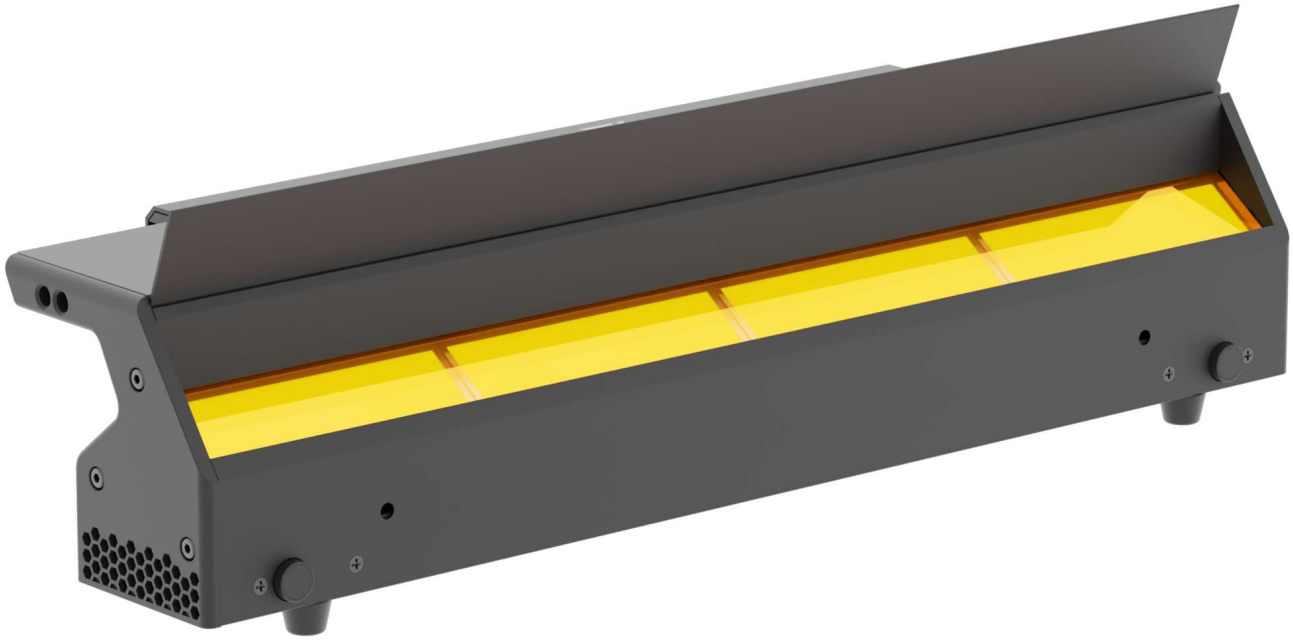
Photometric Test Report



ECLCYC050

170W RGB+W LED cyclorama projector

(filter 10°x60°)

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:

9739 lm

Peak candela output:

11039 cd

PRODUCT NAME:

ECL CYC050

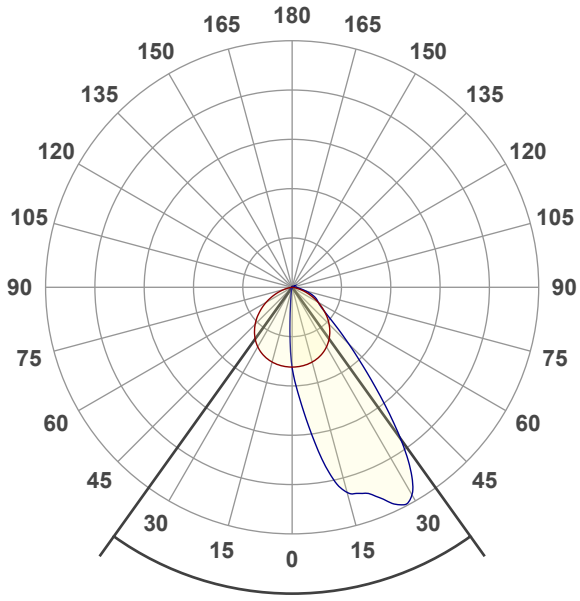
MEASURAMENT CONDITIONS:

Beam angle:
Filter 1060

Target:
Full On

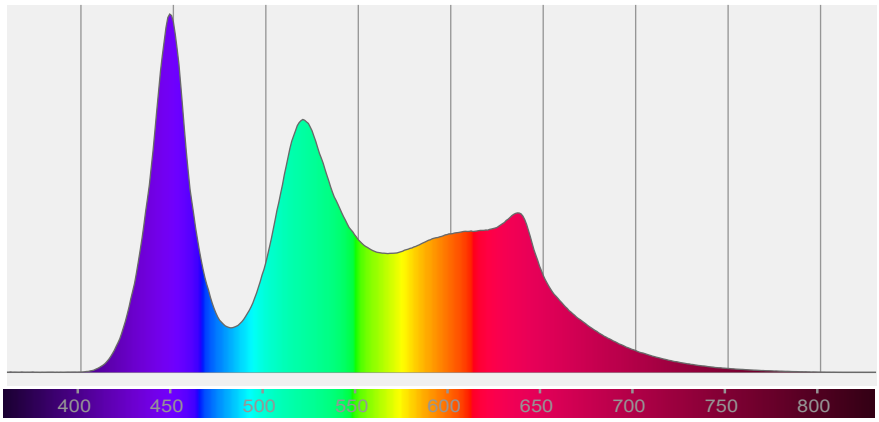
Operator:
Paolo Carvone

Date and time:
13/04/2022 12:51:42



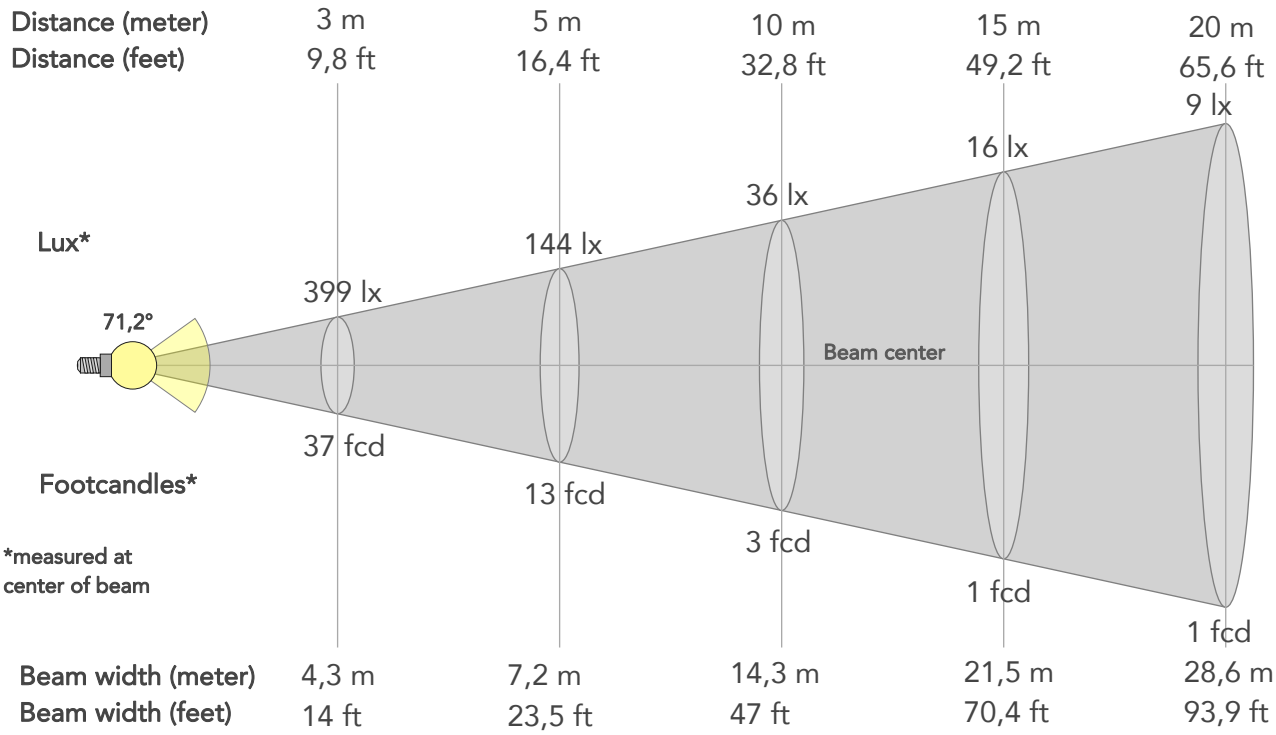
Beam angle 50%: 71,2°
Field angle 10%: 111,1°
Cut off angle 2.5%: 128,8°

Spectra



BEAM DETAILS

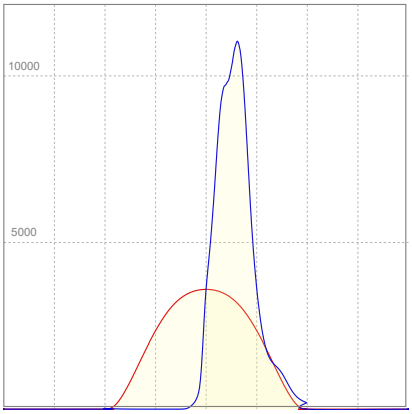
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,2°	111,1°	128,8°	87,1%	67,8%



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	3593lx	898lx	399lx	225lx	144lx	64lx	36lx	16lx	9lx	6lx	4lx	2lx	1lx
Footcand.	334fcd	83fcd	37fcd	21fcd	13fcd	6fcd	3fcd	1fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	1,4m	2,9m	4,3m	5,7m	7,2m	10,7m	14,3m	21,5m	28,6m	35,8m	43m	57,3m	71,6m
Beam wid.	4,7ft	9,4ft	14ft	18,8ft	23,5ft	35,2ft	47ft	70,4ft	93,9ft	117,4ft	140,9ft	187,8ft	234,8ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,554A	117,3W	83lm/W

Power FC
0,94

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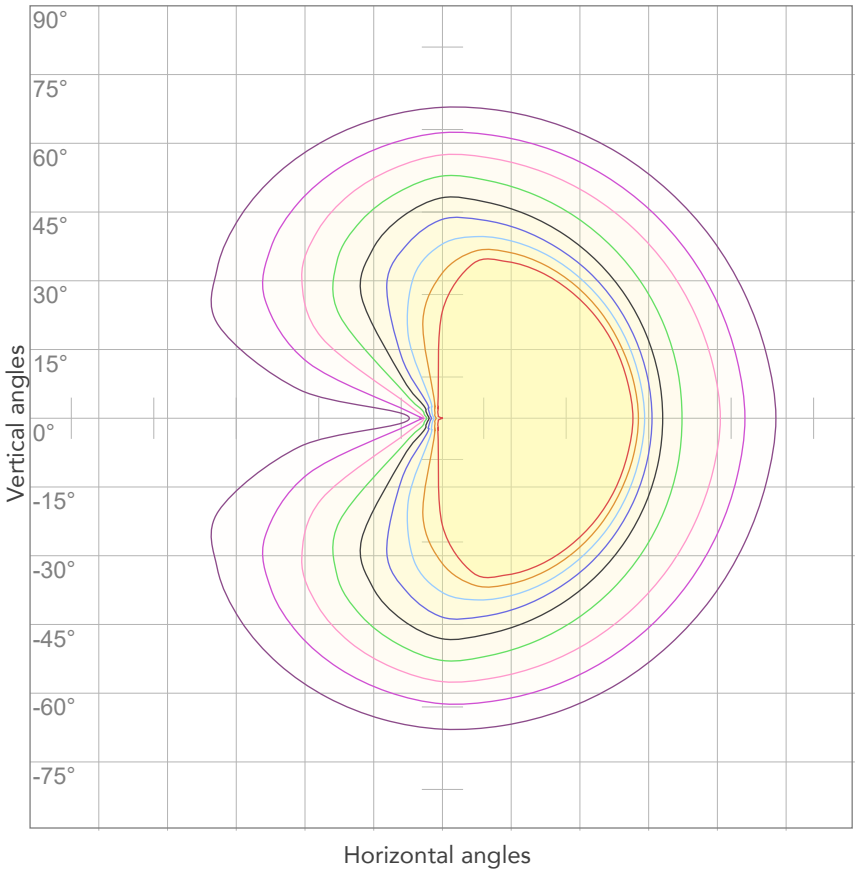
Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



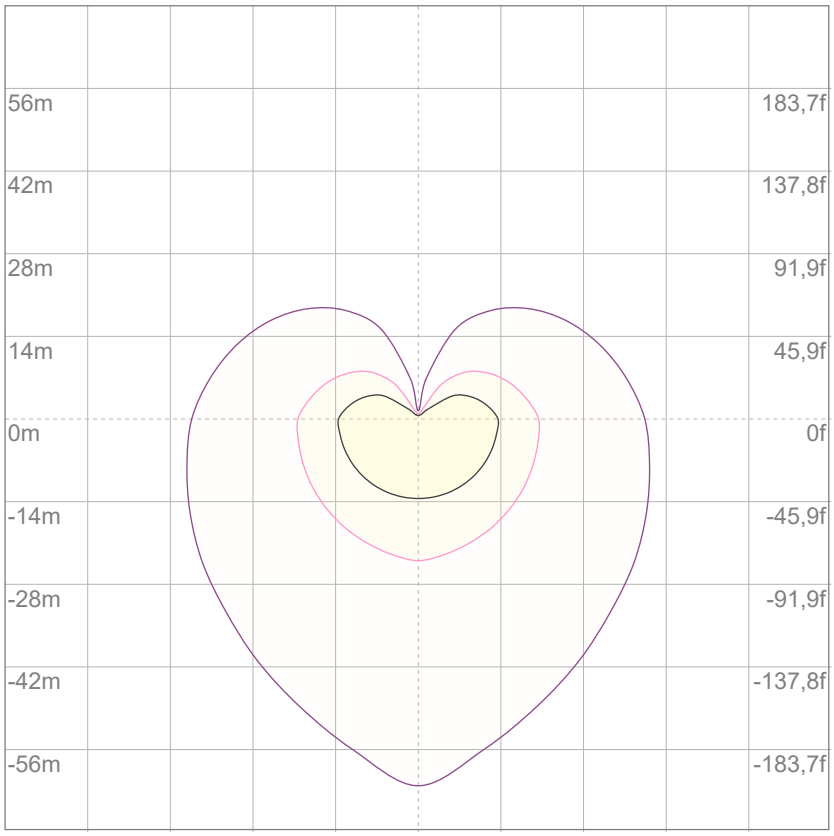
10%	359 cd
20%	719 cd
30%	1078 cd
40%	1437 cd
50%	1796 cd
60%	2156 cd
70%	2515 cd
80%	2874 cd

Conditions:

Number of c-planes: 4

Candela at center: 3593 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	1,08 lx
5%	1,80 lx
10%	3,59 lx
30%	10,8 lx
50%	18,0 lx

Conditions:

Number of c-planes: 4

Lux at center: 35,9 lx

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

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Total lumen output:

2481 lm

Peak candela output:

3213 cd

PRODUCT NAME:

ECL CYC050

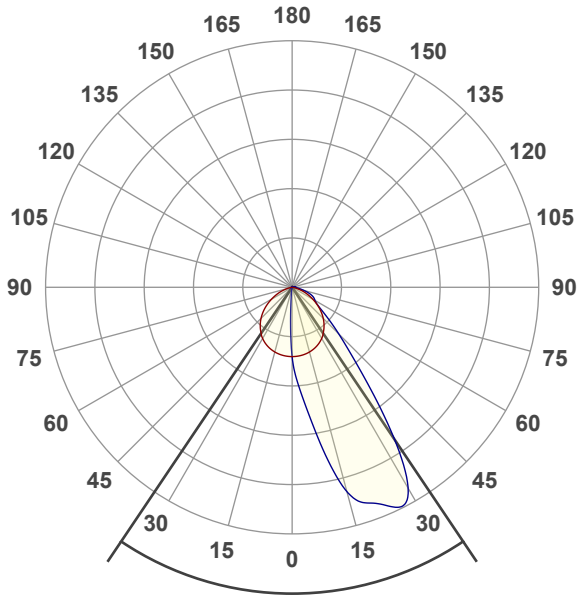
MEASURAMENT CONDITIONS:

Beam angle:
Filter 1060

Target:
Red

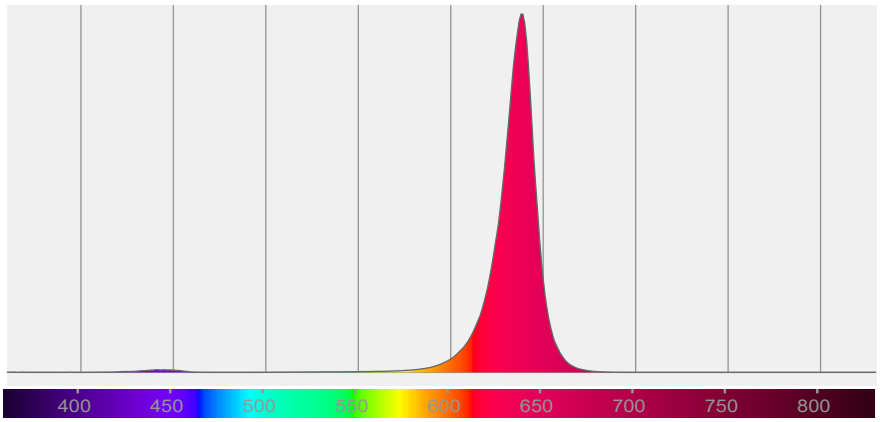
Operator:
Paolo Carvone

Date and time:
13/04/2022 13:02:05



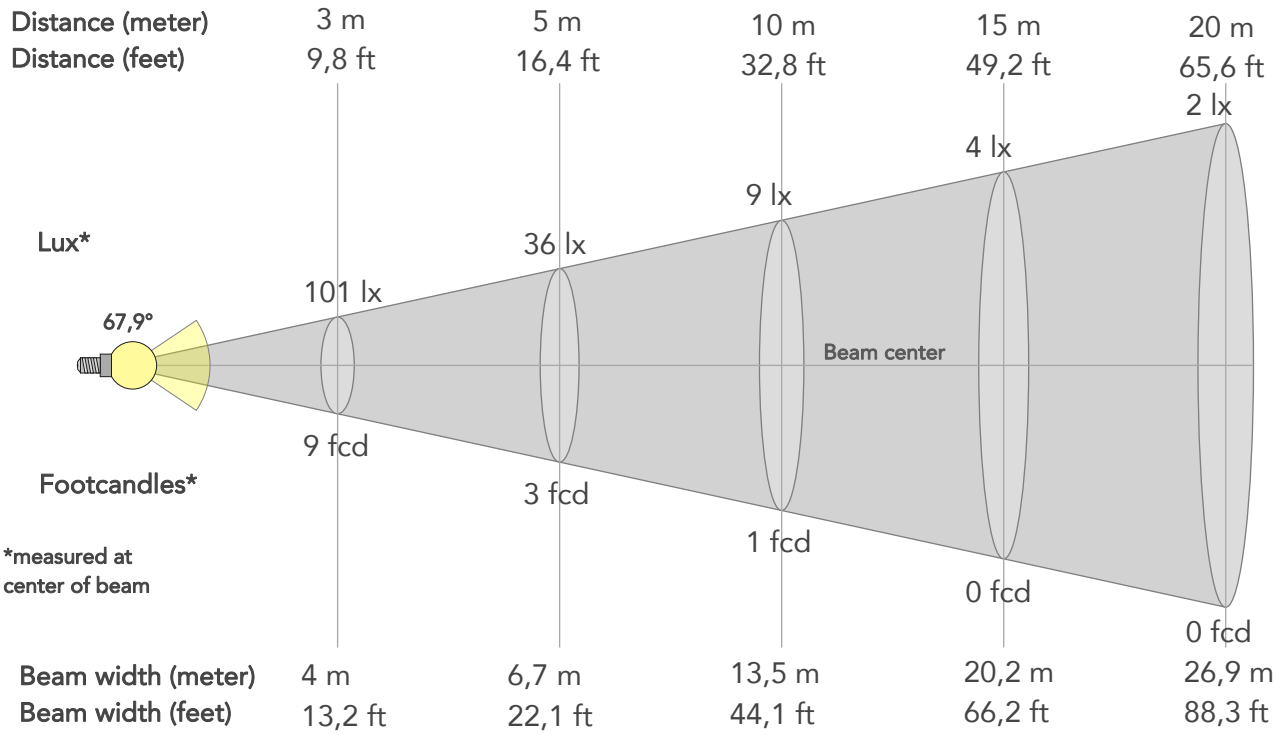
Beam angle 50%: 67,9°
Field angle 10%: 107,3°
Cut off angle 2.5%: 125,4°

Spectra



BEAM DETAILS

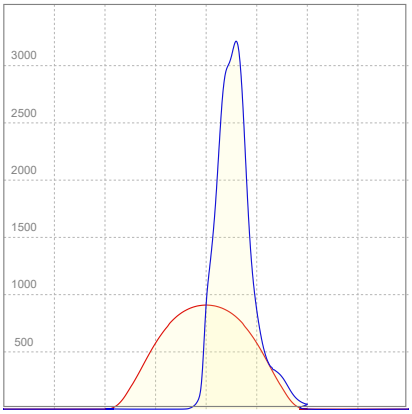
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
67,9°	107,3°	125,4°	88,1%	69,7%



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	909lx	227lx	101lx	57lx	36lx	16lx	9lx	4lx	2lx	1lx	1lx	1lx	0lx
Footcand.	84fcd	21fcd	9fcd	5fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,3m	2,7m	4m	5,4m	6,7m	10,1m	13,5m	20,2m	26,9m	33,6m	40,4m	53,8m	67,3m
Beam wid.	4,4ft	8,9ft	13,2ft	17,6ft	22,1ft	33,1ft	44,1ft	66,2ft	88,3ft	110,3ft	132,4ft	176,5ft	220,7ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,185A	34,8W	71lm/W

Power FC
0,83

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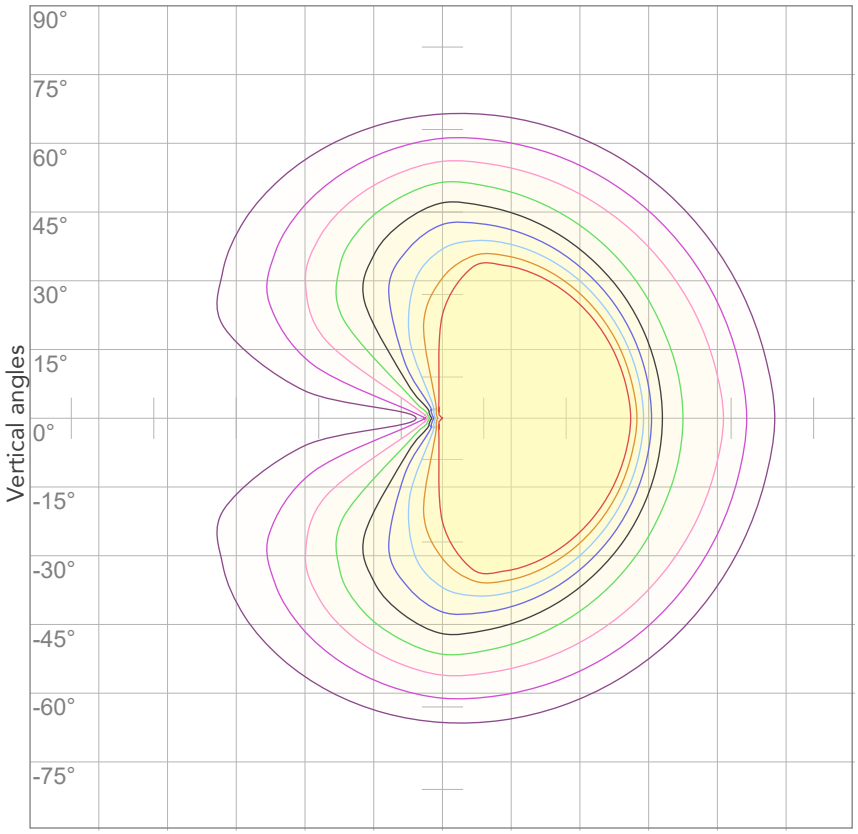
Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



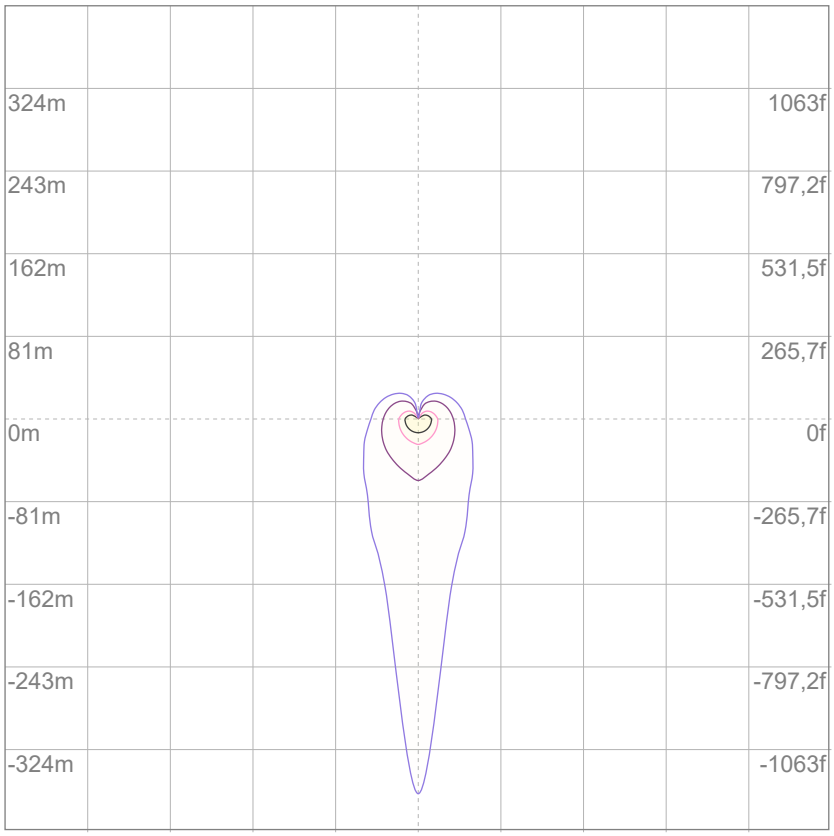
10%	91 cd
20%	182 cd
30%	273 cd
40%	364 cd
50%	454 cd
60%	545 cd
70%	636 cd
80%	727 cd

Conditions:

Number of c-planes: 4

Candela at center: 909 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,273 lx
5%	0,454 lx
10%	0,909 lx
30%	2,73 lx
50%	4,54 lx

Conditions:

Number of c-planes: 4

Lux at center: 9,09 lx

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

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Tel: +39 0771 72190

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Total lumen output:

3787 lm

Peak candela output:

4411 cd

PRODUCT NAME:

ECL CYC050

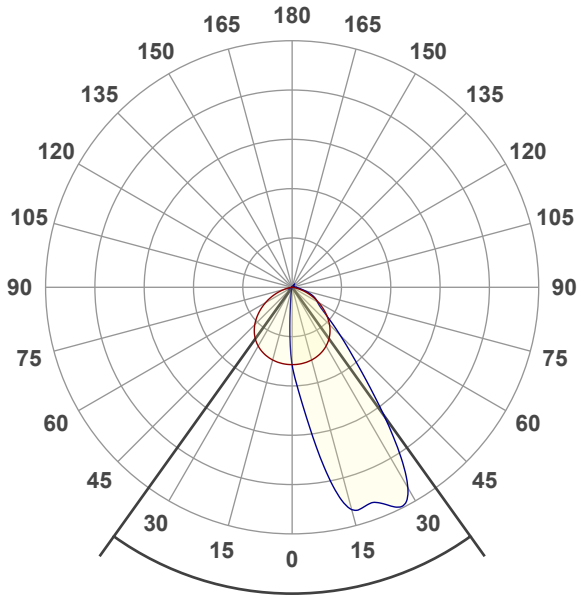
MEASURAMENT CONDITIONS:

Beam angle:
Filter 1060

Target:
Green

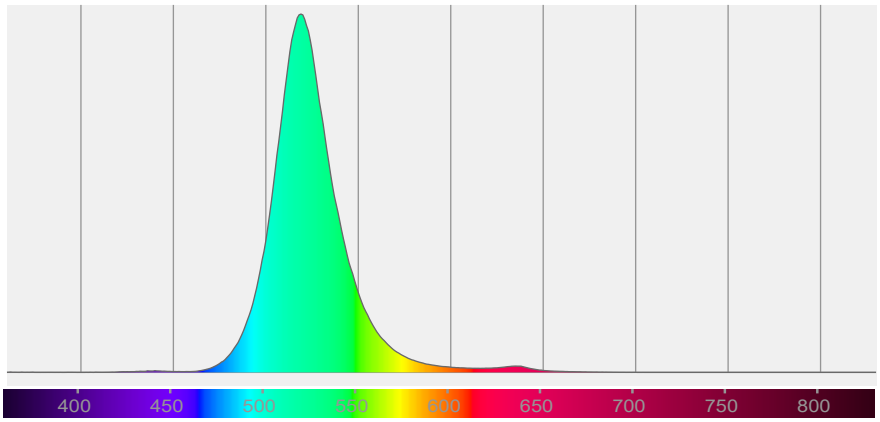
Operator:
Paolo Carvone

Date and time:
13/04/2022 13:05:30



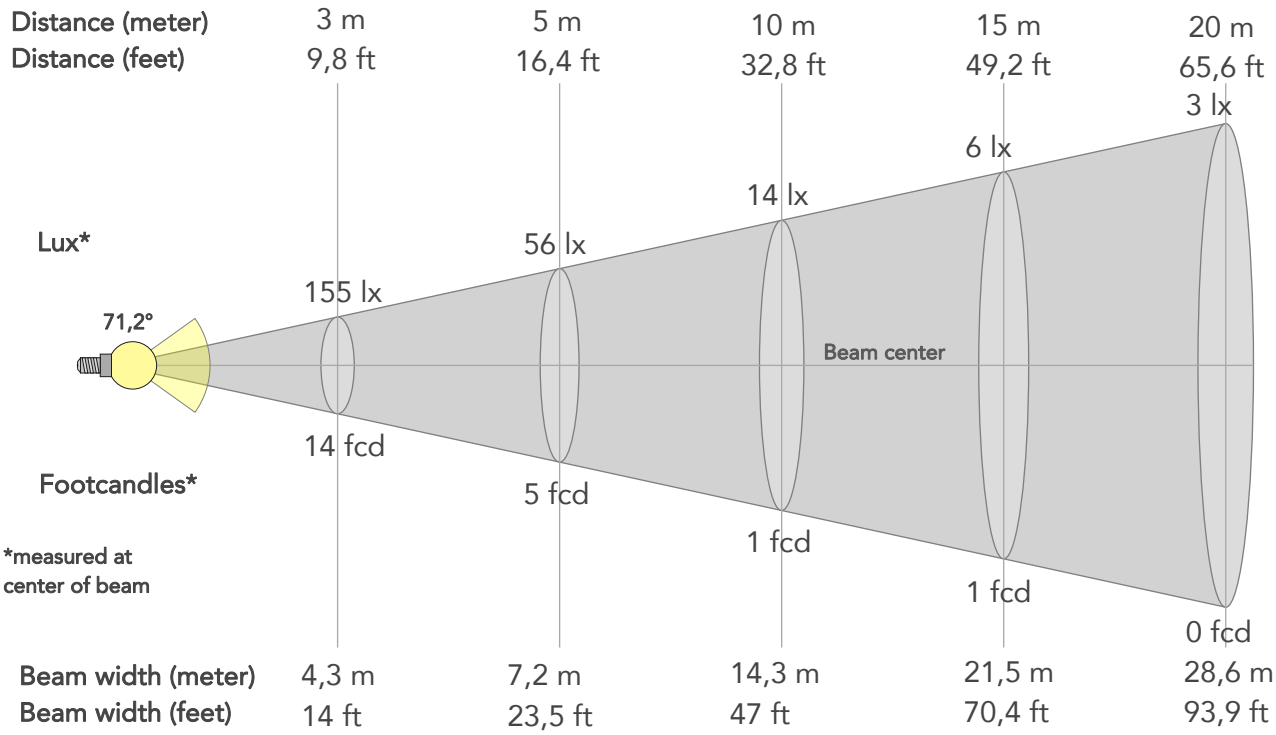
Beam angle 50%: 71,2°
Field angle 10%: 110,8°
Cut off angle 2.5%: 128,6°

Spectra



BEAM DETAILS

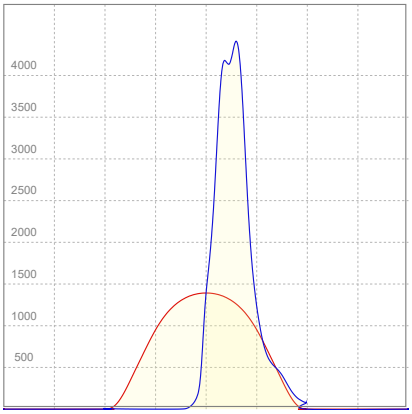
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,2°	110,8°	128,6°	86,8%	67,4%



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	1392lx	348lx	155lx	87lx	56lx	25lx	14lx	6lx	3lx	2lx	2lx	1lx	1lx
Footcand.	129fcd	32fcd	14fcd	8fcd	5fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,4m	2,9m	4,3m	5,7m	7,2m	10,7m	14,3m	21,5m	28,6m	35,8m	43m	57,3m	71,6m
Beam wid.	4,7ft	9,4ft	14ft	18,8ft	23,5ft	35,2ft	47ft	70,4ft	93,9ft	117,4ft	140,9ft	187,8ft	234,8ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,229A	45,0W	84lm/W

Power FC
0,87

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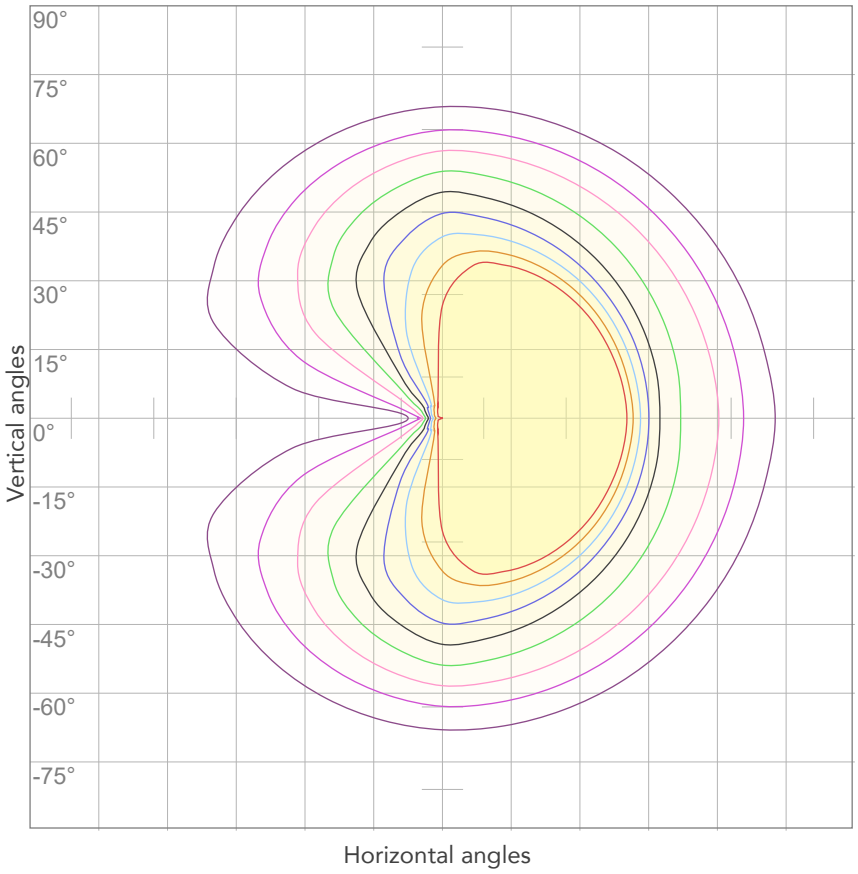
Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

prolights.it
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



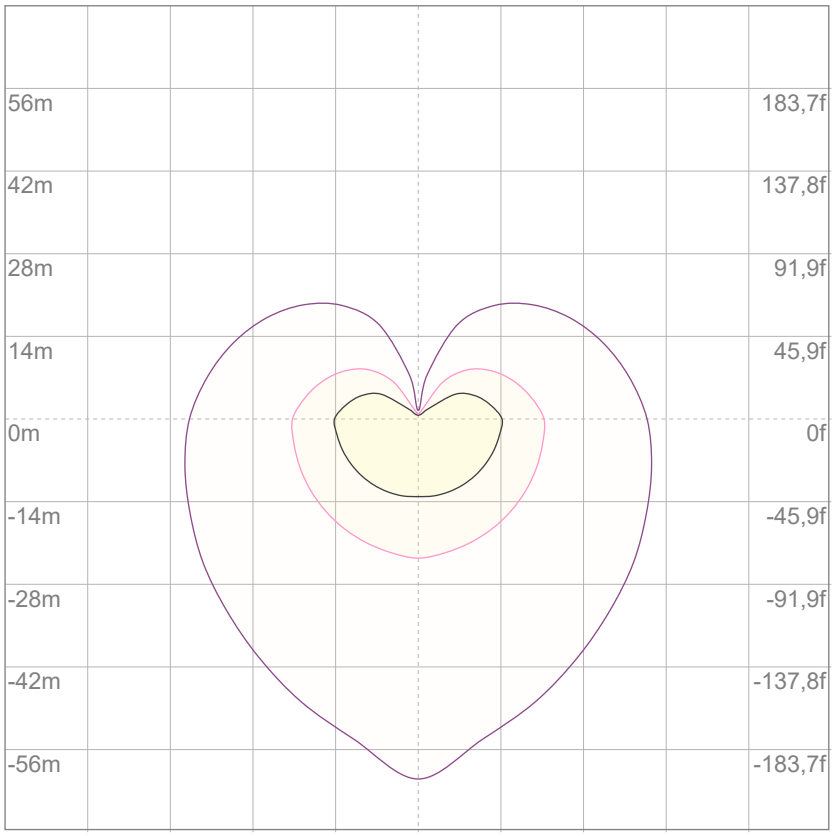
10%	139 cd
20%	278 cd
30%	418 cd
40%	557 cd
50%	696 cd
60%	835 cd
70%	974 cd
80%	1114 cd

Conditions:

Number of c-planes: 4

Candela at center: 1392 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,418 lx
5%	0,696 lx
10%	1,39 lx
30%	4,18 lx
50%	6,96 lx

Conditions:

Number of c-planes: 4

Lux at center: 13,9 lx

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

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04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

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Total lumen output:

1280 lm

Peak candela output:

1652 cd

PRODUCT NAME:

ECL CYC050

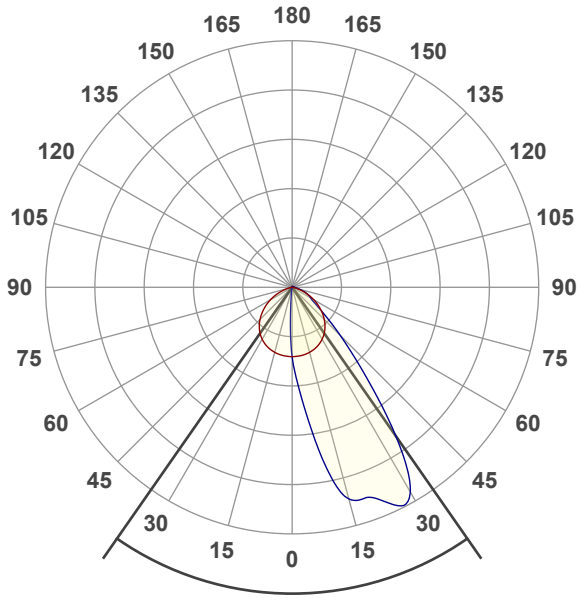
MEASURAMENT CONDITIONS:

Beam angle:
Filter 1060

Target:
Blue

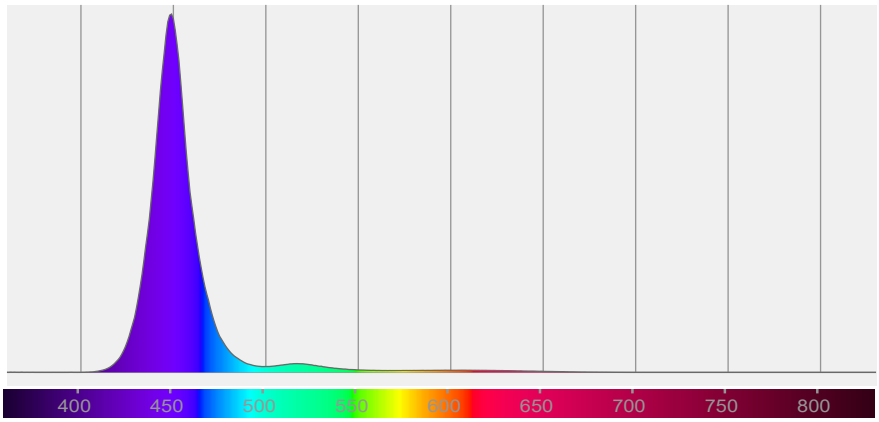
Operator:
Paolo Carvone

Date and time:
13/04/2022 13:08:40



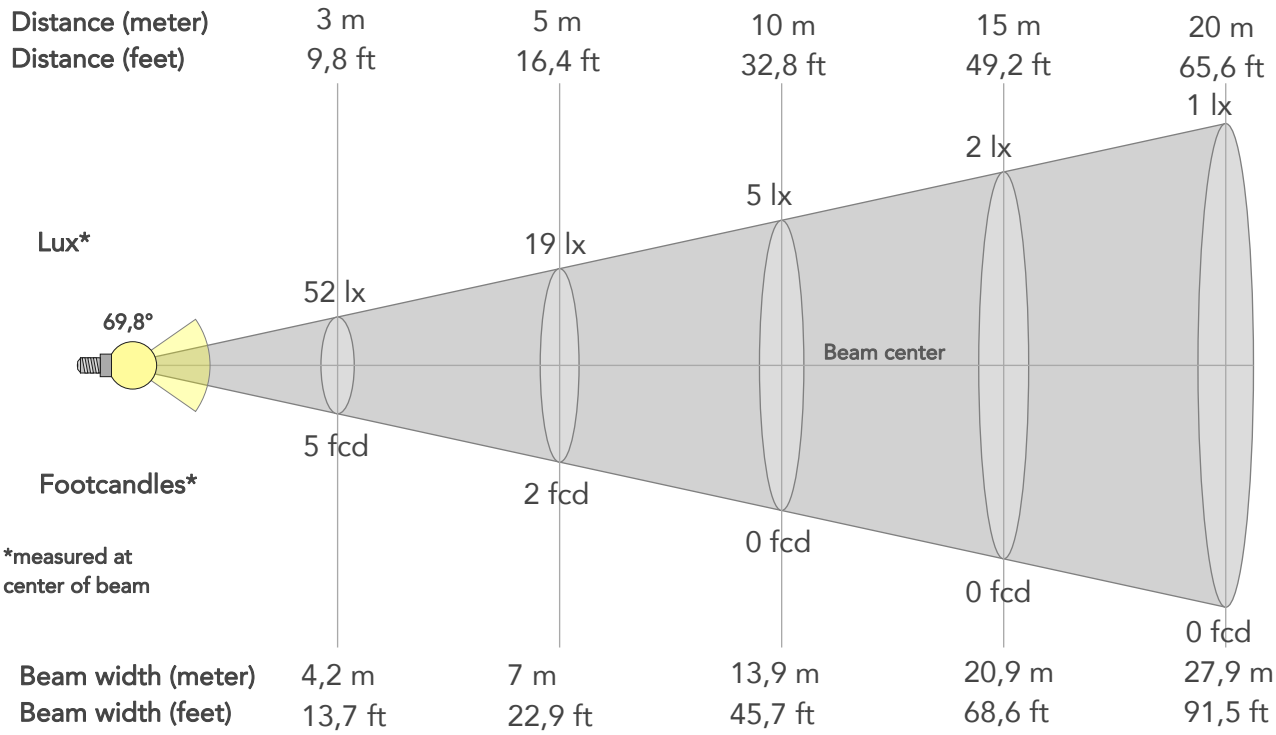
Beam angle 50%: 69,8°
Field angle 10%: 103,6°
Cut off angle 2.5%: 122,2°

Spectra



BEAM DETAILS

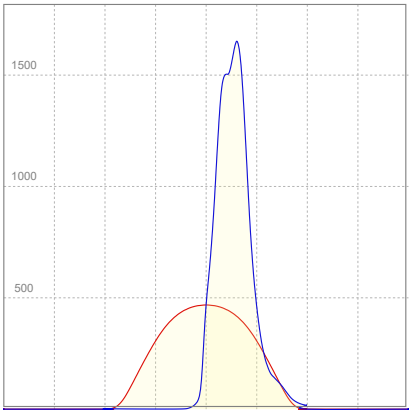
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
69,8°	103,6°	122,2°	89,7%	71,3%



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	467lx	117lx	52lx	29lx	19lx	8lx	5lx	2lx	1lx	1lx	1lx	0lx	0lx
Footcand.	43fcd	11fcd	5fcd	3fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,4m	2,8m	4,2m	5,6m	7m	10,5m	13,9m	20,9m	27,9m	34,9m	41,8m	55,8m	69,7m
Beam wid.	4,6ft	9,2ft	13,7ft	18,3ft	22,9ft	34,3ft	45,7ft	68,6ft	91,5ft	114,3ft	137,2ft	182,9ft	228,6ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,244A	48,5W	26lm/W

Power FC
0,88

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

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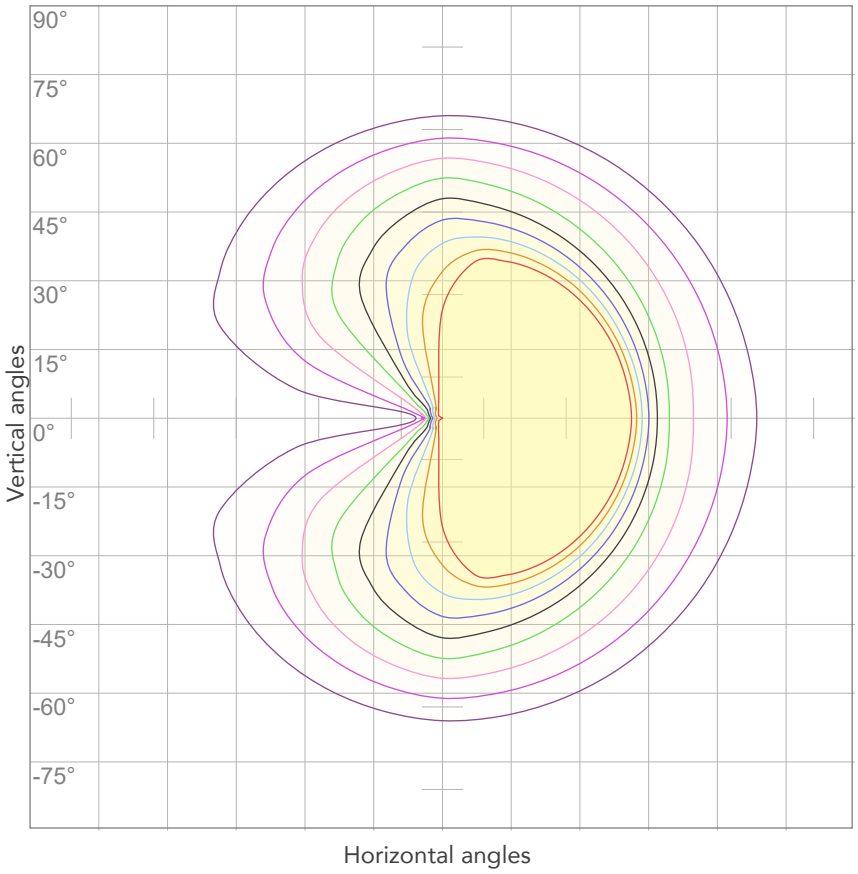
info@prolights.it

ISO DIAGRAMS

ISO CANDELA DIAGRAM



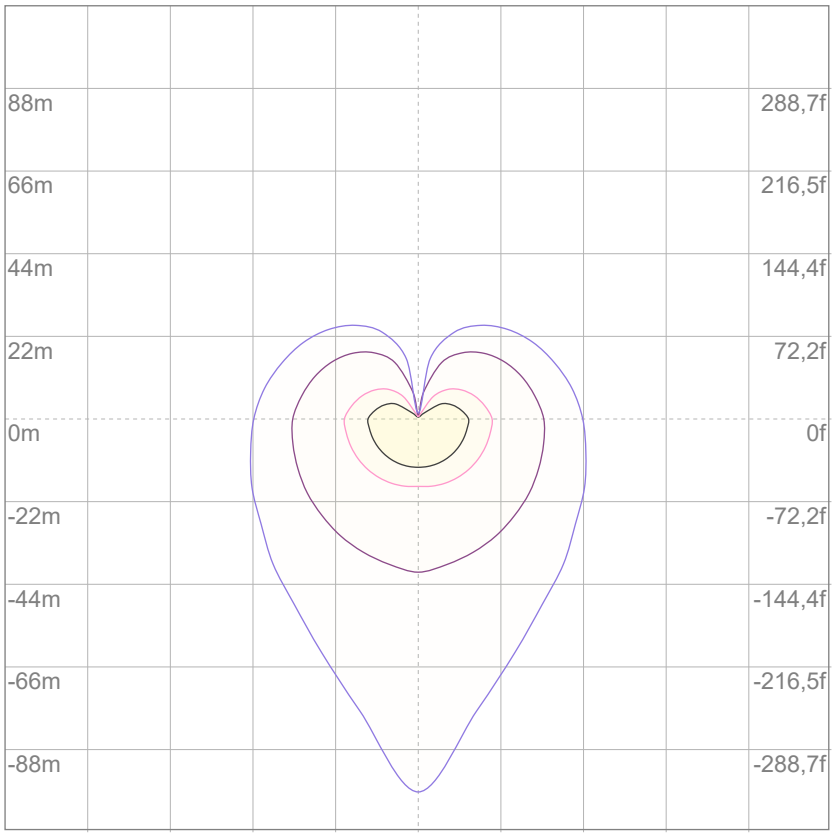
10%	47 cd
20%	93 cd
30%	140 cd
40%	187 cd
50%	234 cd
60%	280 cd
70%	327 cd
80%	374 cd

Conditions:

Number of c-planes: 4

Candela at center: 467 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,140 lx
5%	0,234 lx
10%	0,467 lx
30%	1,40 lx
50%	2,34 lx

Conditions:

Number of c-planes: 4

Lux at center: 4,67 lx

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

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04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

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Total lumen output:

12189 lm

Peak candela output:

14335 cd

PRODUCT NAME:

ECL CYC050

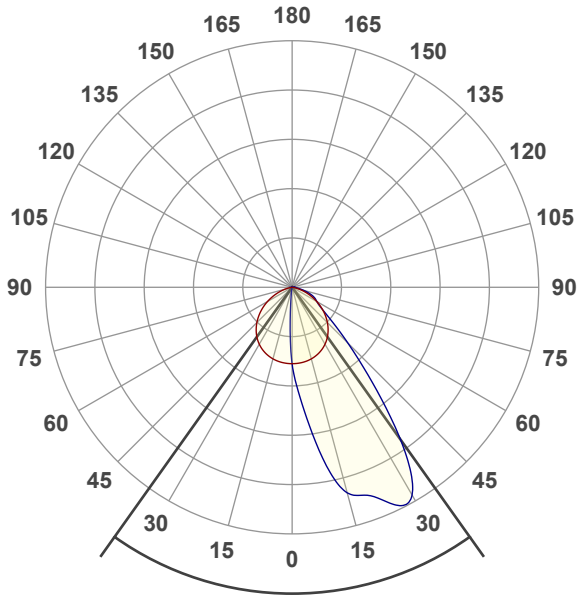
MEASURAMENT CONDITIONS:

Beam angle:
Filter 1060

Target:
White

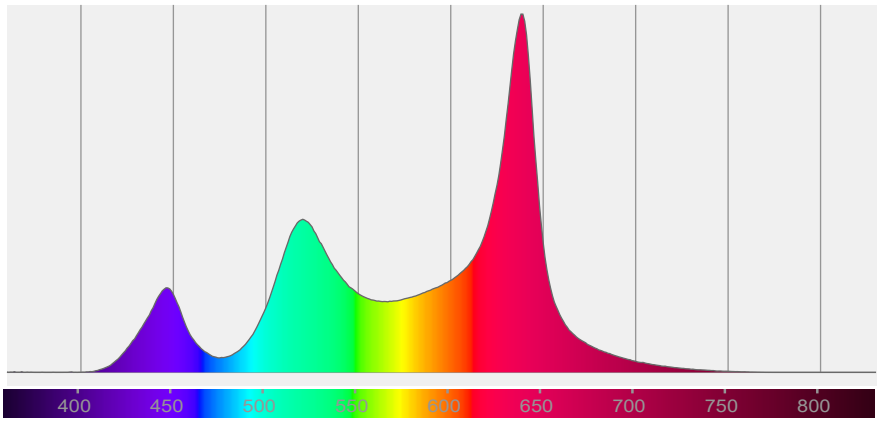
Operator:
Paolo Carvone

Date and time:
13/04/2022 13:12:14



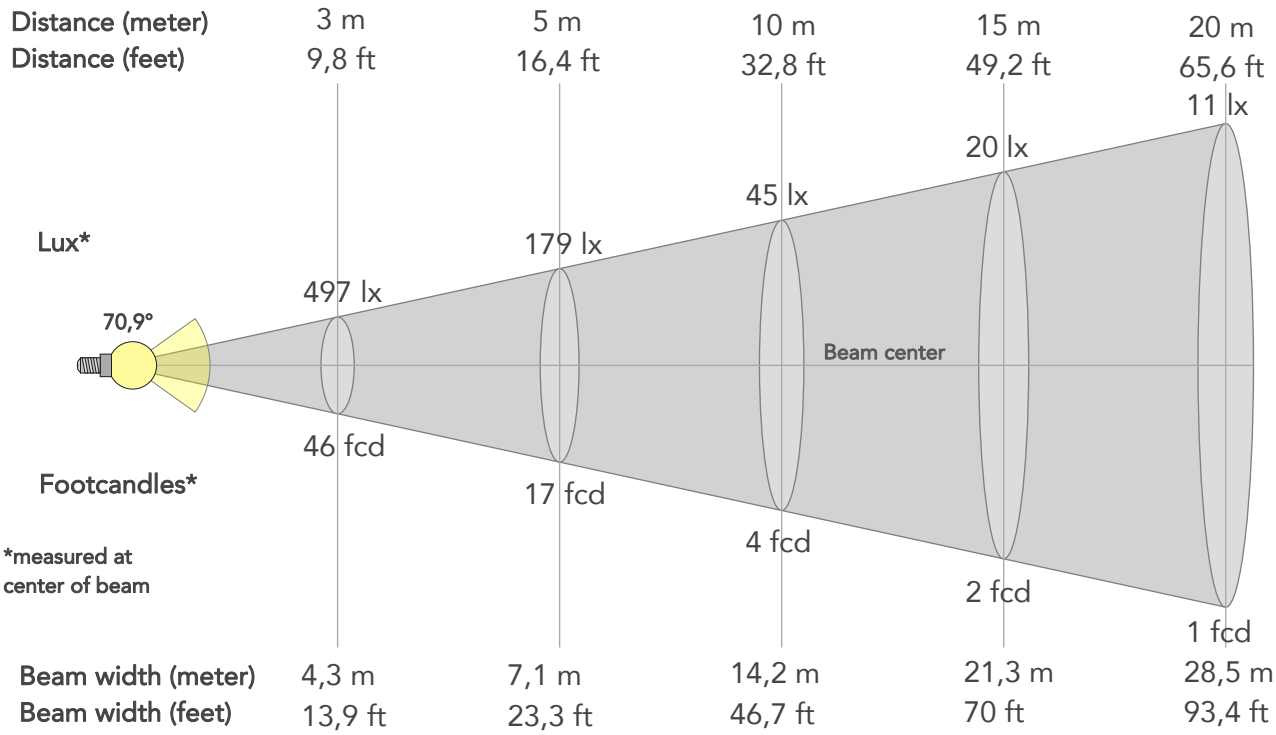
Beam angle 50%: 70,9°
Field angle 10%: 109,5°
Cut off angle 2.5%: 125,3°

Spectra



BEAM DETAILS

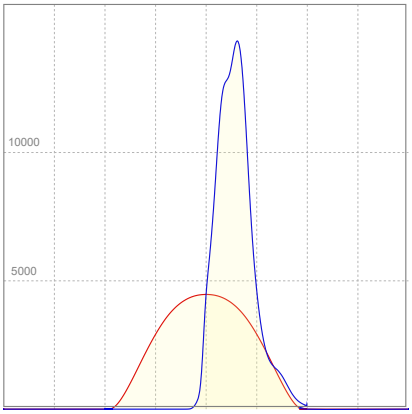
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
70,9°	109,5°	125,3°	88,0%	68,8%



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	4469lx	1117lx	497lx	279lx	179lx	79lx	45lx	20lx	11lx	7lx	5lx	3lx	2lx
Footcand.	415fcd	104fcd	46fcd	26fcd	17fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	1,4m	2,8m	4,3m	5,7m	7,1m	10,7m	14,2m	21,3m	28,5m	35,6m	42,7m	56,9m	71,2m
Beam wid.	4,7ft	9,4ft	13,9ft	18,6ft	23,3ft	35ft	46,7ft	70ft	93,4ft	116,7ft	140ft	186,7ft	233,4ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,683A	145,4W	84lm/W

Power FC
0,95

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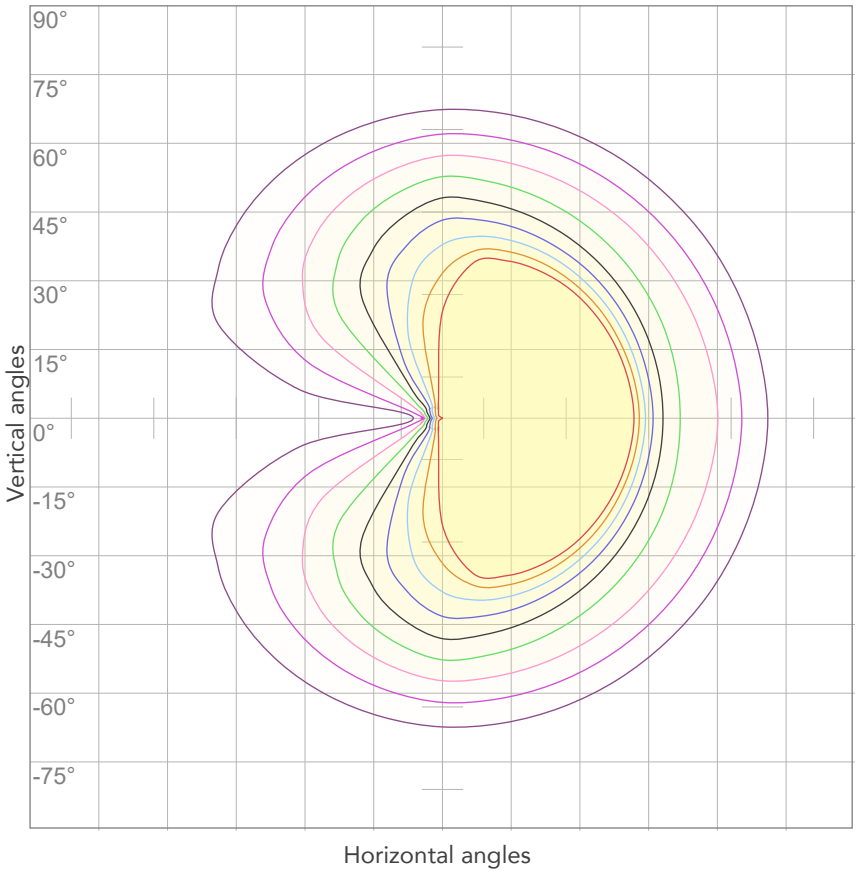
ISO DIAGRAMS

ISO CANDELA DIAGRAM



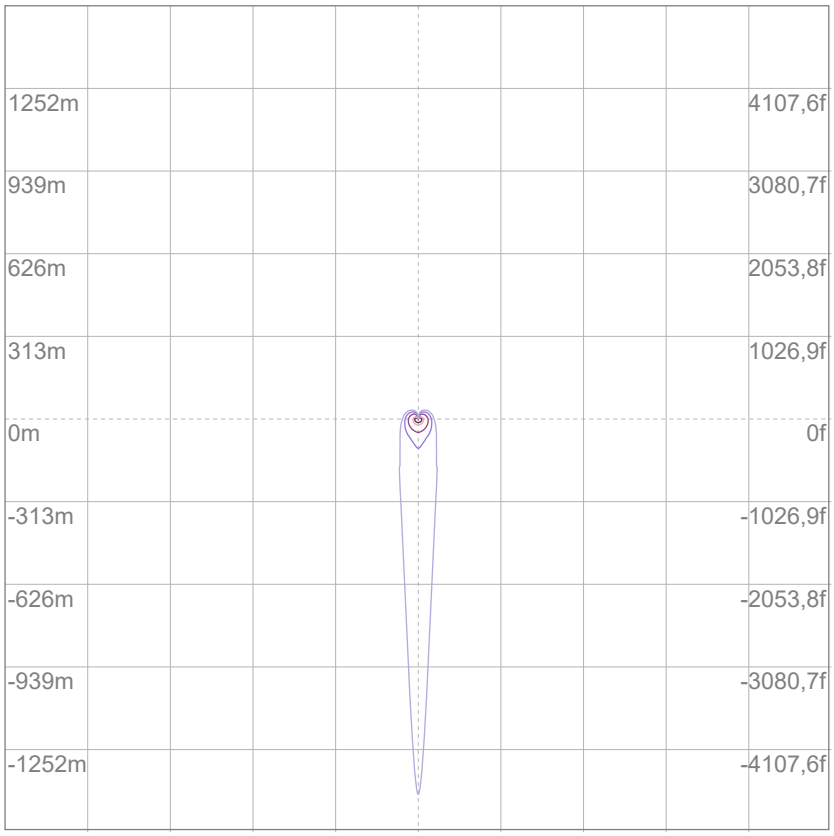
10%	447 cd
20%	894 cd
30%	1341 cd
40%	1787 cd
50%	2234 cd
60%	2681 cd
70%	3128 cd
80%	3575 cd

Conditions:

Number of c-planes: 4

Candela at center: 4469 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	1,34 lx
5%	2,23 lx
10%	4,47 lx
30%	13,4 lx
50%	22,3 lx

Conditions:

Number of c-planes: 4

Lux at center: 44,7 lx

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

Total lumen output:

9073 lm

Peak candela output:

10404 cd

Light quality:

CRI: 89,3

Color temperature:

2745 K

PRODUCT NAME:

ECL CYC050

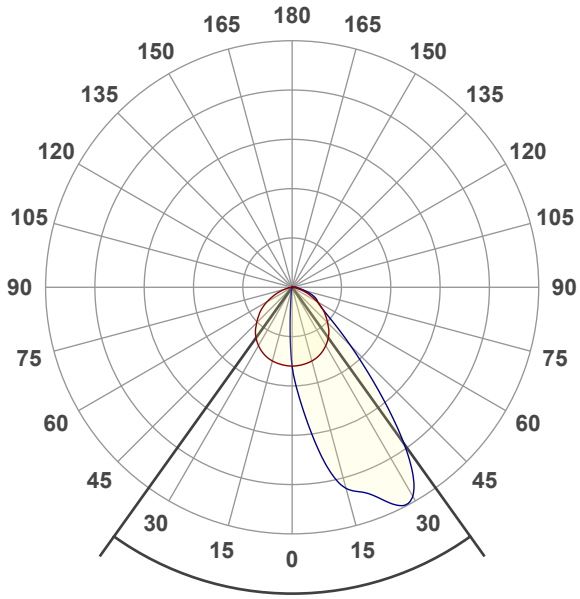
MEASURAMENT CONDITIONS:

Beam angle:
Filter 1060

Target:
2800K

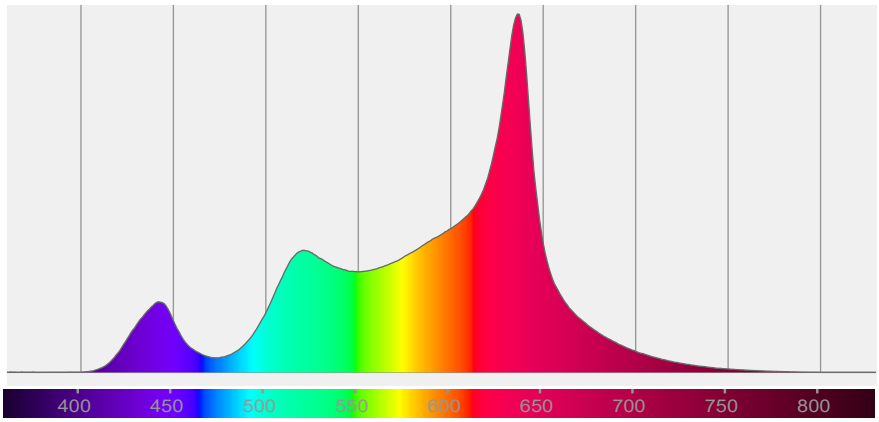
Operator:
Paolo Carvone

Date and time:
13/04/2022 12:05:22

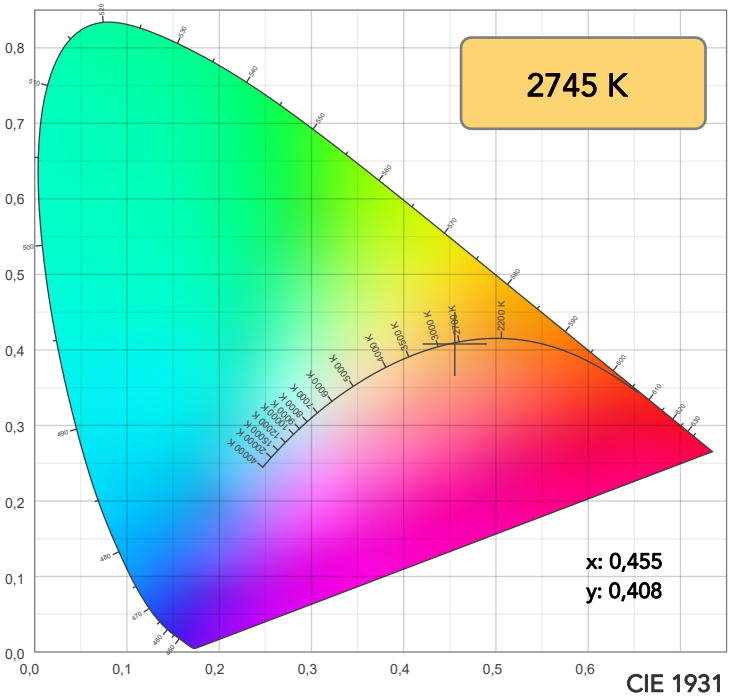


Beam angle 50%: 71,1°
Field angle 10%: 110,5°
Cut off angle 2.5%: 127,3°

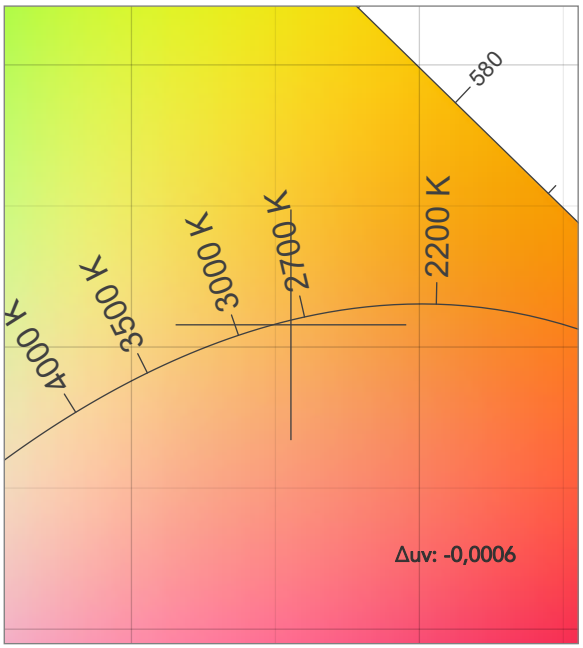
Spectra



COLOR DETAILS

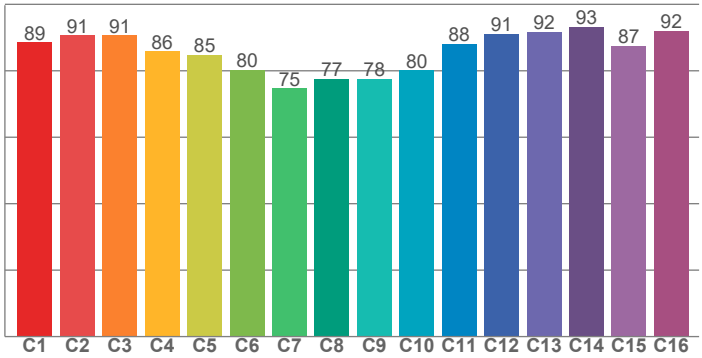


CIE 1931

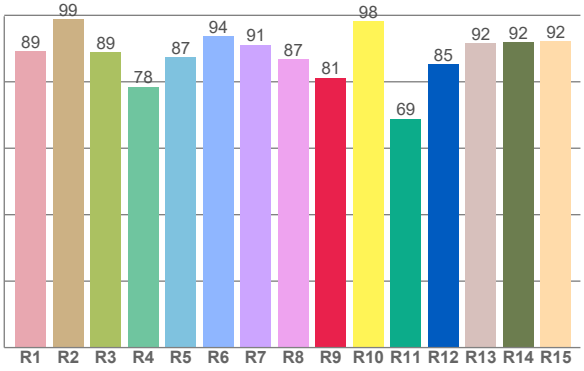


CIE 1931 ZOOM

TM30: 86,3



CRI: 89,3 (R1-R8)



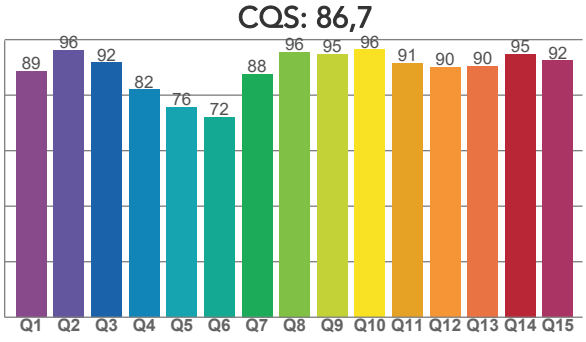
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
89,2	98,8	88,8	78,5	87,4	93,8	91,1	86,7	81,2	98,2	68,9	85,3	91,5	91,9	92,1

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
88,6	90,7	90,6	85,9	84,8	80,2	74,8	77,5	77,5	80,1	88,2	91,1	91,7	93,3	87,5	92,0

CQS: 86,7



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88,6	96,3	91,7	82,0	75,6	72,2	87,6	95,5	94,7	96,4	91,5	90,0	90,4	94,8	92,4

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
2745 K	89,3	81,2	86,3	109,9	86,7	64	0,455	0,408	-0,0006

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TM30 DETAILS

PROLiGHTS

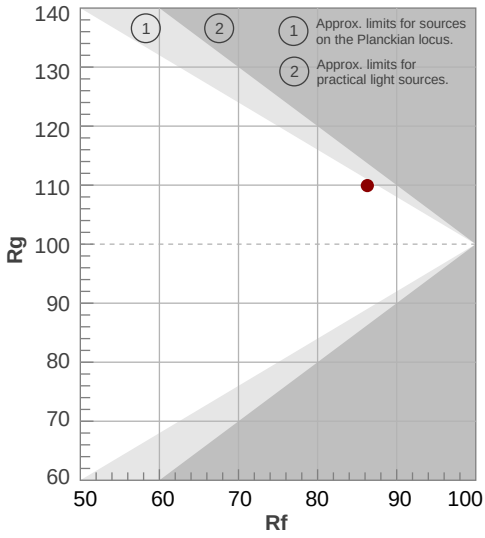
Rf 86,3

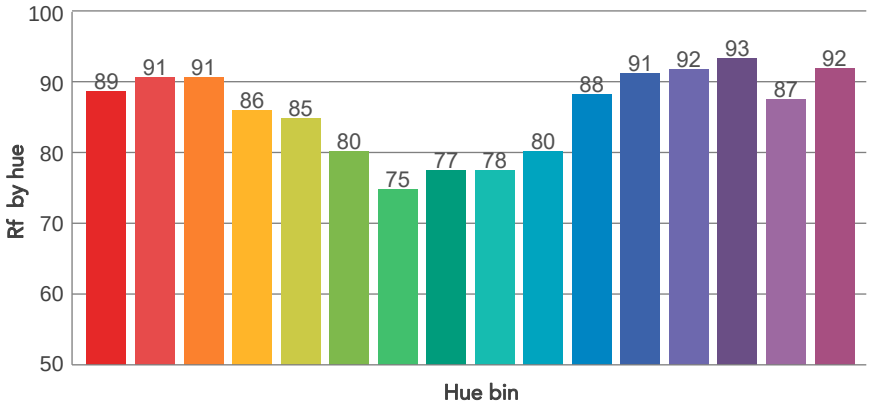
Fidelity index Rf

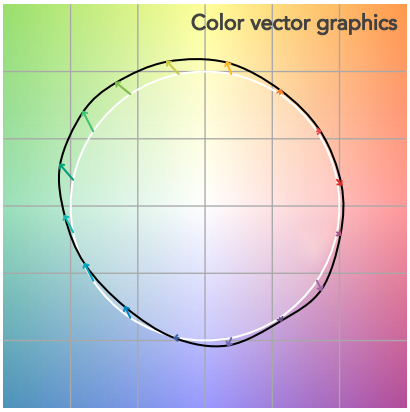
Rg 109,9

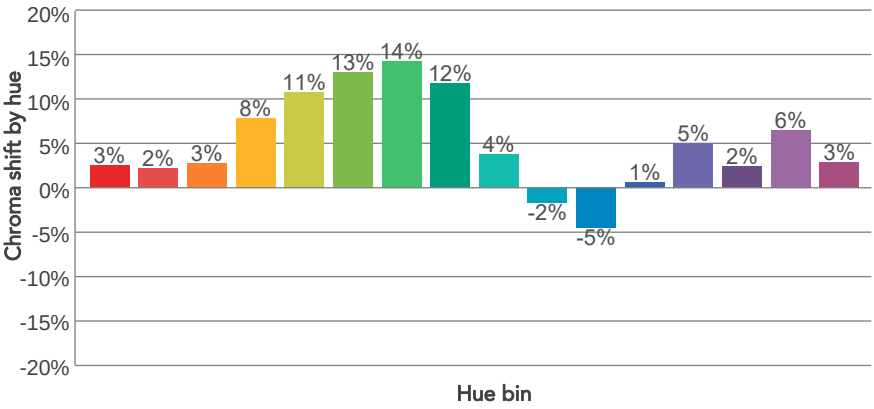
Gammut index

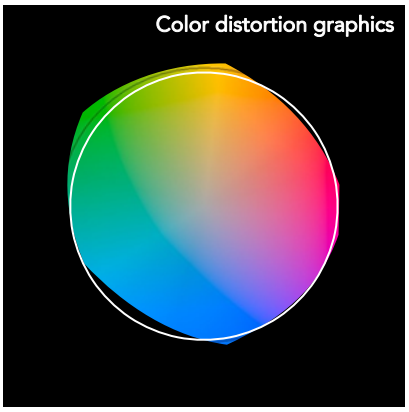
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	89	3%	-4%
2	91	2%	-1%
3	91	3%	1%
4	86	8%	5%
5	85	11%	7%
6	80	13%	4%
7	75	14%	-8%
8	77	12%	-9%
9	78	4%	-13%
10	80	-2%	-14%
11	88	-5%	-8%
12	91	1%	-3%
13	92	5%	-3%
14	93	2%	0%
15	87	6%	-4%
16	92	3%	-1%

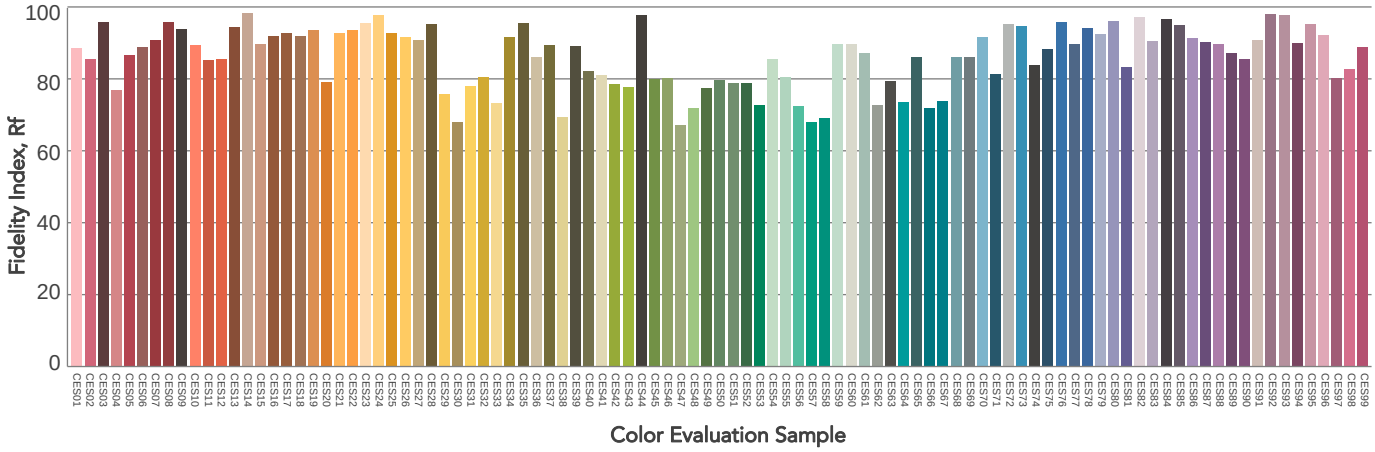












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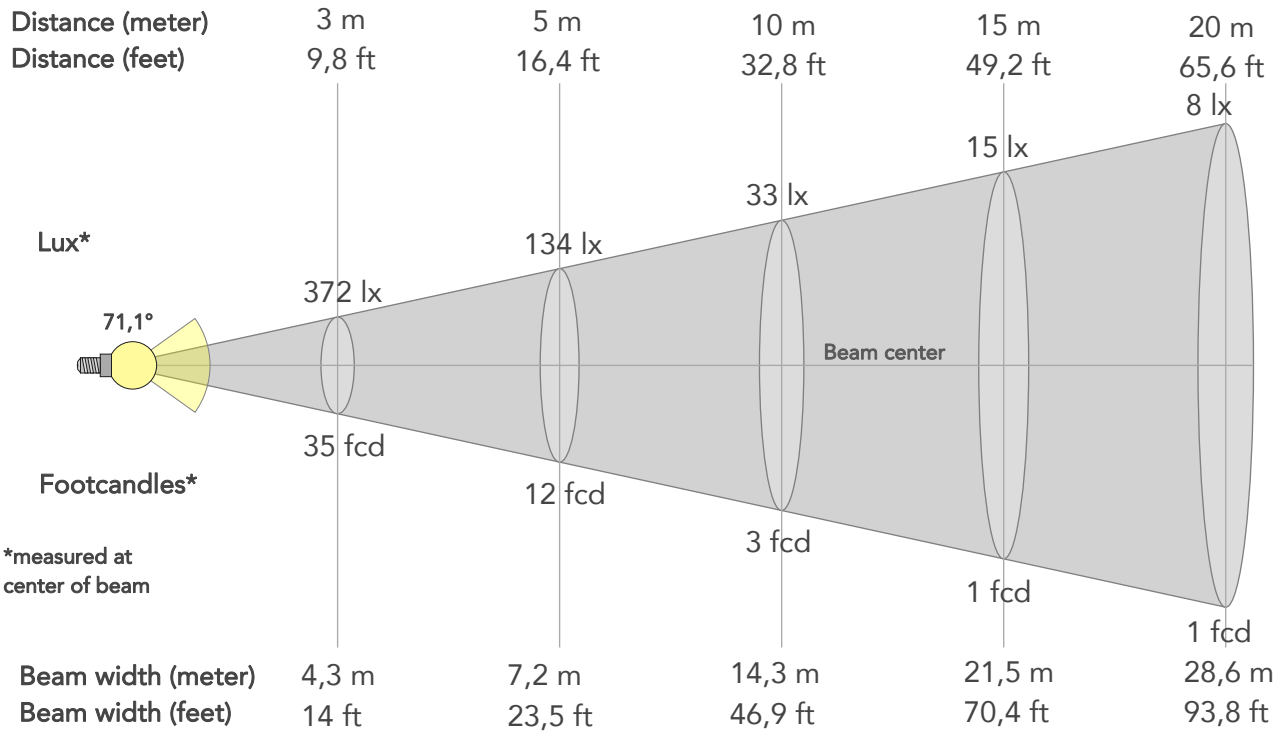
BEAM DETAILS

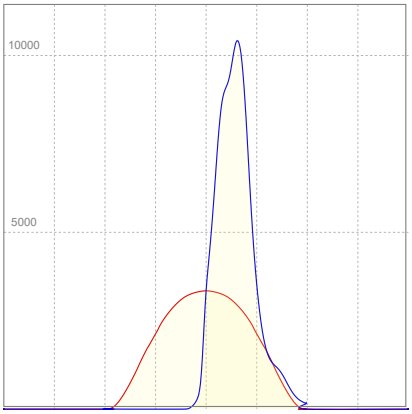
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,1°	110,5°	127,3°	87,6%	68,4%



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	3344lx	836lx	372lx	209lx	134lx	59lx	33lx	15lx	8lx	5lx	4lx	2lx	1lx
Footcand.	311fcd	78fcd	35fcd	19fcd	12fcd	6fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,4m	2,9m	4,3m	5,7m	7,2m	10,7m	14,3m	21,5m	28,6m	35,8m	42,9m	57,2m	71,5m
Beam wid.	4,7ft	9,4ft	14ft	18,7ft	23,5ft	35,2ft	46,9ft	70,4ft	93,8ft	117,3ft	140,7ft	187,6ft	234,5ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,472A	99,6W	91lm/W

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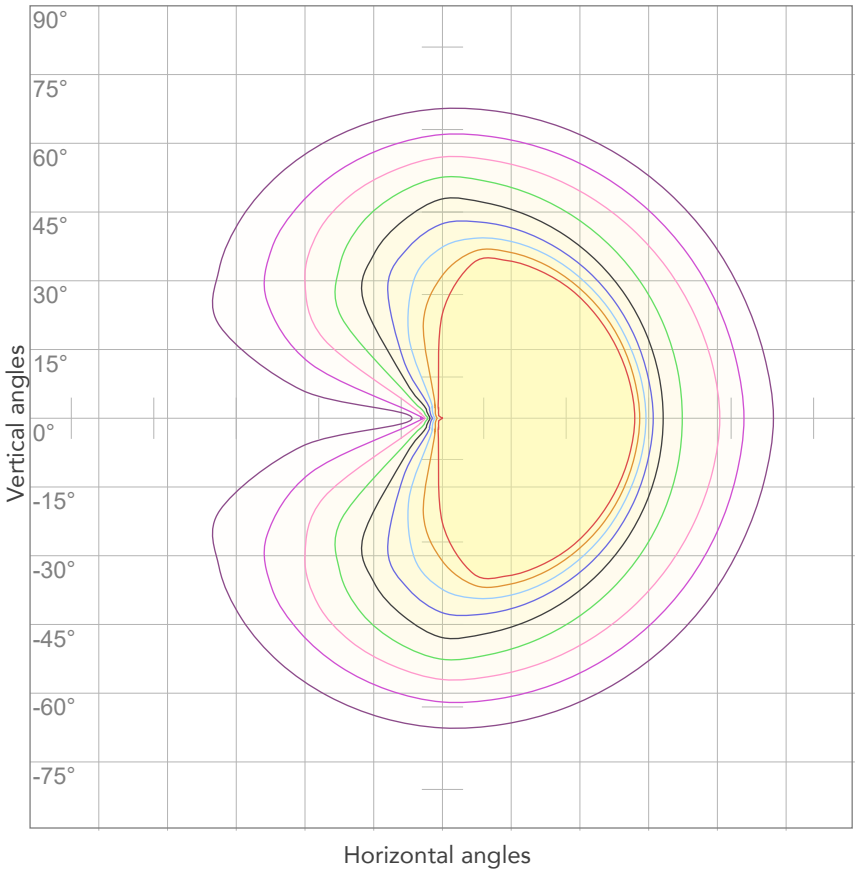
ISO DIAGRAMS

ISO CANDELA DIAGRAM



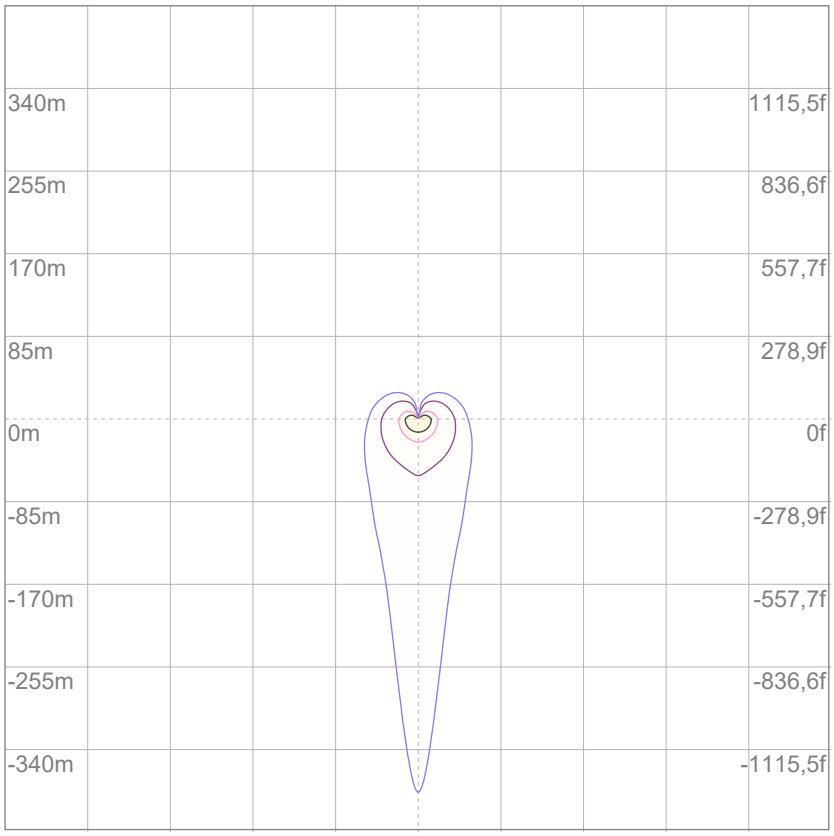
10%	334 cd
20%	669 cd
30%	1003 cd
40%	1338 cd
50%	1672 cd
60%	2006 cd
70%	2341 cd
80%	2675 cd

Conditions:

Number of c-planes: 4

Candela at center: 3344 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	1,00 lx
5%	1,67 lx
10%	3,34 lx
30%	10,0 lx
50%	16,7 lx

Conditions:

Number of c-planes: 4

Lux at center: 33,4 lx

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

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Total lumen output:

7740 lm

Peak candela output:

8910 cd

Light quality:

CRI: 90,9

Color temperature:

3139 K

PRODUCT NAME:

ECL CYC050

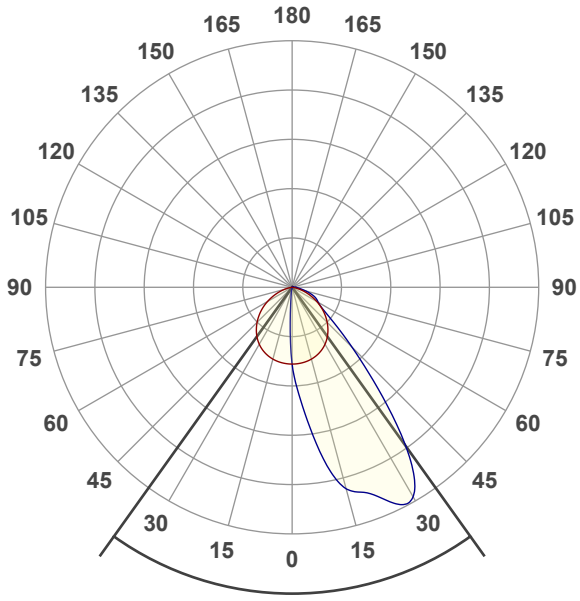
MEASURAMENT CONDITIONS:

Beam angle:
Filter 1060

Target:
3200K

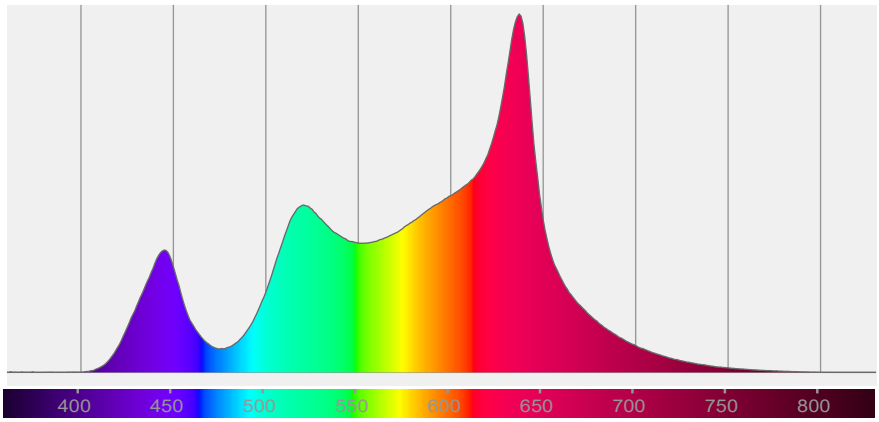
Operator:
Paolo Carvone

Date and time:
13/04/2022 12:28:25

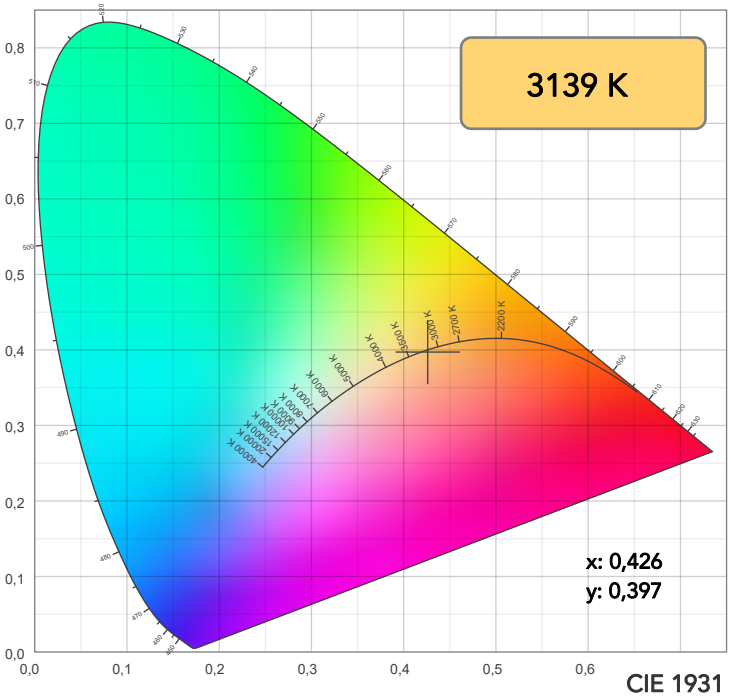


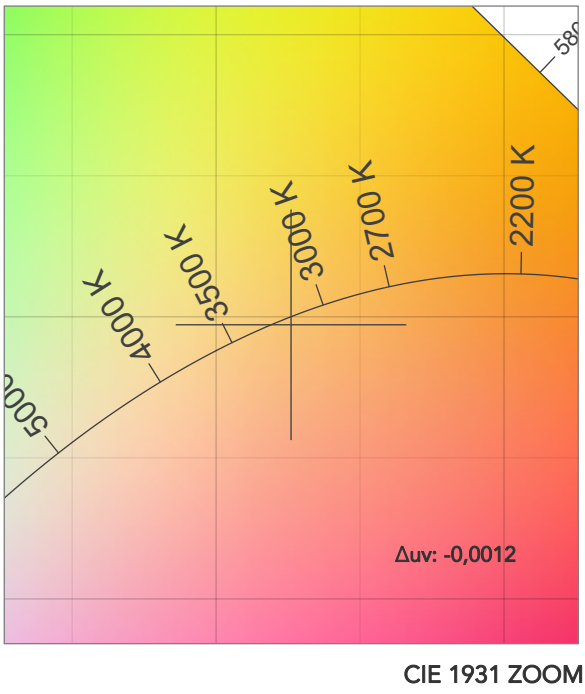
Beam angle 50%: 71,2°
Field angle 10%: 110,8°
Cut off angle 2.5%: 127,8°

Spectra

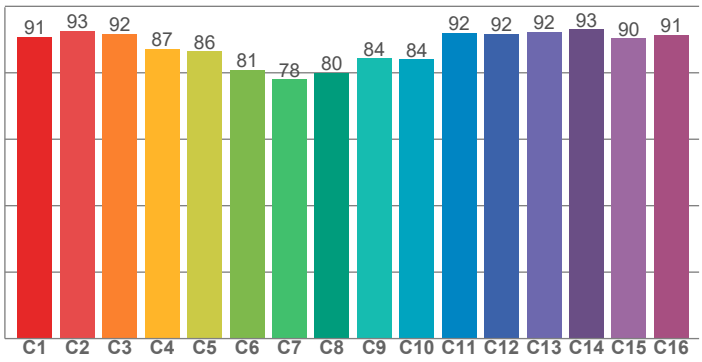


COLOR DETAILS

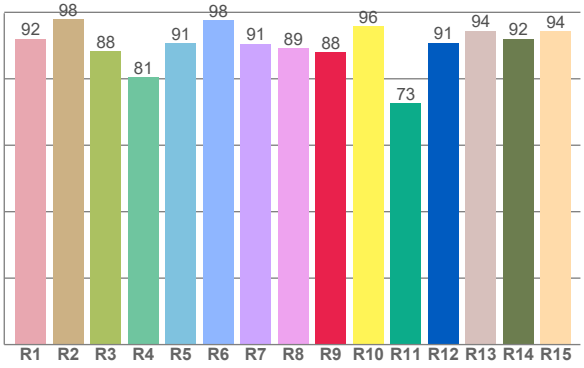




TM30: 88,3



CRI: 90,9 (R1-R8)



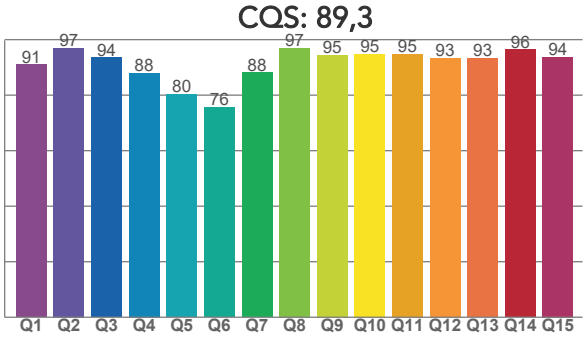
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,1	97,9	88,3	80,5	90,6	97,6	90,5	89,3	87,9	95,8	72,6	90,8	94,5	92,0	94,3

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90,7	92,6	91,7	87,2	86,4	80,9	78,1	79,9	84,4	84,0	92,1	91,8	92,3	93,1	90,4	91,5

CQS: 89,3



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91,0	97,1	93,6	88,1	80,3	75,6	88,2	97,0	94,5	94,9	94,8	93,3	93,3	96,5	93,8

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
3139 K	90,9	87,9	88,3	109,5	89,3	70	0,426	0,397	-0,0012

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TM30 DETAILS

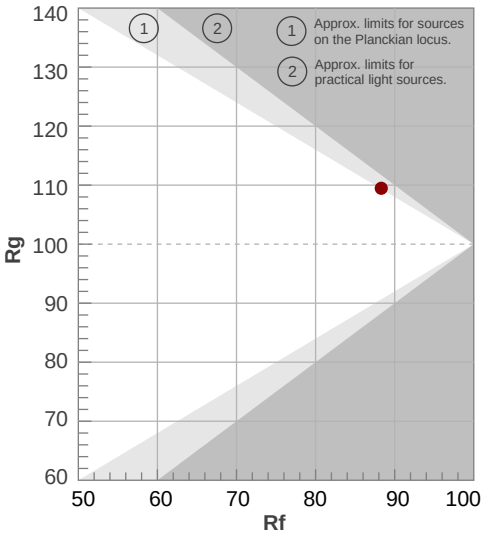
Rf 88,3

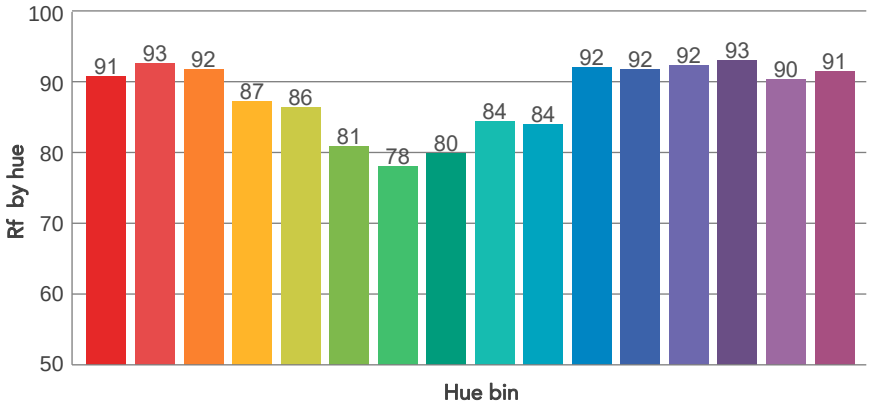
Fidelity index Rf

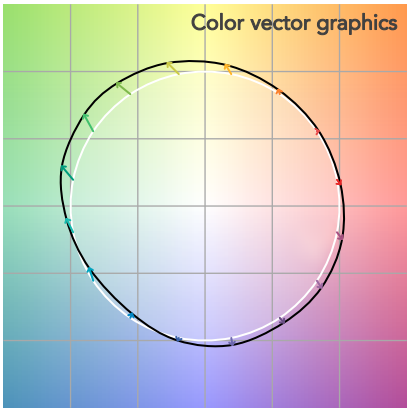
Rg 109,5

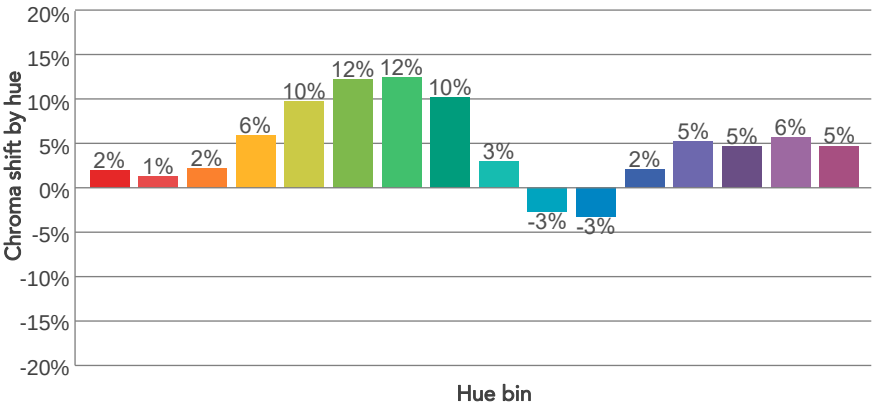
Gammut index

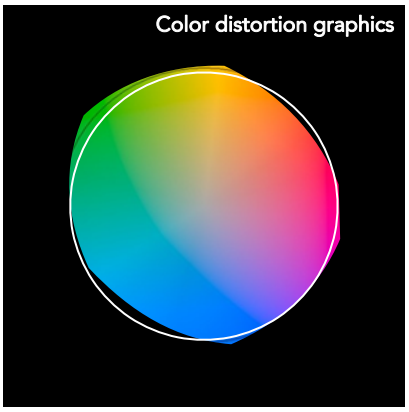
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	91	2%	-4%
2	93	1%	-1%
3	92	2%	3%
4	87	6%	5%
5	86	10%	7%
6	81	12%	4%
7	78	12%	-6%
8	80	10%	-8%
9	84	3%	-11%
10	84	-3%	-9%
11	92	-3%	-1%
12	92	2%	0%
13	92	5%	0%
14	93	5%	1%
15	90	6%	-2%
16	91	5%	-4%

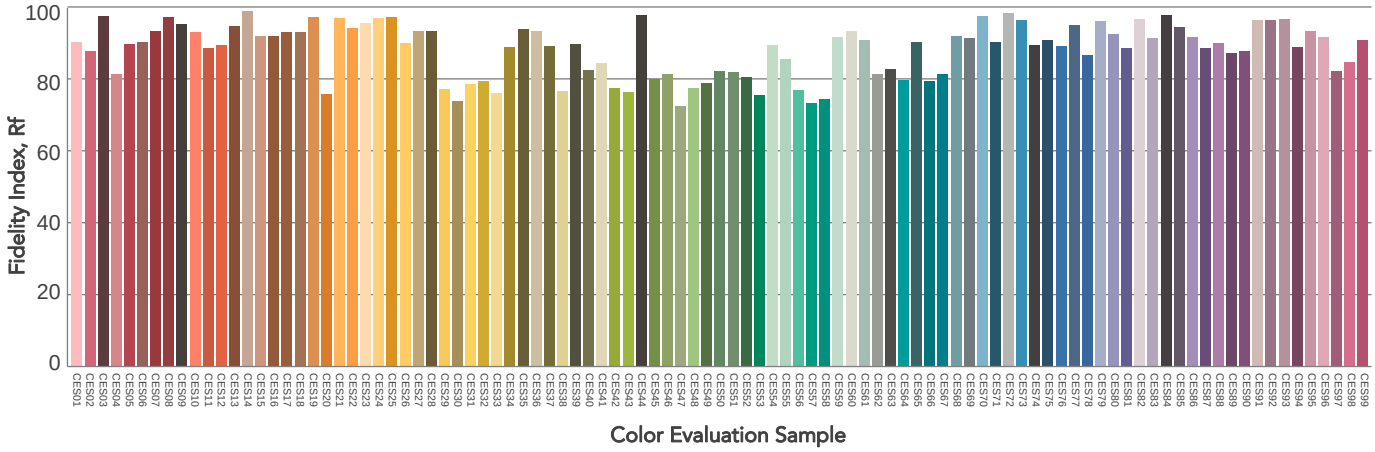












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Via A. Olivetti snc
04026 - Minturno (LT) ITALY
Tel: +39 0771 72190

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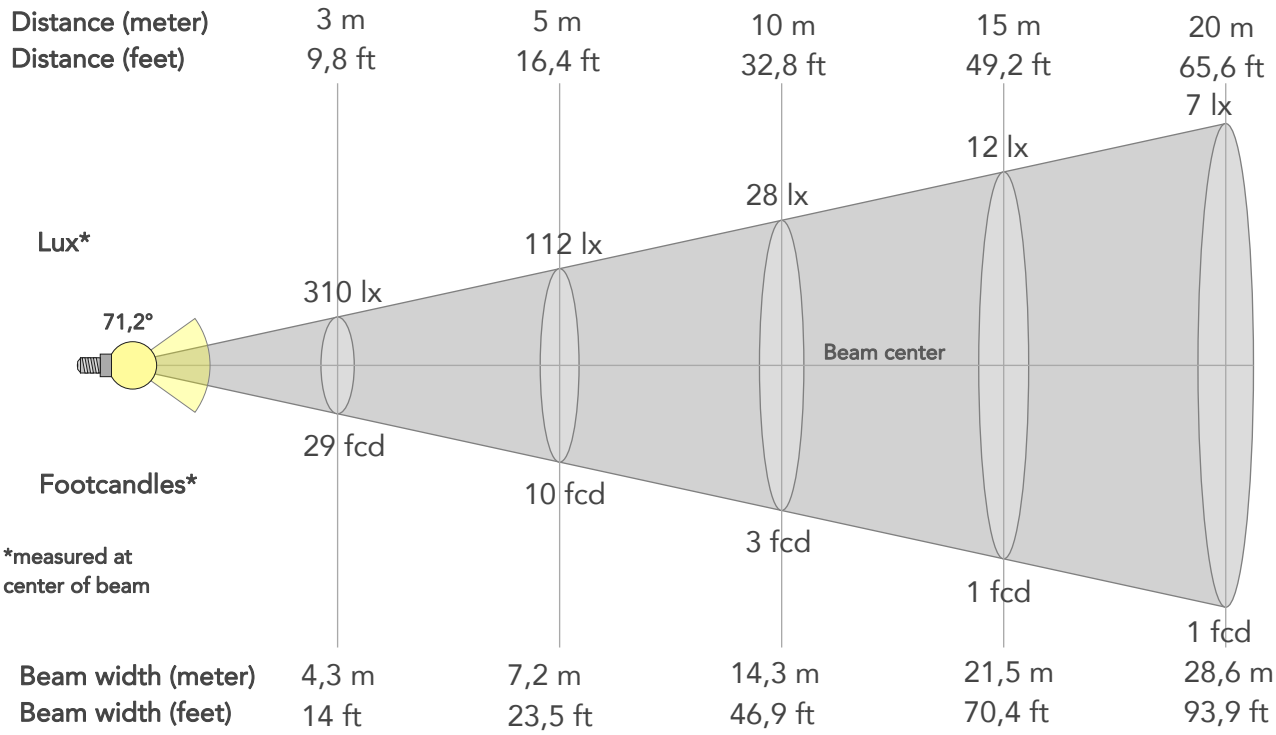
info@prolights.it

BEAM DETAILS

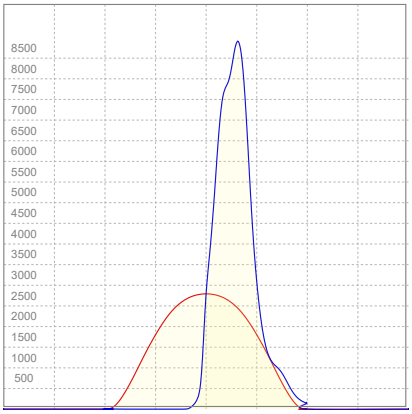
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,2°	110,8°	127,8°	87,4%	68,2%



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	2791lx	698lx	310lx	174lx	112lx	50lx	28lx	12lx	7lx	4lx	3lx	2lx	1lx
Footcand.	259fcd	65fcd	29fcd	16fcd	10fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,4m	2,9m	4,3m	5,7m	7,2m	10,7m	14,3m	21,5m	28,6m	35,8m	42,9m	57,2m	71,5m
Beam wid.	4,7ft	9,4ft	14ft	18,7ft	23,5ft	35,2ft	46,9ft	70,4ft	93,9ft	117,3ft	140,8ft	187,7ft	234,7ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,401A	83,6W	93lm/W

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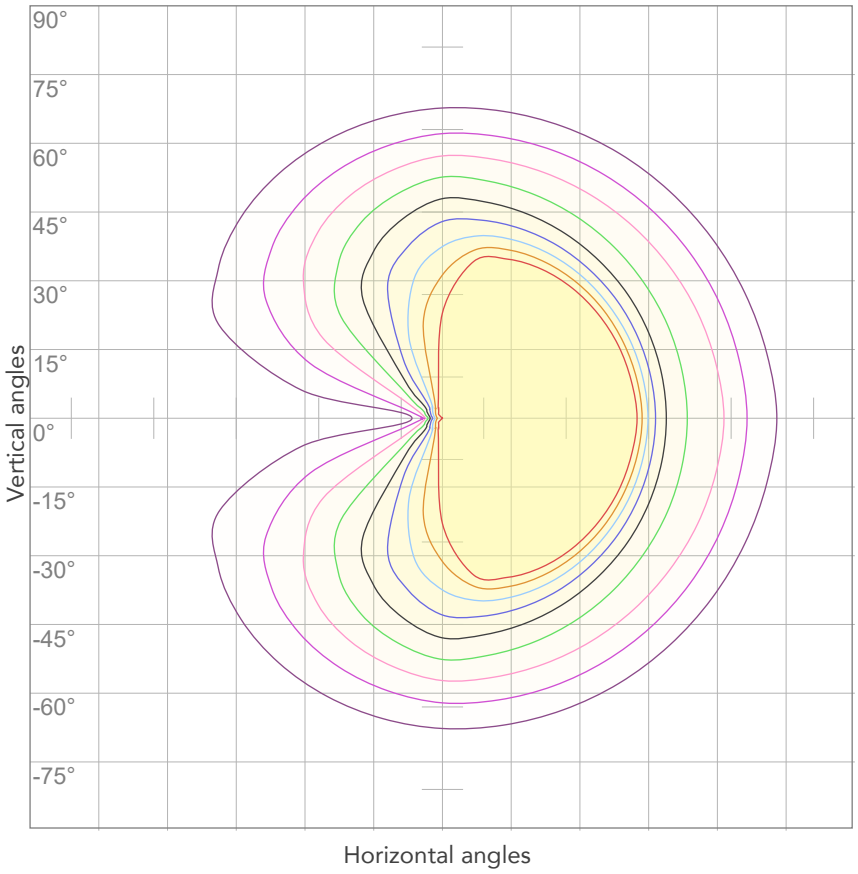
ISO DIAGRAMS

ISO CANDELA DIAGRAM



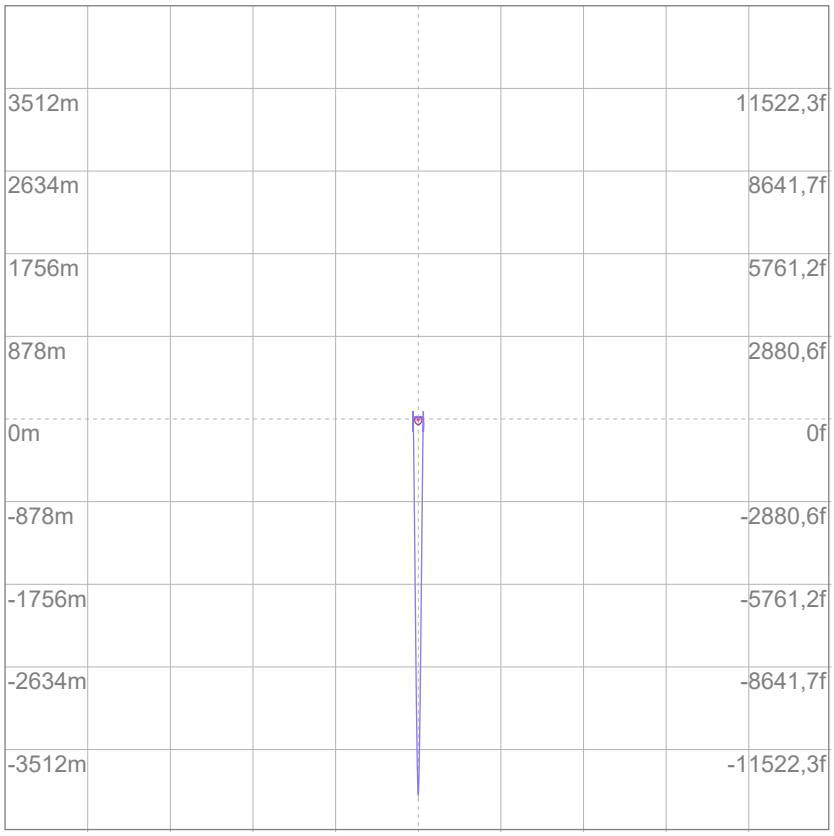
10%	279 cd
20%	558 cd
30%	837 cd
40%	1116 cd
50%	1396 cd
60%	1675 cd
70%	1954 cd
80%	2233 cd

Conditions:

Number of c-planes: 4

Candela at center: 2791 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,837 lx
5%	1,40 lx
10%	2,79 lx
30%	8,37 lx
50%	14,0 lx

Conditions:

Number of c-planes: 4

Lux at center: 27,9 lx

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

Total lumen output:

7701 lm

Peak candela output:

8785 cd

Light quality:

CRI: 90,4

Color temperature:

3948 K

PRODUCT NAME:

ECL CYC050

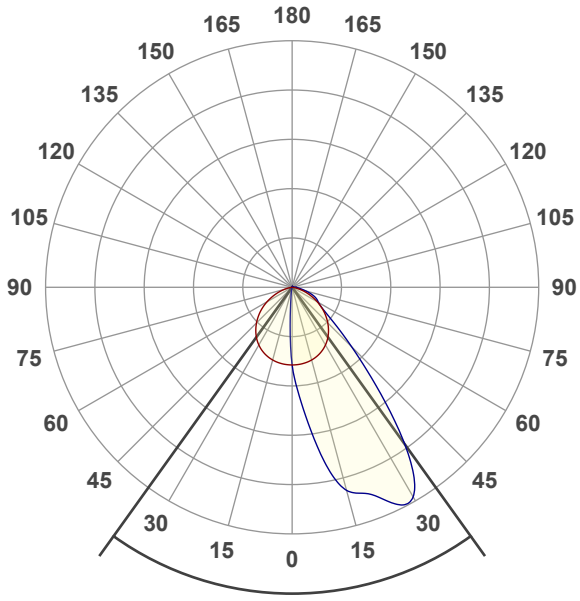
MEASURAMENT CONDITIONS:

Beam angle:
Filter 1060

Target:
4000K

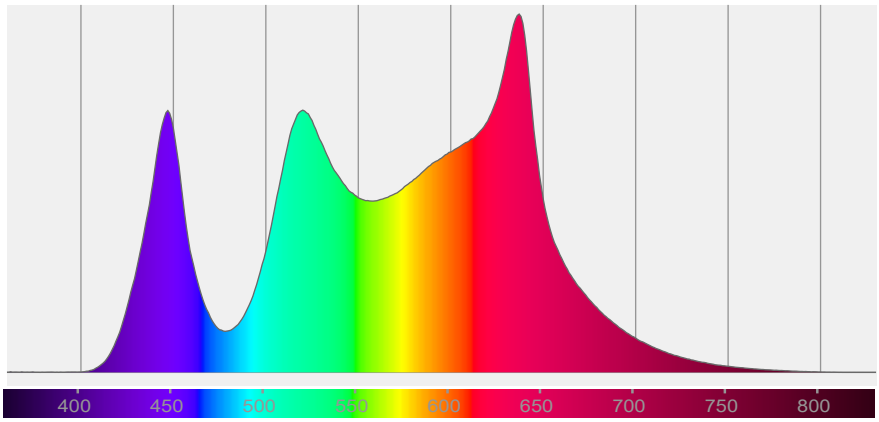
Operator:
Paolo Carvone

Date and time:
13/04/2022 12:39:39

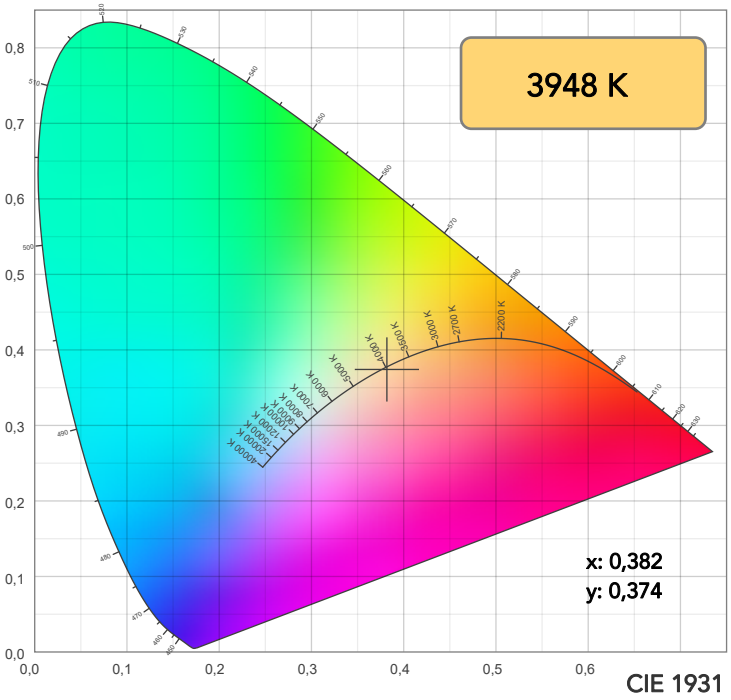


Beam angle 50%: 71,3°
Field angle 10%: 111°
Cut off angle 2.5%: 128,4°

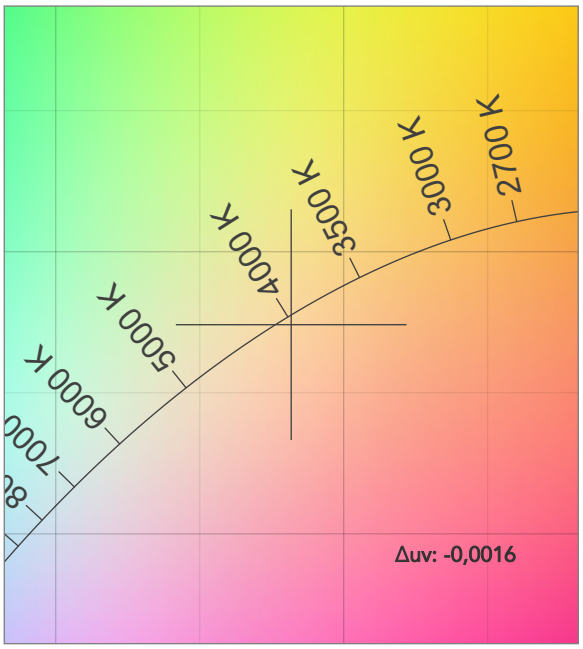
Spectra



COLOR DETAILS

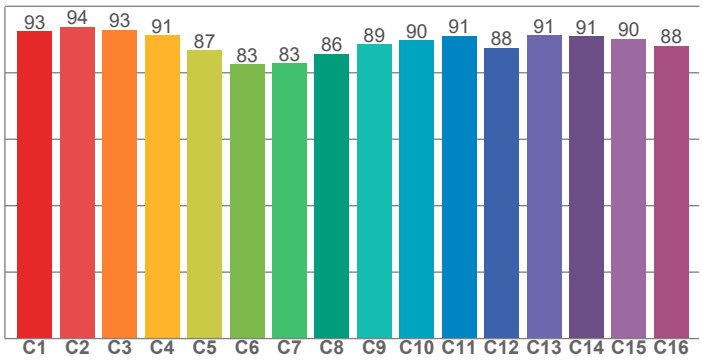


CIE 1931

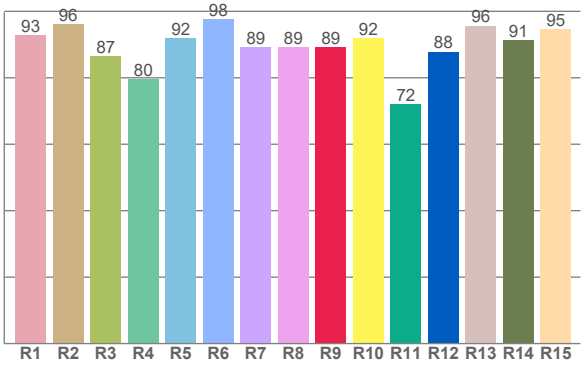


CIE 1931 ZOOM

TM30: 89,4



CRI: 90,4 (R1-R8)



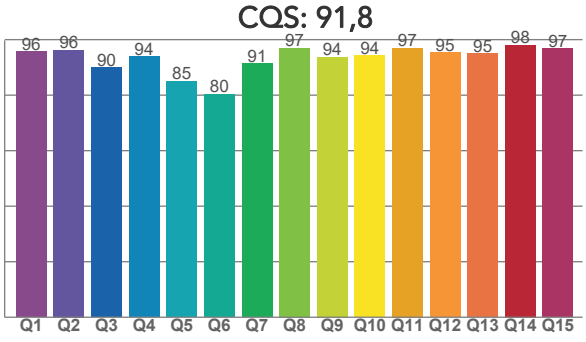
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,8	96,1	86,6	79,6	91,9	97,5	89,2	89,2	89,1	92,0	71,9	87,9	95,6	91,4	94,7

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
92,5	93,9	92,9	91,3	86,8	82,6	82,8	85,8	88,5	89,8	91,1	87,5	91,2	91,0	90,1	88,0

CQS: 91,8



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,7	96,3	90,0	93,9	85,0	80,3	91,3	96,9	93,7	94,2	97,0	95,3	94,9	98,1	96,8

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
3948 K	90,4	89,1	89,4	109,0	91,8	73	0,382	0,374	-0,0016

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

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TM30 DETAILS

PROLiGHTS

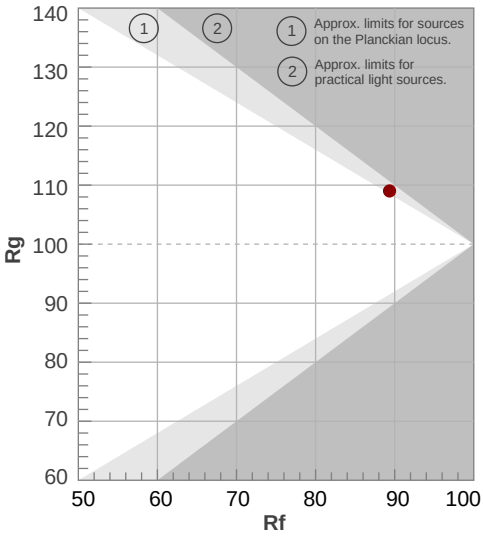
Rf 89,4

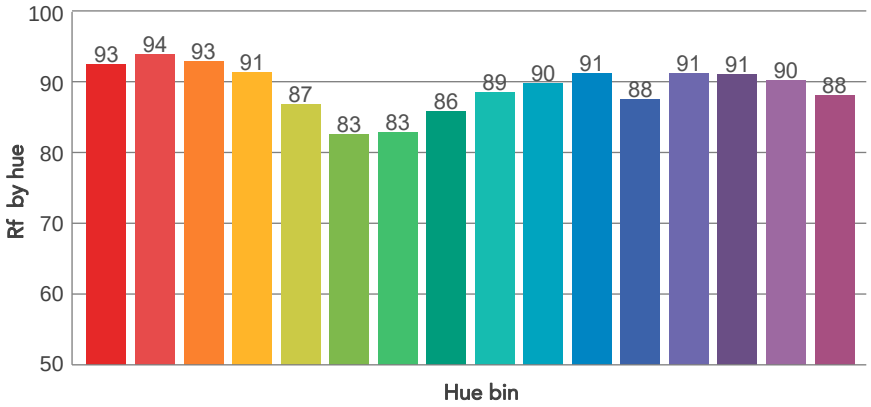
Fidelity index Rf

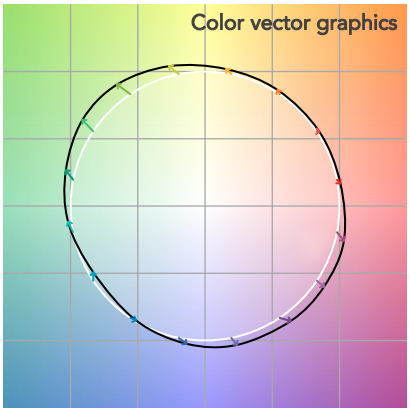
Rg 109,0

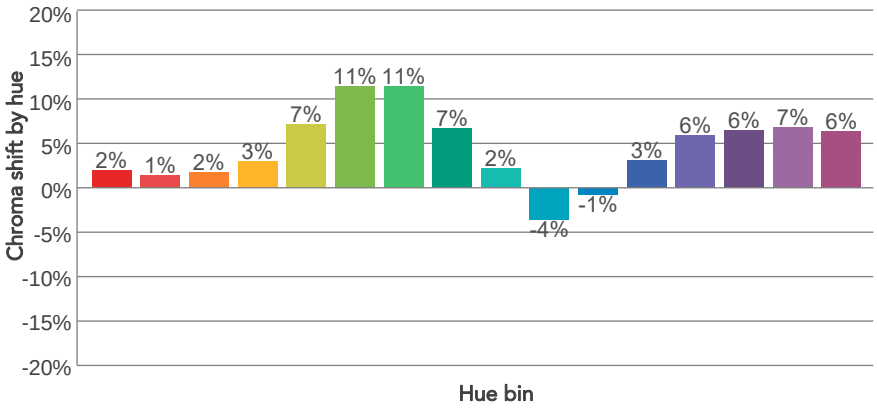
Gammut index

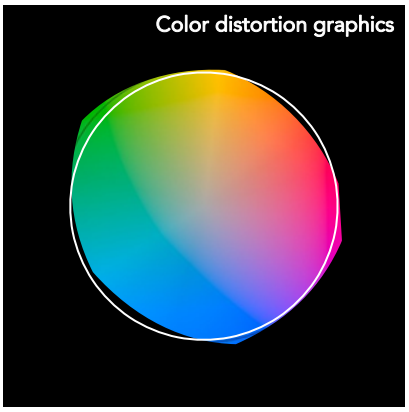
Hue Bin	R_f	Graphic shifts (%) Chroma	Hue
1	93	2%	-3%
2	94	1%	-1%
3	93	2%	3%
4	91	3%	4%
5	87	7%	6%
6	83	11%	4%
7	83	11%	-3%
8	86	7%	-6%
9	89	2%	-8%
10	90	-4%	-5%
11	91	-1%	4%
12	88	3%	6%
13	91	6%	3%
14	91	6%	5%
15	90	7%	-1%
16	88	6%	-5%

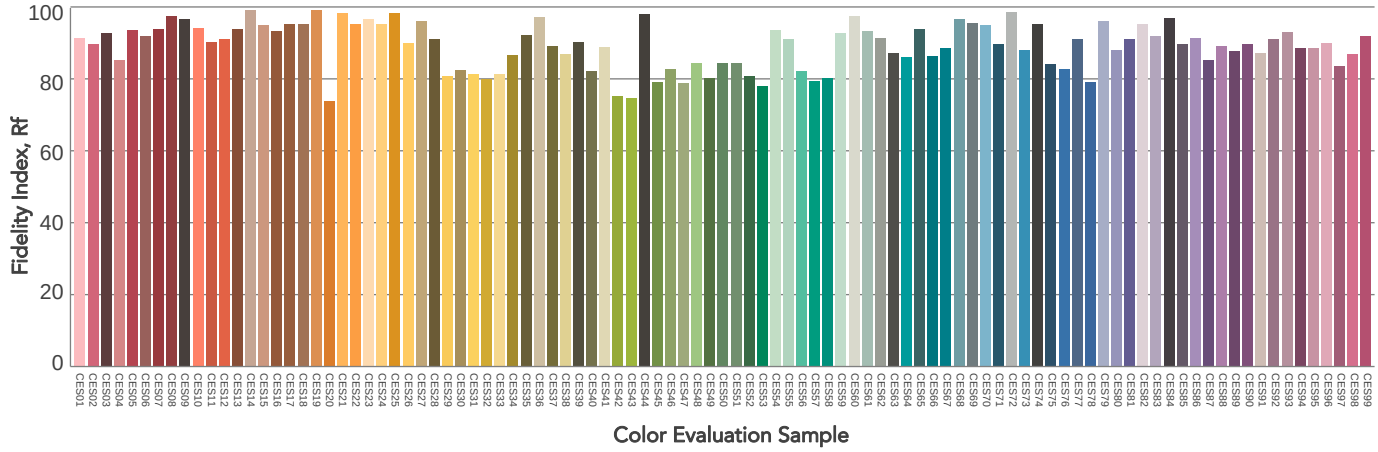












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Via A. Olivetti snc
04026 - Minturno (LT) ITALY
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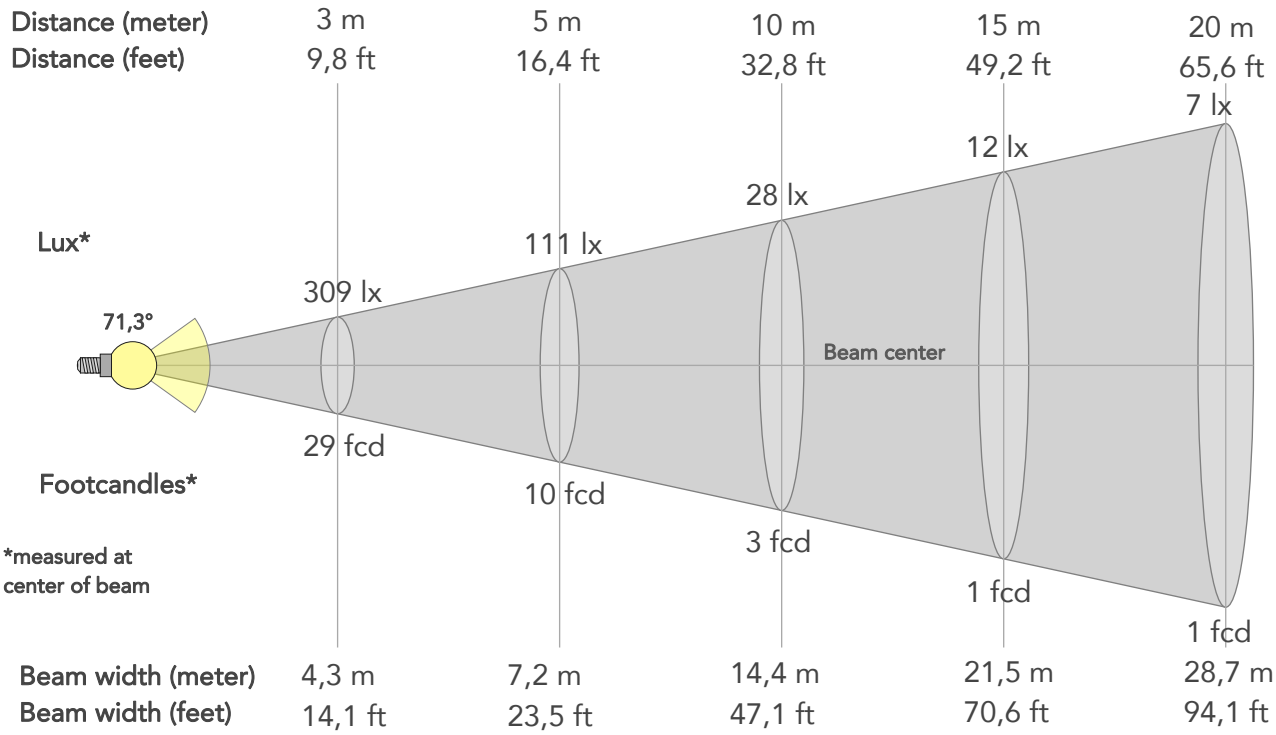
BEAM DETAILS

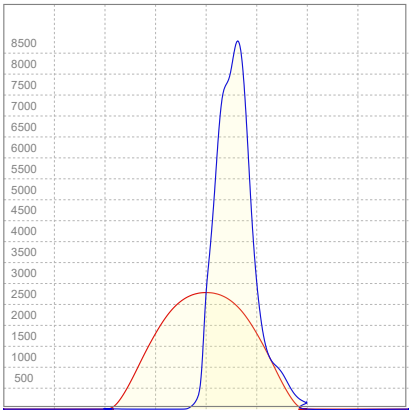
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,3°	111°	128,4°	87,2%	68,0%



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	2784lx	696lx	309lx	174lx	111lx	49lx	28lx	12lx	7lx	4lx	3lx	2lx	1lx
Footcand.	259fcd	65fcd	29fcd	16fcd	10fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,4m	2,9m	4,3m	5,7m	7,2m	10,8m	14,4m	21,5m	28,7m	35,9m	43,1m	57,4m	71,8m
Beam wid.	4,7ft	9,5ft	14,1ft	18,8ft	23,5ft	35,3ft	47,1ft	70,6ft	94,1ft	117,7ft	141,2ft	188,3ft	235,4ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,407A	85,2W	90lm/W

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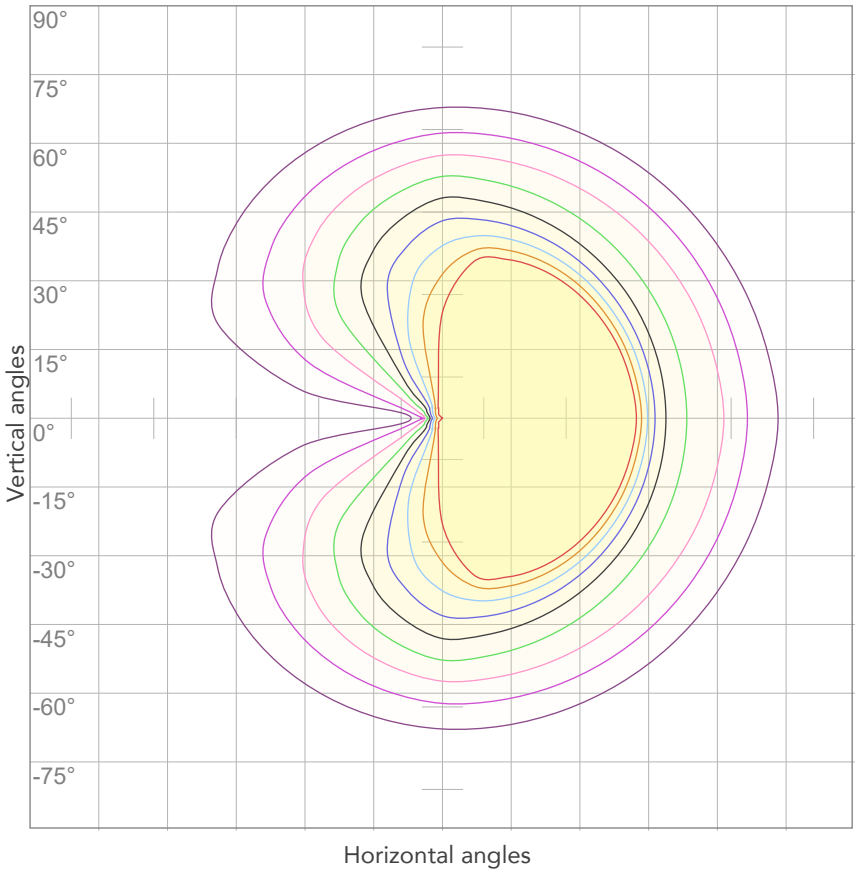
ISO DIAGRAMS

ISO CANDELA DIAGRAM



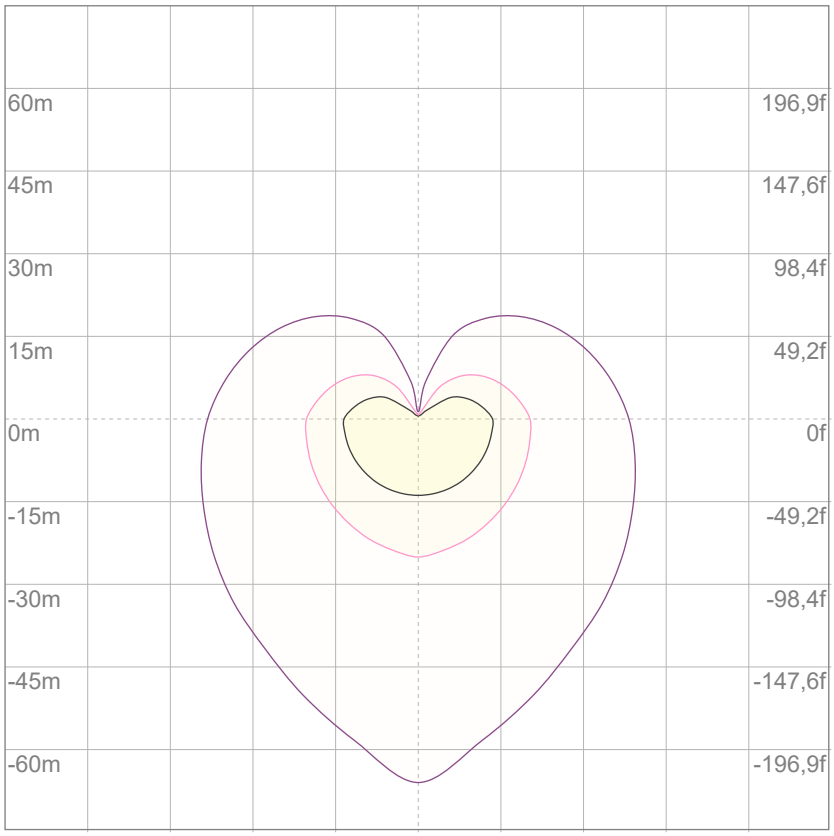
10%	278 cd
20%	557 cd
30%	835 cd
40%	1114 cd
50%	1392 cd
60%	1670 cd
70%	1949 cd
80%	2227 cd

Conditions:

Number of c-planes: 4

Candela at center: 2784 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,835 lx
5%	1,39 lx
10%	2,78 lx
30%	8,35 lx
50%	13,9 lx

Conditions:

Number of c-planes: 4

Lux at center: 27,8 lx

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

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Total lumen output:

8150 lm

Peak candela output:

9289 cd

Light quality:

CRI: 88,4

Color temperature:

5581 K

PRODUCT NAME:

ECL CYC050

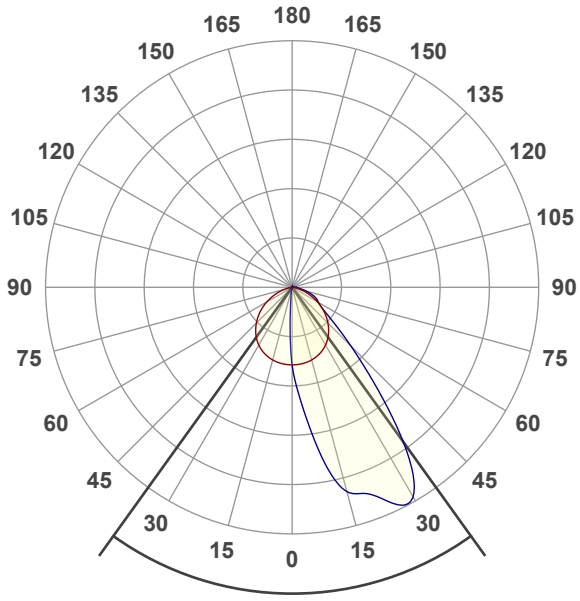
MEASURAMENT CONDITIONS:

Beam angle:
Filter 1060

Target:
5600K

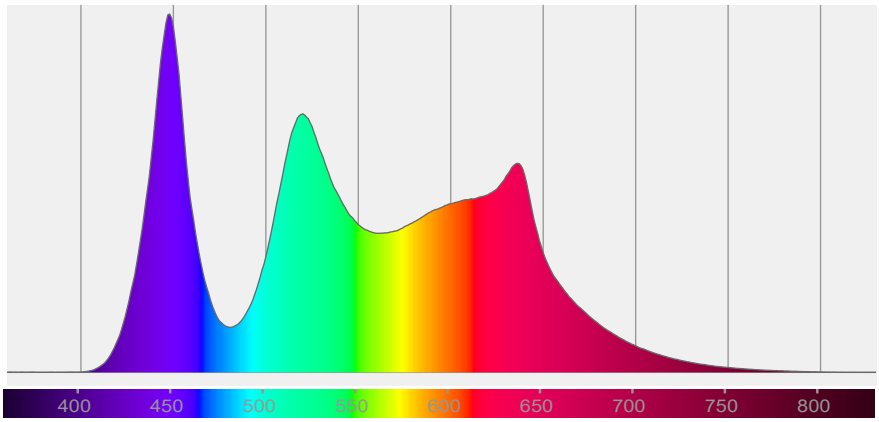
Operator:
Paolo Carvone

Date and time:
13/04/2022 12:43:08

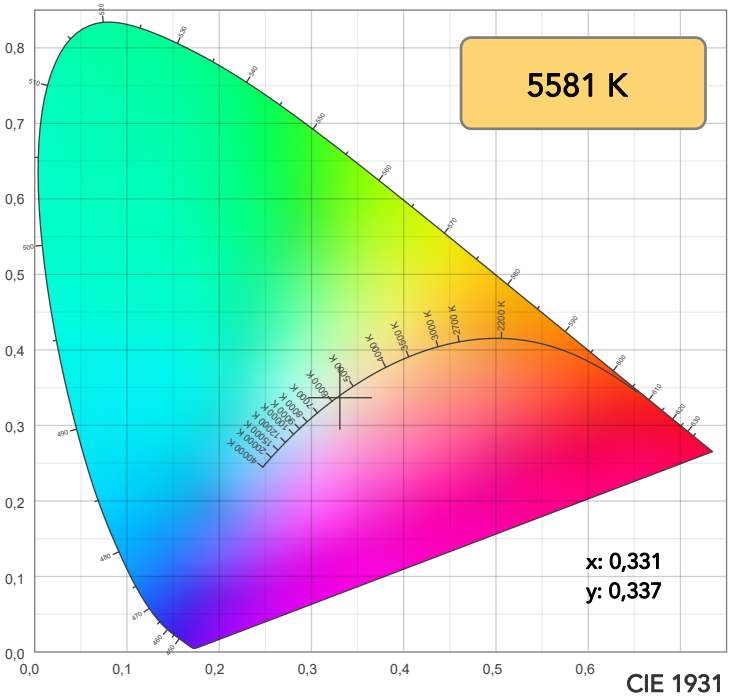


Beam angle 50%: 71,4°
Field angle 10%: 111,2°
Cut off angle 2.5%: 128,9°

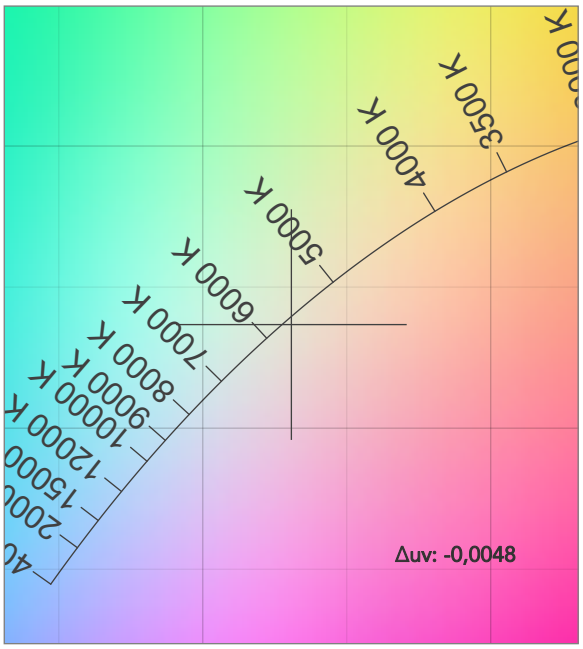
Spectra



COLOR DETAILS

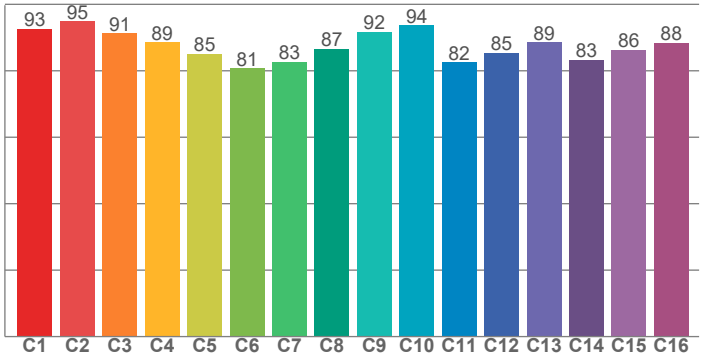


CIE 1931

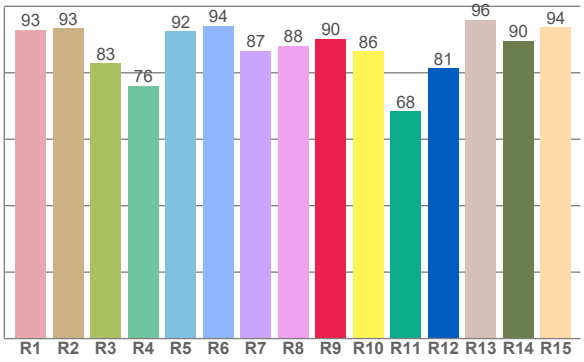


CIE 1931 ZOOM

TM30: 87,7



CRI: 88,4 (R1-R8)



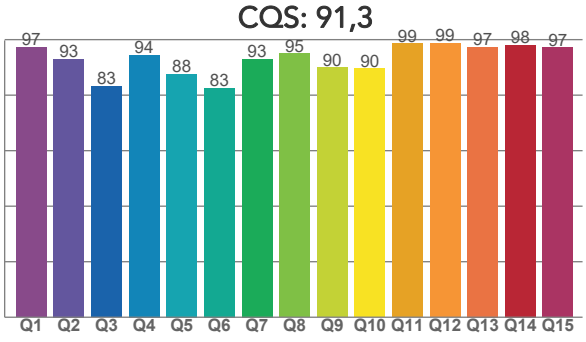
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93,0	93,5	82,9	76,1	92,4	94,2	86,6	88,1	90,2	86,4	68,4	81,4	96,0	89,6	93,6

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,6	94,8	91,3	88,6	85,1	80,7	82,6	86,7	91,7	93,7	82,5	85,4	88,5	83,2	86,2	88,5

CQS: 91,3



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,3	93,1	83,2	94,5	87,6	82,6	93,1	95,0	89,9	89,5	98,5	98,7	97,3	98,1	97,2

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
5581 K	88,4	90,2	87,7	109,7	91,3	79	0,331	0,337	-0,0048

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Via A. Olivetti snc
04026 - Minturno (LT) ITALY
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TM30 DETAILS

PROLiGHTS

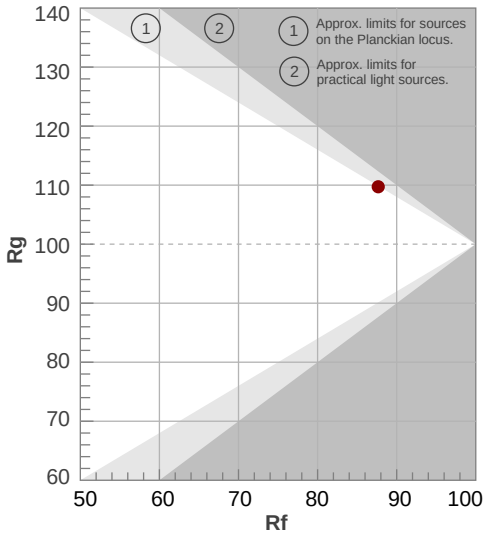
Rf 87,7

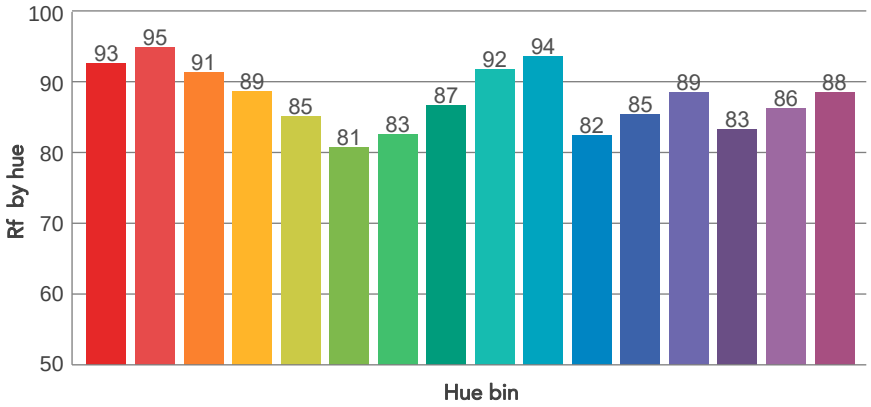
Fidelity index Rf

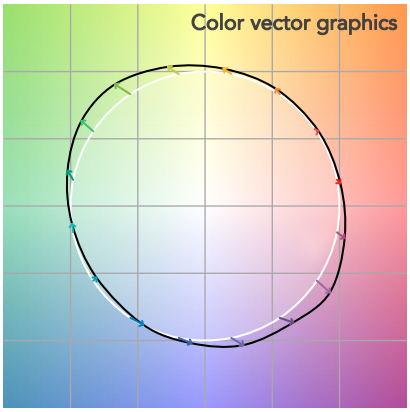
Rg 109,7

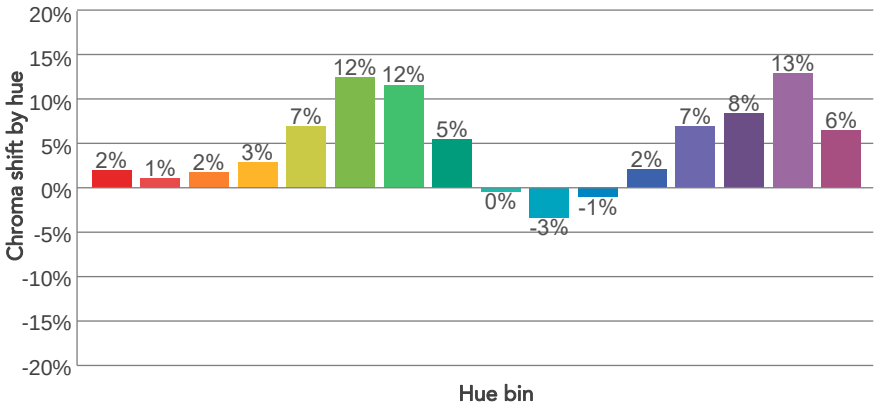
Gammut index

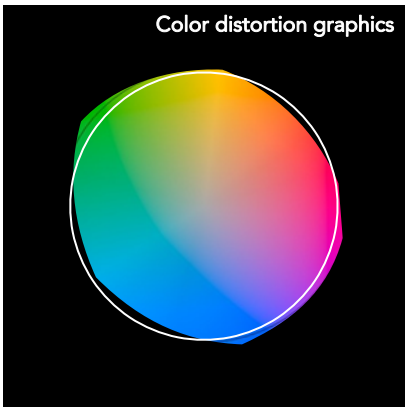
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	93	2%	-3%
2	95	1%	0%
3	91	2%	5%
4	89	3%	6%
5	85	7%	7%
6	81	12%	5%
7	83	12%	-2%
8	87	5%	-6%
9	92	0%	-6%
10	94	-3%	-1%
11	82	-1%	11%
12	85	2%	10%
13	89	7%	8%
14	83	8%	6%
15	86	13%	-2%
16	88	6%	-3%

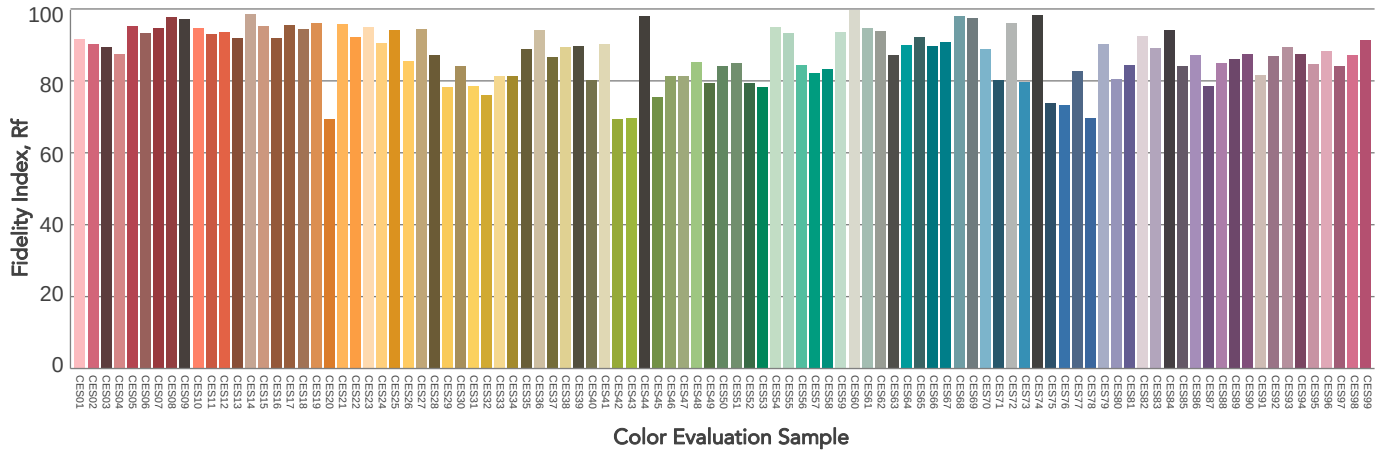












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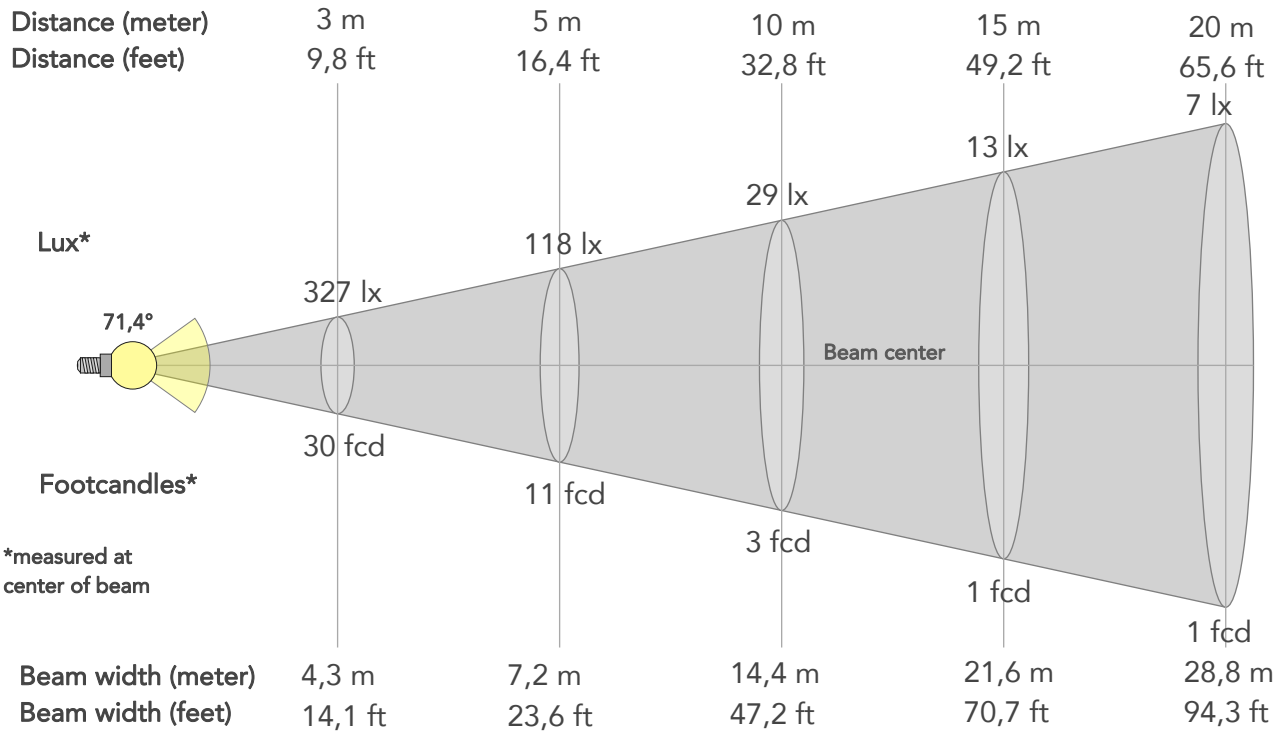
BEAM DETAILS

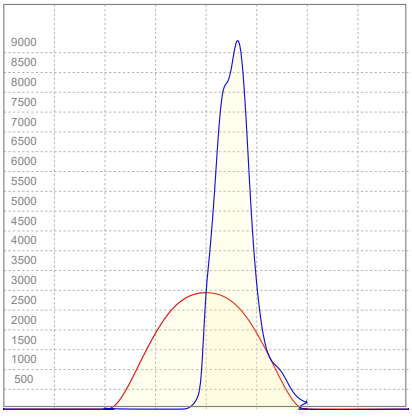
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,4°	111,2°	128,9°	87,0%	67,8%



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	2940lx	735lx	327lx	184lx	118lx	52lx	29lx	13lx	7lx	5lx	3lx	2lx	1lx
Footcand.	273fcd	68fcd	30fcd	17fcd	11fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,4m	2,9m	4,3m	5,8m	7,2m	10,8m	14,4m	21,6m	28,8m	35,9m	43,1m	57,5m	71,9m
Beam wid.	4,7ft	9,5ft	14,1ft	18,8ft	23,6ft	35,4ft	47,2ft	70,7ft	94,3ft	117,9ft	141,5ft	188,6ft	235,8ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,451A	95,2W	86lm/W

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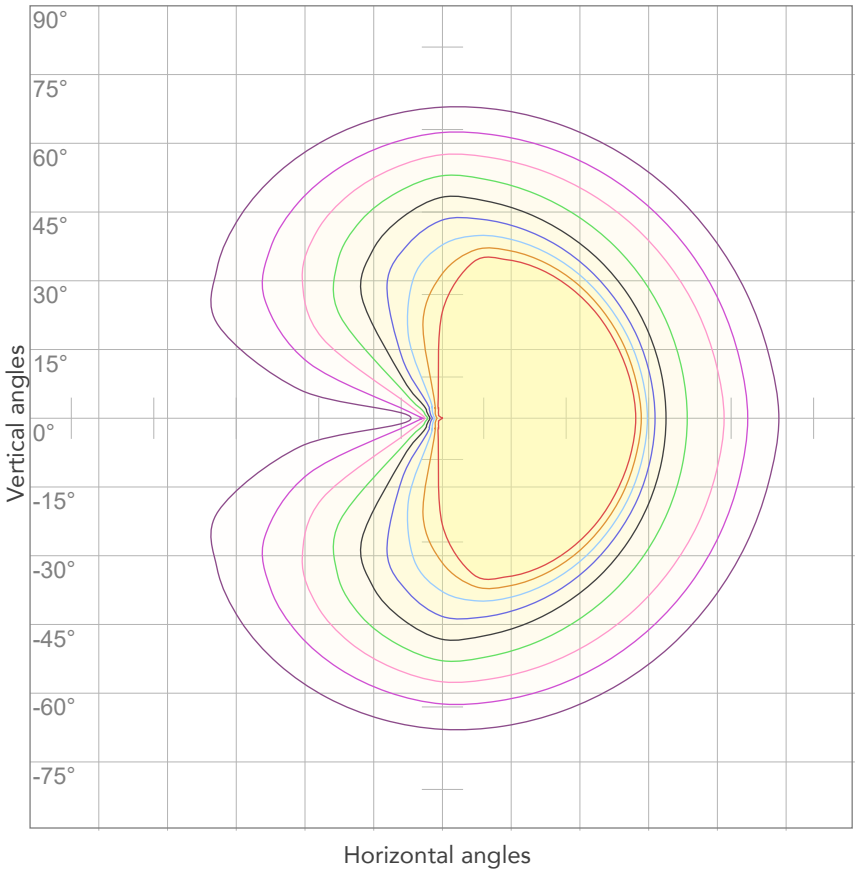
ISO DIAGRAMS

ISO CANDELA DIAGRAM



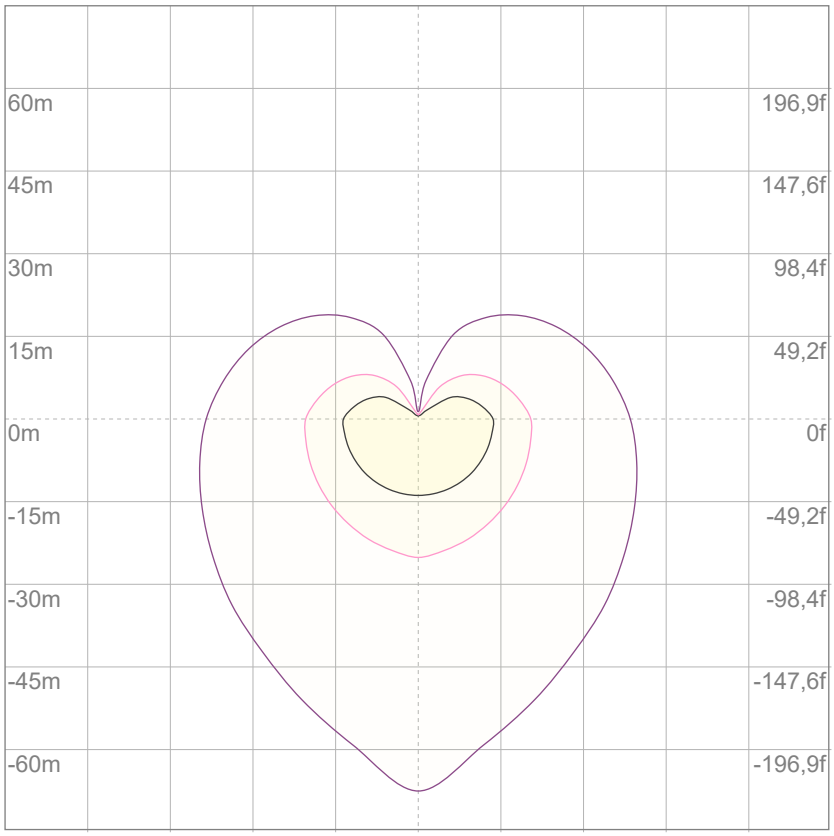
10%	294 cd
20%	588 cd
30%	882 cd
40%	1176 cd
50%	1470 cd
60%	1764 cd
70%	2058 cd
80%	2352 cd

Conditions:

Number of c-planes: 4

Candela at center: 2940 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,882 lx
5%	1,47 lx
10%	2,94 lx
30%	8,82 lx
50%	14,7 lx

Conditions:

Number of c-planes: 4

Lux at center: 29,4 lx

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

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Total lumen output:

7996 lm

Peak candela output:

9193 cd

Light quality:

CRI: 88,1

Color temperature:

6006 K

PRODUCT NAME:

ECL CYC050

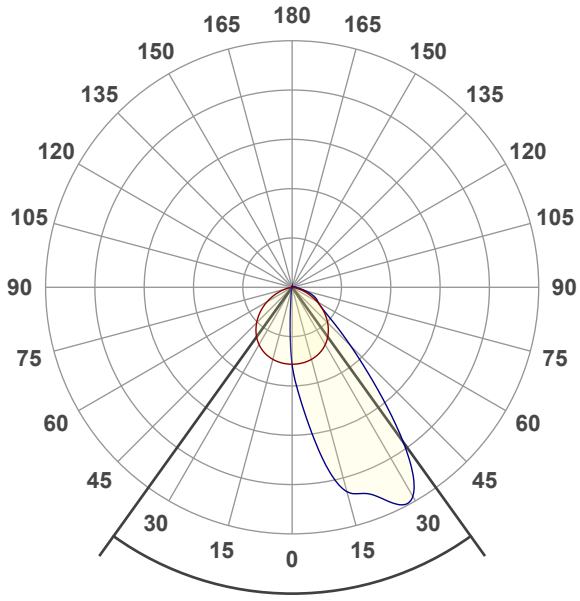
MEASURAMENT CONDITIONS:

Beam angle:
Filter 1060

Target:
6000K

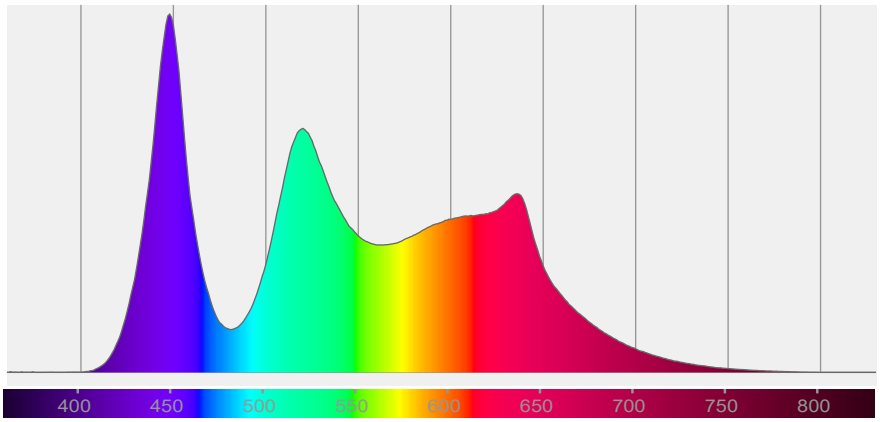
Operator:
Paolo Carvone

Date and time:
13/04/2022 12:47:03

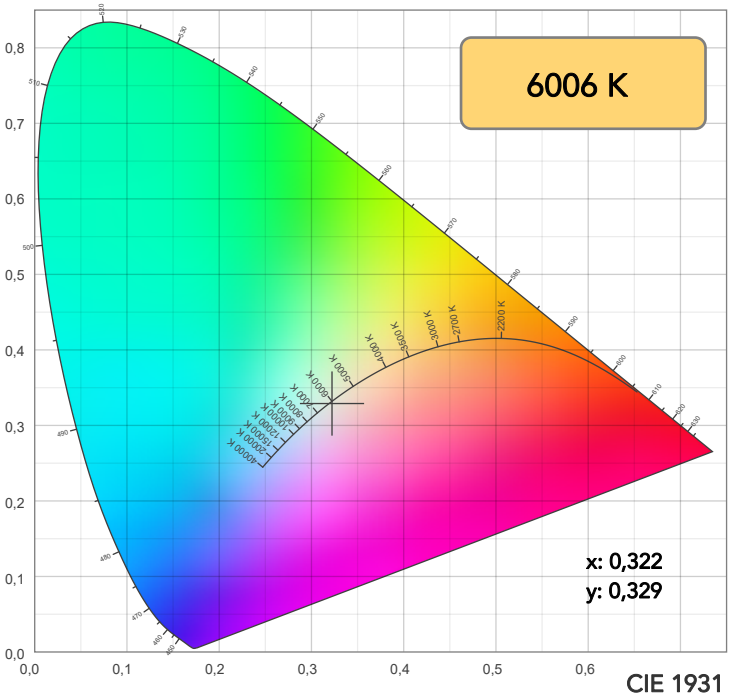


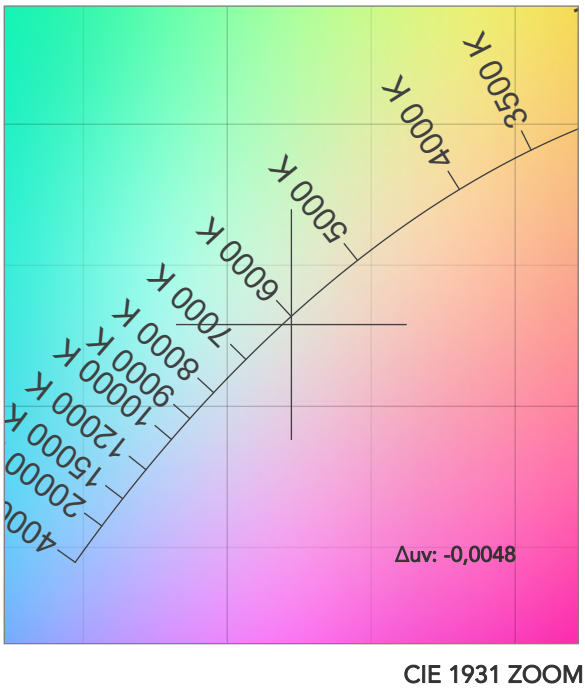
Beam angle 50%: 71,3°
Field angle 10%: 110,9°
Cut off angle 2.5%: 127,9°

Spectra

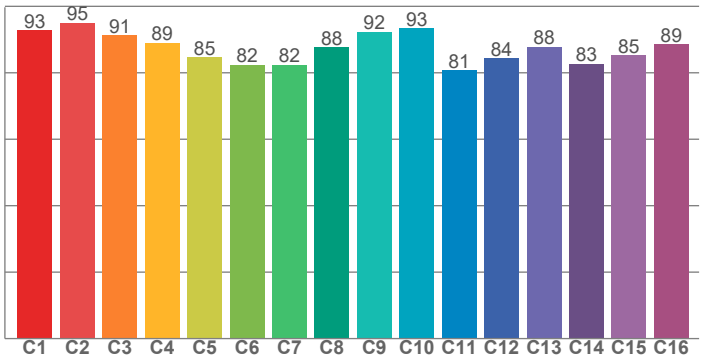


COLOR DETAILS

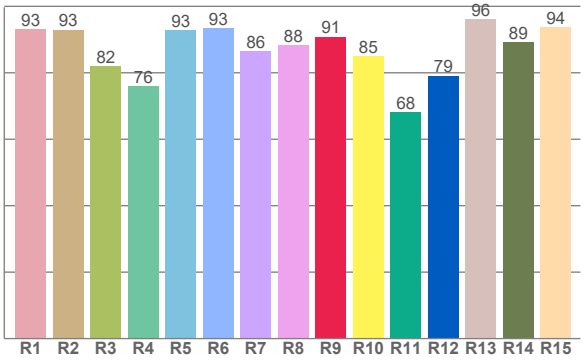




TM30: 87,5



CRI: 88,1 (R1-R8)



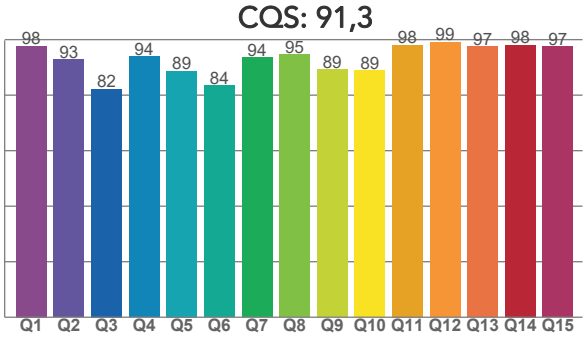
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93,2	93,0	82,1	75,9	92,9	93,3	86,4	88,2	90,8	85,0	68,1	79,1	96,2	89,2	93,8

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

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,8	95,0	91,3	89,0	84,6	82,3	82,3	87,6	92,3	93,4	80,8	84,3	87,8	82,6	85,2	88,6

CQS: 91,3



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,7	92,8	82,2	93,9	88,7	83,5	93,5	94,6	89,2	88,9	98,0	99,0	97,4	98,1	97,5

COLOR PARAMETERS

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6006 K	88,1	90,8	87,5	109,6	91,3	80	0,322	0,329	-0,0048

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TM30 DETAILS

PROLiGHTS

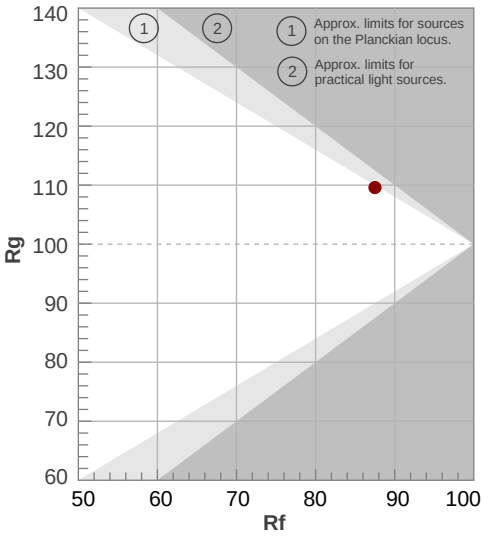
Rf 87,5

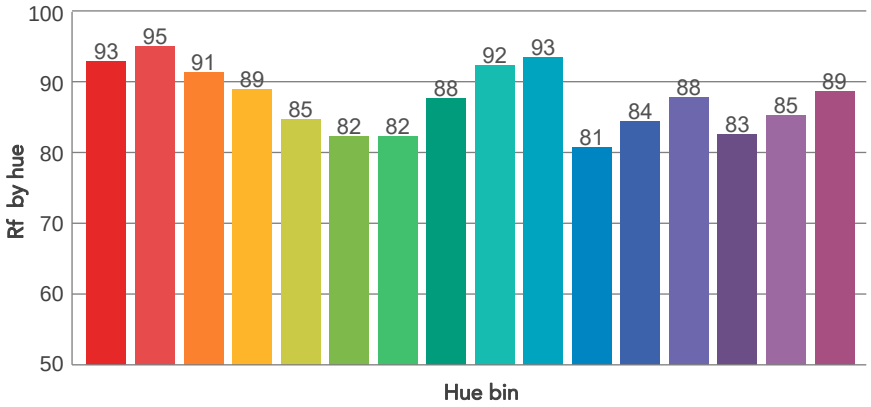
Fidelity index Rf

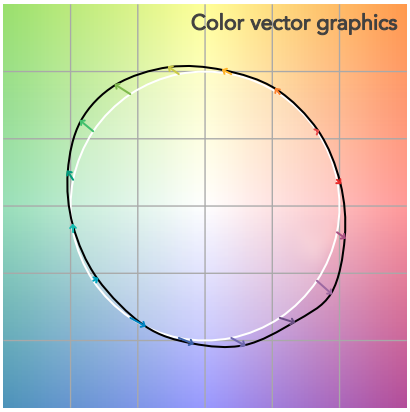
Rg 109,6

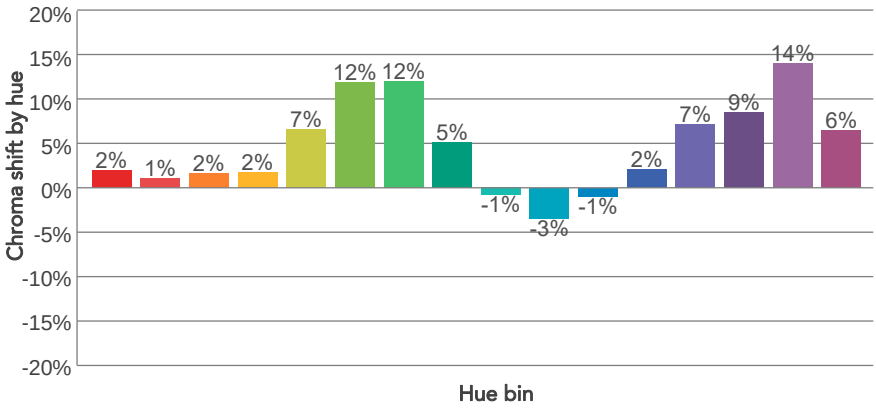
Gammut index

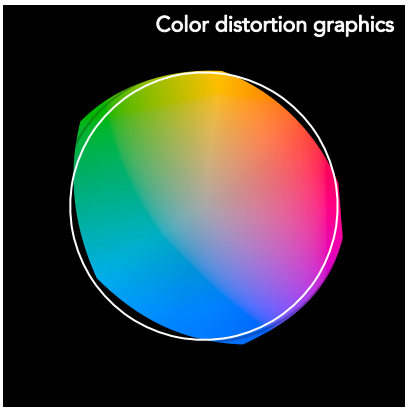
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	93	2%	-3%
2	95	1%	0%
3	91	2%	5%
4	89	2%	7%
5	85	7%	6%
6	82	12%	5%
7	82	12%	-1%
8	88	5%	-5%
9	92	-1%	-5%
10	93	-3%	0%
11	81	-1%	12%
12	84	2%	11%
13	88	7%	9%
14	83	9%	7%
15	85	14%	-2%
16	89	6%	-3%

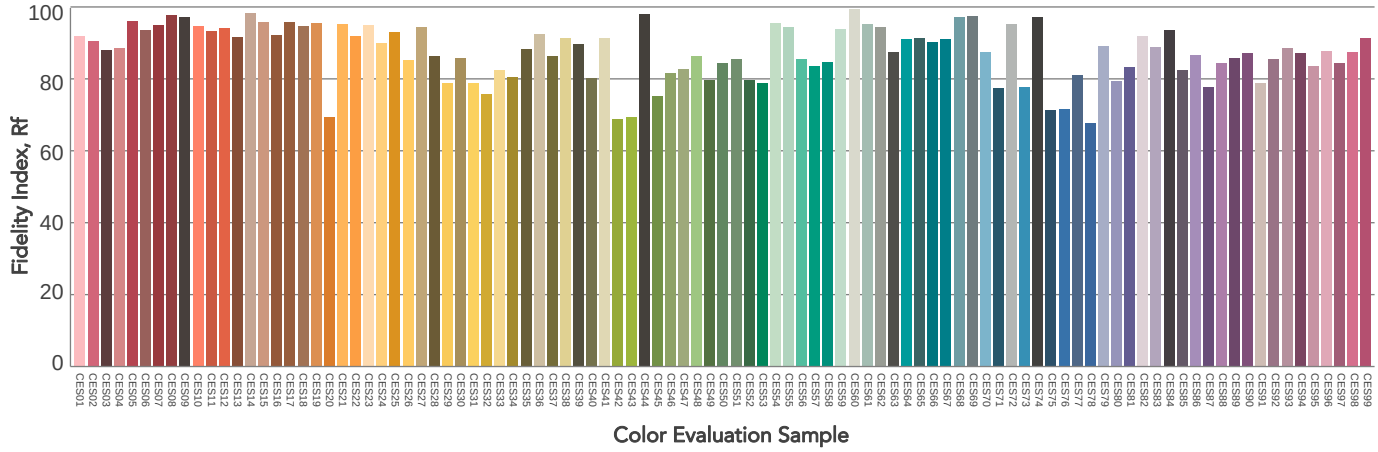












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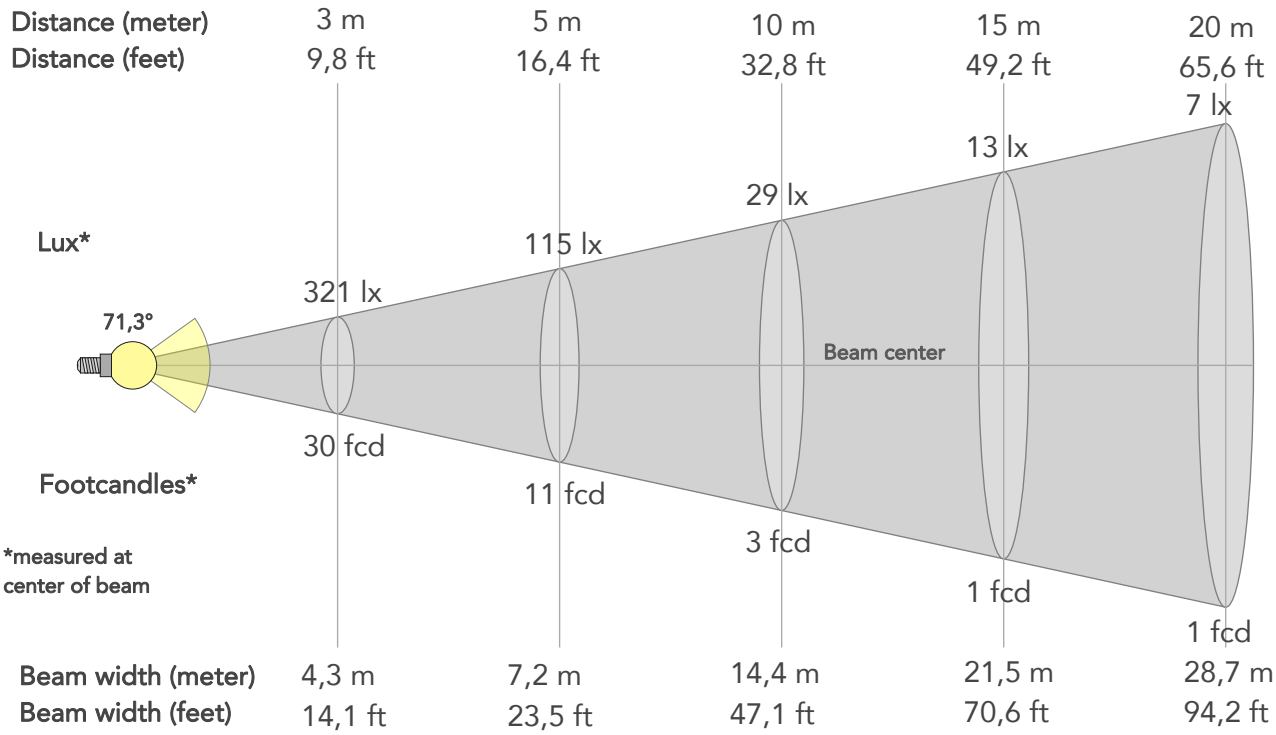
BEAM DETAILS

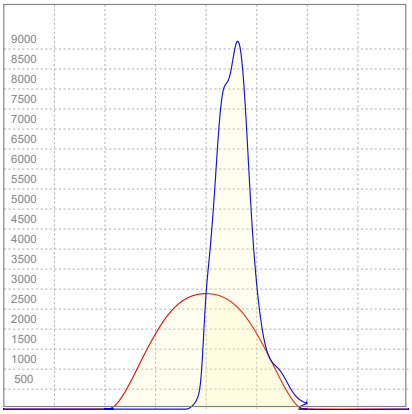
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
71,3°	110,9°	127,9°	87,3%	68,1%



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	2886lx	722lx	321lx	180lx	115lx	51lx	29lx	13lx	7lx	5lx	3lx	2lx	1lx
Footcand.	268fcd	67fcd	30fcd	17fcd	11fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,4m	2,9m	4,3m	5,7m	7,2m	10,8m	14,4m	21,5m	28,7m	35,9m	43,1m	57,4m	71,8m
Beam wid.	4,7ft	9,5ft	14,1ft	18,8ft	23,5ft	35,3ft	47,1ft	70,6ft	94,2ft	117,7ft	141,2ft	188,3ft	235,4ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,449A	94,9W	84lm/W

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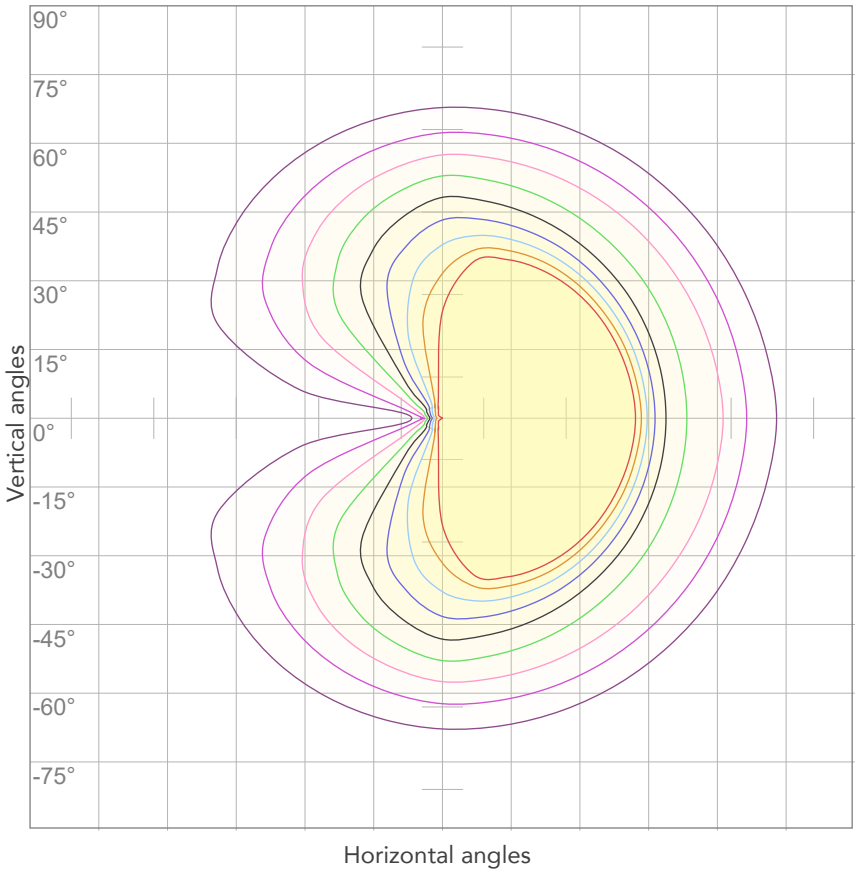
ISO DIAGRAMS

ISO CANDELA DIAGRAM



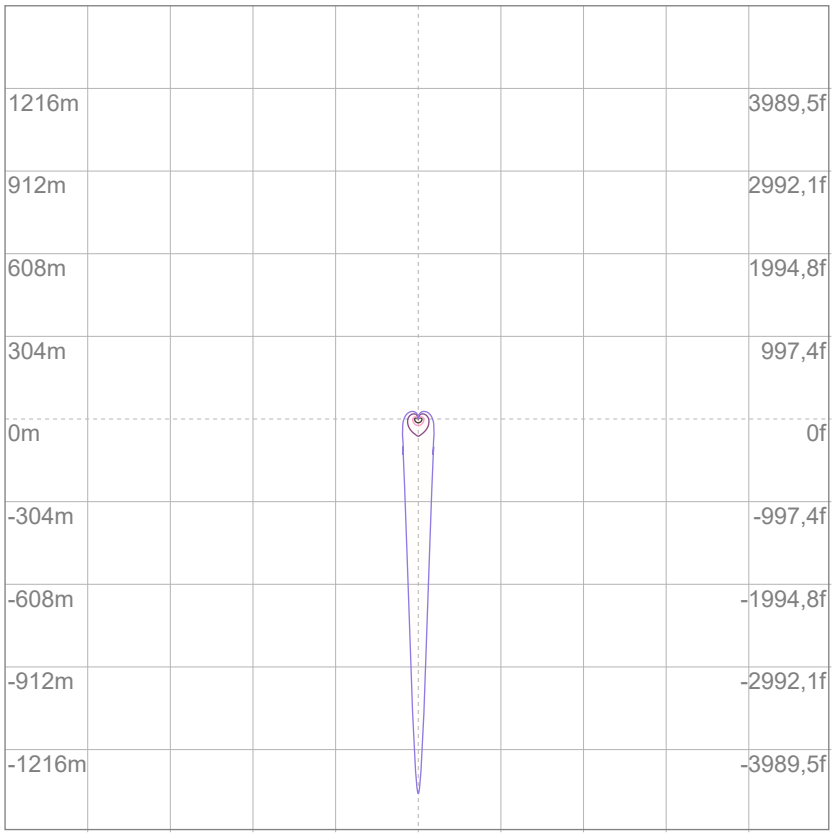
10%	289 cd
20%	577 cd
30%	866 cd
40%	1154 cd
50%	1443 cd
60%	1732 cd
70%	2020 cd
80%	2309 cd

Conditions:

Number of c-planes: 4

Candela at center: 2886 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,866 lx
5%	1,44 lx
10%	2,89 lx
30%	8,66 lx
50%	14,4 lx

Conditions:

Number of c-planes: 4

Lux at center: 28,9 lx

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