



Photometric Test Report



PINSPOt DY

13W professional LED spot

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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:

816 lm

Peak candela output:

59468 cd

Light quality:

CRI: 79,2

Color temperature:

6172 K

PRODUCT NAME:

PINSPOD DY

MEASURAMENT CONDITIONS:

Beam angle:

Native Optic

Target:

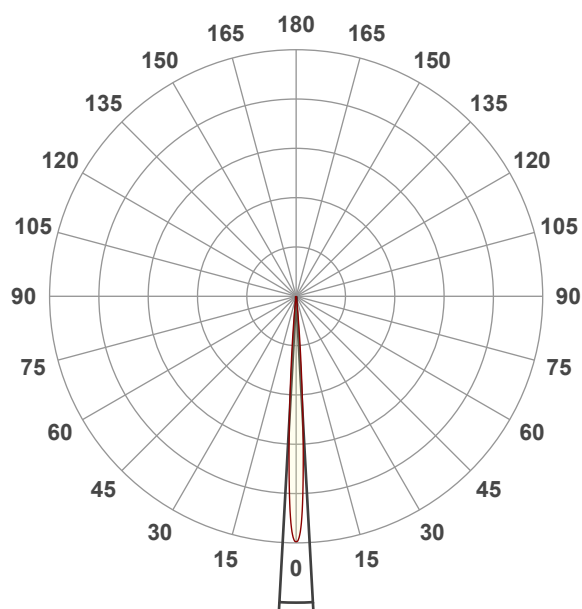
Full

Operator:

Paolo Carvone

Date and time:

07/03/2023 09:33:11

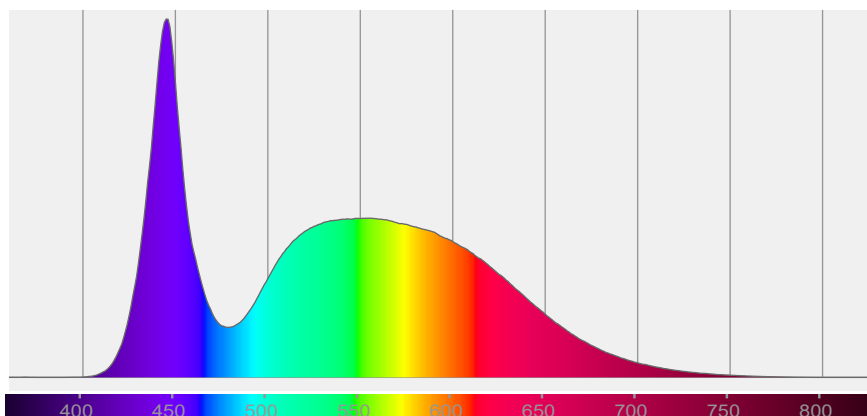


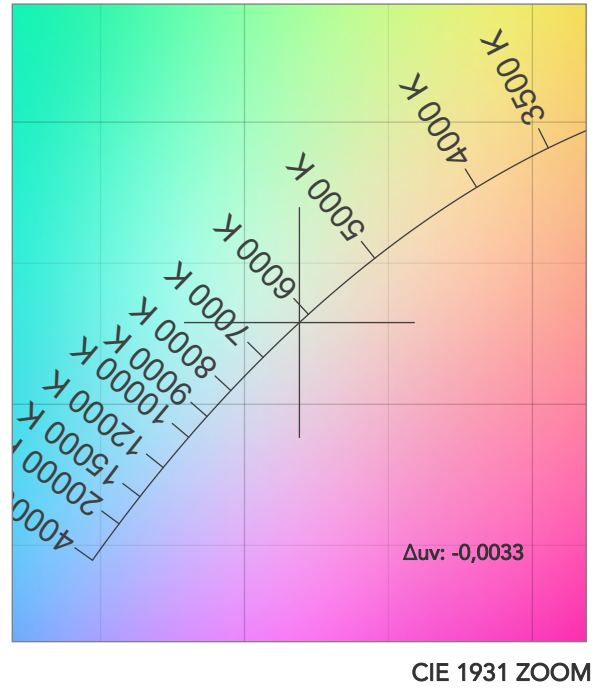
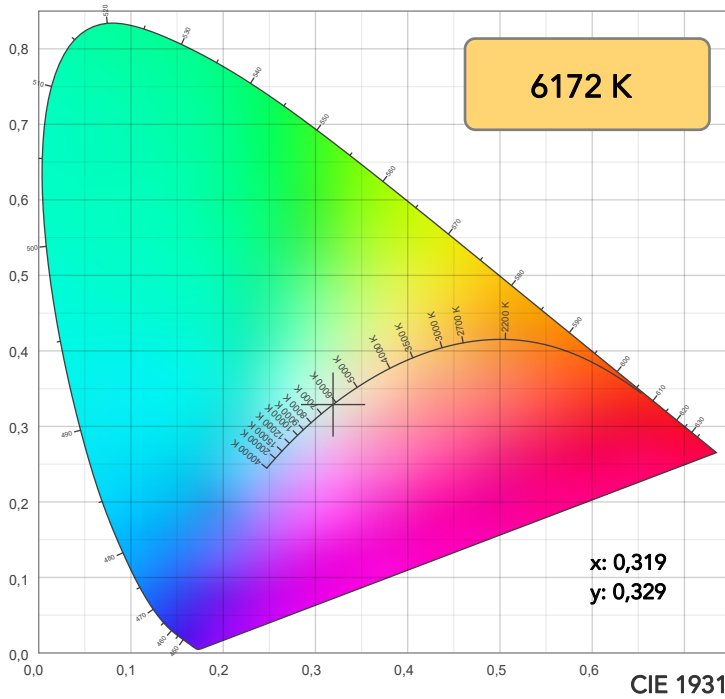
Beam angle 50%: 6,3°

Field angle 10%: 10,8°

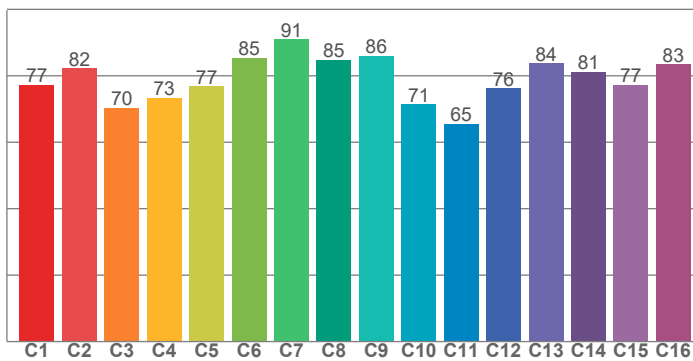
Cut off angle 2.5%: 13,8°

Spectra

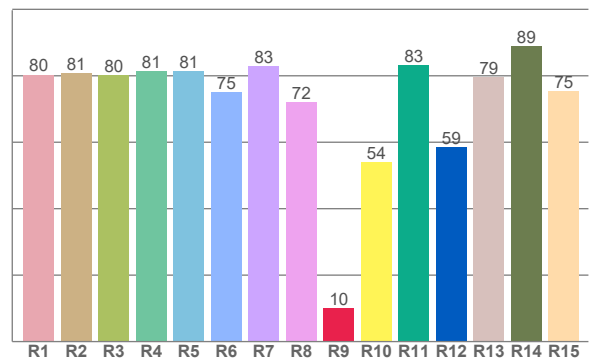




TM30: 78,6



CRI: 79,2 (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
80,4	80,9	80,2	81,4	81,3	75,0	82,8	72,1	10,1	54,1	83,1	58,5	79,5	88,9	75,4

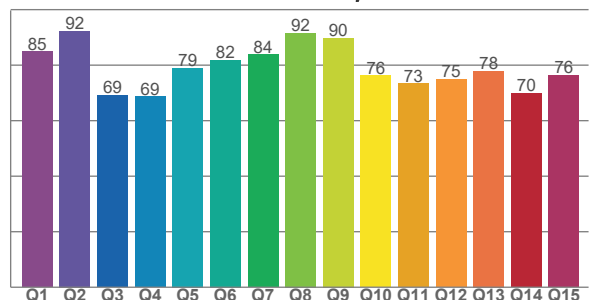
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77,2	82,3	70,4	73,3	76,9	85,4	91,0	84,7	86,0	71,4	65,5	76,2	83,7	81,2	77,3	83,4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84,9	92,3	69,2	68,6	79,0	81,9	83,8	91,7	89,8	76,2	73,3	74,9	77,9	69,9	76,4

CQS: 78,0



COLOR PARAMETERS

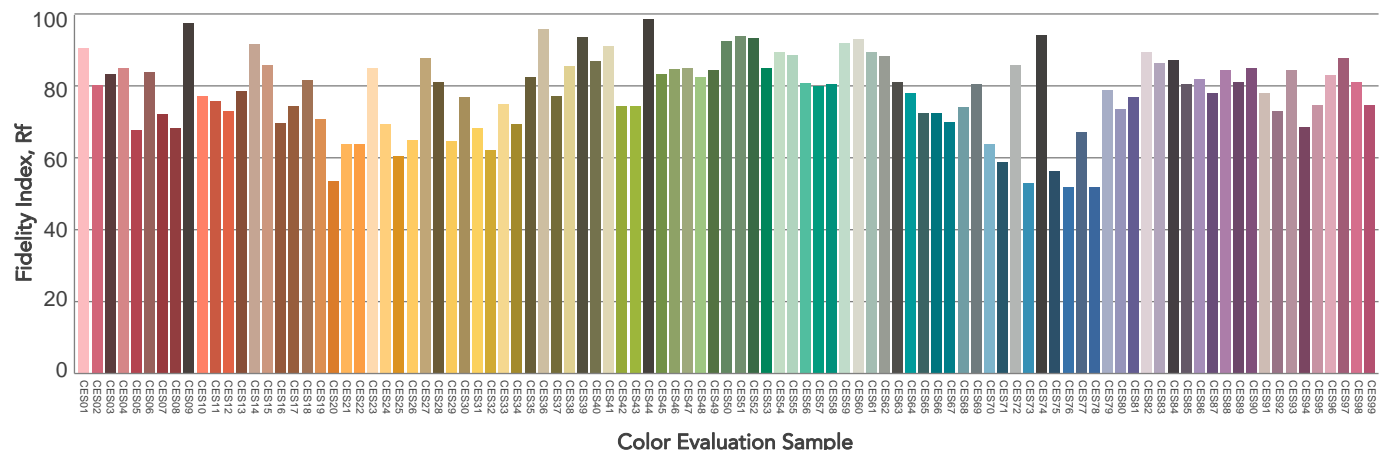
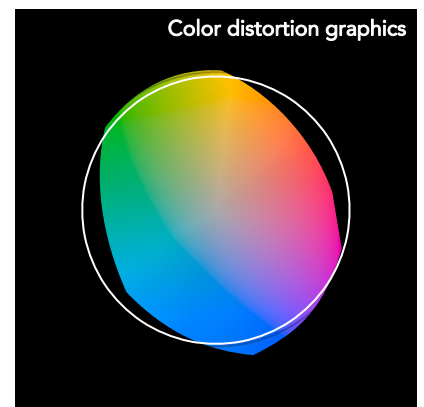
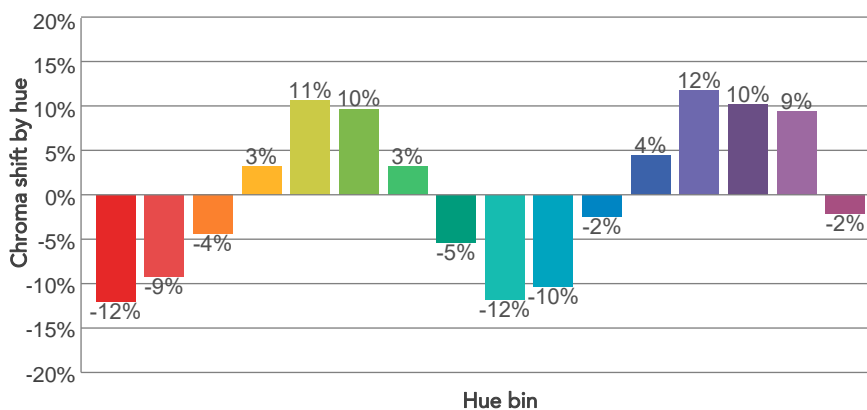
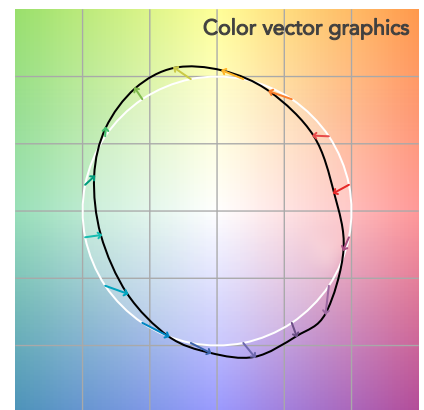
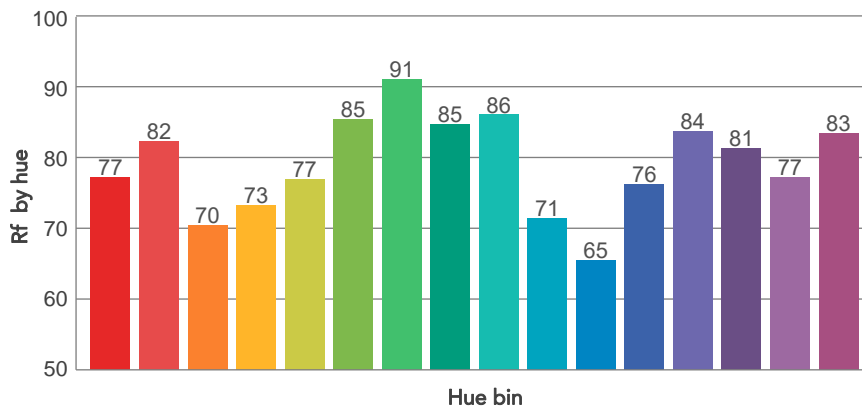
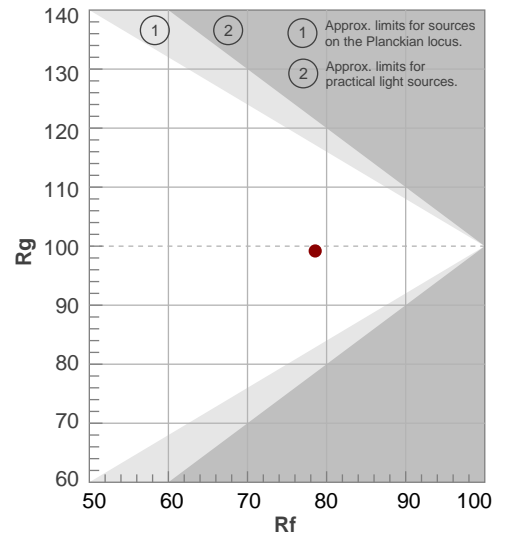
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Television lighting index	Color coordinate cie 1931	Color coordinate cie 1931	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	TLCI	x	y	Δuv
6172 K	79,2	10,1	78,6	99,2	78,0	66	0,319	0,329	-0,0033

TM30 DETAILS

Rf 78,6
Fidelity index Rf

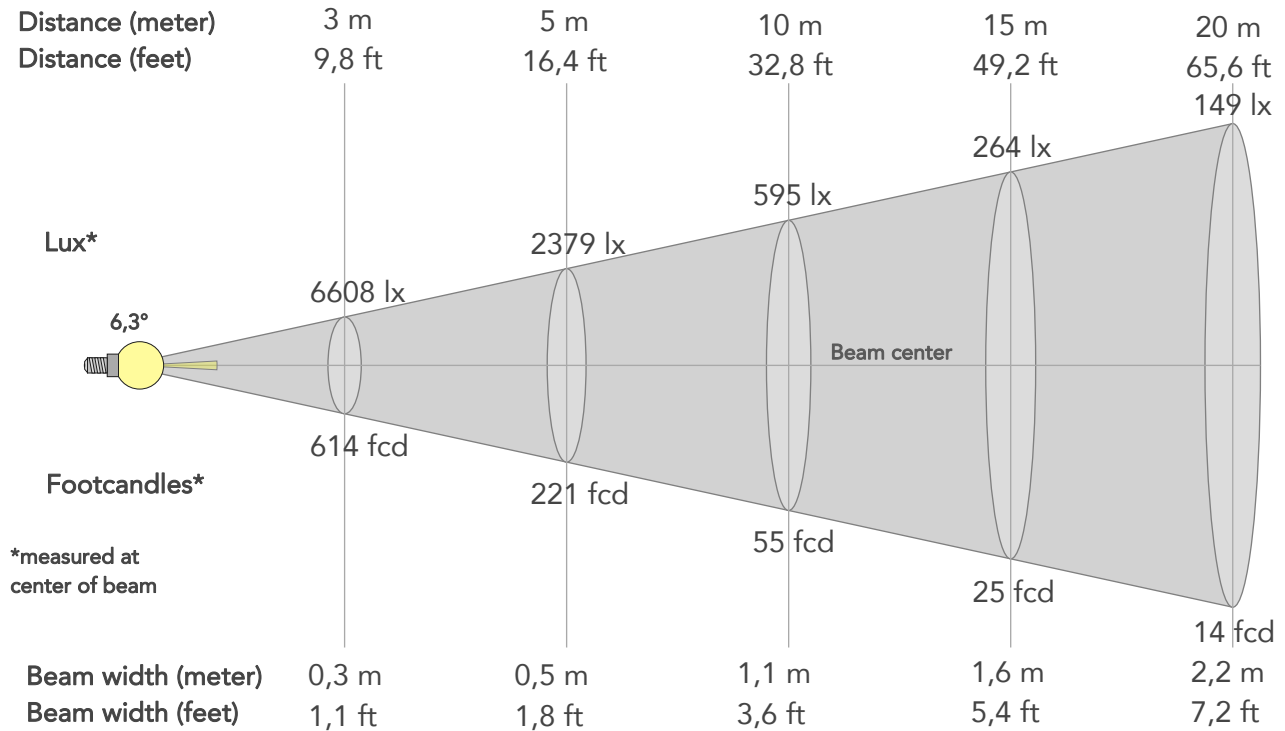
Rg 99,2
Gammut index

		Graphic shifts (%)	
Hue Bin	R _f	Chroma	Hue
1	77	-12%	-4%
2	82	-9%	7%
3	70	-4%	17%
4	73	3%	16%
5	77	11%	10%
6	85	10%	0%
7	91	3%	-5%
8	85	-5%	-7%
9	86	-12%	1%
10	71	-10%	14%
11	65	-2%	22%
12	76	4%	15%
13	84	12%	6%
14	81	10%	-2%
15	77	9%	-18%
16	83	-2%	-10%



BEAM DETAILS

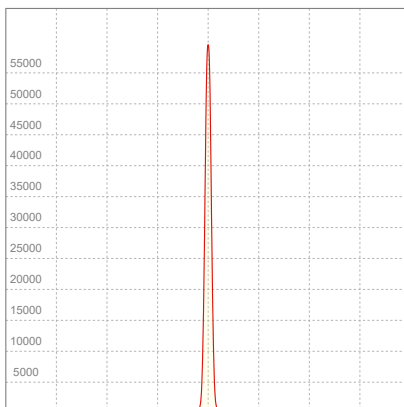
Beam angle 50%	Field angle 10%	Cut off angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
6,3°	10,8°	13,8°	100,0%	100,0%



BEAM INTENSITIES AND WIDTHS

Distance	1m	2m	3m	4m	5m	7,5m	10m	15m	20m	25m	30m	40m	50m
Distance	3,3ft	6,6ft	9,8ft	13,1ft	16,4ft	24,6ft	32,8ft	49,2ft	65,6ft	82ft	98,4ft	131,2ft	164ft
Lux	59468lx	14867lx	6608lx	3717lx	2379lx	1057lx	595lx	264lx	149lx	95lx	66lx	37lx	24lx
Footcand.	5525fcd	1381fcd	614fcd	345fcd	221fcd	98fcd	55fcd	25fcd	14fcd	9fcd	6fcd	3fcd	2fcd
Beam wid.	0,1m	0,2m	0,3m	0,4m	0,5m	0,8m	1,1m	1,6m	2,2m	2,7m	3,3m	4,4m	5,5m
Beam wid.	0,4ft	0,7ft	1,1ft	1,4ft	1,8ft	2,7ft	3,6ft	5,4ft	7,2ft	9ft	10,8ft	14,4ft	18ft

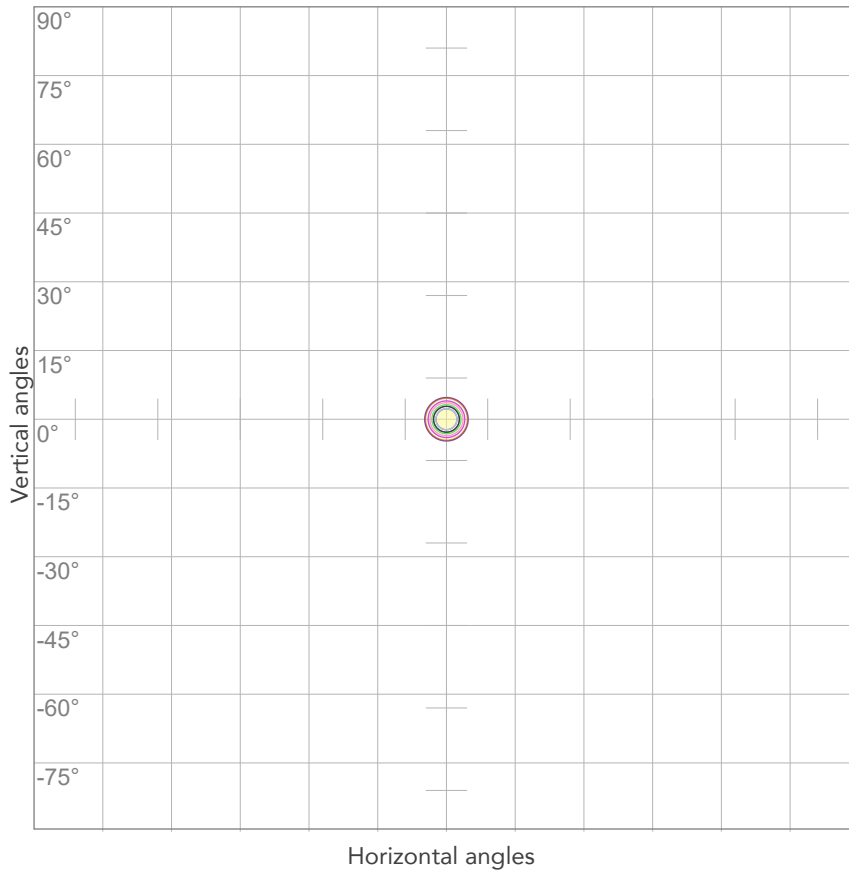
LINEAR DISTRIBUTION DIAGRAM



ELECTRICAL SPECIFICATIONS

Input voltage	Input current	Input power	Effeciency
227V	0,154A	18,5W	44lm/W

ISO CANDELA DIAGRAM



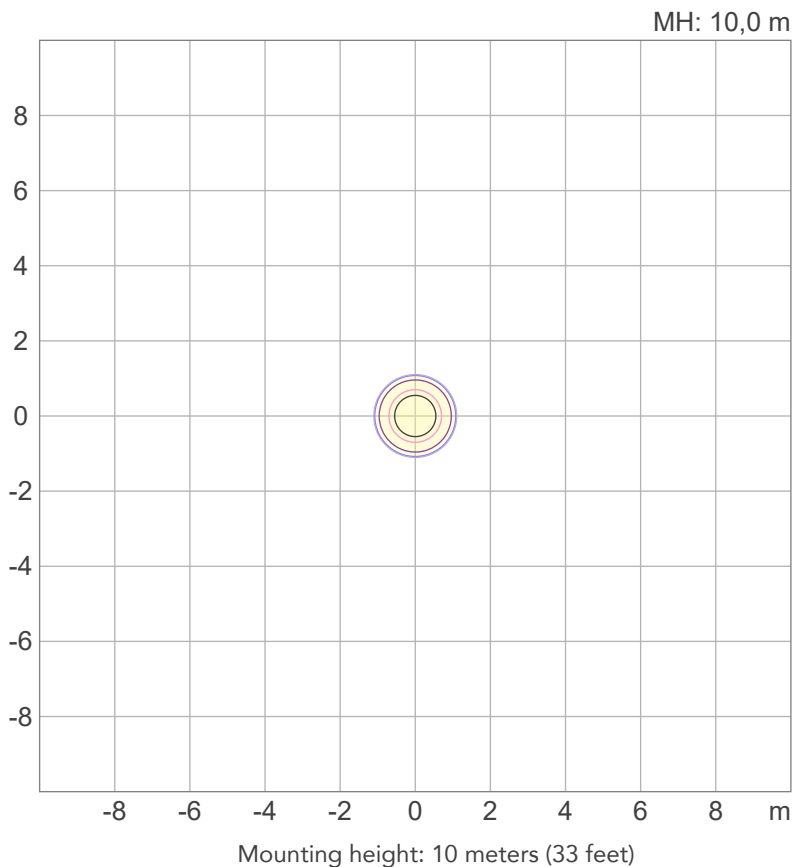
10%	5947 cd
20%	11894 cd
30%	17840 cd
40%	23787 cd
50%	29734 cd
60%	35681 cd
70%	41627 cd
80%	47574 cd

Conditions:

Number of c-planes: 2

Candela at center: 59468 cd

ISO LUX DIAGRAM



3%	17,8 lx
5%	29,7 lx
10%	59,5 lx
30%	178 lx
50%	297 lx

Conditions:

Number of c-planes: 2

Lux at center: 595 lx

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