



Photometric Test Report



ArcSpot MFC

IP66 Spot featuring 3900 lumen
with 19 x 4W RGB+WarmWhite source,
25° Degree Optic
(PRELIMINARY)

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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:

3852 lm

Peak candela output:

22526 cd

Light quality:

CRI: 43,5

Color temperature:

20619 K

PRODUCT NAME:

ARCSPOTMFC

MEASURAMENT CONDITIONS:

Beam angle:

25°

Target:

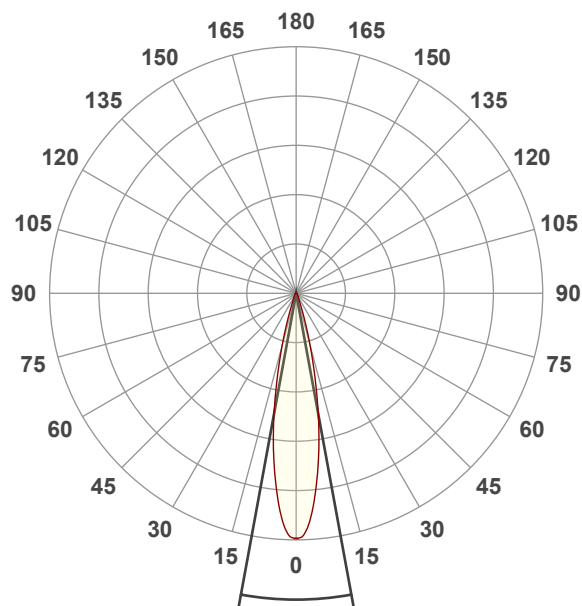
Full On

Operator:

Salvatore Giglio

Date and time:

09/02/2024 12:22:50

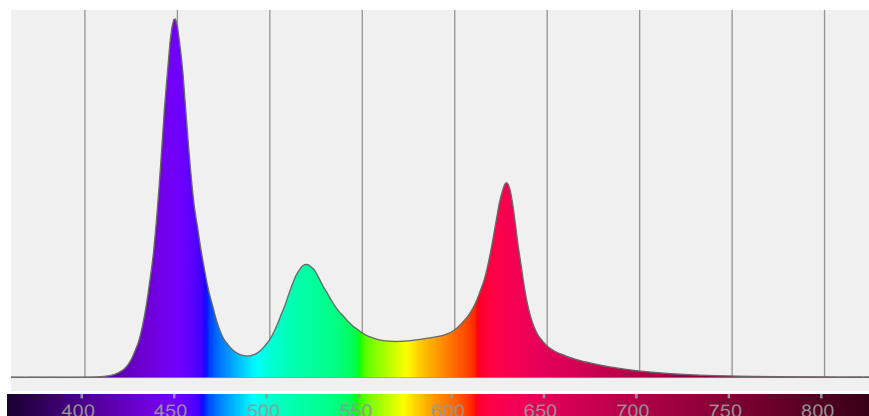


Beam angle 50%: 20,8°

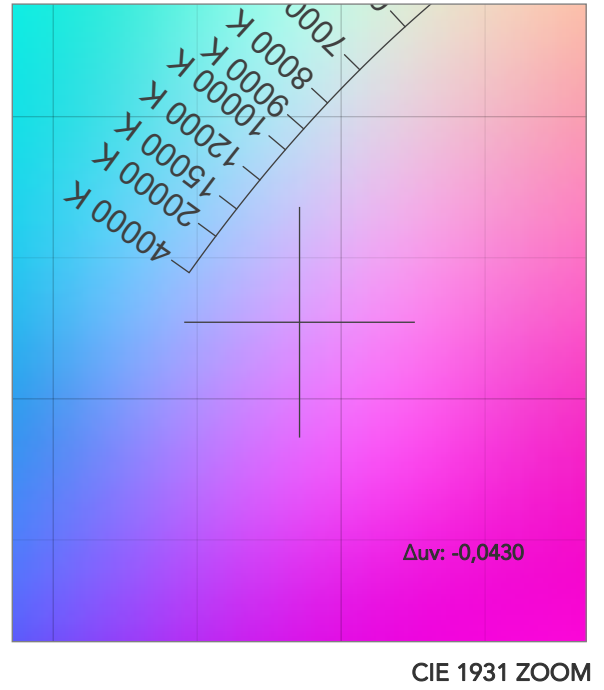
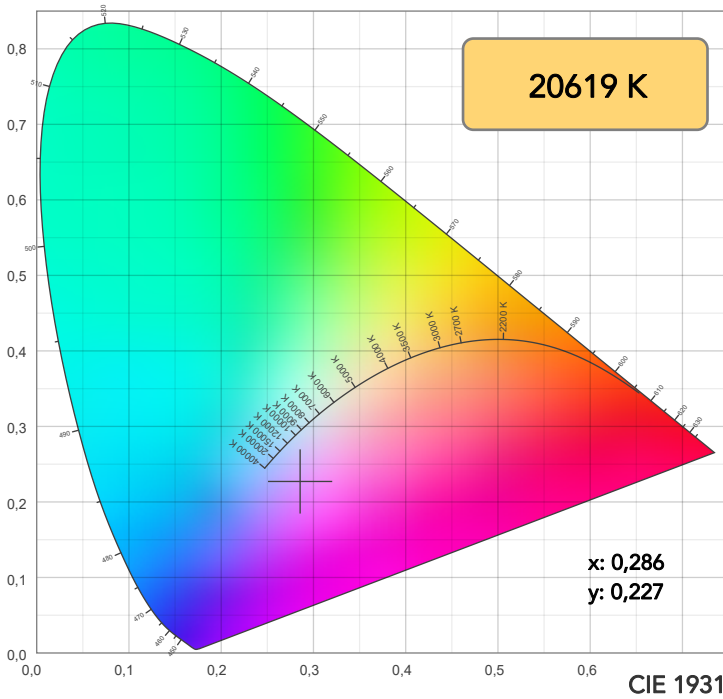
Field angle 10%: 36,3°

Cut off angle 2.5%: 52°

Spectra

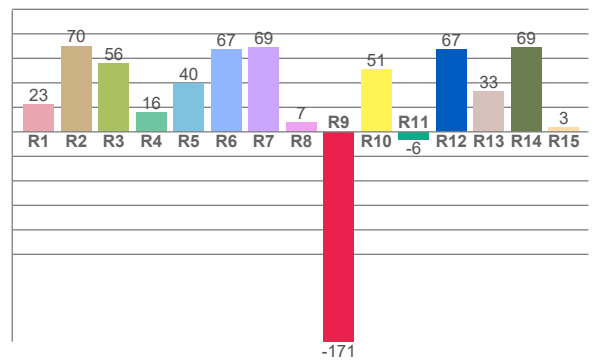
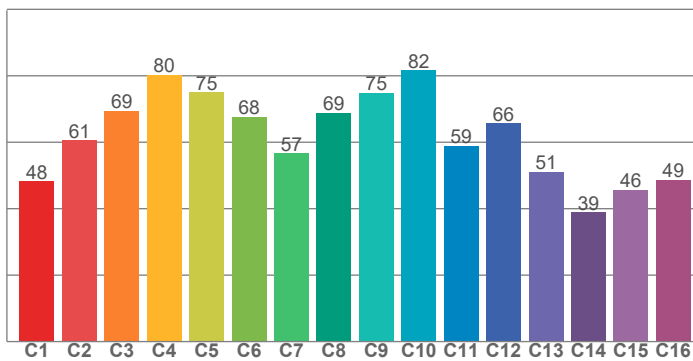


COLOR DETAILS



TM30: 64,8

CRI: 43,5 (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
22,8	70,2	56,2	15,8	39,7	67,4	68,8	7,4	-171,2	50,7	-6,2	67,2	33,4	69,1	3,3

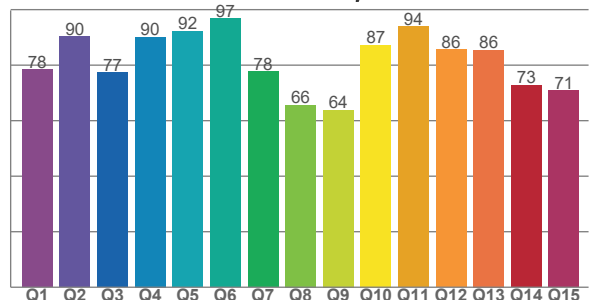
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
48,2	60,6	69,4	80,2	75,0	67,6	56,7	68,9	74,9	81,6	58,8	65,6	51,0	38,9	45,6	48,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
78,4	90,3	77,4	90,1	92,2	96,8	77,7	65,6	63,9	87,3	93,9	85,6	85,5	72,7	70,9

CQS: 79,3



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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
20619 K	43,5	-171,2	64,8	128,1	79,3	70	0,286	0,227	-0,0430

TM30 DETAILS

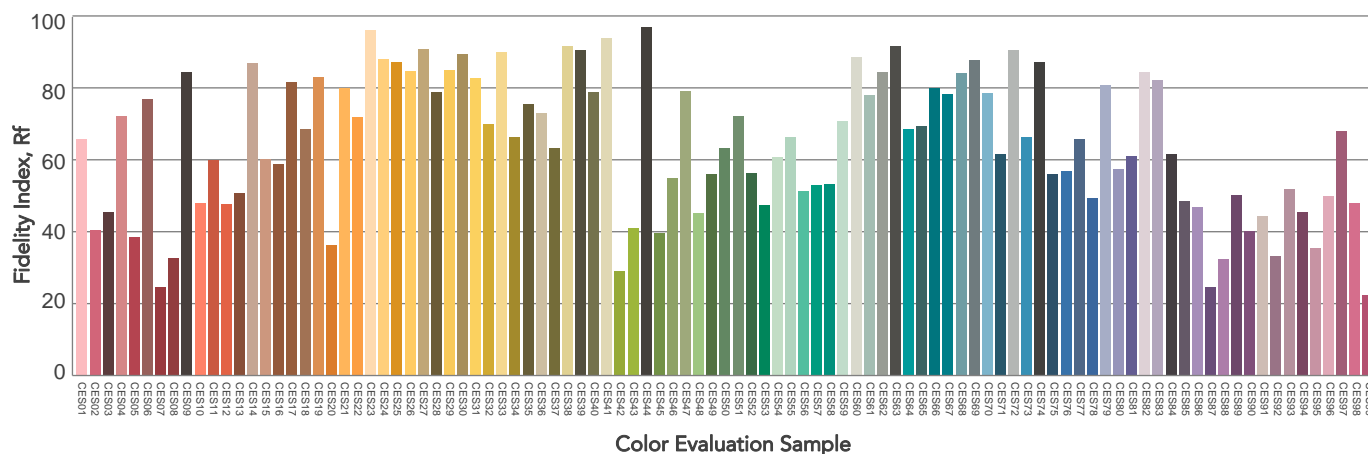
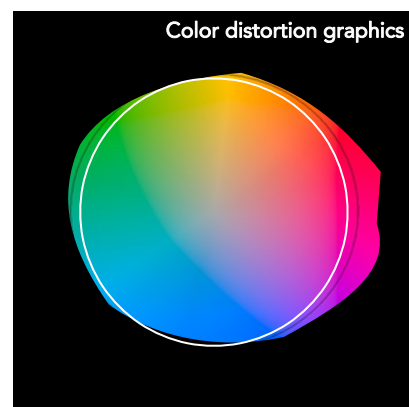
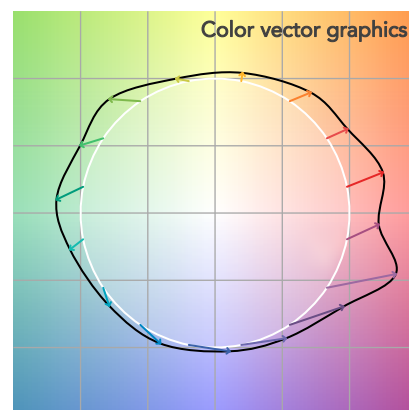
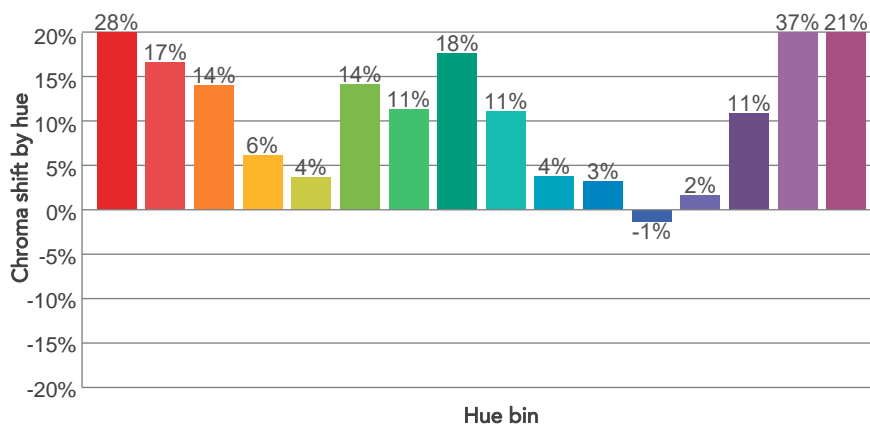
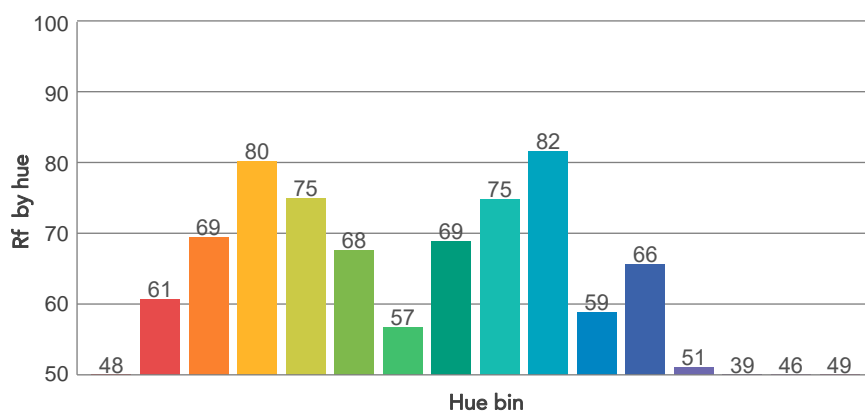
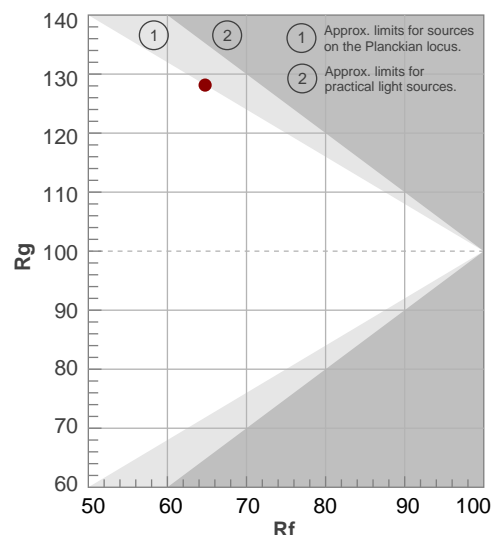
Rf 64,8

Fidelity index Rf

Rg 128,1

Gammut index

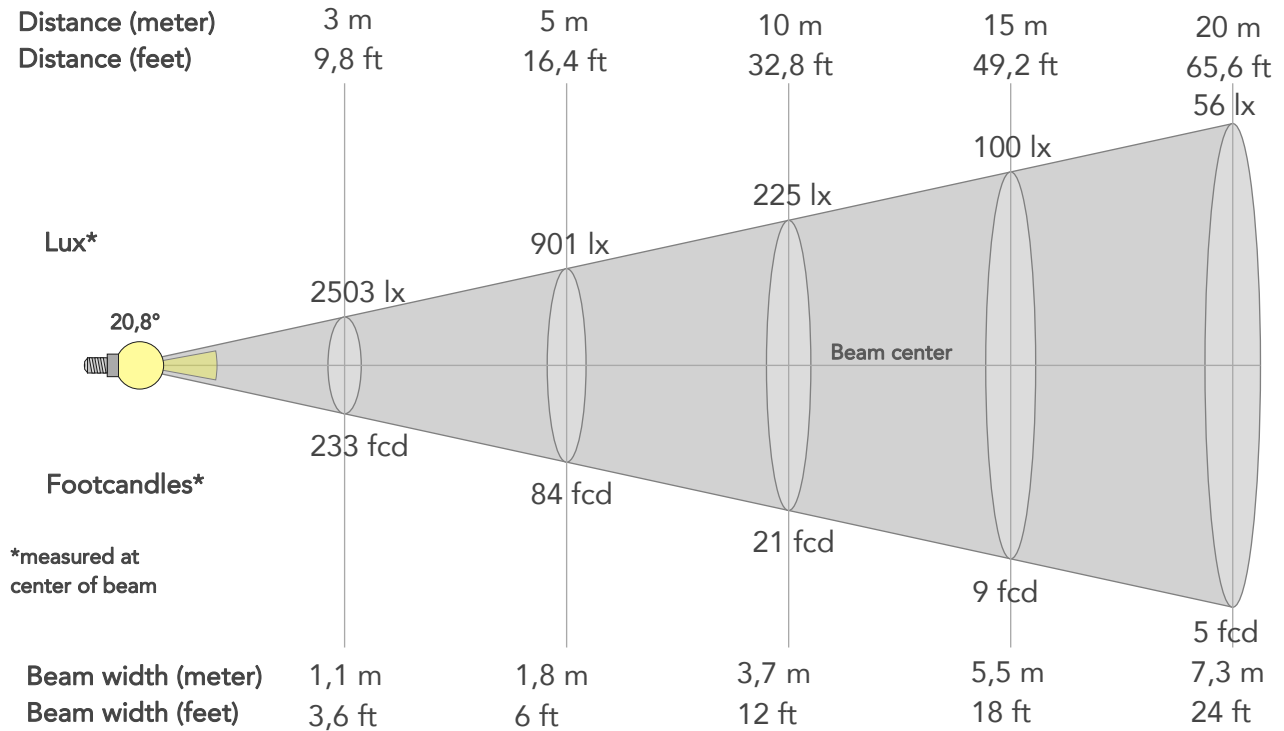
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	48	28%	5%
2	61	17%	-3%
3	69	14%	-9%
4	80	6%	0%
5	75	4%	9%
6	68	14%	18%
7	57	11%	14%
8	69	18%	13%
9	75	11%	6%
10	82	4%	14%
11	59	3%	20%
12	66	-1%	31%
13	51	2%	33%
14	39	11%	41%
15	46	37%	37%
16	49	21%	15%



BEAM DETAILS



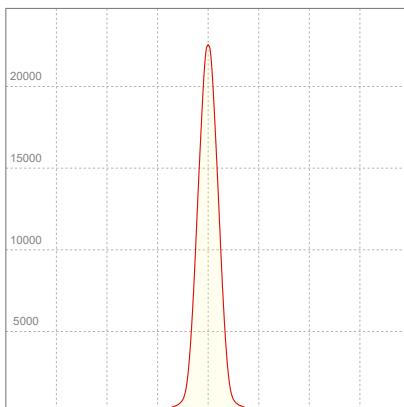
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
20,8°	36,3°	52°	96,4%	92,4%



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	22526lx	5632lx	2503lx	1408lx	901lx	400lx	225lx	100lx	56lx	36lx	25lx	14lx	9lx
Footcand.	2093fcd	523fcd	233fcd	131fcd	84fcd	37fcd	21fcd	9fcd	5fcd	3fcd	2fcd	1fcd	1fcd
Beam wid.	0,4m	0,7m	1,1m	1,5m	1,8m	2,7m	3,7m	5,5m	7,3m	9,2m	11m	14,7m	18,3m
Beam wid.	1,2ft	2,4ft	3,6ft	4,8ft	6ft	9ft	12ft	18ft	24ft	30,1ft	36,1ft	48,1ft	60,1ft

LINEAR DISTRIBUTION DIAGRAM

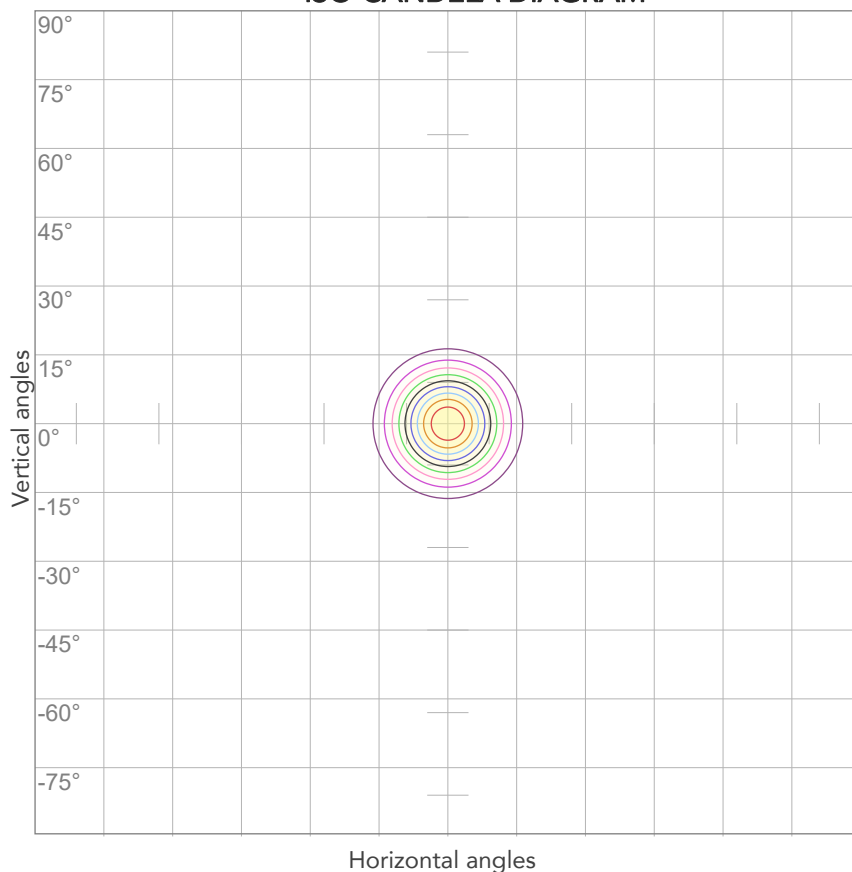


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,383A	79,4W	0,92	49lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



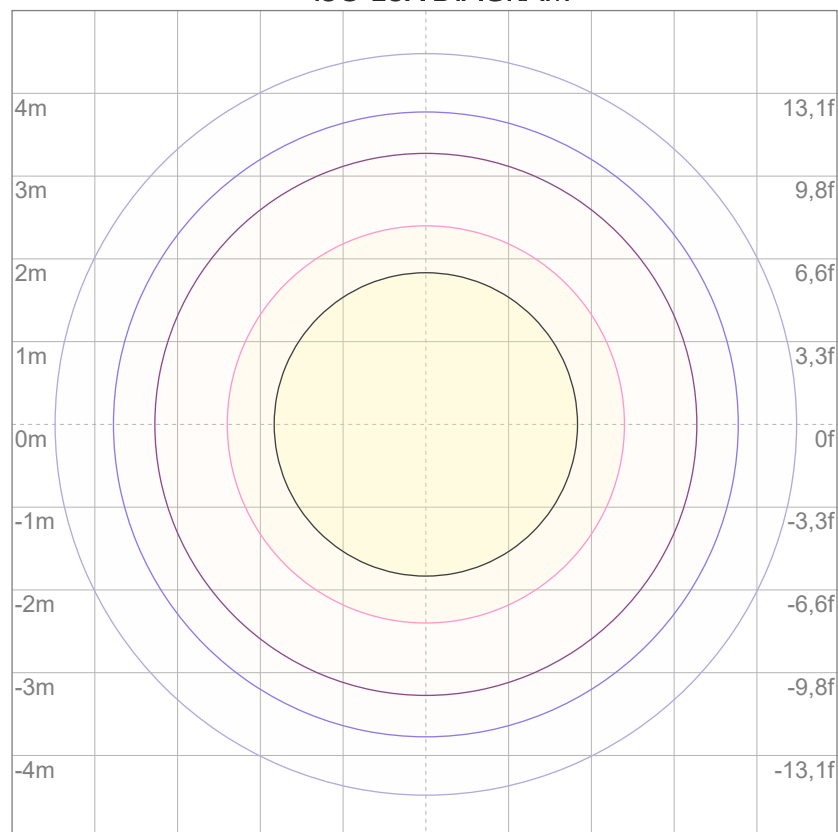
10%	2253 cd
20%	4505 cd
30%	6758 cd
40%	9010 cd
50%	11263 cd
60%	13516 cd
70%	15768 cd
80%	18021 cd

Conditions:

Number of c-planes: 2

Candela at center: 22526 cd

ISO LUX DIAGRAM



3%	6,76 lx
5%	11,3 lx
10%	22,5 lx
30%	67,6 lx
50%	113 lx

Conditions:

Number of c-planes: 2

Lux at center: 225 lx

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



Total lumen output:

1020 lm

Peak candela output:

5752 cd

PRODUCT NAME:

ARCSPOTMFC

MEASURAMENT CONDITIONS:

Beam angle:

25°

Target:

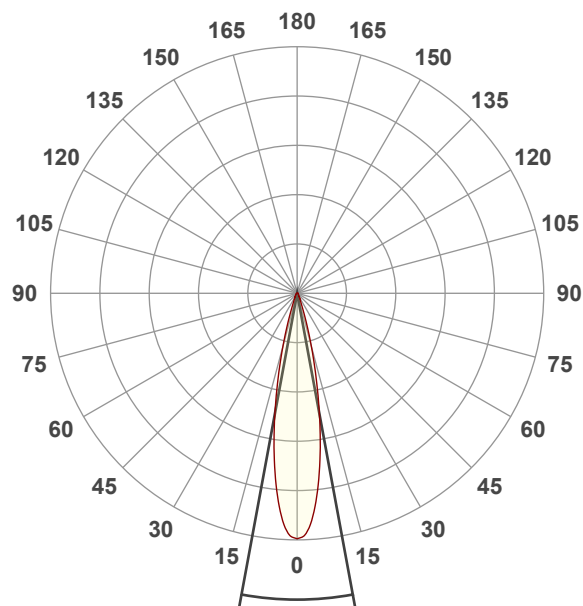
Red

Operator:

Salvatore Giglio

Date and time:

09/02/2024 12:28:36

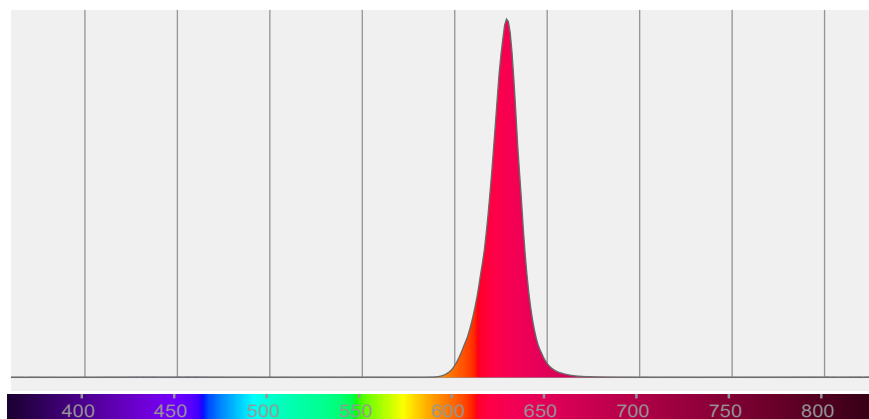


Beam angle 50%: 20,9°

Field angle 10%: 36,6°

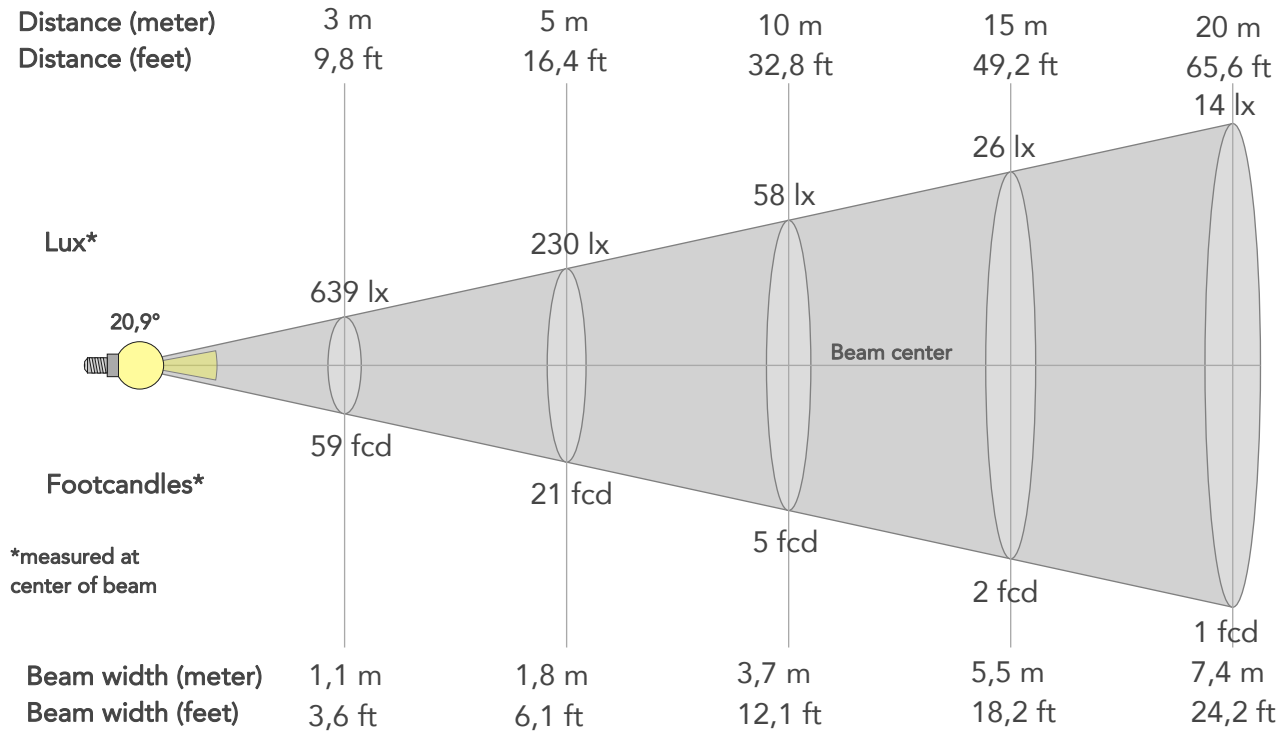
Cut off angle 2.5%: 52,9°

Spectra



BEAM DETAILS

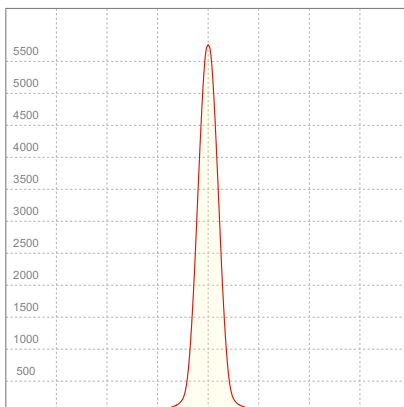
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
20,9°	36,6°	52,9°	95,6%	91,1%



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	5752lx	1438lx	639lx	359lx	230lx	102lx	58lx	26lx	14lx	9lx	6lx	4lx	2lx
Footcand.	534fcd	134fcd	59fcd	33fcd	21fcd	10fcd	5fcd	2fcd	1fcd	1fcd	1fcd	0fcd	0fcd
Beam wid.	0,4m	0,7m	1,1m	1,5m	1,8m	2,8m	3,7m	5,5m	7,4m	9,2m	11,1m	14,8m	18,5m
Beam wid.	1,2ft	2,4ft	3,6ft	4,8ft	6,1ft	9,1ft	12,1ft	18,2ft	24,2ft	30,3ft	36,4ft	48,5ft	60,6ft

LINEAR DISTRIBUTION DIAGRAM

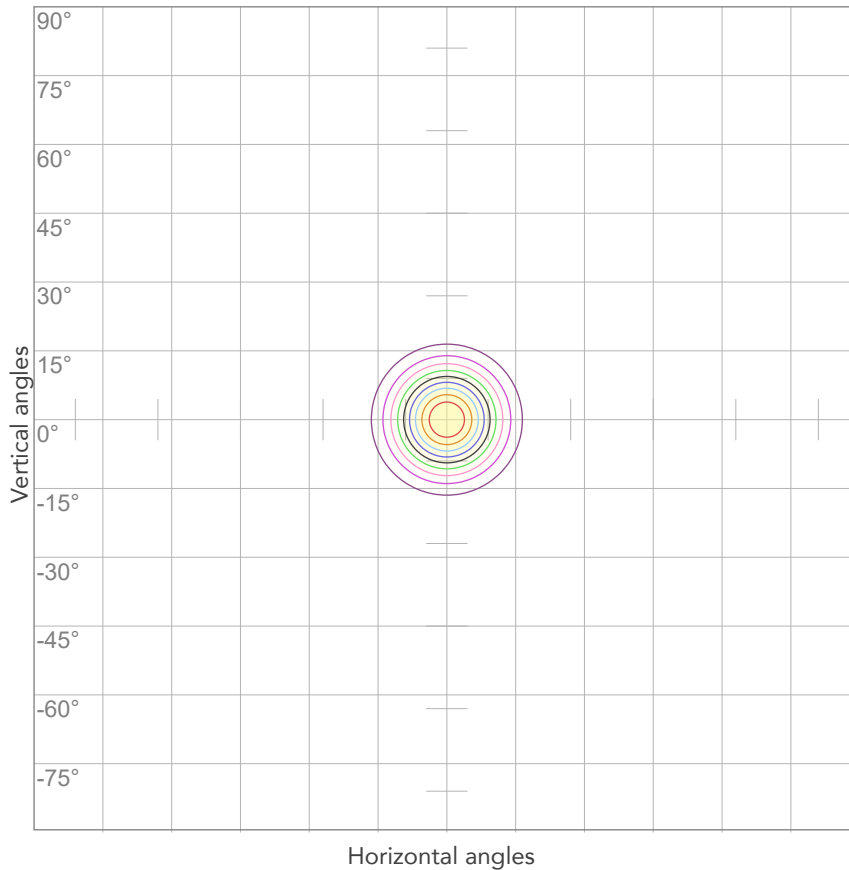


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,156A	27,7W	0,79	37lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



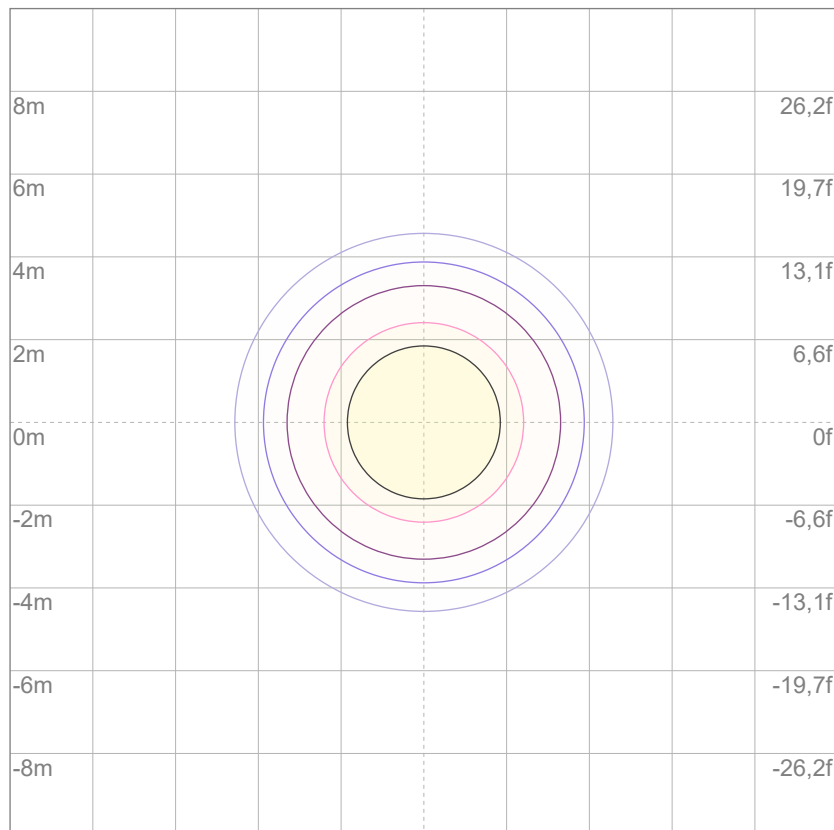
10%	575 cd
20%	1150 cd
30%	1726 cd
40%	2301 cd
50%	2876 cd
60%	3451 cd
70%	4026 cd
80%	4602 cd

Conditions:

Number of c-planes: 2

Candela at center: 5752 cd

ISO LUX DIAGRAM



3%	1,73 lx
5%	2,88 lx
10%	5,75 lx
30%	17,3 lx
50%	28,8 lx

Conditions:

Number of c-planes: 2

Lux at center: 57,5 lx

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



Total lumen output:

2308 lm

Peak candela output:

13555 cd

PRODUCT NAME:

ARCSPOTMFC

MEASURAMENT CONDITIONS:

Beam angle:

25°

Target:

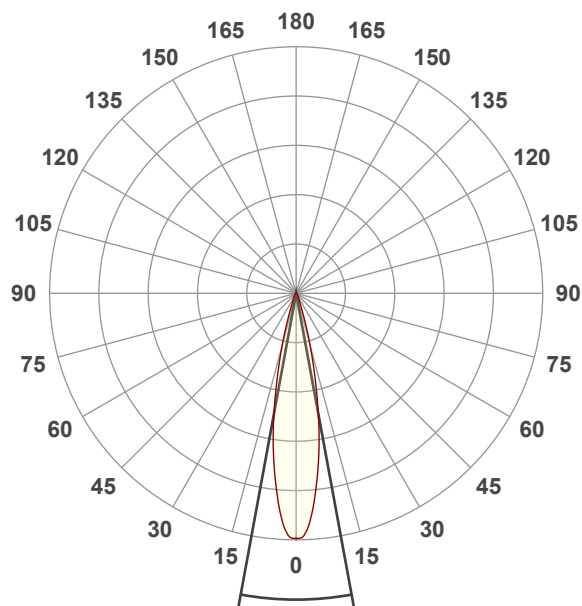
Green

Operator:

Salvatore Giglio

Date and time:

09/02/2024 12:27:06

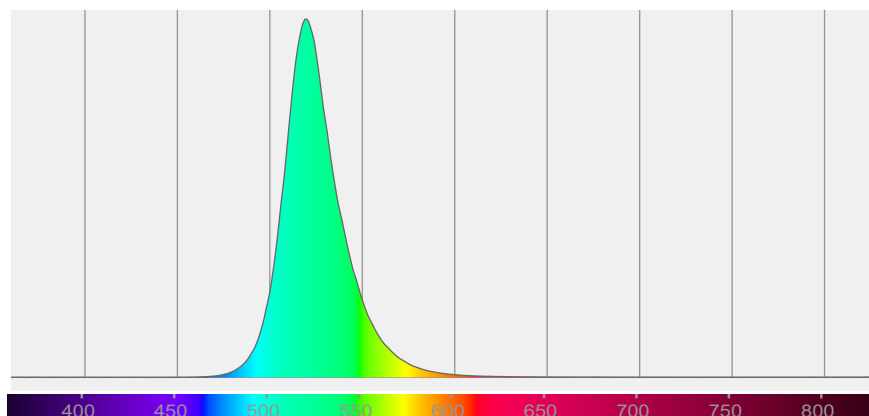


Beam angle 50%: 20,9°

Field angle 10%: 36,3°

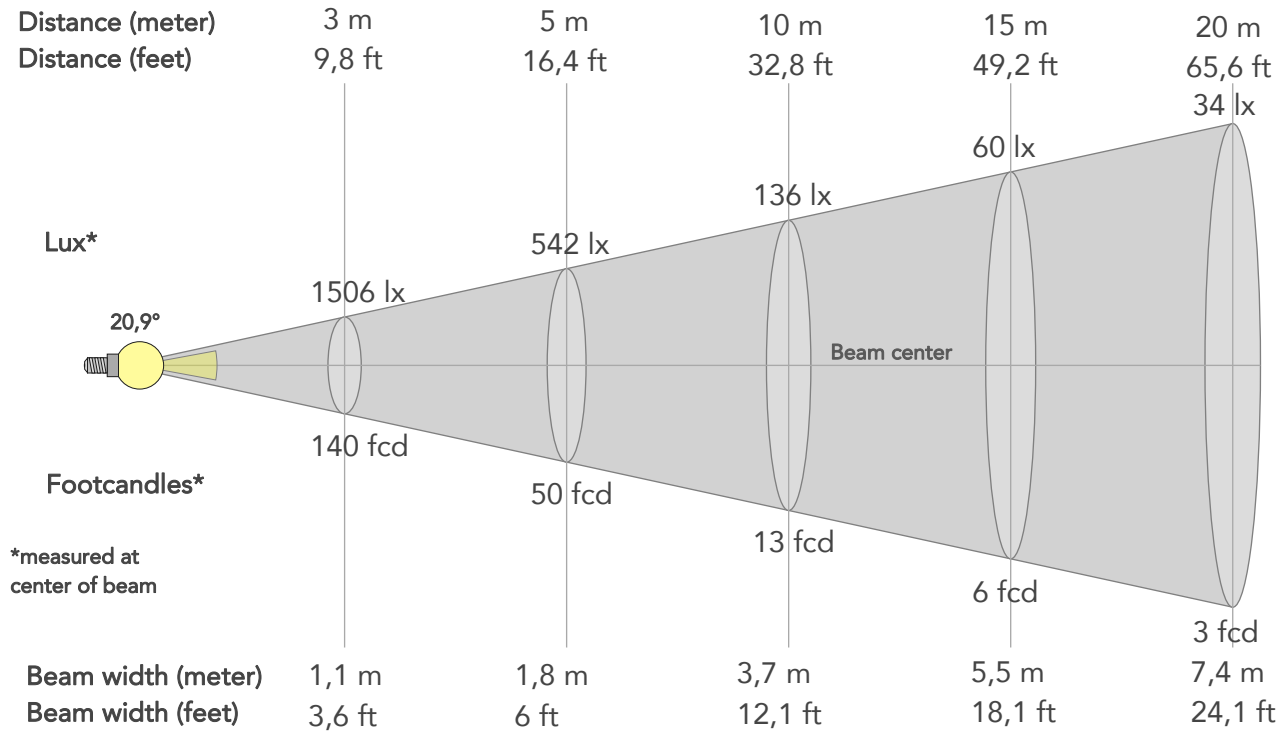
Cut off angle 2.5%: 51,7°

Spectra



BEAM DETAILS

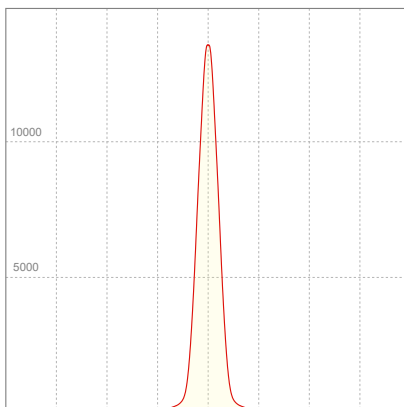
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
20,9°	36,3°	51,7°	96,8%	92,8%



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	13555lx	3389lx	1506lx	847lx	542lx	241lx	136lx	60lx	34lx	22lx	15lx	8lx	5lx
Footcand.	1259fcd	315fcd	140fcd	79fcd	50fcd	22fcd	13fcd	6fcd	3fcd	2fcd	1fcd	1fcd	1fcd
Beam wid.	0,4m	0,7m	1,1m	1,5m	1,8m	2,8m	3,7m	5,5m	7,4m	9,2m	11m	14,7m	18,4m
Beam wid.	1,2ft	2,4ft	3,6ft	4,8ft	6ft	9,1ft	12,1ft	18,1ft	24,1ft	30,2ft	36,2ft	48,3ft	60,4ft

LINEAR DISTRIBUTION DIAGRAM

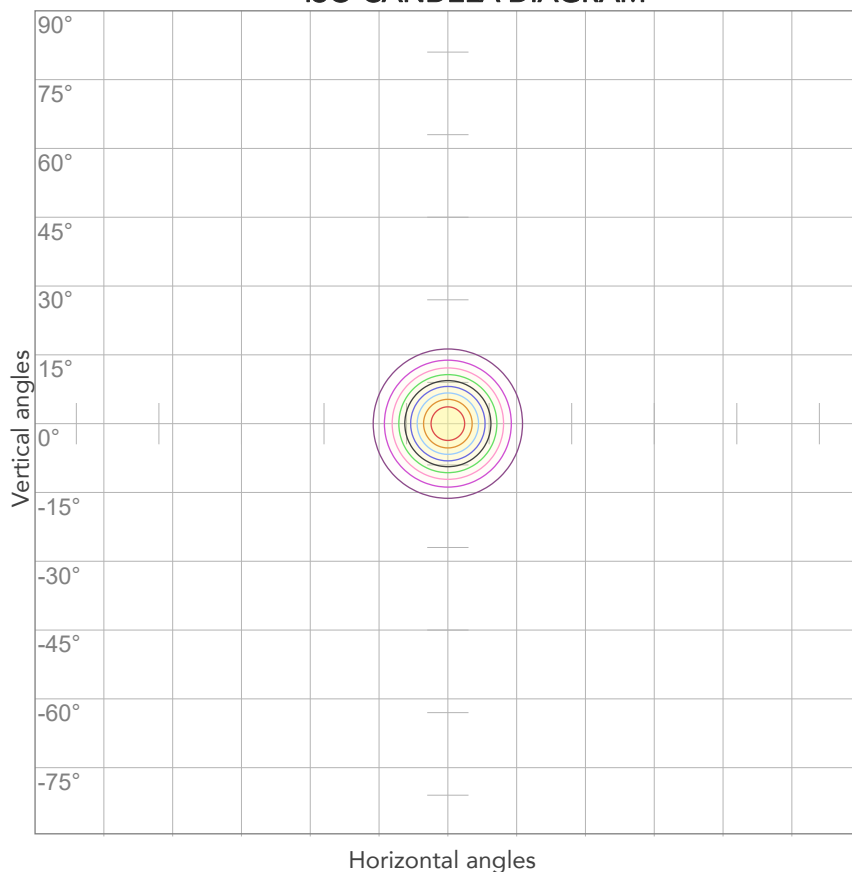


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,183A	34,0W	0,82	68lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



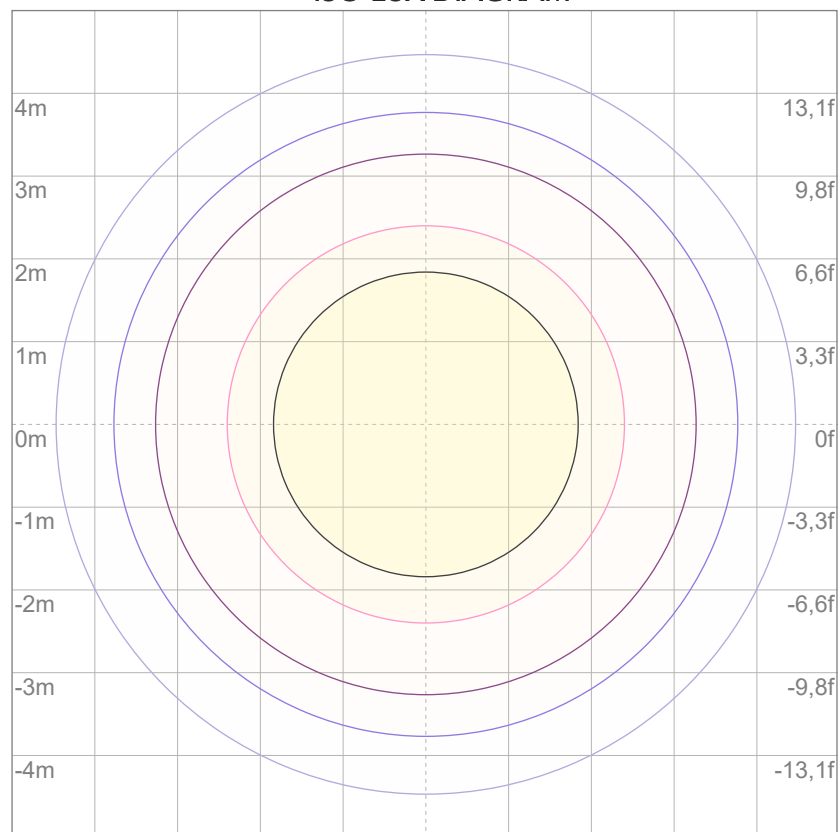
10%	1356 cd
20%	2711 cd
30%	4067 cd
40%	5422 cd
50%	6778 cd
60%	8133 cd
70%	9489 cd
80%	10844 cd

Conditions:

Number of c-planes: 2

Candela at center: 13555 cd

ISO LUX DIAGRAM



3%	4,07 lx
5%	6,78 lx
10%	13,6 lx
30%	40,7 lx
50%	67,8 lx

Conditions:

Number of c-planes: 2

Lux at center: 136 lx

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



Total lumen output:

489 lm

Peak candela output:

2577 cd

PRODUCT NAME:

ARCSPOTMFC

MEASURAMENT CONDITIONS:

Beam angle:

25°

Target:

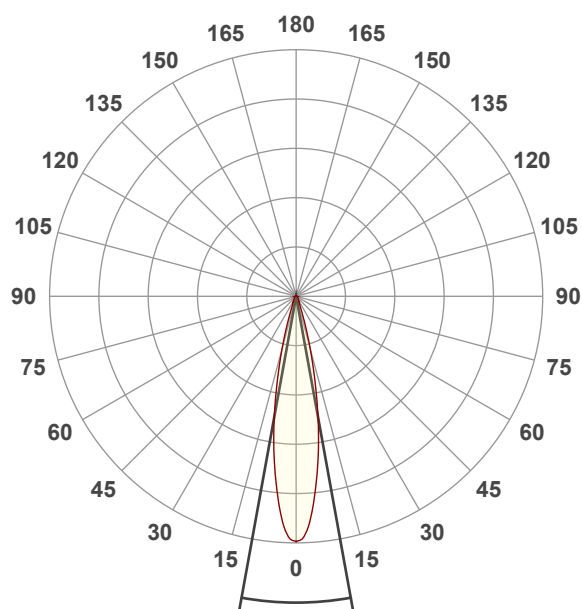
Blue

Operator:

Salvatore Giglio

Date and time:

09/02/2024 12:29:55

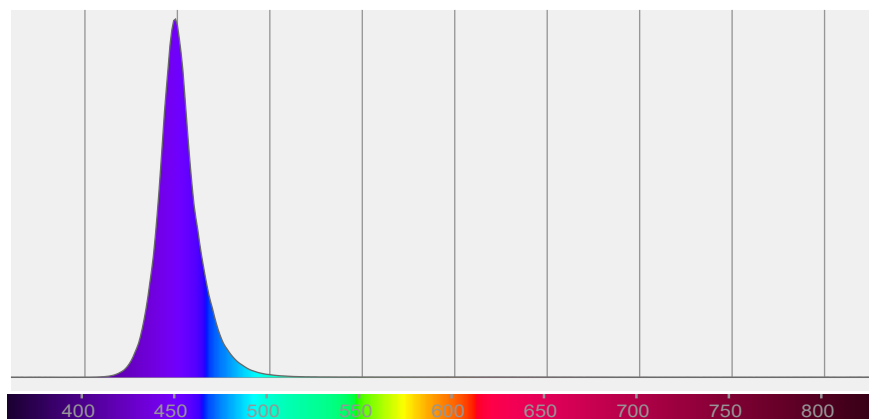


Beam angle 50%: 20,5°

Field angle 10%: 36,8°

Cut off angle 2.5%: 55,1°

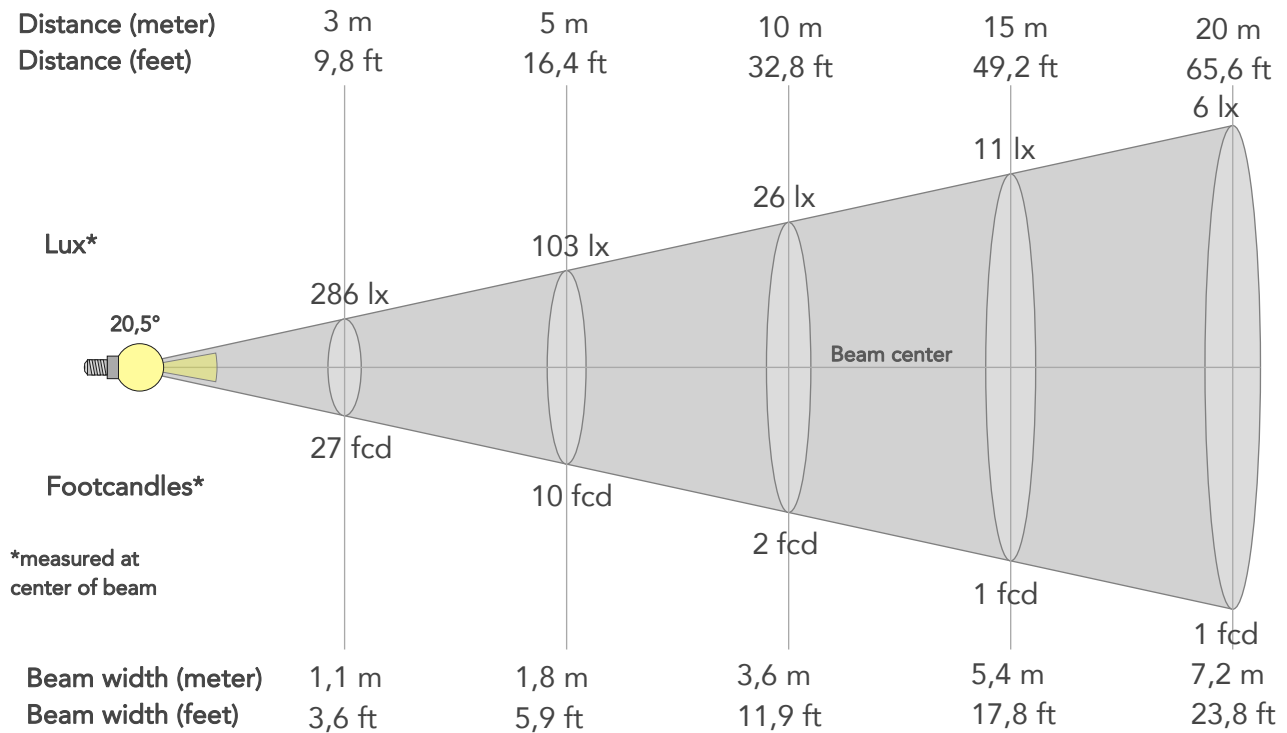
Spectra



BEAM DETAILS



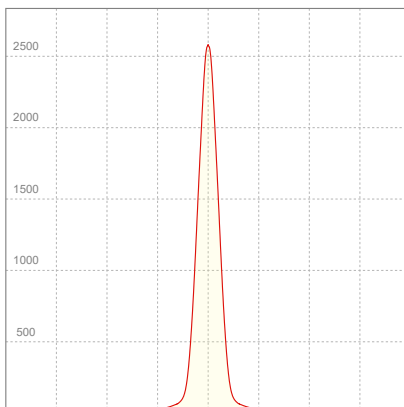
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
20,5°	36,8°	55,1°	91,6%	85,7%



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	2577lx	644lx	286lx	161lx	103lx	46lx	26lx	11lx	6lx	4lx	3lx	2lx	1lx
Footcand.	239fcd	60fcd	27fcd	15fcd	10fcd	4fcd	2fcd	1fcd	1fcd	0fcd	0fcd	0fcd	0fcd
Beam wid.	0,4m	0,7m	1,1m	1,4m	1,8m	2,7m	3,6m	5,4m	7,2m	9,1m	10,9m	14,5m	18,1m
Beam wid.	1,2ft	2,4ft	3,6ft	4,7ft	5,9ft	8,9ft	11,9ft	17,8ft	23,8ft	29,7ft	35,6ft	47,5ft	59,4ft

LINEAR DISTRIBUTION DIAGRAM

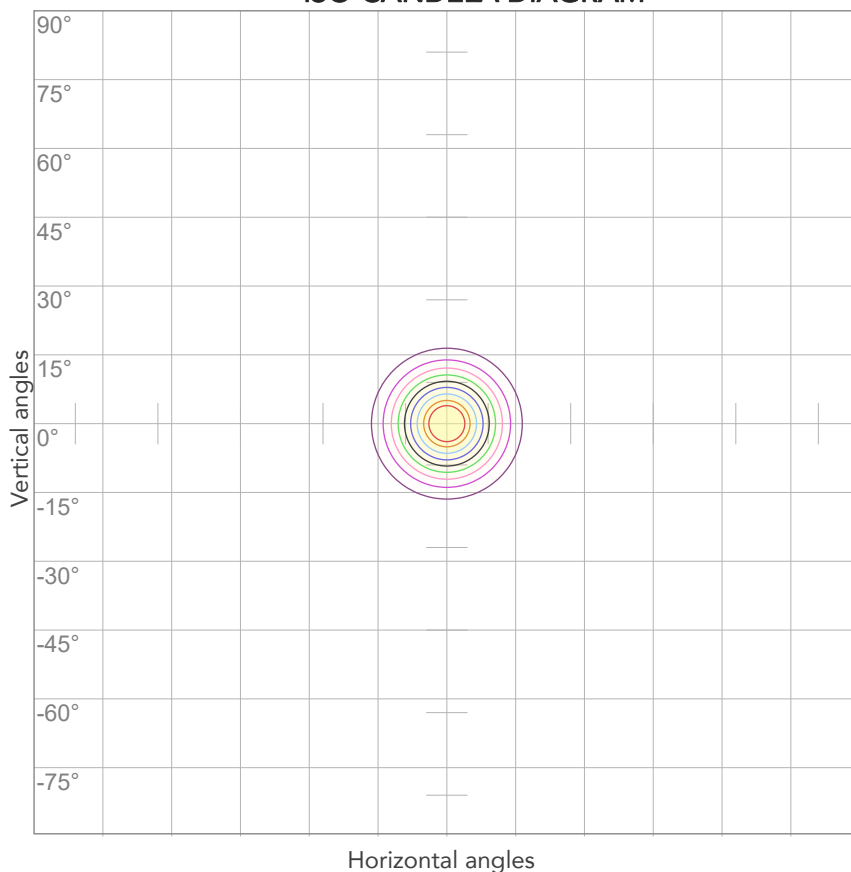


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
227V	0,189A	35,7W	0,83	14lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



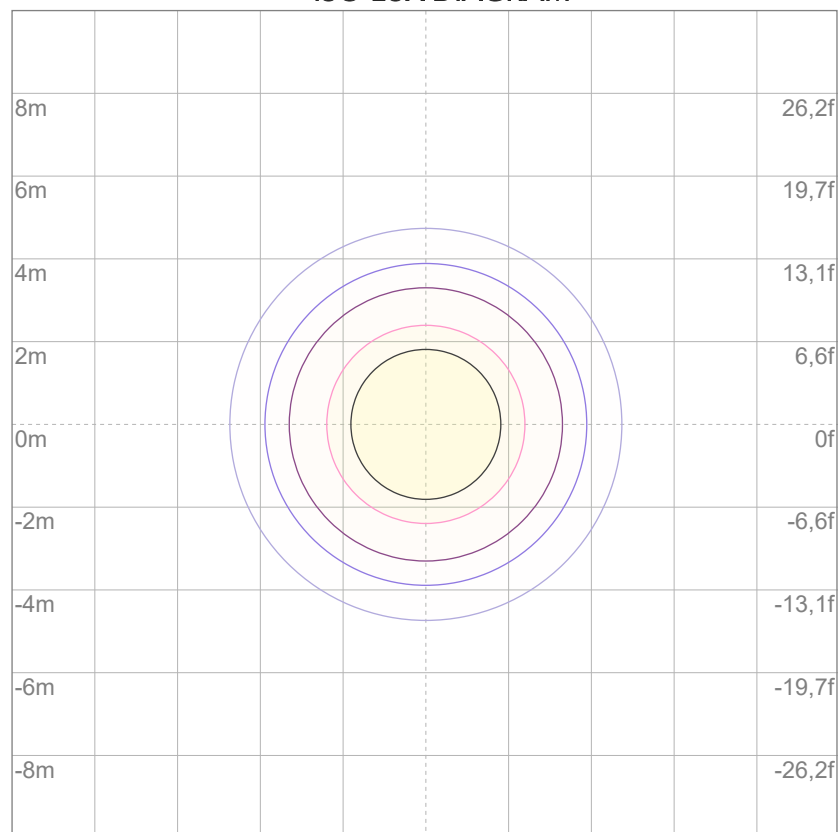
10%	258 cd
20%	515 cd
30%	773 cd
40%	1031 cd
50%	1289 cd
60%	1546 cd
70%	1804 cd
80%	2062 cd

Conditions:

Number of c-planes: 2

Candela at center: 2577 cd

ISO LUX DIAGRAM



3%	0,773 lx
5%	1,29 lx
10%	2,58 lx
30%	7,73 lx
50%	12,9 lx

Conditions:

Number of c-planes: 2

Lux at center: 25,8 lx

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



Total lumen output:

2829 lm

Peak candela output:

16687 cd

Light quality:

CRI: 83,6

Color temperature:

2888 K

PRODUCT NAME:

ARCSPOTMFC

MEASURAMENT CONDITIONS:

Beam angle:

25°

Target:

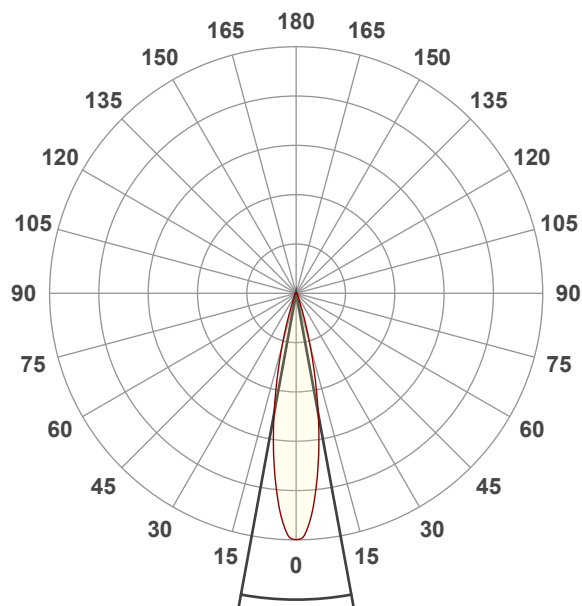
White

Operator:

Salvatore Giglio

Date and time:

09/02/2024 12:31:14

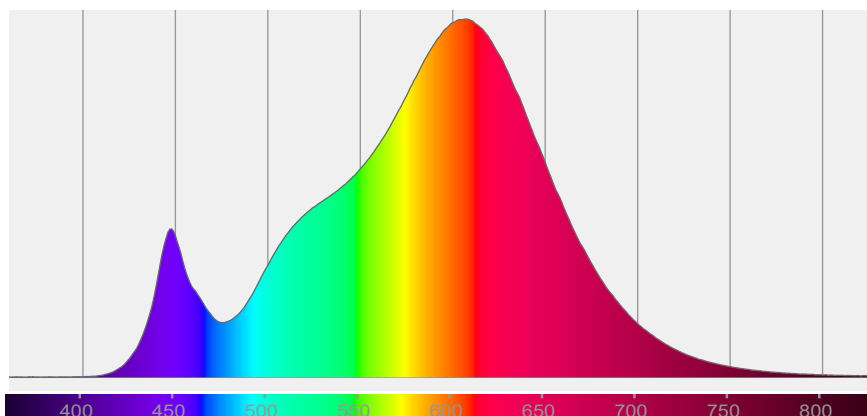


Beam angle 50%: 20,8°

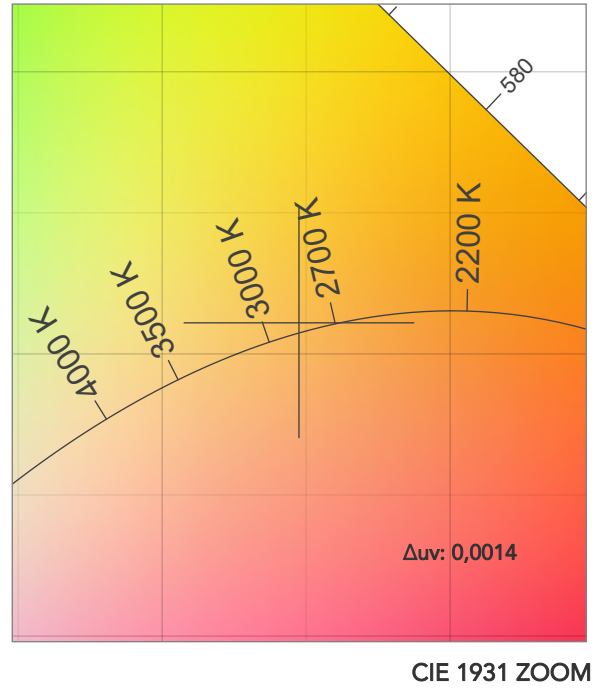
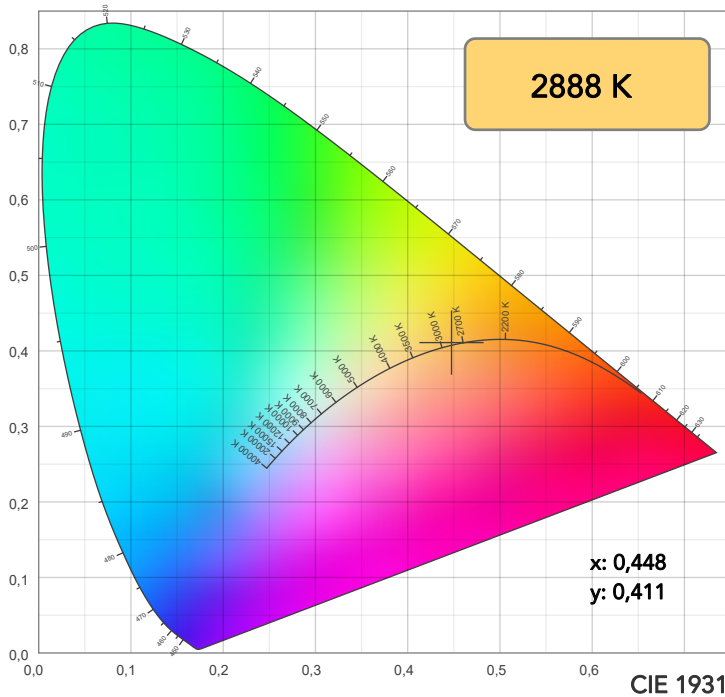
Field angle 10%: 36,4°

Cut off angle 2.5%: 52°

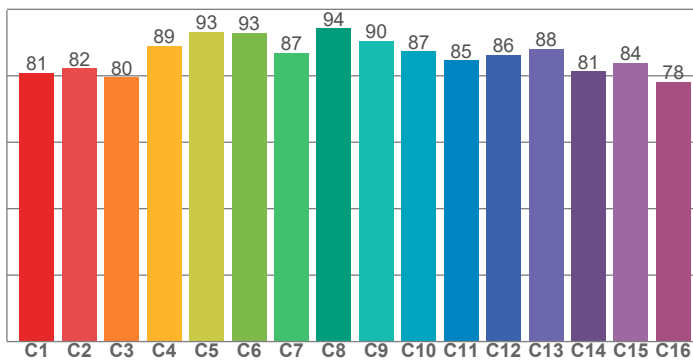
Spectra



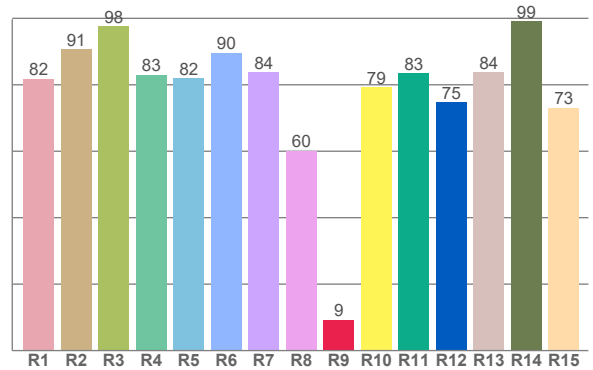
COLOR DETAILS



TM30: 86,1



CRI: 83,6 (R1-R8)



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

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81,8	90,7	97,5	83,0	82,1	89,7	83,8	60,1	9,3	79,3	83,5	74,7	83,9	99,1	73,1

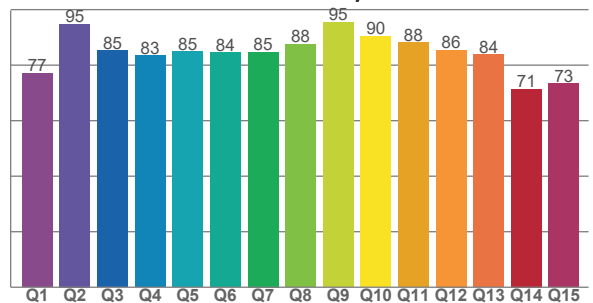
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80,8	82,3	79,6	89,1	93,2	92,9	86,9	94,2	90,5	87,3	84,6	86,4	88,1	81,4	83,8	78,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
77,1	94,9	85,3	83,4	84,9	84,5	84,7	87,5	95,4	90,4	88,1	85,5	83,8	71,4	73,3

CQS: 83,2



COLOR PARAMETERS

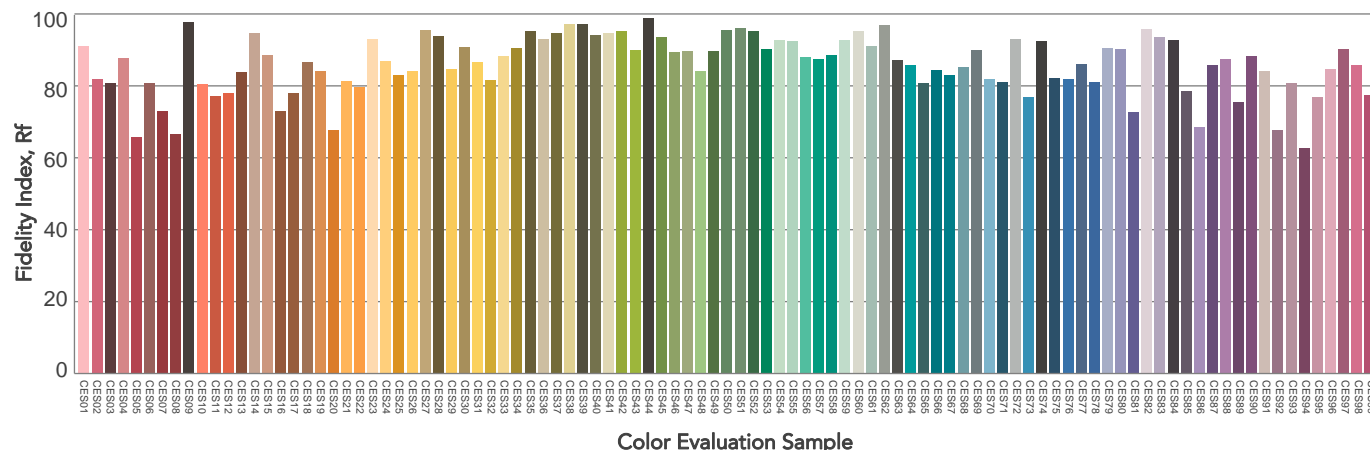
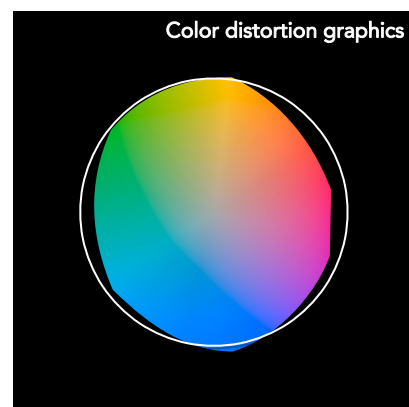
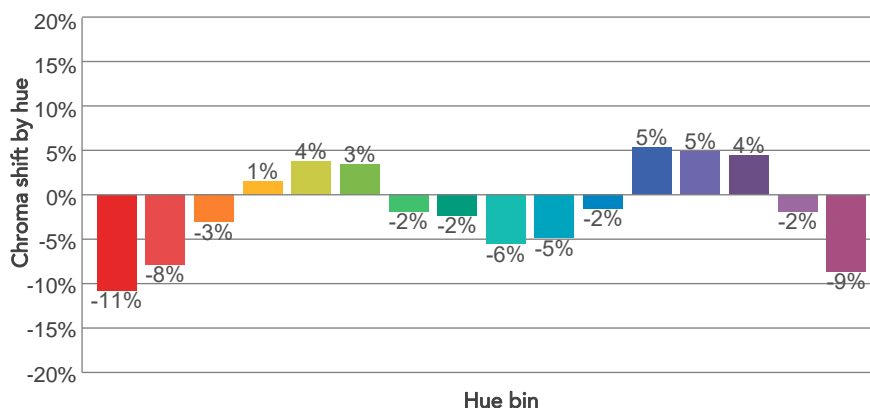
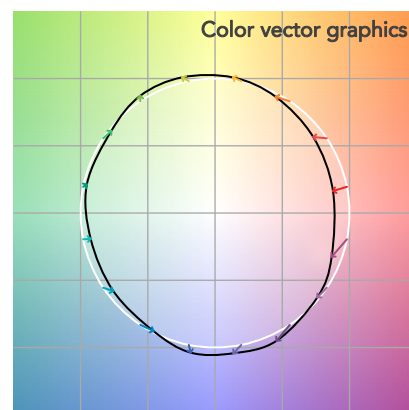
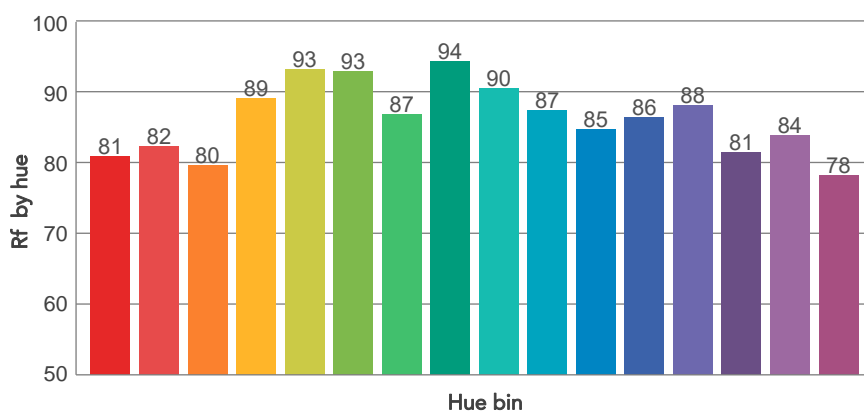
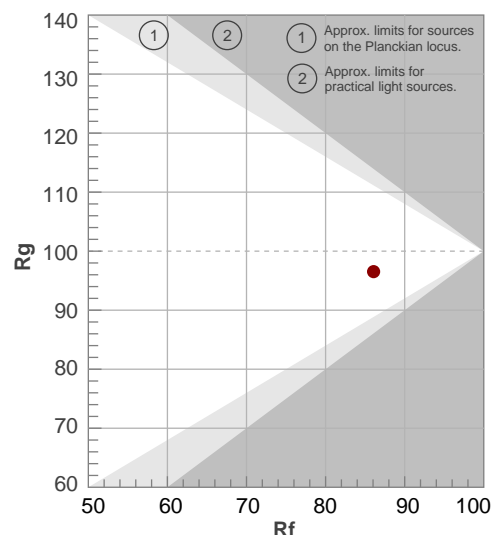
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
2888 K	83,6	9,3	86,1	96,5	83,2	69	0,448	0,411	0,0014

TM30 DETAILS

Rf 86,1
Fidelity index Rf

Rg 96,5
Gammut index

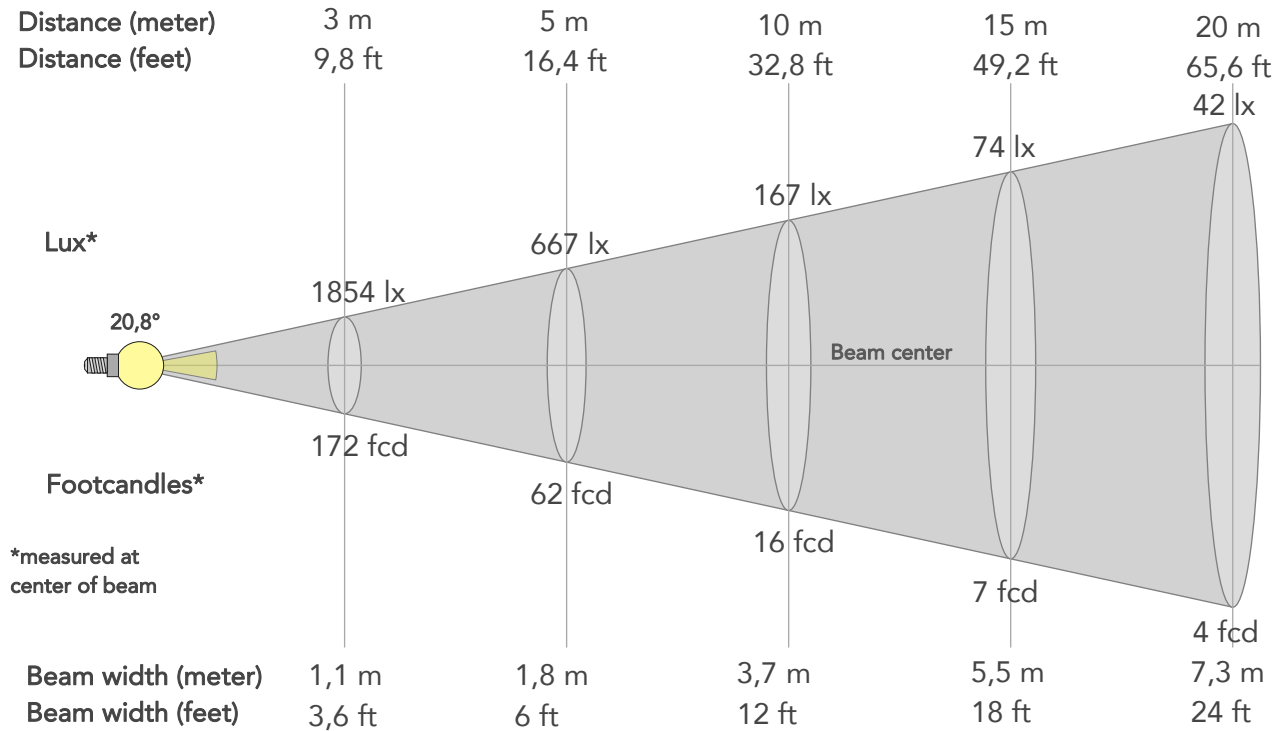
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	81	-11%	-1%
2	82	-8%	6%
3	80	-3%	10%
4	89	1%	7%
5	93	4%	4%
6	93	3%	-2%
7	87	-2%	-8%
8	94	-2%	-2%
9	90	-6%	1%
10	87	-5%	6%
11	85	-2%	11%
12	86	5%	2%
13	88	5%	-7%
14	81	4%	-15%
15	84	-2%	-10%
16	78	-9%	-15%



BEAM DETAILS



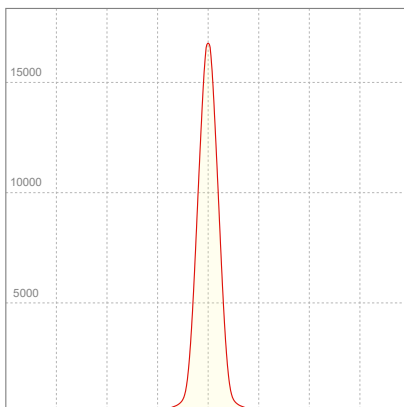
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
20,8°	36,4°	52°	97,0%	93,2%



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	16687lx	4172lx	1854lx	1043lx	667lx	297lx	167lx	74lx	42lx	27lx	19lx	10lx	7lx
Footcand.	1550fcd	388fcd	172fcd	97fcd	62fcd	28fcd	16fcd	7fcd	4fcd	2fcd	2fcd	1fcd	1fcd
Beam wid.	0,4m	0,7m	1,1m	1,5m	1,8m	2,7m	3,7m	5,5m	7,3m	9,2m	11m	14,7m	18,3m
Beam wid.	1,2ft	2,4ft	3,6ft	4,8ft	6ft	9ft	12ft	18ft	24ft	30ft	36ft	48,1ft	60,1ft

LINEAR DISTRIBUTION DIAGRAM

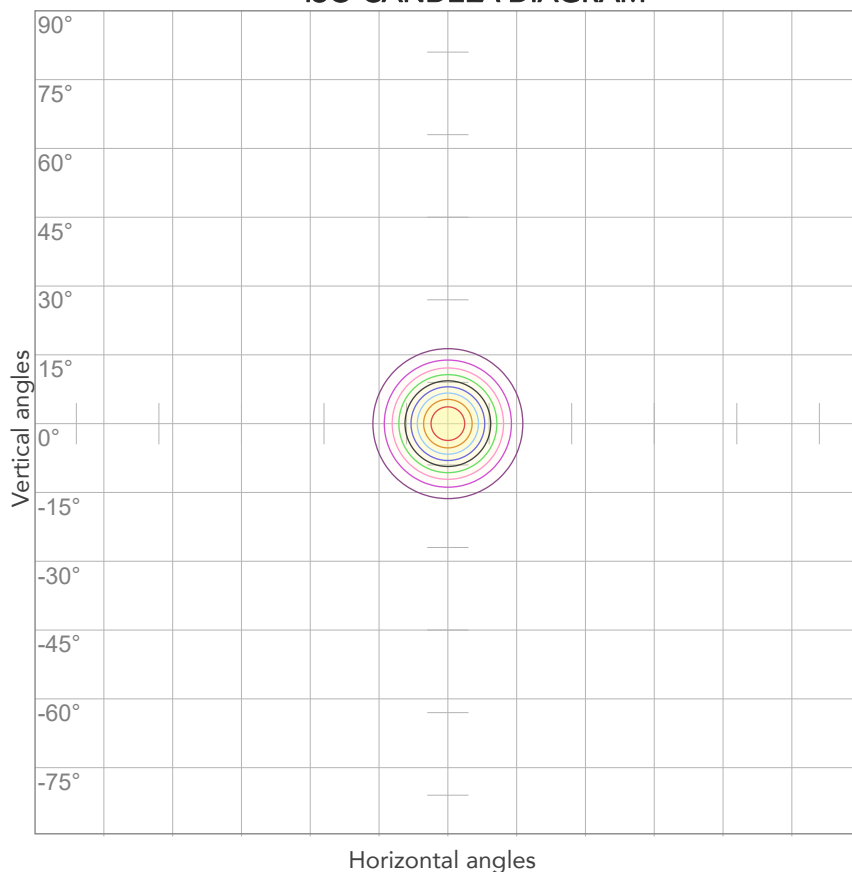


ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Power FC	Effeciency
226V	0,228A	44,6W	0,86	63lm/W

ISO DIAGRAMS

ISO CANDELA DIAGRAM



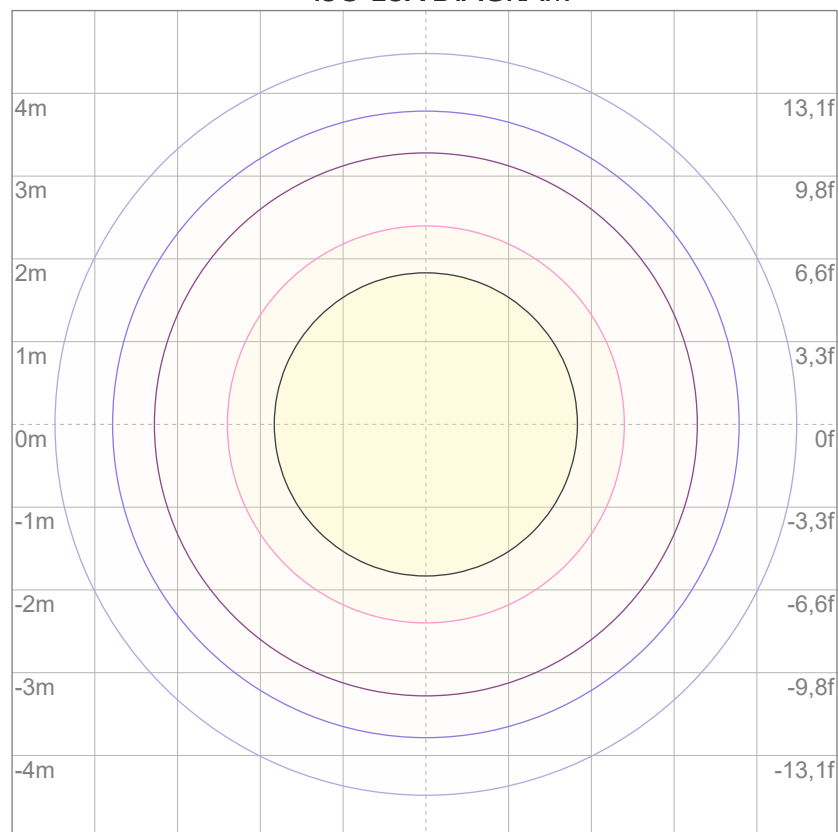
10%	1669 cd
20%	3337 cd
30%	5006 cd
40%	6675 cd
50%	8343 cd
60%	10012 cd
70%	11681 cd
80%	13349 cd

Conditions:

Number of c-planes: 2

Candela at center: 16687 cd

ISO LUX DIAGRAM



3%	5,01 lx
5%	8,34 lx
10%	16,7 lx
30%	50,1 lx
50%	83,4 lx

Conditions:

Number of c-planes: 2

Lux at center: 167 lx

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