



Photometric Test Report



ECLPARTU

Single source multipurpose LED PAR

CONTENTS

Table of contents	2
Testing process	3
Preset Full on	
Narrow Lens	4
Medium Lens	9
Wide Lens	14

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:

11726 lm

Peak candela output:

127538 cd

Light quality:

CRI: 97,6

Color temperature:

3240 K

PRODUCT NAME:

ECLPAR TU

MEASURAMENT CONDITIONS:

Beam angle:

Narrow Lens

Target:

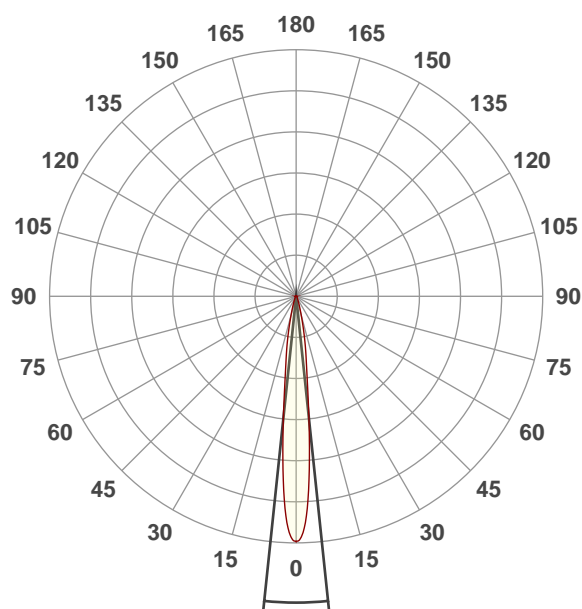
Full On

Operator:

Paolo Carvone

Date and time:

08/05/2020 12:48:04

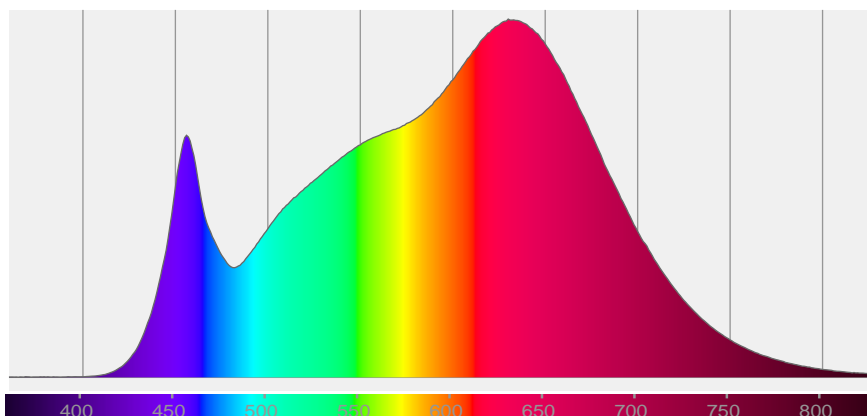


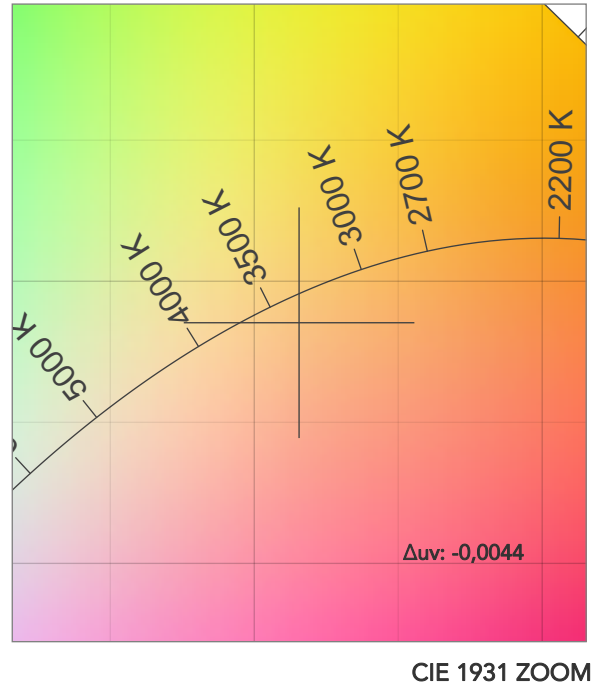
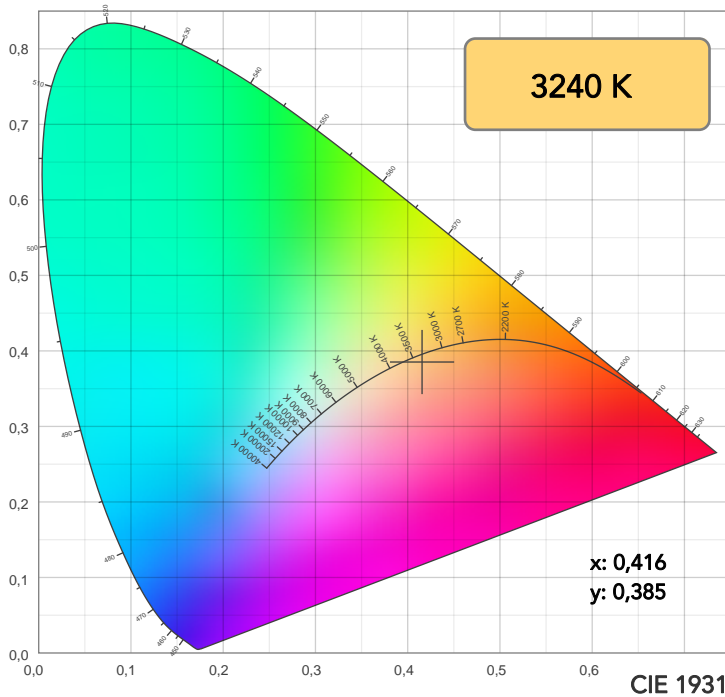
Beam angle 50%: 12°

Field angle 10%: 28°

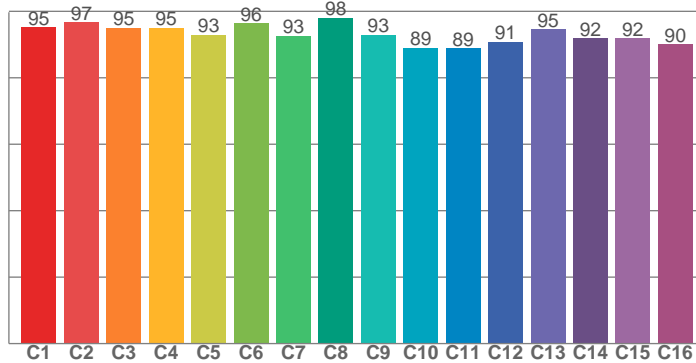
Cut off angle 2.5%: 43,8°

Spectra

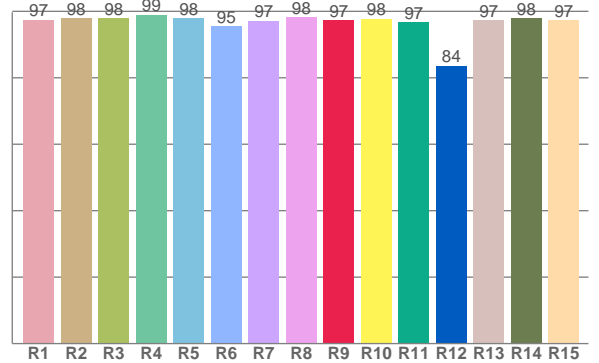




TM30: 93,3



CRI: 97,6 (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
97,5	97,8	97,9	98,9	97,8	95,4	97,2	98,1	97,4	97,8	96,8	83,6	97,3	98,0	97,4

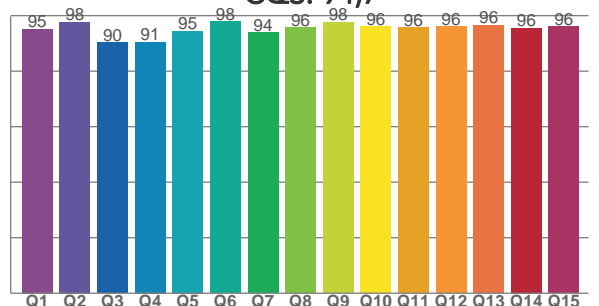
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,1	96,7	95,0	94,9	92,9	96,4	92,6	98,0	93,0	89,1	88,9	90,9	94,6	91,8	91,9	90,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,2	97,7	90,3	90,6	94,5	97,8	93,9	95,7	97,6	96,1	95,7	96,1	96,5	95,6	96,1

CQS: 94,7



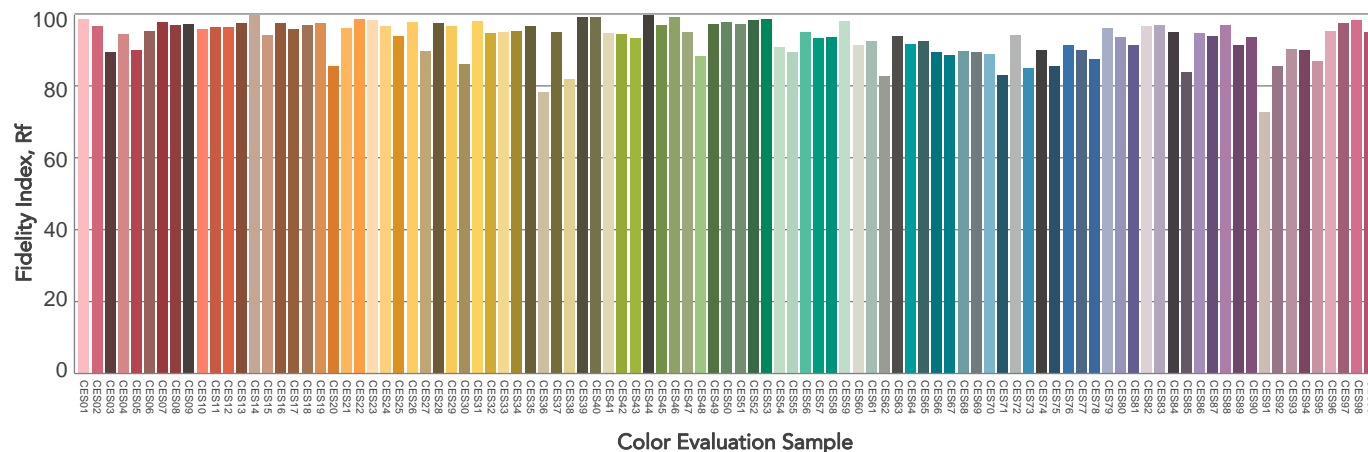
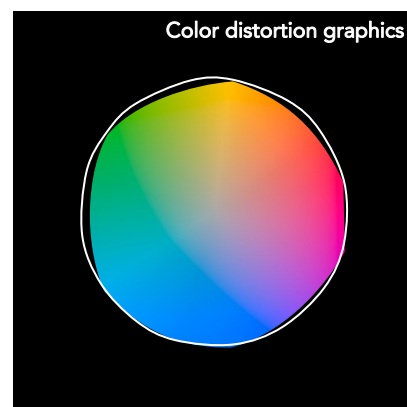
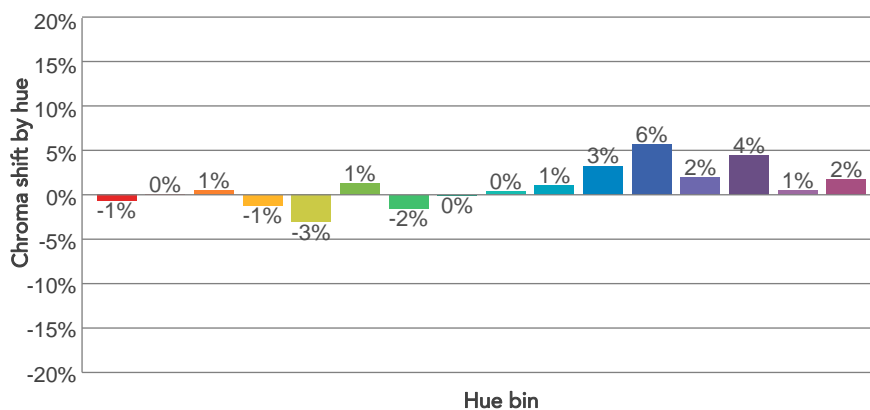
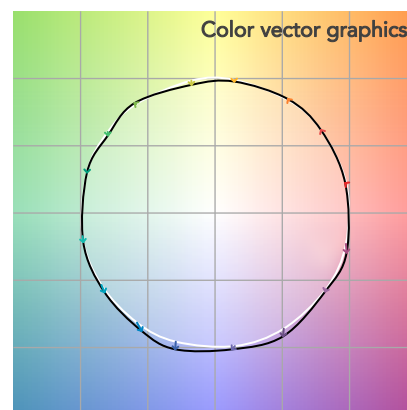
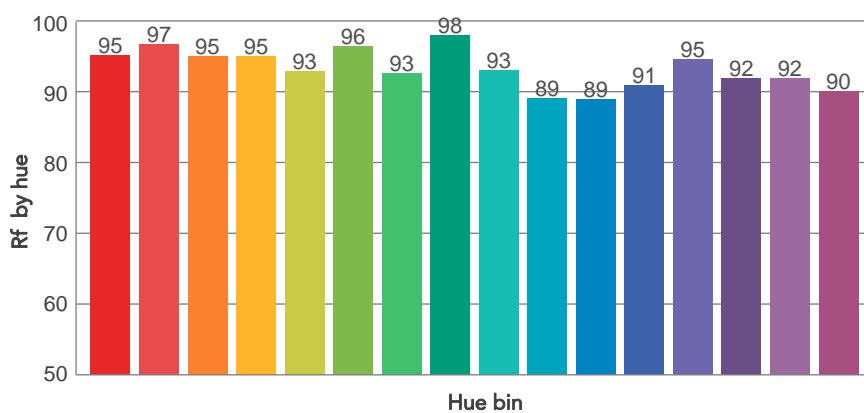
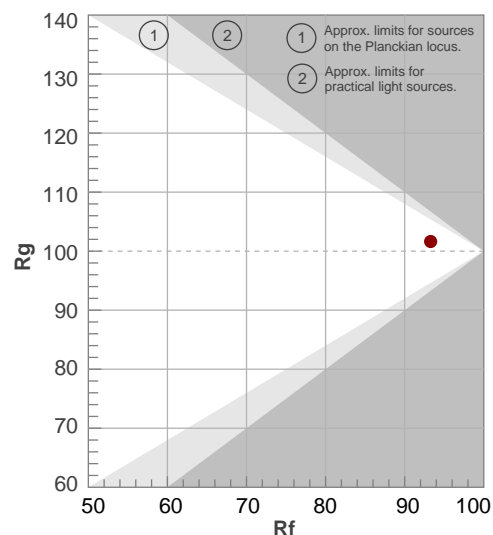
COLOR PARAMETERS

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
3240 K	97,6	97,4	93,3	101,6	94,7	98	0,416	0,385	-0,0044

Fidelity index R_f

Gammut index

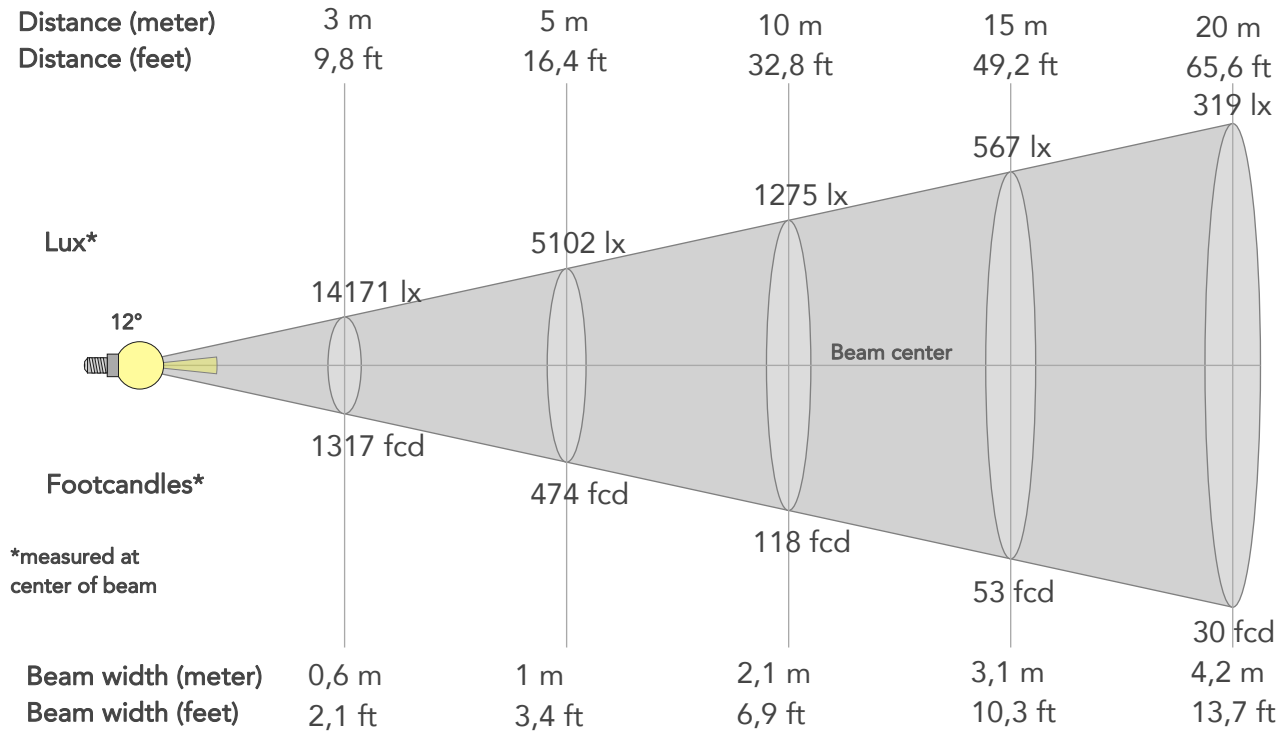
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	95	-1%	1%
2	97	0%	0%
3	95	1%	2%
4	95	-1%	0%
5	93	-3%	0%
6	96	1%	1%
7	93	-2%	2%
8	98	0%	1%
9	93	0%	4%
10	89	1%	6%
11	89	3%	6%
12	91	6%	1%
13	95	2%	-3%
14	92	4%	-4%
15	92	1%	-2%
16	90	2%	-6%



BEAM DETAILS



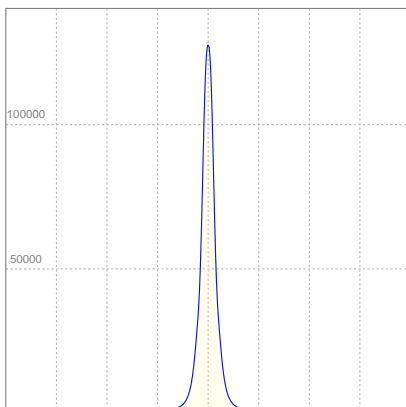
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
12°	28°	43,8°	97,3%	92,7%



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	127538lx	31884lx	14171lx	7971lx	5102lx	2267lx	1275lx	567lx	319lx	204lx	142lx	80lx	51lx
Footcand.	11849fcd	2962fcd	1317fcd	741fcd	474fcd	211fcd	118fcd	53fcd	30fcd	19fcd	13fcd	7fcd	5fcd
Beam wid.	0,2m	0,4m	0,6m	0,8m	1m	1,6m	2,1m	3,1m	4,2m	5,2m	6,3m	8,4m	10,5m
Beam wid.	0,7ft	1,4ft	2,1ft	2,7ft	3,4ft	5,2ft	6,9ft	10,3ft	13,7ft	17,2ft	20,6ft	27,5ft	34,3ft

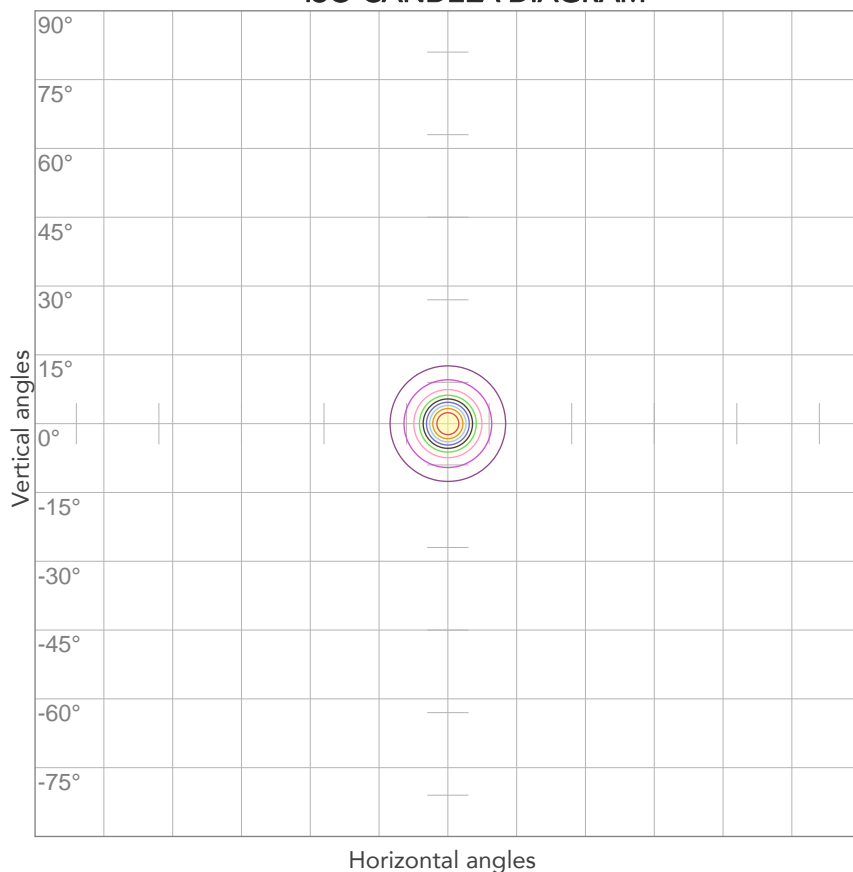
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,915A	197,9W	59lm/W
Power FC			
0,95			

ISO CANDELA DIAGRAM



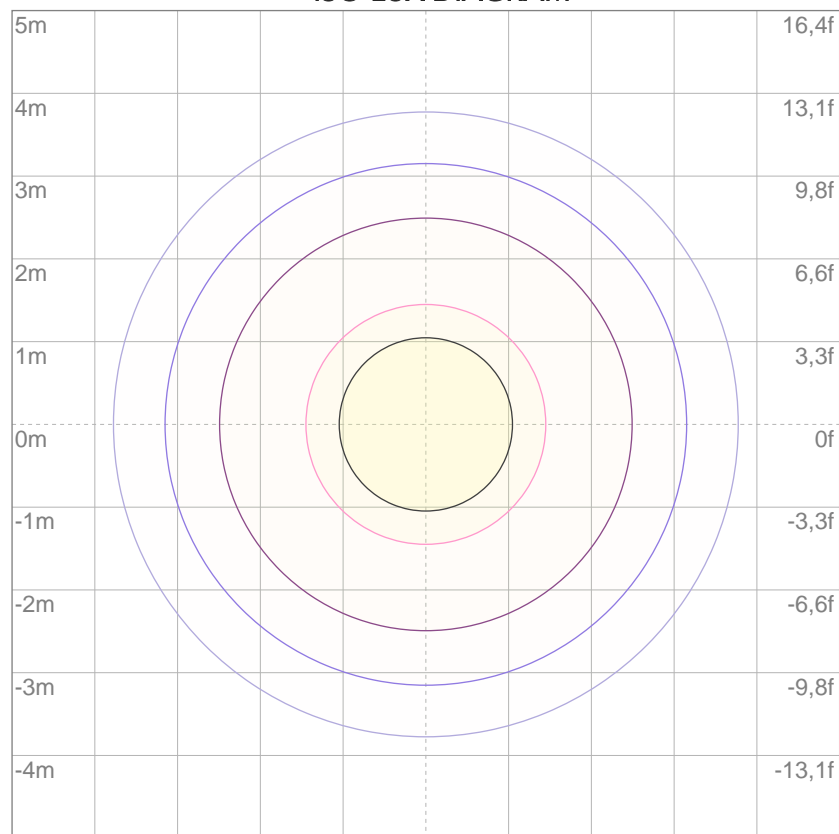
10%	12754 cd
20%	25508 cd
30%	38261 cd
40%	51015 cd
50%	63769 cd
60%	76523 cd
70%	89276 cd
80%	102030 cd

Conditions:

Number of c-planes: 2

Candela at center: 127538 cd

ISO LUX DIAGRAM



3%	38,3 lx
5%	63,8 lx
10%	128 lx
30%	383 lx
50%	638 lx

Conditions:

Number of c-planes: 2

Lux at center: 1275 lx

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



Total lumen output:

12454 lm

Peak candela output:

58325 cd

Light quality:

CRI: 97,9

Color temperature:

3266 K

PRODUCT NAME:

ECLPAR TU

MEASURAMENT CONDITIONS:

Beam angle:

Med Lens

Target:

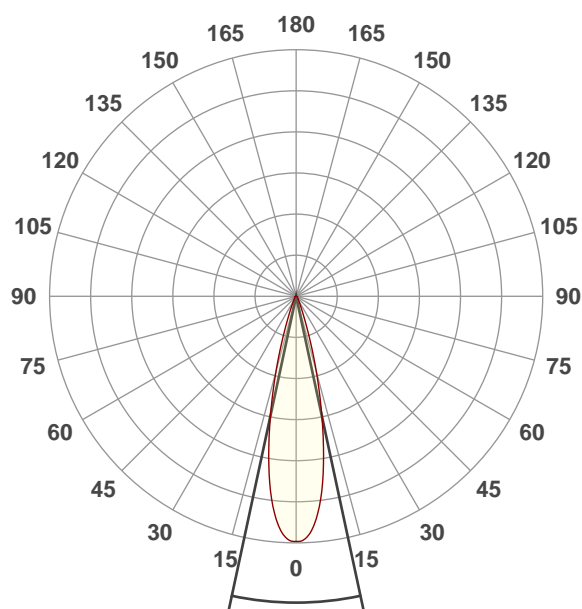
Full On

Operator:

Paolo Carvone

Date and time:

08/05/2020 12:36:20

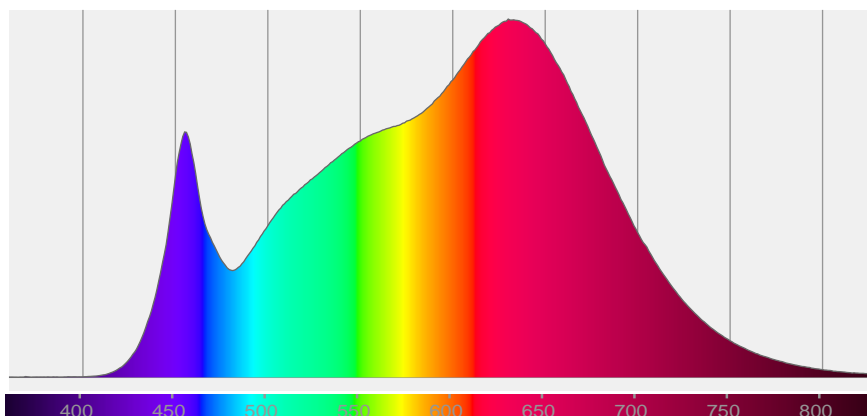


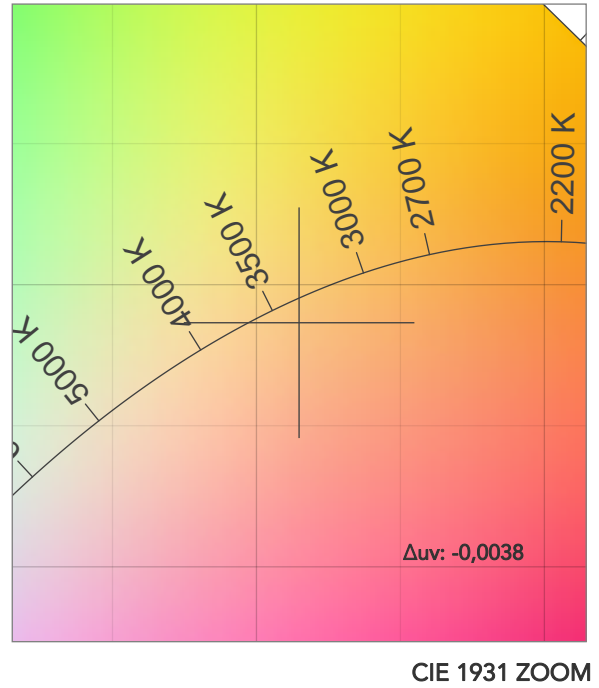
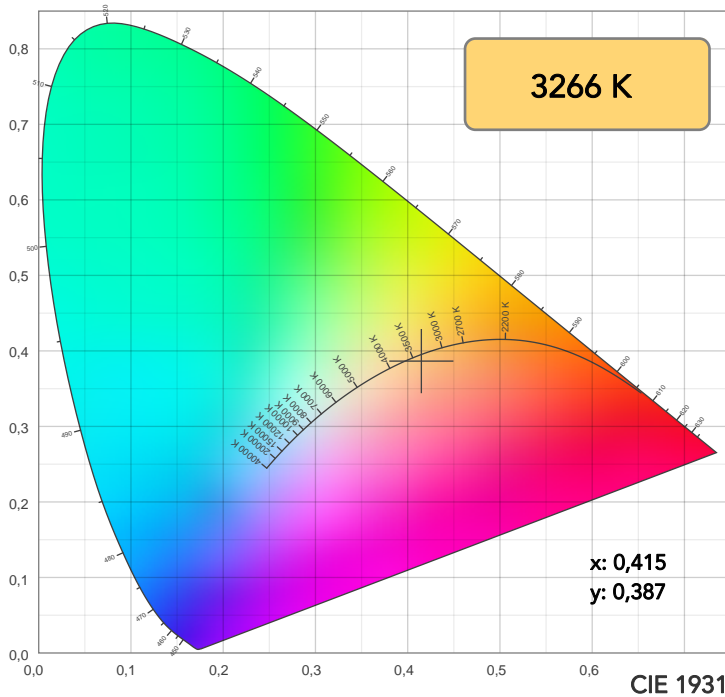
Beam angle 50%: 24,2°

Field angle 10%: 40,6°

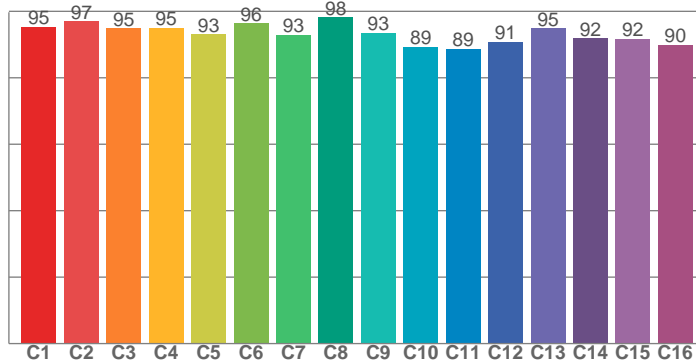
Cut off angle 2.5%: 57,5°

Spectra

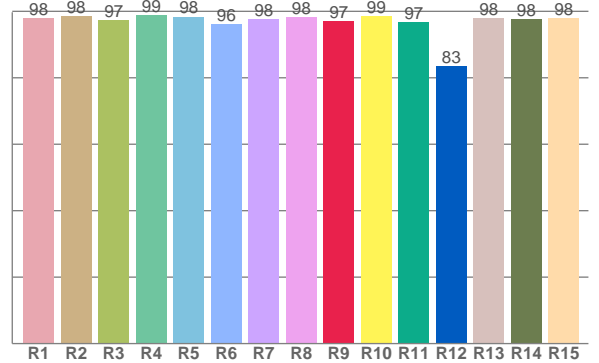




TM30: 93,4



CRI: 97,9 (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
98,0	98,5	97,3	98,8	98,4	96,1	97,6	98,3	96,9	98,6	96,8	83,4	97,9	97,6	97,9

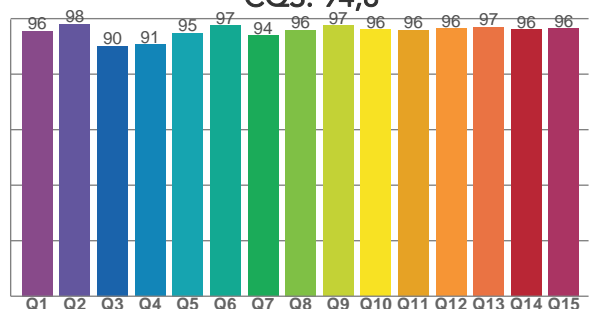
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,4	97,0	94,9	95,1	93,1	96,3	92,9	98,2	93,5	89,3	88,6	90,9	94,9	91,8	91,7	90,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,6	97,9	90,1	90,6	94,9	97,5	93,9	96,0	97,4	96,0	95,8	96,4	96,9	96,1	96,4

CQS: 94,8



COLOR PARAMETERS

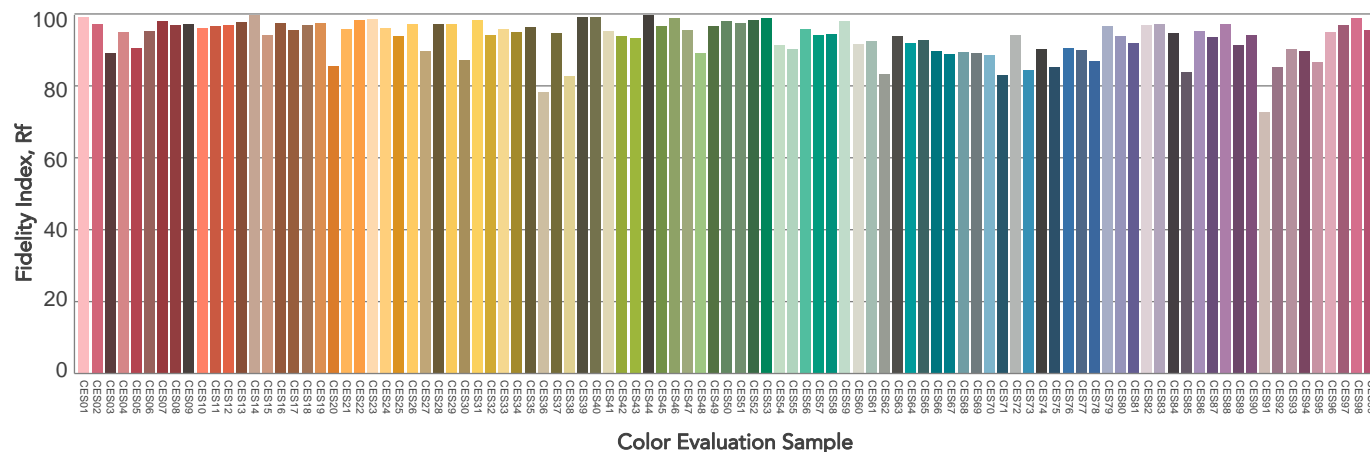
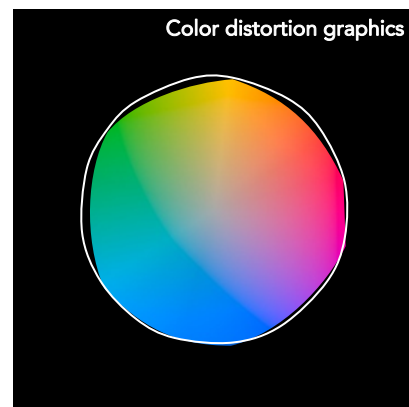
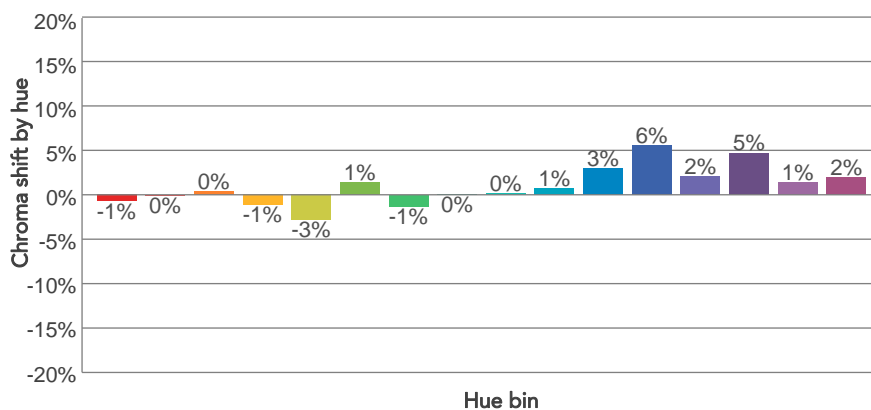
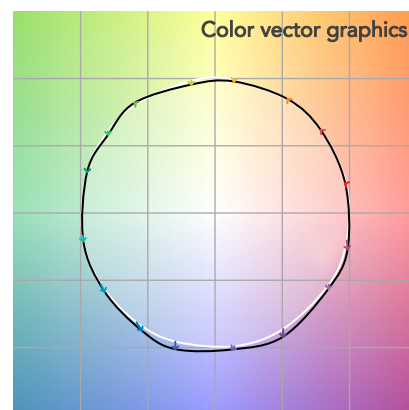
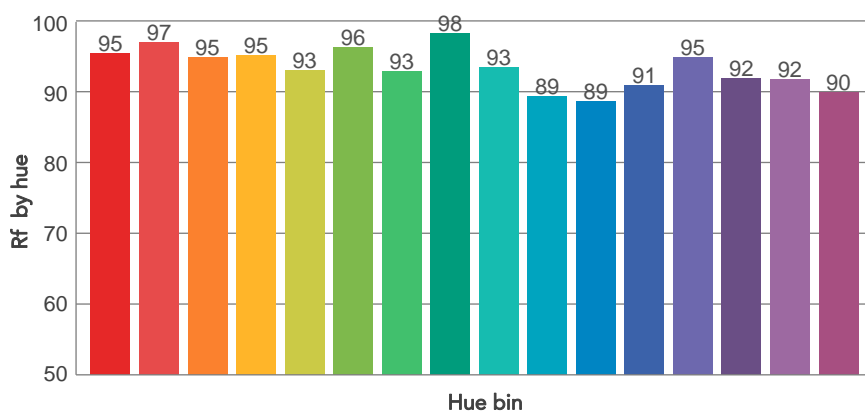
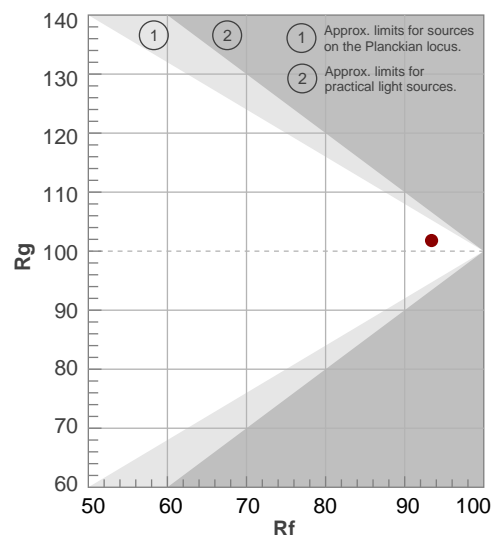
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3266 K	97,9	96,9	93,4	101,8	94,8	98	0,415	0,387	-0,0038

TM30 DETAILS

Rf 93,4
Fidelity index Rf

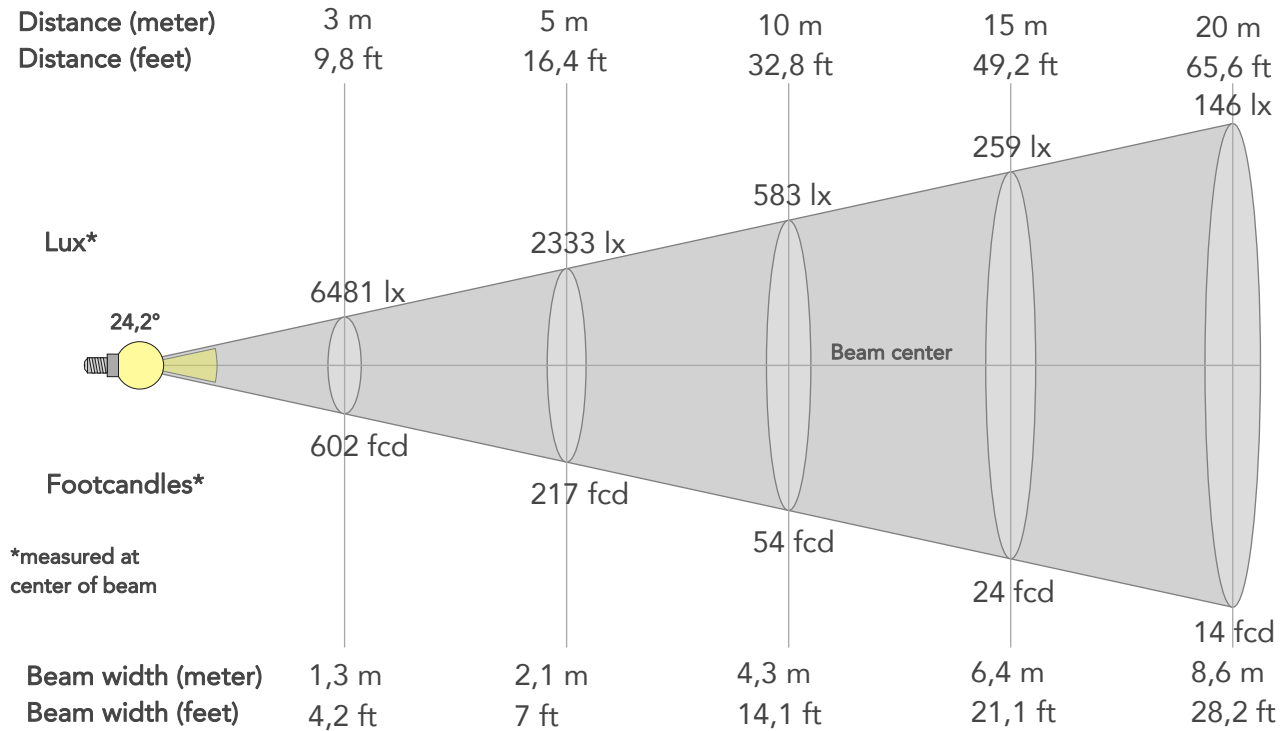
Rg 101,8
Gammut index

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	95	-1%	1%
2	97	0%	0%
3	95	0%	2%
4	95	-1%	0%
5	93	-3%	1%
6	96	1%	1%
7	93	-1%	2%
8	98	0%	0%
9	93	0%	4%
10	89	1%	6%
11	89	3%	7%
12	91	6%	1%
13	95	2%	-2%
14	92	5%	-3%
15	92	1%	-3%
16	90	2%	-6%



BEAM DETAILS

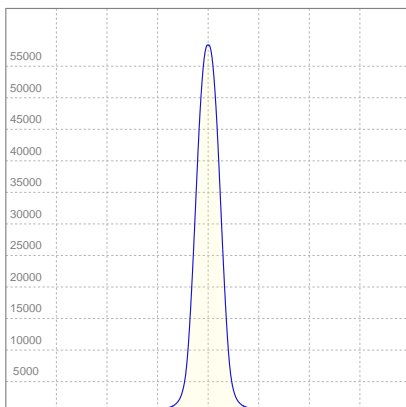
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
24,2°	40,6°	57,5°	97,7%	93,8%



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	58325lx	14581lx	6481lx	3645lx	2333lx	1037lx	583lx	259lx	146lx	93lx	65lx	36lx	23lx
Footcand.	5419fcd	1355fcd	602fcd	339fcd	217fcd	96fcd	54fcd	24fcd	14fcd	9fcd	6fcd	3fcd	2fcd
Beam wid.	0,4m	0,9m	1,3m	1,7m	2,1m	3,2m	4,3m	6,4m	8,6m	10,7m	12,9m	17,2m	21,5m
Beam wid.	1,4ft	2,8ft	4,2ft	5,6ft	7ft	10,6ft	14,1ft	21,1ft	28,2ft	35,2ft	42,3ft	56,4ft	70,4ft

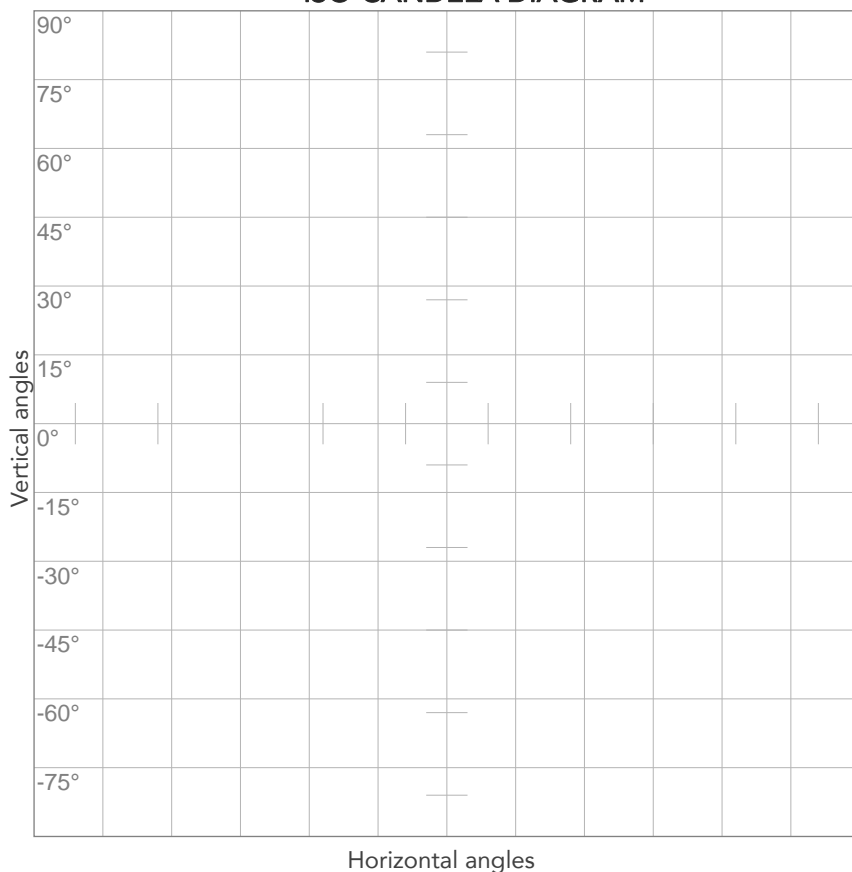
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,927A	200,3W	62lm/W
Power FC			
0,95			

ISO CANDELA DIAGRAM



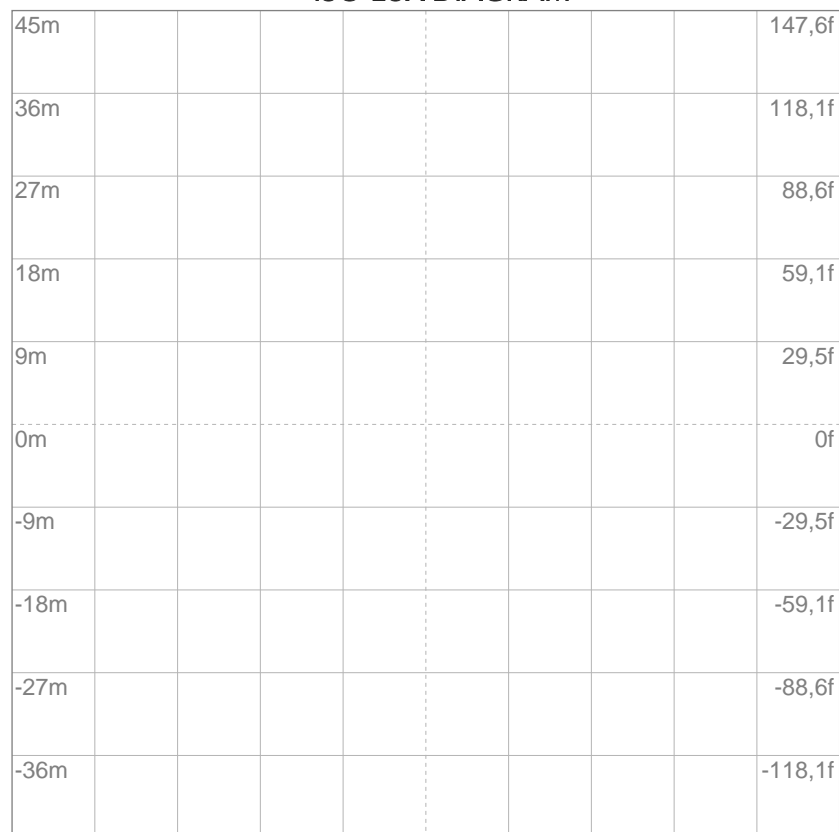
10%	5833 cd
20%	11665 cd
30%	17498 cd
40%	23330 cd
50%	29163 cd
60%	34995 cd
70%	40828 cd
80%	46660 cd

Conditions:

Number of c-planes: 2

Candela at center: 58325 cd

ISO LUX DIAGRAM



3%	17,5 lx
5%	29,2 lx
10%	58,3 lx
30%	175 lx
50%	292 lx

Conditions:

Number of c-planes: 2

Lux at center: 583 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:

11834 lm

Peak candela output:

8719 cd

Light quality:

CRI: 97,7

Color temperature:

3248 K

PRODUCT NAME:

ECLPAR TU

MEASURAMENT CONDITIONS:

Beam angle:

Wide Lens

Target:

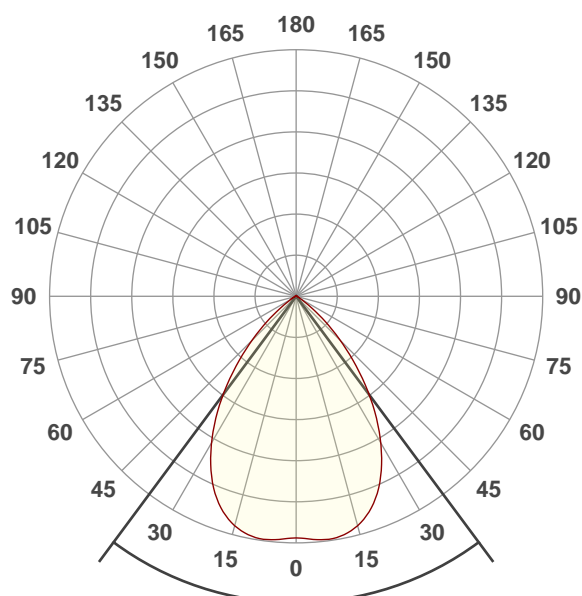
Full On

Operator:

Paolo Carvone

Date and time:

08/05/2020 12:44:33

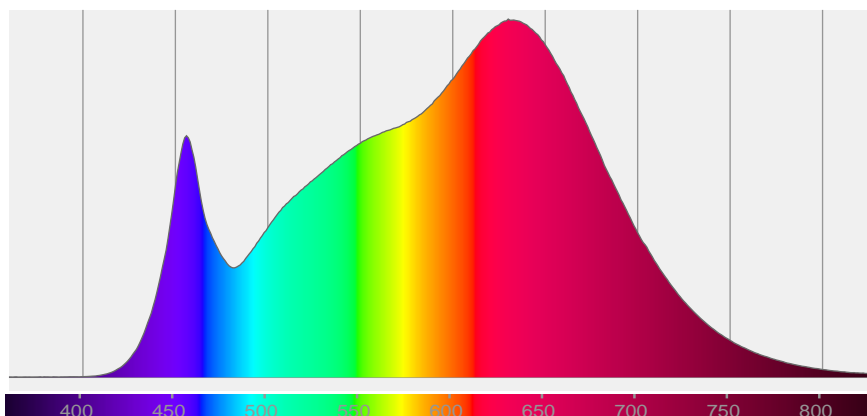


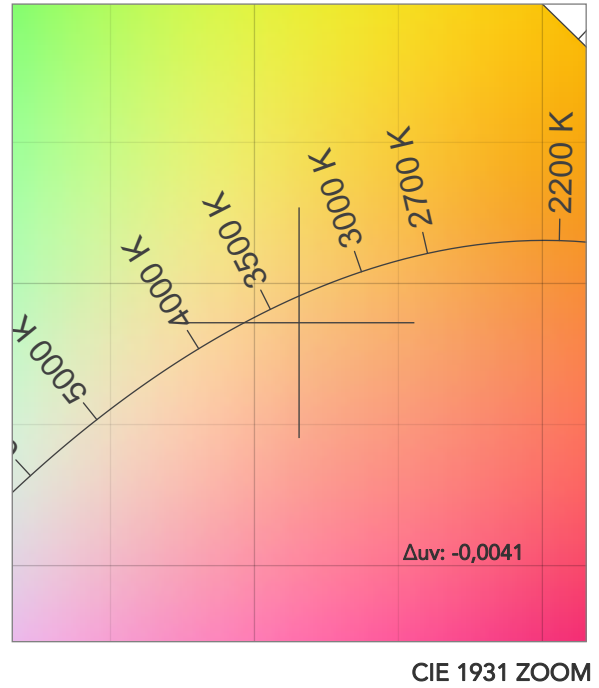
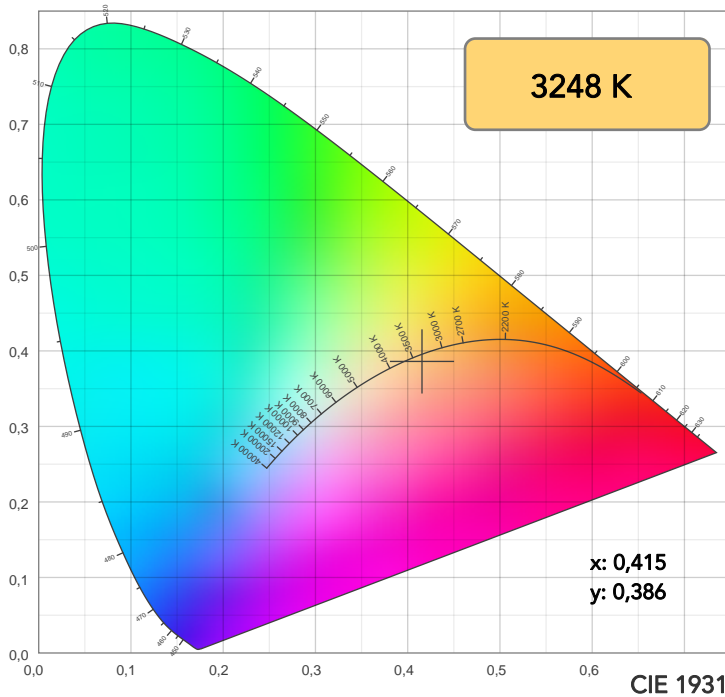
Beam angle 50%: 73,2°

Field angle 10%: 104°

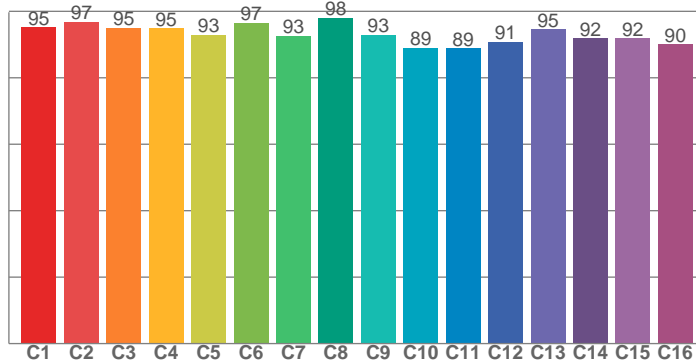
Cut off angle 2.5%: 118,9°

Spectra

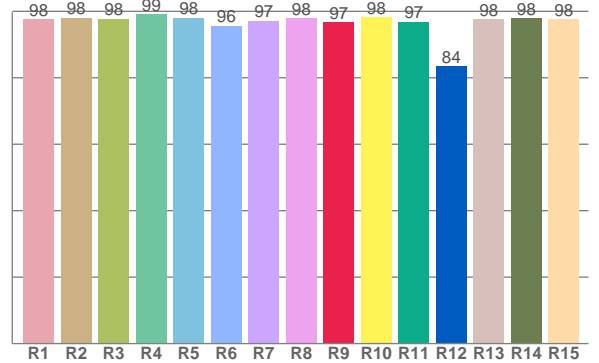




TM30: 93,3



CRI: 97,7 (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
97,7	98,1	97,8	99,0	98,0	95,7	97,2	97,9	96,8	98,2	96,9	83,5	97,6	97,9	97,7

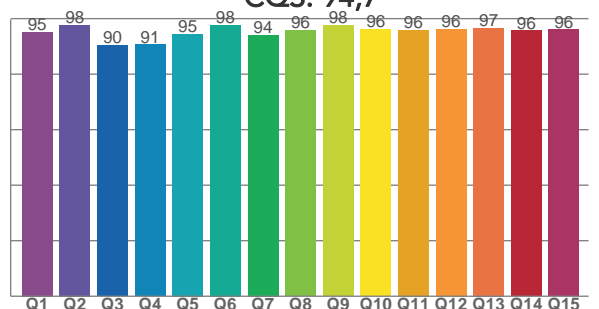
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95,1	96,8	95,1	94,9	93,0	96,5	92,7	98,1	93,0	89,0	88,8	90,9	94,6	91,8	91,8	90,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,1	97,7	90,4	90,6	94,5	97,8	94,0	95,8	97,6	96,1	95,8	96,2	96,7	95,8	96,1

CQS: 94,7



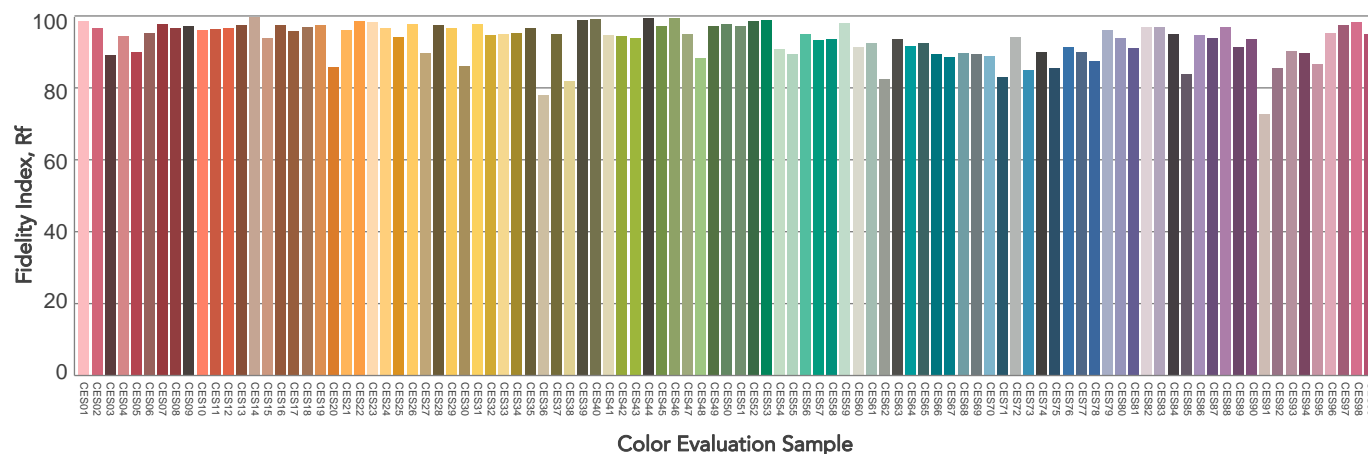
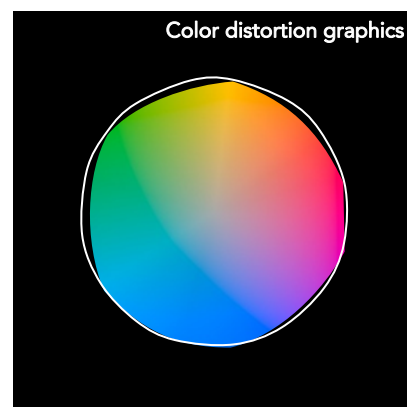
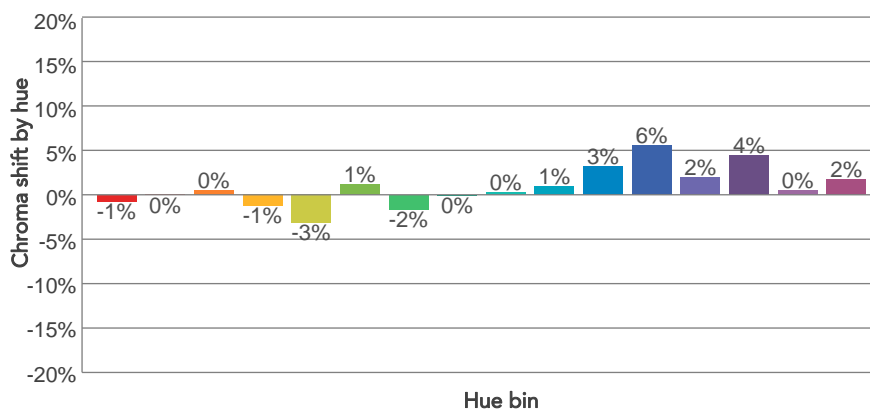
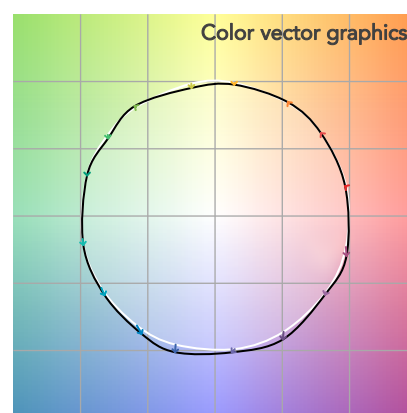
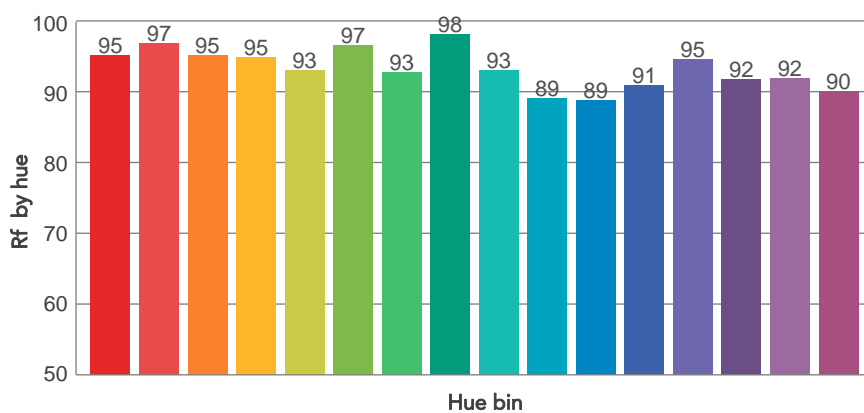
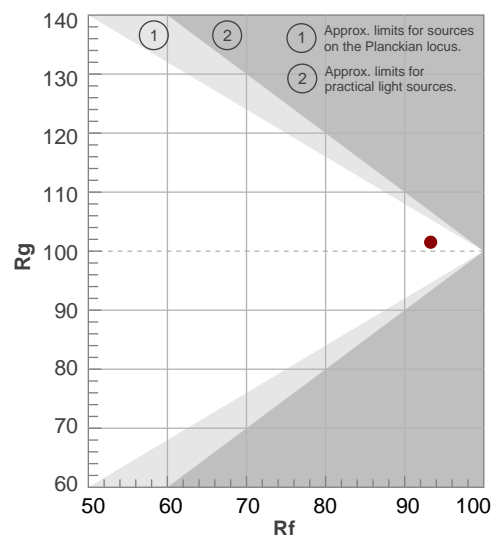
COLOR PARAMETERS

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
3248 K	97,7	96,8	93,3	101,5	94,7	98	0,415	0,386	-0,0041

Fidelity index R_f

Gammut index

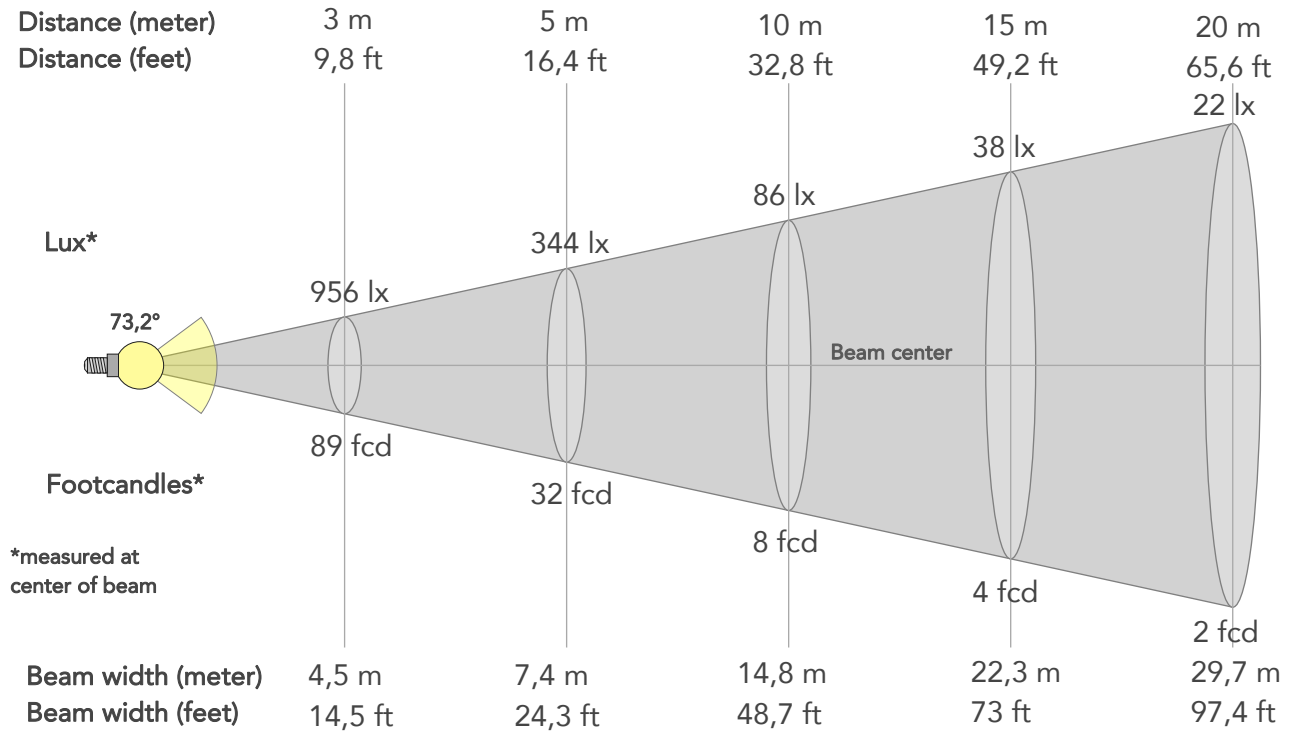
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	95	-1%	1%
2	97	0%	0%
3	95	0%	1%
4	95	-1%	0%
5	93	-3%	0%
6	97	1%	1%
7	93	-2%	2%
8	98	0%	1%
9	93	0%	4%
10	89	1%	6%
11	89	3%	6%
12	91	6%	1%
13	95	2%	-3%
14	92	4%	-4%
15	92	0%	-2%
16	90	2%	-6%



BEAM DETAILS



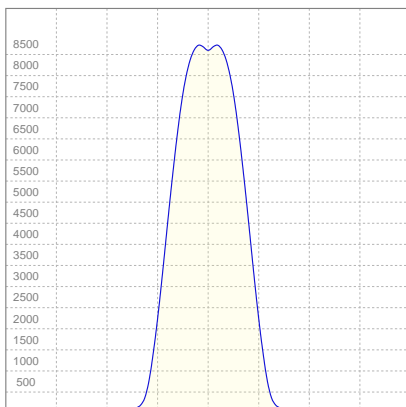
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
73,2°	104°	118,9°	98,2%	88,2%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	8608lx	2152lx	956lx	538lx	344lx	153lx	86lx	38lx	22lx	14lx	10lx	5lx	3lx
Footcand.	800fcd	200fcd	89fcd	50fcd	32fcd	14fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	1,5m	3m	4,5m	5,9m	7,4m	11,1m	14,8m	22,3m	29,7m	37,1m	44,5m	59,4m	74,2m
Beam wid.	4,9ft	9,8ft	14,5ft	19,4ft	24,3ft	36,5ft	48,7ft	73ft	97,4ft	121,7ft	146,1ft	194,8ft	243,5ft

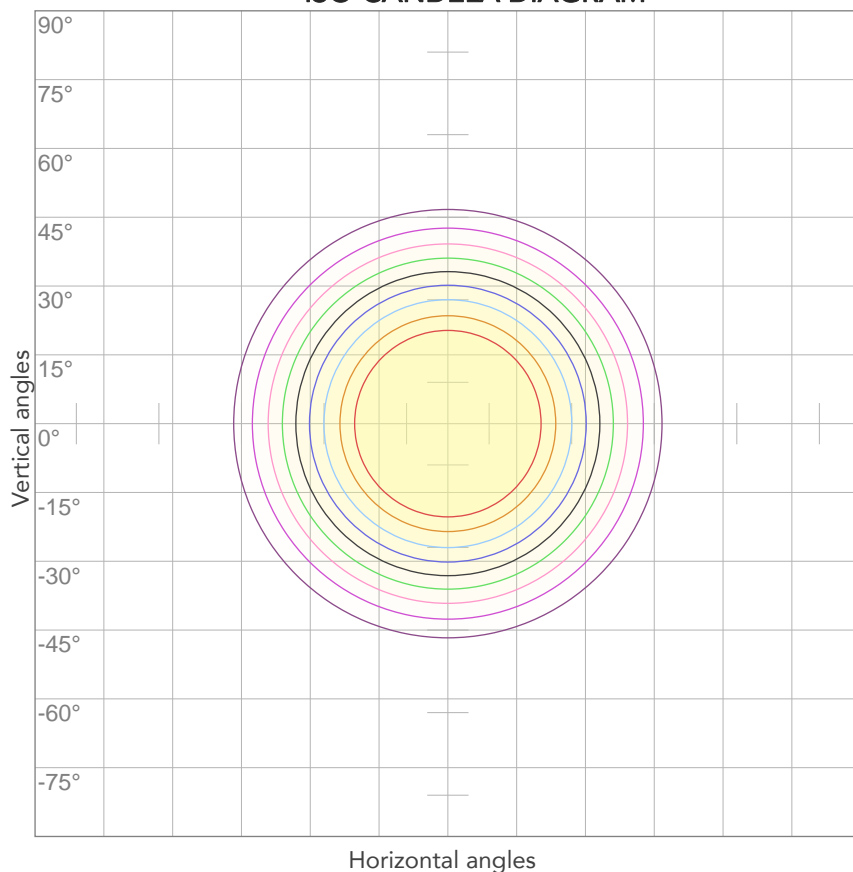
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,917A	198,2W	60lm/W
Power FC			
0,95			

ISO CANDELA DIAGRAM



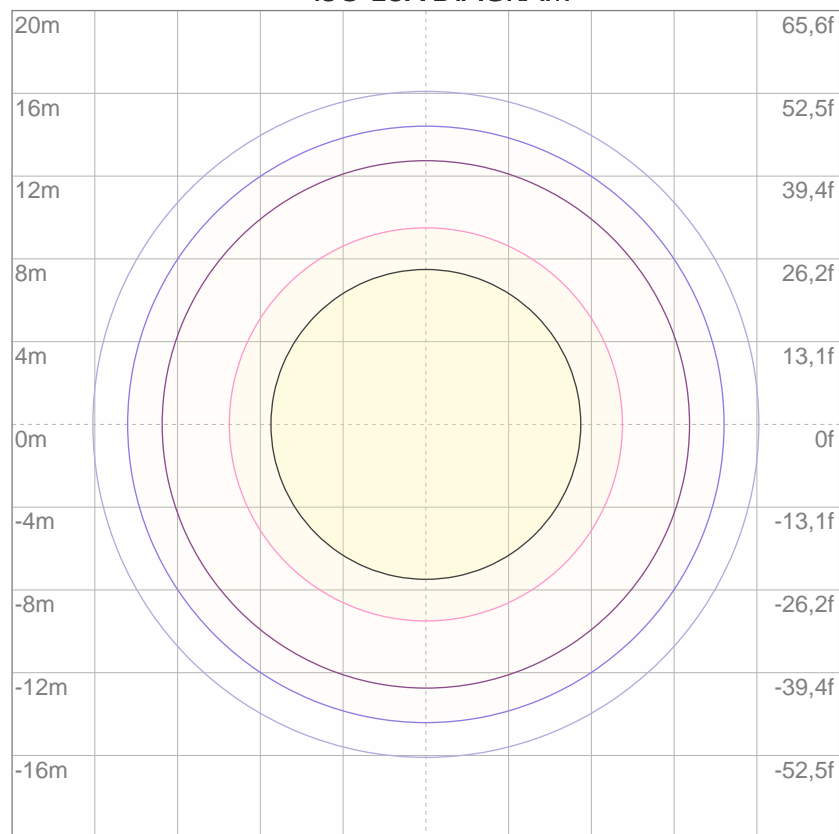
10%	861 cd
20%	1722 cd
30%	2582 cd
40%	3443 cd
50%	4304 cd
60%	5165 cd
70%	6026 cd
80%	6886 cd

Conditions:

Number of c-planes: 2

Candela at center: 8608 cd

ISO LUX DIAGRAM



3%	2,58 lx
5%	4,30 lx
10%	8,61 lx
30%	25,8 lx
50%	43,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 86,1 lx

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