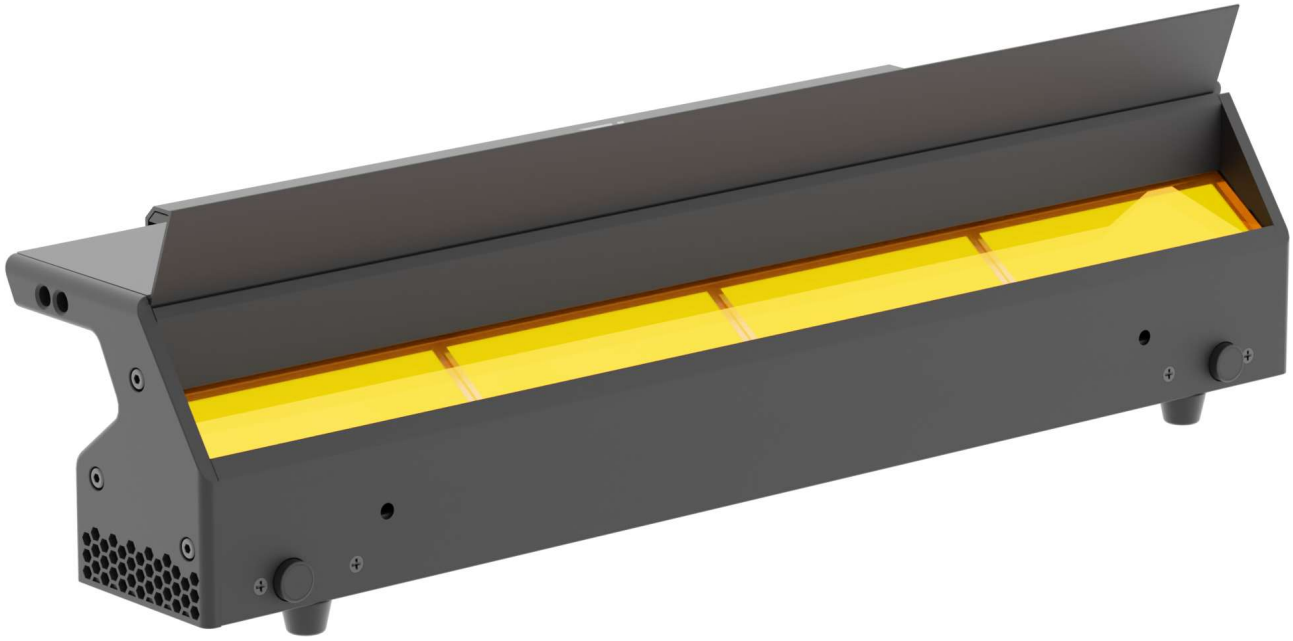
Photometric Test Report



ECLCYC050

170W RGB+W LED cyclorama projector

(filter 30°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:

8578 lm

Peak candela output:

6795 cd

PRODUCT NAME:

ECL CYC050

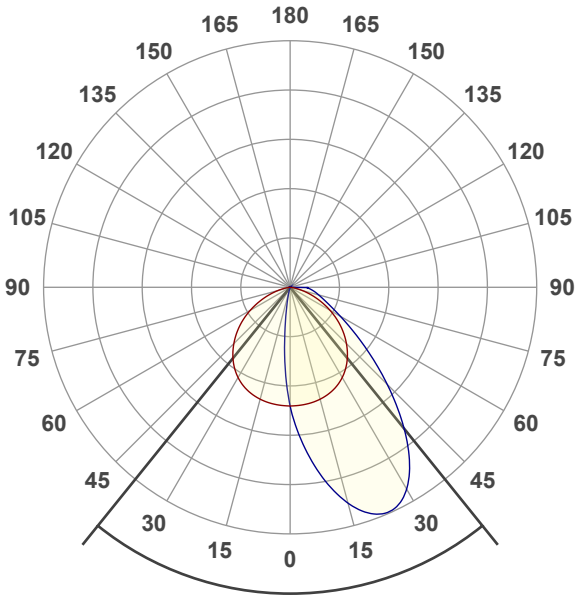
MEASURAMENT CONDITIONS:

Beam angle:
Filter 3060

Target:
Full On

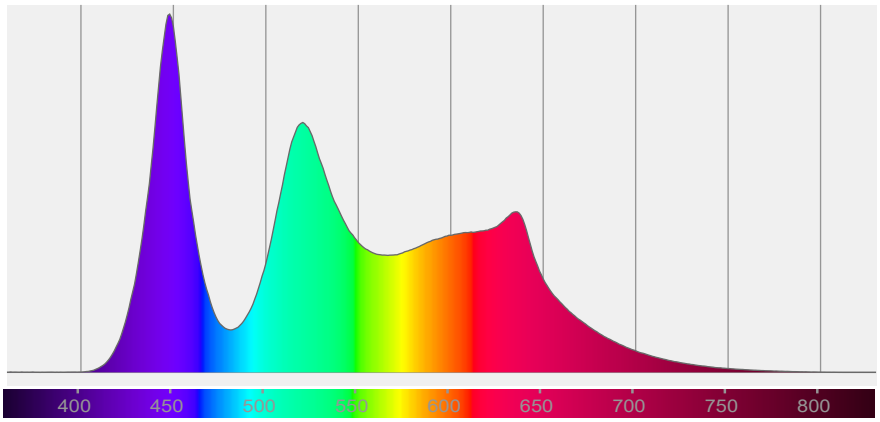
Operator:
Paolo Carvone

Date and time:
13/04/2022 13:26:26



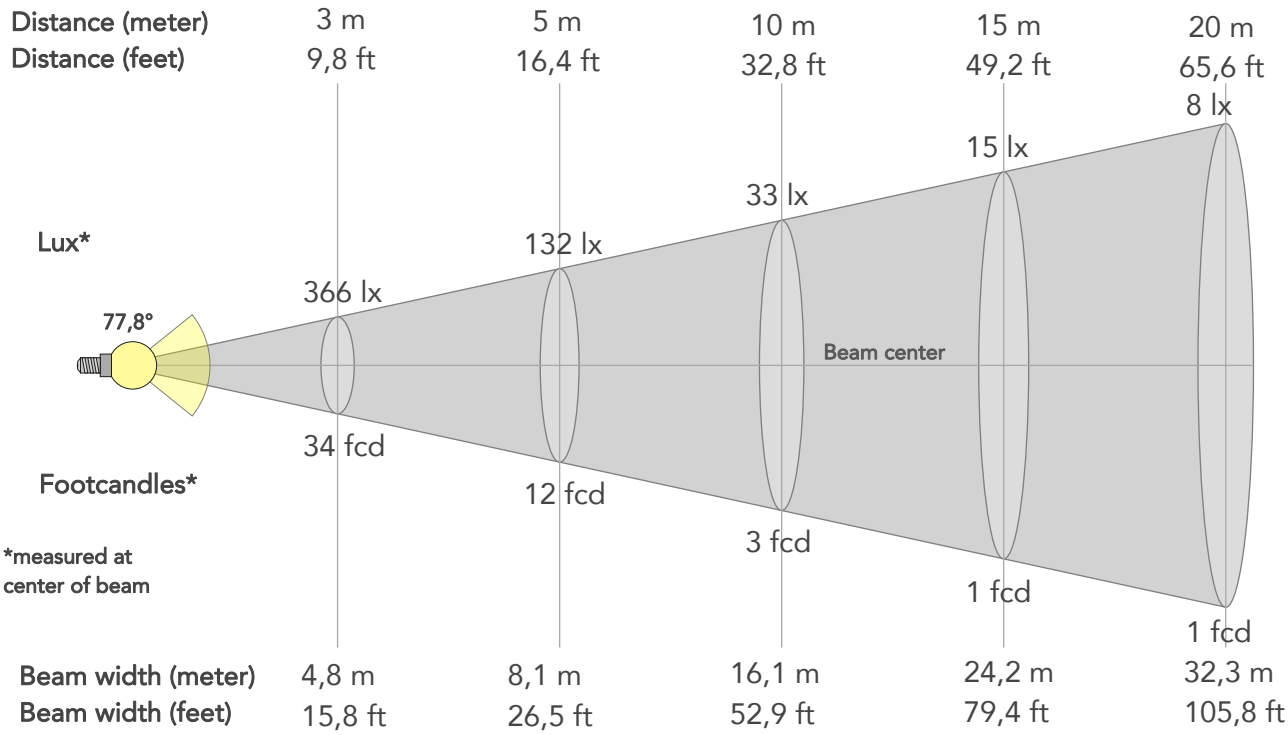
Beam angle 50%: 77,8°
Field angle 10%: 120,4°
Cut off angle 2.5%: 133,9°

Spectra



BEAM DETAILS

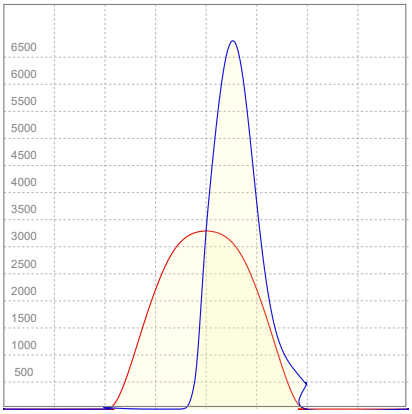
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
77,8°	120,4°	133,9°	84,0%	61,1%



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	3290lx	823lx	366lx	206lx	132lx	58lx	33lx	15lx	8lx	5lx	4lx	2lx	1lx
Footcand.	306fcd	76fcd	34fcd	19fcd	12fcd	5fcd	3fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,6m	3,2m	4,8m	6,5m	8,1m	12,1m	16,1m	24,2m	32,3m	40,3m	48,4m	64,5m	80,6m
Beam wid.	5,3ft	10,6ft	15,8ft	21,1ft	26,5ft	39,7ft	52,9ft	79,4ft	105,8ft	132,3ft	158,7ft	211,6ft	264,5ft

LINEAR DISTRIBUTION DIAGRAM



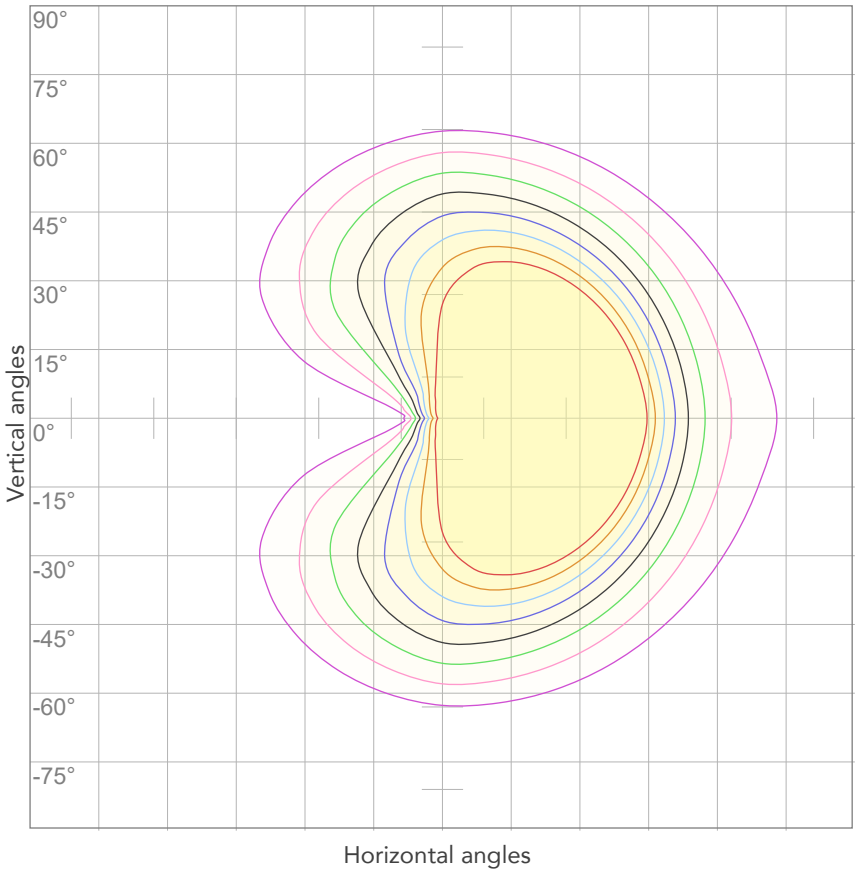
ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,635A	135,7W	63lm/W

Power FC
0,94

ISO DIAGRAMS

ISO CANDELA DIAGRAM



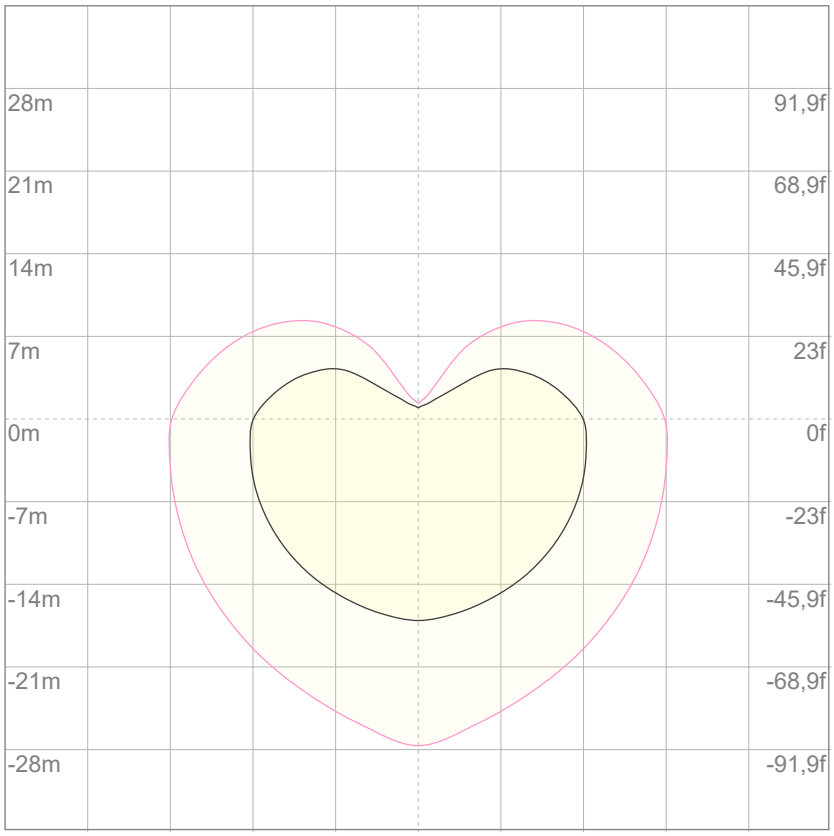
10%	329 cd
20%	658 cd
30%	987 cd
40%	1316 cd
50%	1645 cd
60%	1974 cd
70%	2303 cd
80%	2632 cd

Conditions:

Number of c-planes: 4

Candela at center: 3290 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,987 lx
5%	1,65 lx
10%	3,29 lx
30%	9,87 lx
50%	16,5 lx

Conditions:

Number of c-planes: 4

Lux at center: 32,9 lx

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

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Total lumen output:

1679 lm

Peak candela output:

1452 cd

PRODUCT NAME:

ECL CYC050

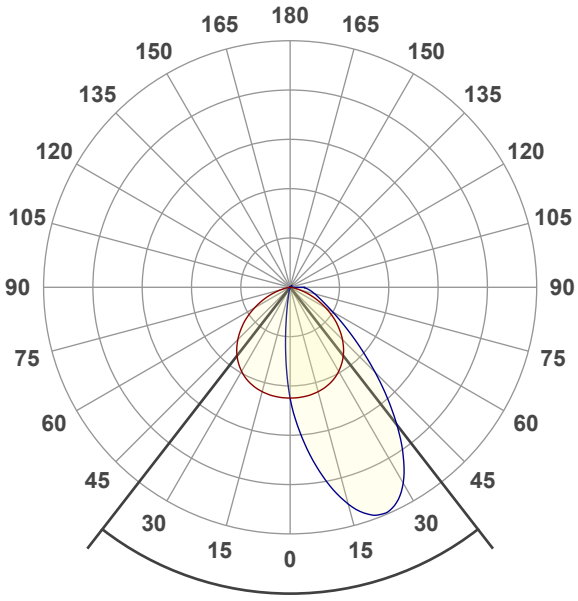
MEASURAMENT CONDITIONS:

Beam angle:
Filter 3060

Target:
Red

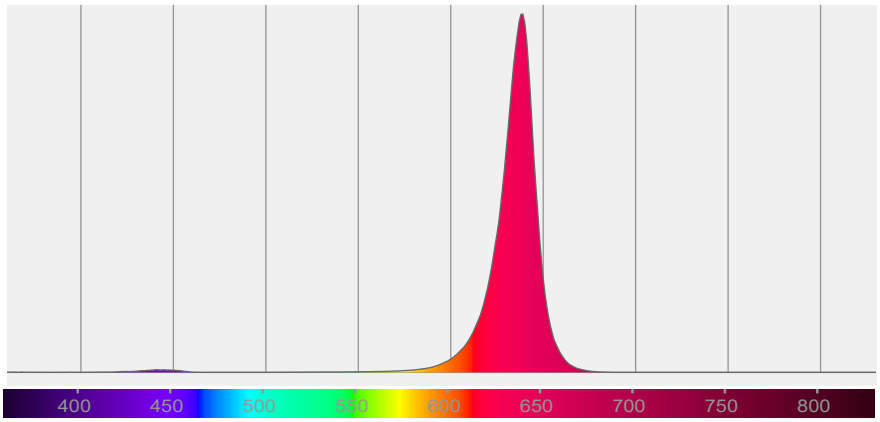
Operator:
Paolo Carvone

Date and time:
13/04/2022 13:30:54



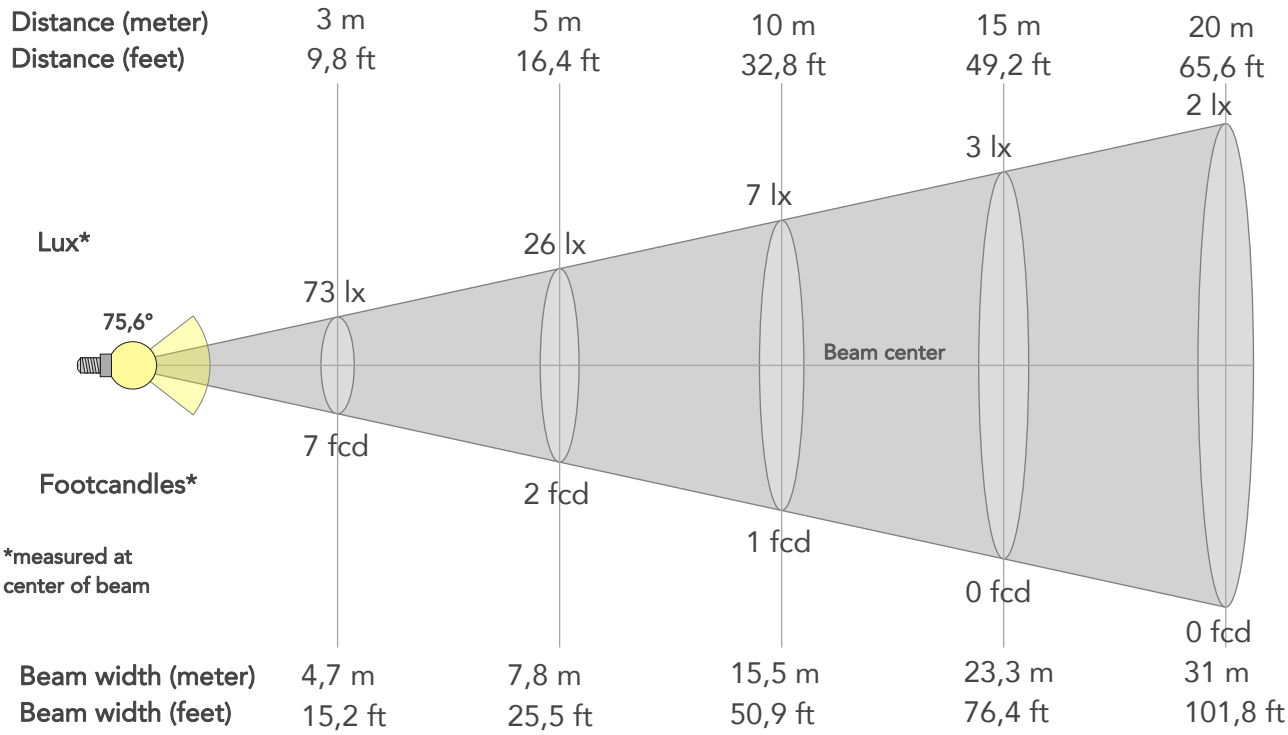
Beam angle 50%: 75,6°
Field angle 10%: 116,3°
Cut off angle 2.5%: 132°

Spectra



BEAM DETAILS

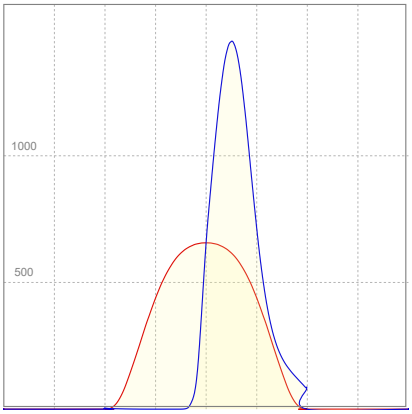
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
75,6°	116,3°	132°	85,2%	63,1%



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	656lx	164lx	73lx	41lx	26lx	12lx	7lx	3lx	2lx	1lx	1lx	0lx	0lx
Footcand.	61fcd	15fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,6m	3,1m	4,7m	6,2m	7,8m	11,6m	15,5m	23,3m	31m	38,8m	46,6m	62,1m	77,6m
Beam wid.	5,1ft	10,2ft	15,2ft	20,3ft	25,5ft	38,2ft	50,9ft	76,4ft	101,8ft	127,3ft	152,7ft	203,7ft	254,6ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,194A	37,0W	45lm/W

Power FC
0,84

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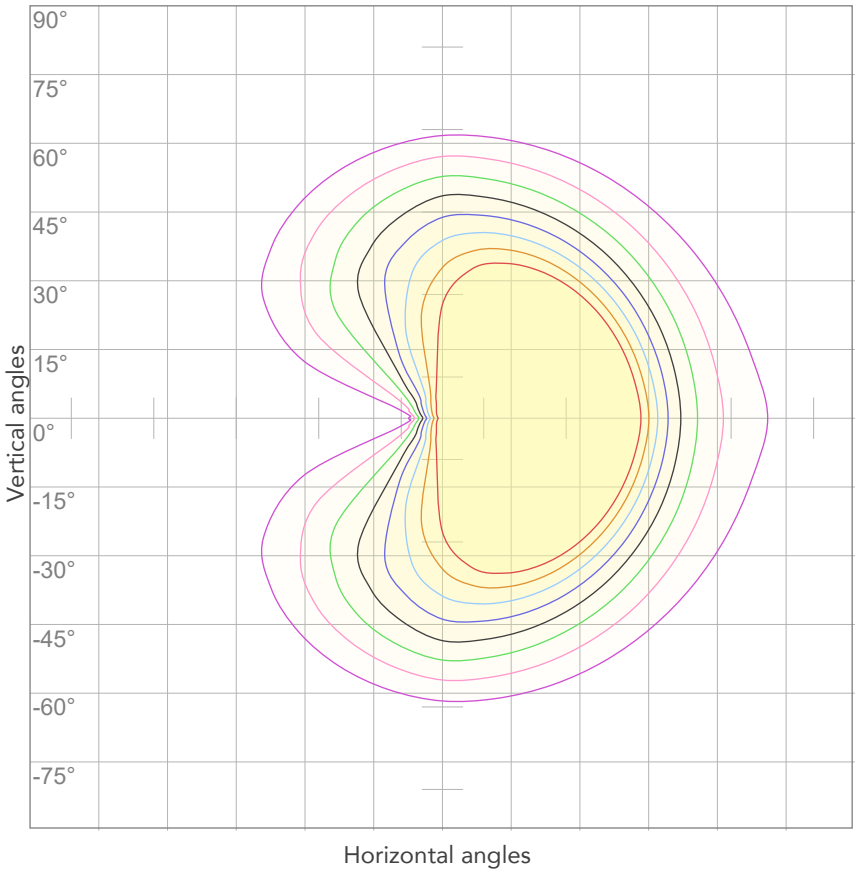
ISO DIAGRAMS

ISO CANDELA DIAGRAM



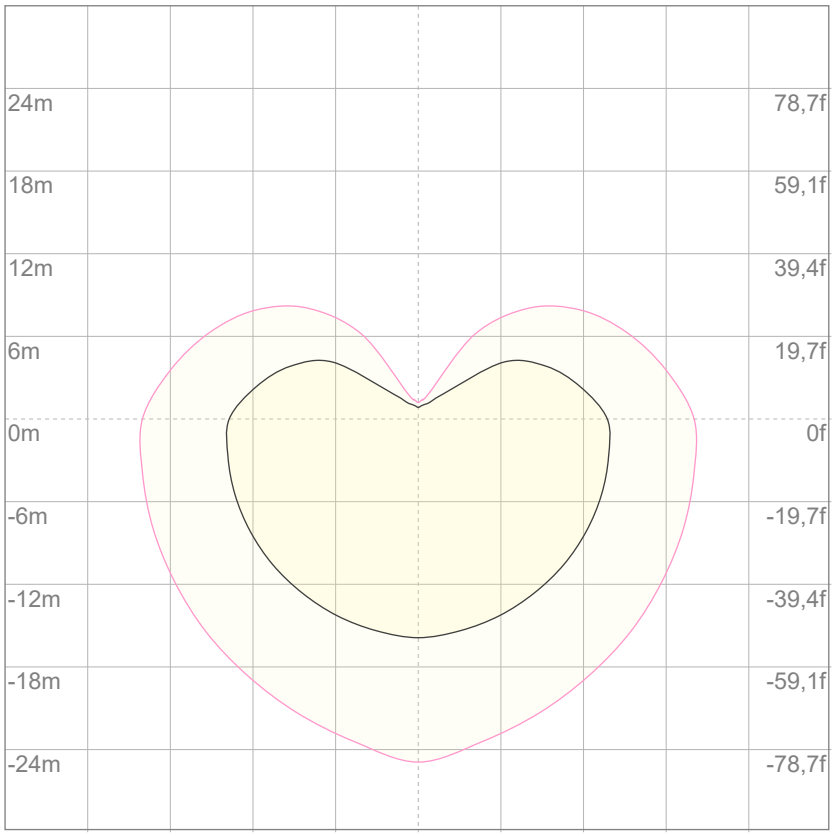
10%	66 cd
20%	131 cd
30%	197 cd
40%	262 cd
50%	328 cd
60%	394 cd
70%	459 cd
80%	525 cd

Conditions:

Number of c-planes: 4

Candela at center: 656 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,197 lx
5%	0,328 lx
10%	0,656 lx
30%	1,97 lx
50%	3,28 lx

Conditions:

Number of c-planes: 4

Lux at center: 6,56 lx

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

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Total lumen output:

3114 lm

Peak candela output:

2399 cd

PRODUCT NAME:

ECL CYC050

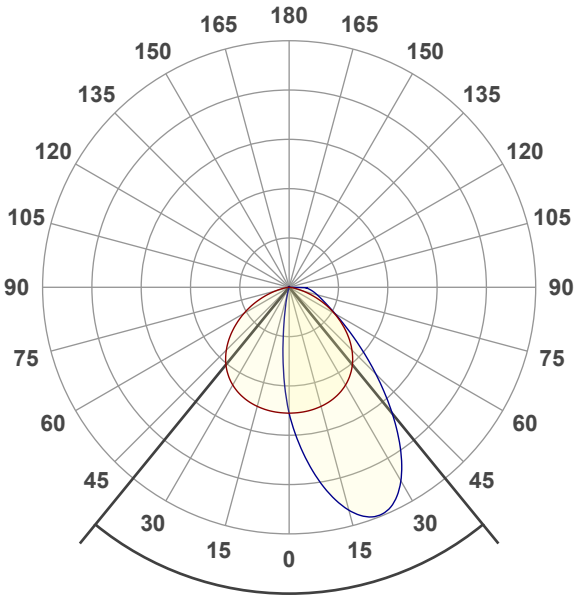
MEASURAMENT CONDITIONS:

Beam angle:
Filter 3060

Target:
Green

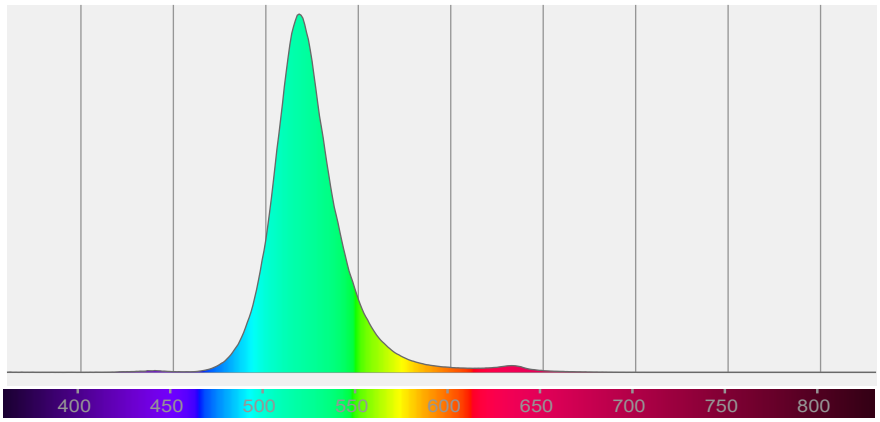
Operator:
Paolo Carvone

Date and time:
13/04/2022 14:20:27



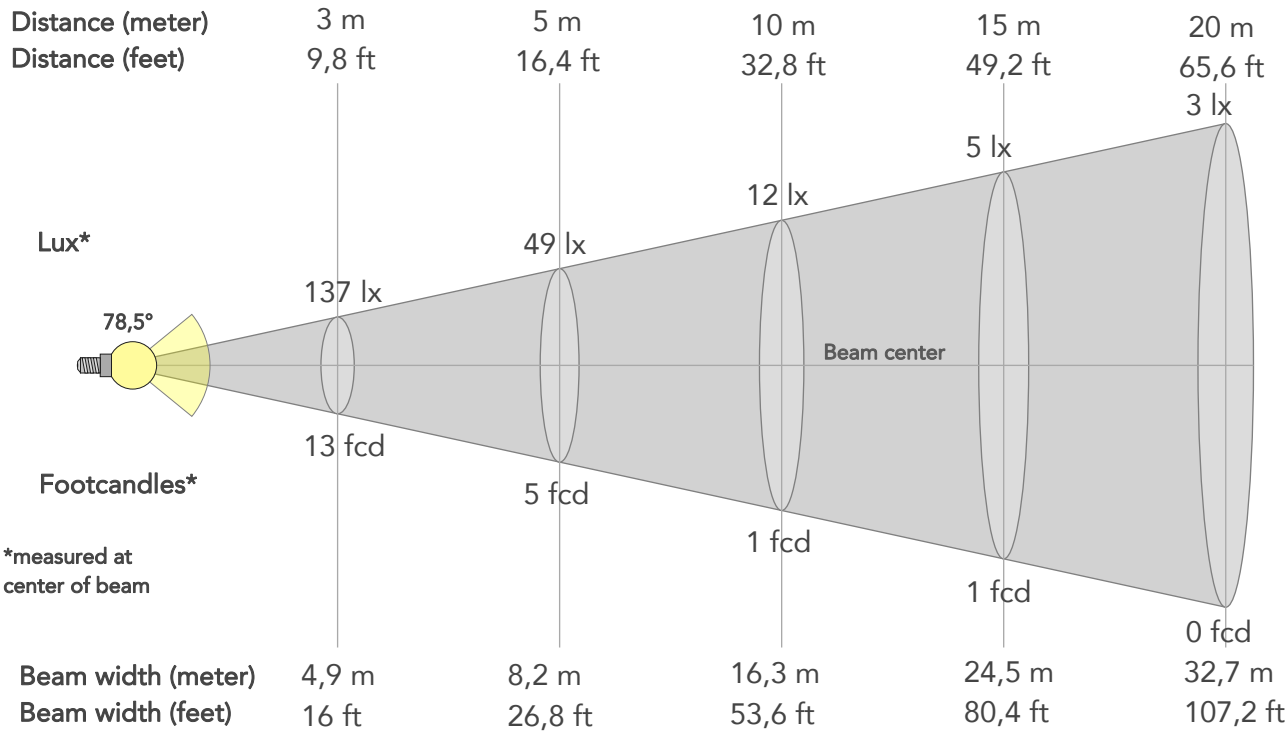
Beam angle 50%: 78,5°
Field angle 10%: 120,7°
Cut off angle 2.5%: 133,9°

Spectra



BEAM DETAILS

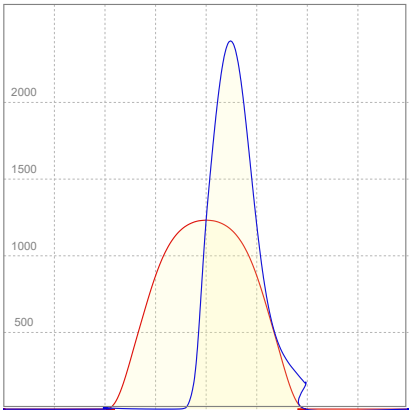
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
78,5°	120,7°	133,9°	83,7%	61,0%



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	1232lx	308lx	137lx	77lx	49lx	22lx	12lx	5lx	3lx	2lx	1lx	1lx	0lx
Footcand.	114fcd	29fcd	13fcd	7fcd	5fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,6m	3,3m	4,9m	6,5m	8,2m	12,3m	16,3m	24,5m	32,7m	40,8m	49m	65,4m	81,7m
Beam wid.	5,4ft	10,8ft	16ft	21,4ft	26,8ft	40,2ft	53,6ft	80,4ft	107,2ft	134ft	160,8ft	214,4ft	267,9ft

LINEAR DISTRIBUTION DIAGRAM



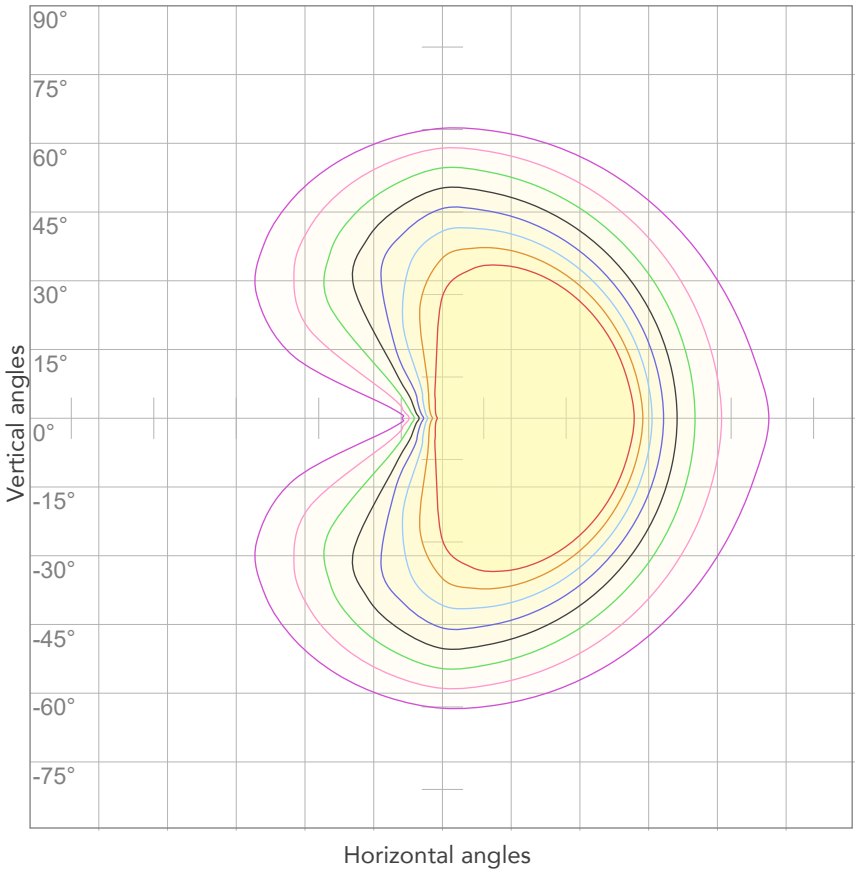
ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,258A	51,5W	61lm/W

Power FC
0,89

ISO DIAGRAMS

ISO CANDELA DIAGRAM



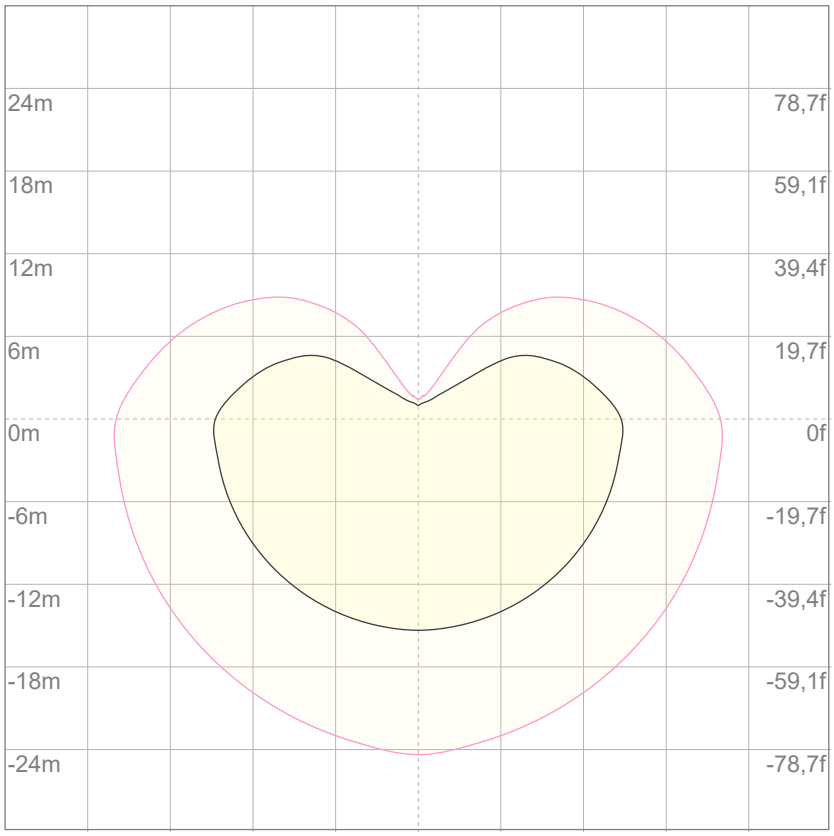
10%	123 cd
20%	246 cd
30%	370 cd
40%	493 cd
50%	616 cd
60%	739 cd
70%	862 cd
80%	985 cd

Conditions:

Number of c-planes: 4

Candela at center: 1232 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,370 lx
5%	0,616 lx
10%	1,23 lx
30%	3,70 lx
50%	6,16 lx

Conditions:

Number of c-planes: 4

Lux at center: 12,3 lx

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

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Total lumen output:

1005 lm

Peak candela output:

855 cd

PRODUCT NAME:

ECL CYC050

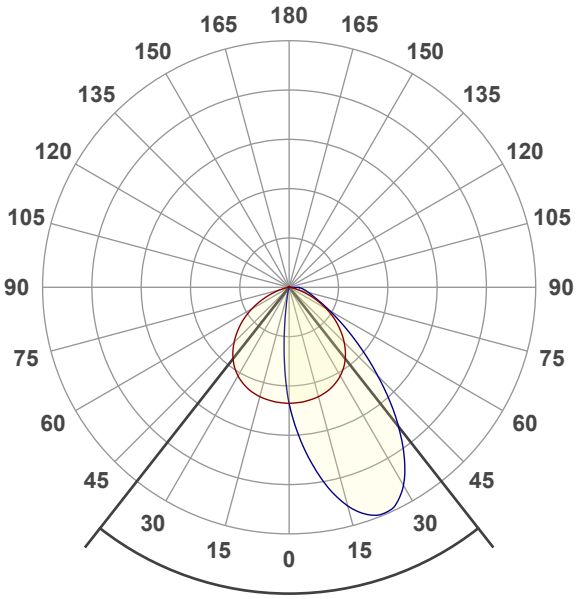
MEASURAMENT CONDITIONS:

Beam angle:
Filter 3060

Target:
Blue

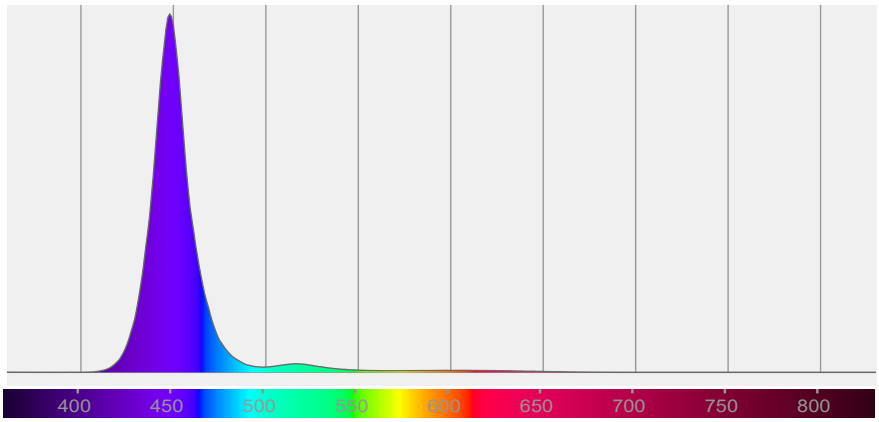
Operator:
Paolo Carvone

Date and time:
13/04/2022 14:23:32



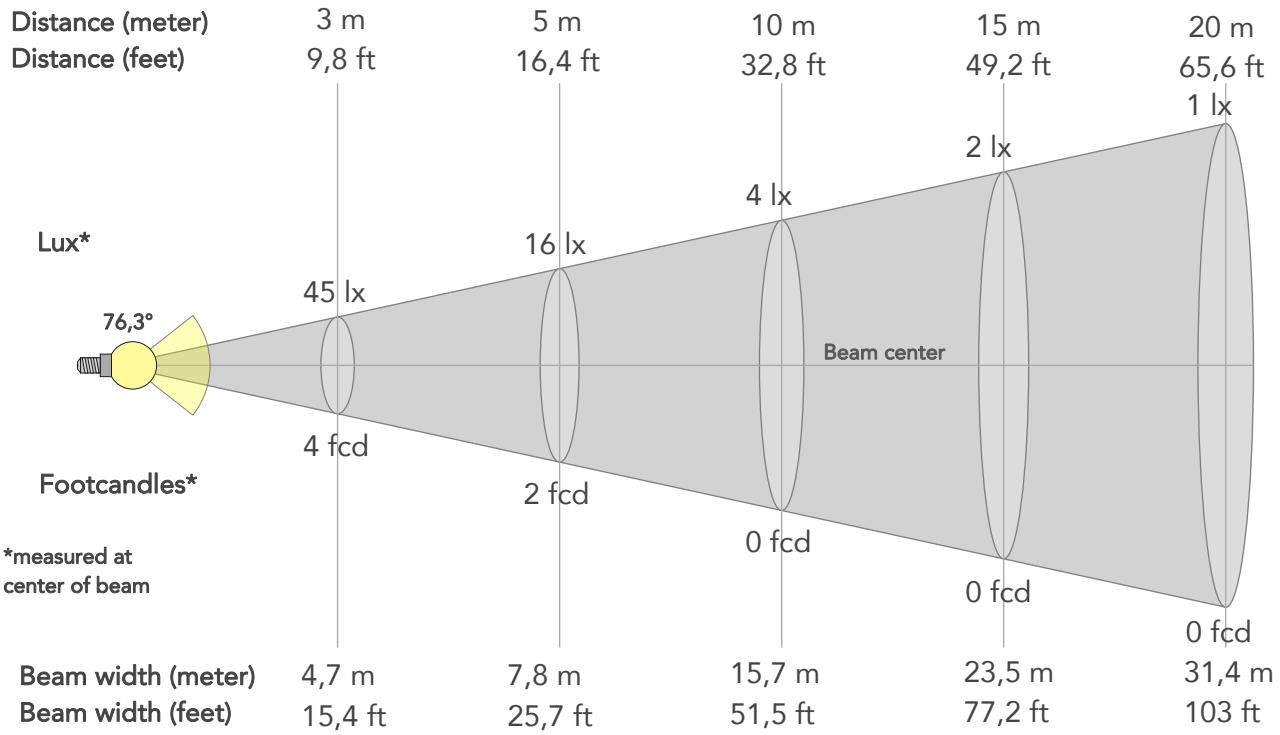
Beam angle 50%: 76,3°
Field angle 10%: 112,7°
Cut off angle 2.5%: 130,7°

Spectra



BEAM DETAILS

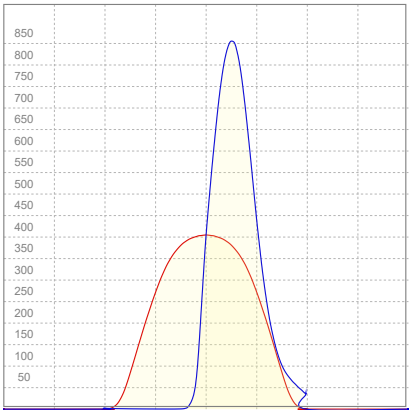
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
76,3°	112,7°	130,7°	86,9%	64,2%



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	405lx	101lx	45lx	25lx	16lx	7lx	4lx	2lx	1lx	1lx	0lx	0lx	0lx
Footcand.	38fcd	9fcd	4fcd	2fcd	2fcd	1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,6m	3,1m	4,7m	6,3m	7,8m	11,8m	15,7m	23,5m	31,4m	39,2m	47,1m	62,8m	78,5m
Beam wid.	5,2ft	10,4ft	15,4ft	20,6ft	25,7ft	38,6ft	51,5ft	77,2ft	103ft	128,7ft	154,5ft	206ft	257,4ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,269A	54,4W	18lm/W

Power FC
0,89

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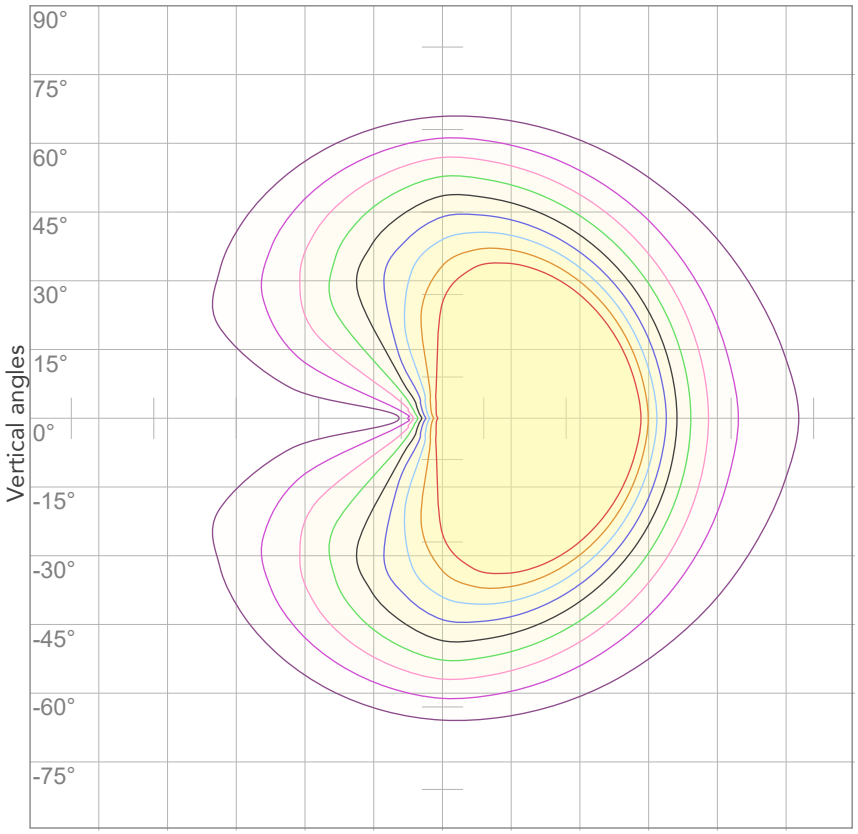
ISO DIAGRAMS

ISO CANDELA DIAGRAM



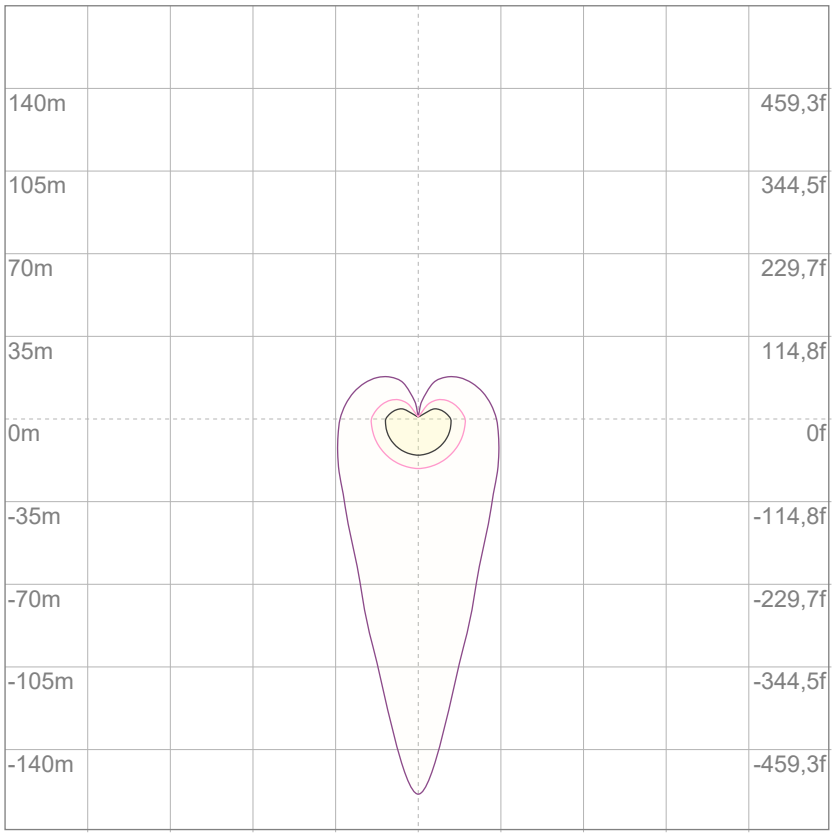
10%	40 cd
20%	81 cd
30%	121 cd
40%	162 cd
50%	202 cd
60%	243 cd
70%	283 cd
80%	324 cd

Conditions:

Number of c-planes: 4

Candela at center: 405 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,121 lx
5%	0,202 lx
10%	0,405 lx
30%	1,21 lx
50%	2,02 lx

Conditions:

Number of c-planes: 4

Lux at center: 4,05 lx

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

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Total lumen output:

11315 lm

Peak candela output:

9029 cd

PRODUCT NAME:

ECL CYC050

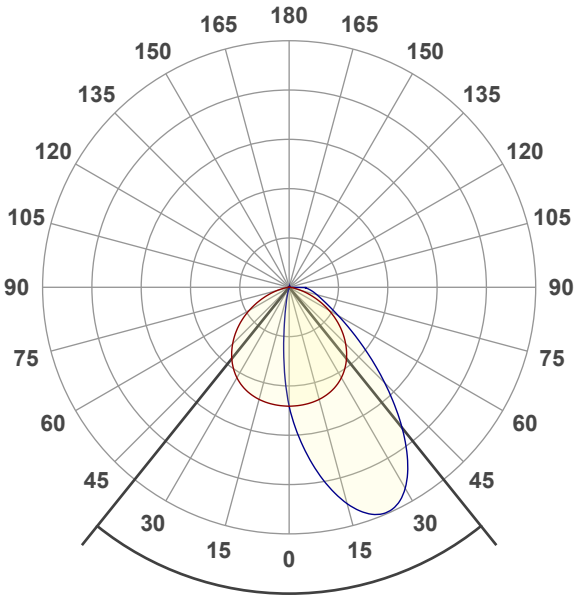
MEASURAMENT CONDITIONS:

Beam angle:
Filter 3060

Target:
White

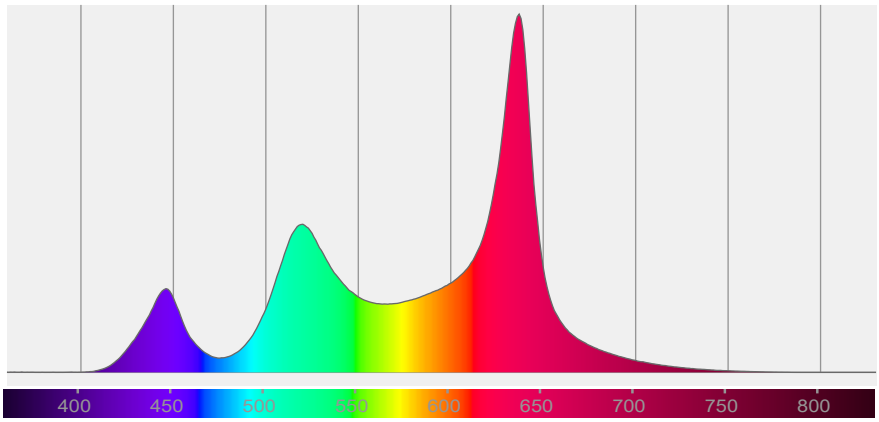
Operator:
Paolo Carvone

Date and time:
13/04/2022 14:25:56



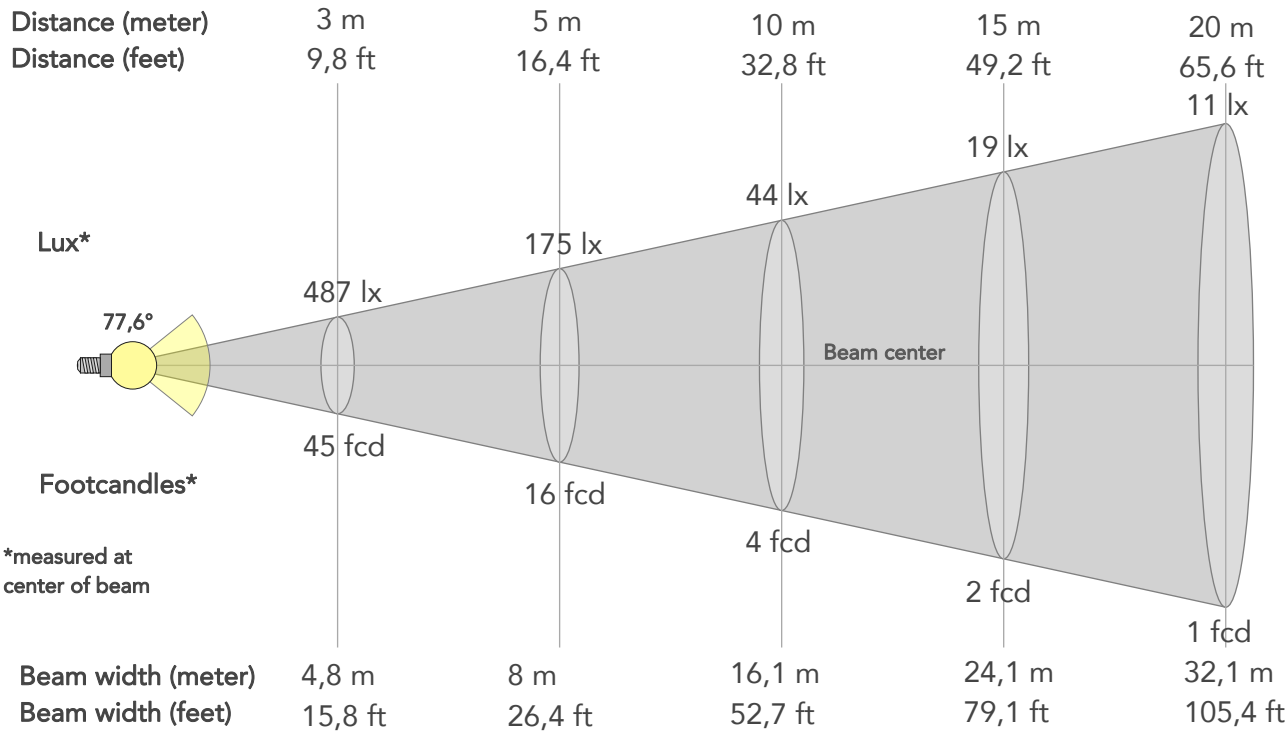
Beam angle 50%: 77,6°
Field angle 10%: 119,6°
Cut off angle 2.5%: 133,3°

Spectra



BEAM DETAILS

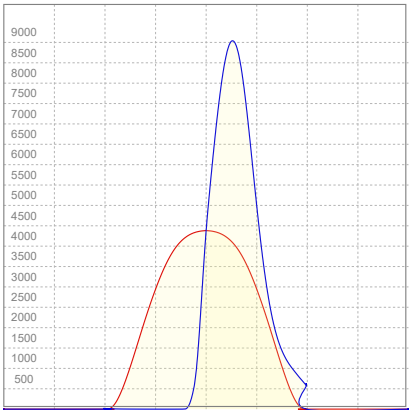
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
77,6°	119,6°	133,3°	84,3%	61,5%



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	4380lx	1095lx	487lx	274lx	175lx	78lx	44lx	19lx	11lx	7lx	5lx	3lx	2lx
Footcand.	407fcd	102fcd	45fcd	25fcd	16fcd	7fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd
Beam wid.	1,6m	3,2m	4,8m	6,4m	8m	12,1m	16,1m	24,1m	32,1m	40,2m	48,2m	64,3m	80,4m
Beam wid.	5,3ft	10,6ft	15,8ft	21,1ft	26,4ft	39,5ft	52,7ft	79,1ft	105,4ft	131,8ft	158,2ft	210,9ft	263,6ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,781A	166,7W	68lm/W

Power FC
0,95

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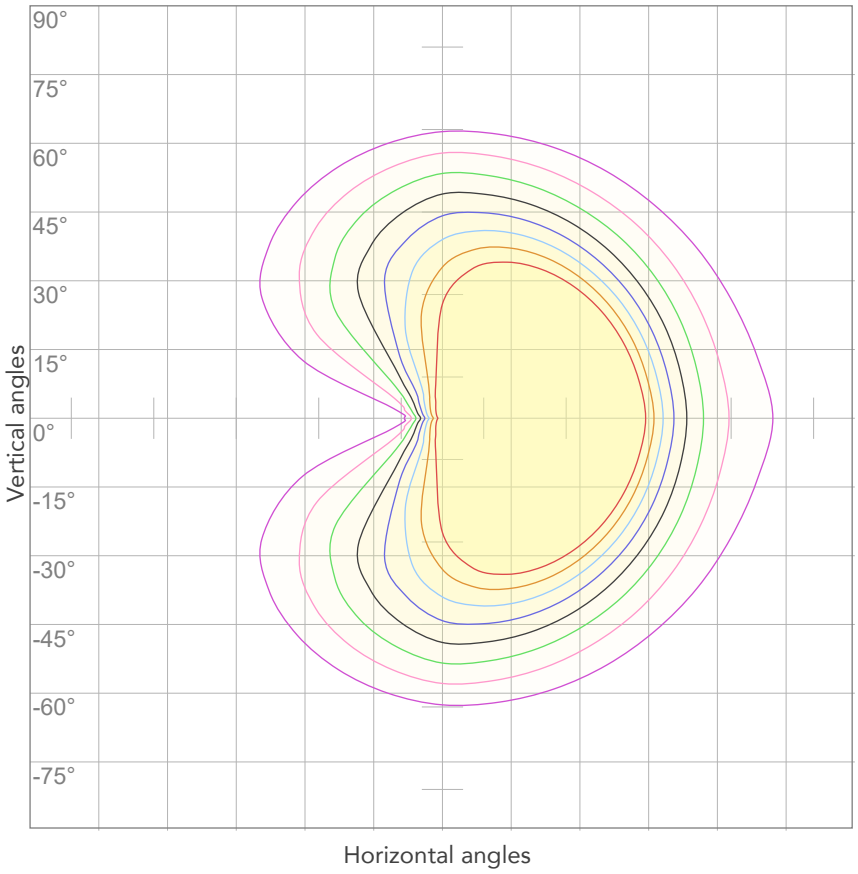
ISO DIAGRAMS

ISO CANDELA DIAGRAM



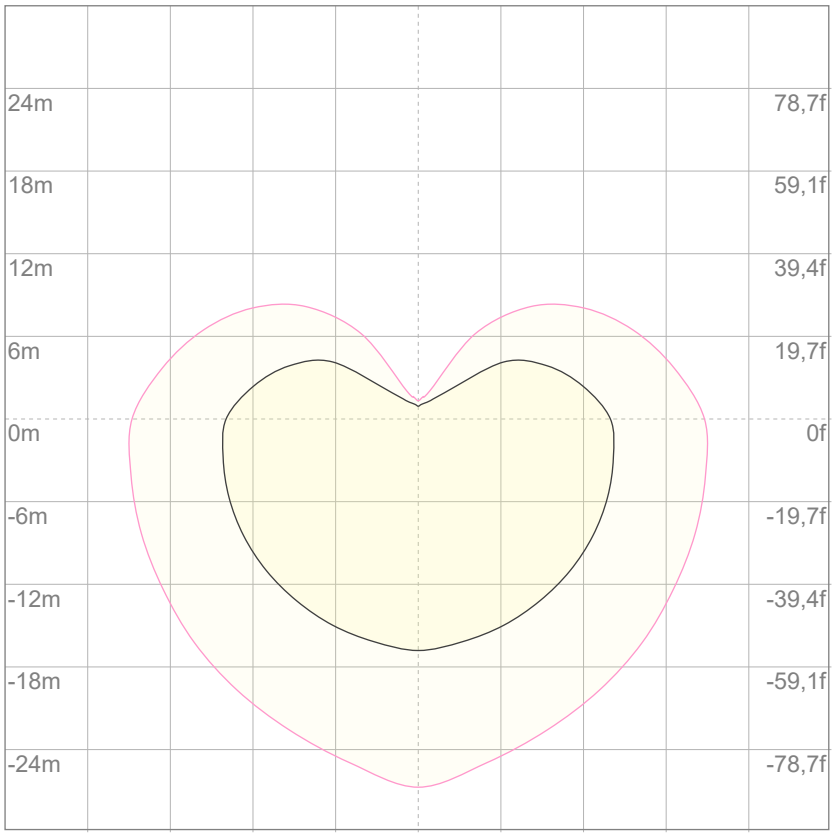
10%	438 cd
20%	876 cd
30%	1314 cd
40%	1752 cd
50%	2190 cd
60%	2628 cd
70%	3066 cd
80%	3504 cd

Conditions:

Number of c-planes: 4

Candela at center: 4380 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	1,31 lx
5%	2,19 lx
10%	4,38 lx
30%	13,1 lx
50%	21,9 lx

Conditions:

Number of c-planes: 4

Lux at center: 43,8 lx

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

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Total lumen output:

6591 lm

Peak candela output:

5311 cd

Light quality:

CRI: 89,5

Color temperature:

2754 K

PRODUCT NAME:

ECL CYC050

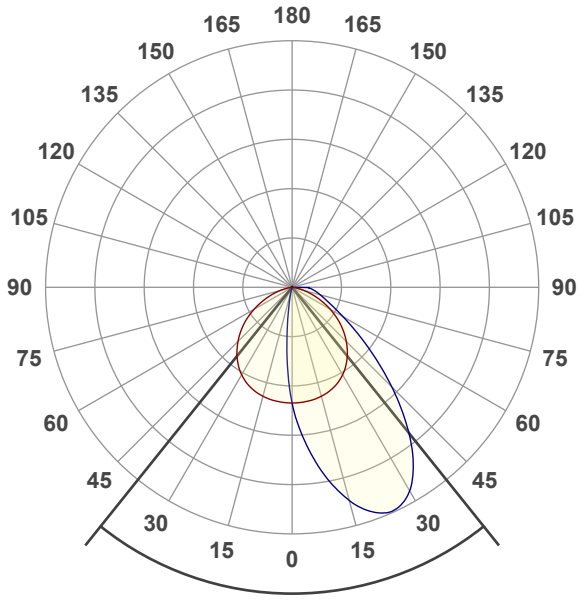
MEASURAMENT CONDITIONS:

Beam angle:
Filter 3060

Target:
2800K

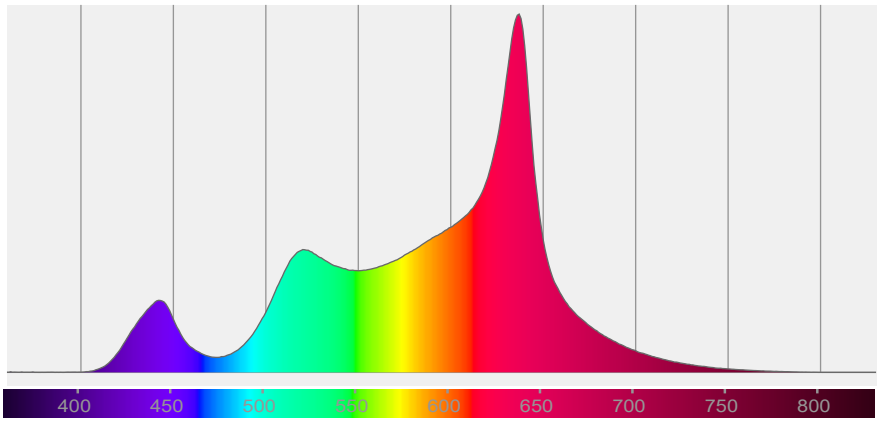
Operator:
Paolo Carvone

Date and time:
13/04/2022 14:29:54

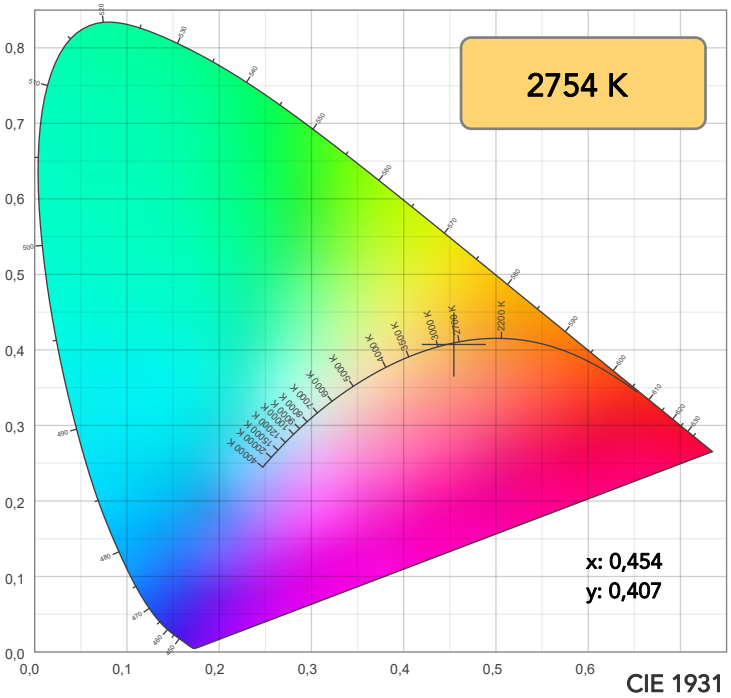


Beam angle 50%: 77,4°
Field angle 10%: 119,7°
Cut off angle 2.5%: 133,3°

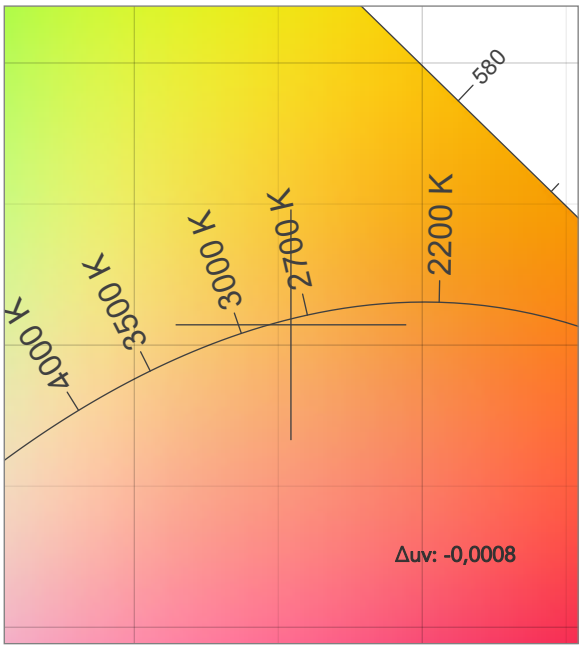
Spectra



COLOR DETAILS

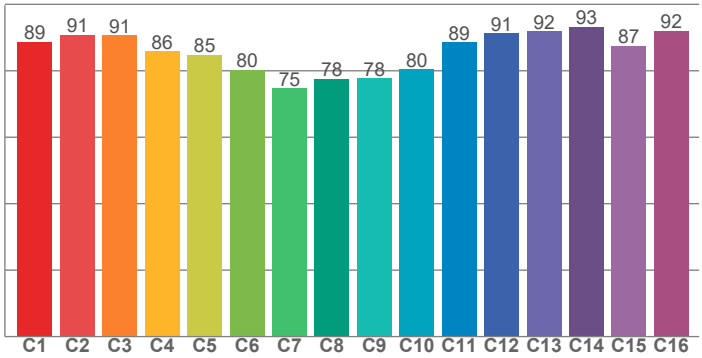


CIE 1931

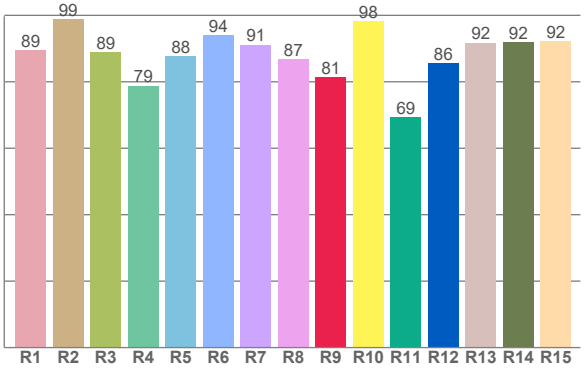


CIE 1931 ZOOM

TM30: 86,4



CRI: 89,5 (R1-R8)



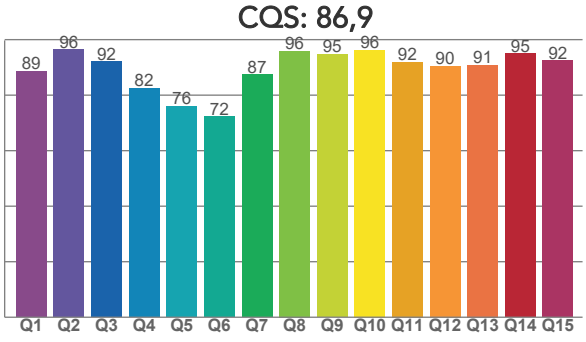
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
89,4	98,8	88,8	78,8	87,7	94,1	91,1	86,9	81,4	98,3	69,4	85,7	91,8	91,9	92,2

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
88,7	90,8	90,7	85,8	84,7	80,2	74,7	77,6	77,7	80,4	88,5	91,2	91,8	93,3	87,4	92,0

CQS: 86,9



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88,6	96,4	92,0	82,5	76,0	72,3	87,4	95,8	94,7	96,2	92,0	90,5	90,8	94,9	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
2754 K	89,5	81,4	86,4	110,0	86,9	64	0,454	0,407	-0,0008

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TM30 DETAILS

PROLiGHTS

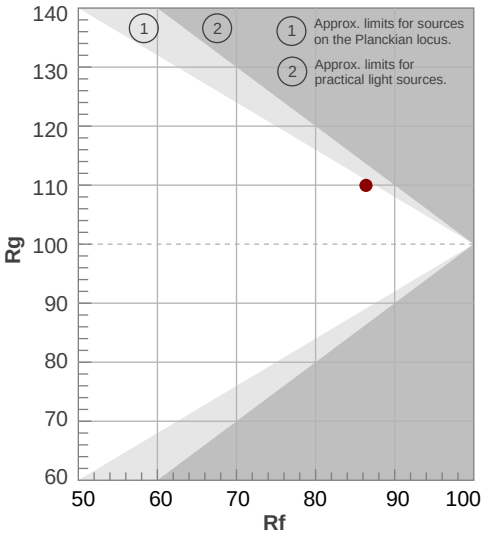
Rf 86,4

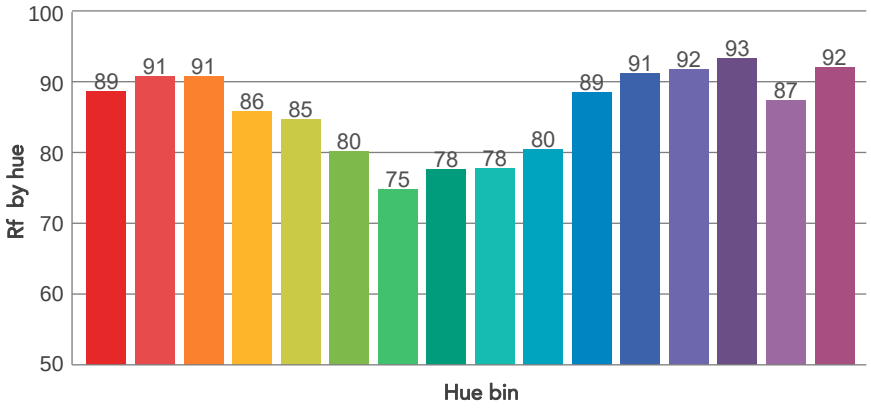
Fidelity index Rf

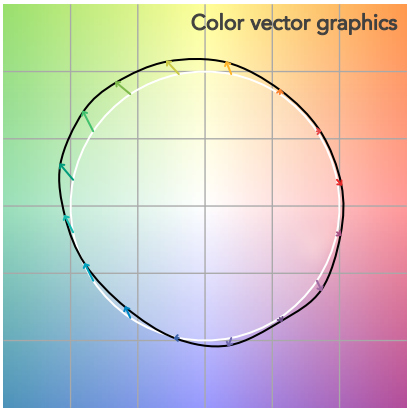
Rg 110,0

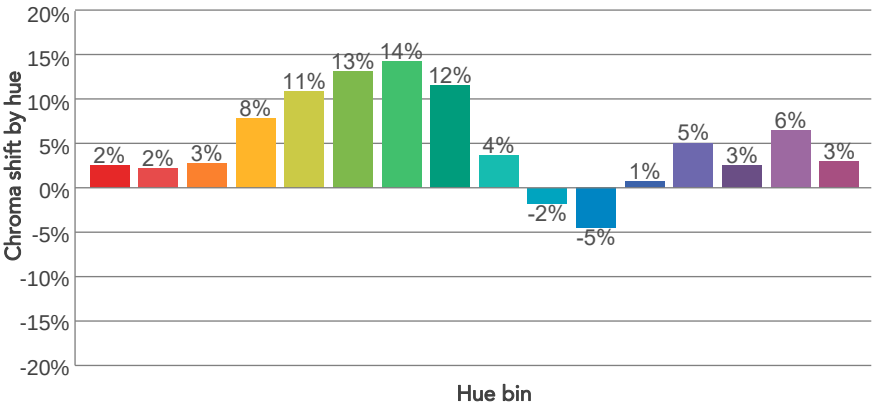
Gammut index

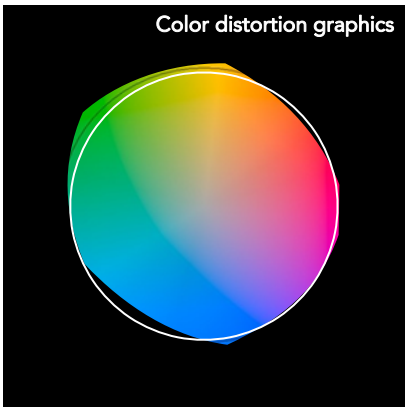
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	89	2%	-4%
2	91	2%	-1%
3	91	3%	2%
4	86	8%	5%
5	85	11%	7%
6	80	13%	4%
7	75	14%	-8%
8	78	12%	-9%
9	78	4%	-13%
10	80	-2%	-14%
11	89	-5%	-7%
12	91	1%	-3%
13	92	5%	-3%
14	93	3%	0%
15	87	6%	-4%
16	92	3%	-1%

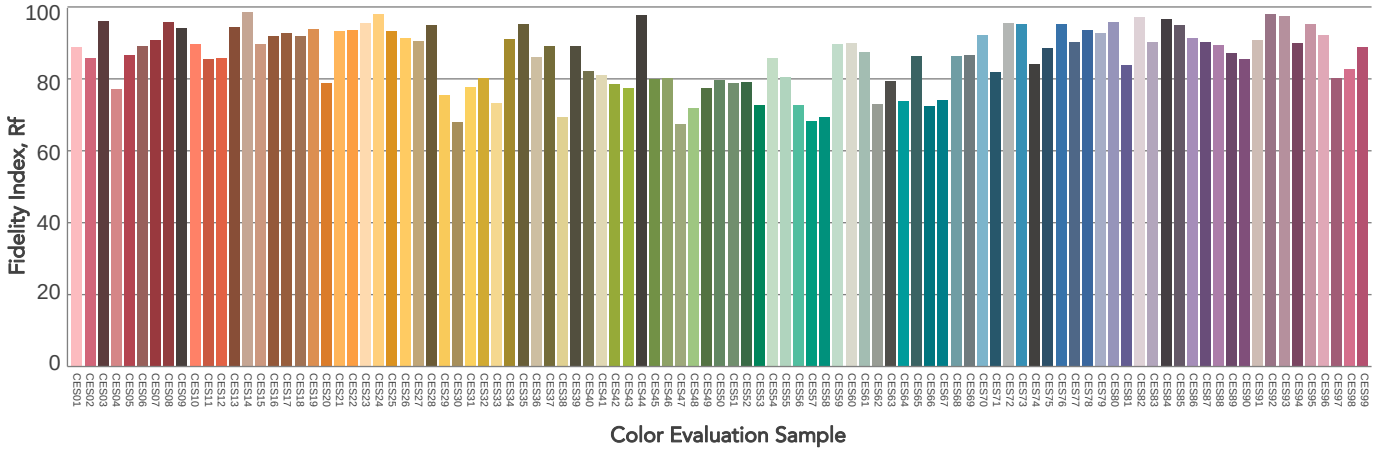












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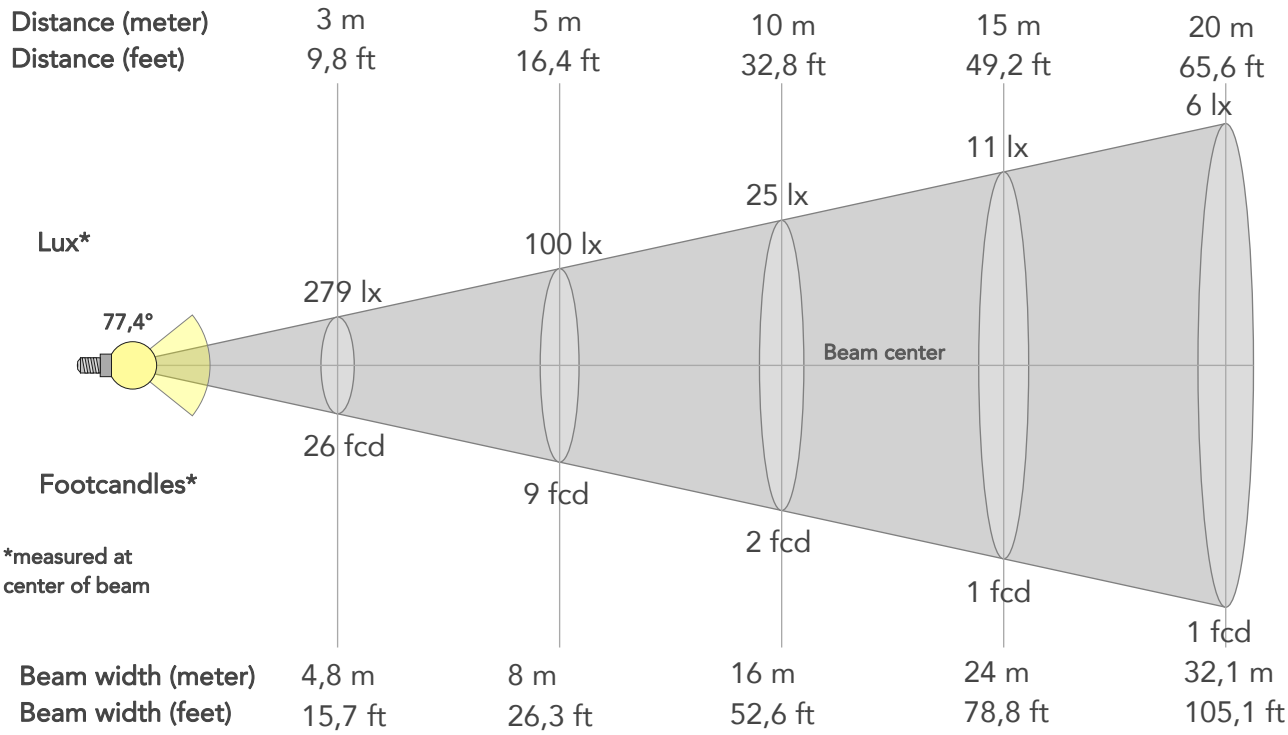
BEAM DETAILS

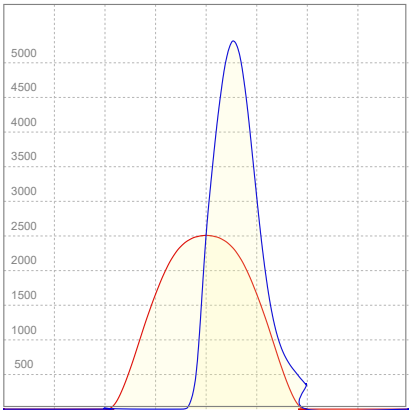
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
77,4°	119,7°	133,3°	84,3%	61,4%



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	2507lx	627lx	279lx	157lx	100lx	45lx	25lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	233fcd	58fcd	26fcd	15fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,6m	3,2m	4,8m	6,4m	8m	12m	16m	24m	32,1m	40,1m	48,1m	64,1m	80,1m
Beam wid.	5,3ft	10,6ft	15,7ft	21ft	26,3ft	39,4ft	52,6ft	78,8ft	105,1ft	131,4ft	157,7ft	210,3ft	262,8ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,445A	93,6W	70lm/W

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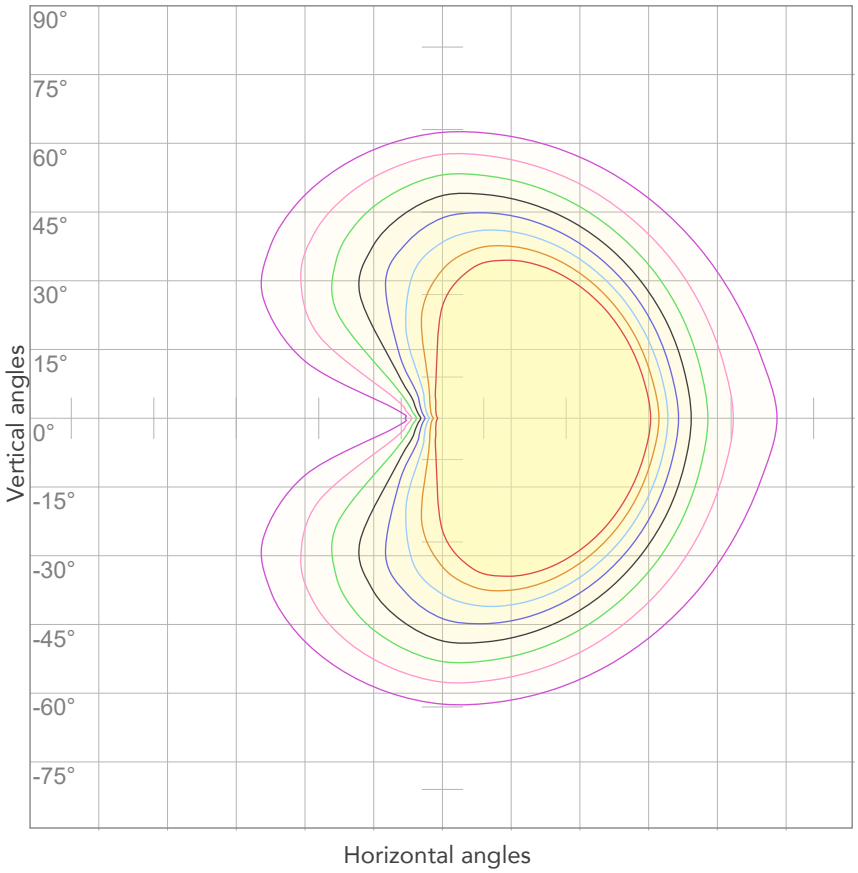
ISO DIAGRAMS

ISO CANDELA DIAGRAM



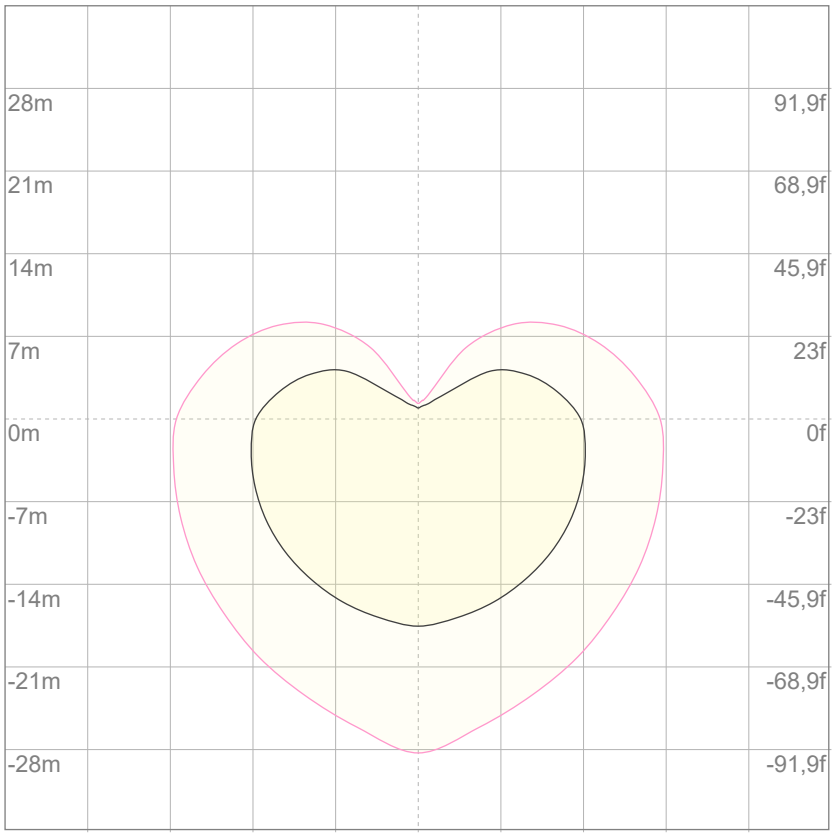
10%	251 cd
20%	501 cd
30%	752 cd
40%	1003 cd
50%	1253 cd
60%	1504 cd
70%	1755 cd
80%	2006 cd

Conditions:

Number of c-planes: 4

Candela at center: 2507 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,752 lx
5%	1,25 lx
10%	2,51 lx
30%	7,52 lx
50%	12,5 lx

Conditions:

Number of c-planes: 4

Lux at center: 25,1 lx

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

Total lumen output:

6399 lm

Peak candela output:

5136 cd

Light quality:

CRI: 91,2

Color temperature:

3154 K

PRODUCT NAME:

ECL CYC050

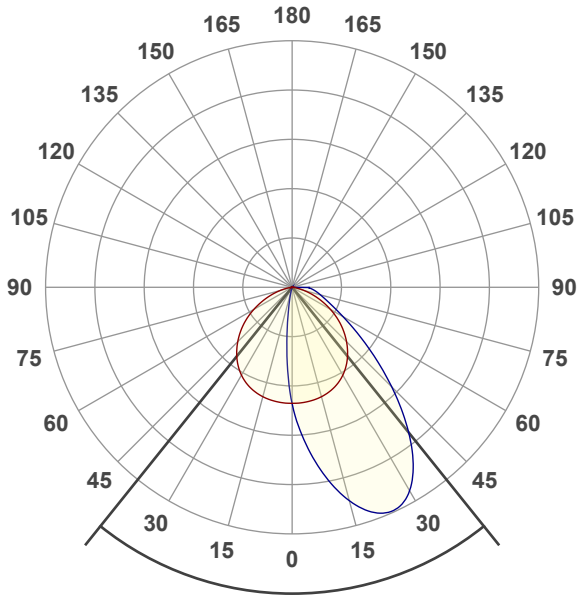
MEASURAMENT CONDITIONS:

Beam angle:
Filter 3060

Target:
3200K

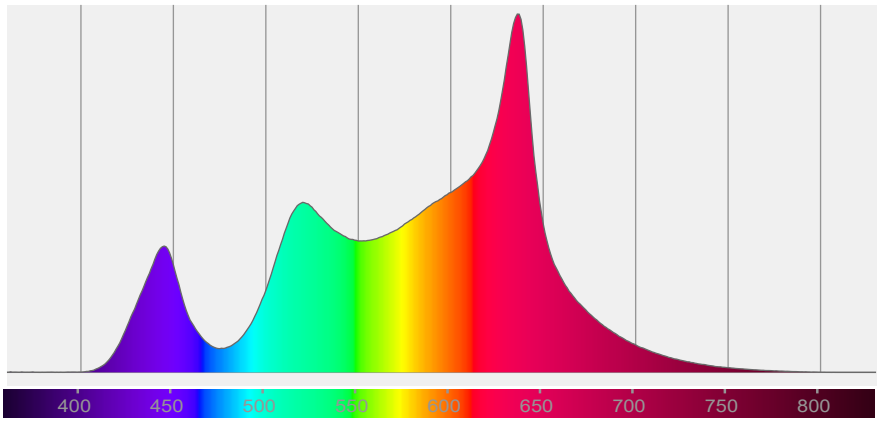
Operator:
Paolo Carvone

Date and time:
13/04/2022 14:32:12

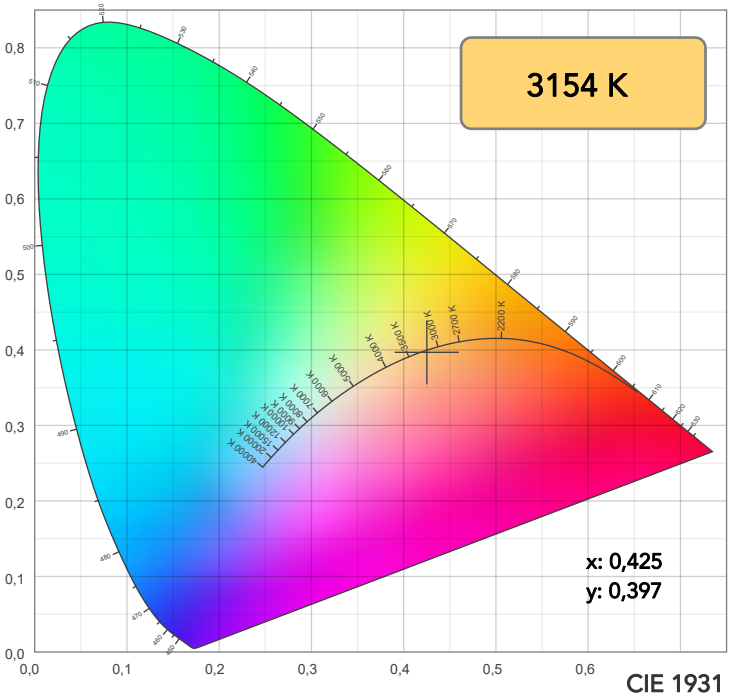


Beam angle 50%: 77,5°
Field angle 10%: 119,9°
Cut off angle 2.5%: 133,5°

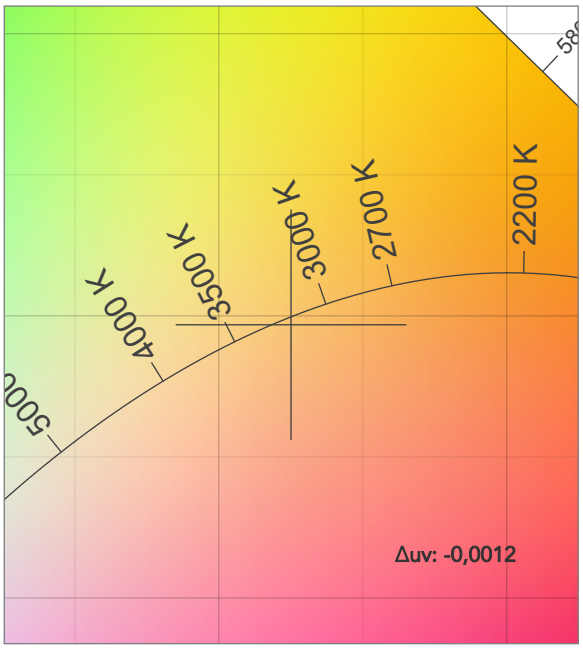
Spectra



COLOR DETAILS

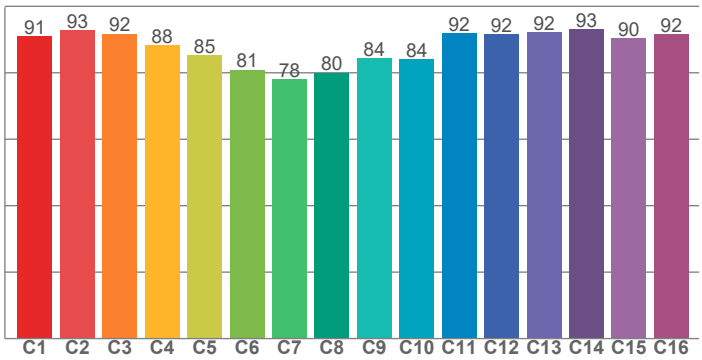


CIE 1931

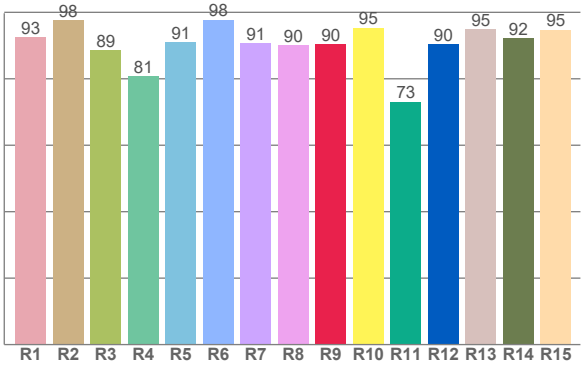


CIE 1931 ZOOM

TM30: 88,3



CRI: 91,2 (R1-R8)



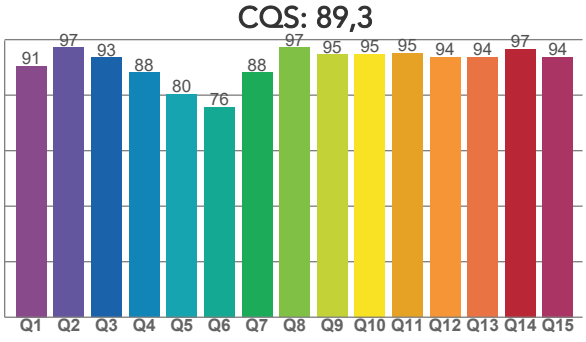
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
92,6	97,7	88,5	80,9	91,0	97,8	90,7	90,1	90,4	95,3	73,1	90,5	94,9	92,2	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
90,9	92,7	91,7	88,2	85,3	80,9	78,0	80,0	84,4	84,0	91,9	91,6	92,1	93,0	90,3	91,5

CQS: 89,3



CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90,6	97,1	93,5	88,2	80,4	75,7	88,2	97,2	94,6	94,8	95,1	93,7	93,7	96,6	93,7

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
3154 K	91,2	90,4	88,3	109,3	89,3	69	0,425	0,397	-0,0012

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TM30 DETAILS

PROLiGHTS

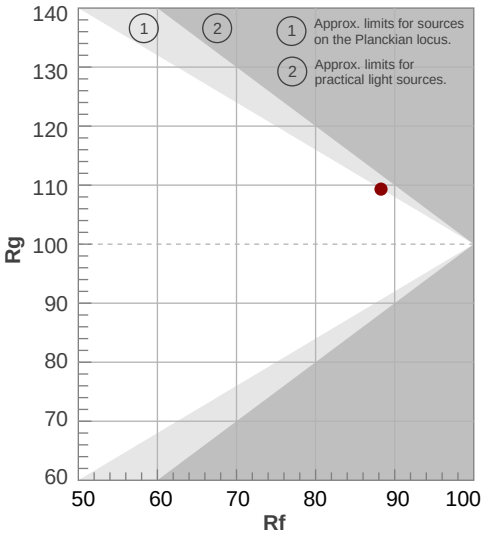
Rf 88,3

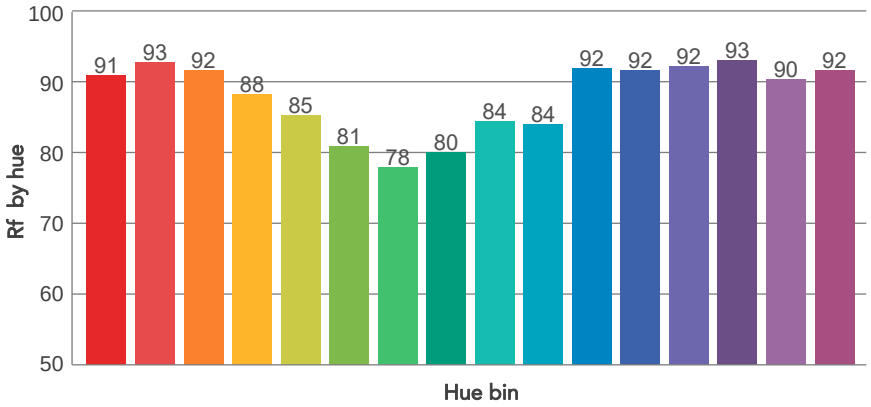
Fidelity index Rf

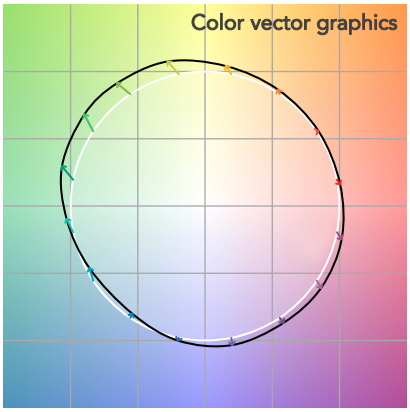
Rg 109,3

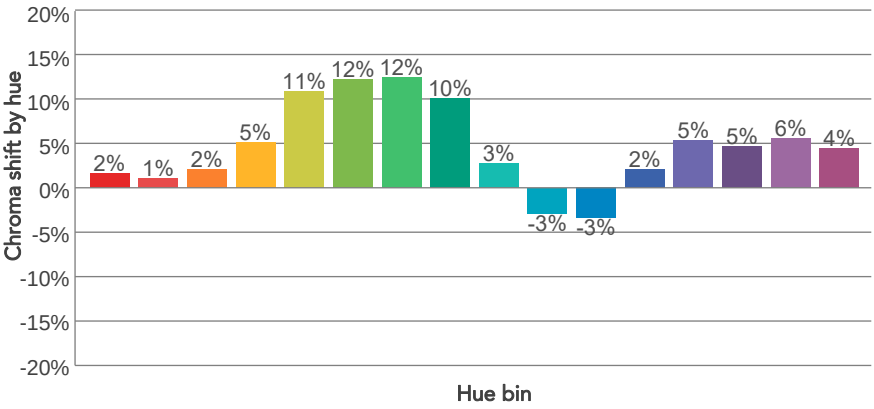
Gammut index

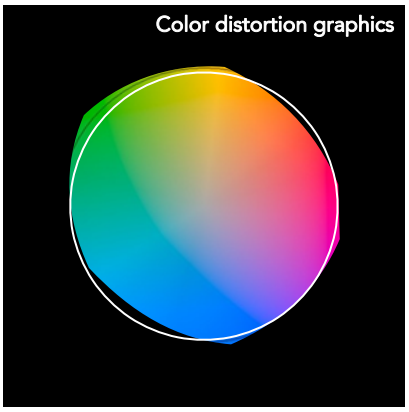
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	91	2%	-4%
2	93	1%	0%
3	92	2%	3%
4	88	5%	5%
5	85	11%	6%
6	81	12%	4%
7	78	12%	-7%
8	80	10%	-8%
9	84	3%	-11%
10	84	-3%	-9%
11	92	-3%	-1%
12	92	2%	0%
13	92	5%	0%
14	93	5%	0%
15	90	6%	-3%
16	92	4%	-4%

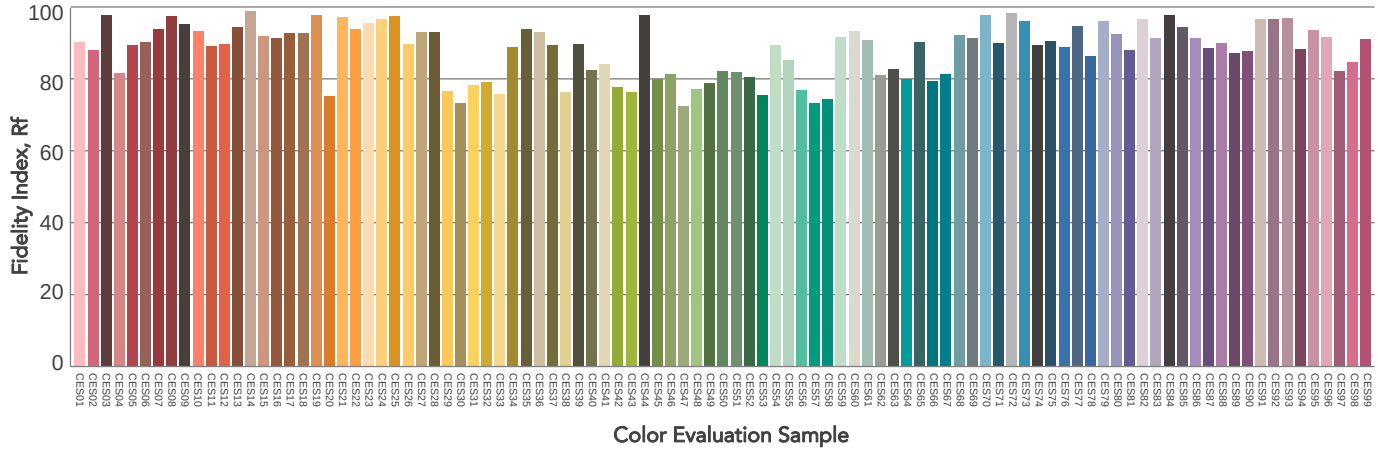












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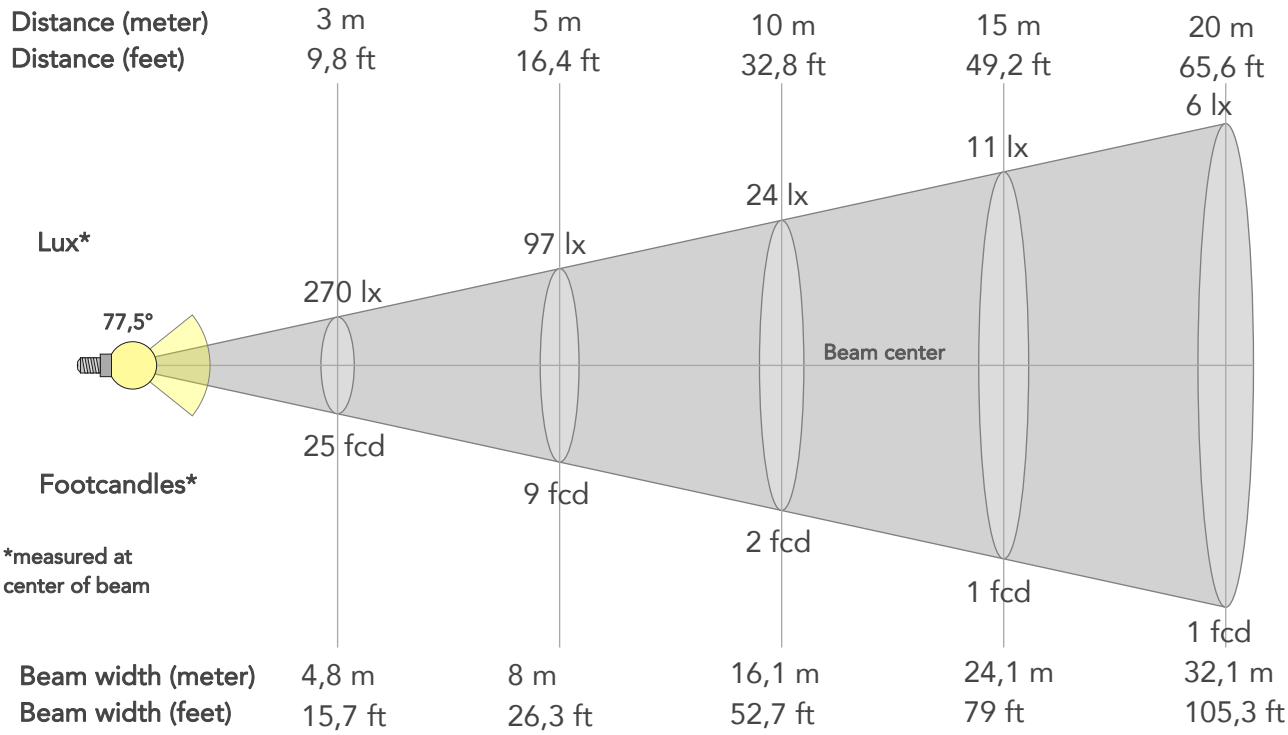
BEAM DETAILS

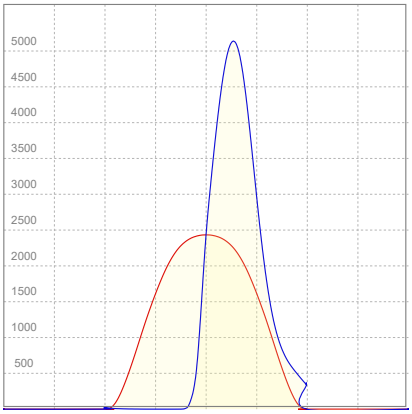
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
77,5°	119,9°	133,5°	84,2%	61,3%



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	2432lx	608lx	270lx	152lx	97lx	43lx	24lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	226fcd	56fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,6m	3,2m	4,8m	6,4m	8m	12m	16,1m	24,1m	32,1m	40,1m	48,2m	64,2m	80,3m
Beam wid.	5,3ft	10,6ft	15,7ft	21ft	26,3ft	39,5ft	52,7ft	79ft	105,3ft	131,6ft	158ft	210,6ft	263,3ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,445A	93,6W	68lm/W

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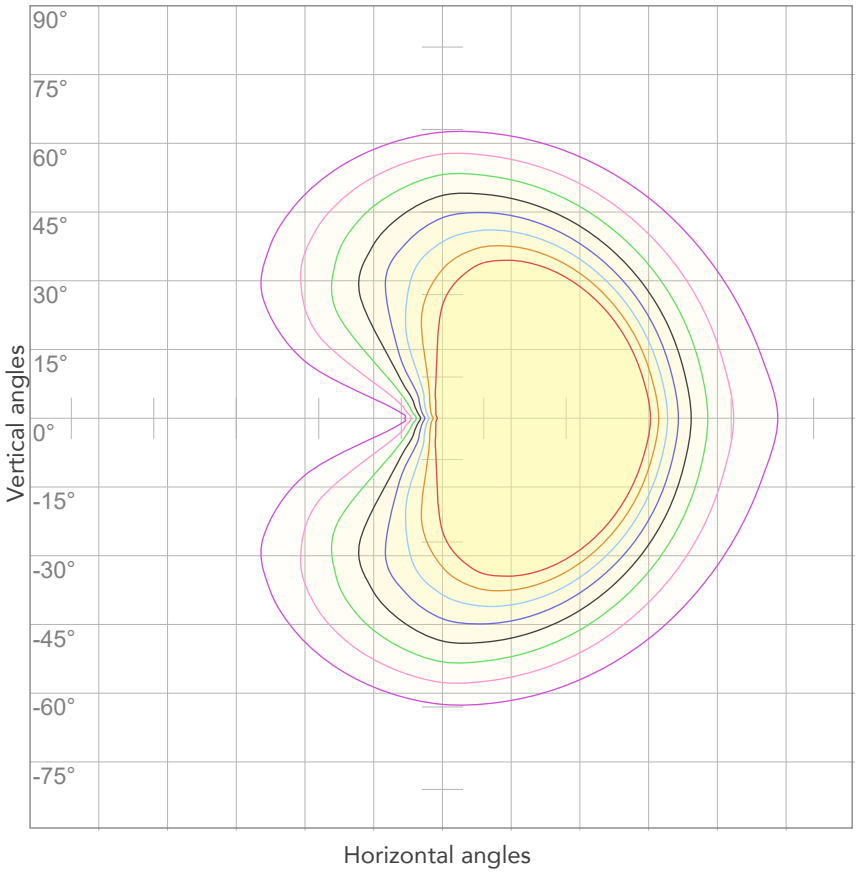
ISO DIAGRAMS

ISO CANDELA DIAGRAM



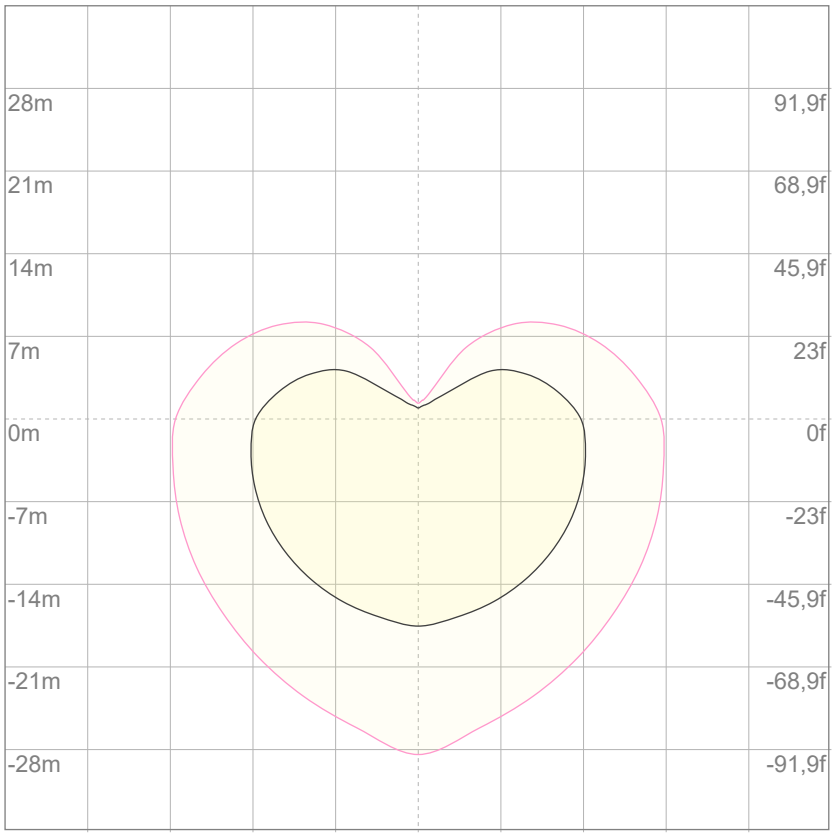
10%	243 cd
20%	486 cd
30%	730 cd
40%	973 cd
50%	1216 cd
60%	1459 cd
70%	1702 cd
80%	1946 cd

Conditions:

Number of c-planes: 4

Candela at center: 2432 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,730 lx
5%	1,22 lx
10%	2,43 lx
30%	7,30 lx
50%	12,2 lx

Conditions:

Number of c-planes: 4

Lux at center: 24,3 lx

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

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Total lumen output:

6352 lm

Peak candela output:

5090 cd

Light quality:

CRI: 90,5

Color temperature:

3950 K

PRODUCT NAME:

ECL CYC050

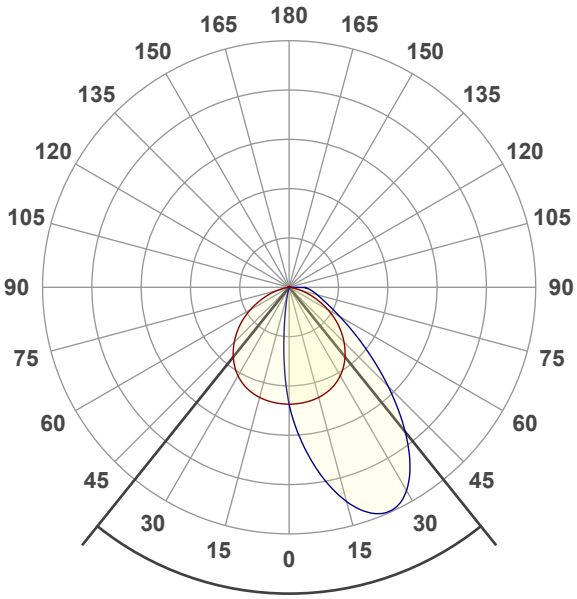
MEASURAMENT CONDITIONS:

Beam angle:
Filter 3060

Target:
4000K

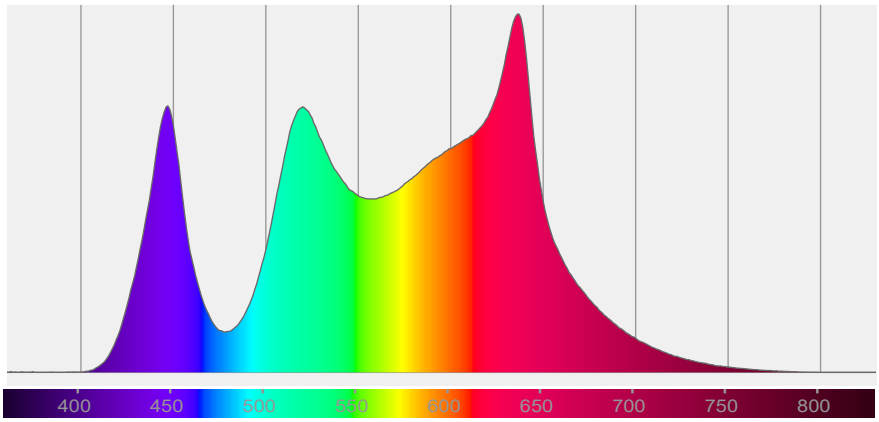
Operator:
Paolo Carvone

Date and time:
13/04/2022 14:38:06

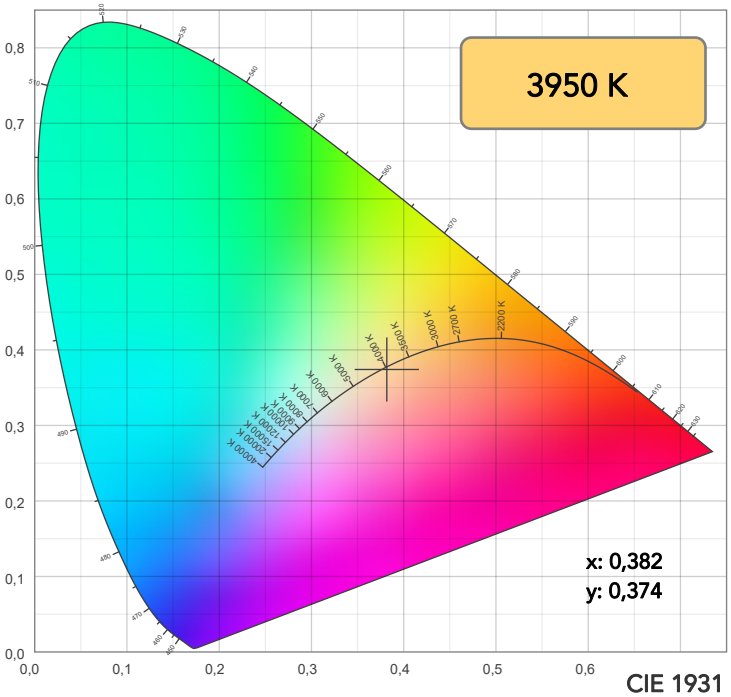


Beam angle 50%: 77,5°
Field angle 10%: 119,8°
Cut off angle 2.5%: 133,3°

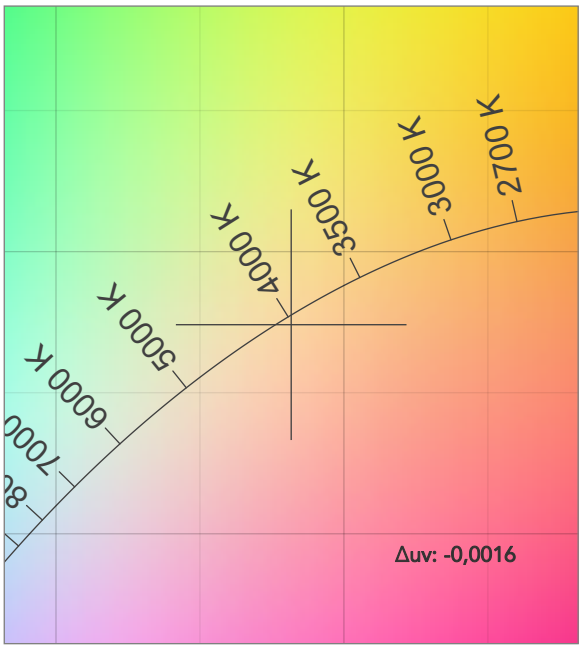
Spectra



COLOR DETAILS

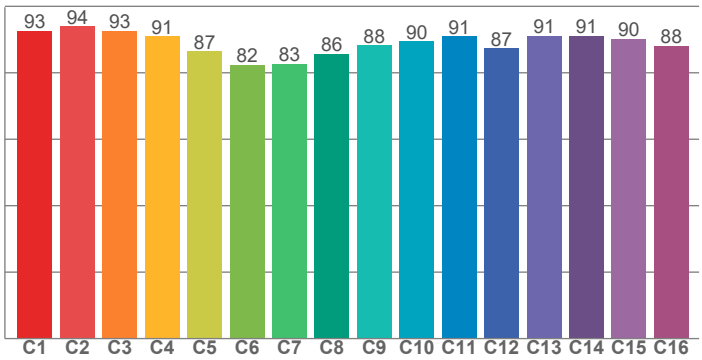


CIE 1931

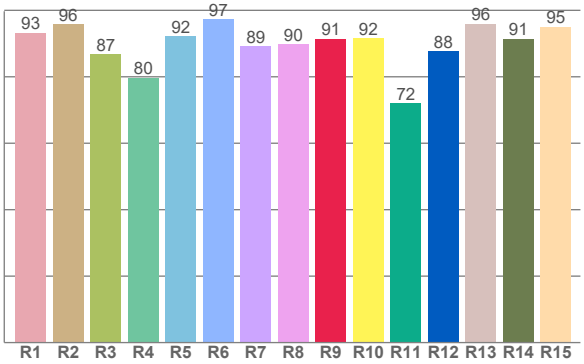


CIE 1931 ZOOM

TM30: 89,2



CRI: 90,5 (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
93,2	95,9	86,7	79,7	92,1	97,4	89,2	89,8	91,4	91,6	72,1	87,6	96,0	91,5	95,1

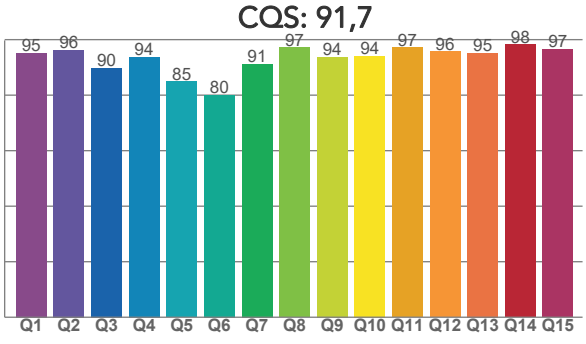
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,6	94,0	92,6	90,9	86,5	82,4	82,6	85,6	88,3	89,5	91,0	87,3	91,1	91,1	90,1	88,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95,2	96,3	89,8	93,8	84,9	80,1	91,1	97,1	93,8	94,1	97,2	95,6	95,2	98,3	96,5

CQS: 91,7



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
3950 K	90,5	91,4	89,2	109,0	91,7	72	0,382	0,374	-0,0016

TM30 DETAILS

PROLiGHTS

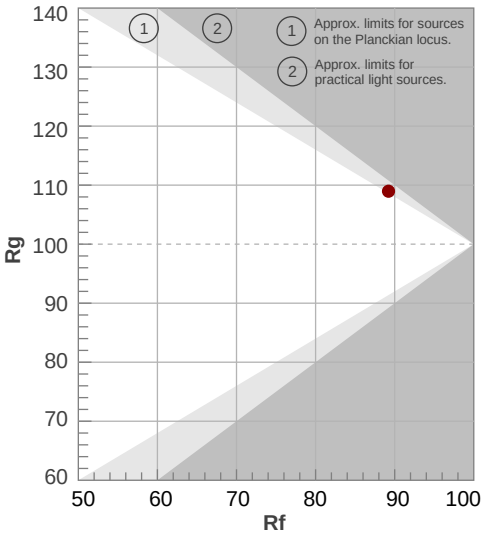
Rf 89,2

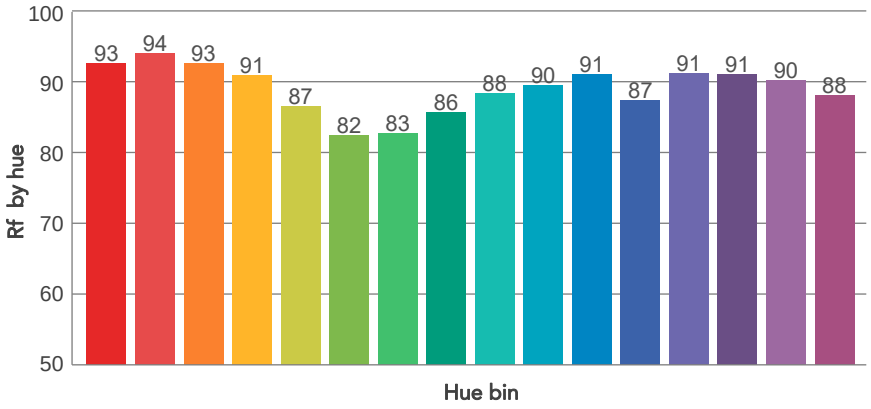
Fidelity index Rf

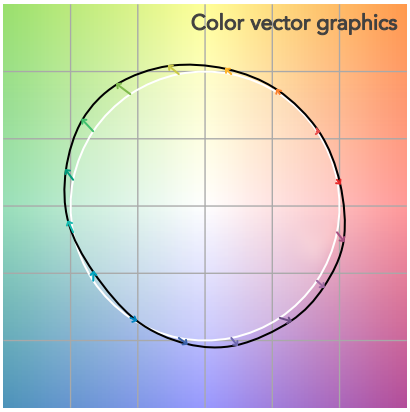
Rg 109,0

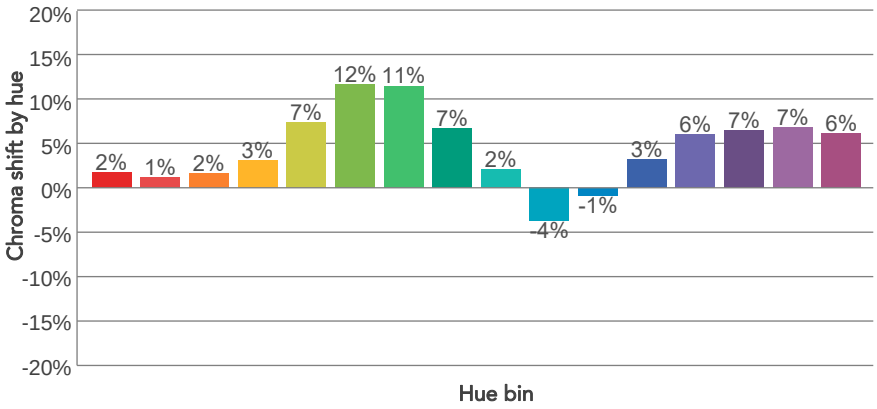
Gammut index

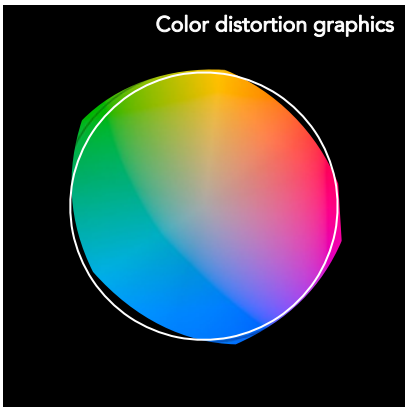
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	93	2%	-3%
2	94	1%	-1%
3	93	2%	3%
4	91	3%	5%
5	87	7%	6%
6	82	12%	4%
7	83	11%	-3%
8	86	7%	-6%
9	88	2%	-8%
10	90	-4%	-5%
11	91	-1%	5%
12	87	3%	7%
13	91	6%	3%
14	91	7%	5%
15	90	7%	-1%
16	88	6%	-5%

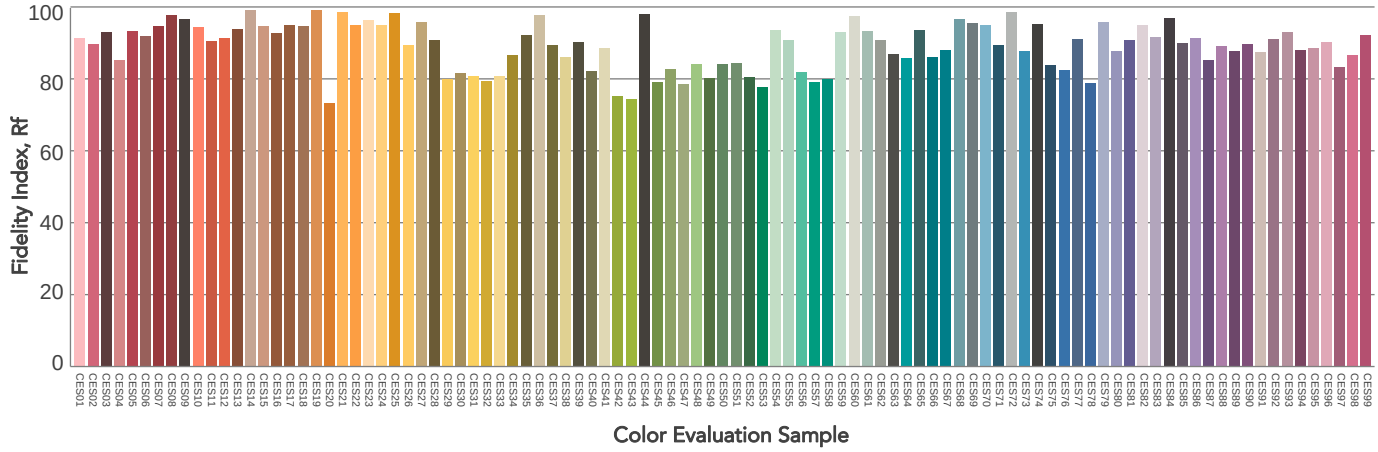












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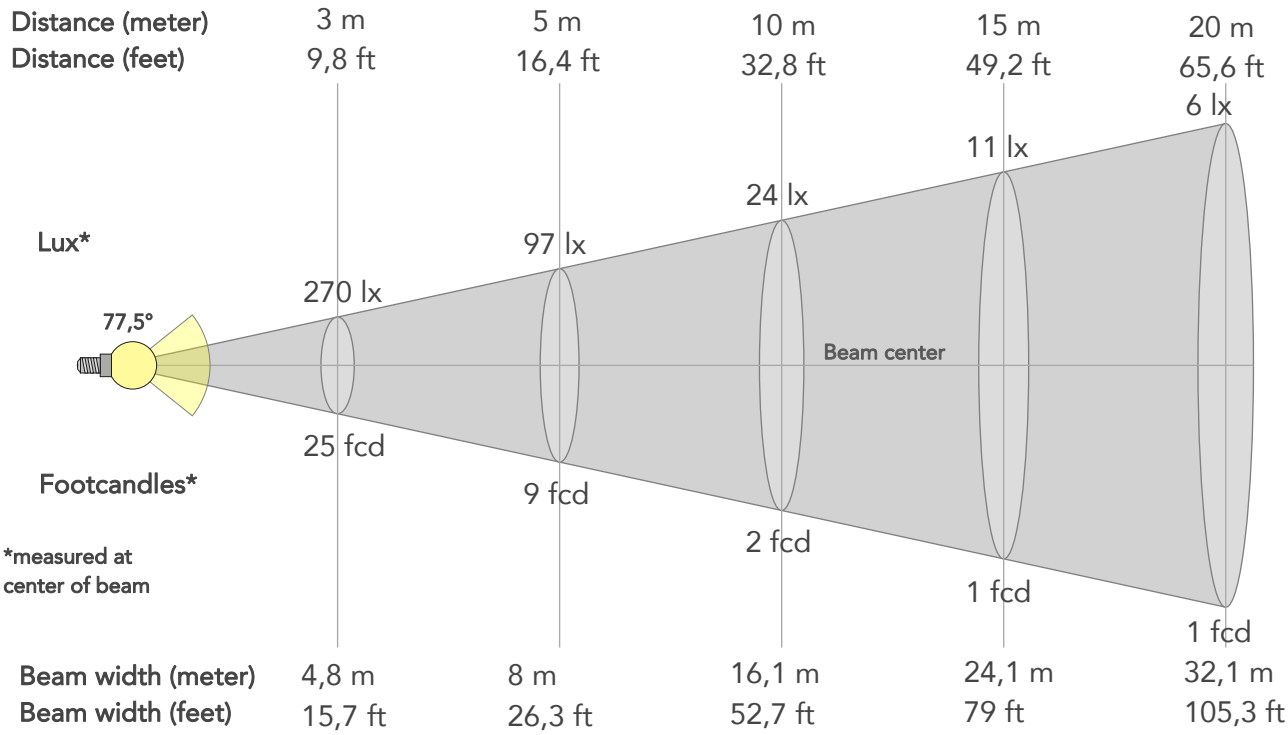
BEAM DETAILS

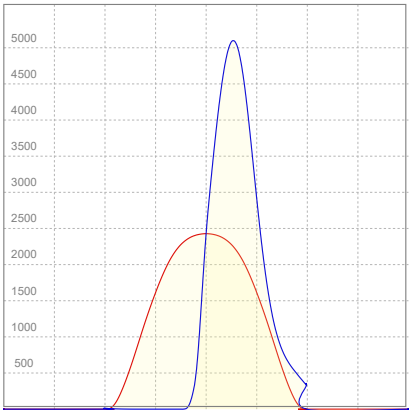
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
77,5°	119,8°	133,3°	84,3%	61,4%



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	2427lx	607lx	270lx	152lx	97lx	43lx	24lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	226fcd	56fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,6m	3,2m	4,8m	6,4m	8m	12m	16,1m	24,1m	32,1m	40,1m	48,2m	64,2m	80,3m
Beam wid.	5,3ft	10,6ft	15,7ft	21ft	26,3ft	39,5ft	52,7ft	79ft	105,3ft	131,6ft	158ft	210,6ft	263,3ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,446A	93,5W	68lm/W

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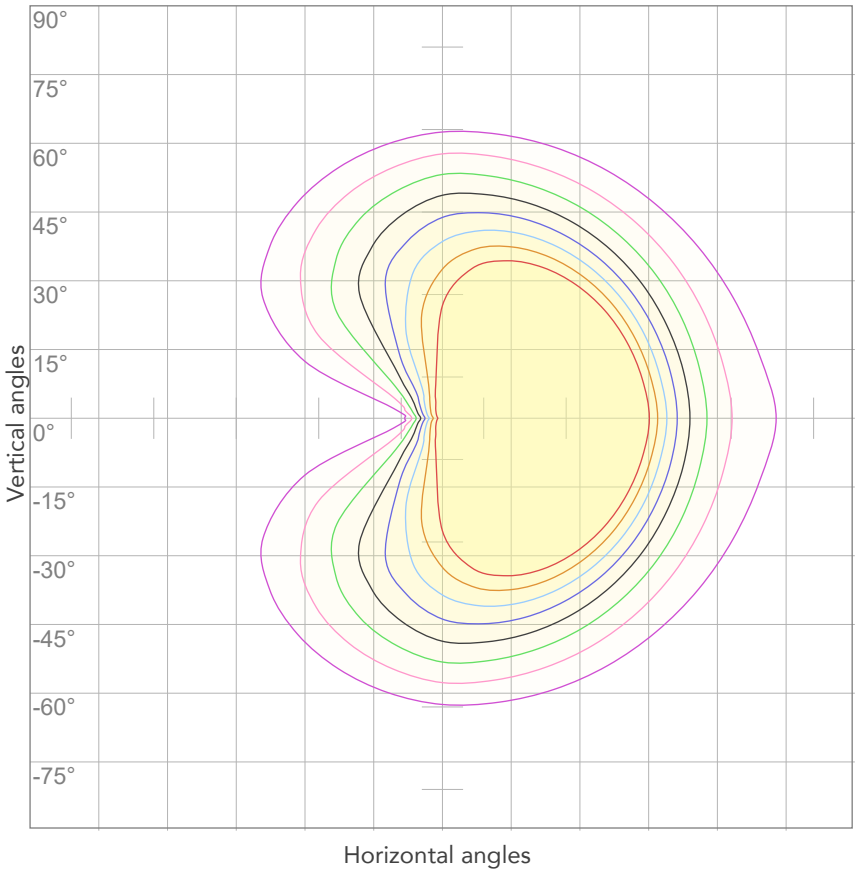
ISO DIAGRAMS

ISO CANDELA DIAGRAM



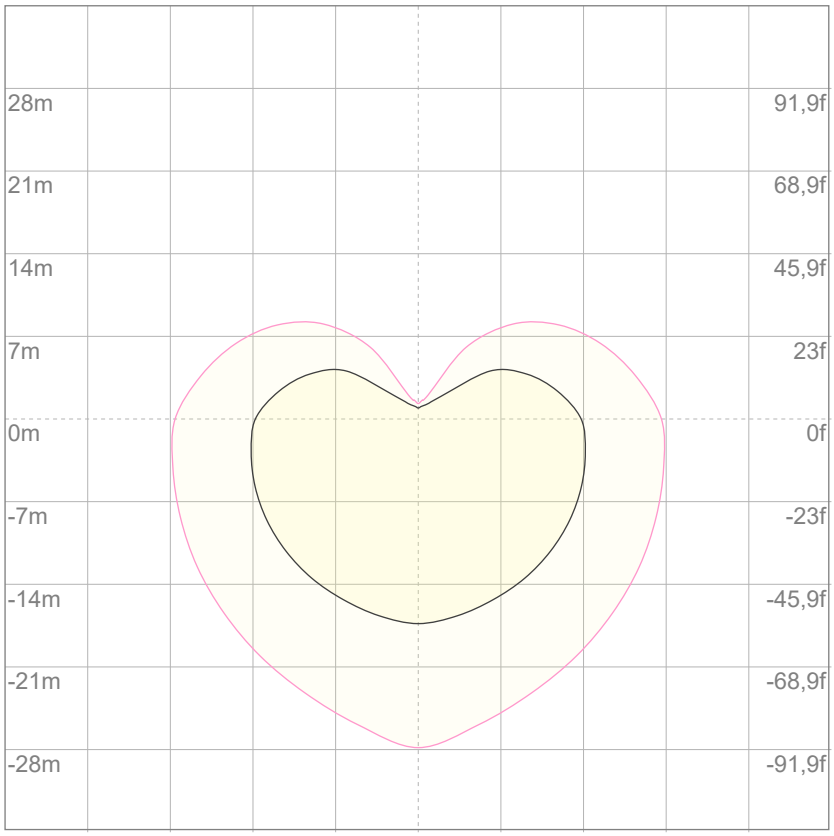
10%	243 cd
20%	485 cd
30%	728 cd
40%	971 cd
50%	1214 cd
60%	1456 cd
70%	1699 cd
80%	1942 cd

Conditions:

Number of c-planes: 4

Candela at center: 2427 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,728 lx
5%	1,21 lx
10%	2,43 lx
30%	7,28 lx
50%	12,1 lx

Conditions:

Number of c-planes: 4

Lux at center: 24,3 lx

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

Total lumen output:

6533 lm

Peak candela output:

5203 cd

Light quality:

CRI: 88,4

Color temperature:

5568 K

PRODUCT NAME:

ECL CYC050

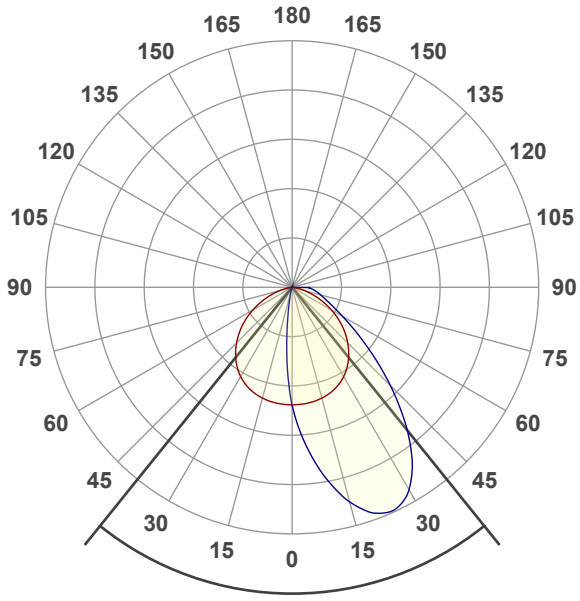
MEASURAMENT CONDITIONS:

Beam angle:
Filter 3060

Target:
5600K

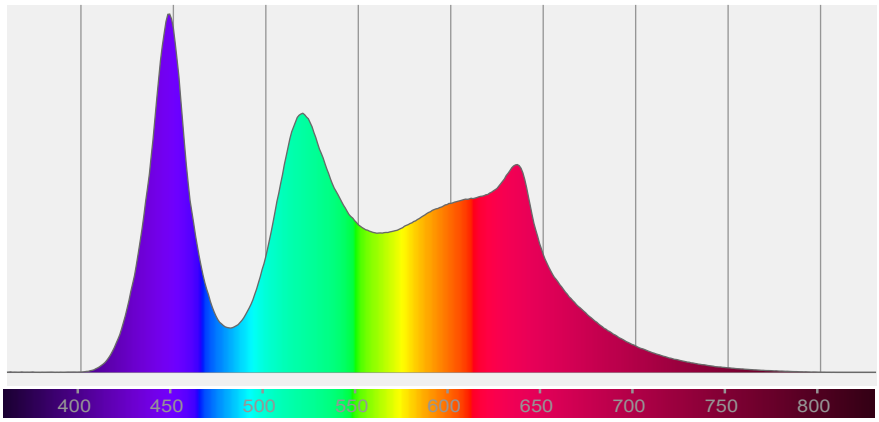
Operator:
Paolo Carvone

Date and time:
13/04/2022 14:40:14

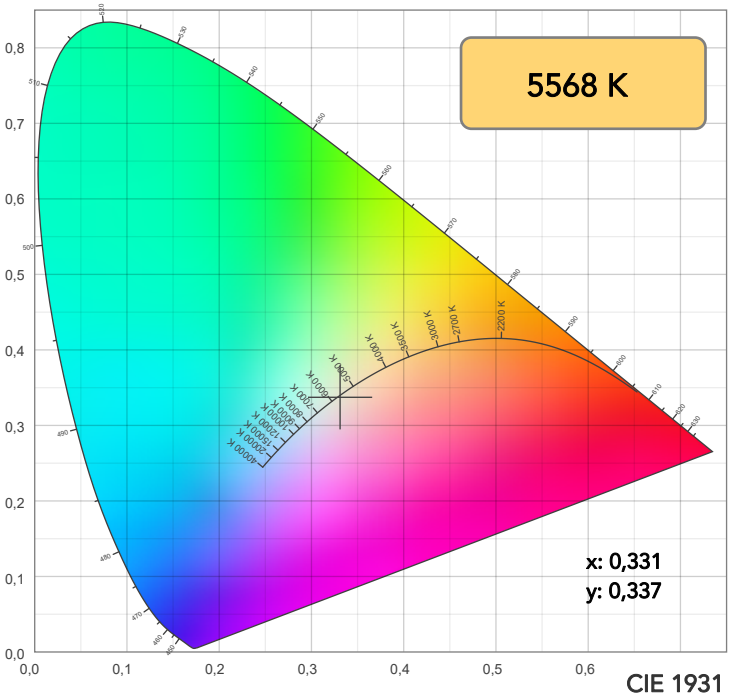


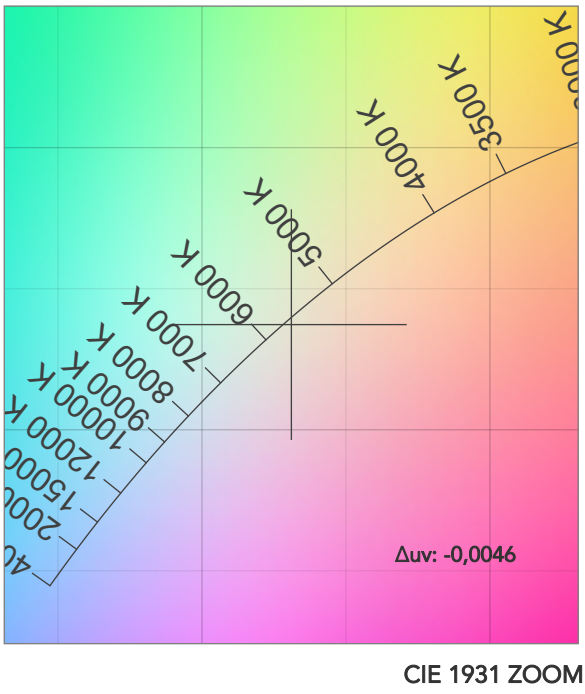
Beam angle 50%: 77,7°
Field angle 10%: 120,3°
Cut off angle 2.5%: 133,7°

Spectra

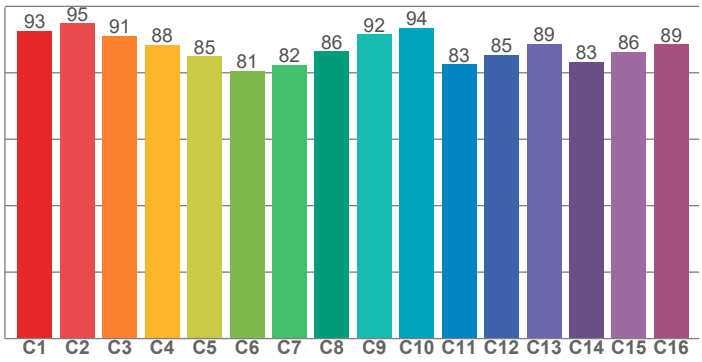


COLOR DETAILS

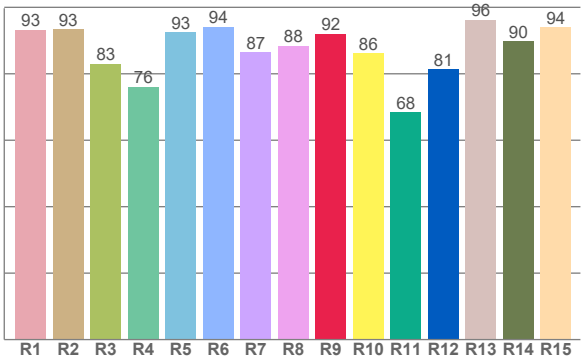




TM30: 87,6



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
93,3	93,3	83,0	76,1	92,5	94,1	86,6	88,5	92,1	86,1	68,5	81,4	96,2	89,7	93,9

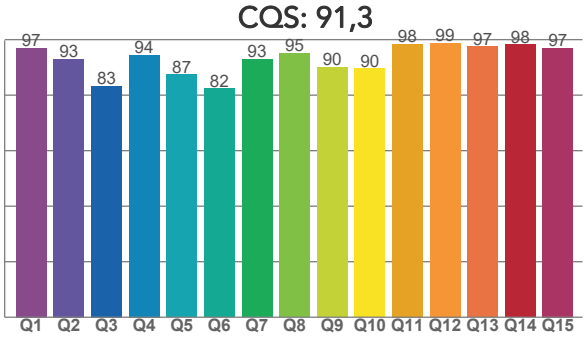
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,7	94,9	91,1	88,4	85,0	80,6	82,5	86,5	91,6	93,5	82,5	85,4	88,6	83,3	86,4	88,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
96,9	93,1	83,3	94,4	87,4	82,4	92,9	95,1	90,0	89,5	98,5	98,8	97,4	98,3	97,0

CQS: 91,3



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
5568 K	88,4	92,1	87,6	109,7	91,3	78	0,331	0,337	-0,0046

TM30 DETAILS

PROLiGHTS

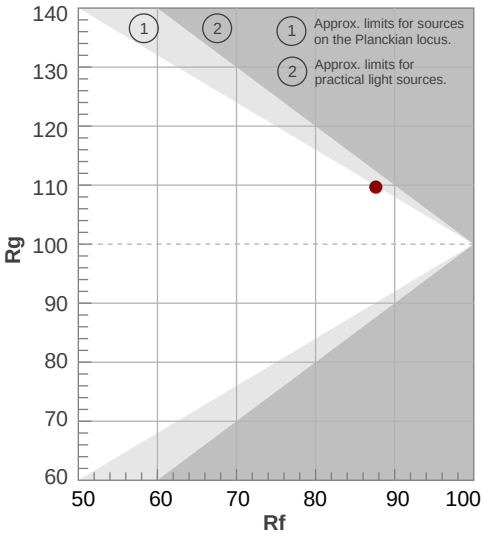
Rf 87,6

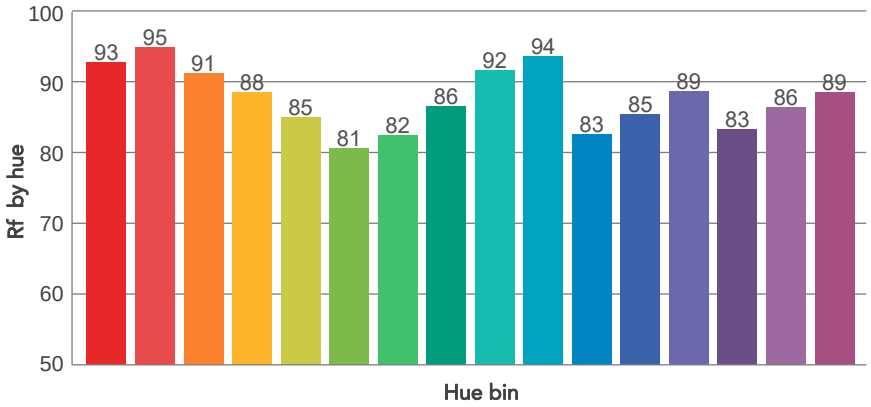
Fidelity index Rf

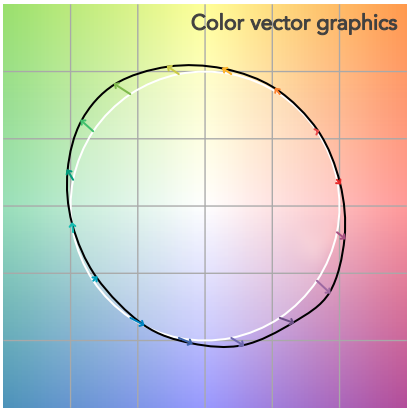
Rg 109,7

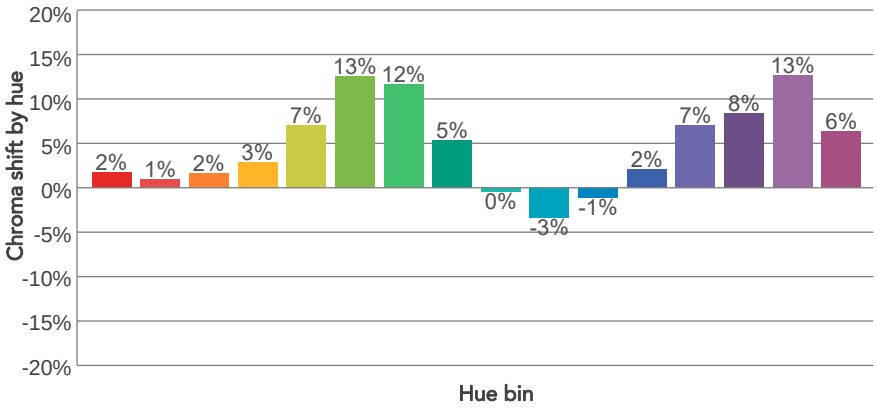
Gammut index

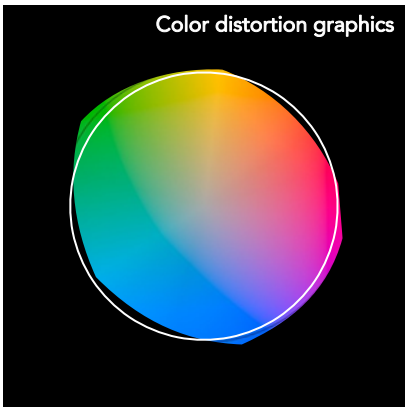
Hue Bin	R_f	Graphic shifts (%) Chroma	Hue
1	93	2%	-3%
2	95	1%	0%
3	91	2%	5%
4	88	3%	7%
5	85	7%	7%
6	81	13%	5%
7	82	12%	-2%
8	86	5%	-6%
9	92	0%	-6%
10	94	-3%	-1%
11	83	-1%	11%
12	85	2%	10%
13	89	7%	8%
14	83	8%	6%
15	86	13%	-2%
16	89	6%	-3%

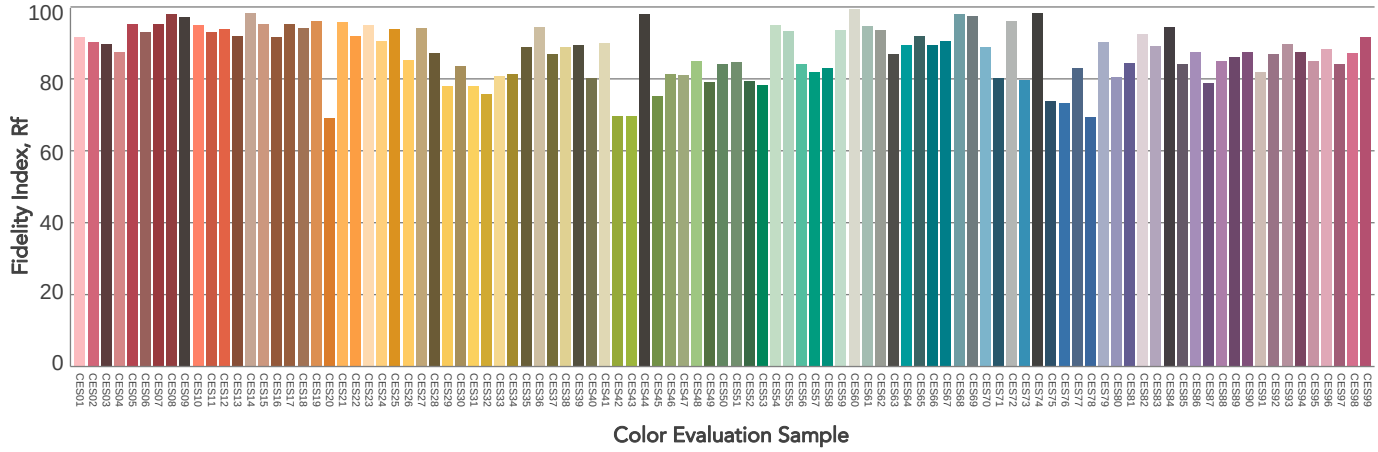












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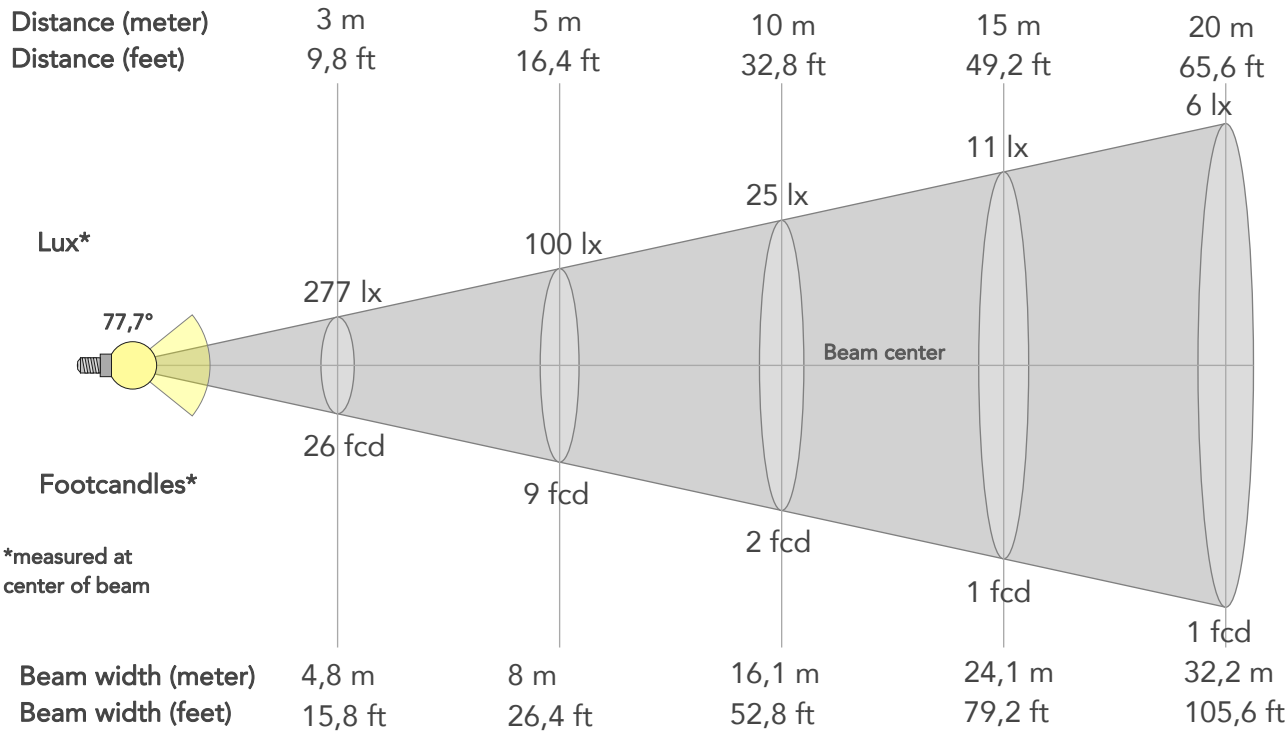
BEAM DETAILS

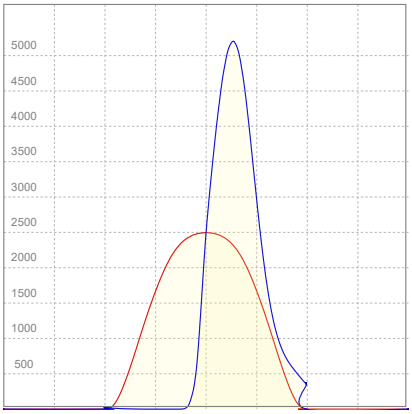
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
77,7°	120,3°	133,7°	84,1%	61,2%



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	2495lx	624lx	277lx	156lx	100lx	44lx	25lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	232fcd	58fcd	26fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,6m	3,2m	4,8m	6,4m	8m	12,1m	16,1m	24,1m	32,2m	40,2m	48,3m	64,4m	80,5m
Beam wid.	5,3ft	10,6ft	15,8ft	21,1ft	26,4ft	39,6ft	52,8ft	79,2ft	105,6ft	132ft	158,4ft	211,2ft	264ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
226V	0,484A	102,3W	64lm/W

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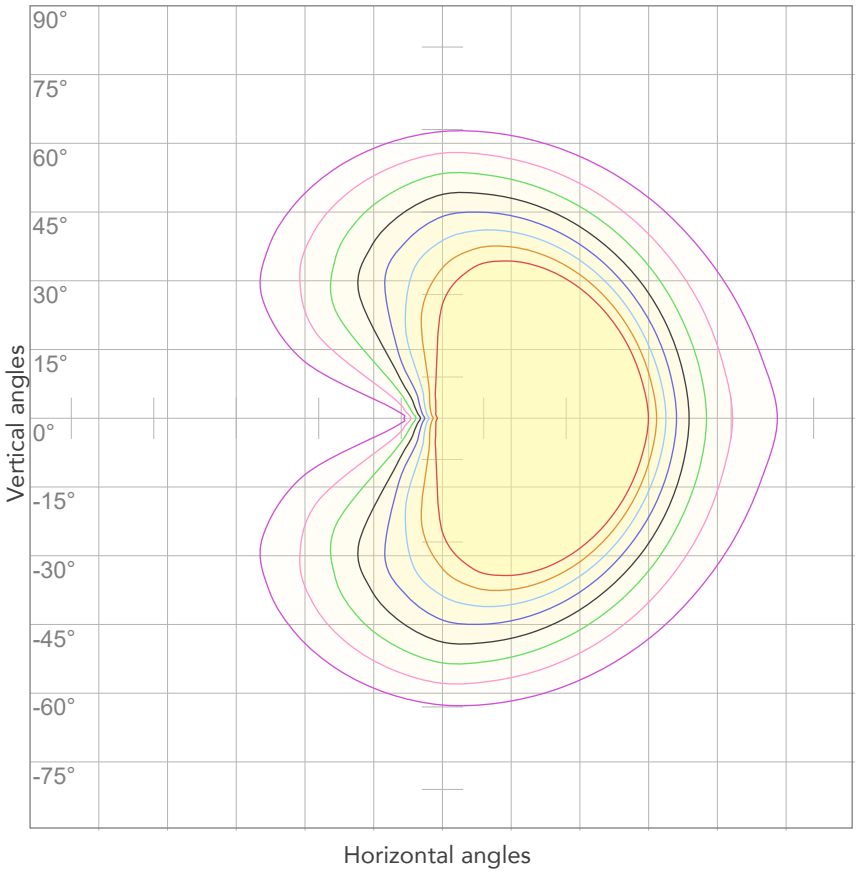
ISO DIAGRAMS

ISO CANDELA DIAGRAM



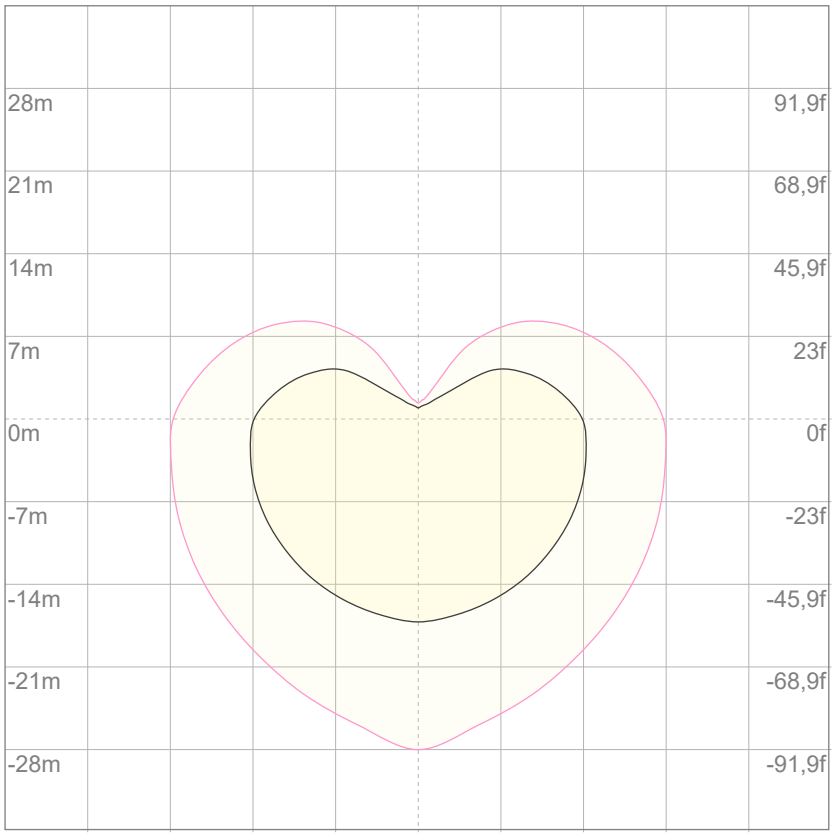
10%	249 cd
20%	499 cd
30%	748 cd
40%	998 cd
50%	1247 cd
60%	1497 cd
70%	1746 cd
80%	1996 cd

Conditions:

Number of c-planes: 4

Candela at center: 2495 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,748 lx
5%	1,25 lx
10%	2,49 lx
30%	7,48 lx
50%	12,5 lx

Conditions:

Number of c-planes: 4

Lux at center: 24,9 lx

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

Total lumen output:

6457 lm

Peak candela output:

5126 cd

Light quality:

CRI: 88,3

Color temperature:

5962 K

PRODUCT NAME:

ECL CYC050

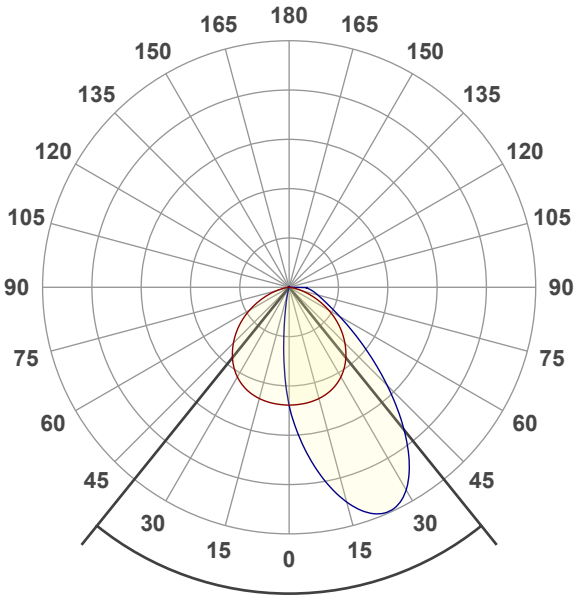
MEASURAMENT CONDITIONS:

Beam angle:
Filter 3060

Target:
6000K

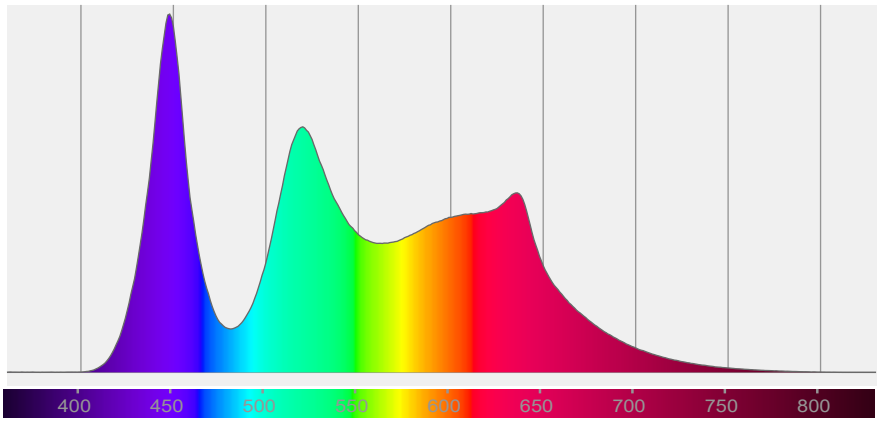
Operator:
Paolo Carvone

Date and time:
13/04/2022 14:43:27

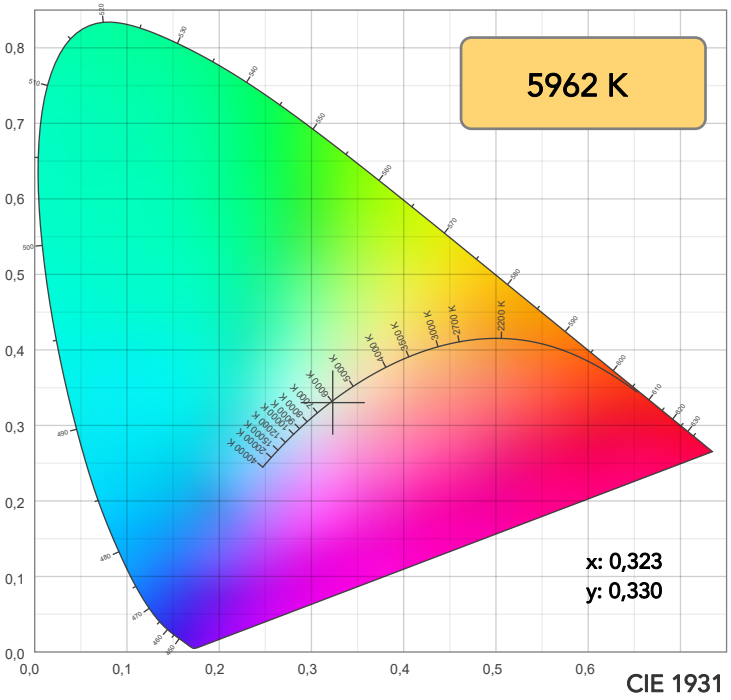


Beam angle 50%: 77,7°
Field angle 10%: 120,4°
Cut off angle 2.5%: 133,9°

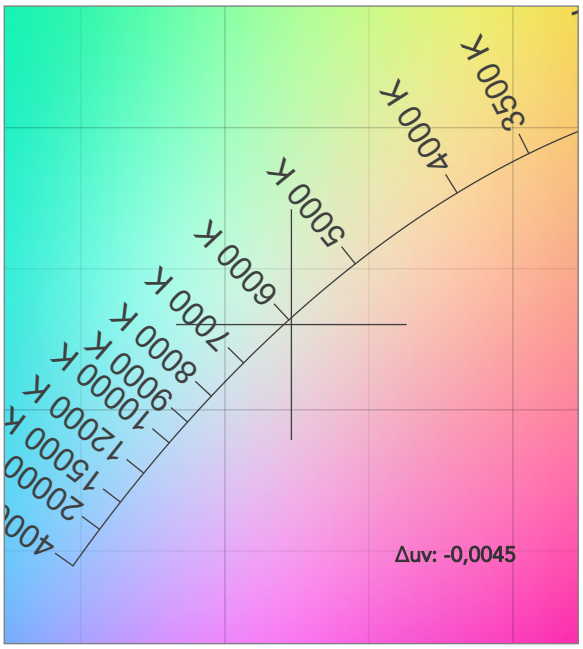
Spectra



COLOR DETAILS

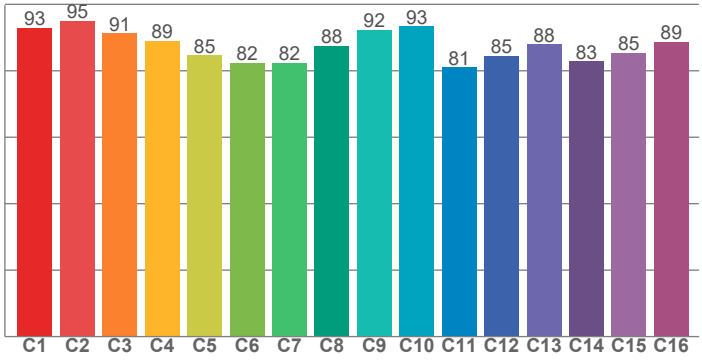


CIE 1931

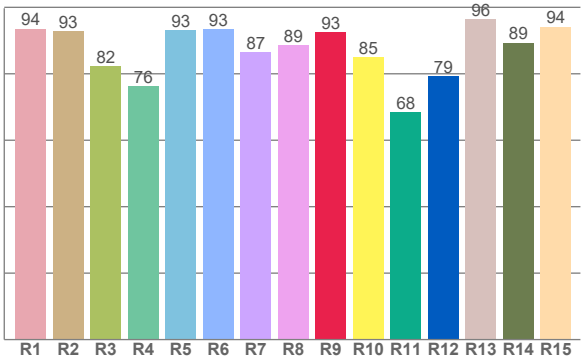


CIE 1931 ZOOM

TM30: 87,6



CRI: 88,3 (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
93,5	92,9	82,3	76,2	93,1	93,3	86,5	88,6	92,5	84,9	68,5	79,3	96,5	89,4	94,1

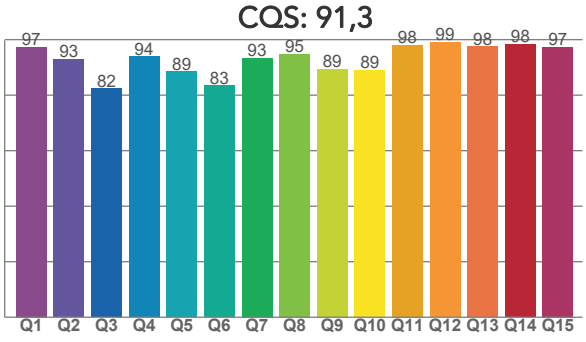
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92,9	95,1	91,2	89,0	84,7	82,4	82,4	87,6	92,3	93,4	81,0	84,6	88,0	82,9	85,4	88,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97,4	92,9	82,4	93,9	88,5	83,4	93,4	94,8	89,5	89,0	98,0	99,0	97,5	98,3	97,3

CQS: 91,3



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
5962 K	88,3	92,5	87,6	109,5	91,3	80	0,323	0,330	-0,0045

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TM30 DETAILS

PROLiGHTS

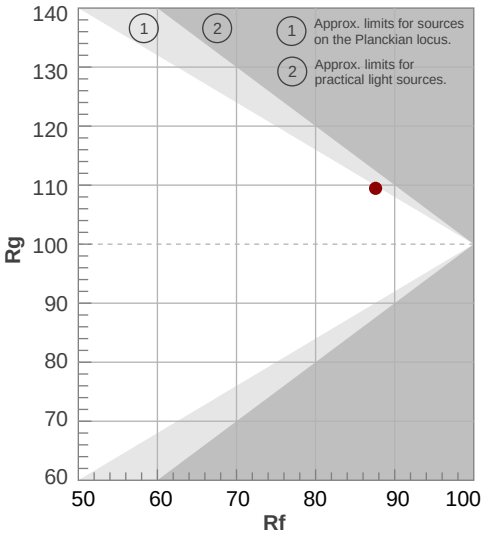
Rf 87,6

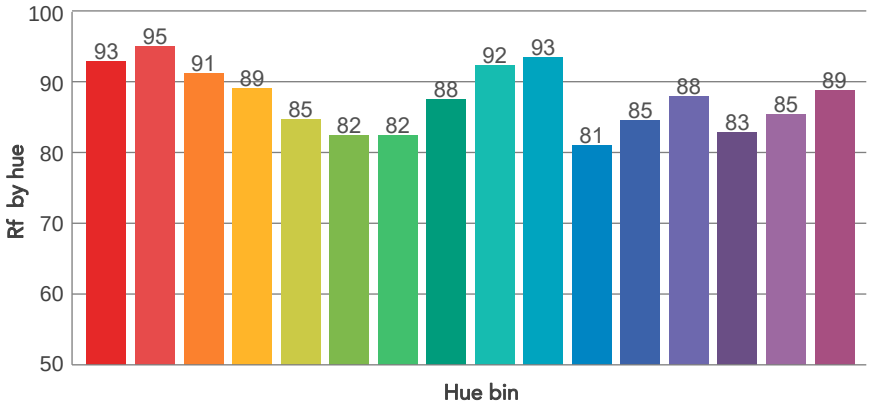
Fidelity index Rf

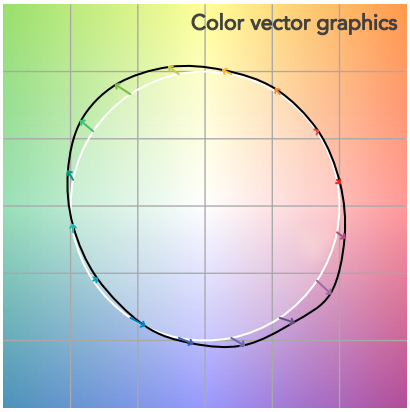
Rg 109,5

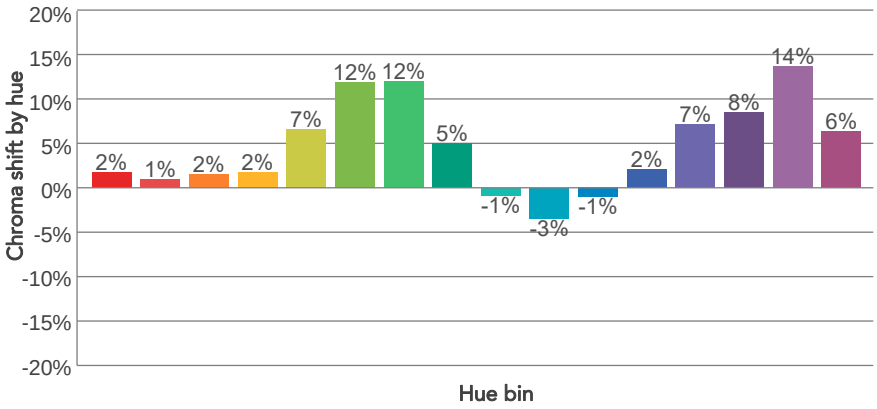
Gammut index

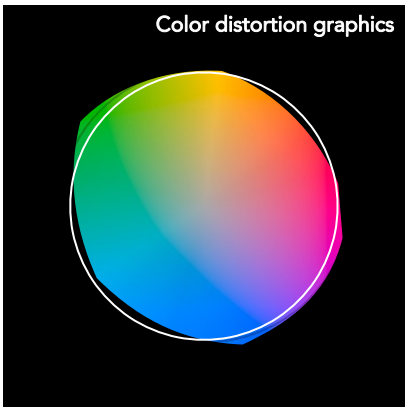
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	93	2%	-3%
2	95	1%	0%
3	91	2%	5%
4	89	2%	6%
5	85	7%	6%
6	82	12%	5%
7	82	12%	-1%
8	88	5%	-5%
9	92	-1%	-5%
10	93	-3%	0%
11	81	-1%	12%
12	85	2%	11%
13	88	7%	8%
14	83	8%	7%
15	85	14%	-2%
16	89	6%	-3%

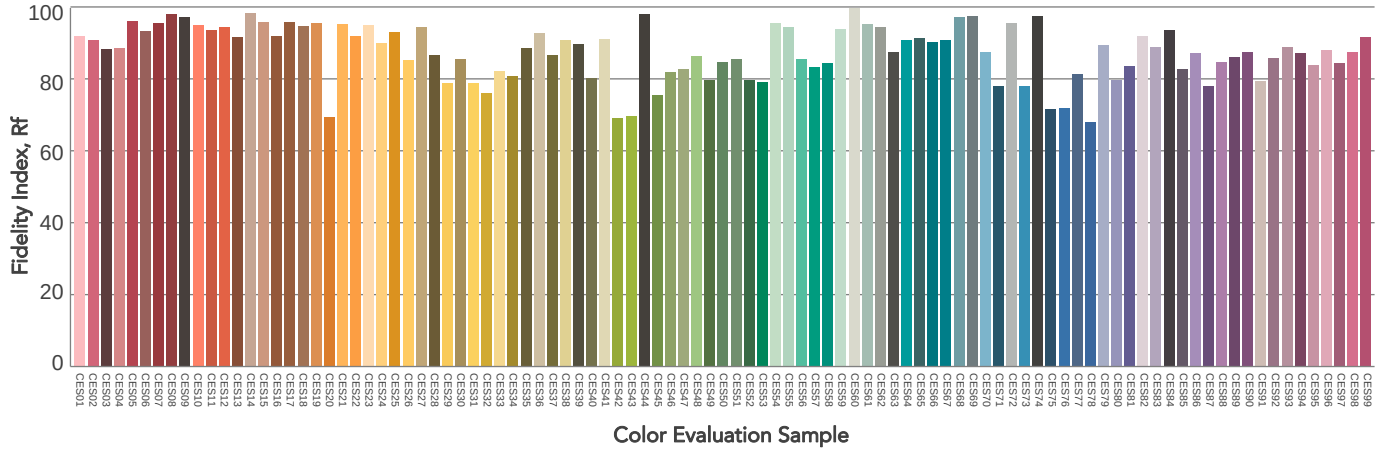












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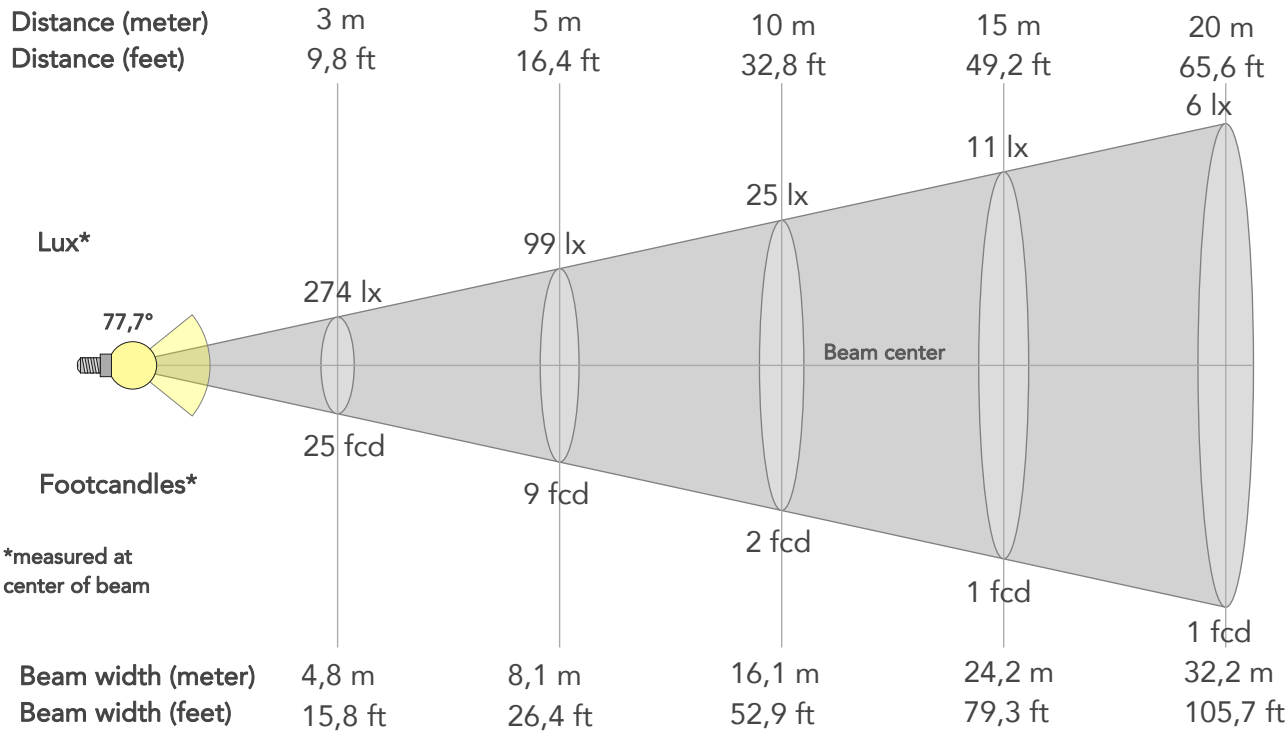
BEAM DETAILS

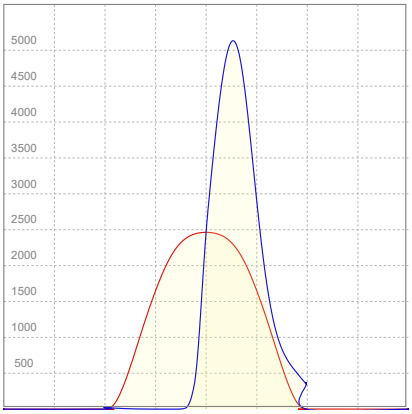
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
77,7°	120,4°	133,9°	84,0%	61,2%



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	2464lx	616lx	274lx	154lx	99lx	44lx	25lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	229fcd	57fcd	25fcd	14fcd	9fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	1,6m	3,2m	4,8m	6,4m	8,1m	12,1m	16,1m	24,2m	32,2m	40,3m	48,4m	64,5m	80,6m
Beam wid.	5,3ft	10,6ft	15,8ft	21,1ft	26,4ft	39,7ft	52,9ft	79,3ft	105,7ft	132,2ft	158,6ft	211,5ft	264,4ft

LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
225V	0,473A	99,7W	65lm/W

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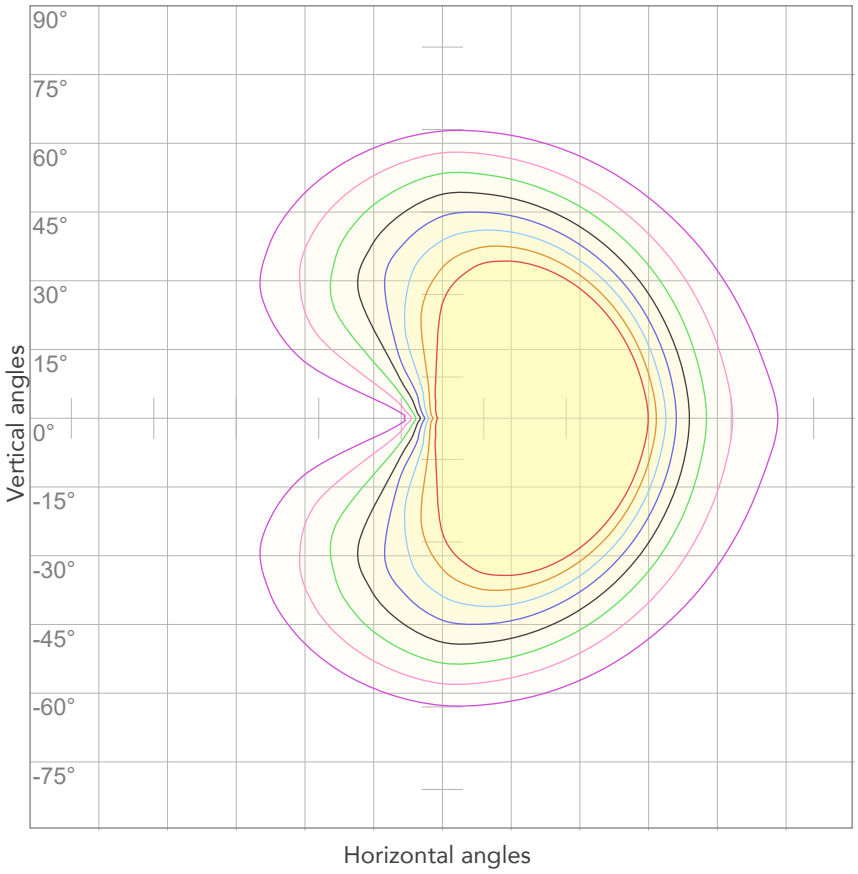
ISO DIAGRAMS

ISO CANDELA DIAGRAM



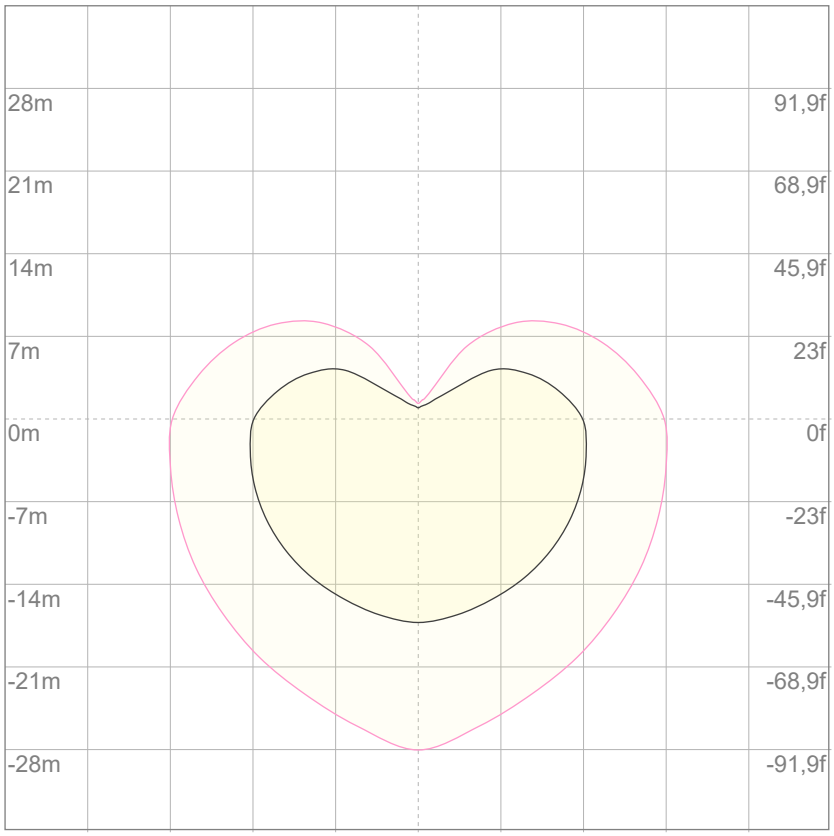
10%	246 cd
20%	493 cd
30%	739 cd
40%	986 cd
50%	1232 cd
60%	1478 cd
70%	1725 cd
80%	1971 cd

Conditions:

Number of c-planes: 4

Candela at center: 2464 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0,739 lx
5%	1,23 lx
10%	2,46 lx
30%	7,39 lx
50%	12,3 lx

Conditions:

Number of c-planes: 4

Lux at center: 24,6 lx

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

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