

Photometric Test Report



ECLFWVW PRL5

High quality Variable White LED ellipsoidal,
with linear CCT 2.700K – 5.600K

CONTENTS

Table of contents	2
Testing process	3
Presets	
Full On	4
Cold White	9
Warm White	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:

6249 lm

Peak candela output:

832753 cd

Light quality:

CRI: 94,6

Color temperature:

3989 K

PRODUCT NAME:

ECLFWWW

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

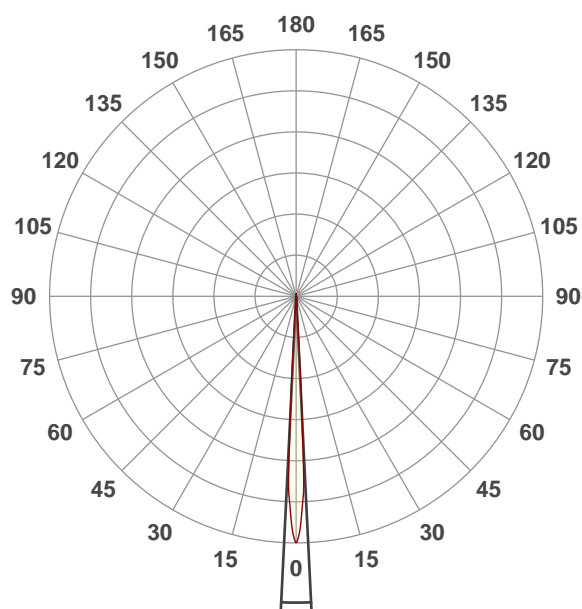
Full On

Operator:

Paolo Carvone

Date and time:

11/06/2021 13:27:00

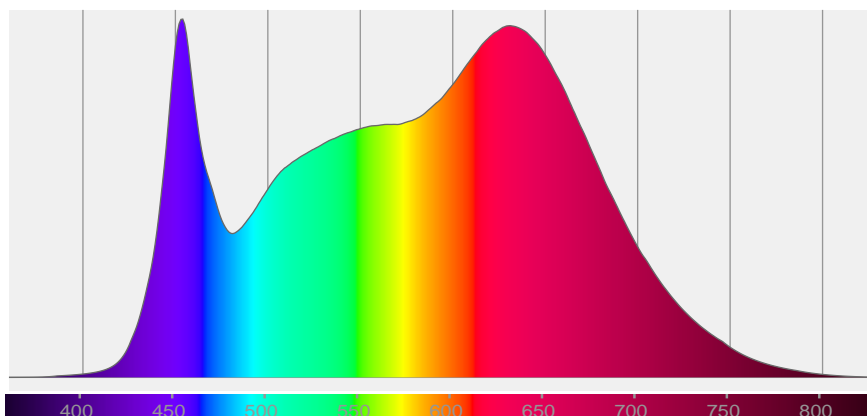


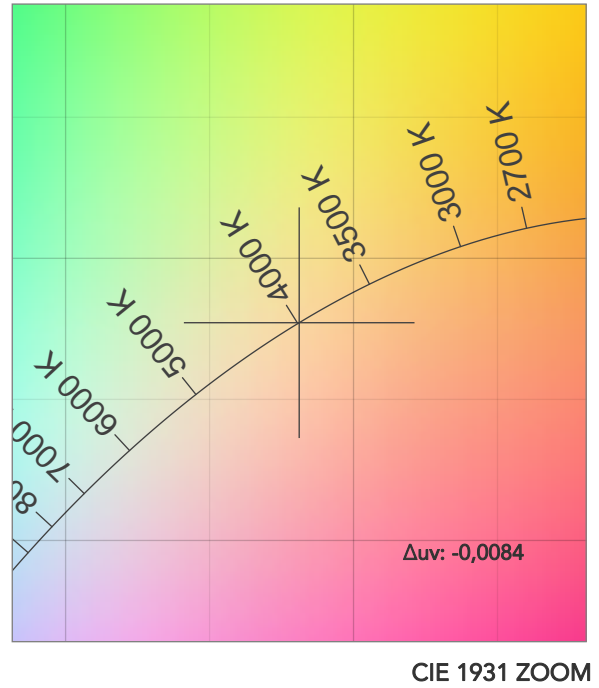
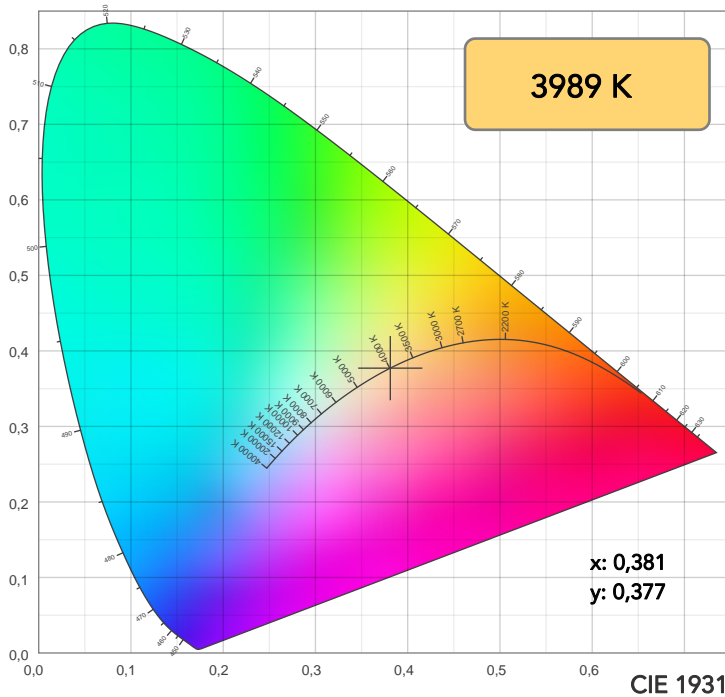
Beam angle 50%: 5,6°

Field angle 10%: 7,3°

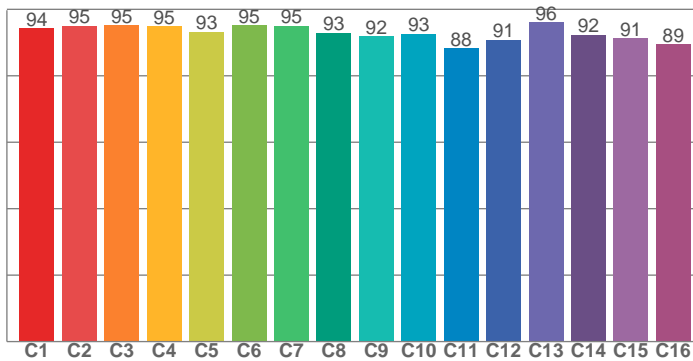
Cut off angle 2.5%: 7,7°

Spectra

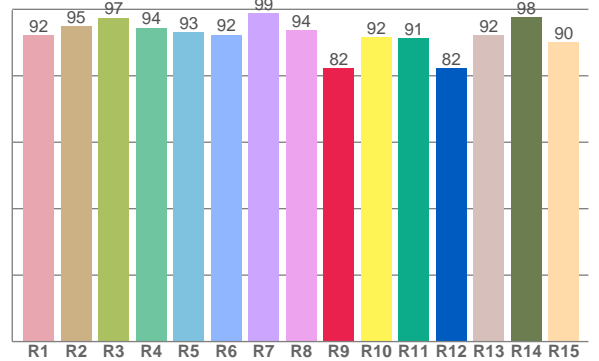




TM30: 93,0



CRI: 94,6 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,1	94,8	97,4	94,5	93,1	92,4	98,9	93,7	82,3	91,7	91,3	82,3	92,3	97,6	90,0

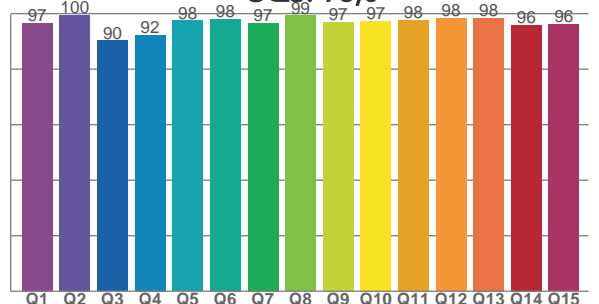
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,7	99,6	90,3	92,3	97,6	98,1	96,6	99,3	96,9	97,3	97,6	98,3	98,4	95,9	96,1

CQS: 96,0

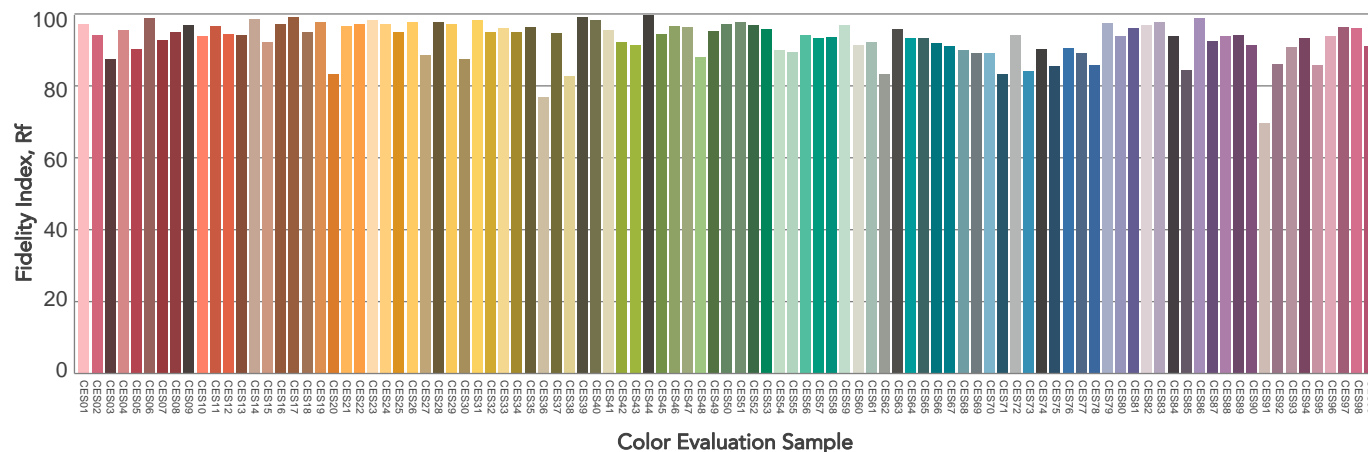
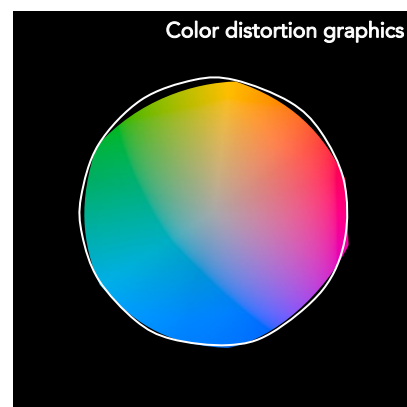
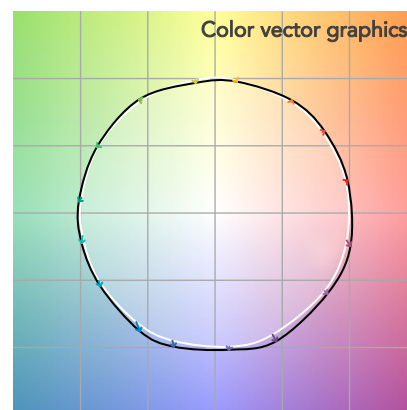
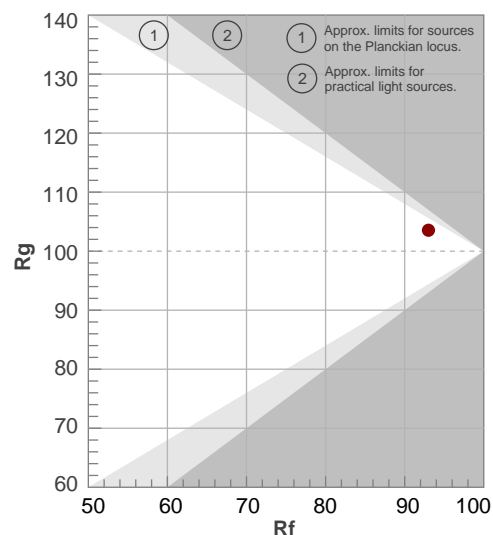


COLOR PARAMETERS

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
3989 K	94,6	82,3	93,0	103,5	96,0	98	0,381	0,377	-0,0084

Gammut index

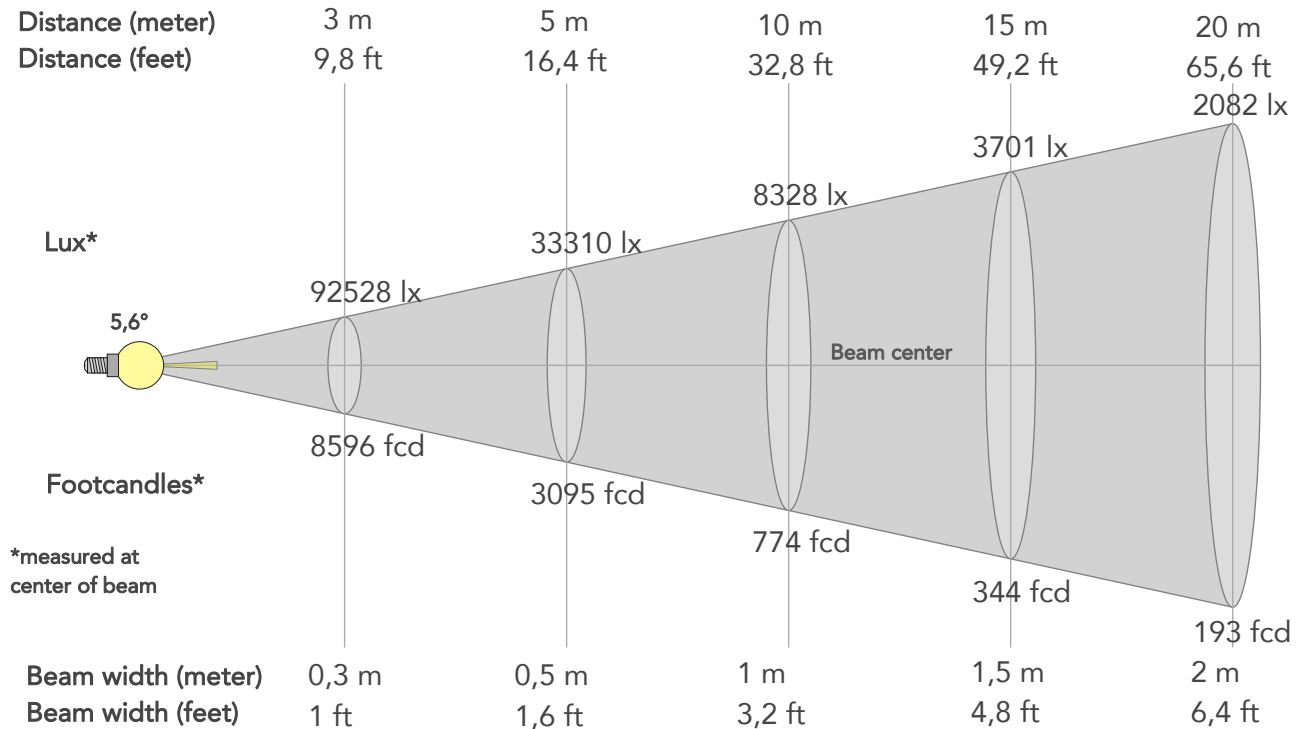
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	94	1%	1%
2	95	2%	0%
3	95	1%	0%
4	95	-1%	-1%
5	93	-2%	0%
6	95	2%	1%
7	95	0%	2%
8	93	1%	3%
9	92	2%	5%
10	93	1%	4%
11	88	4%	6%
12	91	4%	2%
13	96	2%	-1%
14	92	6%	0%
15	91	3%	0%
16	89	4%	-4%



BEAM DETAILS



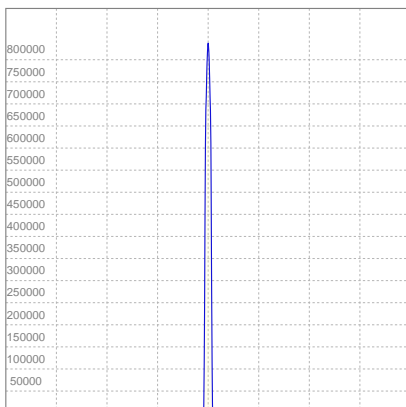
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
5,6°	7,3°	7,7°	100,0%	100,0%



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	832752lx	208188lx	92528lx	52047lx	33310lx	14804lx	8328lx	3701lx	2082lx	1332lx	925lx	520lx	333lx
Footcand.	77365fcd	19341fcd	8596fcd	4835fcd	3095fcd	1375fcd	774fcd	344fcd	193fcd	124fcd	86fcd	48fcd	31fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1m	1,5m	2m	2,4m	2,9m	3,9m	4,9m
Beam wid.	0,3ft	0,6ft	1ft	1,3ft	1,6ft	2,4ft	3,2ft	4,8ft	6,4ft	8ft	9,6ft	12,8ft	16ft

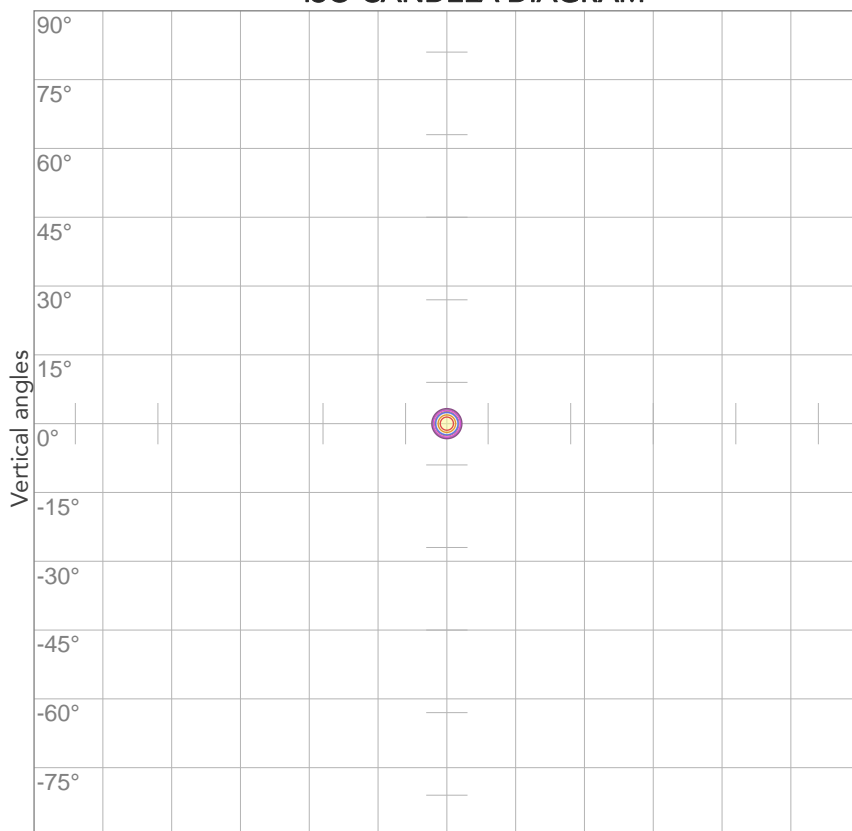
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	1,20A	261,5W	24lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



Horizontal angles

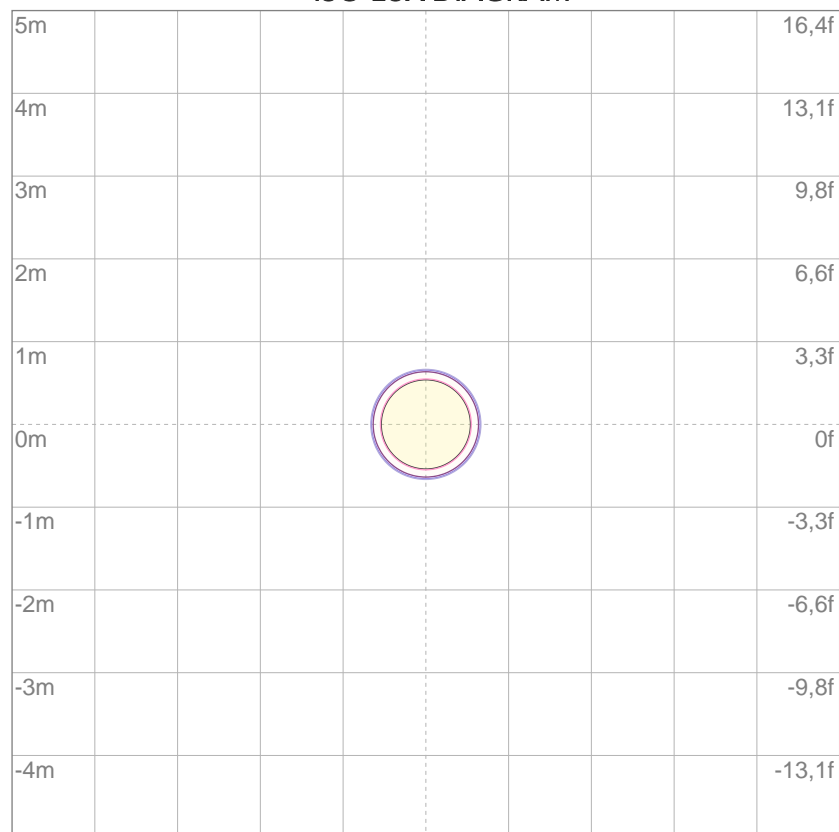
10%	83275 cd
20%	166550 cd
30%	249826 cd
40%	333101 cd
50%	416376 cd
60%	499651 cd
70%	582927 cd
80%	666202 cd

Conditions:

Number of c-planes: 2

Candela at center: 832752 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	250 lx
5%	416 lx
10%	833 lx
30%	2498 lx
50%	4164 lx

Conditions:

Number of c-planes: 2

Lux at center: 8328 lx

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



Total lumen output:

3446 lm

Peak candela output:

457808 cd

Light quality:

CRI: 96,8

Color temperature:

5611 K

PRODUCT NAME:

ECLFWWW

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

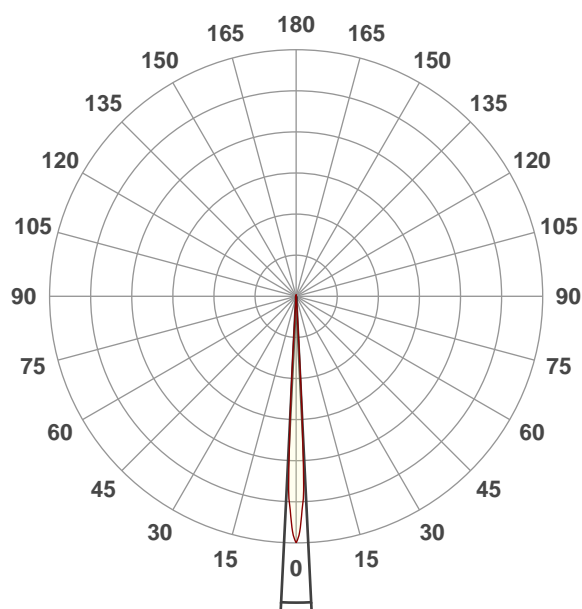
Cold White

Operator:

Paolo Carvone

Date and time:

11/06/2021 13:29:57

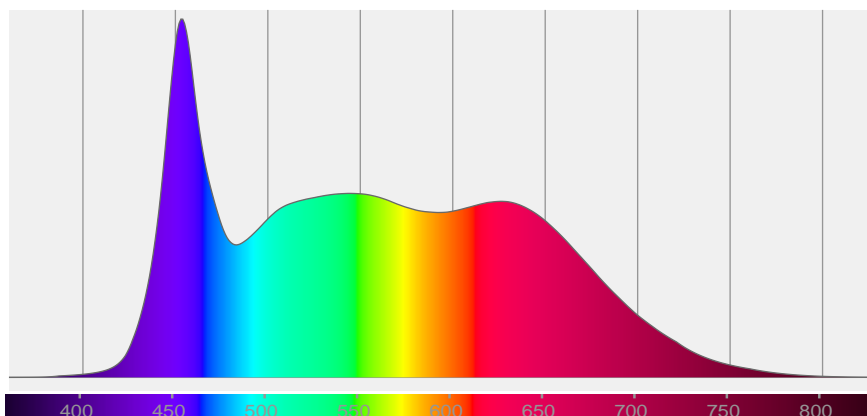


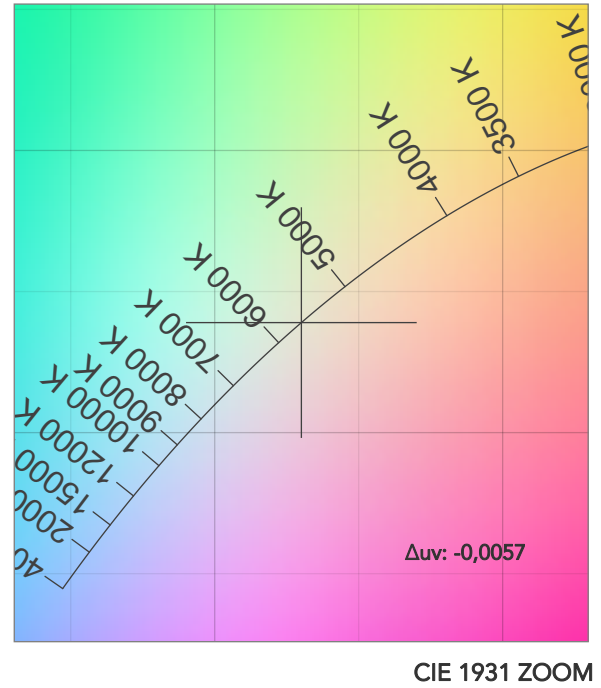
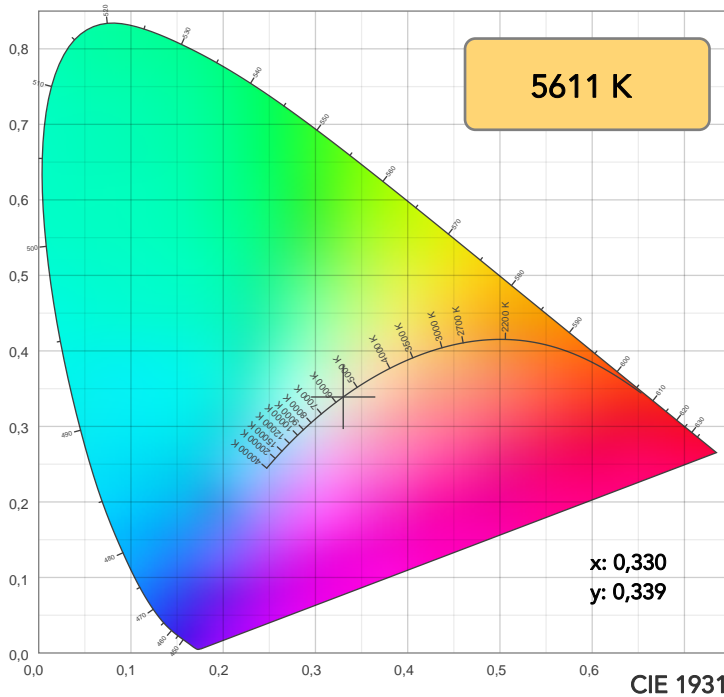
Beam angle 50%: 5,6°

Field angle 10%: 7,2°

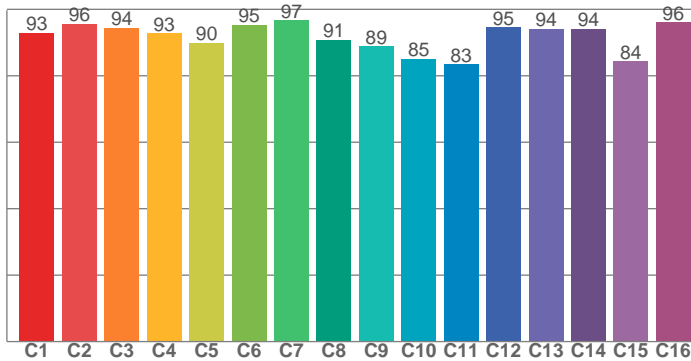
Cut off angle 2.5%: 8,1°

Spectra

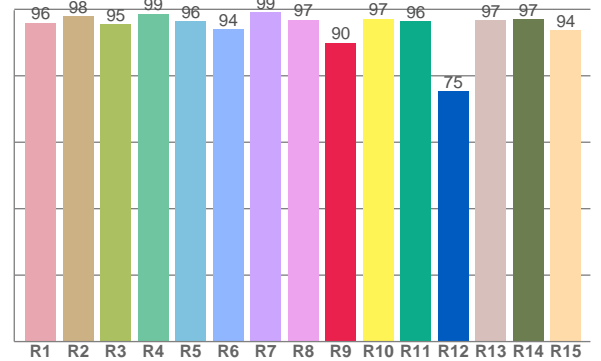




TM30: 91,5



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
95,9	97,9	95,5	98,7	96,3	94,0	99,1	96,8	90,0	97,2	96,3	75,3	96,7	97,0	93,7

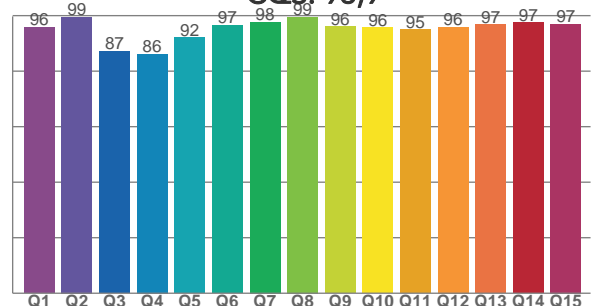
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,8	95,7	94,3	92,8	90,0	95,3	96,7	90,7	88,8	85,1	83,5	94,5	94,1	94,1	84,4	96,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,8	99,4	87,2	86,2	92,1	96,5	97,7	99,5	96,0	95,7	95,0	95,9	96,8	97,5	97,0

CQS: 93,9



COLOR PARAMETERS

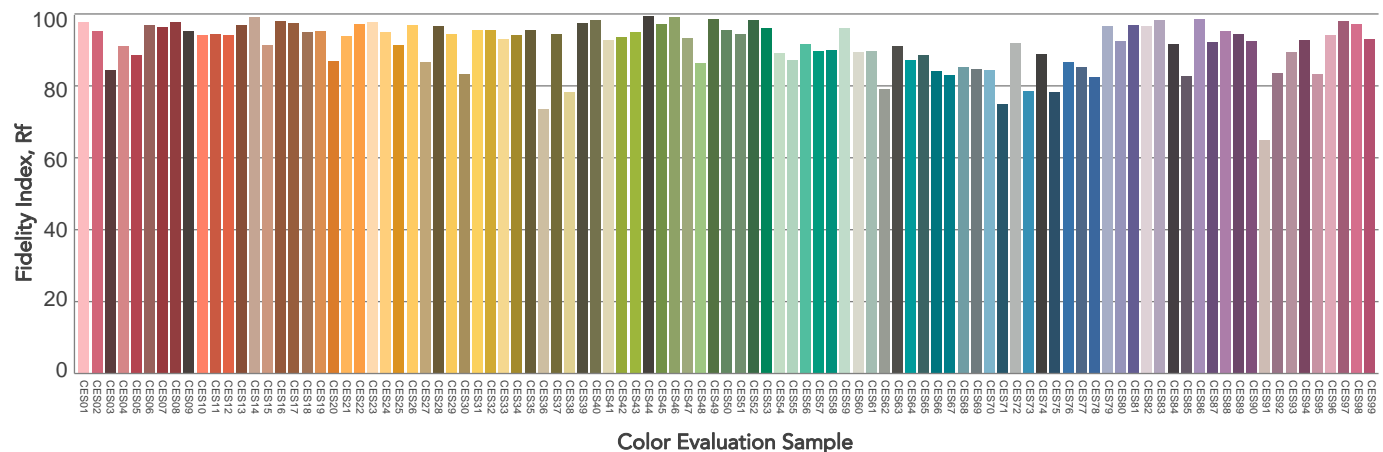
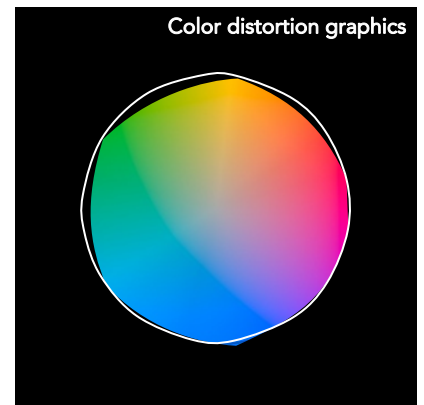
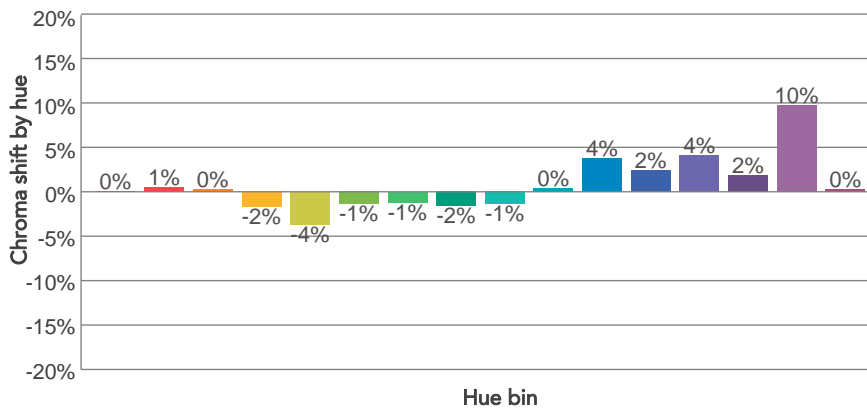
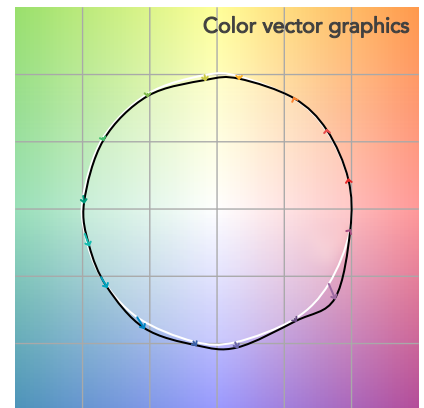
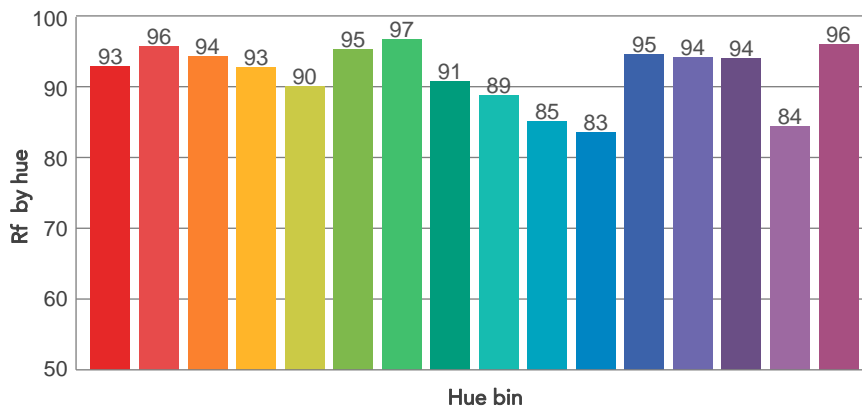
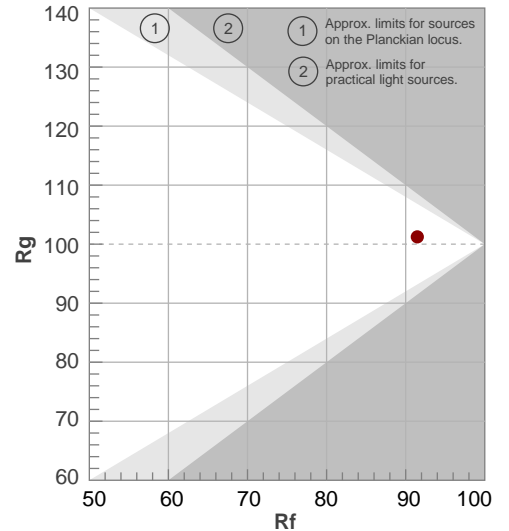
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5611 K	96,8	90,0	91,5	101,2	93,9	98	0,330	0,339	-0,0057

TM30 DETAILS

Rf 91,5
Fidelity index Rf

Rg 101,2
Gammut index

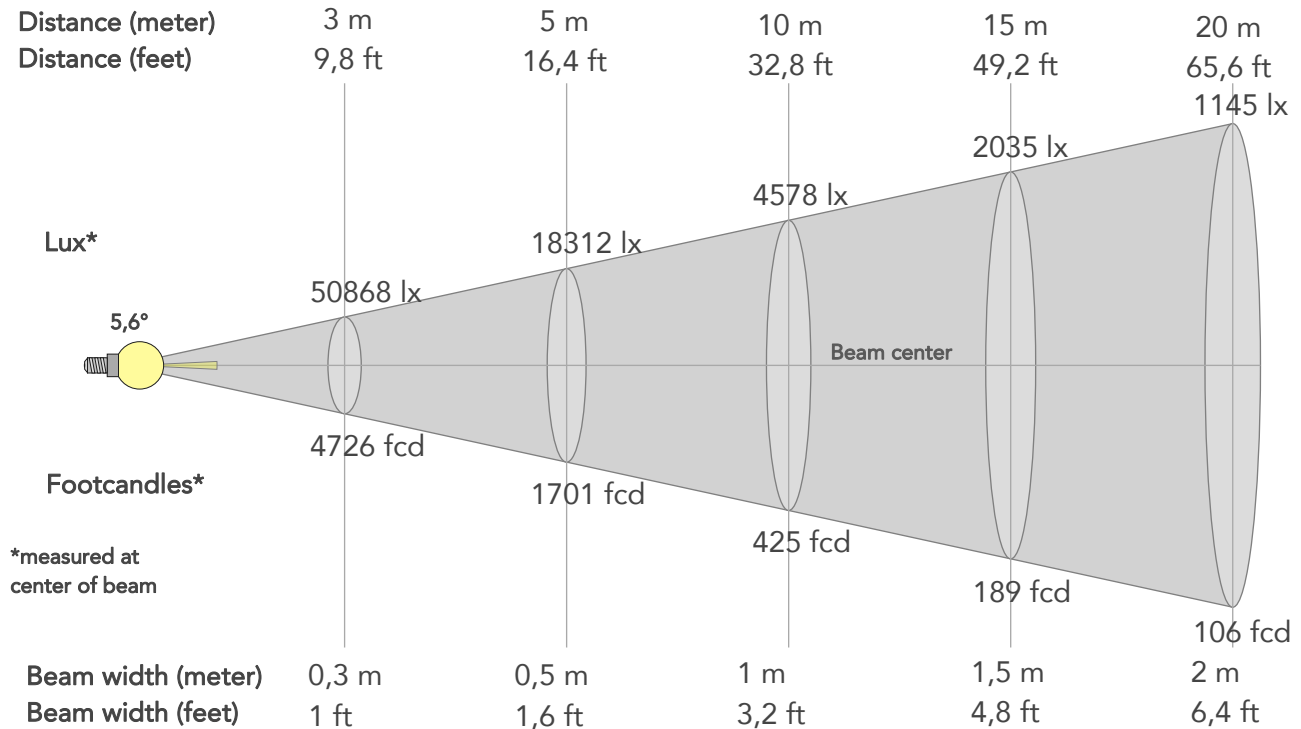
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	0%	1%
2	96	1%	1%
3	94	0%	0%
4	93	-2%	0%
5	90	-4%	0%
6	95	-1%	1%
7	97	-1%	1%
8	91	-2%	5%
9	89	-1%	9%
10	85	0%	8%
11	83	4%	9%
12	95	2%	2%
13	94	4%	1%
14	94	2%	0%
15	84	10%	-6%
16	96	0%	1%



BEAM DETAILS



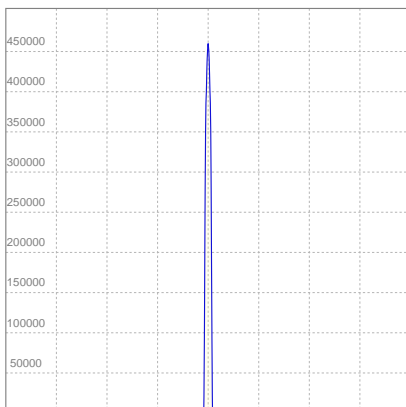
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
5,6°	7,2°	8,1°	100,0%	100,0%



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	457808lx	114452lx	50868lx	28613lx	18312lx	8139lx	4578lx	2035lx	1145lx	732lx	509lx	286lx	183lx
Footcand.	42532fcd	10633fcd	4726fcd	2658fcd	1701fcd	756fcd	425fcd	189fcd	106fcd	68fcd	47fcd	27fcd	17fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1m	1,5m	2m	2,5m	2,9m	3,9m	4,9m
Beam wid.	0,3ft	0,6ft	1ft	1,3ft	1,6ft	2,4ft	3,2ft	4,8ft	6,4ft	8,1ft	9,7ft	12,9ft	16,1ft

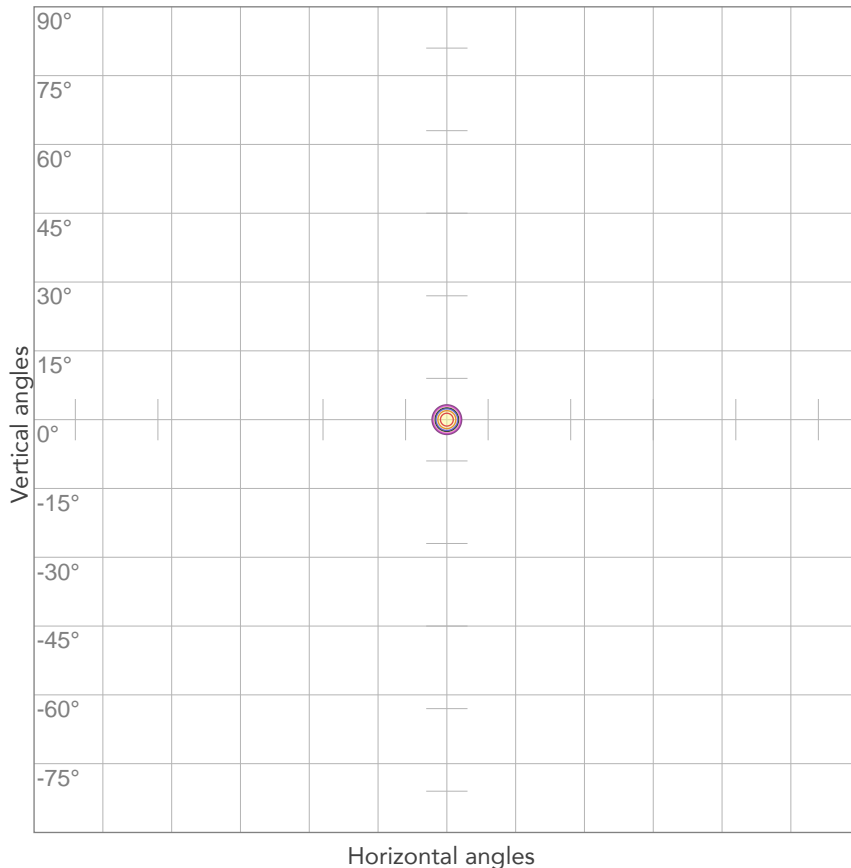
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,622A	130,6W	26lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



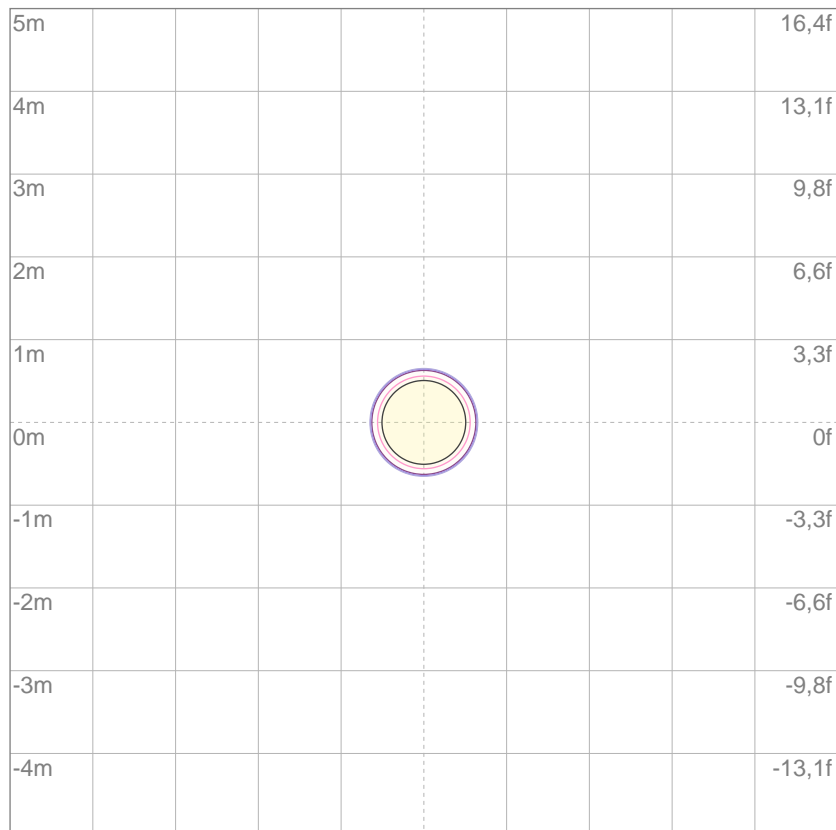
10%	45781 cd
20%	91562 cd
30%	137342 cd
40%	183123 cd
50%	228904 cd
60%	274685 cd
70%	320465 cd
80%	366246 cd

Conditions:

Number of c-planes: 2

Candela at center: 457808 cd

ISO LUX DIAGRAM



3%	137 lx
5%	229 lx
10%	458 lx
30%	1373 lx
50%	2289 lx

Conditions:

Number of c-planes: 2

Lux at center: 4578 lx

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



Total lumen output:

2849 lm

Peak candela output:

386154 cd

Light quality:

CRI: 96,6

Color temperature:

2715 K

PRODUCT NAME:

ECLFWWW

MEASURAMENT CONDITIONS:

Beam angle:

PRL5

Target:

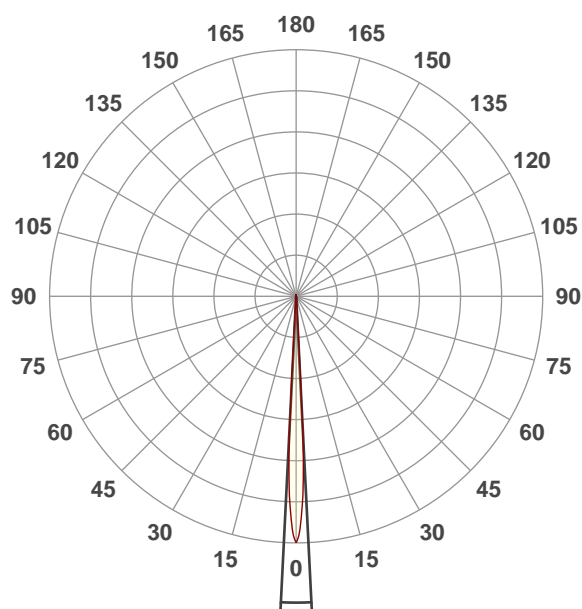
Warm White

Operator:

Paolo Carvone

Date and time:

11/06/2021 13:28:23

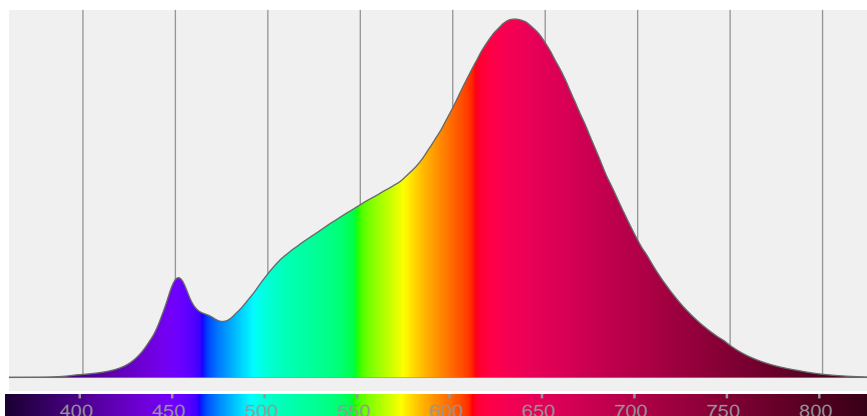


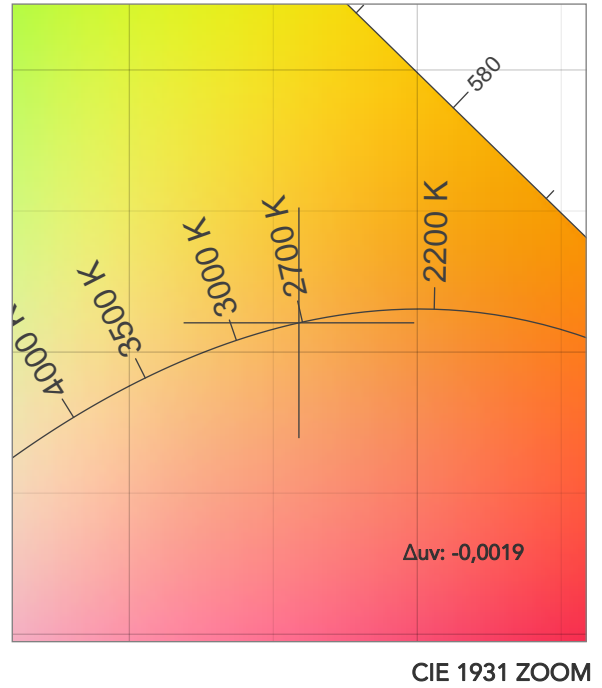
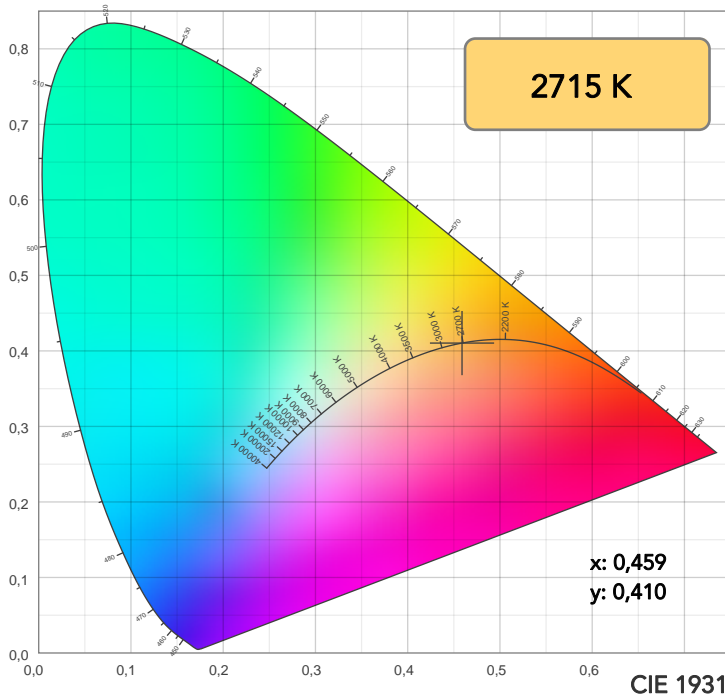
Beam angle 50%: 5,7°

Field angle 10%: 7,2°

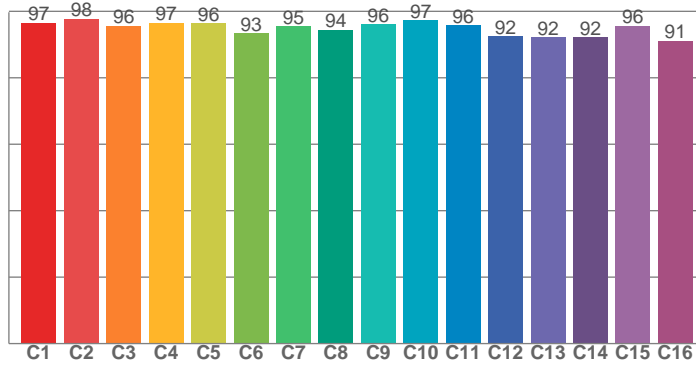
Cut off angle 2.5%: 7,9°

Spectra

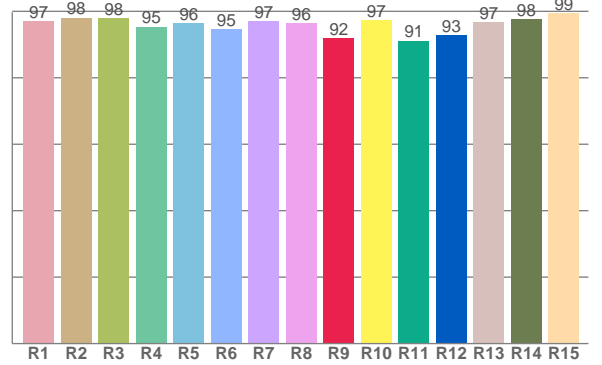




TM30: 95,3



CRI: 96,6 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
96,9	98,0	97,9	95,4	96,5	94,5	97,0	96,4	92,0	97,3	91,2	92,9	96,7	97,6	99,4

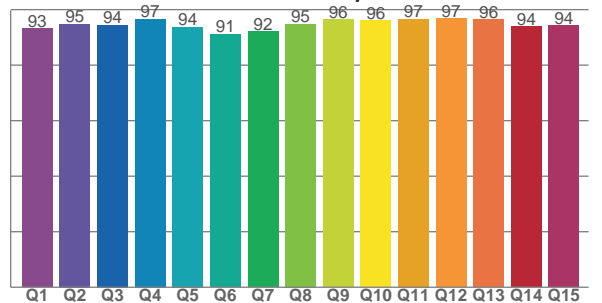
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93,2	94,9	94,4	96,6	93,8	91,1	92,1	94,8	96,5	96,0	96,6	96,7	96,5	93,9	94,2

CQS: 94,2



COLOR PARAMETERS

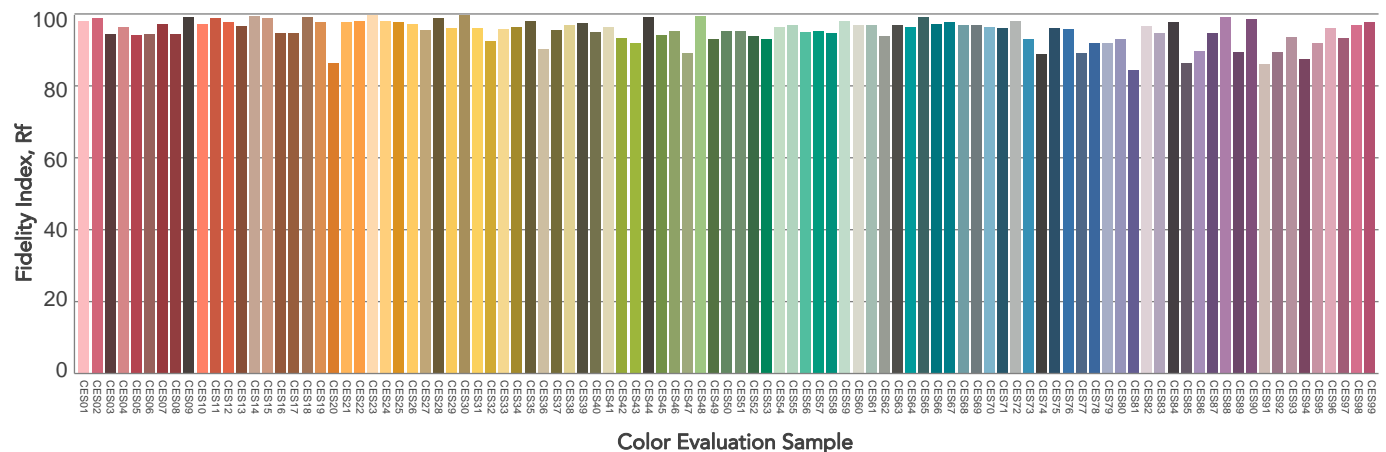
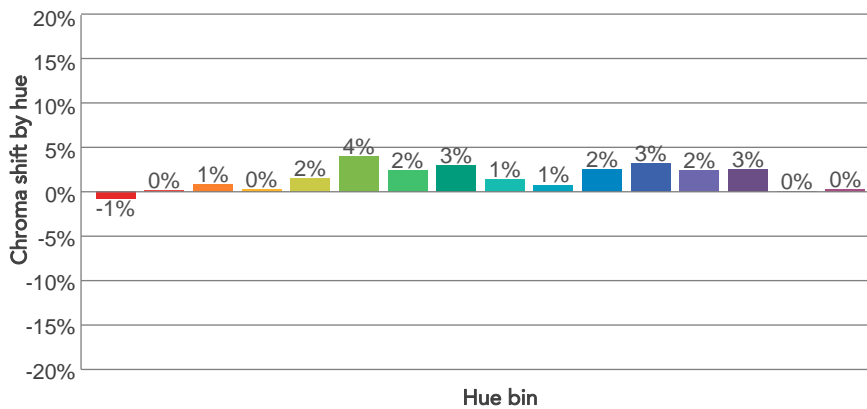
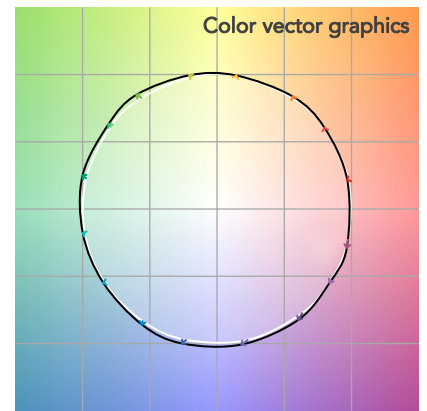
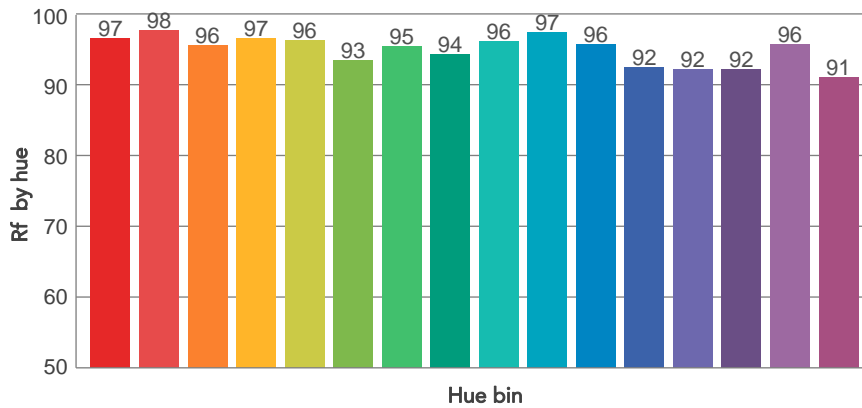
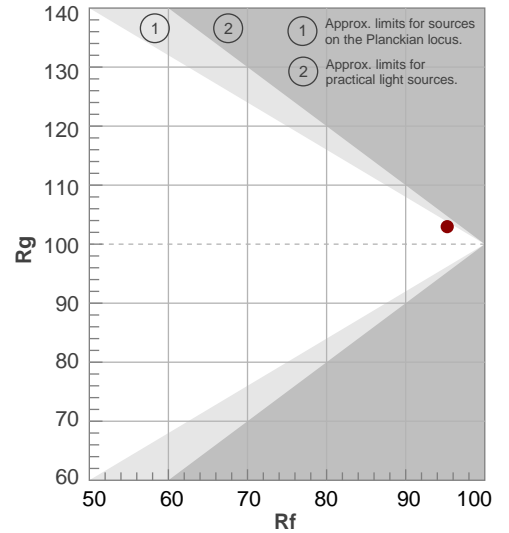
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2715 K	96,6	92,0	95,3	103,0	94,2	98	0,459	0,410	-0,0019

TM30 DETAILS

Rf 95,3
Fidelity index Rf

Rg 103,0
Gammut index

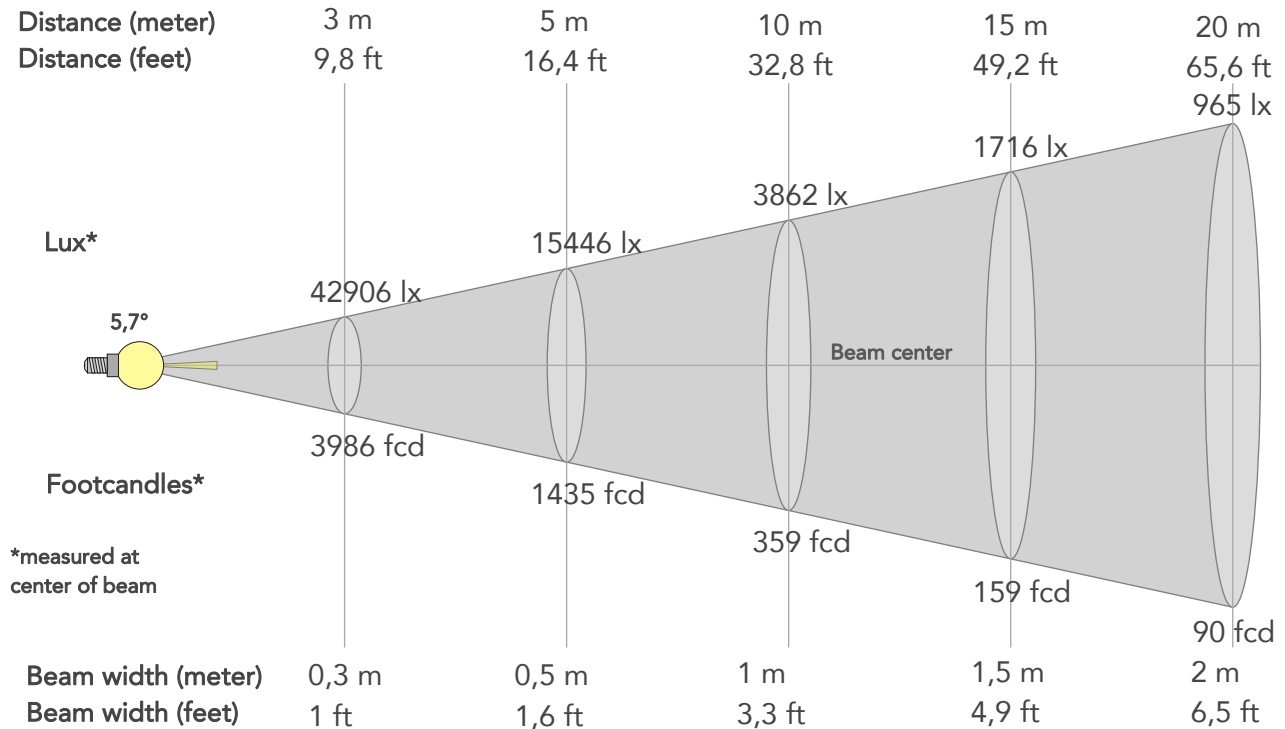
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	-1%	0%
2	98	0%	0%
3	96	1%	1%
4	97	0%	0%
5	96	2%	2%
6	93	4%	2%
7	95	2%	-1%
8	94	3%	-2%
9	96	1%	-1%
10	97	1%	0%
11	96	2%	1%
12	92	3%	-3%
13	92	2%	-5%
14	92	3%	-5%
15	96	0%	-2%
16	91	0%	-6%



BEAM DETAILS



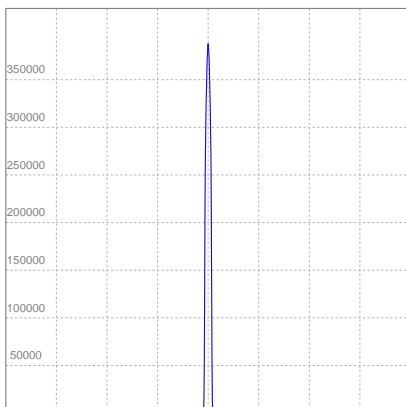
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
5,7°	7,2°	7,9°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	386154lx	96538lx	42906lx	24135lx	15446lx	6865lx	3862lx	1716lx	965lx	618lx	429lx	241lx	154lx
Footcand.	35875fcd	8969fcd	3986fcd	2242fcd	1435fcd	638fcd	359fcd	159fcd	90fcd	57fcd	40fcd	22fcd	14fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,5m	0,7m	1m	1,5m	2m	2,5m	3m	4m	5m
Beam wid.	0,3ft	0,7ft	1ft	1,3ft	1,6ft	2,5ft	3,3ft	4,9ft	6,5ft	8,2ft	9,8ft	13,1ft	16,4ft

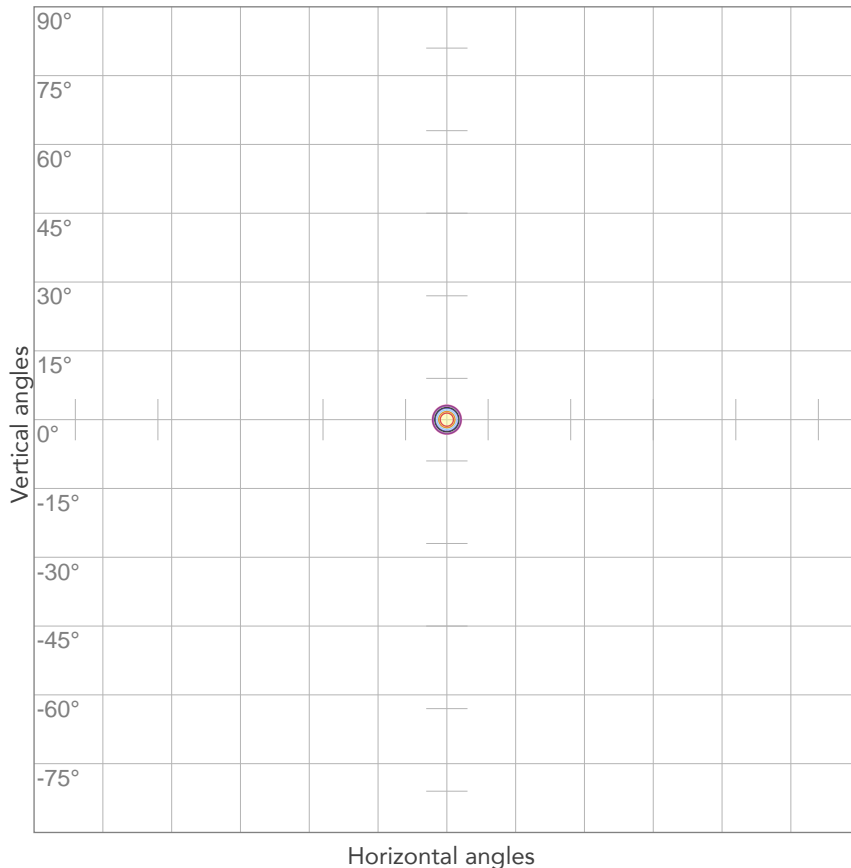
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,631A	132,6W	21lm/W
Power Fc			
0,97			

ISO CANDELA DIAGRAM



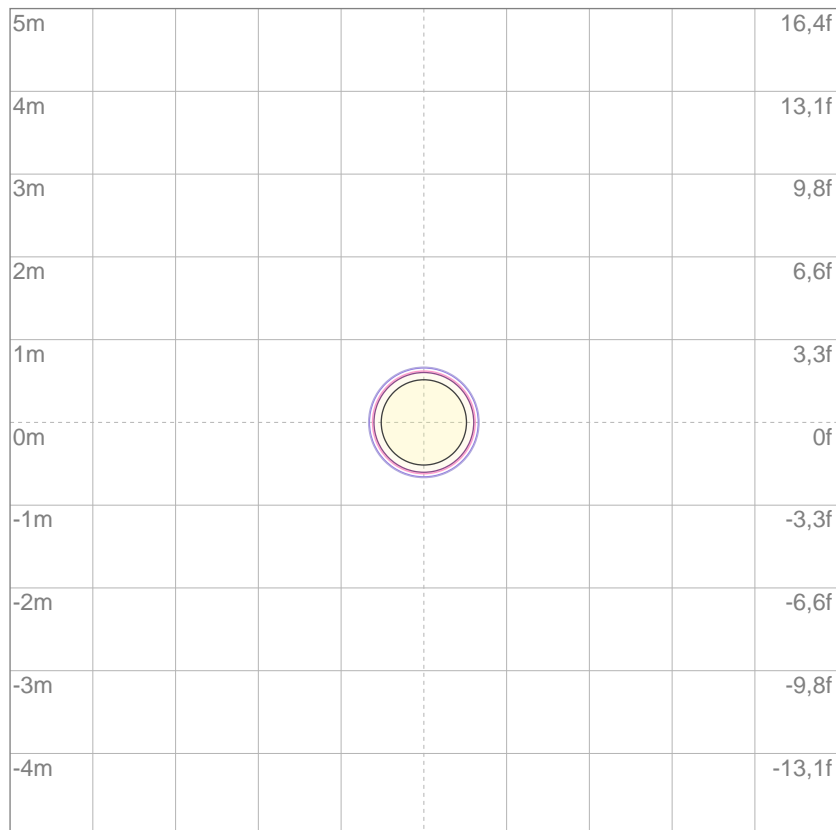
10%	38615 cd
20%	77231 cd
30%	115846 cd
40%	154462 cd
50%	193077 cd
60%	231692 cd
70%	270308 cd
80%	308923 cd

Conditions:

Number of c-planes: 2

Candela at center: 386154 cd

ISO LUX DIAGRAM



3%	116 lx
5%	193 lx
10%	386 lx
30%	1158 lx
50%	1931 lx

Conditions:

Number of c-planes: 2

Lux at center: 3862 lx

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