

# Test report

Print date 21/01/2026  
Light measurement results



## Laboratory and Equipment

Test lab  
Spectrometer Manufacturer and Model  
Measurement date  
Operator

Viso LabSpion - serial: 1996407700 sensor serial: 1118720440 - Test lab  
LabSpion – Type C, horizontal  
18/09/2025  
MW

## Measurement Conditions

Tested c-planes  
Tested gamma resolution  
Input Power

12 planes – 30°  
5°  
24,9 W

## Tested Light Source

Luminaire  
Basic Luminous Shape  
Item No.  
Manufacturer  
Description

NANOFLEX  
PANEL  
NANOFLEX80677.6RG30ADD25WHBS,all  
Acolyte  
Beam Angle: 25 degree, product length: 1 m\line

## Main Light Measurement Results

Output – Total Lumen (Up% / Down%)  
Efficiency  
Peak Intensity  
Correlated Color Temperature, CCT  
Color Rendering Index  
Dominant Wavelength  
Peak Wavelength

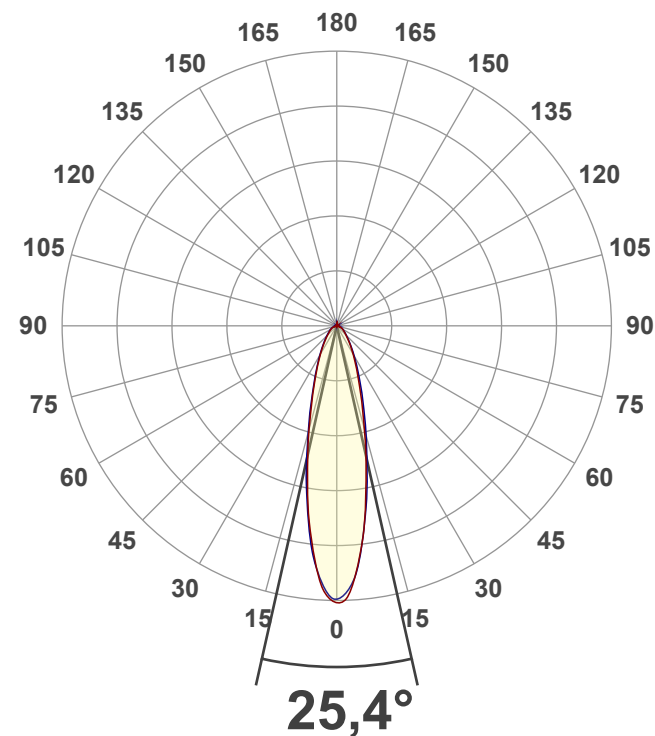
1167 lm – 1,43% / 98,57%  
47 lm/W  
2727 cd  
6021 K  
CRI 62,0  
496 nm  
636 nm

Lumen per length  
Watt per length

1166,63 lm/m      355,59 lm/ft  
24,86 W/m      7,58 W/ft

## Polar light distribution diagram

Unit: 0-100% of peak intensity



— C0 - C180  
— C90 - C270

$\eta = 100.0\%$

## Product photo



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## Color Parameters

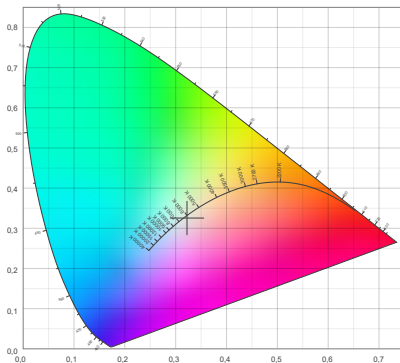
Correlated Color Temperature, Target  
Correlated Color Temperature, Measured  
Color Rendering Index  
Color Rendering Index, R9 (red)  
Color Rendering TM30-18

CCT = 6021 K  
CCT = 6021 K  
CRI 62,0  
R9 = -82,4  
Rf 71,5  
Rg 104,5

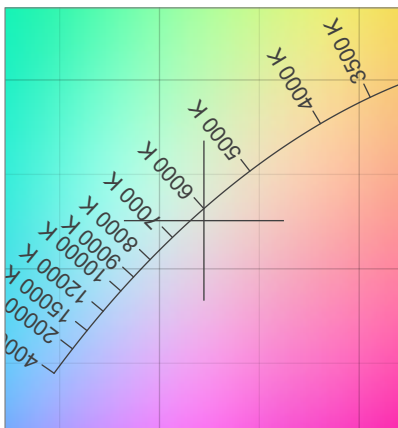
MacAdam Steps  
Color deviation from BBL  
Color coordinates CIE 1931  
Color coordinate CIEs 1960  
Color coordinate CIEs 1976  
Color Quality Scale

SDCM = n/a  
Duv = -0,0034  
(x;y) = (0,322;0,326)  
(u;v) = (0,206;0,312)  
(u';v') = (0,206;0,468)  
CQS = 75,7

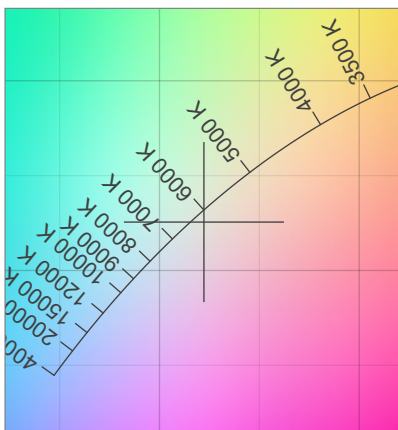
## CIE 1931 Chromaticity diagram



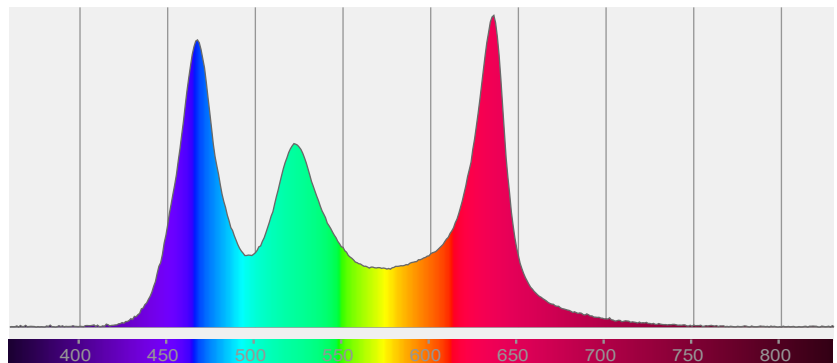
## CIE 1931 Chromaticity - zoomed



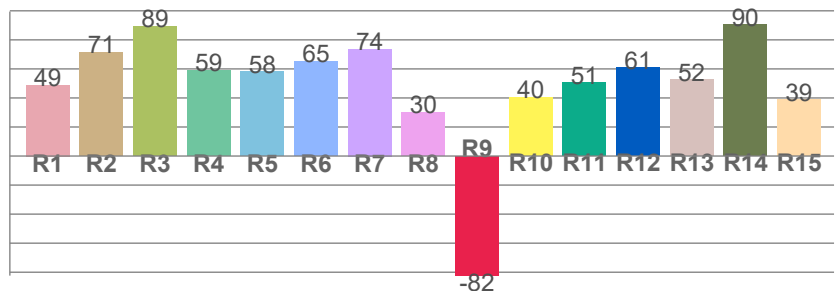
## CIE 1931 Chromaticity - SDCM



## Spectral power distribution



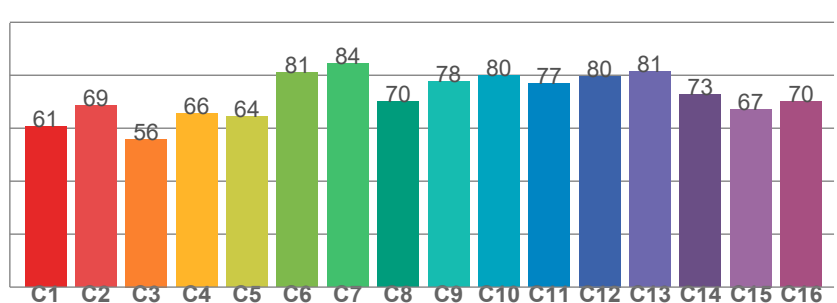
## Color Rendering Index per reference color (CIE 1995)



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
48,9	71,4	89,4	59,2	58,2	65,2	73,7	30,3	-82,4	40,4	50,7	60,9	52,5	90,3	38,7

## TM30-18 Rf-values per hue bin



TM30-18 Rf-values per hue bin

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
60,6	68,7	55,9	65,7	64,4	80,9	84,4	70,0	77,8	79,9	76,8	79,7	81,3	72,9	67,3	70,1

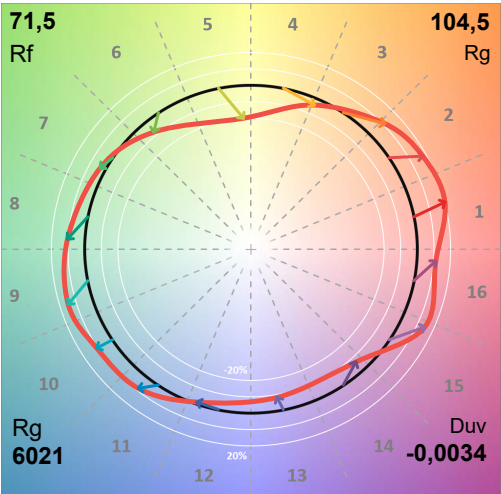
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## Color details - ANSI/IES TM-30-18 Color Rendition Report

Color Vector Graphic



Color Distortion Graphic



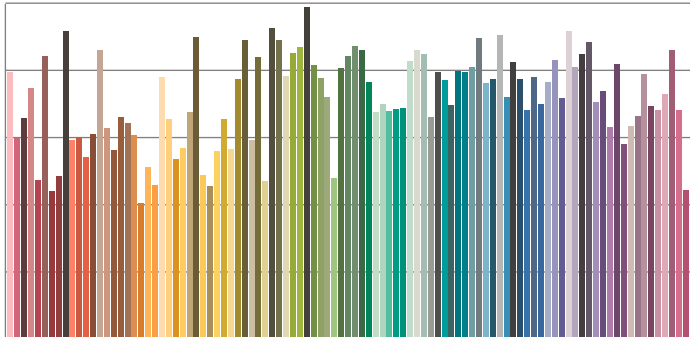
CIE x 0,322  
CIE y 0,322  
CIE u' 0,206  
CIE v' 0,468

**CIE 13.3-1995**

Ra 62,0

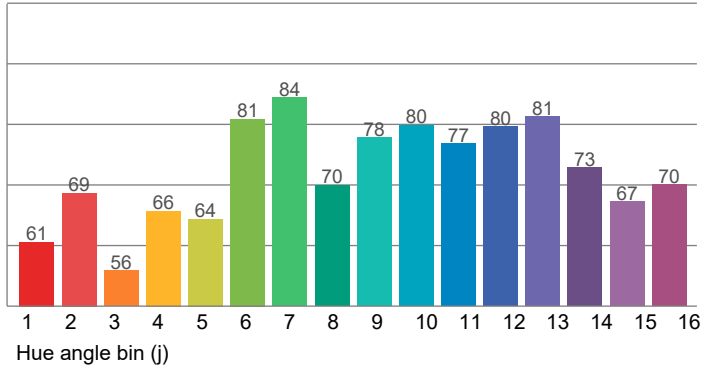
R9 -82,4

Color Rendition by Color Evaluation Sample (CES)

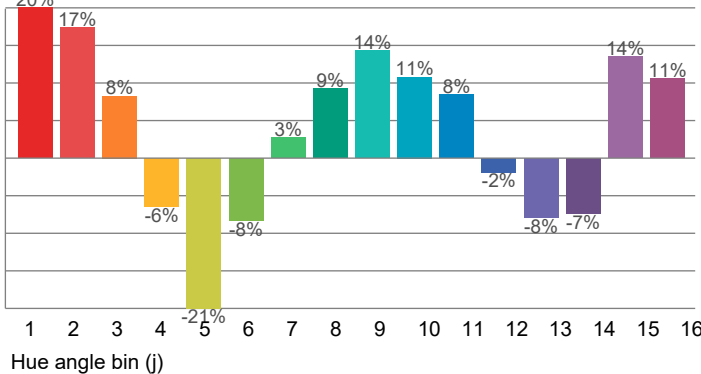


Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



Local Chroma Shift (per hue bin)

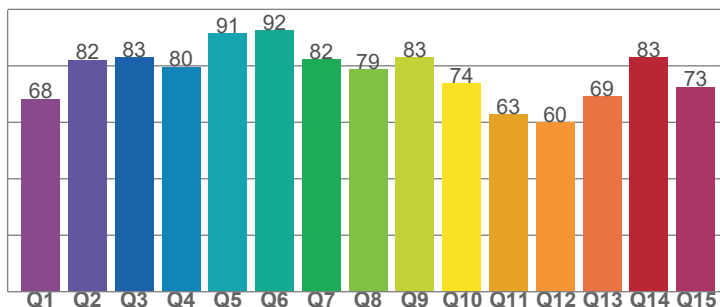


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## Color Rendering Index (CQS)



Q1	68,29	Q9	83,01
Q2	82,15	Q10	73,84
Q3	83,05	Q11	62,94
Q4	79,61	Q12	60,11
Q5	91,42	Q13	69,23
Q6	92,44	Q14	83,01
Q7	82,41	Q15	72,55
Q8	78,65	<b>CQS</b>	<b>75,71</b>

Hue Bin	Rf	Shifts (%)	
		Chroma	Hue
1	61	20%	5%
2	69	17%	-10%
3	56	8%	-25%
4	66	-6%	-20%
5	64	-21%	-11%
6	81	-8%	9%
7	84	3%	9%
8	70	9%	16%
9	78	14%	12%
10	80	11%	-1%
11	77	8%	-9%
12	80	-2%	-13%
13	81	-8%	-2%
14	73	-7%	14%
15	67	14%	18%
16	70	11%	14%

**Rg 104,5**

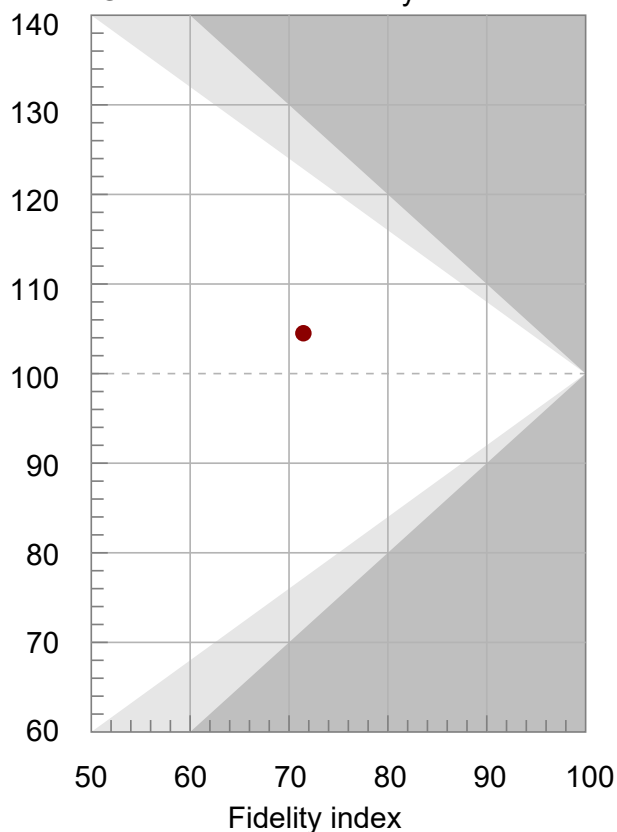
Gamut Index Rf

Gamut index

**Rf 71,5**

Fidelity Index Rf

Gamut Index vs. Fidelity



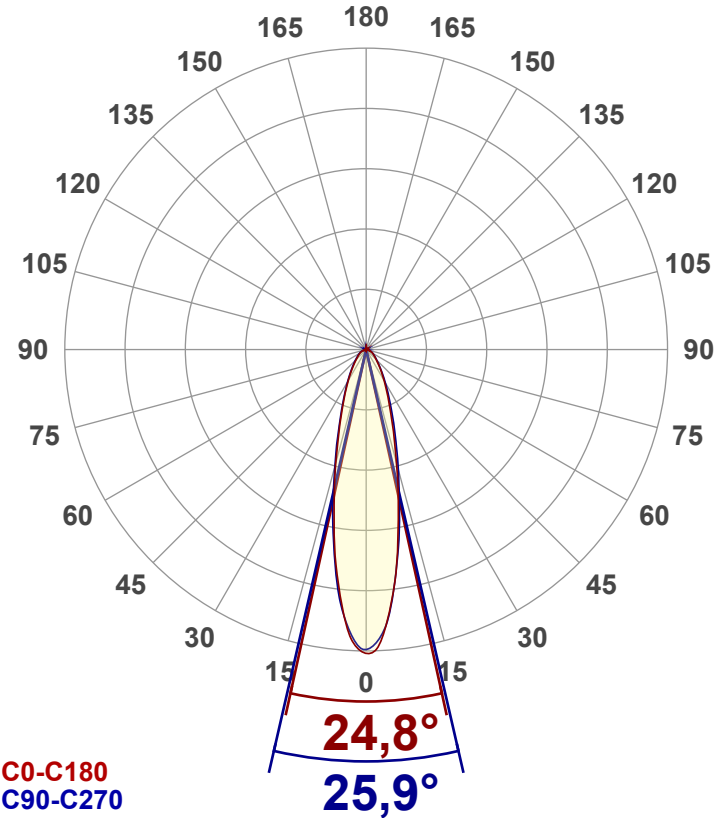
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## Luminous Intensity diagram

Unit: 0-100% of peak intensity



## Main Values

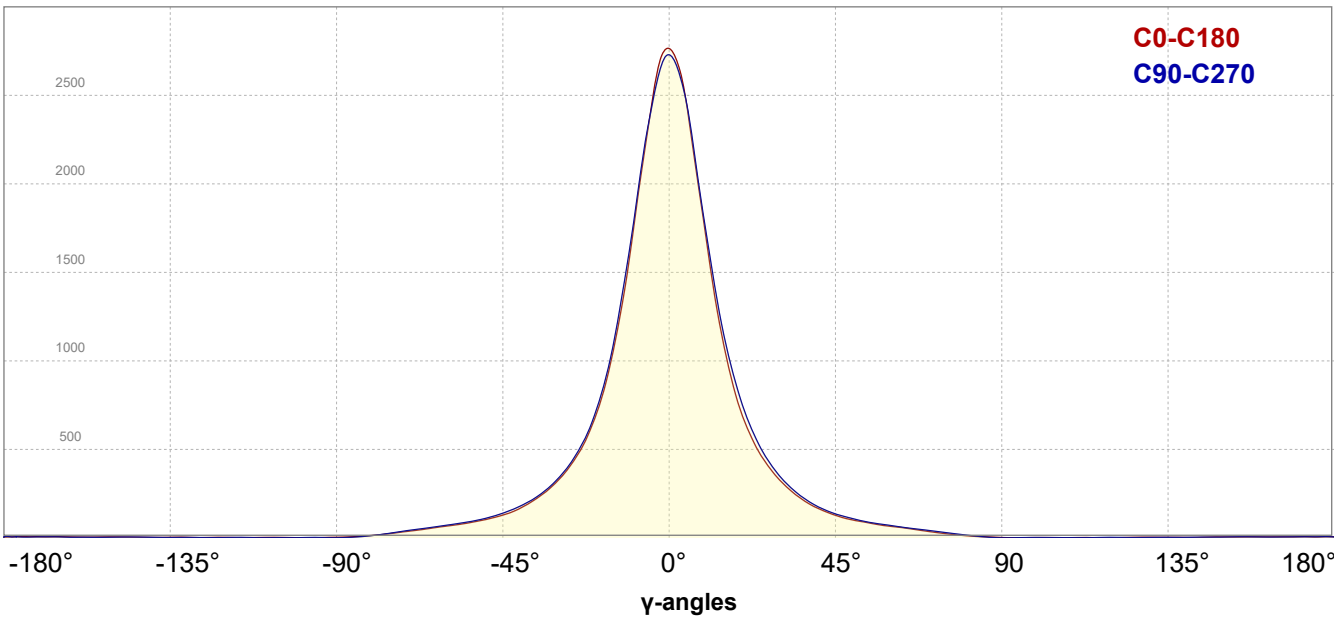
Output (total Lumen)	1167 lm
Lumen Up% / Down%	1,43% / 98,57%
Peak Intensity	2727 cd
Beam Angle (50%-FWHM)	25,35°
Field Angle (10%-FWHM)	66,14°
Cutoff Angle (2.5%-FWHM)	{c_ANG/0.00}°

## Intensity Ratios

In 120° cone	1166,6
In 90° cone	355,6

## Linear distribution diagram

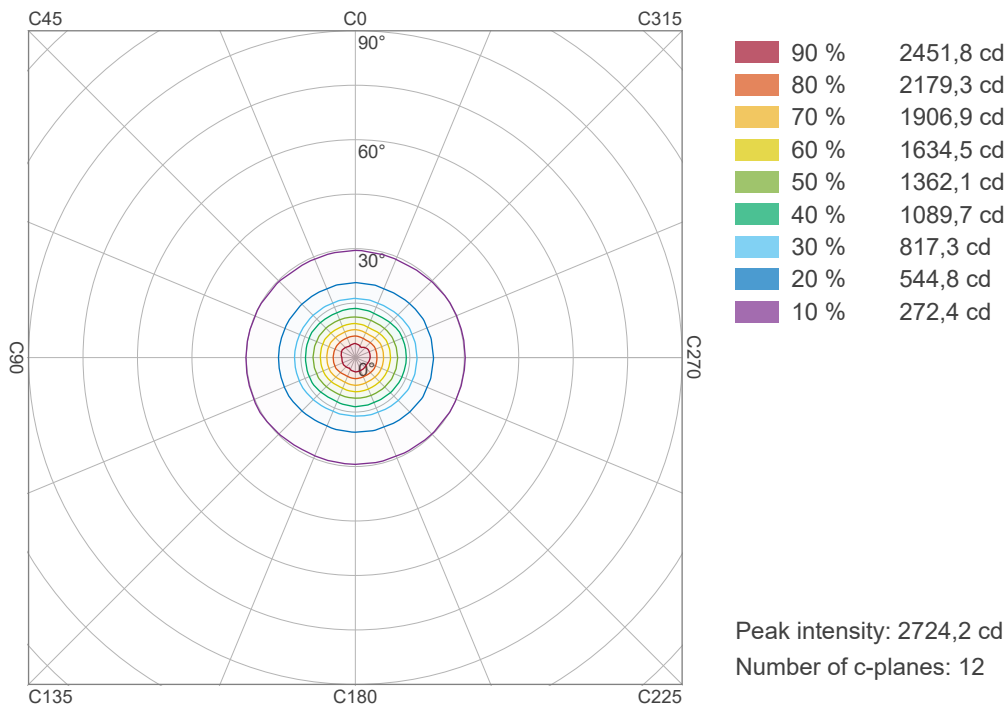
Intensity [cd]



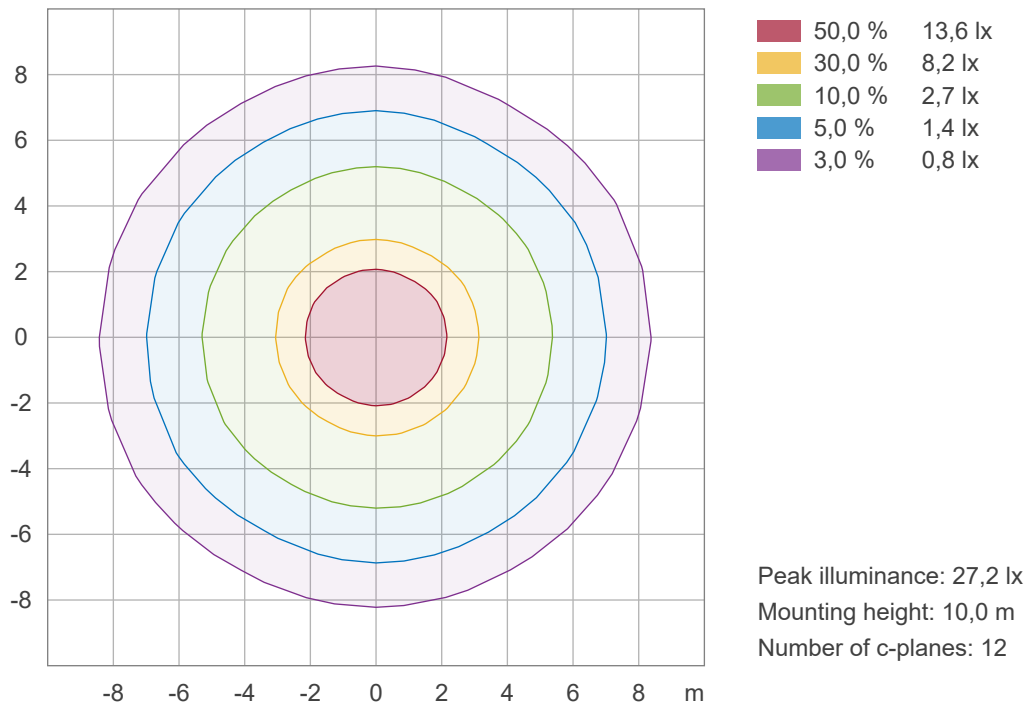
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## Iso-intensity Diagram (Iso-candela)



## Iso-illuminance Diagram (Iso-lux)

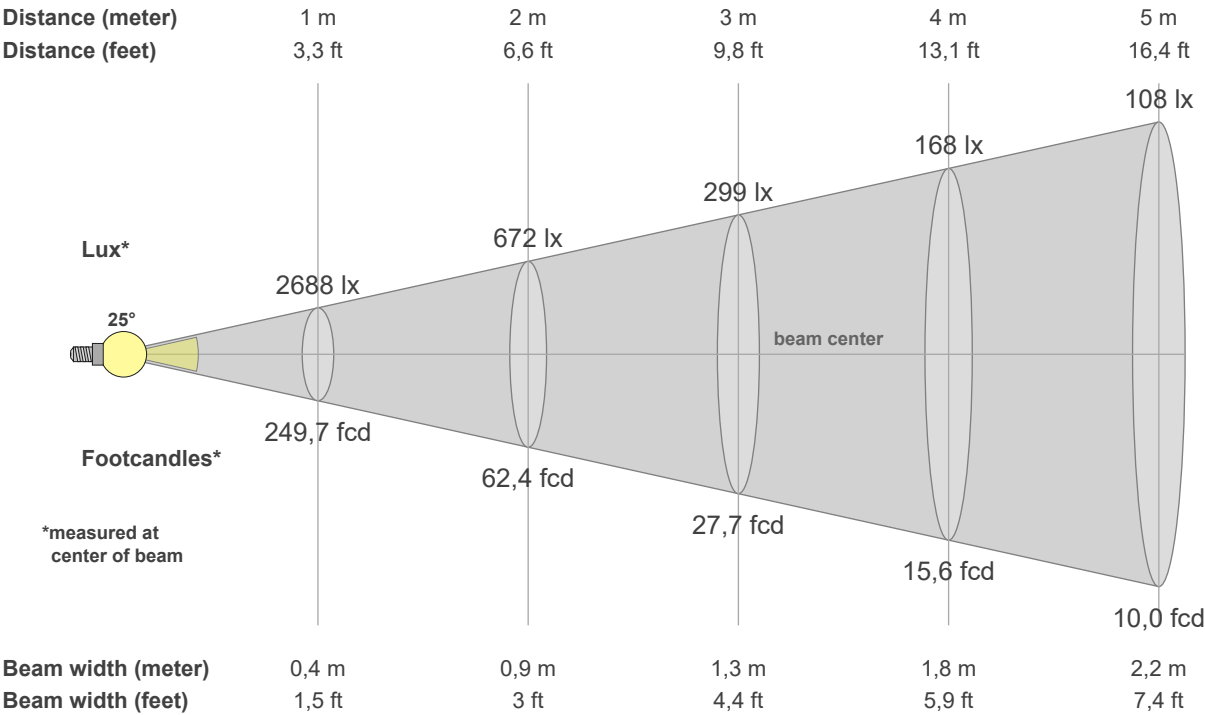


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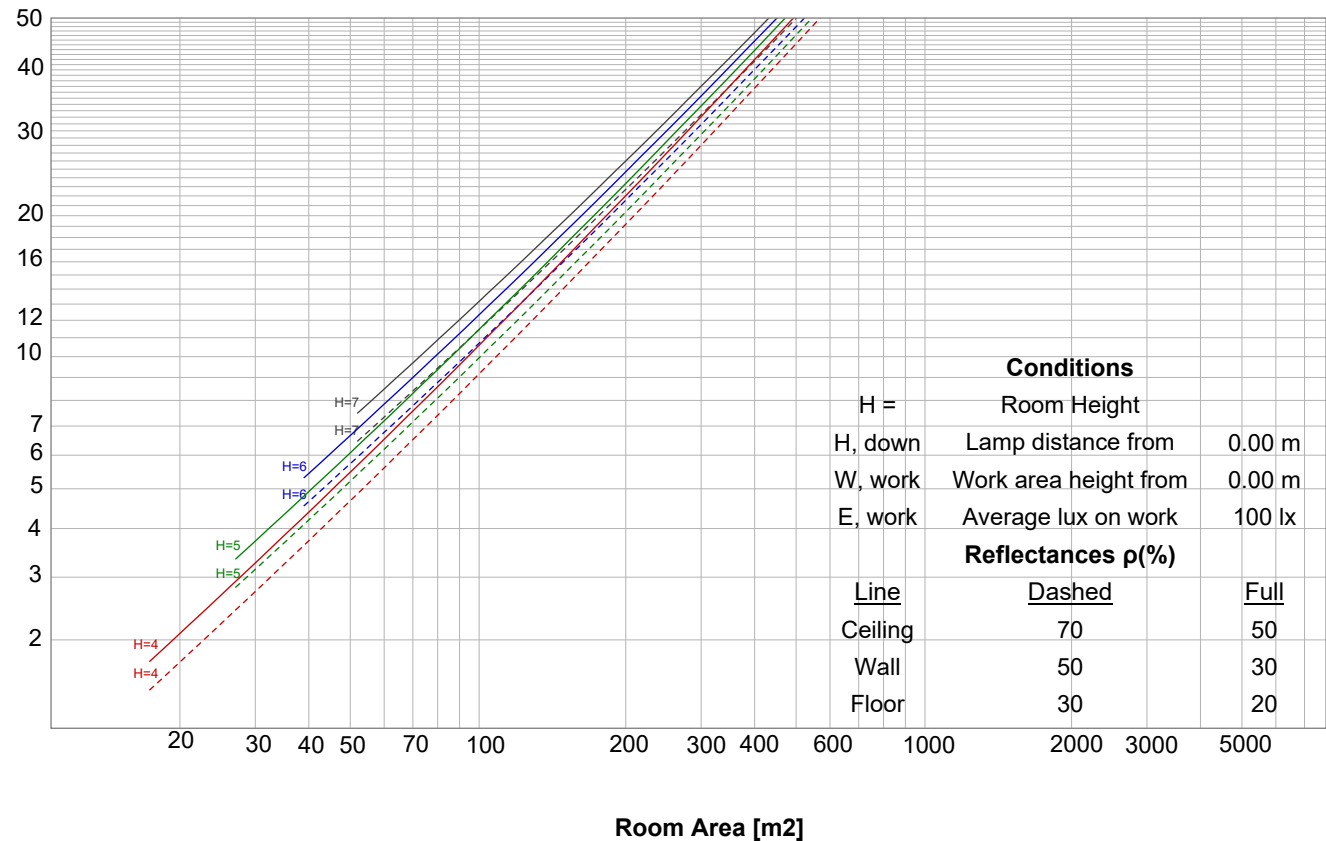


## Beam details



## Luminaire budgetary diagram

LAMPS (number of lamps)



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## Intensity details

### Beam intensities from 1 – 20 m

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	m
3,3	6,6	9,8	13,1	16,4	19,7	23	26,2	29,5	32,8	36,1	39,4	42,7	45,9	49,2	52,5	55,8	59,1	62,3	65,6	ft
2688	672	299	168	108	75	55	42	33	27	22	19	16	14	12	11	9	8	7	7	lux
249,7	62,4	27,7	15,6	10	6,9	5,1	3,9	3,1	2,5	2,1	1,7	1,5	1,3	1,1	1	0,9	0,8	0,7	0,6	fc

### Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	γ
2688	2724	2490	2253	1990	1698	1407	1198	990	824	701	579	507	436	377	331	285	254	223	196	cd
100%	101%	93%	84%	74%	63%	52%	45%	37%	31%	26%	22%	19%	16%	14%	12%	11%	9%	8%	7%	of 0°val

### Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	γ
2688	2602	2516	2262	1992	1730	1480	1230	1056	890	749	645	540	472	406	350	307	265	234	206	cd
100%	97%	94%	84%	74%	64%	55%	46%	39%	33%	28%	24%	20%	18%	15%	13%	11%	10%	9%	8%	of 0°val

### Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	γ
2688	2652	2501	2238	1976	1698	1421	1187	997	808	699	590	503	438	373	330	287	250	221	191	cd
100%	99%	93%	83%	73%	63%	53%	44%	37%	30%	26%	22%	19%	16%	14%	12%	11%	9%	8%	7%	of 0°val

### Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°	γ
2688	2626	2462	2288	2009	1729	1474	1237	1007	862	716	608	525	445	392	340	298	264	230	207	cd
100%	98%	92%	85%	75%	64%	55%	46%	37%	32%	27%	23%	20%	17%	15%	13%	11%	10%	9%	8%	of 0°val



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## IESNA TM-15-07 LUMINAIARE CLASSIFICATION SYSTEM FOR OUTDOOR

### Forward Light

Low (0-30°)	365,9	lm	31,4%
Medium (30-60°)	164,8	lm	14,1%
High (60-80°)	41	lm	3,5%
Very High (80-90°)	4,1	lm	0,4%

### Back Light

Low (0-30°)	365,4	lm	31,3%
Medium (30-60°)	164,5	lm	14,1%
High (60-80°)	40,4	lm	3,5%
Very High (80-90°)	3,9	lm	0,3%

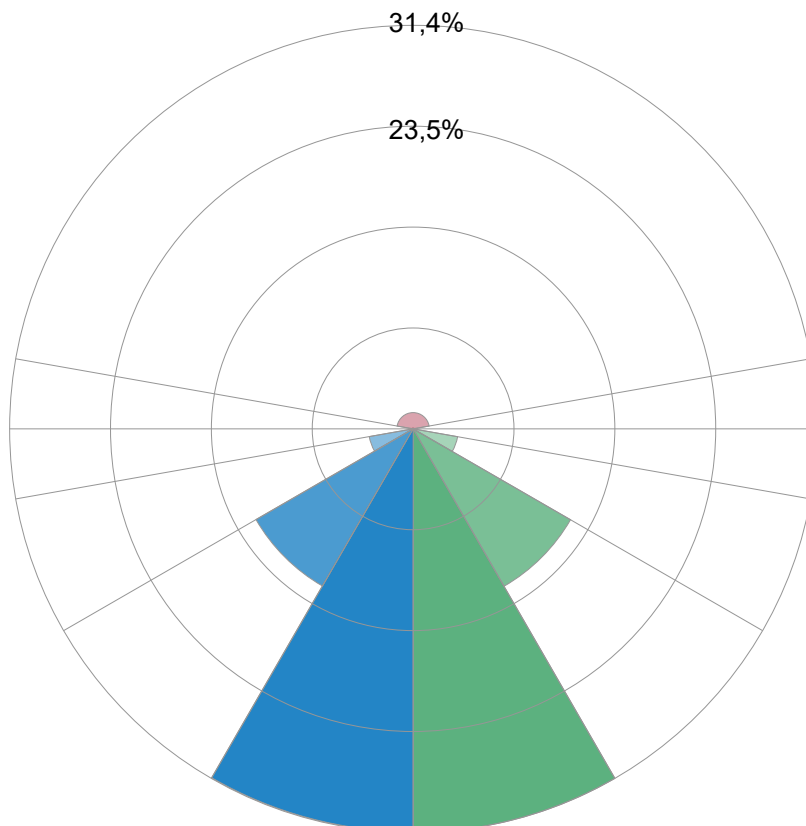
### Uplight

Low (90-100°)	1,9	lm	0,2%
High (100-180°)	14,7	lm	1,3%

Total

<b>Sum</b>	<b>1166,6</b>	<b>lm</b>	<b>100%</b>
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### BUG RATING B1 U2 G0





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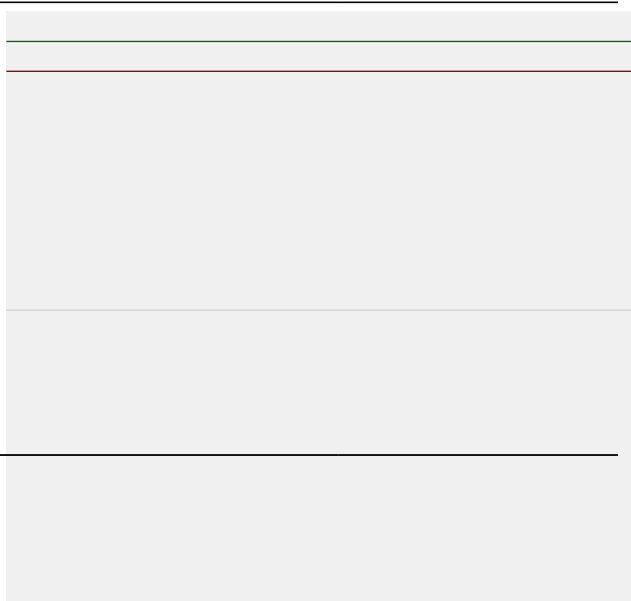


## Power details

### Input power

Frequency of input power	0 Hz
Power feed to light source	24,9 W
RMS Input voltage feed V,RMS	24,0 V
RMS Input current feed I,RMS	1,04 A
Volt-Amp or apparent power =	24,86 VA
Displacement factor of AC power feed	0,0
Power factor of AC current feed	1,0
Total harmonic distortion of the current	0%
Total harmonic distortion of the voltage	0%

### Input power curve



## Efficiency

Radiated power efficiency 17,7%

Lumen efficiency 47 lm/W

## Stabilization details

### Warmup Conditions

Stable period	15 min
Stable change max	2,0%
Minimum time	15 min

### Color Temperature Change

CCT start	6012 K
CCT shift	+9 K
CCT end	6021 K

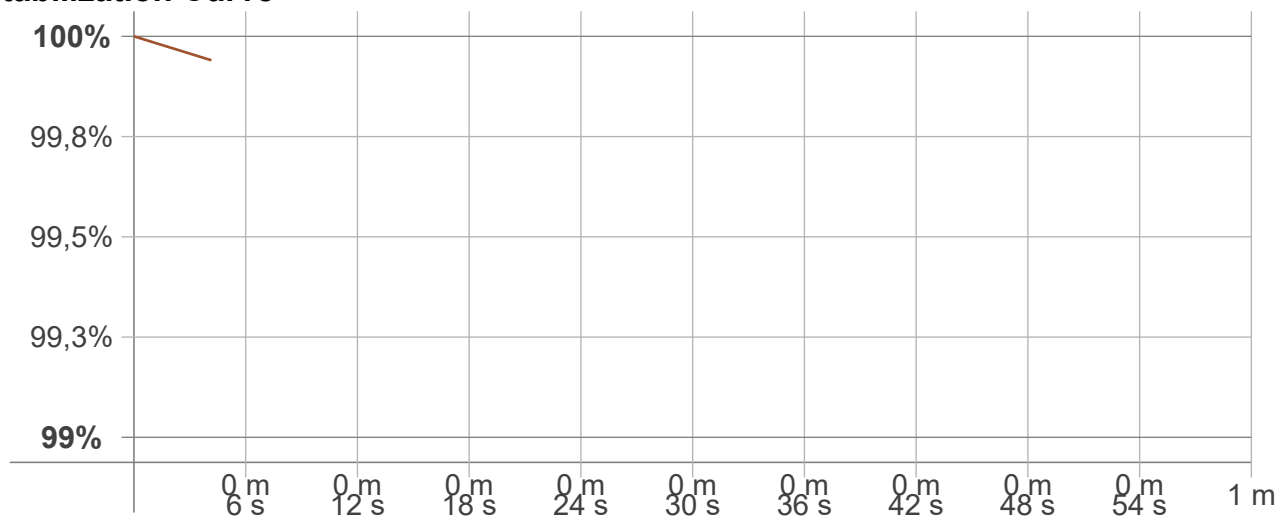
### Warmup Result

Total warmup time	Not completed
Warmup variation	-0,1%

### Output Change

Output start	1167 lm
Output change	-1 lm
Output end	1167 lm

## Stabilization Curve



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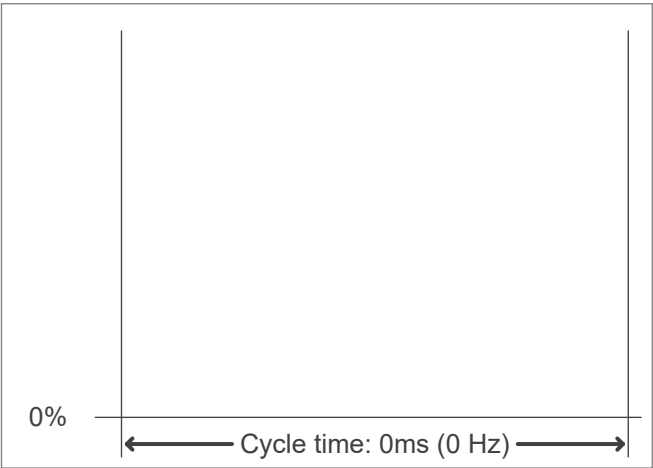
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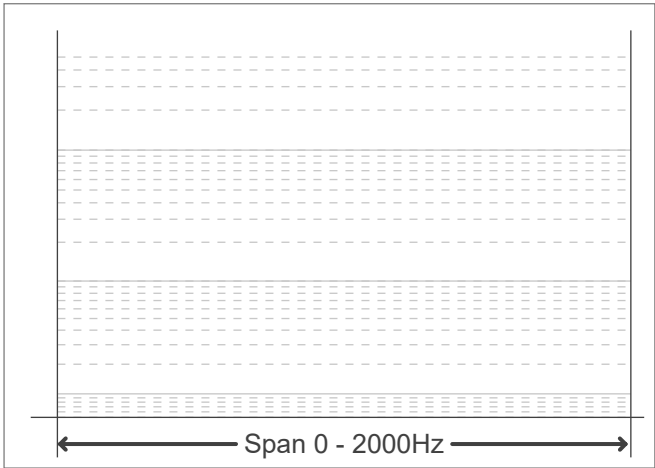
## Flicker TLA details

Flicker Meter Type	Viso Systems LabFlicker	Measurement time	
Frequency of input power	0 Hz	PstLM	180 sec.
Flicker/TLA sample rate	n/a samples/s	All other indices	1,5 sec,
Flicker indices according to Illuminating Engineering Society		Flicker indices according to California Energy Commission (CEC)	
Flicker frequency	n/a Hz	JA8/10 40 Hz	n/a %
Percent Flicker	n/a %	JA8/10 90 Hz	n/a %
Flicker index	n/a	JA8/10 200 Hz	n/a %
		JA8/10 400 Hz	n/a %
		JA8/10 1000 Hz	n/a %
TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC		Flicker indices according to Lighting Research Center (2015)	
PstLM value ( $F < 80$ Hz)	n/a	Perception metric, Assist Mp	n/a
SVM value ( $80 < F < 2000$ Hz)	n/a		

Flicker frame (frame of one flicker period in time domain)



Flicker FFT (flicker curve in frequency domain)



IEEE 1789 Frequency/modulation plot

