Photometric Test Report

ECLFC PRL50

91 x 3 W RGB + Lime high power Full Colour

LED ellipsoidal

CONTENTS

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:

4287 lm

Peak candela output:

8917 cd

PRODUCT NAME:

ECLFC

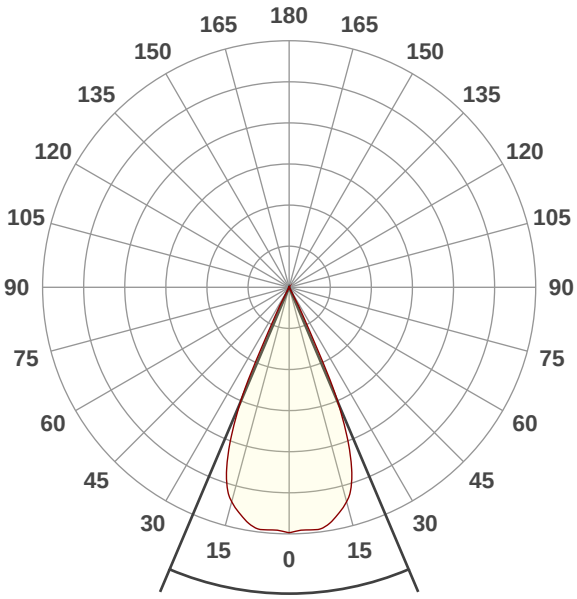
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
Full On

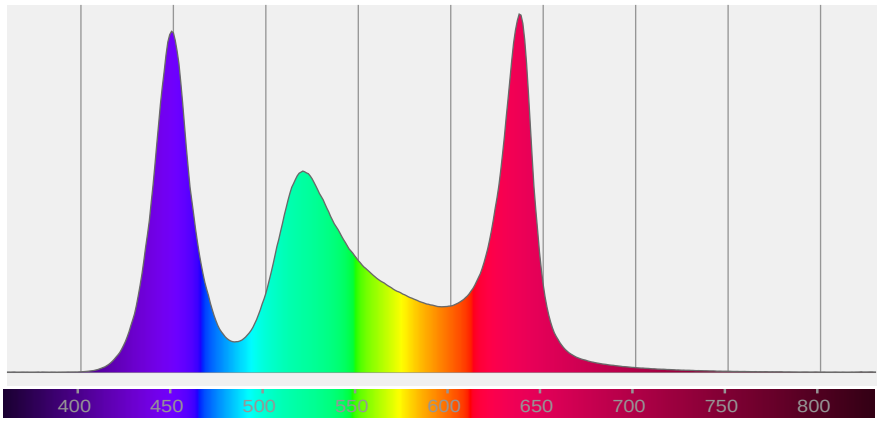
Operator:
Paolo Carvone

Date and time:
07/05/2020 14:30:55



Beam angle 50%: 45,9°
Field angle 10%: 53,1°
Cut off angle 2.5%: 55,8°

Spectra

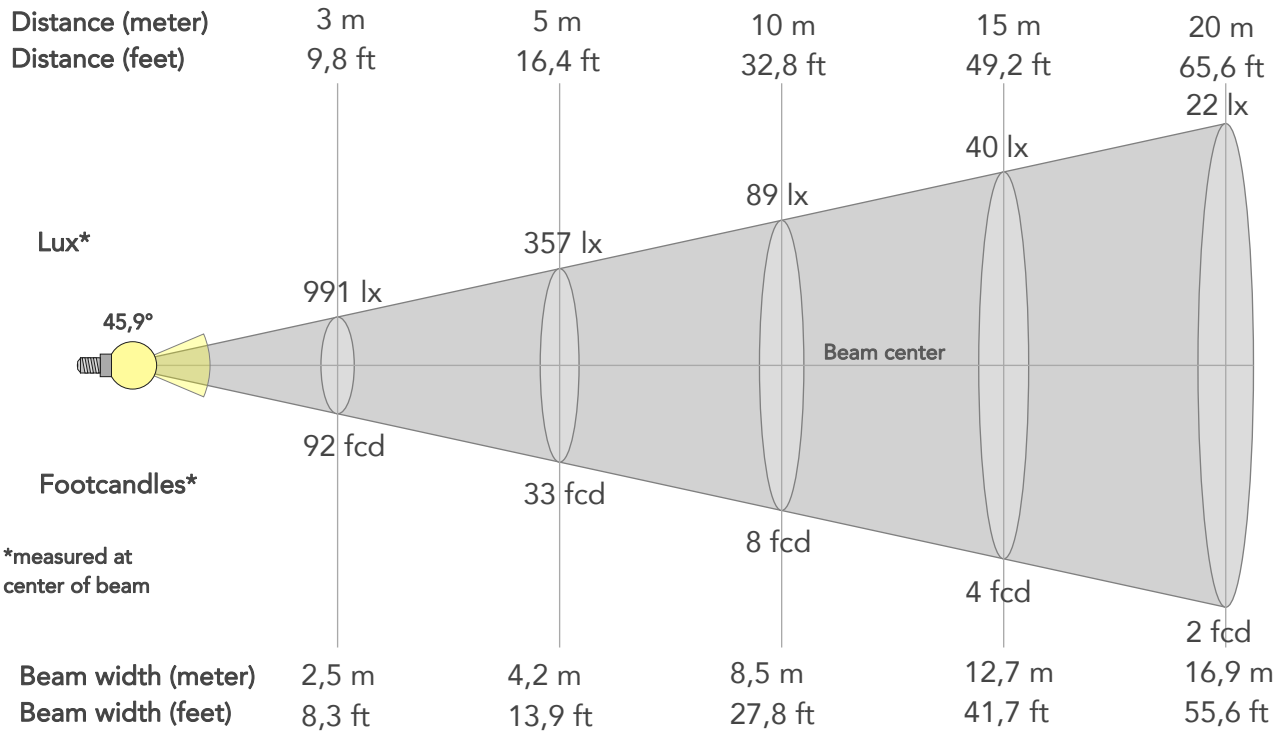


Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

BEAM DETAILS

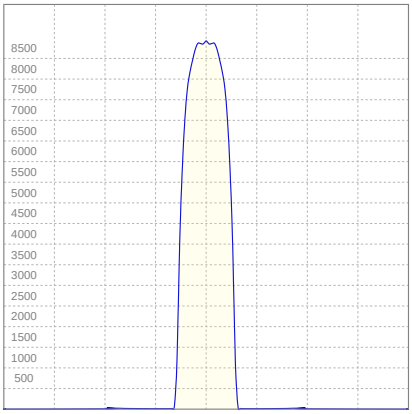
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
45,9°	53,1°	55,8°	97,9%	97,6%



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	8917lx	2229lx	991lx	557lx	357lx	159lx	89lx	40lx	22lx	14lx	10lx	6lx	4lx
Footcand.	828fcd	207fcd	92fcd	52fcd	33fcd	15fcd	8fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,8m	1,7m	2,5m	3,4m	4,2m	6,4m	8,5m	12,7m	16,9m	21,2m	25,4m	33,9m	42,4m
Beam wid.	2,8ft	5,6ft	8,3ft	11,1ft	13,9ft	20,8ft	27,8ft	41,7ft	55,6ft	69,5ft	83,4ft	111,2ft	139ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,864A	182,4W	24lm/W

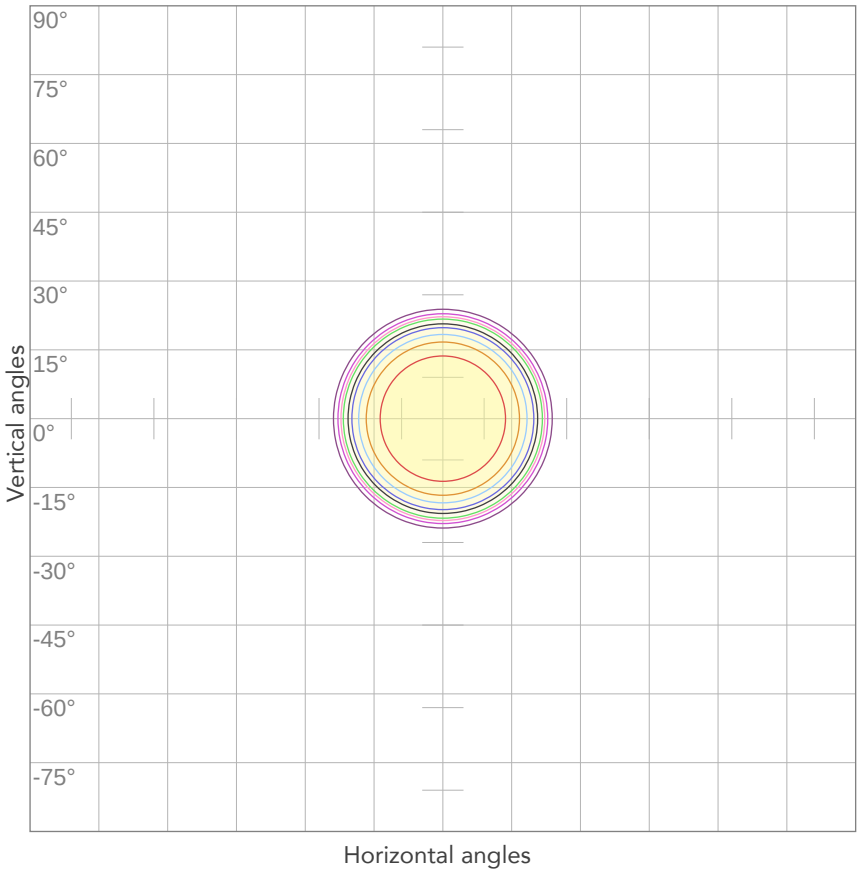
Power FC
0,94

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



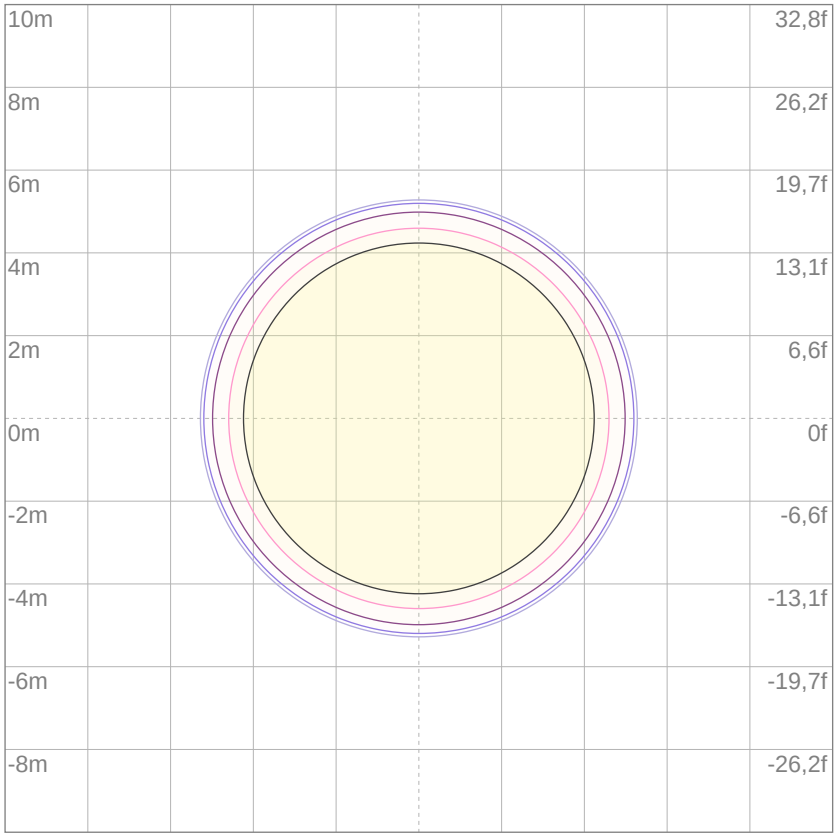
10%	892 cd
20%	1783 cd
30%	2675 cd
40%	3567 cd
50%	4459 cd
60%	5350 cd
70%	6242 cd
80%	7134 cd

Conditions:

Number of c-planes: 2

Candela at center: 8917 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2,68 lx
5%	4,46 lx
10%	8,92 lx
30%	26,8 lx
50%	44,6 lx

Conditions:

Number of c-planes: 2

Lux at center: 89,2 lx

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

Total lumen output:

1097 lm

Peak candela output:

2449 cd

PRODUCT NAME:

ECLFC

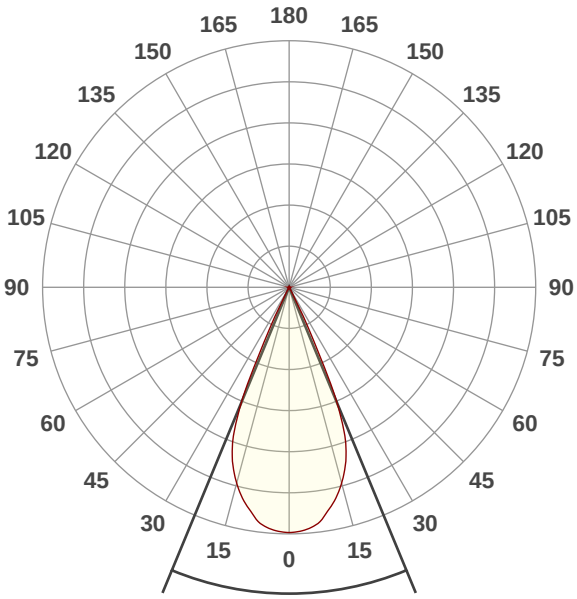
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
Red

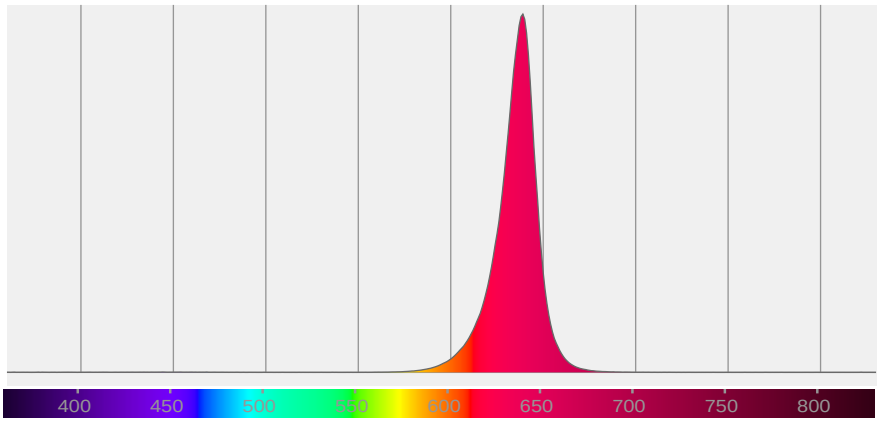
Operator:
Paolo Carvone

Date and time:
07/05/2020 14:32:49



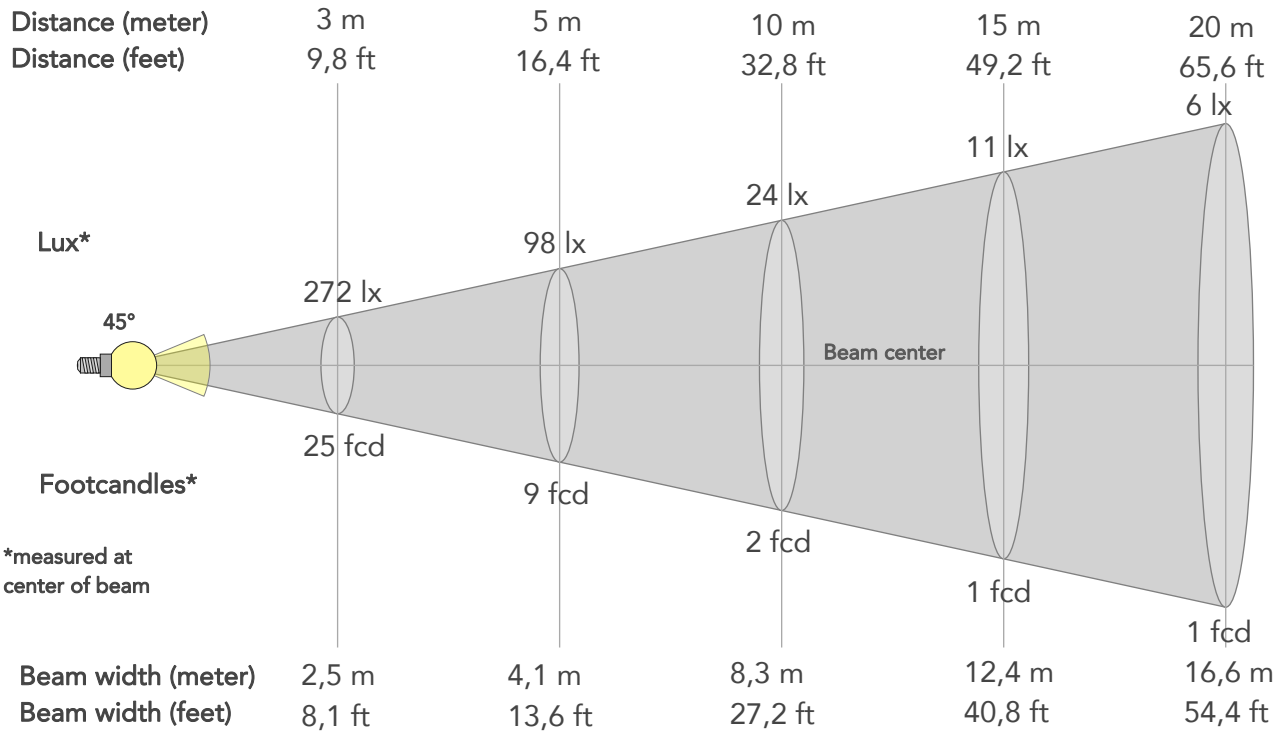
Beam angle 50%: 45°
Field angle 10%: 52,9°
Cut off angle 2.5%: 55,3°

Spectra



BEAM DETAILS

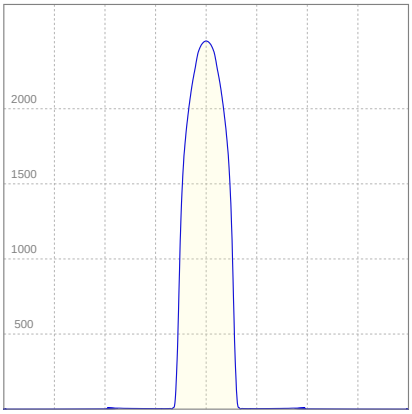
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
45°	52,9°	55,3°	97,8%	97,3%



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	2449lx	612lx	272lx	153lx	98lx	44lx	24lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	228fcd	57fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,8m	1,7m	2,5m	3,3m	4,1m	6,2m	8,3m	12,4m	16,6m	20,7m	24,9m	33,2m	41,4m
Beam wid.	2,7ft	5,5ft	8,1ft	10,9ft	13,6ft	20,4ft	27,2ft	40,8ft	54,4ft	68ft	81,6ft	108,7ft	135,9ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,380A	73,2W	15lm/W

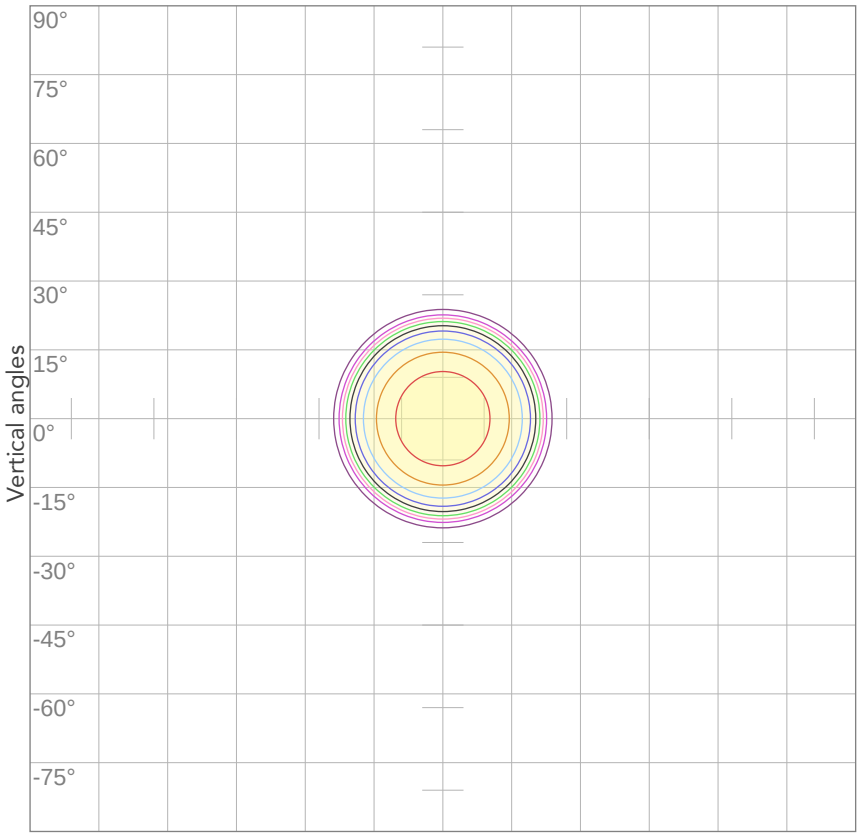
Power FC
0,85

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



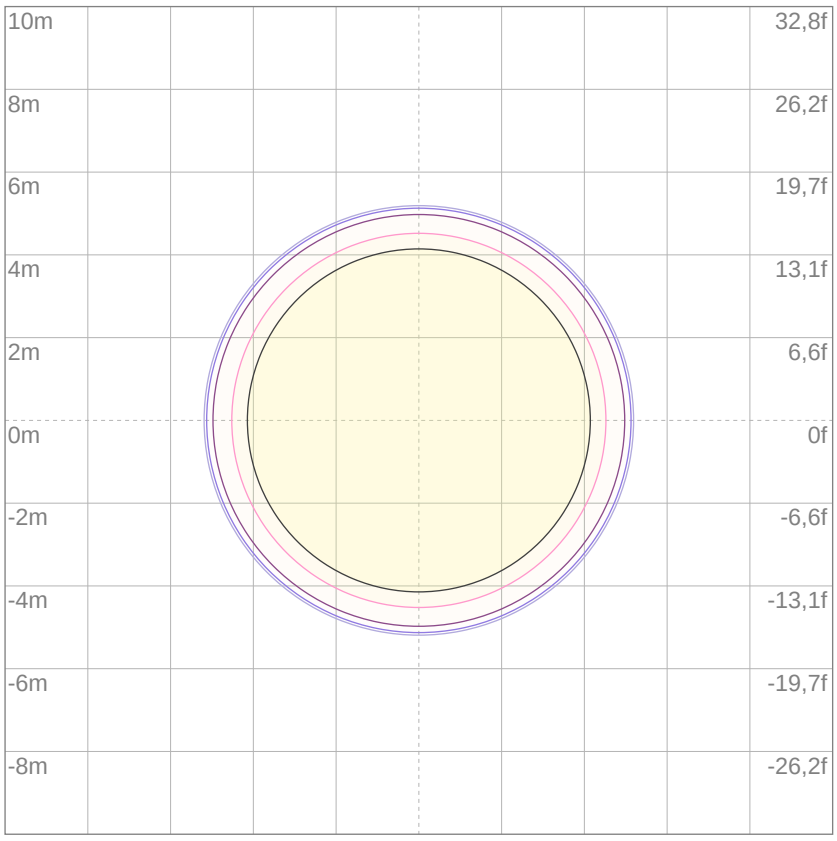
10%	245 cd
20%	490 cd
30%	735 cd
40%	980 cd
50%	1225 cd
60%	1470 cd
70%	1715 cd
80%	1960 cd

Conditions:

Number of c-planes: 2

Candela at center: 2449 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,735 lx
5%	1,22 lx
10%	2,45 lx
30%	7,35 lx
50%	12,2 lx

Conditions:

Number of c-planes: 2

Lux at center: 24,5 lx

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

Total lumen output:

1288 lm

Peak candela output:

2706 cd

PRODUCT NAME:

ECLFC

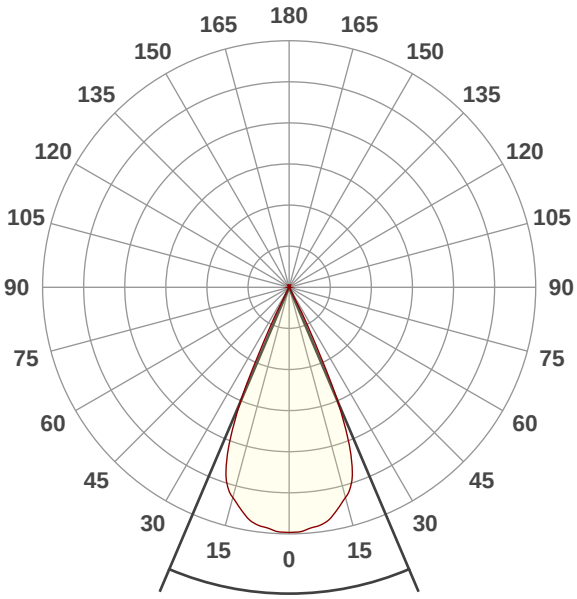
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
Green

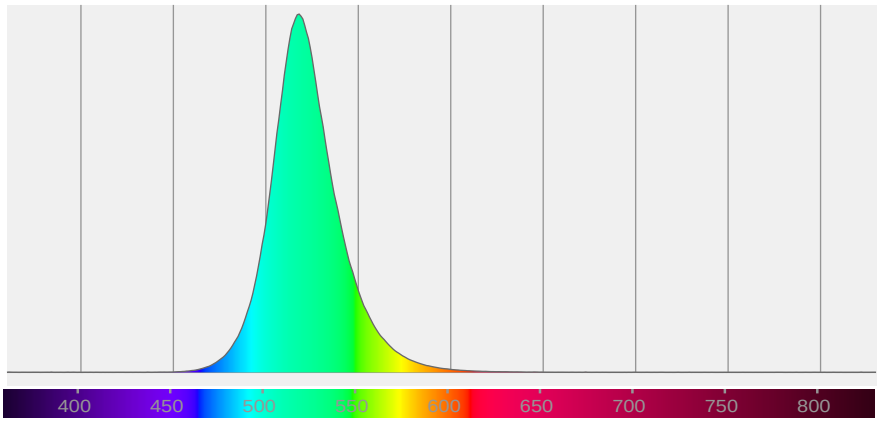
Operator:
Paolo Carvone

Date and time:
07/05/2020 14:34:15



Beam angle 50%: 46,1°
Field angle 10%: 53,5°
Cut off angle 2.5%: 55,4°

Spectra

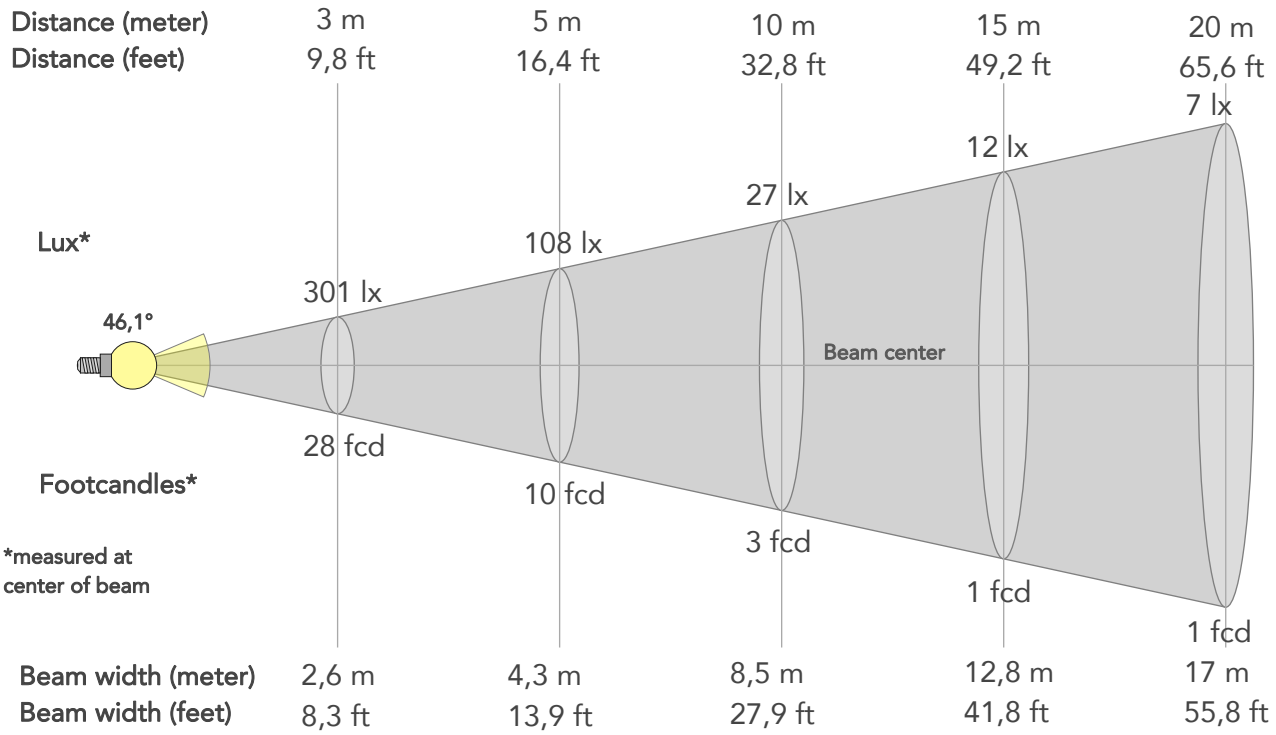


Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

BEAM DETAILS

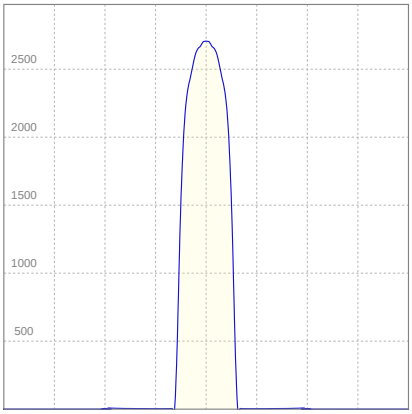
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,1°	53,5°	55,4°	98,7%	98,3%



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	2706lx	676lx	301lx	169lx	108lx	48lx	27lx	12lx	7lx	4lx	3lx	2lx	1lx
Footcand.	251fcd	63fcd	28fcd	16fcd	10fcd	4fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,4m	4,3m	6,4m	8,5m	12,8m	17m	21,3m	25,5m	34m	42,5m
Beam wid.	2,8ft	5,6ft	8,3ft	11,1ft	13,9ft	20,9ft	27,9ft	41,8ft	55,8ft	69,7ft	83,7ft	111,6ft	139,5ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,351A	66,0W	20lm/W

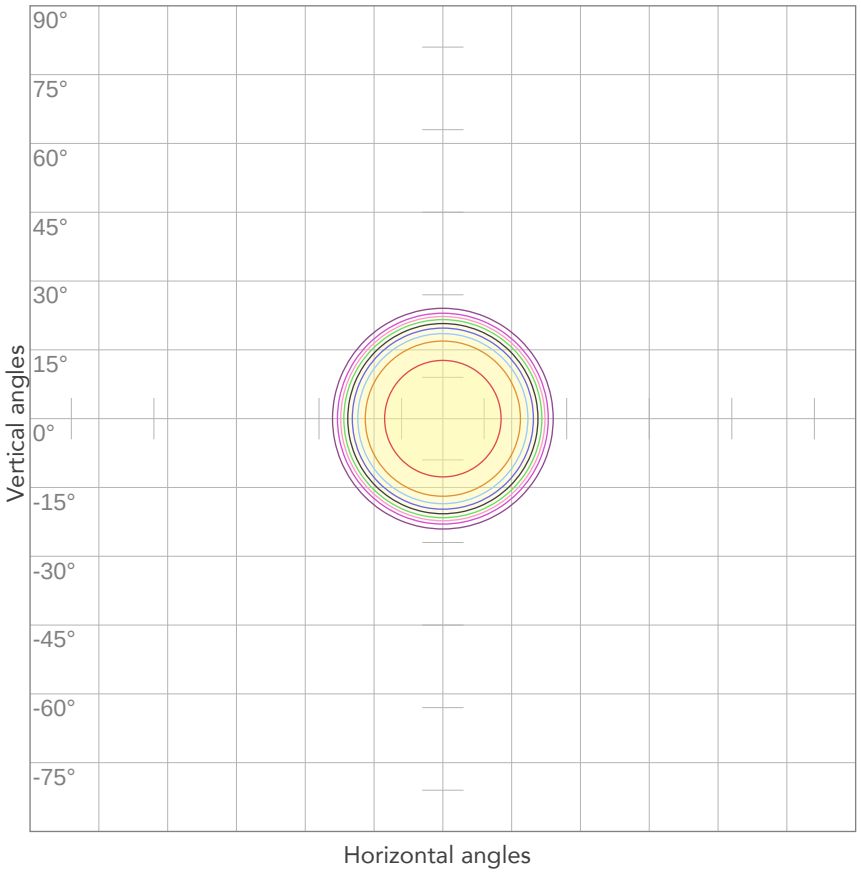
Power FC
0,83

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



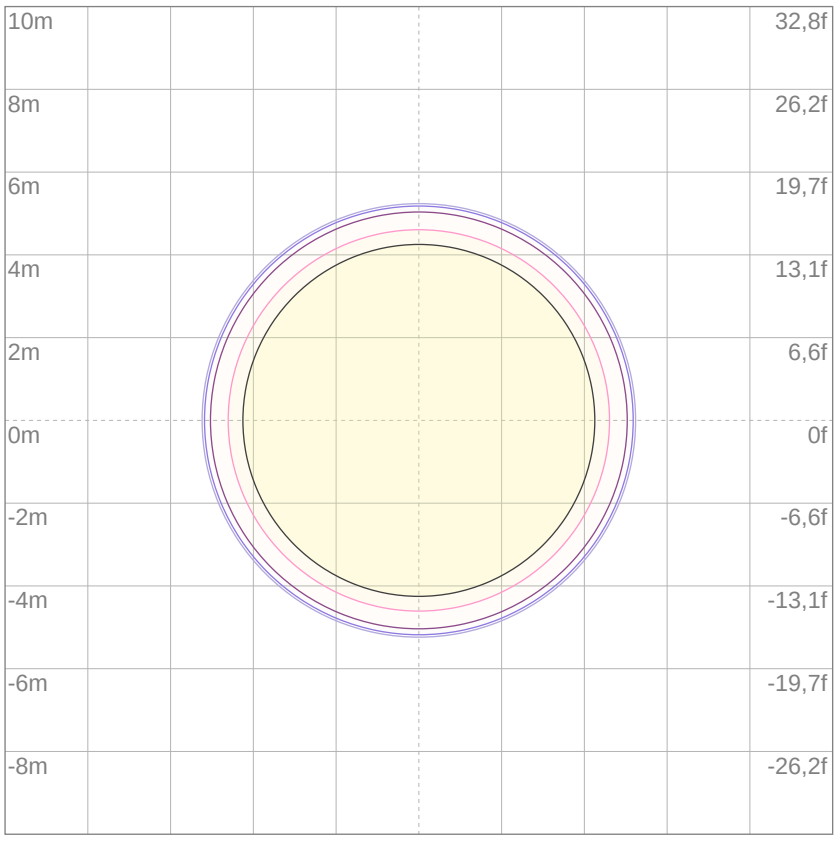
10%	271 cd
20%	541 cd
30%	812 cd
40%	1082 cd
50%	1353 cd
60%	1623 cd
70%	1894 cd
80%	2165 cd

Conditions:

Number of c-planes: 2

Candela at center: 2706 cd

ISO LUX DIAGRAM



3%	0,812 lx
5%	1,35 lx
10%	2,71 lx
30%	8,12 lx
50%	13,5 lx

Conditions:

Number of c-planes: 2

Lux at center: 27,1 lx

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

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

Total lumen output:

195 lm

Peak candela output:

417 cd

PRODUCT NAME:

ECLFC

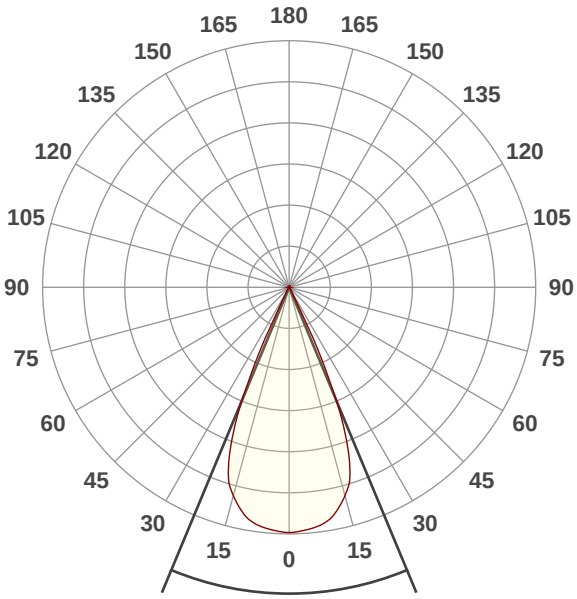
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
Blue

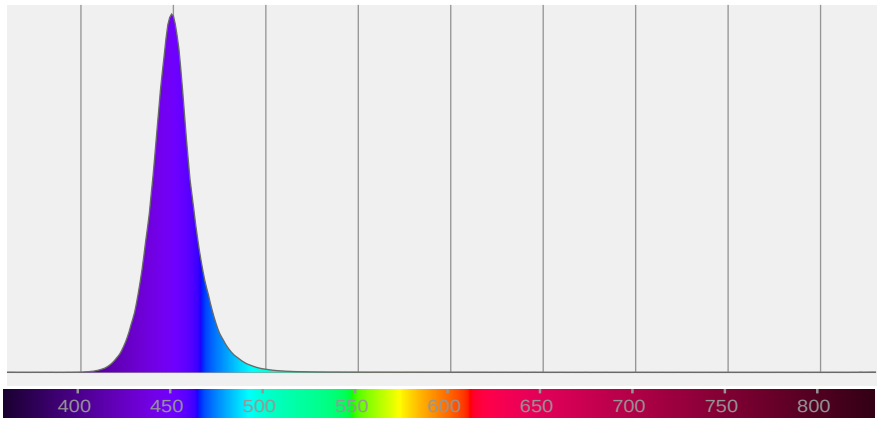
Operator:
Paolo Carvone

Date and time:
07/05/2020 14:35:39



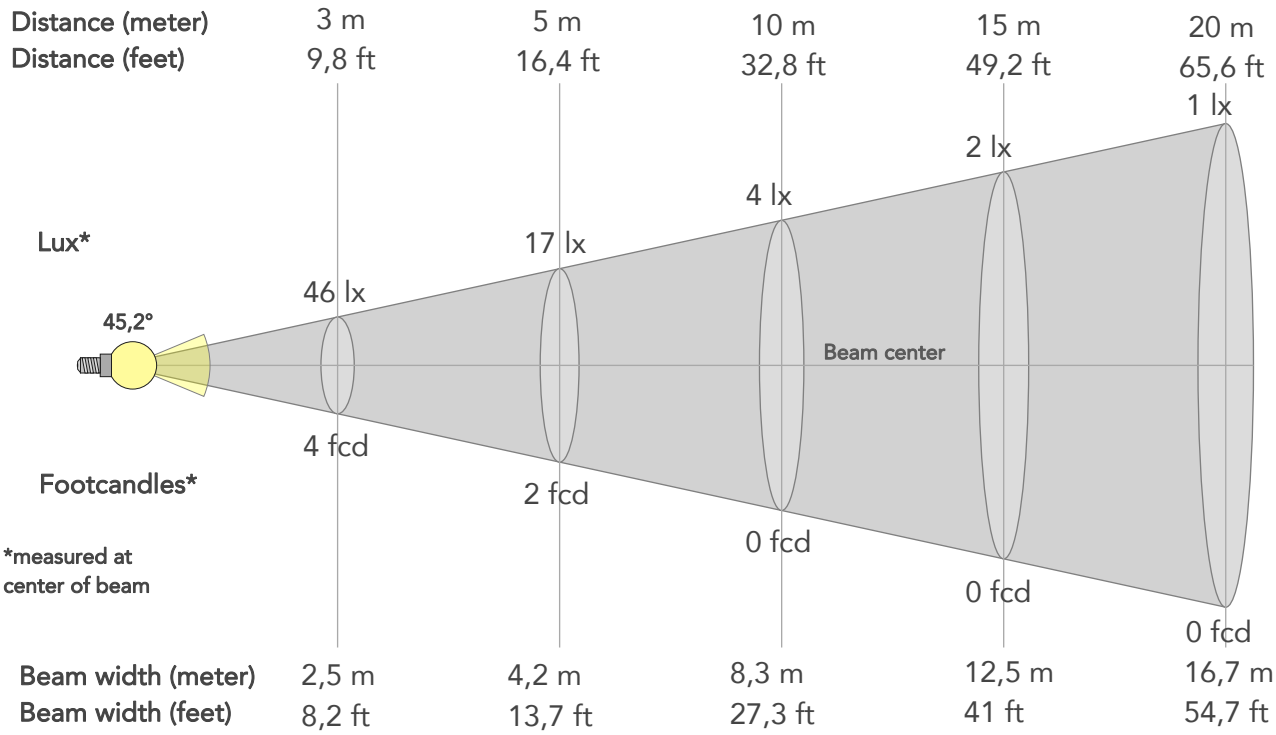
Beam angle 50%: 45,2°
Field angle 10%: 53,2°
Cut off angle 2.5%: 56,8°

Spectra



BEAM DETAILS

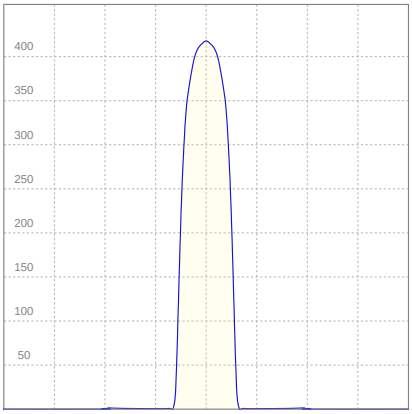
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
45,2°	53,2°	56,8°	98,5%	98,1%



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	417lx	104lx	46lx	26lx	17lx	7lx	4lx	2lx	1lx	1lx	0lx	0lx	0lx
Footcand.	39fcd	10fcd	4fcd	2fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,8m	1,7m	2,5m	3,3m	4,2m	6,3m	8,3m	12,5m	16,7m	20,8m	25m	33,3m	41,7m
Beam wid.	2,8ft	5,5ft	8,2ft	10,9ft	13,7ft	20,5ft	27,3ft	41ft	54,7ft	68,3ft	82ft	109,4ft	136,7ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,275A	46,8W	4lm/W

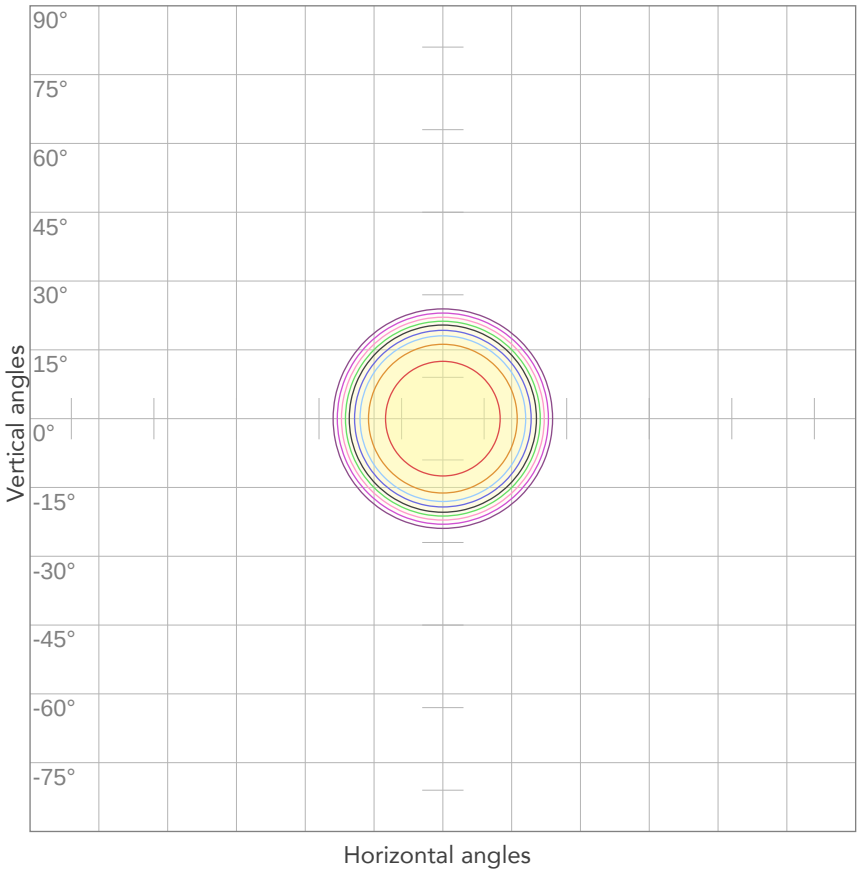
Power FC
0,75

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



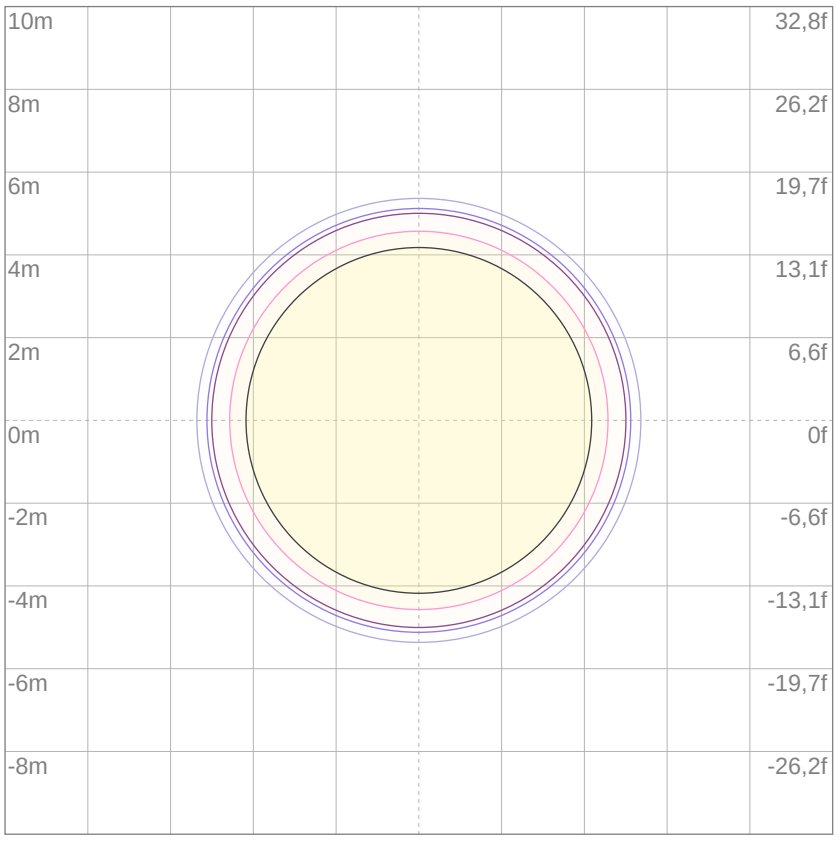
10%	42 cd
20%	83 cd
30%	125 cd
40%	167 cd
50%	209 cd
60%	250 cd
70%	292 cd
80%	334 cd

Conditions:

Number of c-planes: 2

Candela at center: 417 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,125 lx
5%	0,209 lx
10%	0,417 lx
30%	1,25 lx
50%	2,09 lx

Conditions:

Number of c-planes: 2

Lux at center: 4,17 lx

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

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

Total lumen output:

2243 lm

Peak candela output:

4620 cd

PRODUCT NAME:

ECLFC

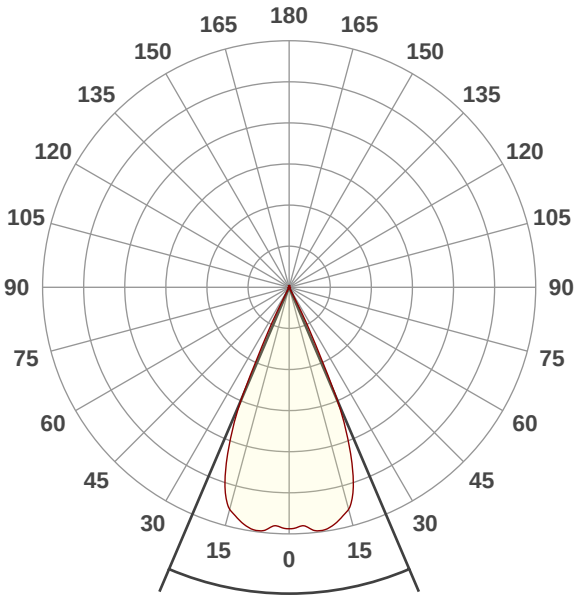
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
Lime

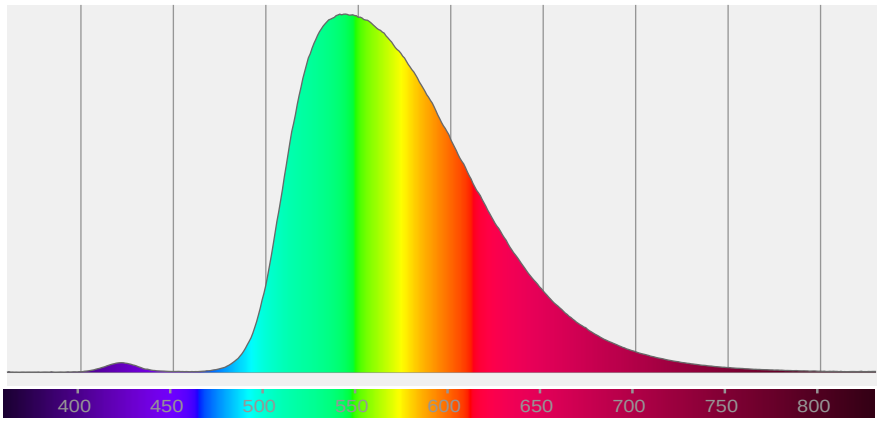
Operator:
Paolo Carvone

Date and time:
07/05/2020 14:37:12



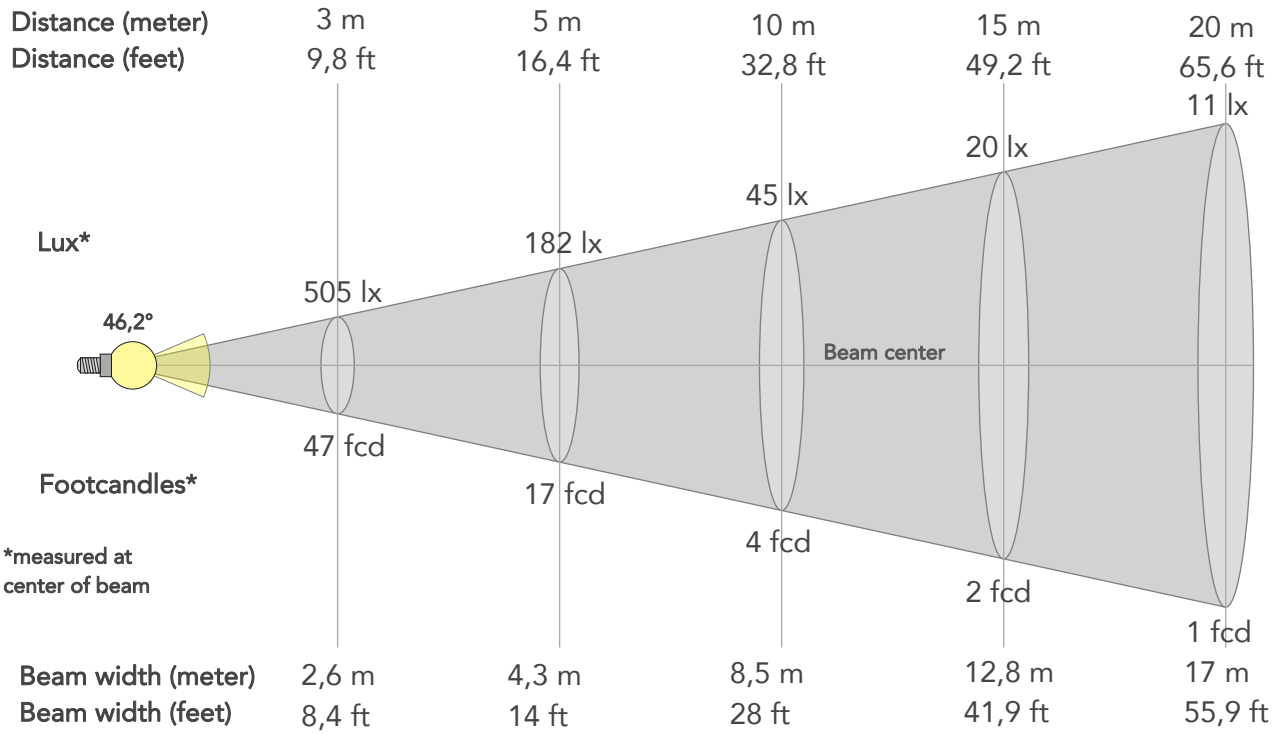
Beam angle 50%: 46,2°
Field angle 10%: 53,4°
Cut off angle 2.5%: 55,4°

Spectra



BEAM DETAILS

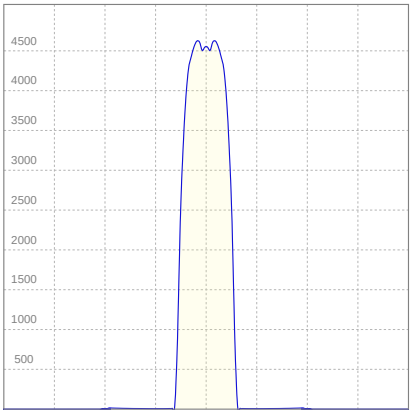
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,2°	53,4°	55,4°	98,6%	98,2%



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	4548lx	1137lx	505lx	284lx	182lx	81lx	45lx	20lx	11lx	7lx	5lx	3lx	2lx
Footcand.	423fcd	106fcd	47fcd	26fcd	17fcd	8fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,4m	4,3m	6,4m	8,5m	12,8m	17m	21,3m	25,6m	34,1m	42,6m
Beam wid.	2,8ft	5,6ft	8,4ft	11,2ft	14ft	21ft	28ft	41,9ft	55,9ft	69,9ft	83,9ft	111,8ft	139,8ft

LINEAR DISTRIBUTION DIAGRAM



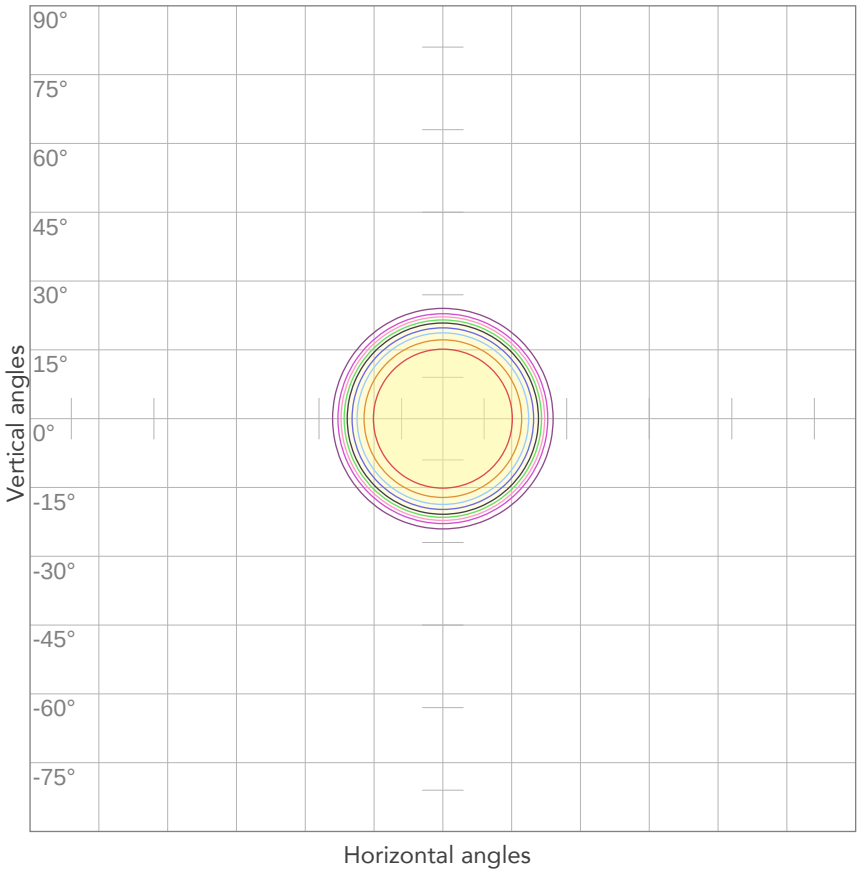
ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,342A	63,7W	35lm/W

Power FC
0,83

ISO DIAGRAMS

ISO CANDELA DIAGRAM



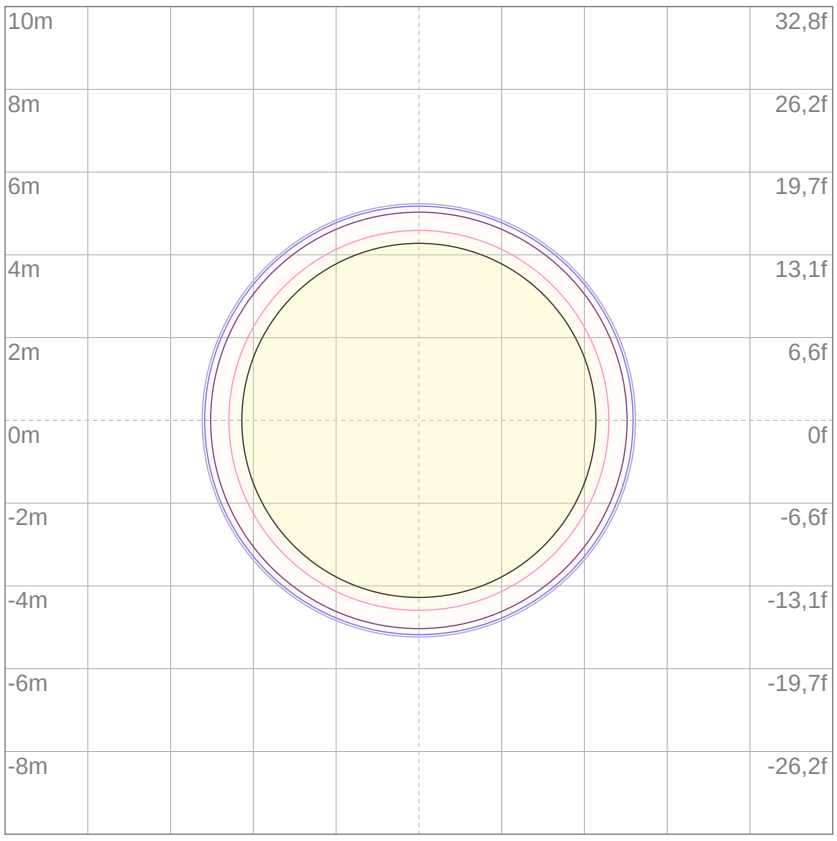
10%	455 cd
20%	910 cd
30%	1364 cd
40%	1819 cd
50%	2274 cd
60%	2729 cd
70%	3183 cd
80%	3638 cd

Conditions:

Number of c-planes: 2

Candela at center: 4548 cd

ISO LUX DIAGRAM



3%	1,36 lx
5%	2,27 lx
10%	4,55 lx
30%	13,6 lx
50%	22,7 lx

Conditions:

Number of c-planes: 2

Lux at center: 45,5 lx

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

Total lumen output:

4122 lm

Peak candela output:

8654 cd

Light quality:

CRI: 60,5

Color temperature:

2778 K

PRODUCT NAME:

ECLFC

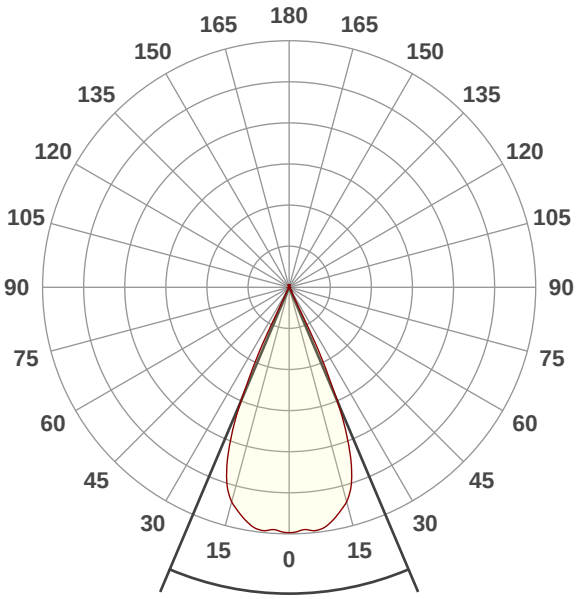
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
2700K

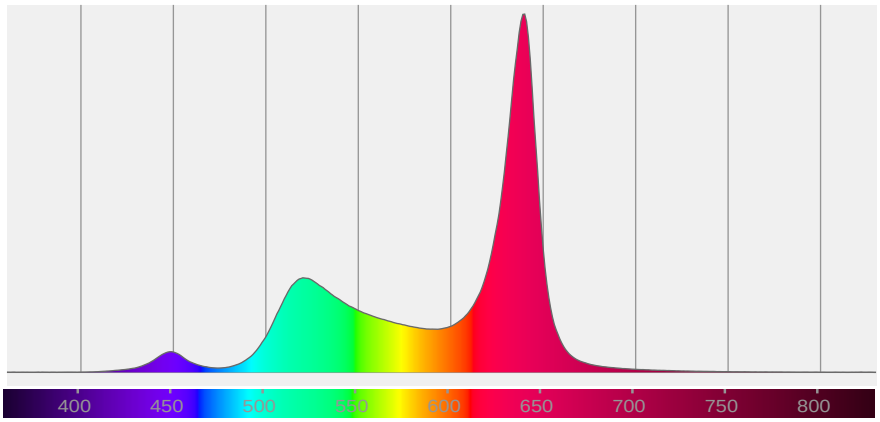
Operator:
Paolo Carvone

Date and time:
07/05/2020 14:39:24

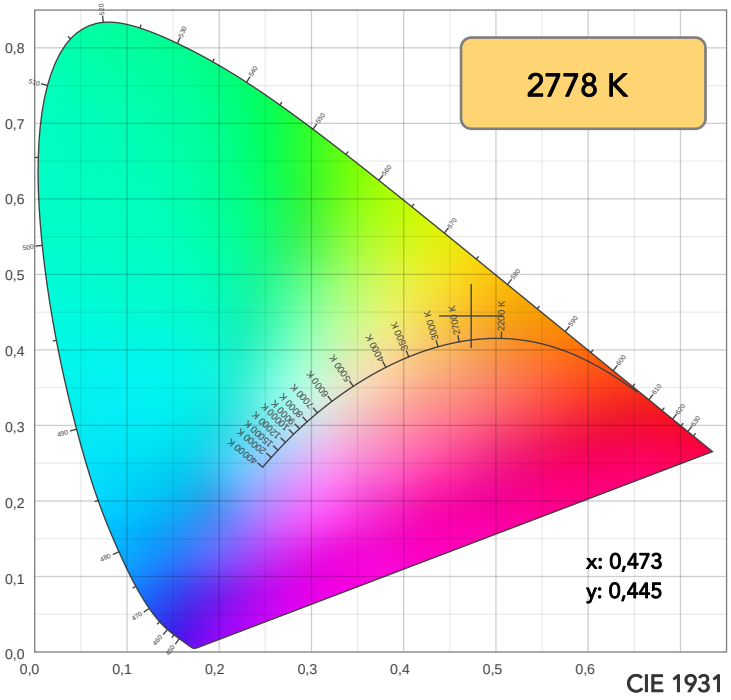


Beam angle 50%: 45,9°
Field angle 10%: 53°
Cut off angle 2.5%: 54,3°

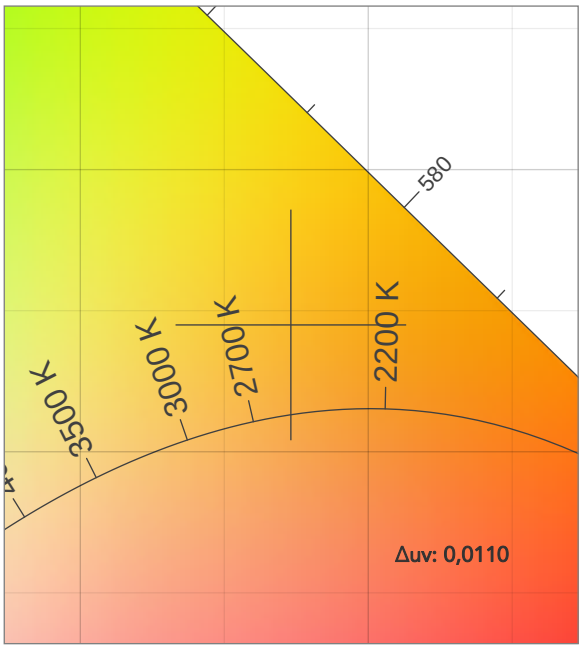
Spectra



COLOR DETAILS

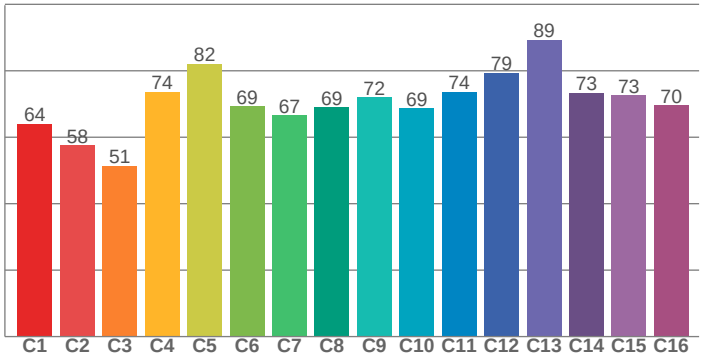


CIE 1931

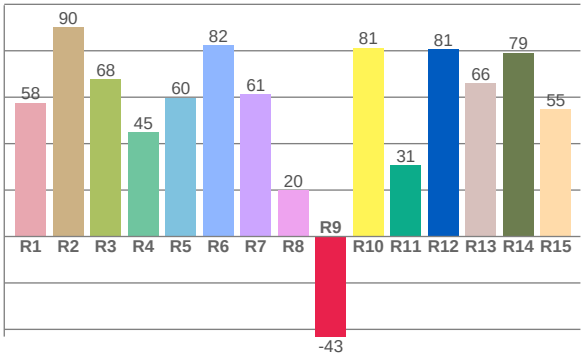


CIE 1931 ZOOM

TM30: 70,3



CRI: 60,5 (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
57,7	90,1	67,6	44,9	59,8	82,5	61,4	19,8	-43,1	81,3	30,8	80,6	65,9	79,1	54,9

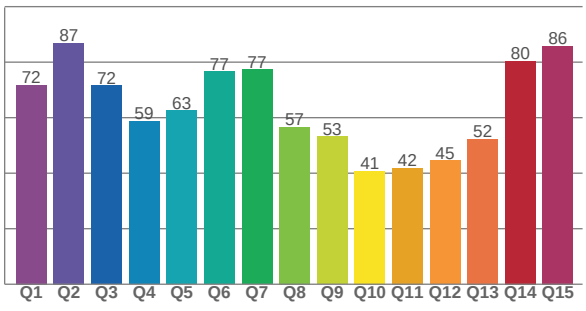
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
64,0	57,5	51,3	73,6	82,1	69,3	66,6	69,0	72,0	68,7	73,6	79,4	89,2	73,3	72,6	69,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
71,7	86,9	71,5	58,7	62,6	76,6	77,4	56,6	53,2	40,8	41,8	44,5	52,3	80,4	85,8

CQS: 60,8



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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2778 K	60,5	-43,1	70,3	103,5	60,8	39	0,473	0,445	0,0110

TM30 DETAILS

PROLiGHTS

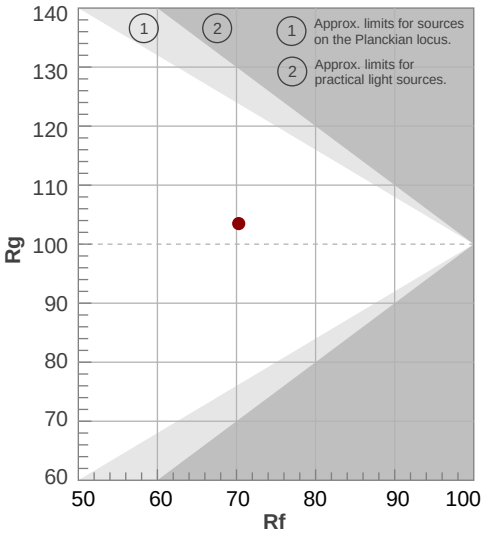
Rf 70,3

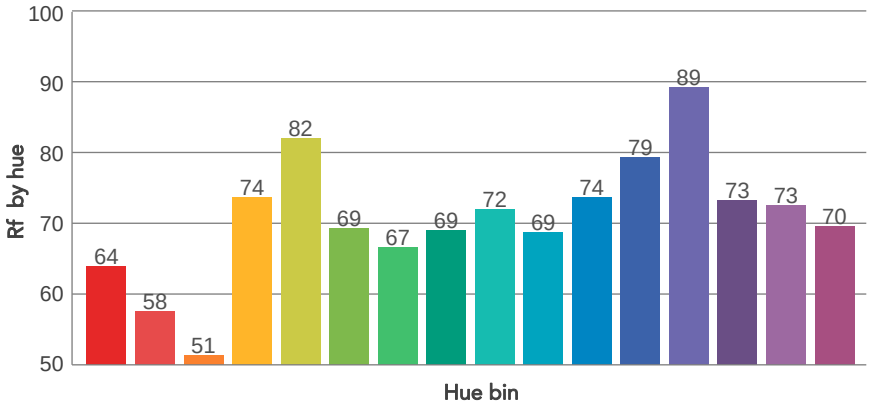
Fidelity index Rf

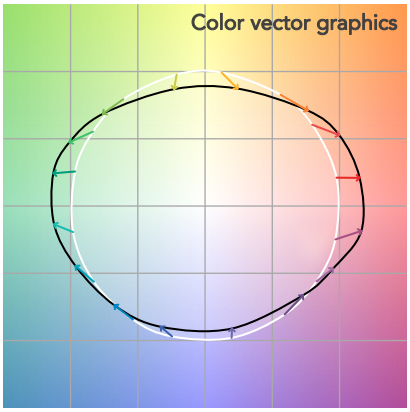
Rg 103,5

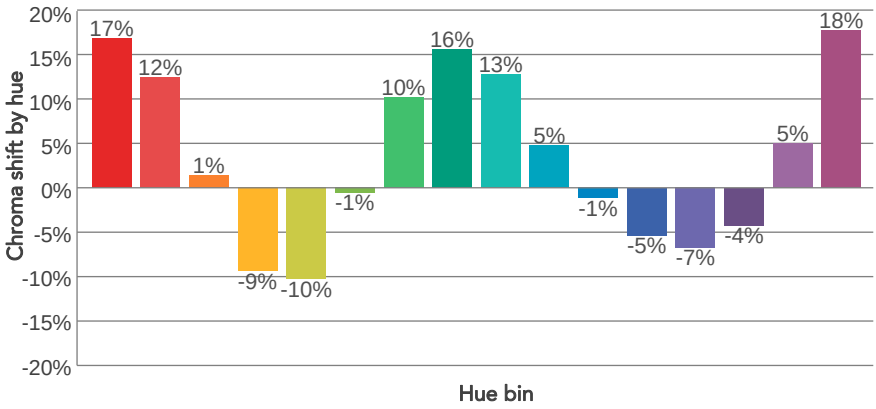
Gammut index

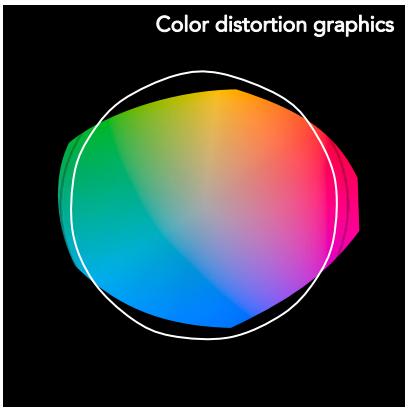
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	64	17%	-3%
2	58	12%	-18%
3	51	1%	-23%
4	74	-9%	-14%
5	82	-10%	4%
6	69	-1%	19%
7	67	10%	16%
8	69	16%	5%
9	72	13%	-8%
10	69	5%	-17%
11	74	-1%	-17%
12	79	-5%	-10%
13	89	-7%	2%
14	73	-4%	19%
15	73	5%	15%
16	70	18%	10%

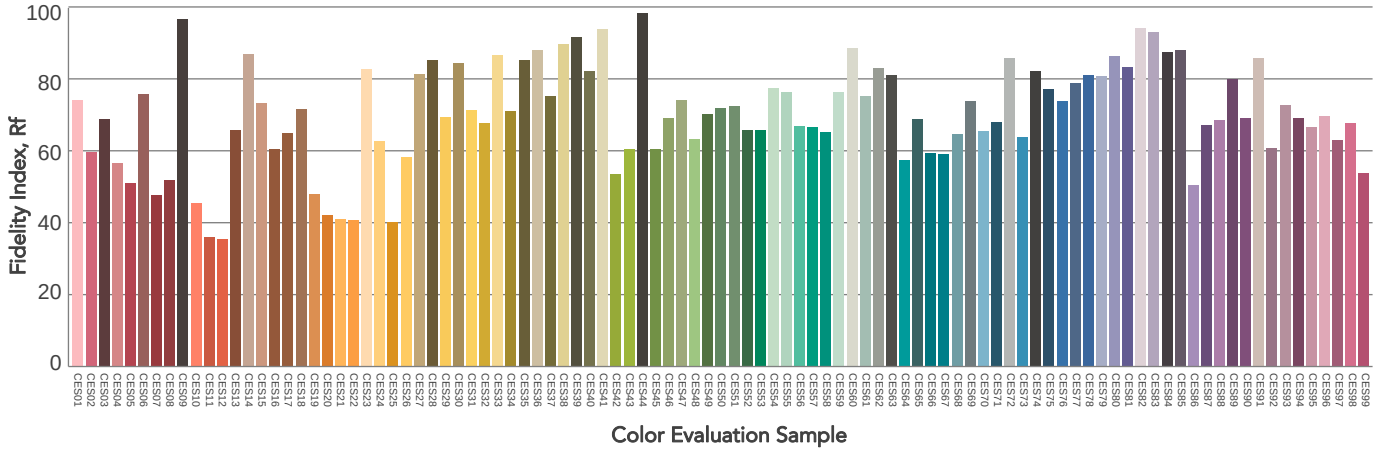












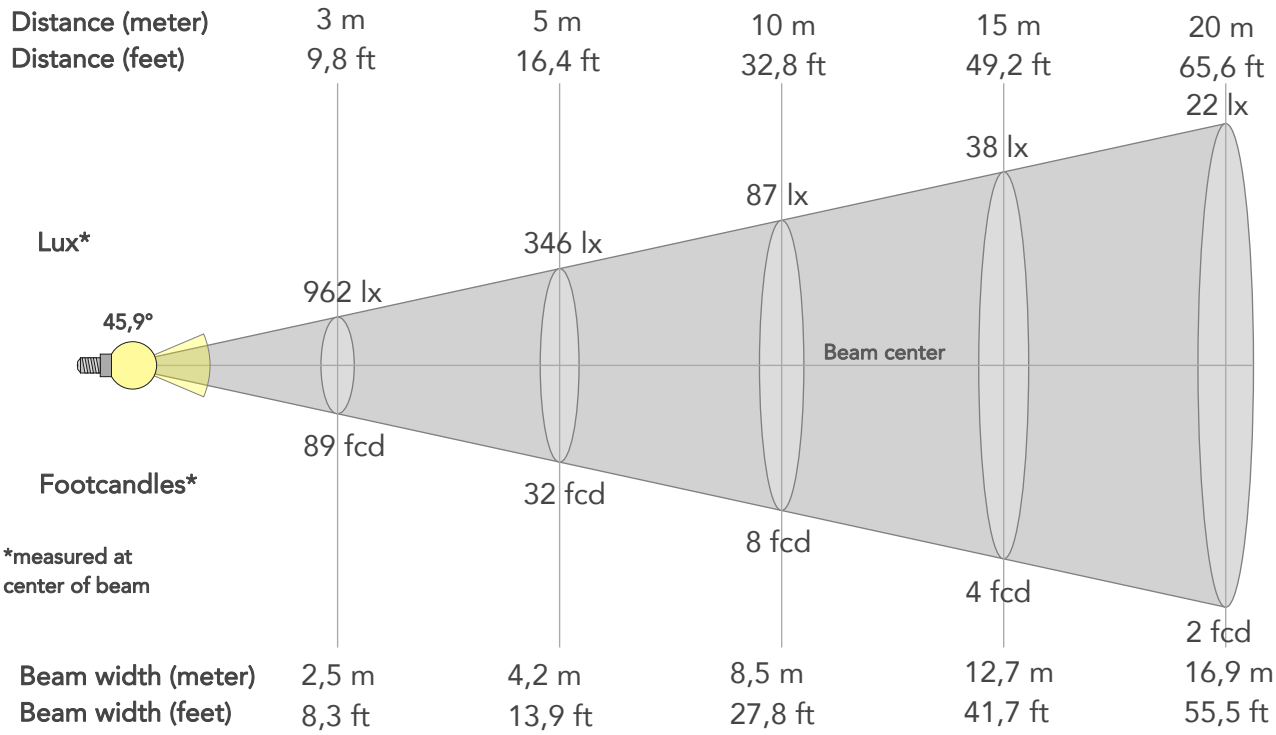
PROLIGHTS is a trademark of **MUSIC & LIGHTS** S.r.l.
musiclights.it

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

BEAM DETAILS

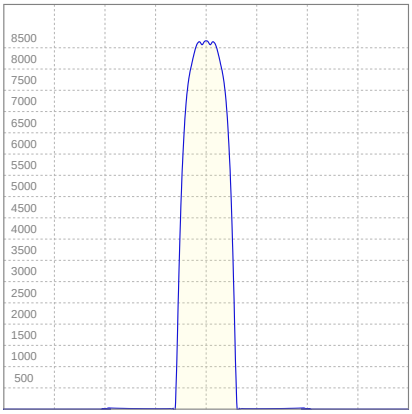
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
45,9°	53°	54,3°	98,6%	98,3%



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	8654lx	2163lx	962lx	541lx	346lx	154lx	87lx	38lx	22lx	14lx	10lx	5lx	3lx
Footcand.	804fcd	201fcd	89fcd	50fcd	32fcd	14fcd	8fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,8m	1,7m	2,5m	3,4m	4,2m	6,3m	8,5m	12,7m	16,9m	21,2m	25,4m	33,9m	42,3m
Beam wid.	2,8ft	5,6ft	8,3ft	11,1ft	13,9ft	20,8ft	27,8ft	41,7ft	55,5ft	69,4ft	83,3ft	111,1ft	138,8ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

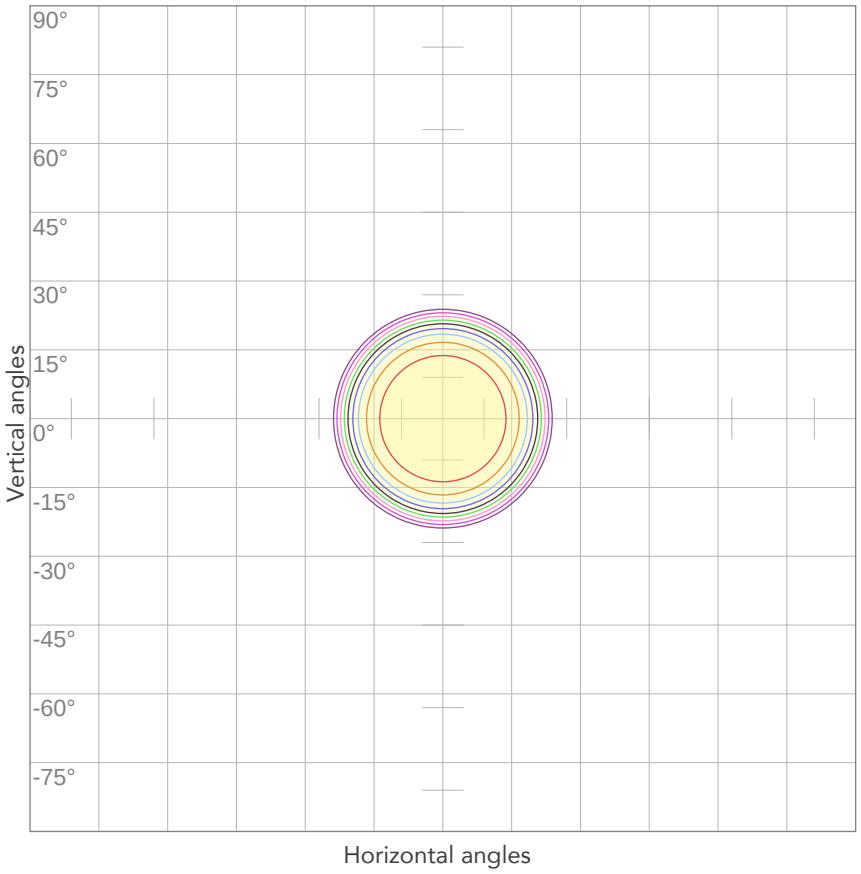
Input voltage	Input current	Input power	Effeciency
224V	0,786A	163,8W	25lm/W

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



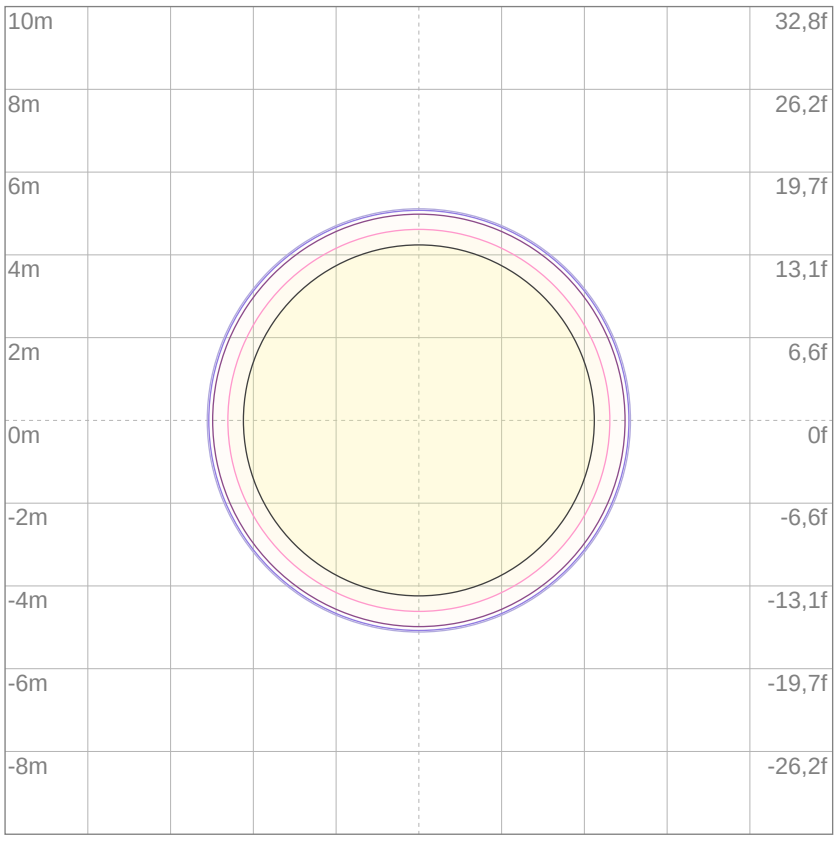
10%	865 cd
20%	1731 cd
30%	2596 cd
40%	3461 cd
50%	4327 cd
60%	5192 cd
70%	6057 cd
80%	6923 cd

Conditions:

Number of c-planes: 2

Candela at center: 8654 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2,60 lx
5%	4,33 lx
10%	8,65 lx
30%	26,0 lx
50%	43,3 lx

Conditions:

Number of c-planes: 2

Lux at center: 86,5 lx

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

Total lumen output:

4328 lm

Peak candela output:

9002 cd

Light quality:

CRI: 65,0

Color temperature:

3918 K

PRODUCT NAME:

ECLFC

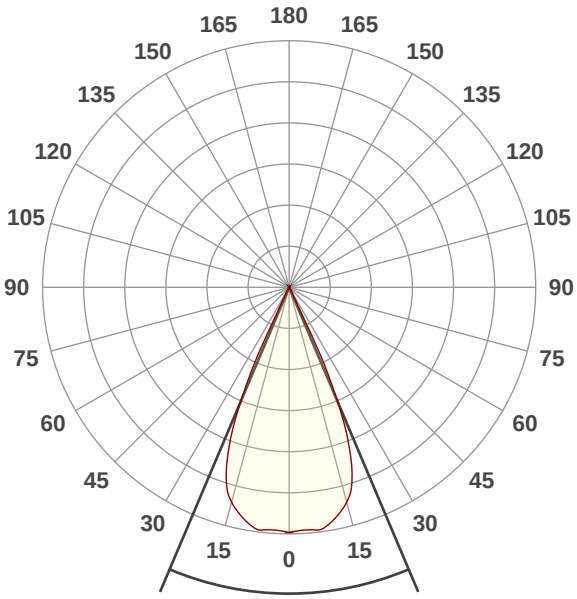
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
3200K

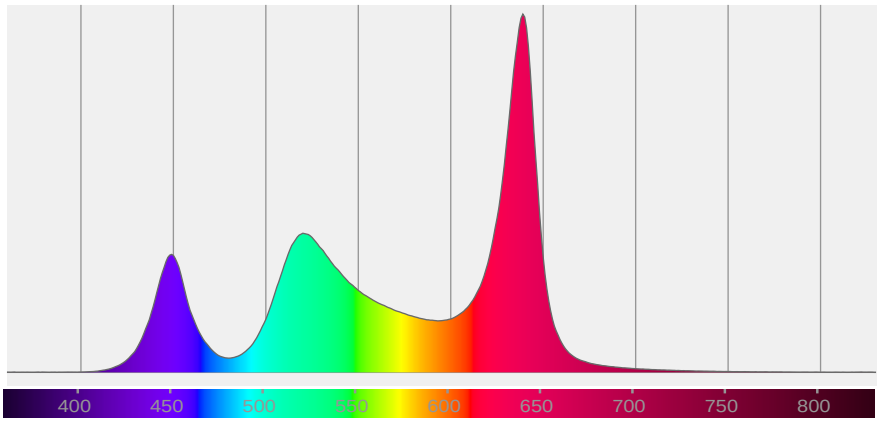
Operator:
Paolo Carvone

Date and time:
07/05/2020 14:40:56

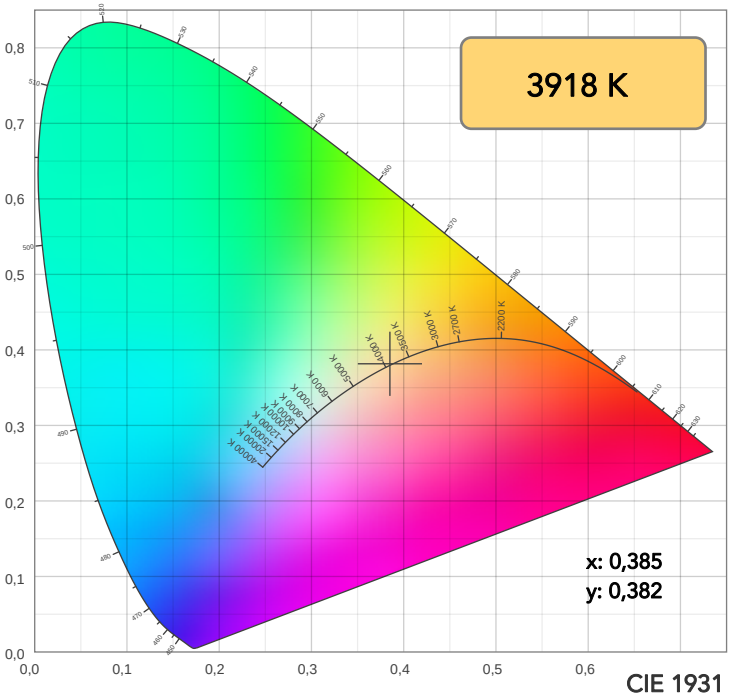


Beam angle 50%: 45,9°
Field angle 10%: 52,8°
Cut off angle 2.5%: 55,2°

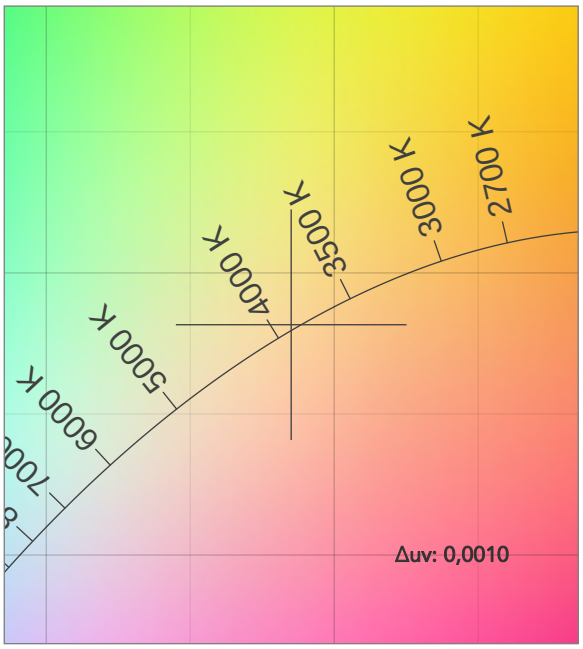
Spectra



COLOR DETAILS

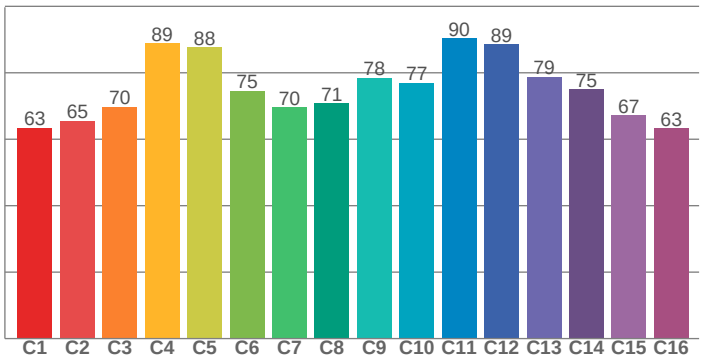


CIE 1931

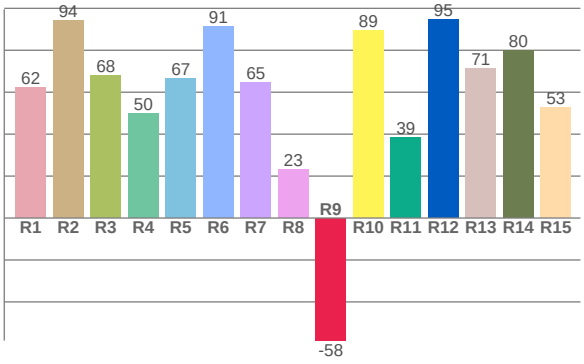


CIE 1931 ZOOM

TM30: 76,1



CRI: 65,0 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
62,4	94,3	68,0	49,9	66,7	91,3	64,5	23,0	-58,4	89,4	38,6	94,8	71,1	79,7	52,9

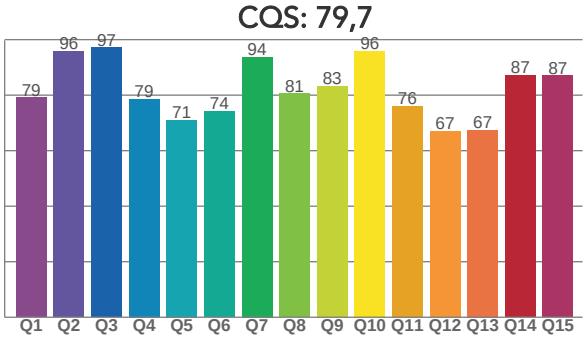
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
63,4	65,4	69,7	88,9	87,6	74,5	69,7	70,8	78,5	77,0	90,4	88,6	78,9	75,0	67,2	63,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
79,1	95,8	97,1	78,6	71,1	74,2	93,8	80,6	83,4	96,0	76,1	67,1	67,4	87,1	87,1

CQS: 79,7



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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
3918 K	65,0	-58,4	76,1	117,7	79,7	51	0,385	0,382	0,0010

TM30 DETAILS

PROLiGHTS

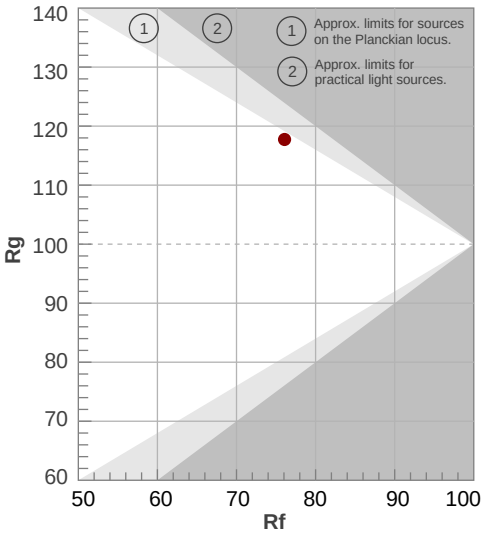
Rf 76,1

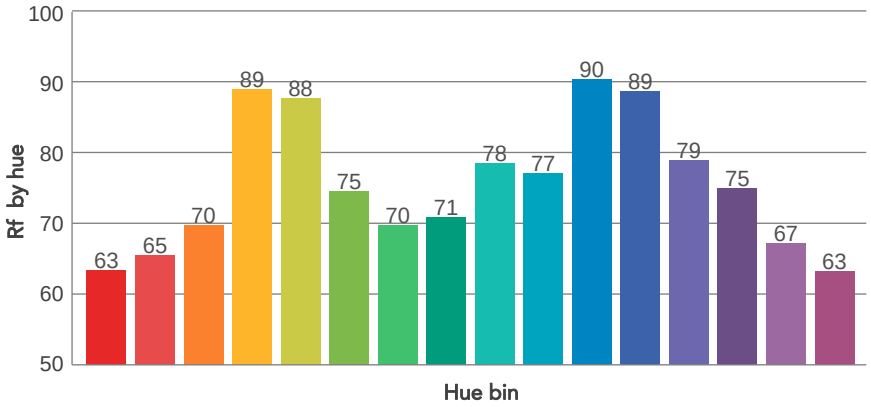
Fidelity index Rf

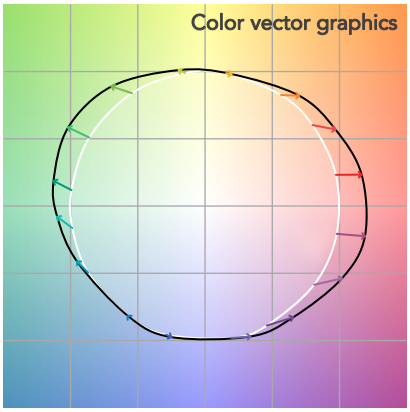
Rg 117,7

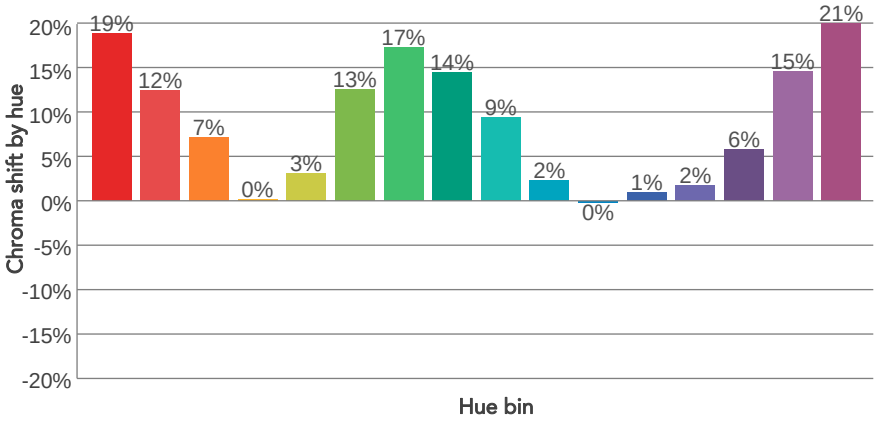
Gammut index

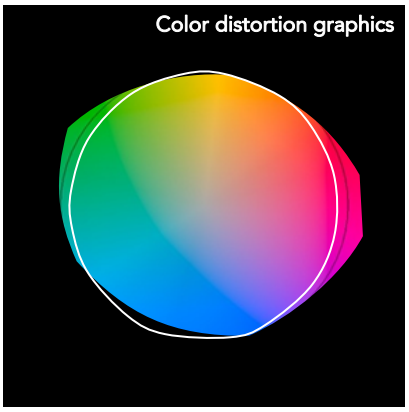
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	63	19%	-4%
2	65	12%	-12%
3	70	7%	-11%
4	89	0%	-4%
5	88	3%	4%
6	75	13%	10%
7	70	17%	2%
8	71	14%	-4%
9	78	9%	-10%
10	77	2%	-12%
11	90	0%	-1%
12	89	1%	4%
13	79	2%	14%
14	75	6%	20%
15	67	15%	15%
16	63	21%	2%

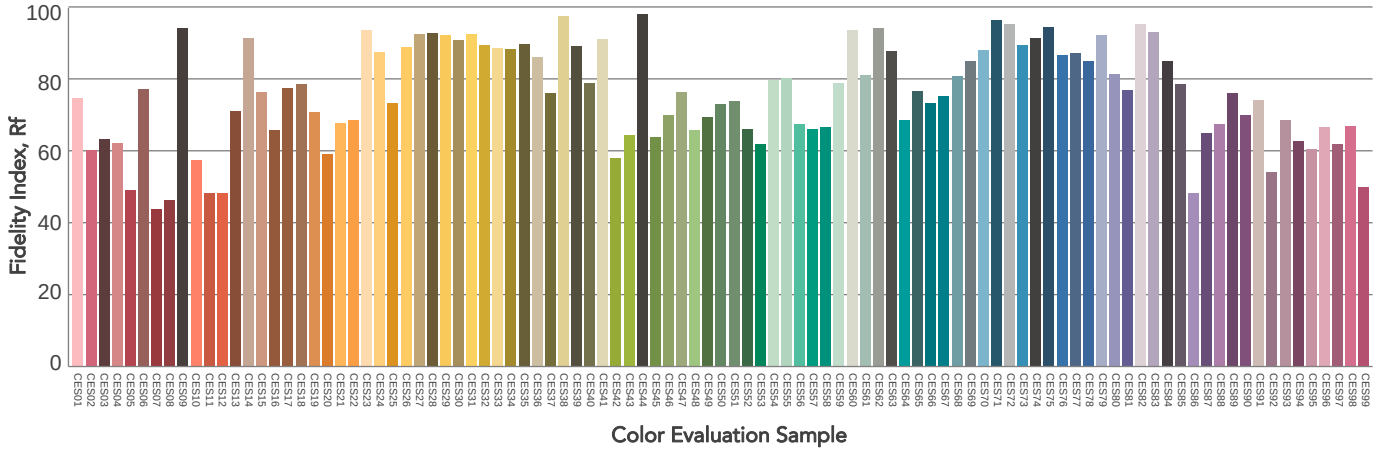












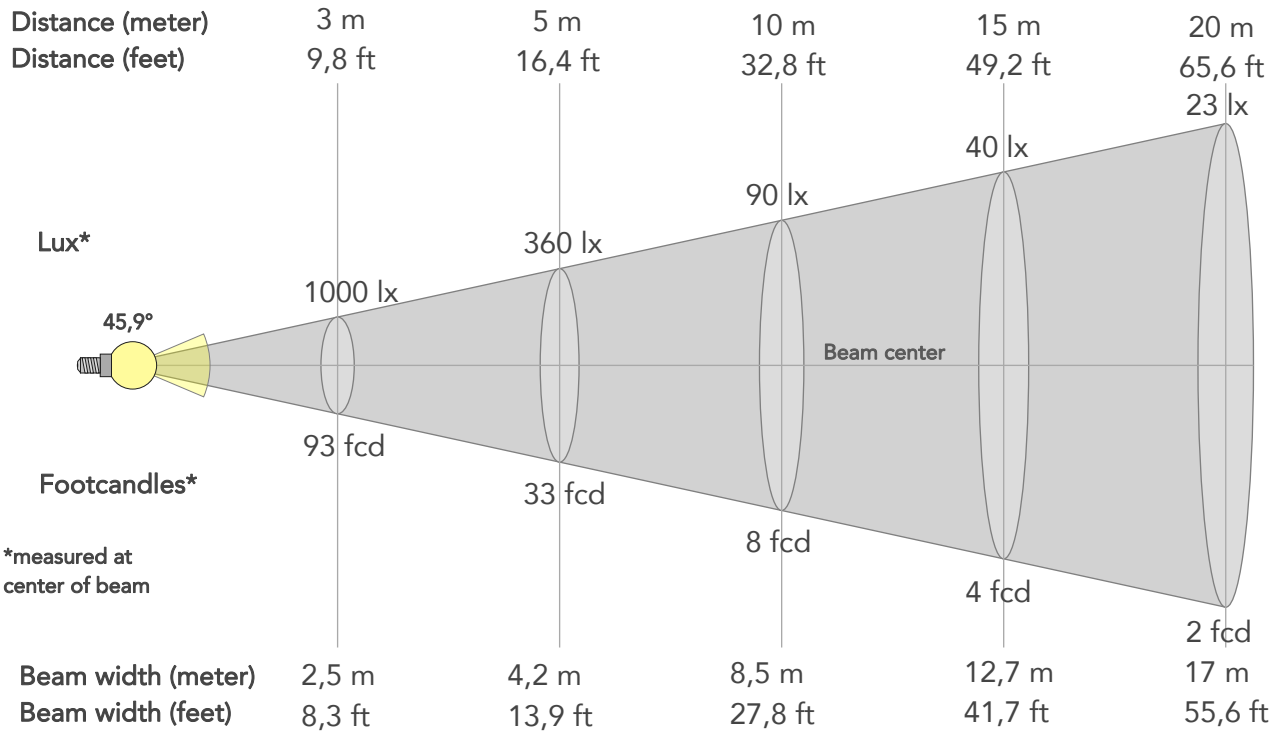
PROLIGHTS is a trademark of **MUSIC & LIGHTS** S.r.l.
musiclights.it

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

BEAM DETAILS

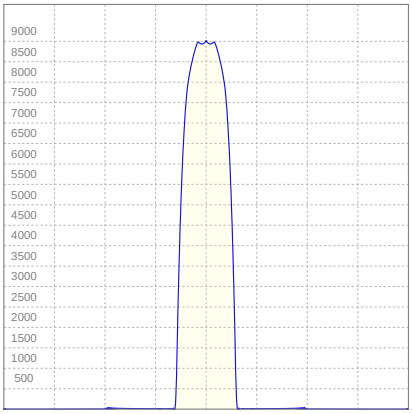
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
45,9°	52,8°	55,2°	98,3%	97,9%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	9002lx	2250lx	1000lx	563lx	360lx	160lx	90lx	40lx	23lx	14lx	10lx	6lx	4lx
Footcand.	836fcd	209fcd	93fcd	52fcd	33fcd	15fcd	8fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,8m	1,7m	2,5m	3,4m	4,2m	6,4m	8,5m	12,7m	17m	21,2m	25,4m	33,9m	42,4m
Beam wid.	2,8ft	5,6ft	8,3ft	11,1ft	13,9ft	20,9ft	27,8ft	41,7ft	55,6ft	69,5ft	83,4ft	111,2ft	139ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

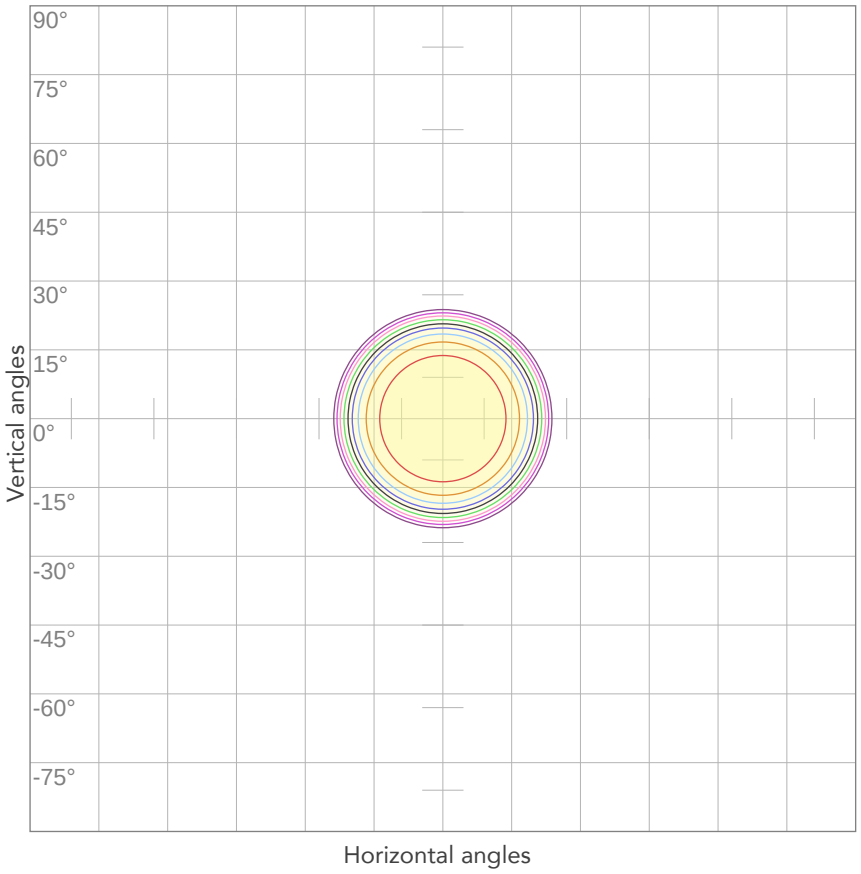
Input voltage	Input current	Input power	Effeciency
225V	0,845A	177,7W	24lm/W

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



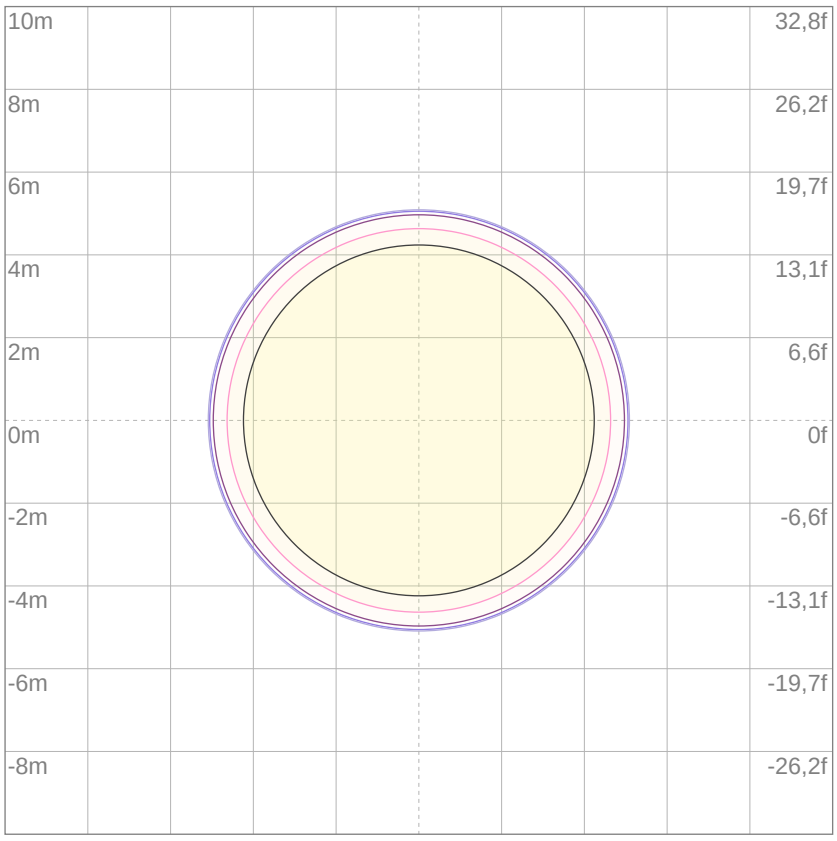
10%	900 cd
20%	1800 cd
30%	2700 cd
40%	3601 cd
50%	4501 cd
60%	5401 cd
70%	6301 cd
80%	7201 cd

Conditions:

Number of c-planes: 2

Candela at center: 9002 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2,70 lx
5%	4,50 lx
10%	9,00 lx
30%	27,0 lx
50%	45,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 90,0 lx

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

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

Total lumen output:

4258 lm

Peak candela output:

8800 cd

Light quality:

CRI: 72,7

Color temperature:

5458 K

PRODUCT NAME:

ECLFC

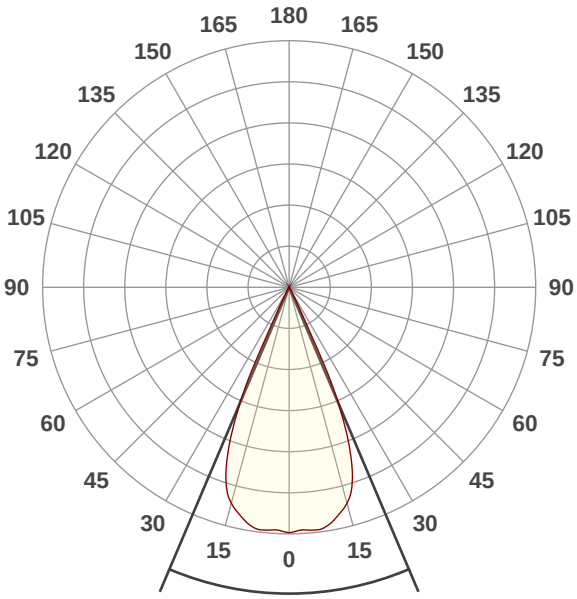
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
4200K

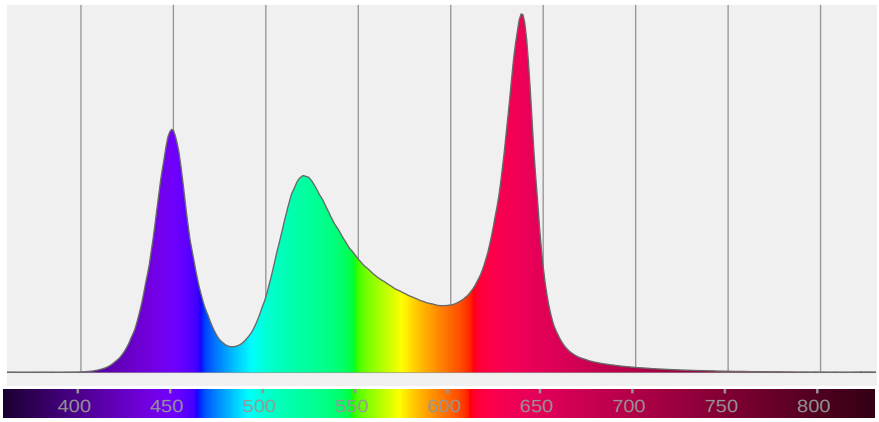
Operator:
Paolo Carvone

Date and time:
07/05/2020 14:42:50



Beam angle 50%: 46°
Field angle 10%: 52,4°
Cut off angle 2.5%: 56,1°

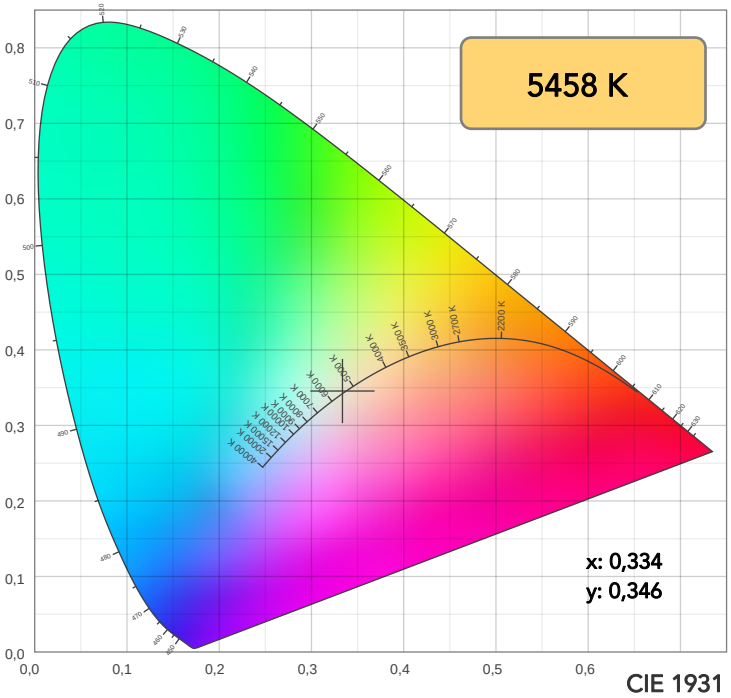
Spectra



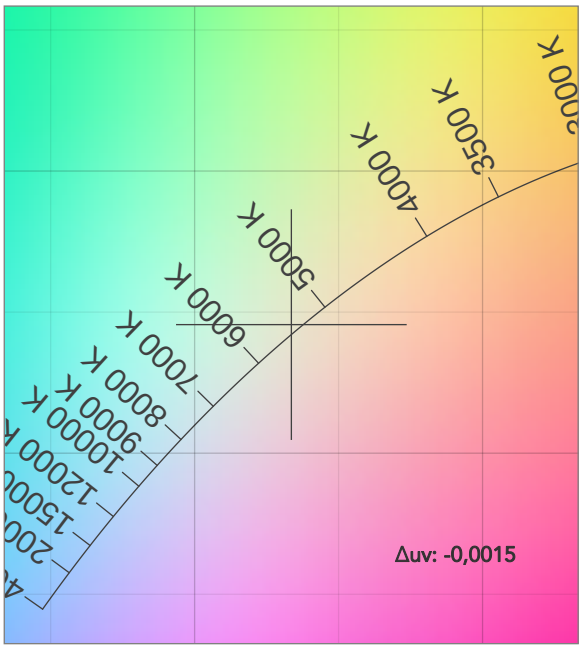
Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

COLOR DETAILS

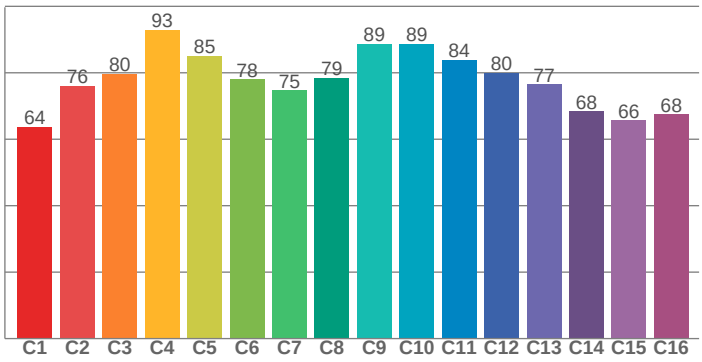


CIE 1931

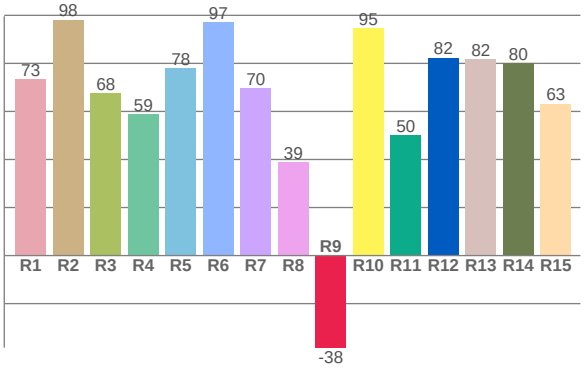


CIE 1931 ZOOM

TM30: 78,9



CRI: 72,7 (R1-R8)



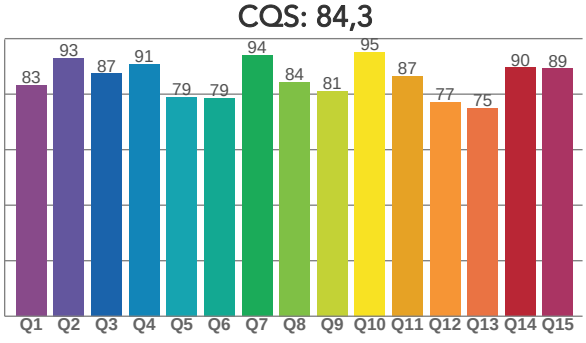
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
73,5	98,1	67,6	58,8	77,9	97,0	69,6	38,7	-38,3	94,7	50,1	82,4	81,8	80,2	63,2

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
63,7	76,1	79,7	93,0	85,0	78,0	74,7	78,5	88,6	88,7	83,9	80,0	76,5	68,4	65,7	67,5

CQS: 84,3



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,2	93,1	87,4	90,8	78,9	78,5	94,0	84,3	81,1	95,2	86,6	77,2	74,9	89,5	89,3

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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
5458 K	72,7	-38,3	78,9	116,2	84,3	61	0,334	0,346	-0,0015

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

TM30 DETAILS

PROLiGHTS

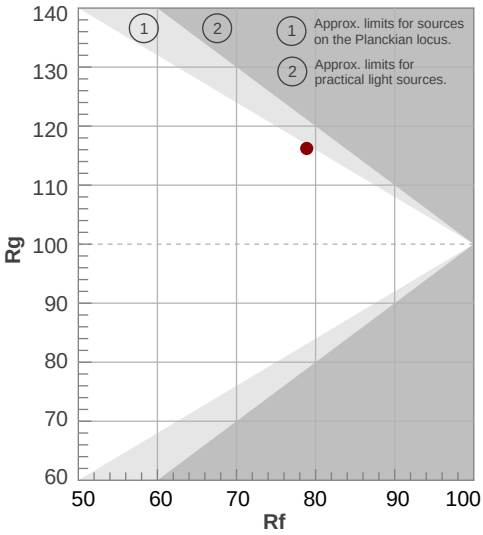
Rf 78,9

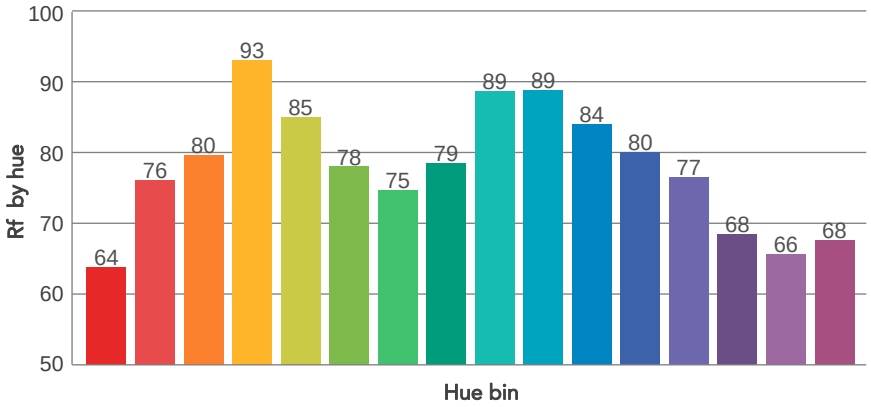
Fidelity index Rf

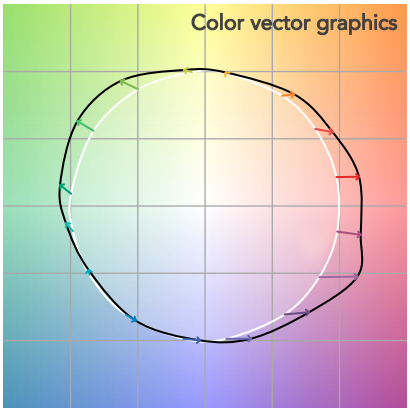
Rg 116,2

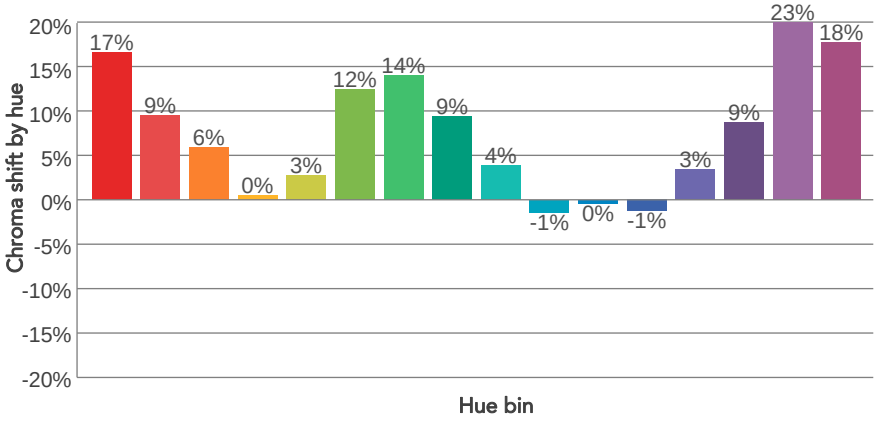
Gammut index

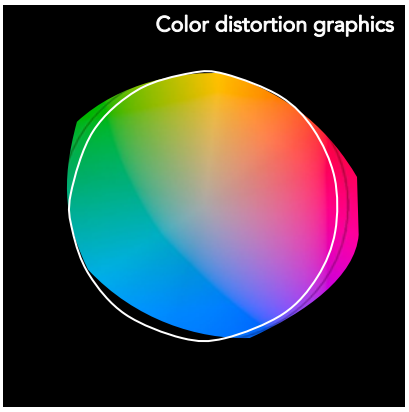
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	64	17%	-3%
2	76	9%	-9%
3	80	6%	-7%
4	93	0%	1%
5	85	3%	5%
6	78	12%	7%
7	75	14%	1%
8	79	9%	-5%
9	89	4%	-7%
10	89	-1%	-3%
11	84	0%	9%
12	80	-1%	12%
13	77	3%	18%
14	68	9%	16%
15	66	23%	16%
16	68	18%	1%

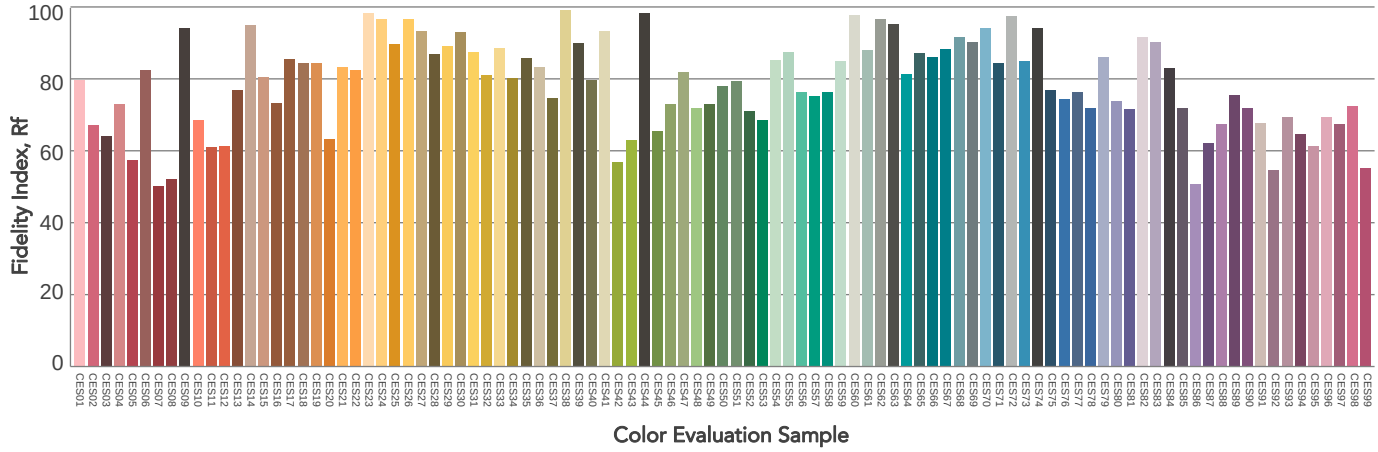












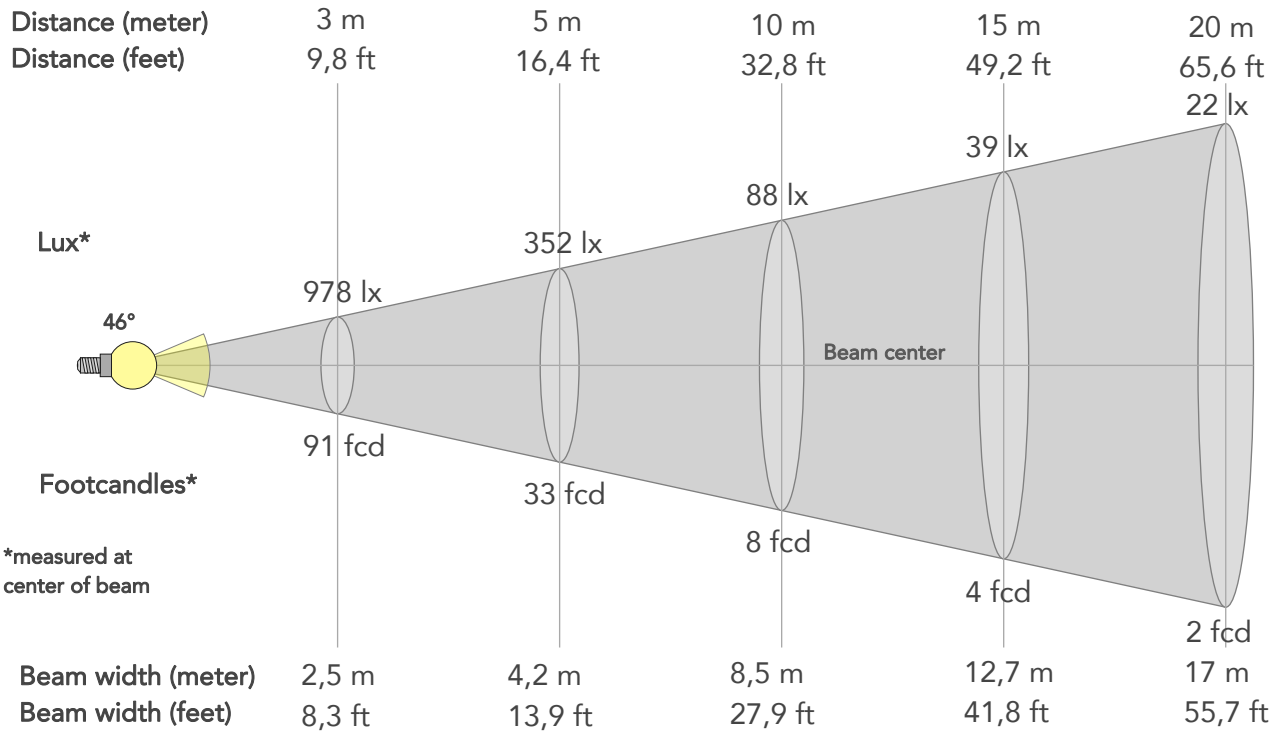
PROLIGHTS is a trademark of **MUSIC & LIGHTS** S.r.l.
musiclights.it

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

BEAM DETAILS

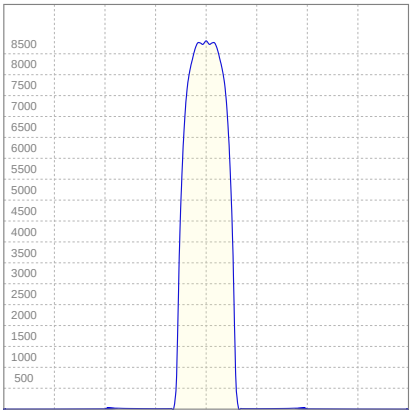
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46°	52,4°	56,1°	97,9%	97,6%



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	8800lx	2200lx	978lx	550lx	352lx	156lx	88lx	39lx	22lx	14lx	10lx	5lx	4lx
Footcand.	818fcd	204fcd	91fcd	51fcd	33fcd	15fcd	8fcd	4fcd	2fcd	1fcd	1fcd	1fcd	0fcd
Beam wid.	0,8m	1,7m	2,5m	3,4m	4,2m	6,4m	8,5m	12,7m	17m	21,2m	25,5m	34m	42,5m
Beam wid.	2,8ft	5,6ft	8,3ft	11,1ft	13,9ft	20,9ft	27,9ft	41,8ft	55,7ft	69,7ft	83,6ft	111,4ft	139,3ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

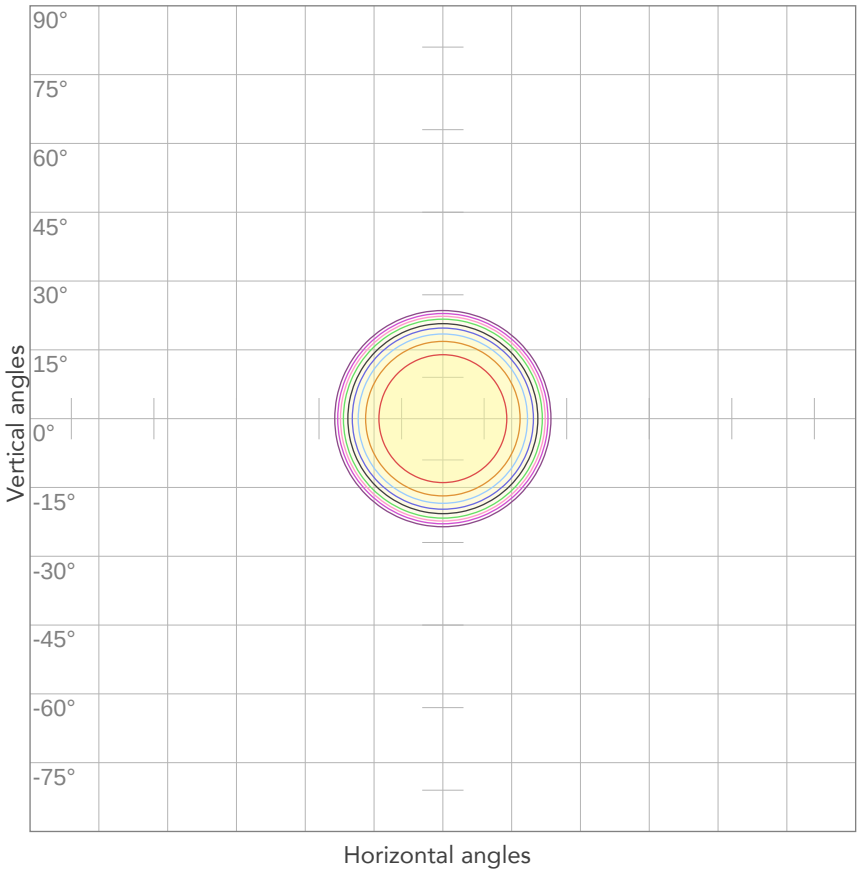
Input voltage	Input current	Input power	Effeciency
225V	0,840A	176,7W	24lm/W

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



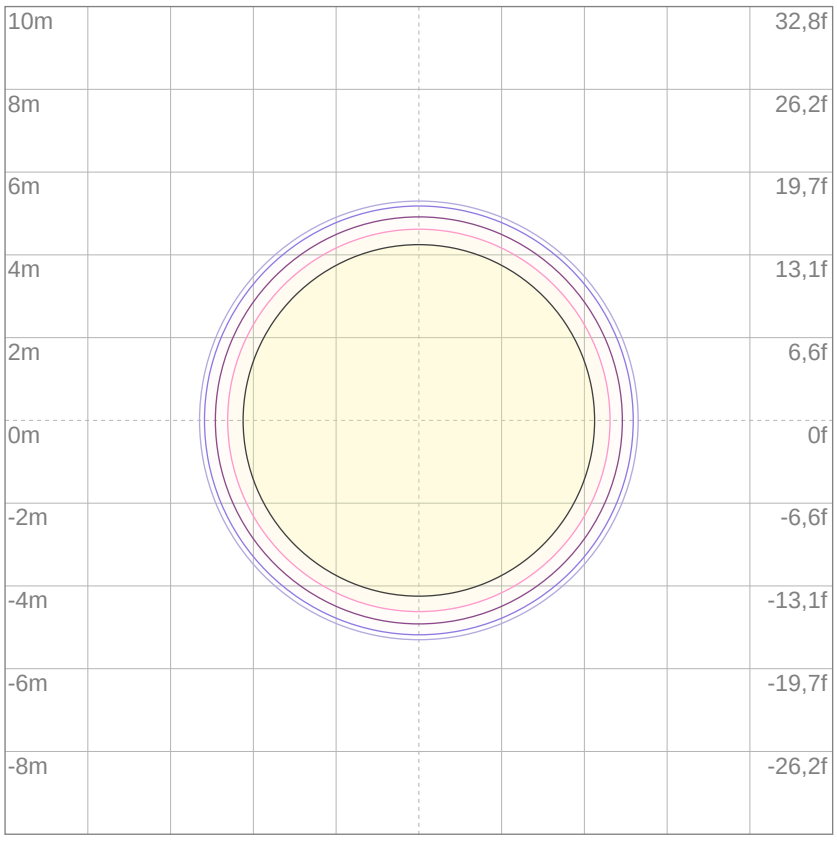
10%	880 cd
20%	1760 cd
30%	2640 cd
40%	3520 cd
50%	4400 cd
60%	5280 cd
70%	6160 cd
80%	7040 cd

Conditions:

Number of c-planes: 2

Candela at center: 8800 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2,64 lx
5%	4,40 lx
10%	8,80 lx
30%	26,4 lx
50%	44,0 lx

Conditions:

Number of c-planes: 2

Lux at center: 88,0 lx

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

Total lumen output:

4013 lm

Peak candela output:

8308 cd

Light quality:

CRI: 80,3

Color temperature:

7188 K

PRODUCT NAME:

ECLFC

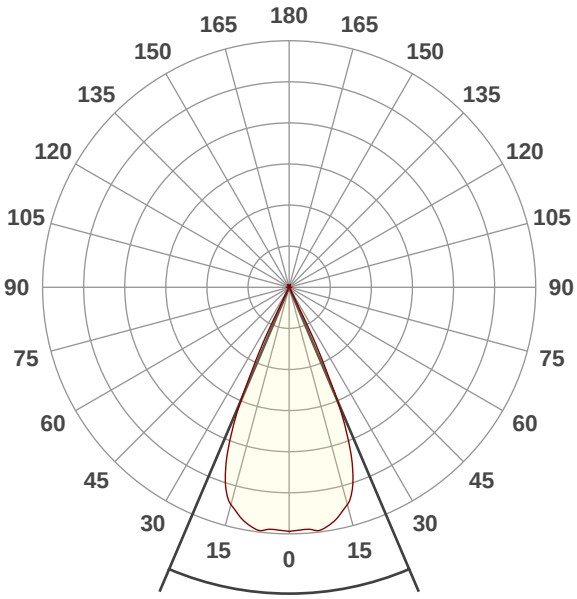
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
5500K

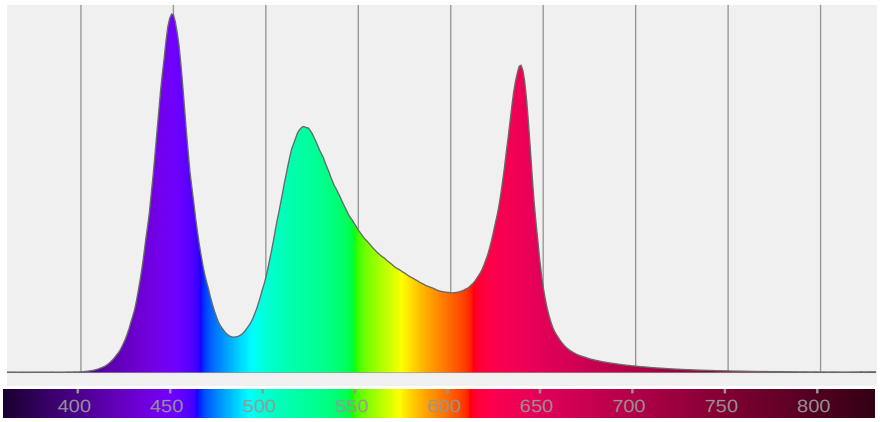
Operator:
Paolo Carvone

Date and time:
07/05/2020 14:47:40



Beam angle 50%: 46,1°
Field angle 10%: 53,1°
Cut off angle 2.5%: 54,5°

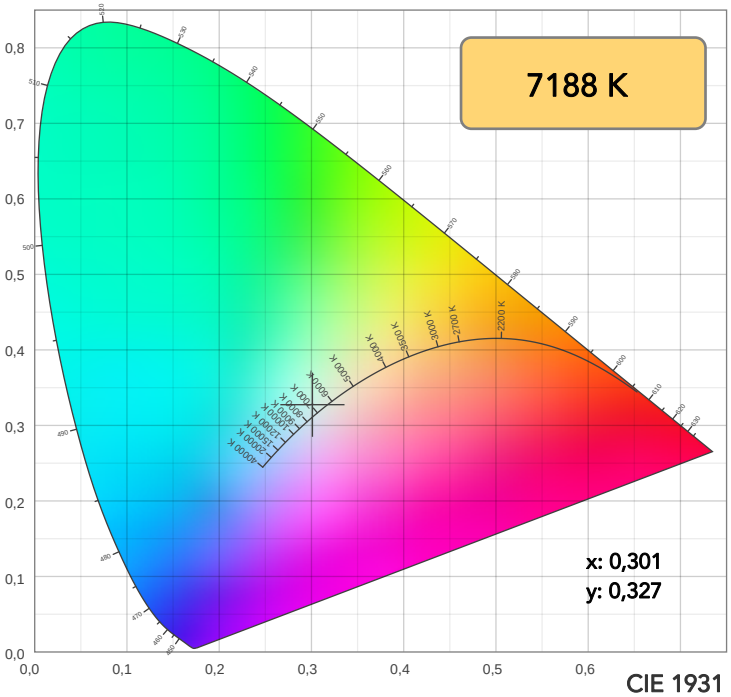
Spectra



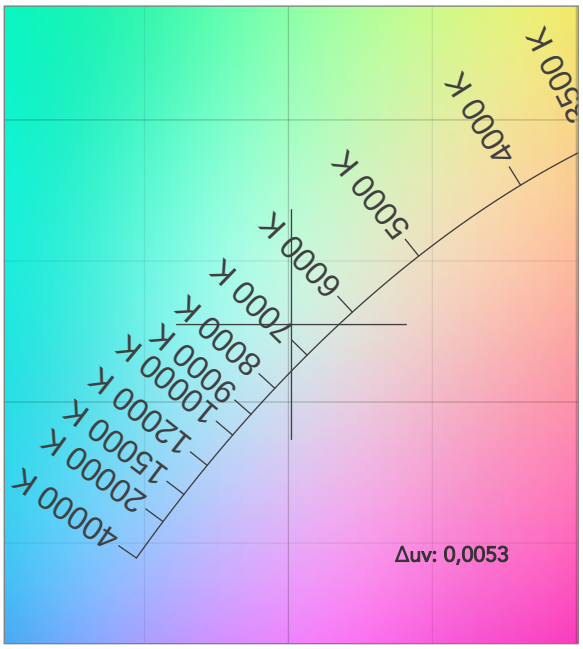
Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

COLOR DETAILS

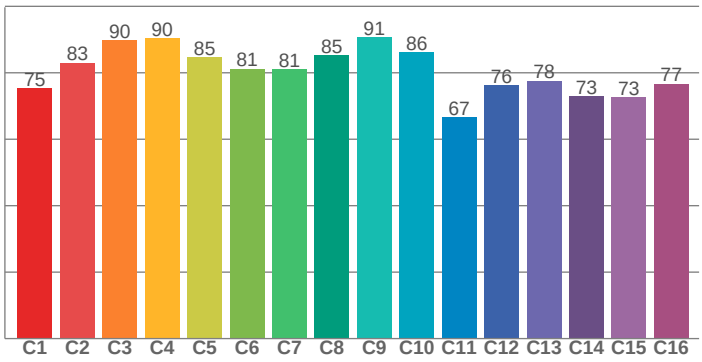


CIE 1931

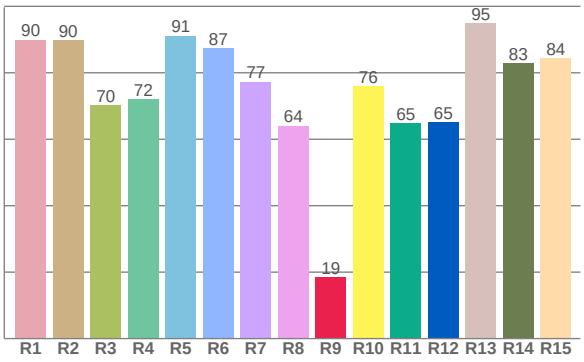


CIE 1931 ZOOM

TM30: 81,9



CRI: 80,3 (R1-R8)



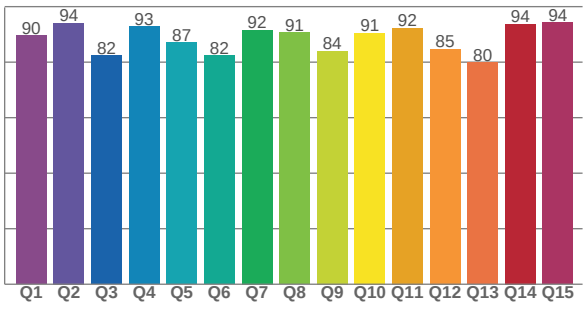
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
89,9	89,8	70,3	72,0	91,2	87,5	77,3	64,1	18,5	75,9	64,8	65,1	94,9	82,9	84,5

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
75,3	83,0	89,8	90,3	84,7	81,2	81,1	85,2	90,7	86,1	66,6	76,1	77,6	72,9	72,5	76,6

CQS: 87,7



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89,6	94,1	82,4	92,9	87,1	82,4	91,5	90,6	84,0	90,5	92,2	84,7	79,9	93,7	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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7188 K	80,3	18,5	81,9	110,5	87,7	75	0,301	0,327	0,0053

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

TM30 DETAILS

PROLiGHTS

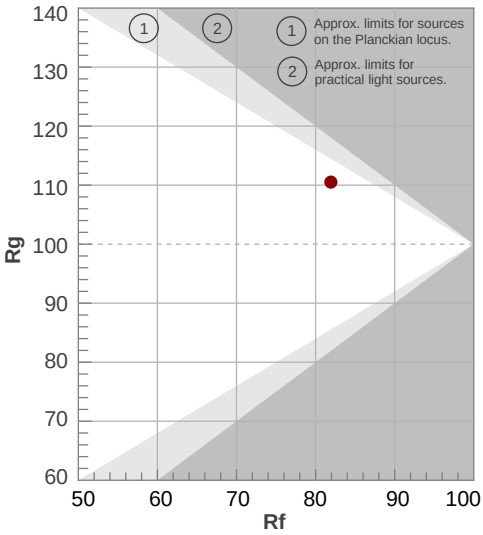
Rf 81,9

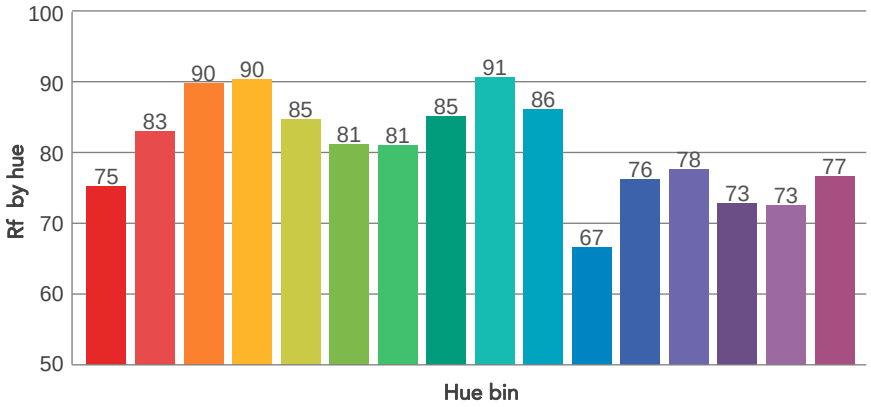
Fidelity index Rf

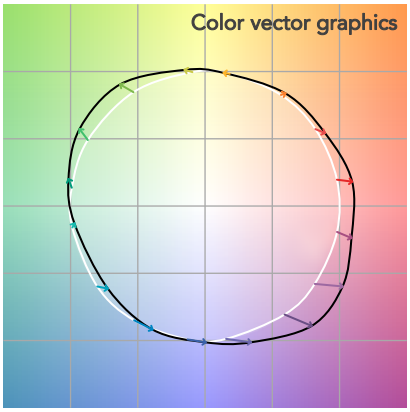
Rg 110,5

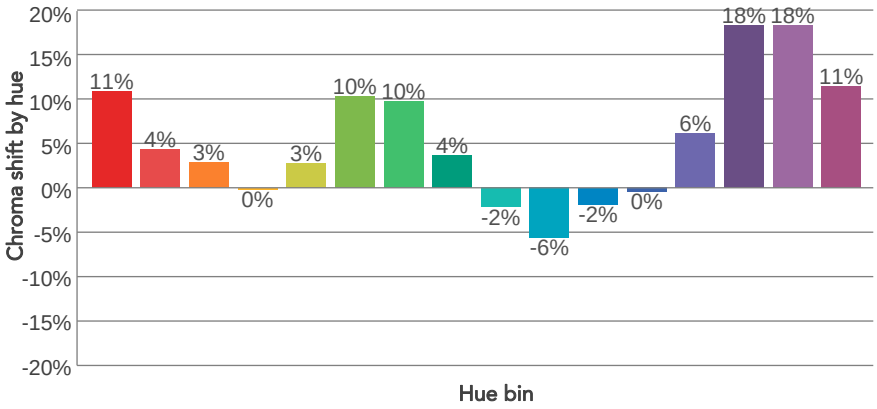
Gammut index

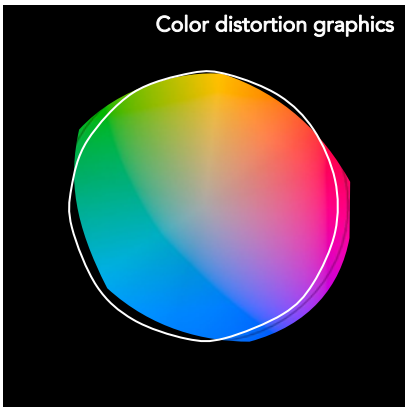
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	75	11%	-4%
2	83	4%	-6%
3	90	3%	-2%
4	90	0%	5%
5	85	3%	5%
6	81	10%	5%
7	81	10%	-3%
8	85	4%	-6%
9	91	-2%	-3%
10	86	-6%	6%
11	67	-2%	15%
12	76	0%	14%
13	78	6%	18%
14	73	18%	12%
15	73	18%	10%
16	77	11%	-2%

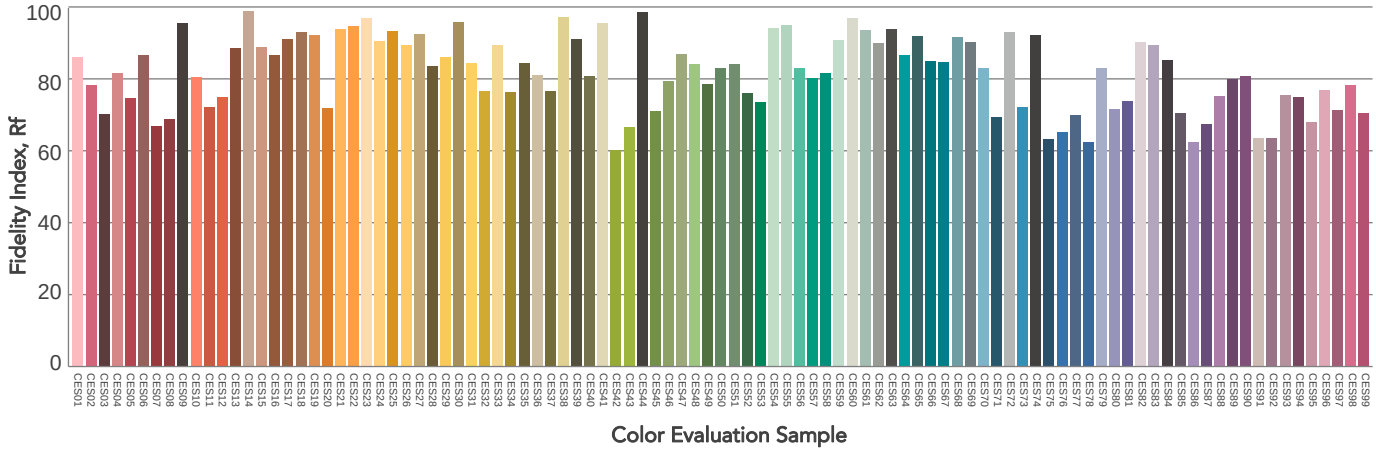












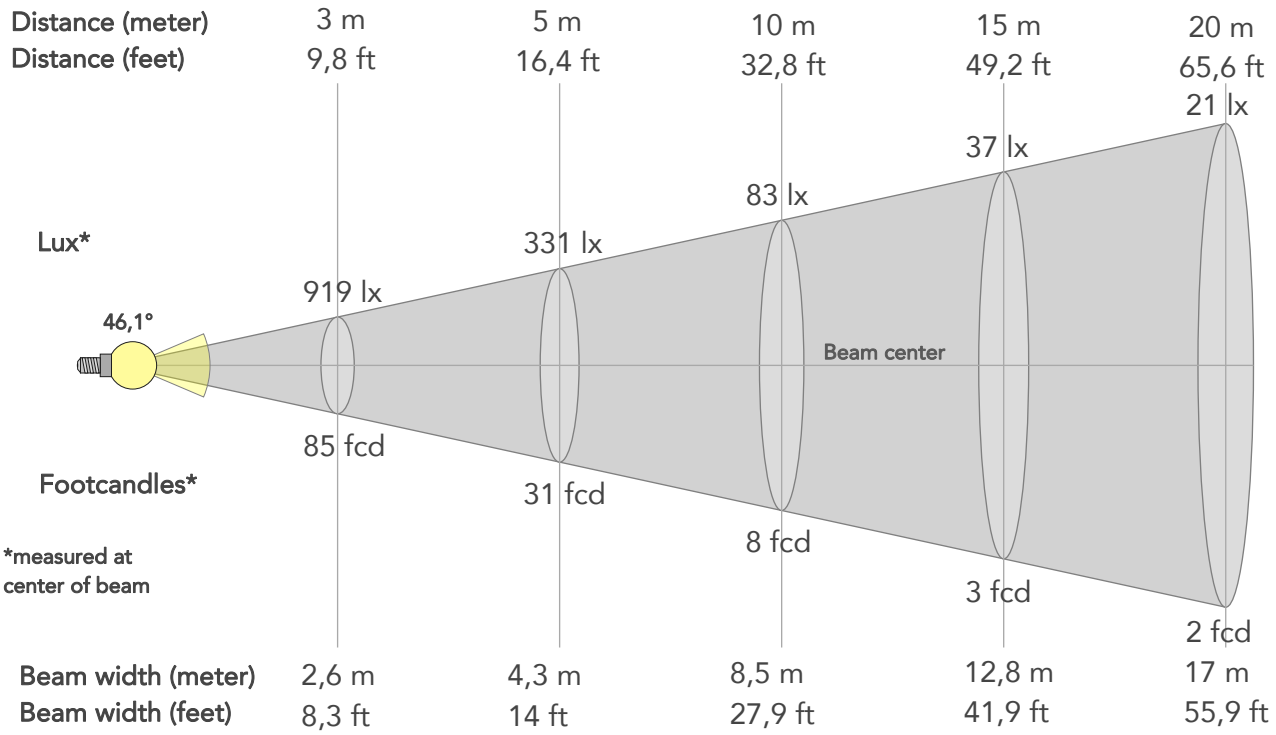
PROLIGHTS is a trademark of **MUSIC & LIGHTS** S.r.l.
musiclights.it

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

BEAM DETAILS

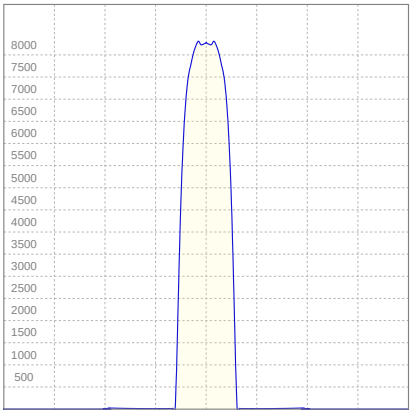
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,1°	53,1°	54,5°	98,6%	98,2%



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	8272lx	2068lx	919lx	517lx	331lx	147lx	83lx	37lx	21lx	13lx	9lx	5lx	3lx
Footcand.	769fcd	192fcd	85fcd	48fcd	31fcd	14fcd	8fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,4m	4,3m	6,4m	8,5m	12,8m	17m	21,3m	25,6m	34,1m	42,6m
Beam wid.	2,8ft	5,6ft	8,3ft	11,2ft	14ft	21ft	27,9ft	41,9ft	55,9ft	69,8ft	83,8ft	111,7ft	139,7ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

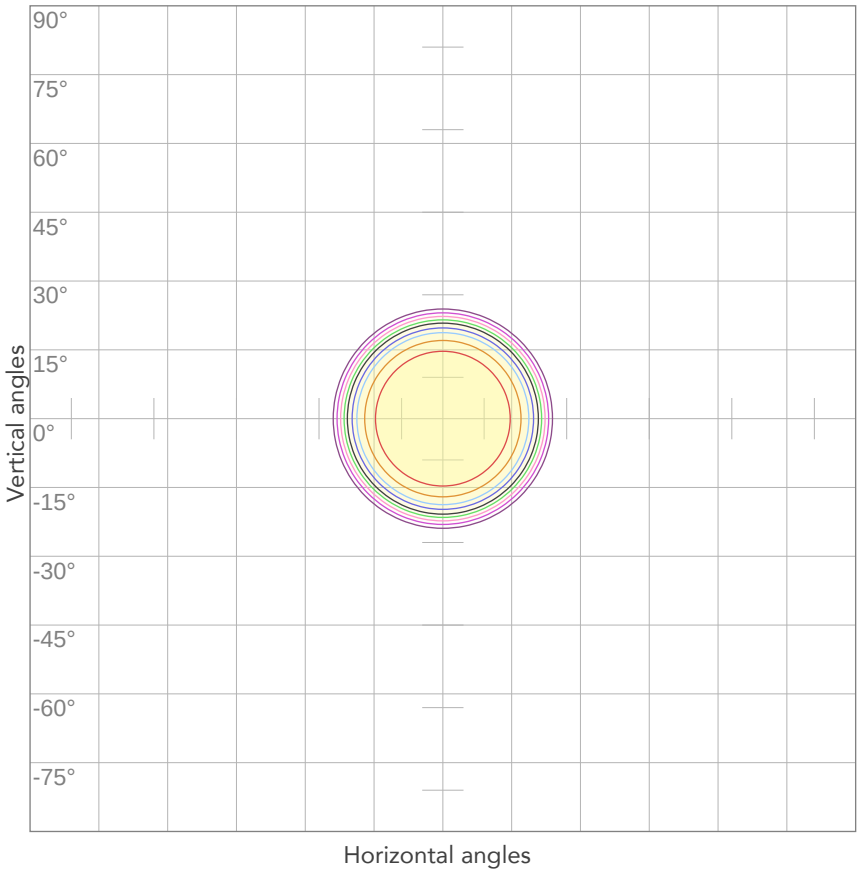
Input voltage	Input current	Input power	Effeciency
225V	0,799A	167,1W	24lm/W

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



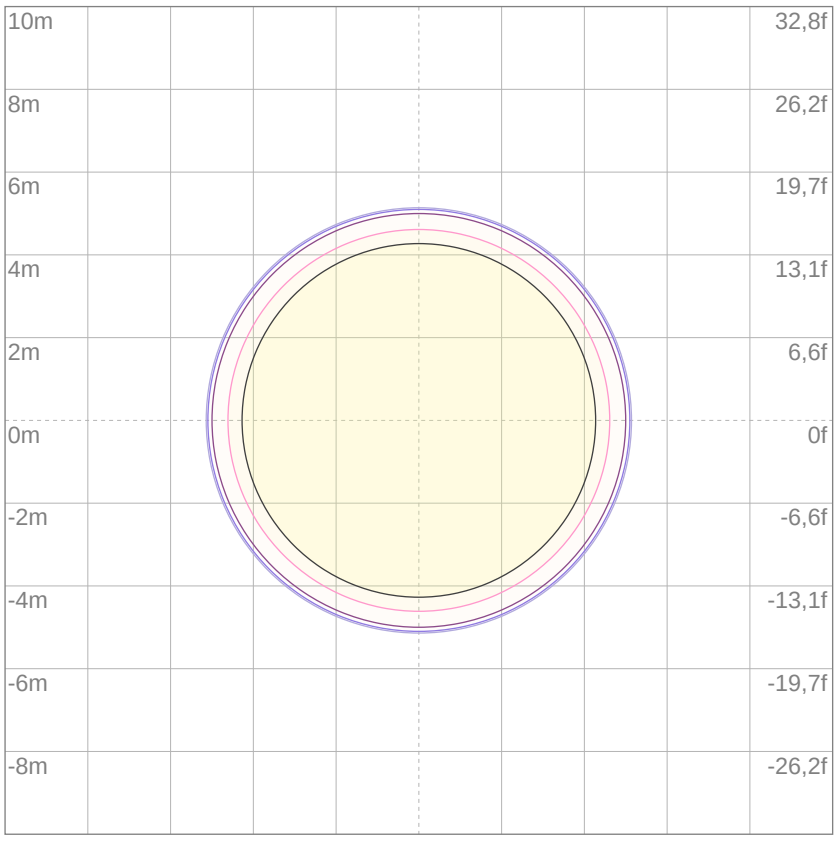
10%	827 cd
20%	1654 cd
30%	2482 cd
40%	3309 cd
50%	4136 cd
60%	4963 cd
70%	5791 cd
80%	6618 cd

Conditions:

Number of c-planes: 2

Candela at center: 8272 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2,48 lx
5%	4,14 lx
10%	8,27 lx
30%	24,8 lx
50%	41,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 82,7 lx

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

Total lumen output:

3957 lm

Peak candela output:

8104 cd

Light quality:

CRI: 82,5

Color temperature:

7769 K

PRODUCT NAME:

ECLFC

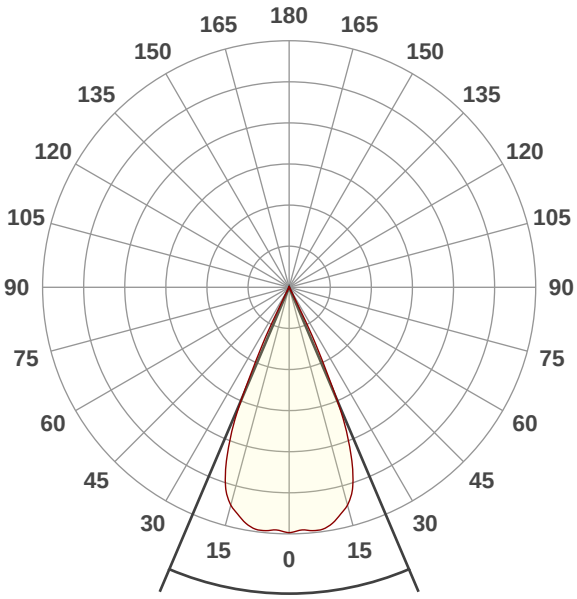
MEASURAMENT CONDITIONS:

Beam angle:
PRL50

Target:
6000K

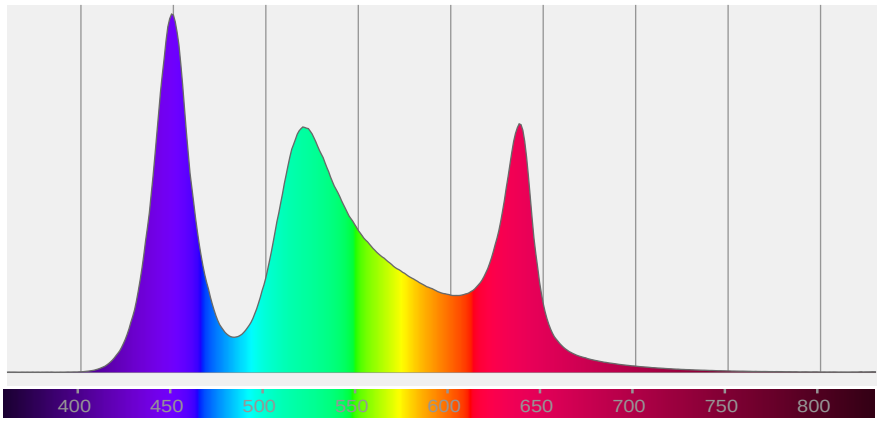
Operator:
Paolo Carvone

Date and time:
07/05/2020 14:46:22



Beam angle 50%: 46,1°
Field angle 10%: 53,5°
Cut off angle 2.5%: 56°

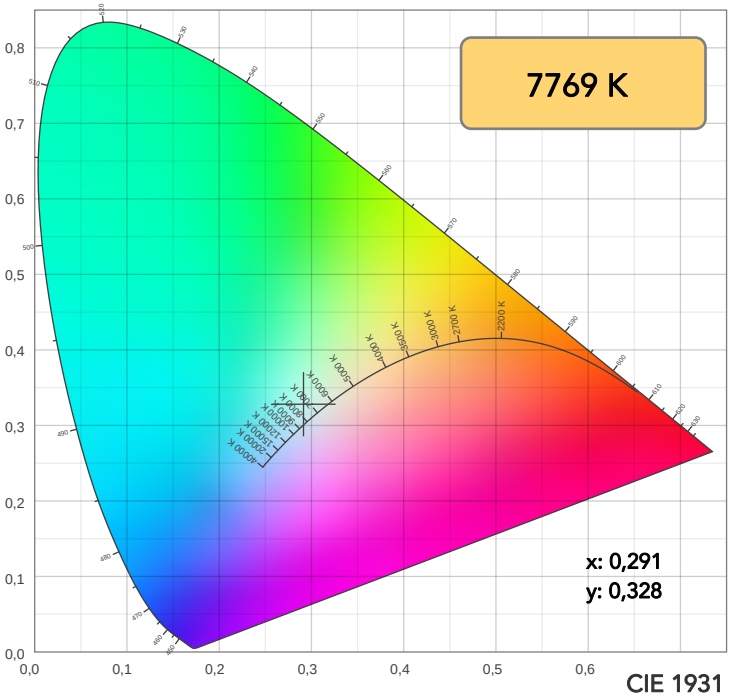
Spectra



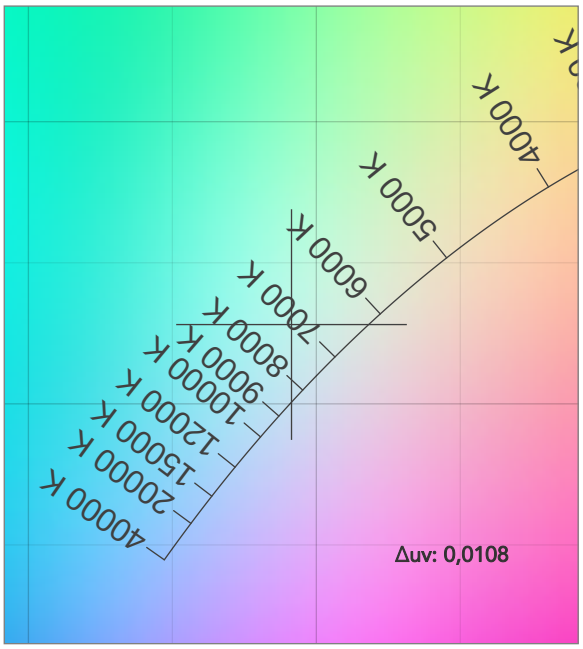
Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

COLOR DETAILS

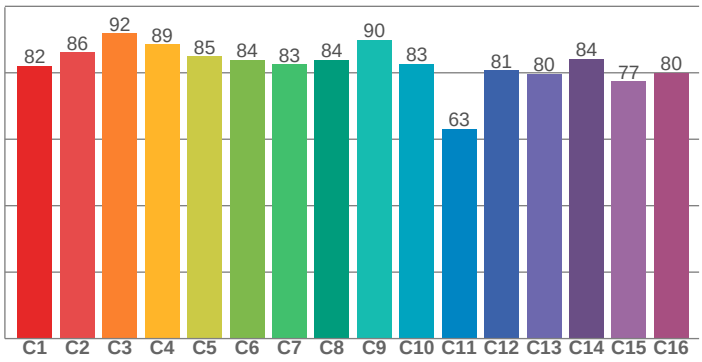


CIE 1931

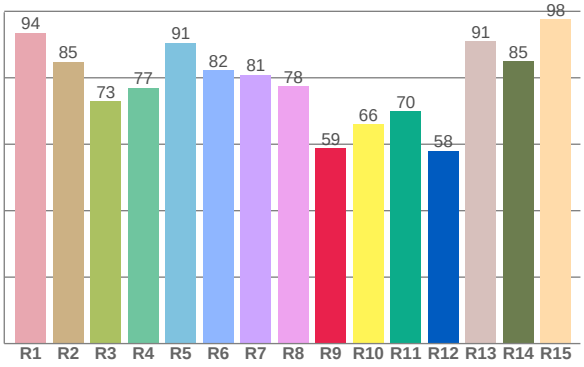


CIE 1931 ZOOM

TM30: 83,2



CRI: 82,5 (R1-R8)



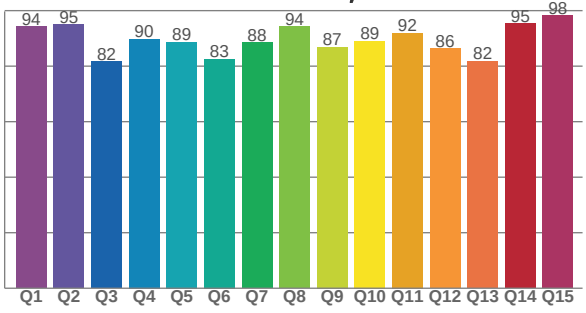
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93,6	84,9	73,0	77,0	90,5	82,3	80,9	77,5	58,8	66,1	70,0	58,0	91,0	85,0	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
82,0	86,2	91,8	88,5	85,0	83,9	82,5	84,0	89,9	82,7	63,1	80,7	79,6	84,2	77,4	80,0

CQS: 88,5



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94,2	95,0	81,6	89,7	88,7	82,5	88,5	94,3	86,9	89,1	92,0	86,4	81,8	95,4	98,3

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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
7769 K	82,5	58,8	83,2	106,5	88,5	82	0,291	0,328	0,0108

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

TM30 DETAILS

PROLiGHTS

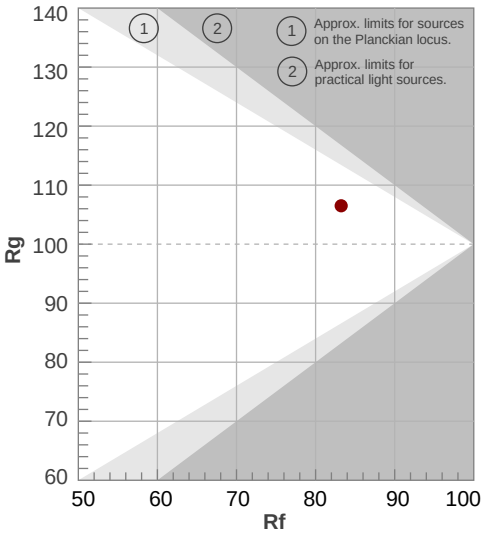
Rf 83,2

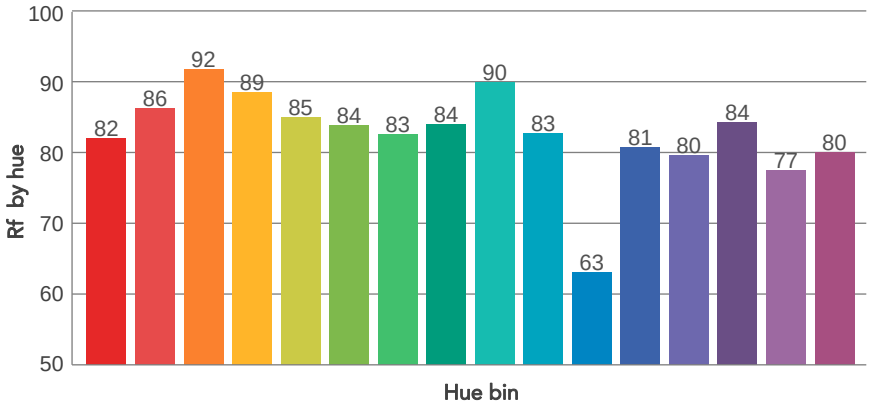
Fidelity index Rf

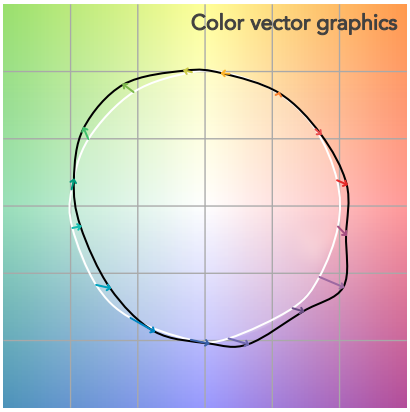
Rg 106,5

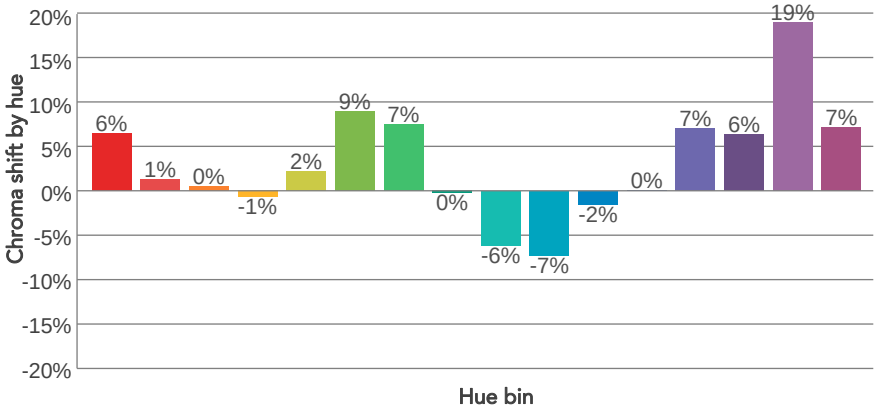
Gammut index

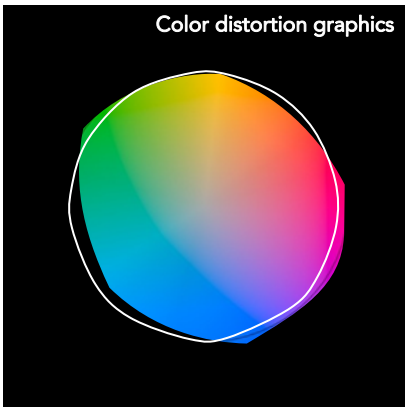
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	82	6%	-4%
2	86	1%	-5%
3	92	0%	0%
4	89	-1%	6%
5	85	2%	5%
6	84	9%	3%
7	83	7%	-5%
8	84	0%	-7%
9	90	-6%	0%
10	83	-7%	8%
11	63	-2%	20%
12	81	0%	13%
13	80	7%	13%
14	84	6%	5%
15	77	19%	4%
16	80	7%	-5%

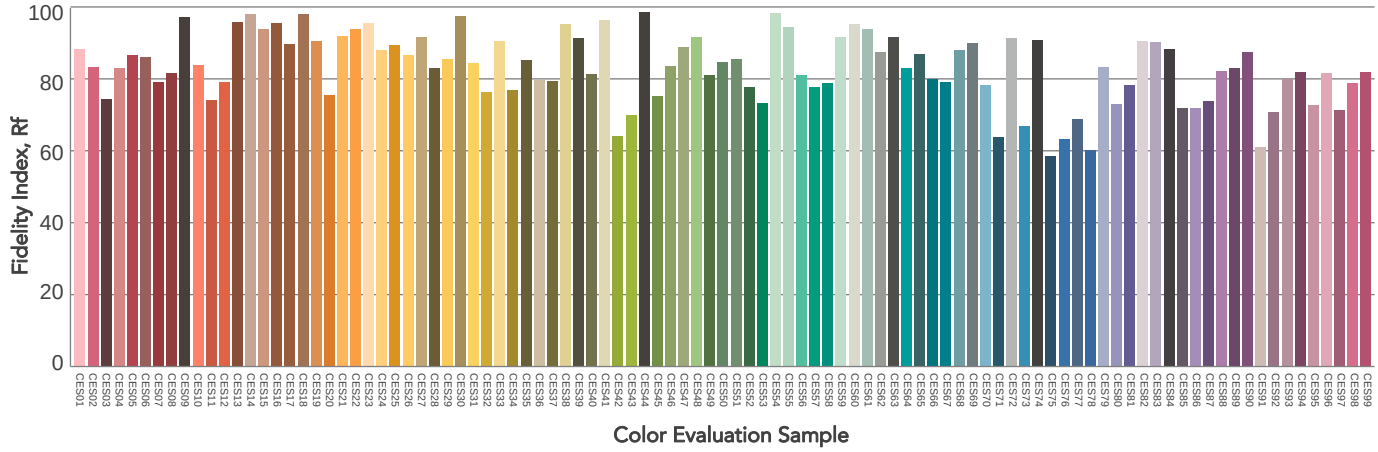












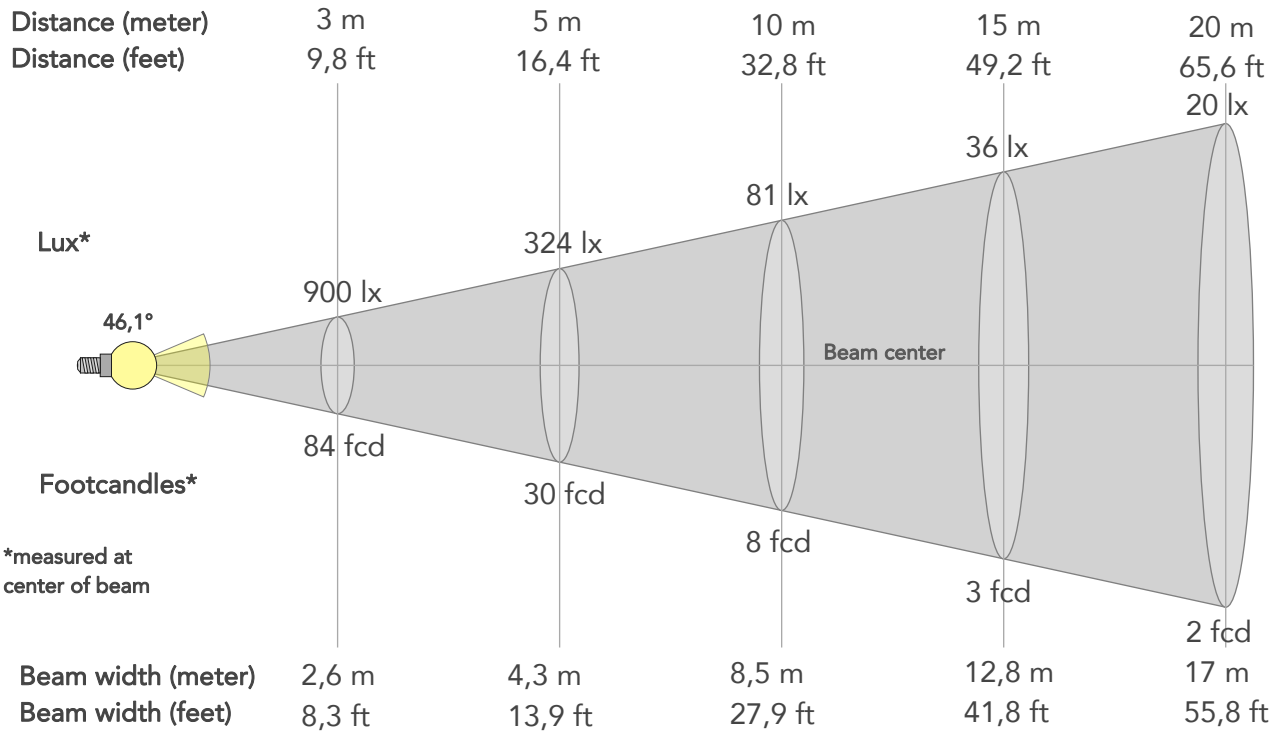
PROLIGHTS is a trademark of **MUSIC & LIGHTS** S.r.l.
musiclights.it

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

BEAM DETAILS

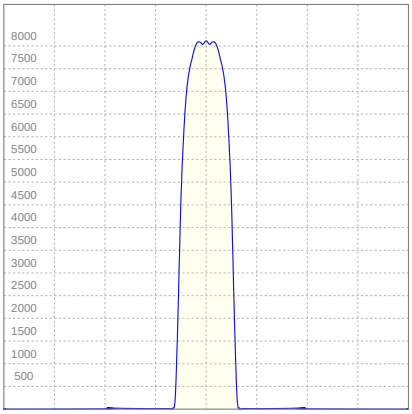
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46,1°	53,5°	56°	98,0%	97,6%



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	8104lx	2026lx	900lx	506lx	324lx	144lx	81lx	36lx	20lx	13lx	9lx	5lx	3lx
Footcand.	753fcd	188fcd	84fcd	47fcd	30fcd	13fcd	8fcd	3fcd	2fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,9m	1,7m	2,6m	3,4m	4,3m	6,4m	8,5m	12,8m	17m	21,3m	25,5m	34m	42,5m
Beam wid.	2,8ft	5,6ft	8,3ft	11,1ft	13,9ft	20,9ft	27,9ft	41,8ft	55,8ft	69,7ft	83,6ft	111,5ft	139,4ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

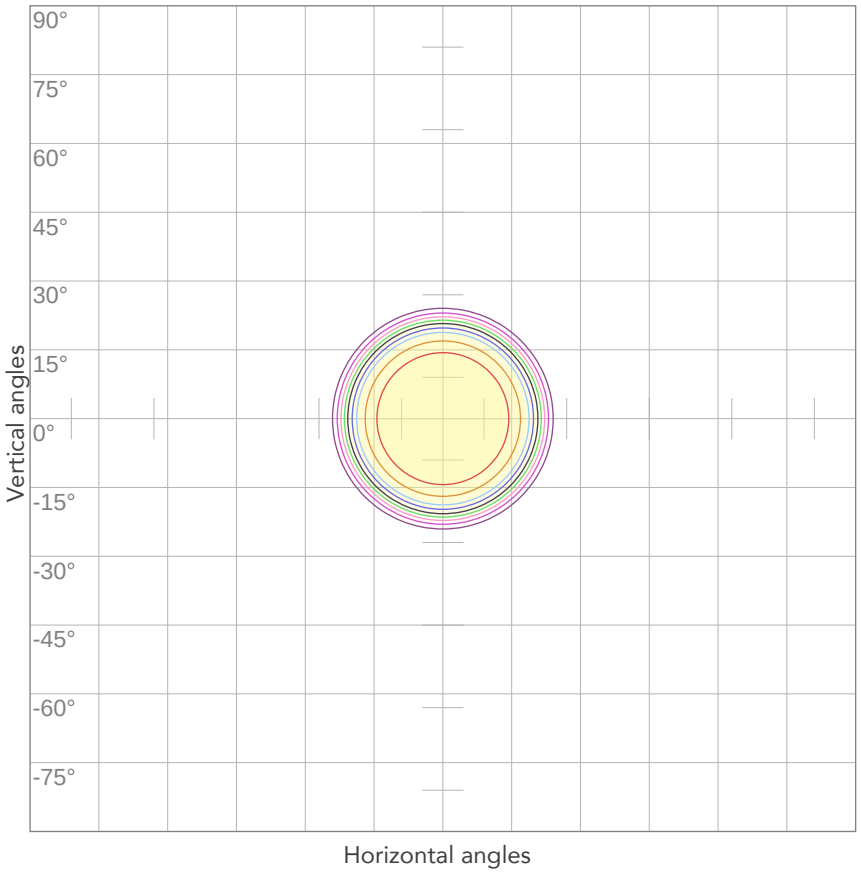
Input voltage	Input current	Input power	Effeciency
225V	0,778A	161,9W	24lm/W

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



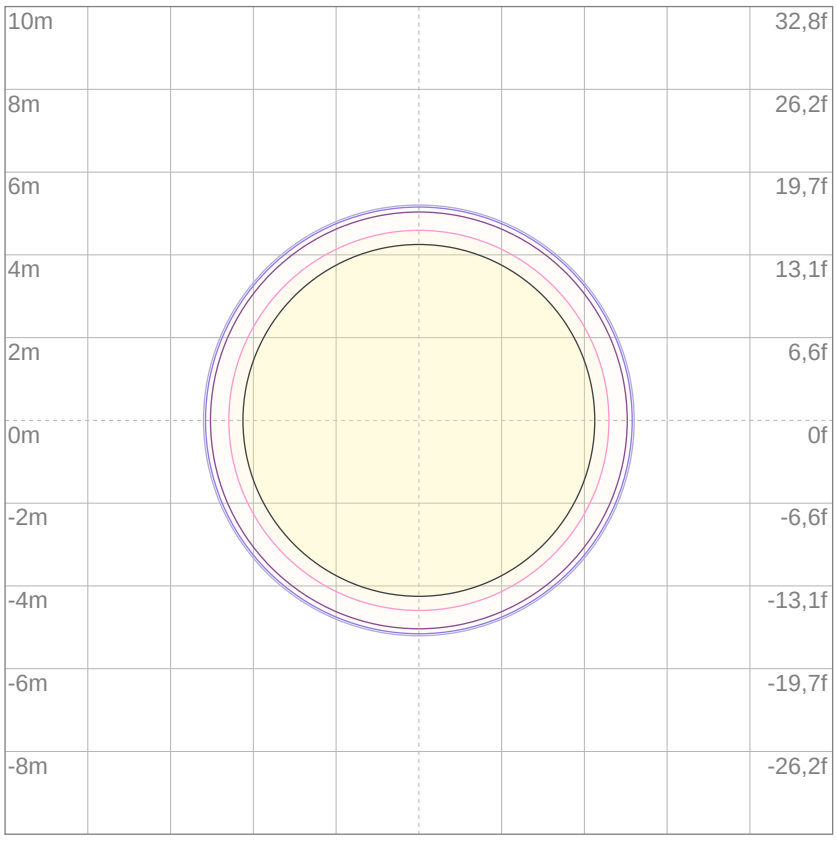
10%	810 cd
20%	1621 cd
30%	2431 cd
40%	3242 cd
50%	4052 cd
60%	4862 cd
70%	5673 cd
80%	6483 cd

Conditions:

Number of c-planes: 2

Candela at center: 8104 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2,43 lx
5%	4,05 lx
10%	8,10 lx
30%	24,3 lx
50%	40,5 lx

Conditions:

Number of c-planes: 2

Lux at center: 81,0 lx

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

Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it