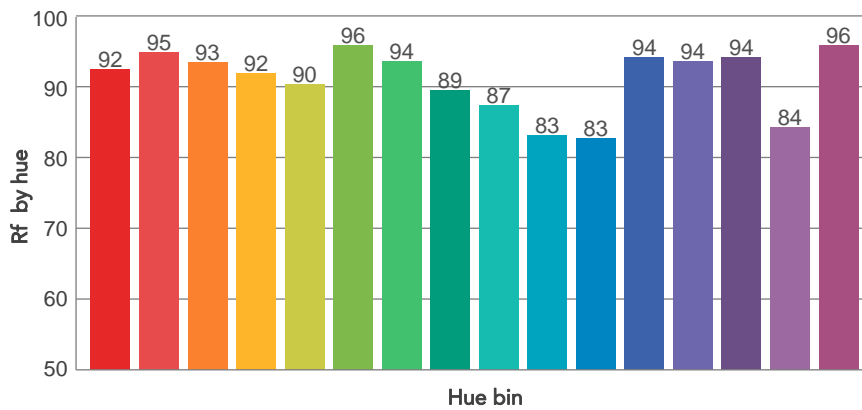
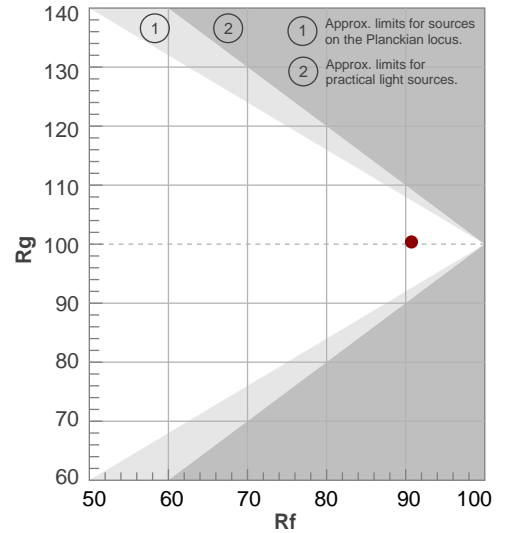
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5508 K	96,7	96,5	90,7	100,4	92,7	96	0,332	0,335	-0,0063

TM30 DETAILS

Rf 90,7
Fidelity index Rf

Rg 100,4
Gammut index

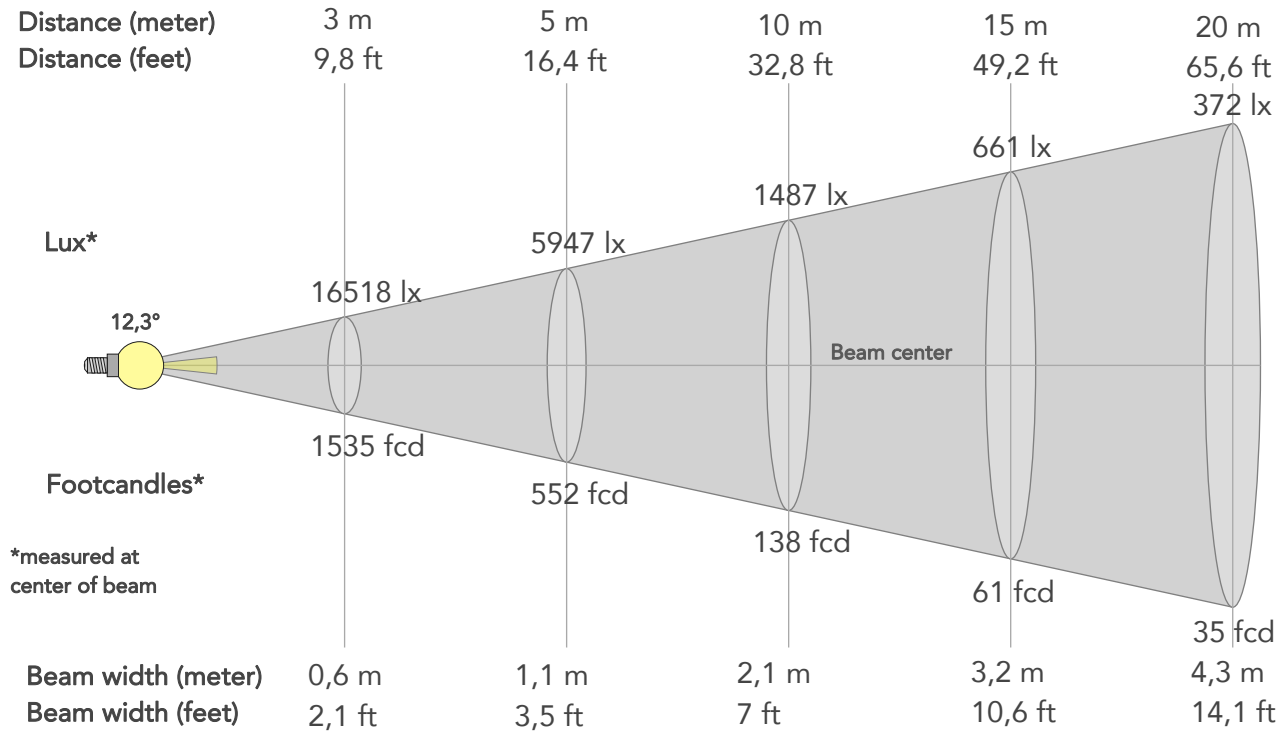
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	92	-1%	1%
2	95	0%	2%
3	93	0%	1%
4	92	-2%	0%
5	90	-4%	0%
6	96	-1%	0%
7	94	-3%	2%
8	89	-2%	5%
9	87	-2%	10%
10	83	0%	10%
11	83	4%	9%
12	94	3%	2%
13	94	4%	0%
14	94	2%	-1%
15	84	9%	-8%
16	96	-1%	0%



BEAM DETAILS



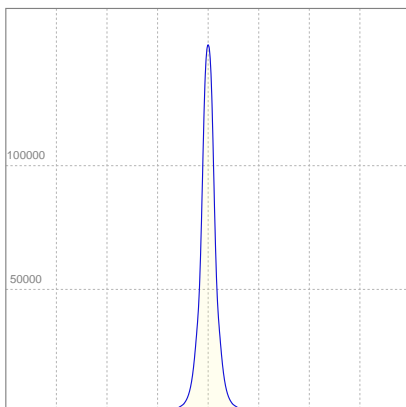
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
12,3°	28,1°	43,4°	97,1%	92,8%



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	148664lx	37166lx	16518lx	9292lx	5947lx	2643lx	1487lx	661lx	372lx	238lx	165lx	93lx	59lx
Footcand.	13811fcd	3453fcd	1535fcd	863fcd	552fcd	246fcd	138fcd	61fcd	35fcd	22fcd	15fcd	9fcd	6fcd
Beam wid.	0,2m	0,4m	0,6m	0,9m	1,1m	1,6m	2,1m	3,2m	4,3m	5,4m	6,4m	8,6m	10,7m
Beam wid.	0,7ft	1,4ft	2,1ft	2,8ft	3,5ft	5,3ft	7ft	10,6ft	14,1ft	17,6ft	21,1ft	28,2ft	35,2ft

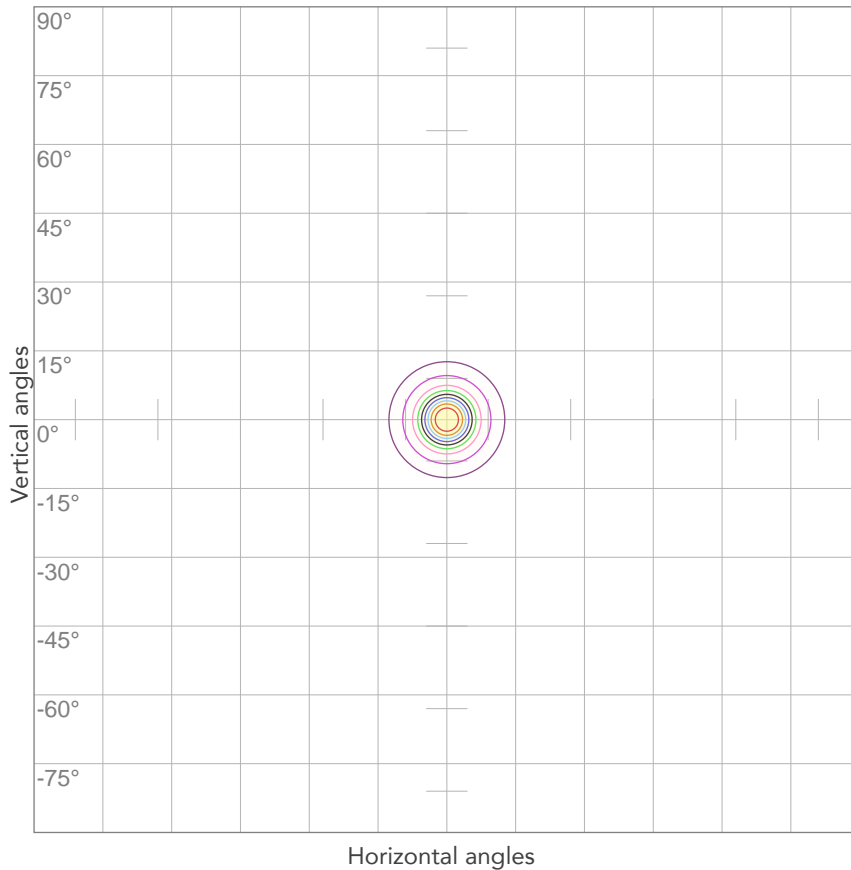
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,938A	202,4W	68lm/W
Power FC			
0,95			

ISO CANDELA DIAGRAM



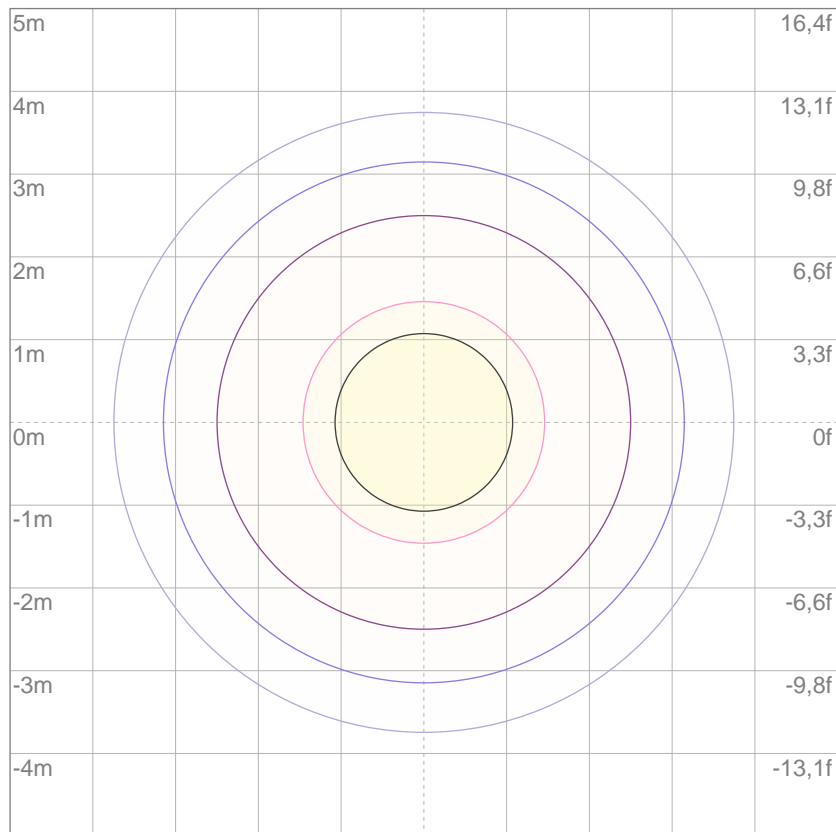
10%	14866 cd
20%	29733 cd
30%	44599 cd
40%	59466 cd
50%	74332 cd
60%	89198 cd
70%	104065 cd
80%	118931 cd

Conditions:

Number of c-planes: 2

Candela at center: 148664 cd

ISO LUX DIAGRAM



3%	44,6 lx
5%	74,3 lx
10%	149 lx
30%	446 lx
50%	743 lx

Conditions:

Number of c-planes: 2

Lux at center: 1487 lx

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



Total lumen output:

14436 lm

Peak candela output:

69422 cd

Light quality:

CRI: 96,8

Color temperature:

5559 K

PRODUCT NAME:

ECLPAR DY

MEASURAMENT CONDITIONS:

Beam angle:

Med Lens

Target:

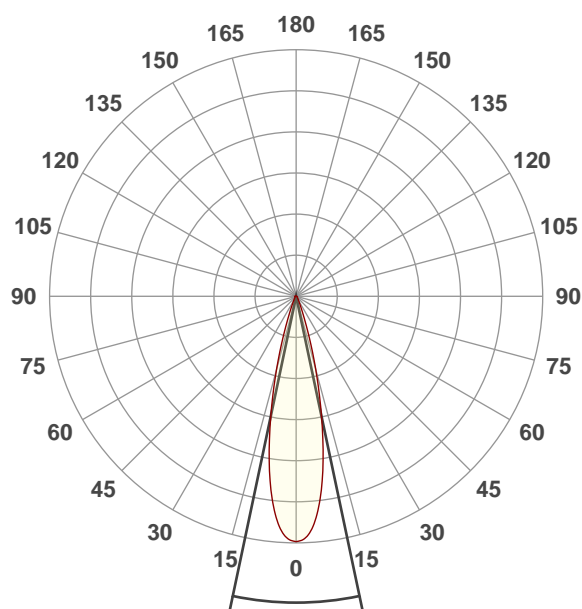
Full On

Operator:

Paolo Carvone

Date and time:

08/05/2020 13:02:03

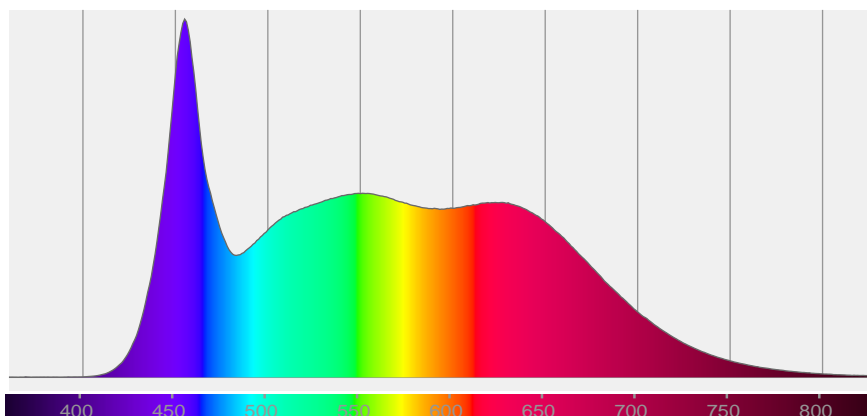


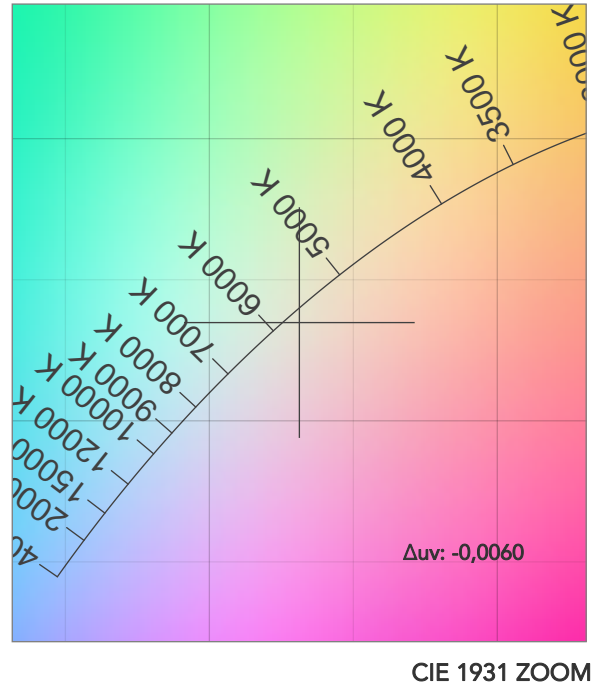
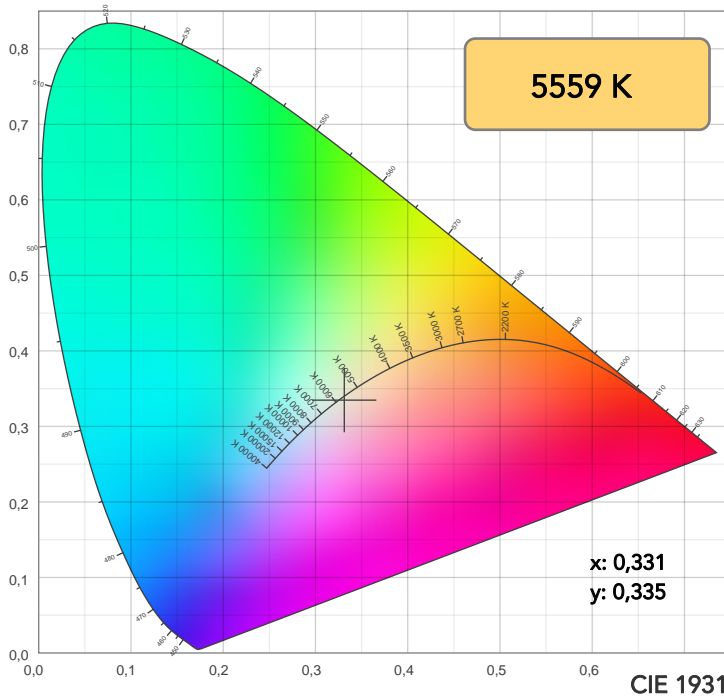
Beam angle 50%: 23,9°

Field angle 10%: 40,2°

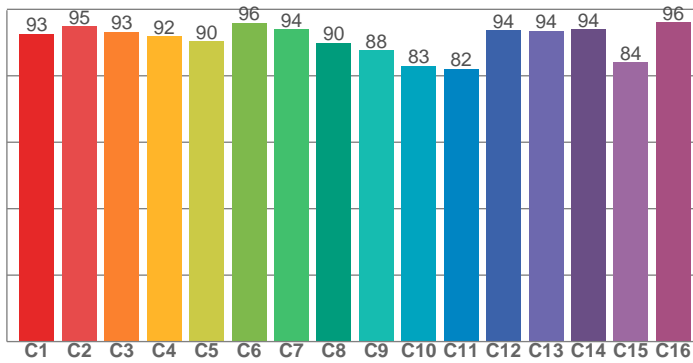
Cut off angle 2.5%: 56°

Spectra

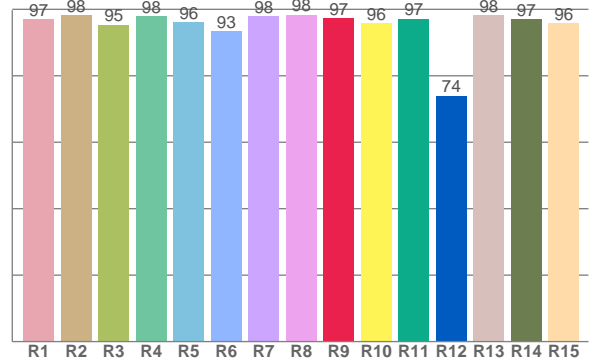




TM30: 90,7



CRI: 96,8 (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
97,1	98,1	95,4	97,9	96,1	93,4	97,9	98,4	97,3	95,8	97,1	74,0	98,1	97,1	95,8

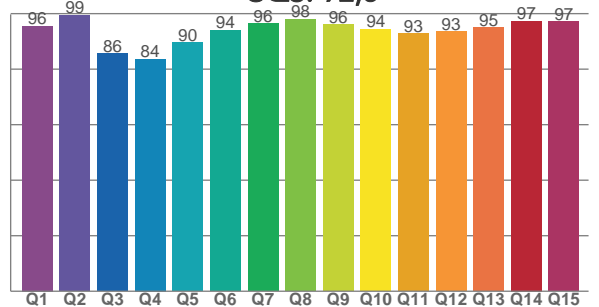
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,6	94,9	93,1	91,9	90,4	95,9	93,9	89,9	87,6	83,0	82,2	93,7	93,6	94,0	84,1	96,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,6	99,4	85,6	83,6	89,5	94,0	96,4	98,0	96,0	94,4	92,8	93,5	94,9	97,3	97,1

CQS: 92,5



COLOR PARAMETERS

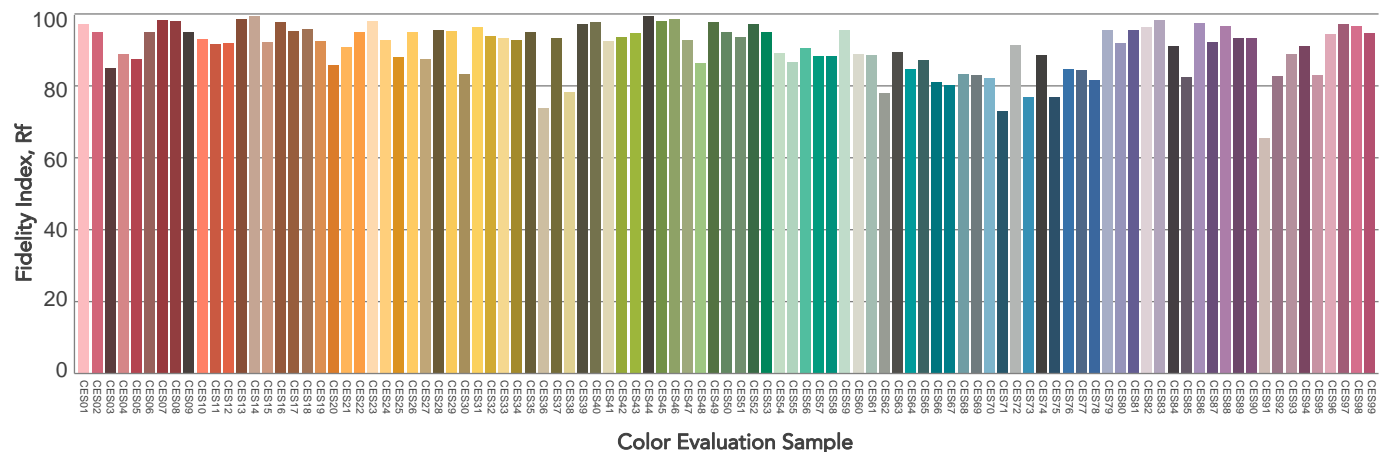
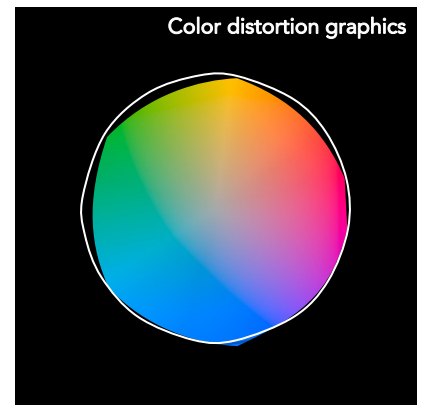
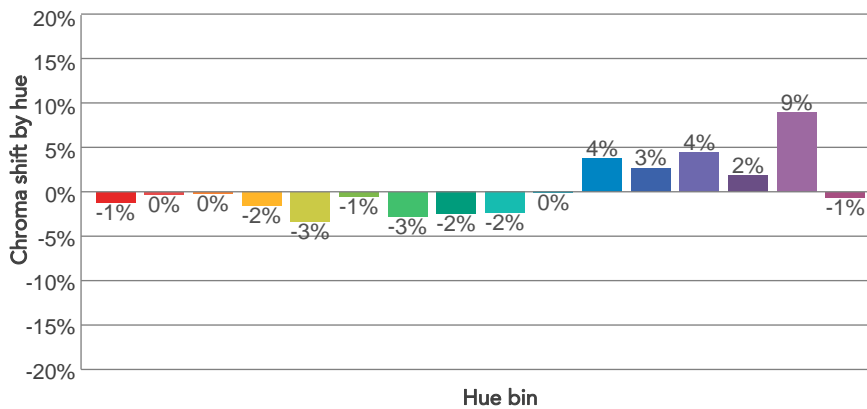
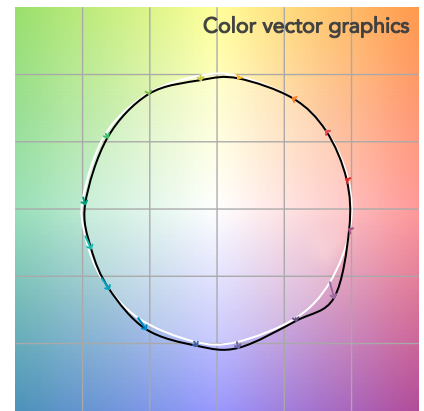
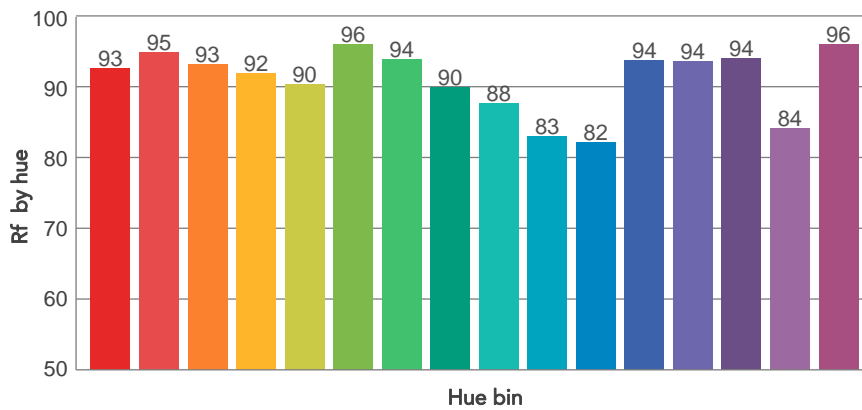
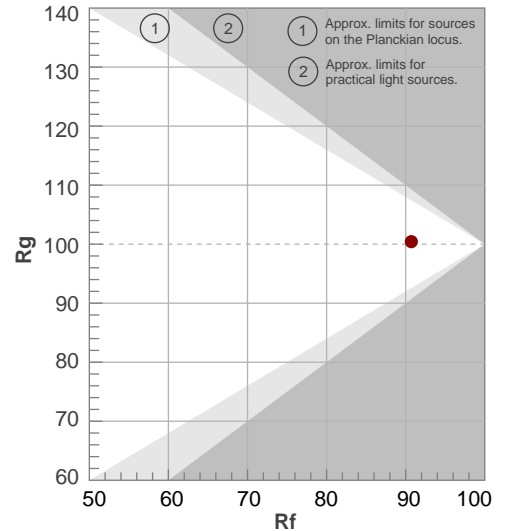
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5559 K	96,8	97,3	90,7	100,4	92,5	96	0,331	0,335	-0,0060

TM30 DETAILS

Rf 90,7
Fidelity index Rf

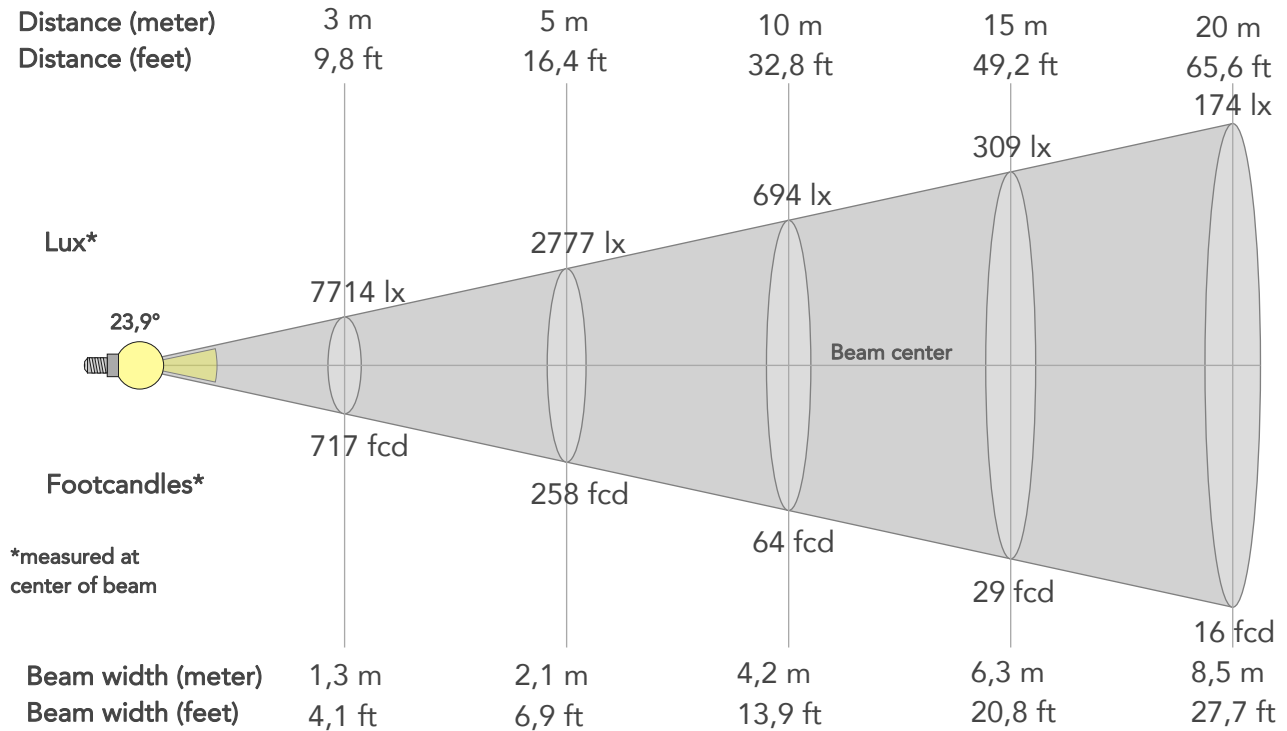
Rg 100,4
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-1%	1%
2	95	0%	2%
3	93	0%	2%
4	92	-2%	1%
5	90	-3%	0%
6	96	-1%	0%
7	94	-3%	2%
8	90	-2%	5%
9	88	-2%	10%
10	83	0%	10%
11	82	4%	9%
12	94	3%	3%
13	94	4%	0%
14	94	2%	-1%
15	84	9%	-8%
16	96	-1%	0%



BEAM DETAILS

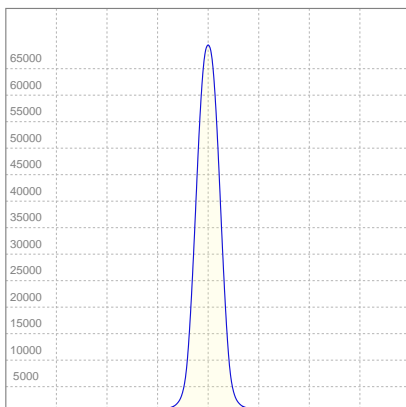
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23,9°	40,2°	56°	97,2%	93,6%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	69422lx	17355lx	7714lx	4339lx	2777lx	1234lx	694lx	309lx	174lx	111lx	77lx	43lx	28lx
Footcand.	6449fcd	1612fcd	717fcd	403fcd	258fcd	115fcd	64fcd	29fcd	16fcd	10fcd	7fcd	4fcd	3fcd
Beam wid.	0,4m	0,8m	1,3m	1,7m	2,1m	3,2m	4,2m	6,3m	8,5m	10,6m	12,7m	16,9m	21,1m
Beam wid.	1,4ft	2,8ft	4,1ft	5,5ft	6,9ft	10,4ft	13,9ft	20,8ft	27,7ft	34,7ft	41,6ft	55,5ft	69,4ft

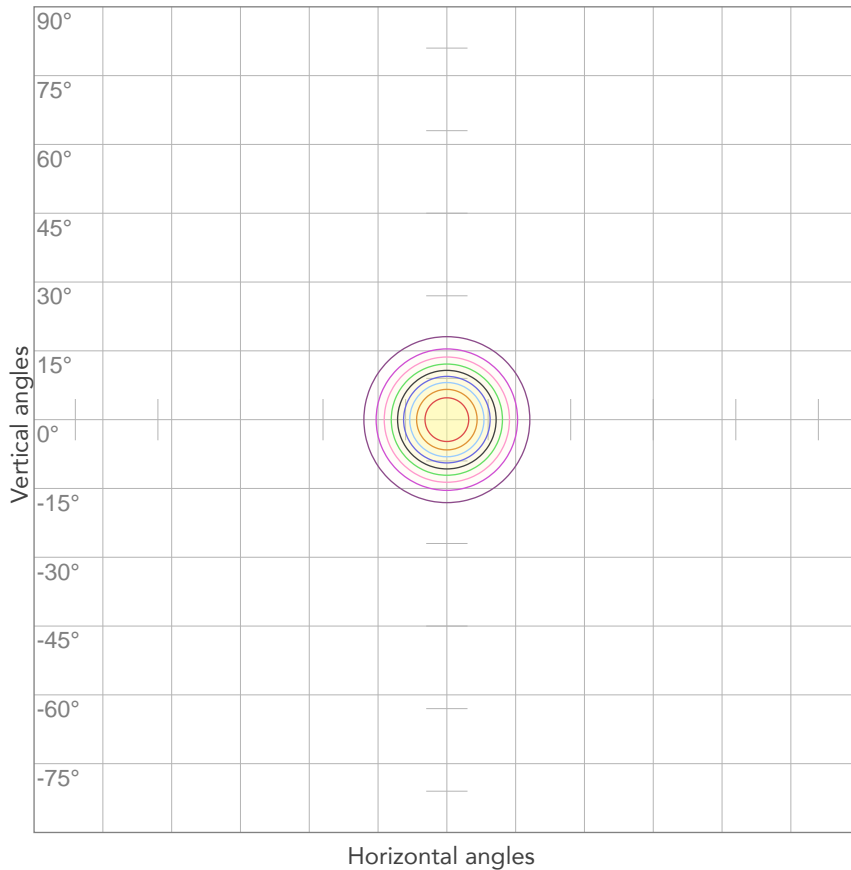
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
224V	0,948A	203,8W	71lm/W
Power FC			
0,95			

ISO CANDELA DIAGRAM



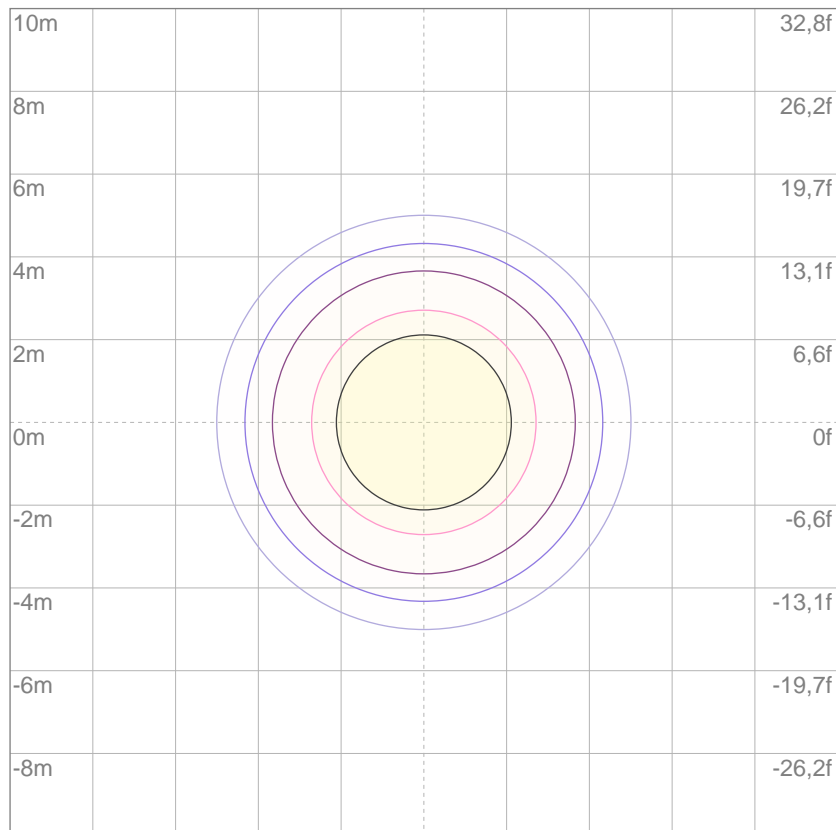
10%	6942 cd
20%	13884 cd
30%	20826 cd
40%	27769 cd
50%	34711 cd
60%	41653 cd
70%	48595 cd
80%	55537 cd

Conditions:

Number of c-planes: 2

Candela at center: 69422 cd

ISO LUX DIAGRAM



3%	20,8 lx
5%	34,7 lx
10%	69,4 lx
30%	208 lx
50%	347 lx

Conditions:

Number of c-planes: 2

Lux at center: 694 lx

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



Total lumen output:

13916 lm

Peak candela output:

10334 cd

Light quality:

CRI: 96,7

Color temperature:

5559 K

PRODUCT NAME:

ECLPAR DY

MEASURAMENT CONDITIONS:

Beam angle:

Wide Lens

Target:

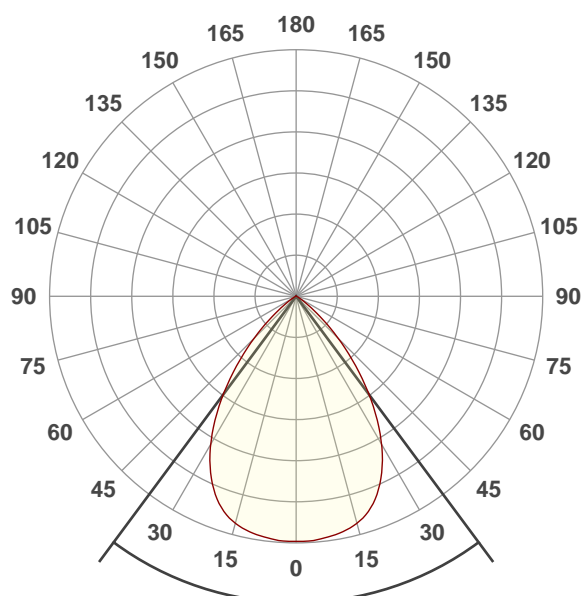
Full On

Operator:

Paolo Carvone

Date and time:

08/05/2020 13:06:46

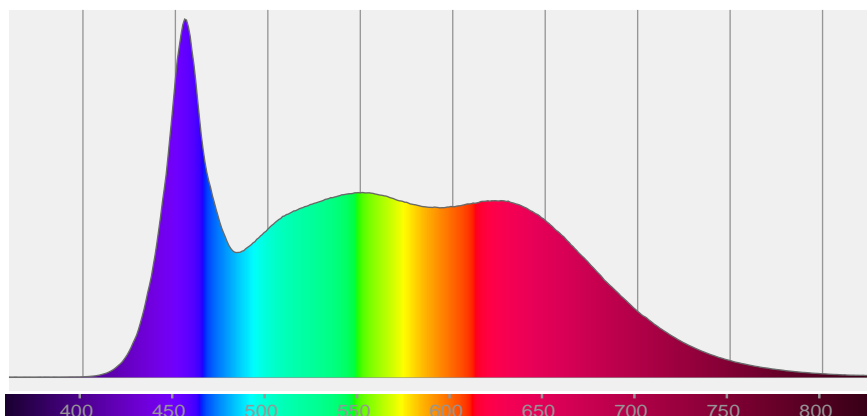


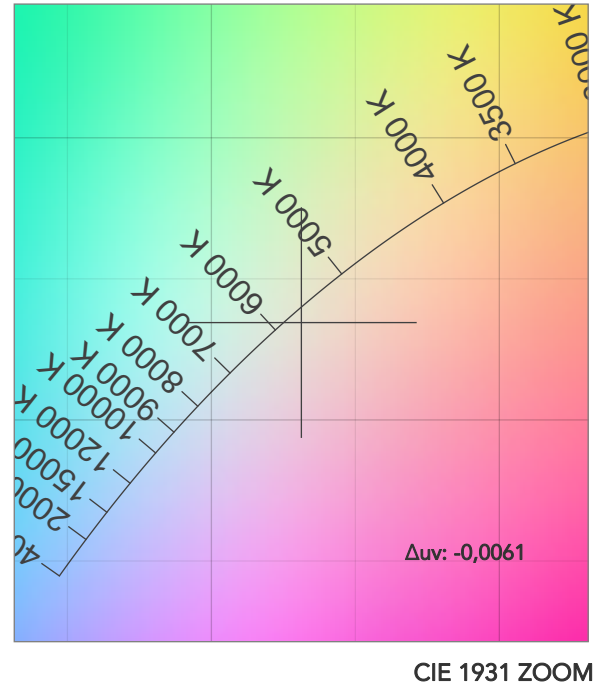
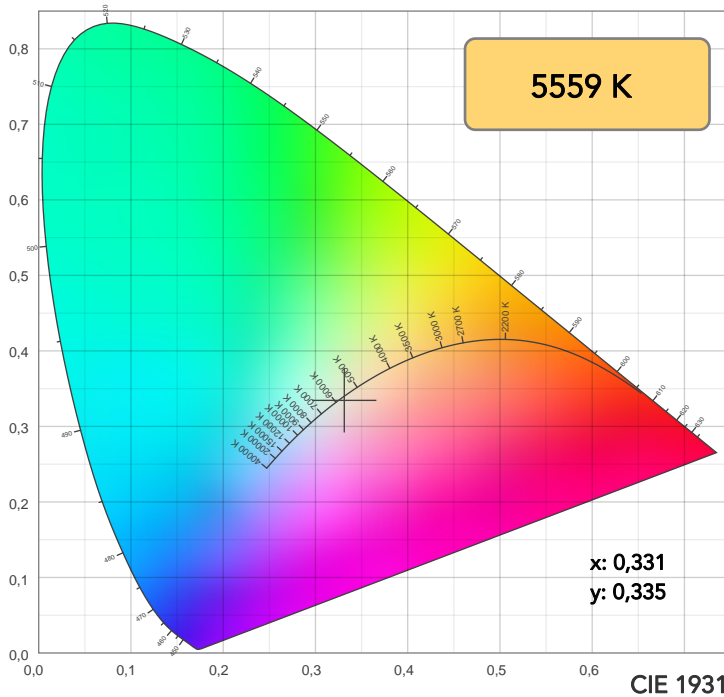
Beam angle 50%: 73,1°

Field angle 10%: 102,5°

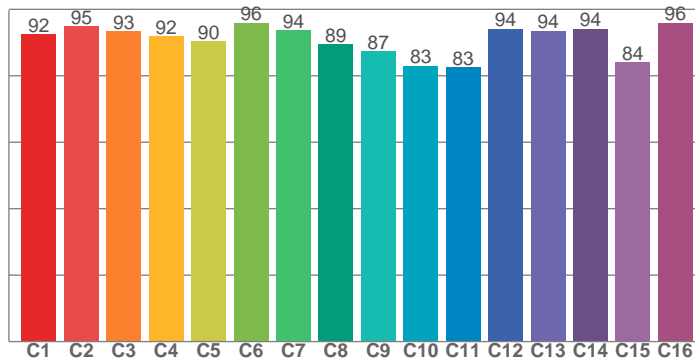
Cut off angle 2.5%: 117,3°

Spectra

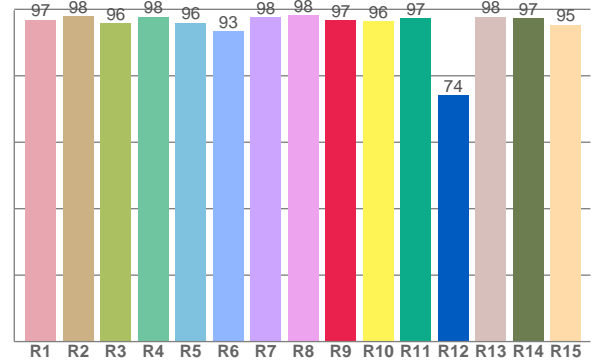




TM30: 90,7



CRI: 96,7 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96,9	98,0	95,8	97,8	96,0	93,5	97,7	98,2	96,8	96,4	97,3	74,2	97,8	97,3	95,4

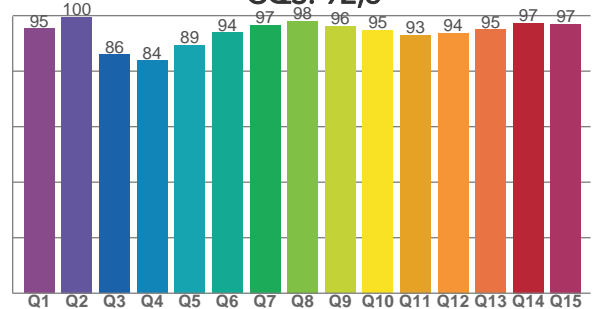
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,4	94,8	93,4	91,9	90,3	95,9	93,6	89,4	87,4	83,0	82,5	94,1	93,6	94,1	84,1	95,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,3	99,5	86,0	83,8	89,5	93,9	96,7	98,1	96,1	94,7	93,1	93,7	95,0	97,3	96,9

CQS: 92,6



COLOR PARAMETERS

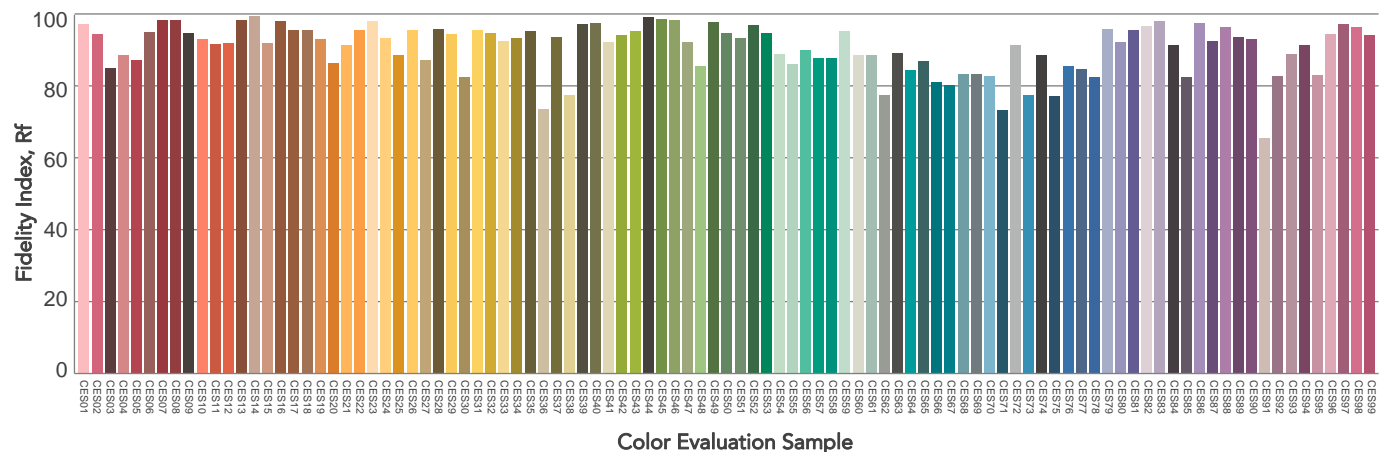
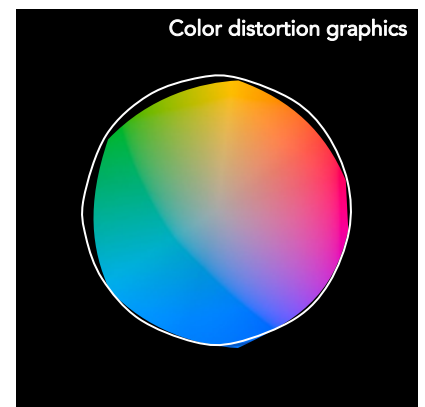
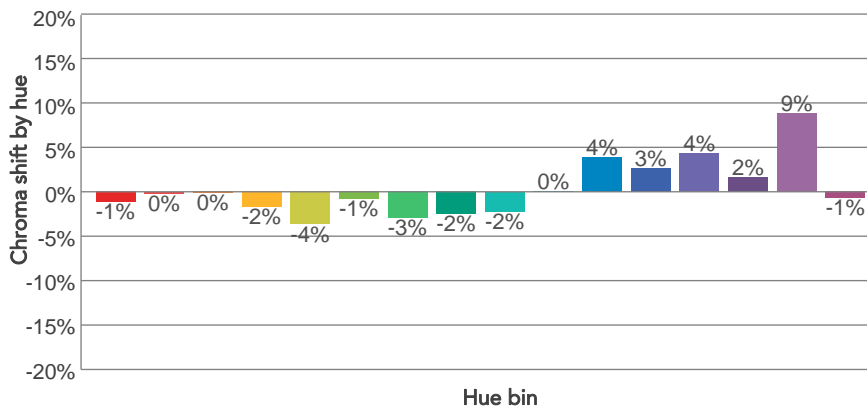
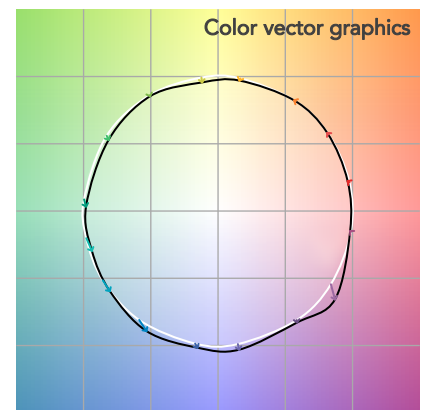
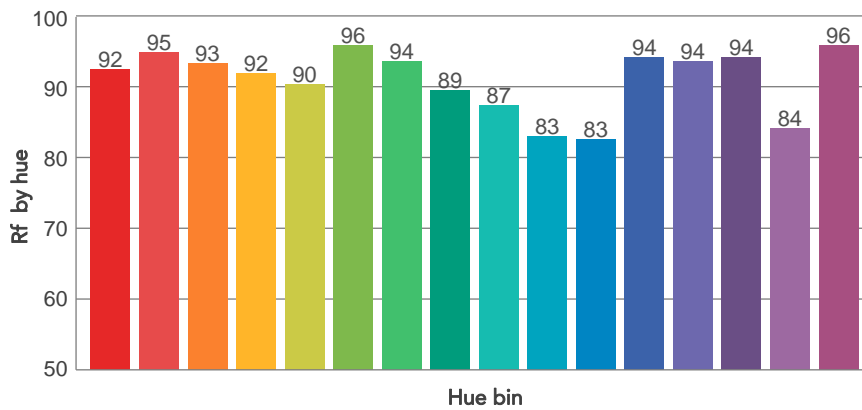
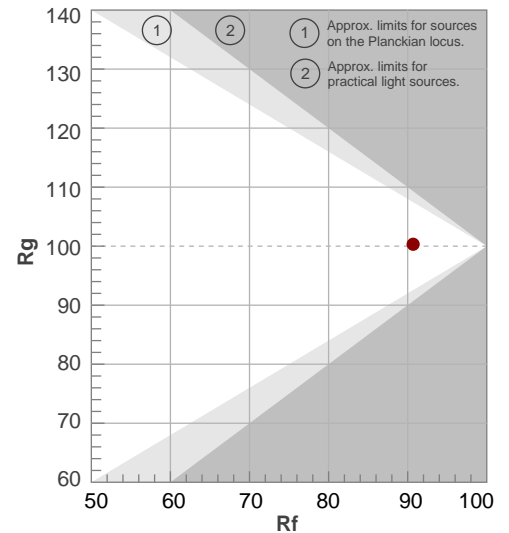
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5559 K	96,7	96,8	90,7	100,3	92,6	96	0,331	0,335	-0,0061

TM30 DETAILS

Rf 90,7
Fidelity index Rf

Rg 100,3
Gammut index

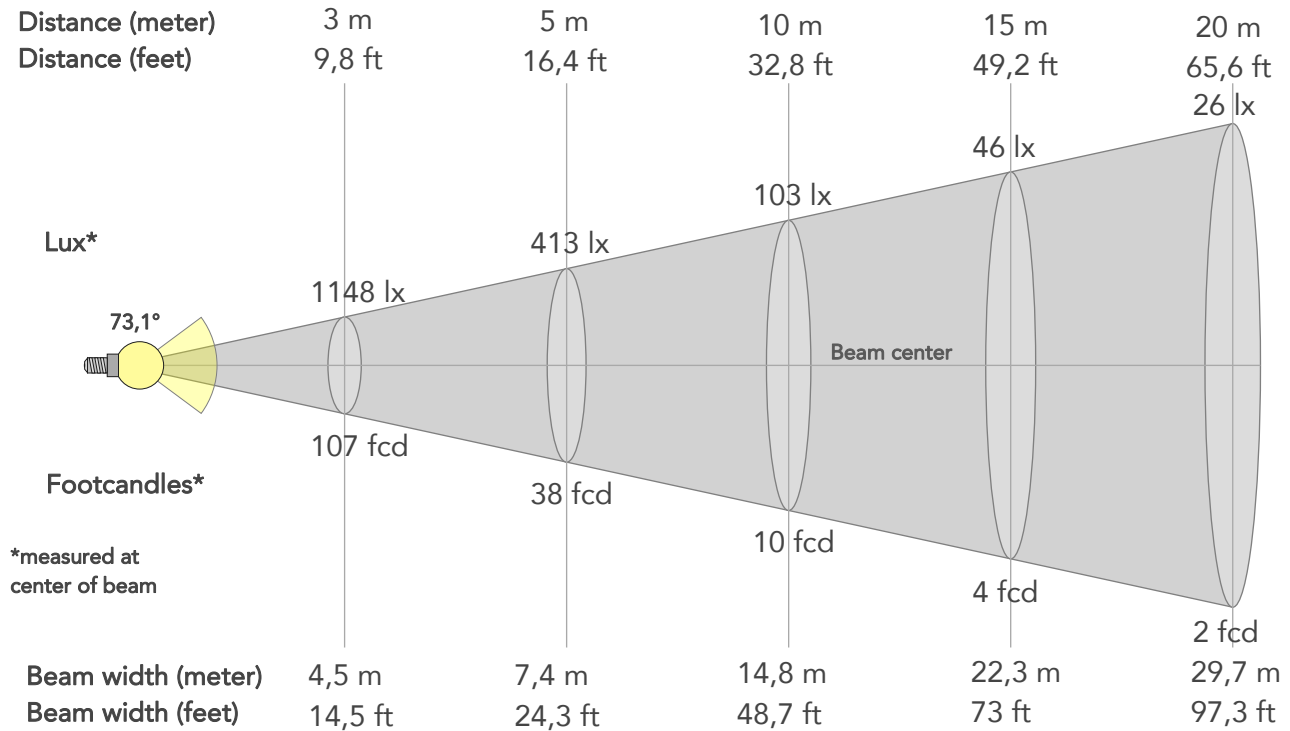
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	92	-1%	1%
2	95	0%	2%
3	93	0%	1%
4	92	-2%	0%
5	90	-4%	0%
6	96	-1%	0%
7	94	-3%	2%
8	89	-2%	5%
9	87	-2%	10%
10	83	0%	10%
11	83	4%	9%
12	94	3%	2%
13	94	4%	0%
14	94	2%	-1%
15	84	9%	-8%
16	96	-1%	0%



BEAM DETAILS



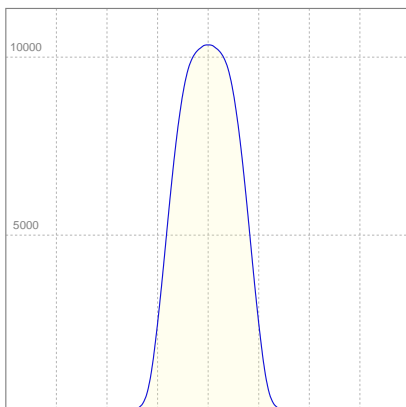
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
73,1°	102,5°	117,3°	97,8%	88,8%



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	10334lx	2584lx	1148lx	646lx	413lx	184lx	103lx	46lx	26lx	17lx	11lx	6lx	4lx
Footcand.	960fcd	240fcd	107fcd	60fcd	38fcd	17fcd	10fcd	4fcd	2fcd	2fcd	1fcd	1fcd	0fcd
Beam wid.	1,5m	3m	4,5m	5,9m	7,4m	11,1m	14,8m	22,3m	29,7m	37,1m	44,5m	59,3m	74,2m
Beam wid.	4,9ft	9,8ft	14,5ft	19,4ft	24,3ft	36,5ft	48,7ft	73ft	97,3ft	121,7ft	146ft	194,6ft	243,3ft

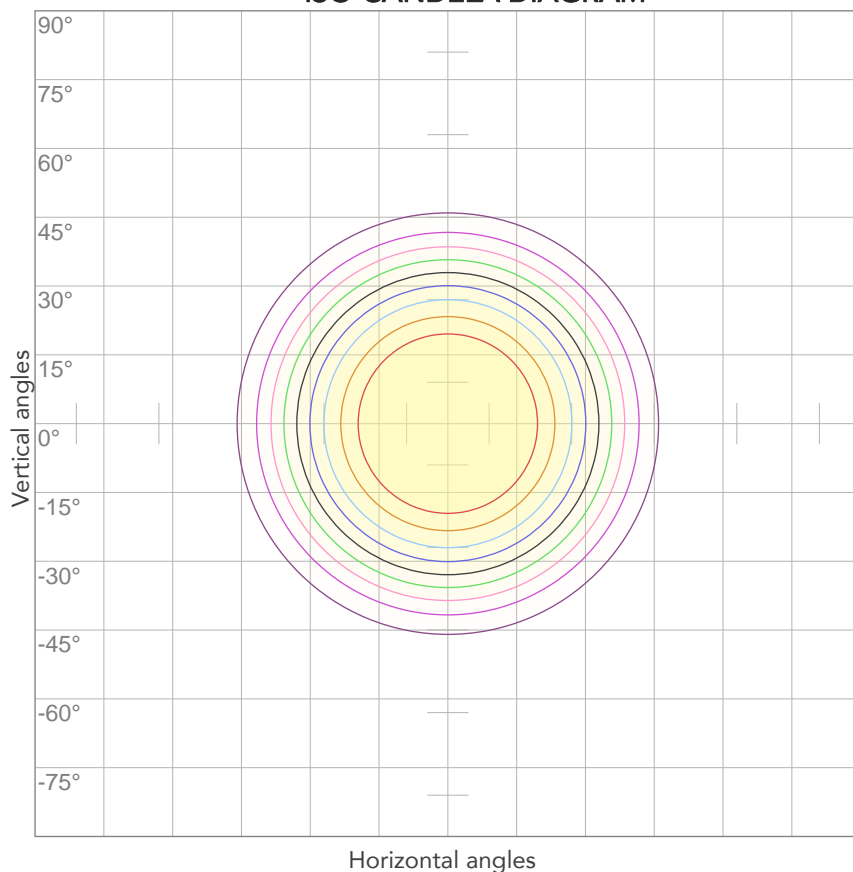
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,940A	202,7W	69lm/W
Power FC			
0,95			

ISO CANDELA DIAGRAM



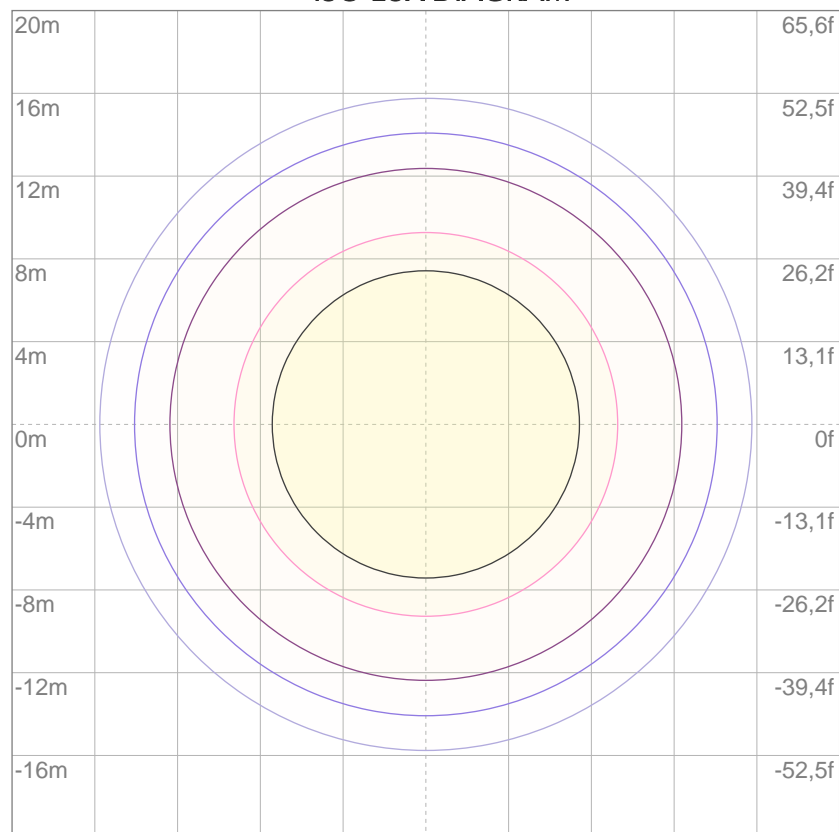
10%	1033 cd
20%	2067 cd
30%	3100 cd
40%	4134 cd
50%	5167 cd
60%	6201 cd
70%	7234 cd
80%	8268 cd

Conditions:

Number of c-planes: 2

Candela at center: 10334 cd

ISO LUX DIAGRAM



3%	3,10 lx
5%	5,17 lx
10%	10,3 lx
30%	31,0 lx
50%	51,7 lx

Conditions:

Number of c-planes: 2

Lux at center: 103 lx

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