

# Test report

Print date 1/26/2026  
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  
1/6/2026  
bob

## Measurement Conditions

Tested c-planes  
Tested gamma resolution  
Input Power

12 planes - 30°  
5°  
0.55 W

## Tested Light Source

Luminaire  
Basic Luminous Shape  
Item No.  
Manufacturer  
Description

AD35241.8RGB27CFBKS-GREEN-1  
SPOT  
Acolyte  
SIZE: D35MM Clear Flat Lens\line SAMPLE 1

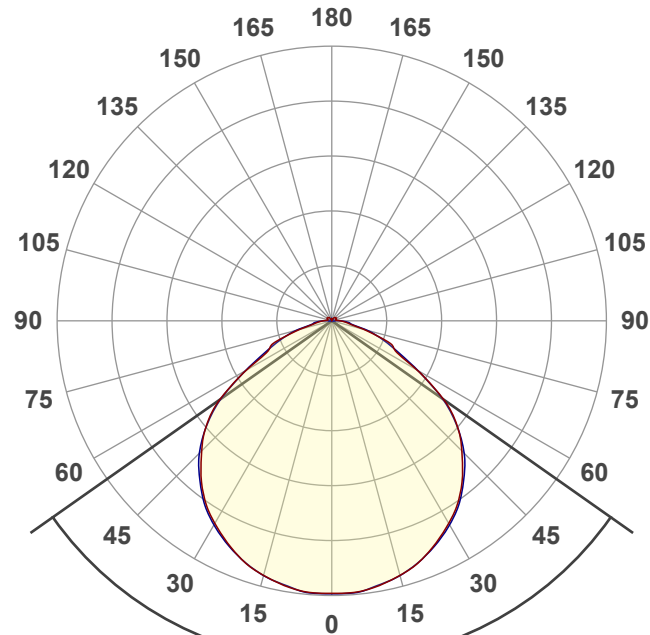
## Main Light Measurement Results

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

35.5 lm - 2.84% / 97.16%  
64 lm/W  
12.7 cd  
0 K  
CRI 0.0  
528 nm  
521 nm

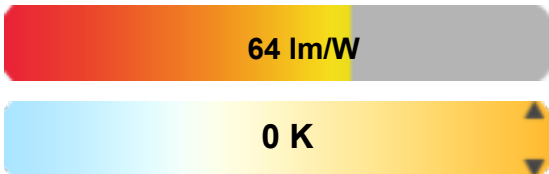
## Polar light distribution diagram

Unit: 0-100% of peak intensity



— C0 - C180  
— C90 - C270

$\eta = 100.0\%$



## Product photo



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## Color Parameters

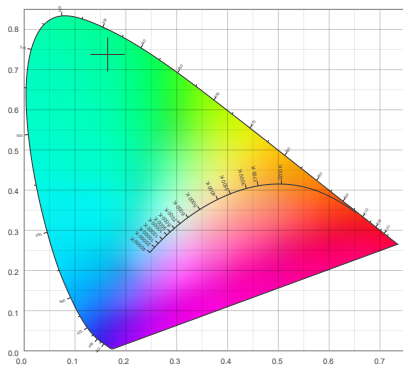
Correlated Color Temperature, Target  
Correlated Color Temperature, Measured  
Color Rendering Index  
Color Rendering Index, R9 (red)  
Color Rendering TM30-18

CCT = 0 K  
CCT = 0 K  
CRI 0.0  
R9 = 0.0  
Rf 0.0  
Rg 0.0

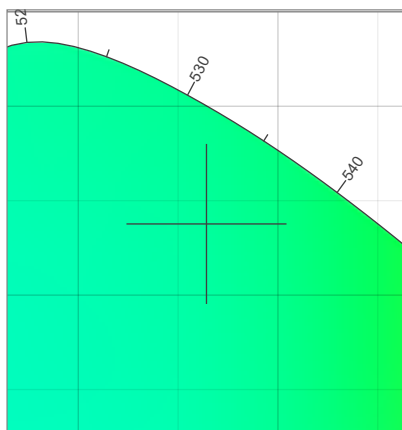
MacAdam Steps  
Color deviation from BBL  
Color coordinates CIE 1931  
Color coordinate CIEs 1960  
Color coordinate CIEs 1976  
Color Quality Scale

SDCM = n/a  
Duv = n/a  
(x;y) = (0.164;0.738)  
(u;v) = (0.057;0.384)  
(u';v') = (0.057;0.576)  
CQS = 0.0

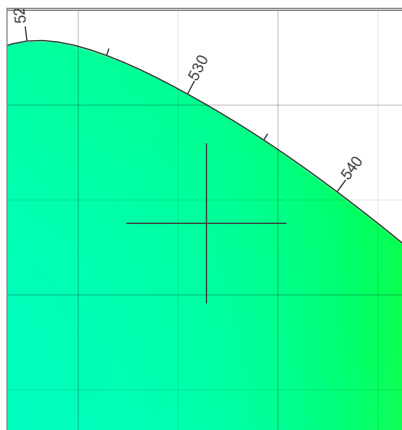
### CIE 1931 Chromaticity diagram



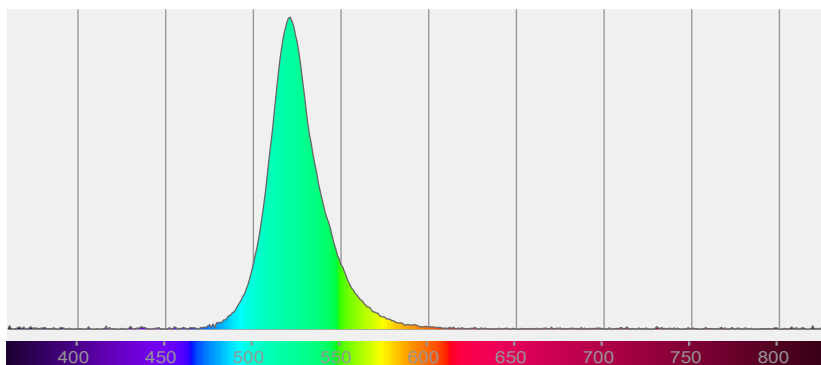
### CIE 1931 Chromaticity - zoomed



### CIE 1931 Chromaticity - SDCM



### Spectral power distribution



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

R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	R <sub>5</sub>	R <sub>6</sub>	R <sub>7</sub>	R <sub>8</sub>	R <sub>9</sub>	R <sub>10</sub>	R <sub>11</sub>	R <sub>12</sub>	R <sub>13</sub>	R <sub>14</sub>	R <sub>15</sub>	

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

[illegible]

### TM30-18 Rf-values per hue bin

[illegible]

TM30-18 Rf-values per hue bin

[illegible]

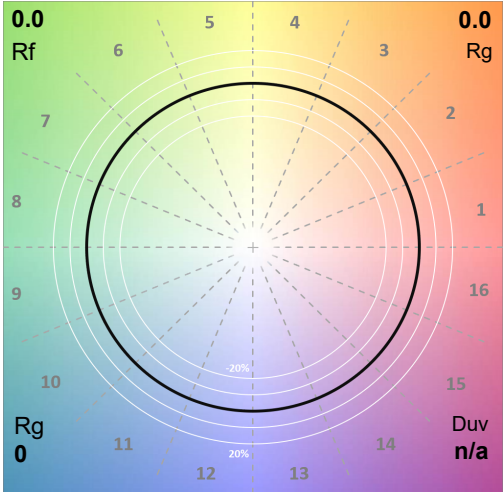
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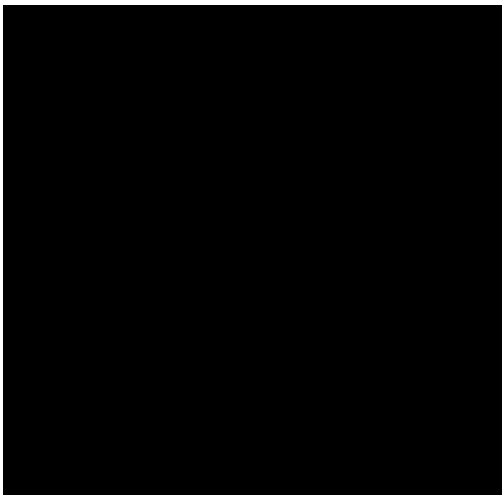


## Color details - ANSI/IES TM-30-18 Color Rendition Report

Color Vector Graphic



Color Distortion Graphic



CIE x 0.164  
CIE y 0.164  
CIE u' 0.057  
CIE v' 0.576

### CIE 13.3-1995

Ra 0.0  
R9 0.0

Color Rendition by Color Evaluation Sample (CES)


Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16  
Hue angle bin (j)

Local Chroma Shift (per hue bin)


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16  
Hue angle bin (j)

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## Color Rendering Index (CQS)

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	

Q1	0.00	Q9	0.00
Q2	0.00	Q10	0.00
Q3	0.00	Q11	0.00
Q4	0.00	Q12	0.00
Q5	0.00	Q13	0.00
Q6	0.00	Q14	0.00
Q7	0.00	Q15	0.00
Q8	0.00	<b>CQS</b>	<b>0.00</b>

Hue Bin	Rf	Shifts (%)	
		Chroma	Hue
1	0	0%	0%
2	0	0%	0%
3	0	0%	0%
4	0	0%	0%
5	0	0%	0%
6	0	0%	0%
7	0	0%	0%
8	0	0%	0%
9	0	0%	0%
10	0	0%	0%
11	0	0%	0%
12	0	0%	0%
13	0	0%	0%
14	0	0%	0%
15	0	0%	0%
16	0	0%	0%

**Rg 0.0**

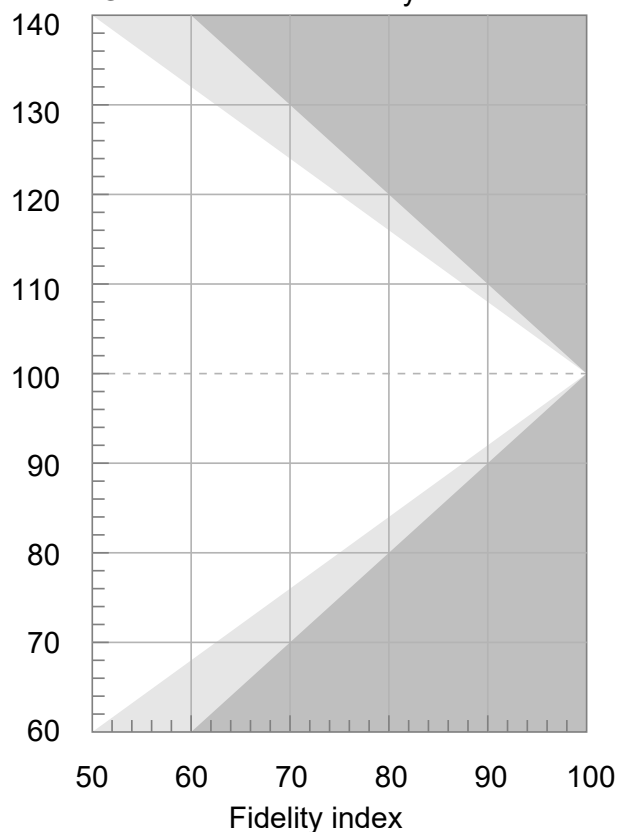
Gamut Index Rf

Gamut index

**Rf 0.0**

Fidelity Index Rf

Gamut Index vs. Fidelity



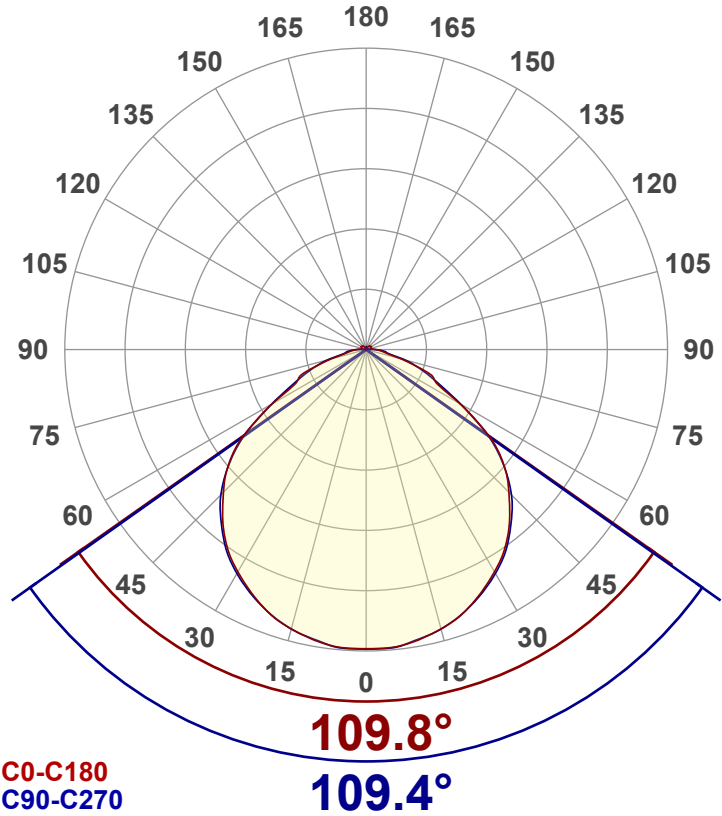
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## Luminous Intensity diagram

Unit: 0-100% of peak intensity



## Main Values

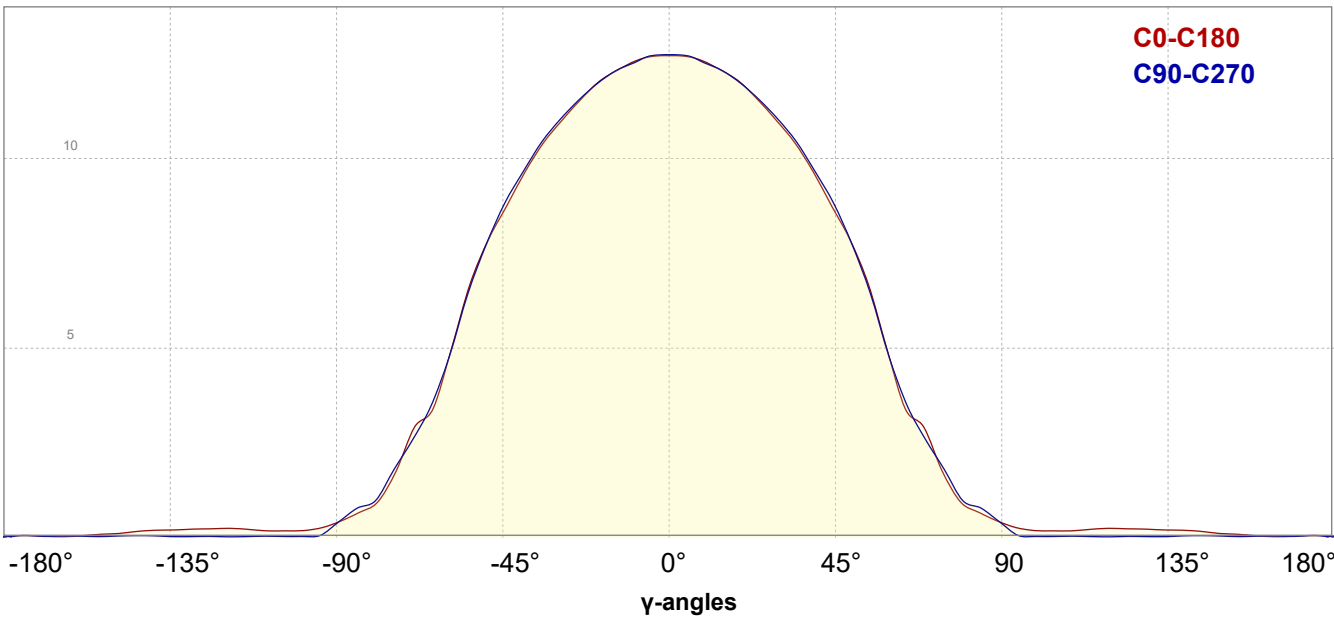
Output (total Lumen)	35.5 lm
Lumen Up% / Down%	2.84% / 97.16%
Peak Intensity	12.7 cd
Beam Angle (50%-FWHM)	109.70°
Field Angle (10%-FWHM)	154.22°
Cutoff Angle (2.5%-FWHM)	{c_ANG/0.00}°

## Intensity Ratios

In 120° cone	1013.5
In 90° cone	308.9

## Linear distribution diagram

Intensity [cd]

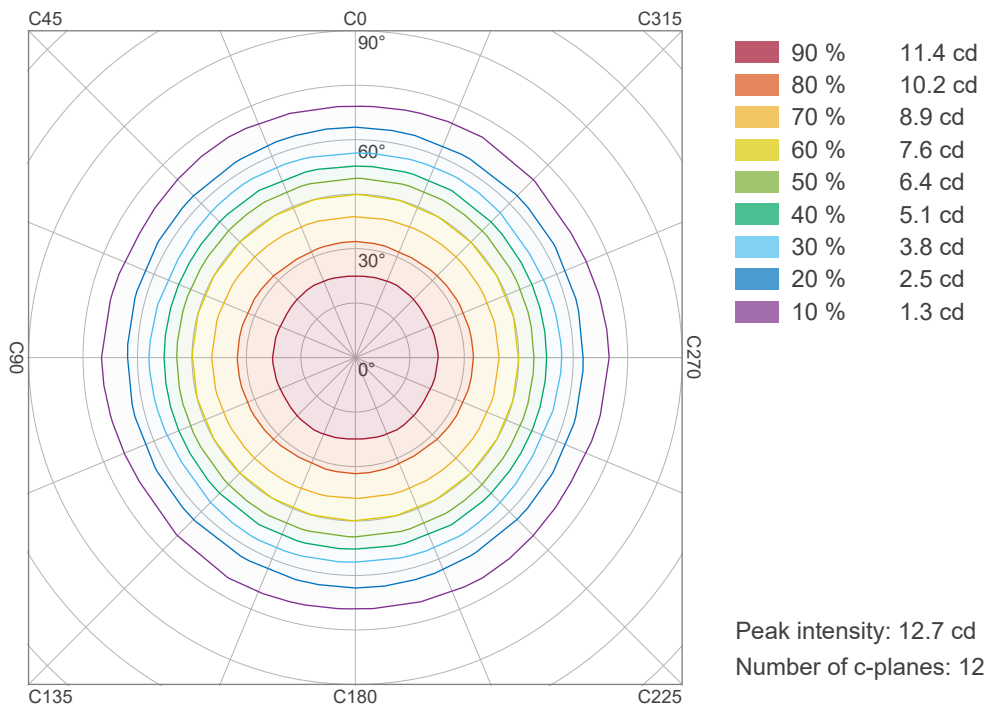


# Test report

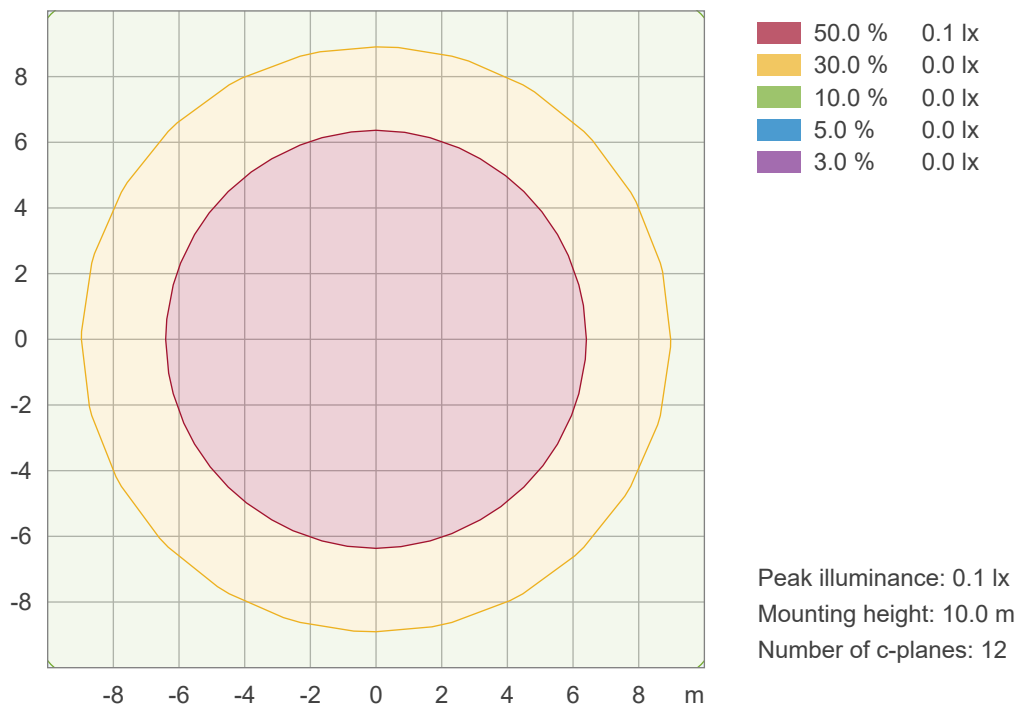
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## Iso-intensity Diagram (Iso-candela)



## Iso-illuminance Diagram (Iso-lux)

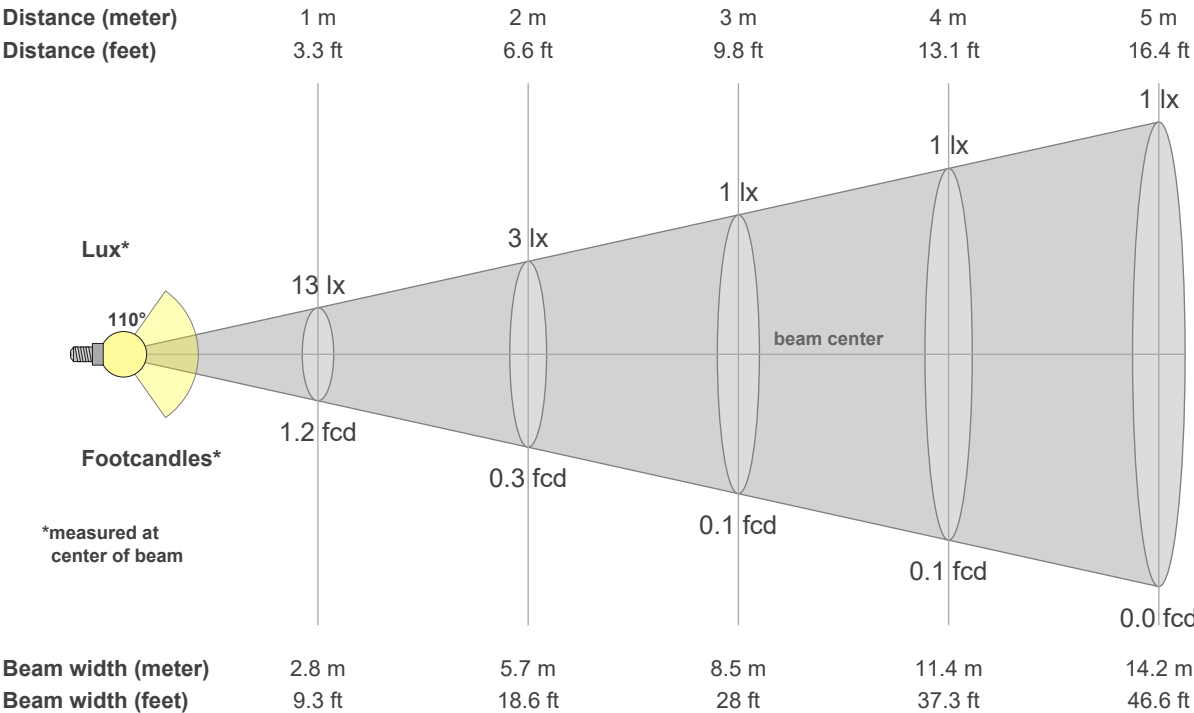


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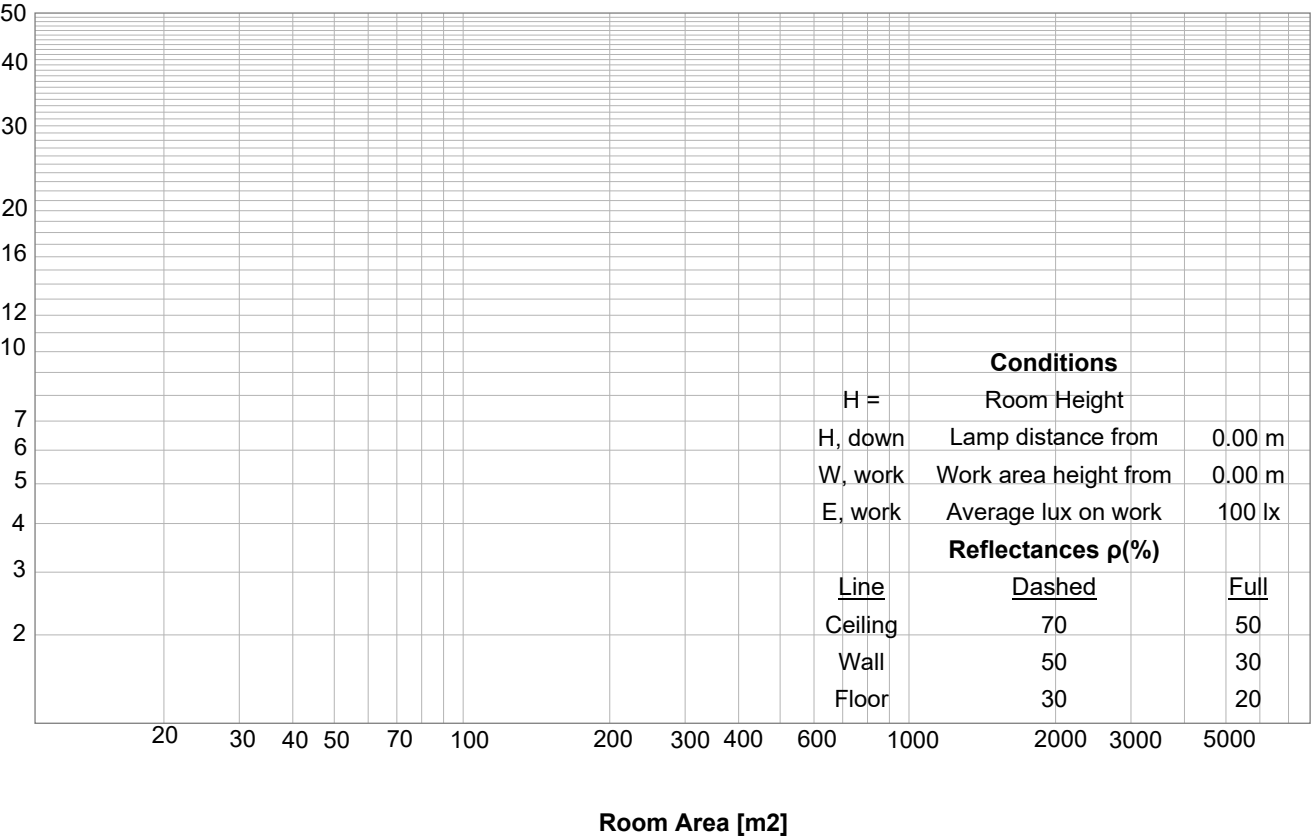


## Beam details



## 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
13	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	lux
1.2	0.3	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	fc

## Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
12.7	12.7	12.5	12.3	11.9	11.4	10.9	10.3	9.5	8.6	7.6	6.3	4.6	3.3	2.7	1.6	0.9	0.6	0.4	0.3	cd
100%	100%	98%	96%	94%	90%	86%	81%	74%	67%	60%	50%	36%	26%	21%	12%	7%	5%	3%	2%	of 0°val

## Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
12.7	12.7	12.5	12.3	11.9	11.5	11.0	10.4	9.6	8.7	7.6	6.3	4.6	3.4	2.5	1.7	1.0	0.7	0.4	0.1	cd
100%	100%	98%	97%	94%	90%	86%	81%	75%	68%	60%	49%	37%	27%	20%	13%	8%	6%	3%	0%	of 0°val

## Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
12.7	12.7	12.5	12.3	11.9	11.4	10.9	10.3	9.5	8.6	7.6	6.3	4.6	3.3	2.7	1.6	0.9	0.6	0.4	0.3	cd
100%	100%	98%	96%	94%	90%	86%	81%	74%	67%	60%	50%	36%	26%	21%	12%	7%	5%	3%	2%	of 0°val

## Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	γ
12.7	12.7	12.5	12.3	11.9	11.5	11.0	10.4	9.6	8.7	7.6	6.3	4.6	3.4	2.5	1.7	1.0	0.7	0.4	0.1	cd
100%	100%	98%	97%	94%	90%	86%	81%	75%	68%	60%	49%	37%	27%	20%	13%	8%	6%	3%	0%	of 0°val



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

### Forward Light

Low (0-30°)	5	lm	14%
Medium (30-60°)	9.3	lm	26.3%
High (60-80°)	2.6	lm	7.3%
Very High (80-90°)	0.4	lm	1%

### Back Light

Low (0-30°)	5	lm	14%
Medium (30-60°)	9.3	lm	26.3%
High (60-80°)	2.6	lm	7.3%
Very High (80-90°)	0.4	lm	1%

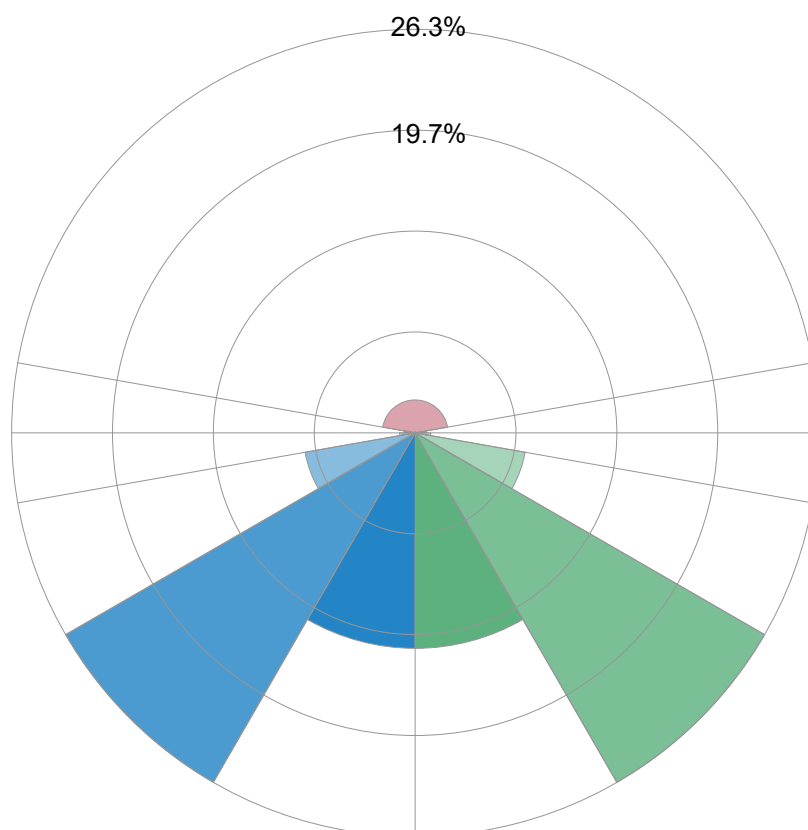
### Uplight

Low (90-100°)	0.3	lm	0.7%
High (100-180°)	0.8	lm	2.1%

Total

<b>Sum</b>	<b>35.5</b>	<b>lm</b>	<b>100%</b>
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### BUG RATING B0 U1 G0



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## UGR Table

Corrected, comprehensive UGR table according to 117-1995, S/H ratio=0.25

Reflectances		ρ Ceiling	70	70	50	50	30	70	70	50	50	30
		ρ Walls	50	30	50	30	30	50	30	50	30	30
		ρ Floor	20	20	20	20	20	20	20	20	20	20
Room size			Viewed Crosswise					Viewed Endwise				
H = mounting height above eye level			(Viewing direction orthogonal to lamp length axis)					(Viewing direction parallel to lamp length axis)				
X	Y											
2H	2H	17.5	18.7	17.8	19.0	19.3	17.5	18.6	17.8	19.0	19.3	
	3H	18.1	19.3	18.6	19.6	19.9	18.1	19.3	18.5	19.6	19.8	
	4H	18.3	19.5	18.8	19.8	20.1	18.3	19.4	18.7	19.7	20.0	
	6H	18.5	19.4	18.8	19.8	20.2	18.4	19.4	18.8	19.8	20.2	
	8H	18.5	19.4	18.8	19.8	20.2	18.5	19.4	18.8	19.8	20.2	
	12H	18.5	19.4	18.9	19.8	20.3	18.5	19.4	18.9	19.8	20.3	
4H	2H	17.8	18.9	18.2	19.2	19.5	17.7	18.9	18.2	19.2	19.5	
	3H	18.7	19.6	19.1	20.0	20.5	18.6	19.6	19.0	19.9	20.4	
	4H	18.9	19.8	19.4	20.2	20.8	18.8	19.7	19.3	20.1	20.7	
	6H	19.0	19.8	19.6	20.2	20.7	19.0	19.8	19.5	20.2	20.6	
	8H	19.0	19.8	19.6	20.2	20.6	19.0	19.8	19.6	20.2	20.6	
	12H	19.1	19.7	19.6	20.2	20.7	19.1	19.7	19.6	20.1	20.7	
8H	4H	18.9	19.7	19.5	20.1	20.5	18.9	19.6	19.4	20.0	20.5	
	6H	19.2	19.7	19.7	20.2	20.8	19.1	19.7	19.7	20.2	20.8	
	8H	19.3	19.7	19.8	20.3	21.0	19.2	19.7	19.8	20.3	21.0	
	12H	19.3	19.7	19.9	20.3	20.9	19.3	19.7	19.9	20.3	20.9	
12H	4H	18.9	19.5	19.4	20.0	20.5	18.9	19.5	19.4	19.9	20.5	
	6H	19.2	19.7	19.7	20.2	20.9	19.1	19.6	19.7	20.2	20.9	
	8H	19.3	19.7	19.9	20.2	20.9	19.2	19.6	19.8	20.2	20.8	
Variations with the observer position for the luminaire spacings, S:												
S = 1.0H			0.2 / -0.3					0.2 / -0.3				
S = 1.5H			0.7 / -1.0					0.6 / -1.0				
S = 2.0H			1.4 / -1.7					1.4 / -1.7				

## Coefficients of utilization

Ceiling reflectance	80				70				50			30			10			0
Wall reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Floor reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
RCR	(Room Cavity Ratio)				Room values are expressed as percentage of Lumen delivered to the task surface													
0	118.4	118.4	118.4	118.4	115.3	115.3	115.3	115.3	109.5	109.5	109.5	104.3	104.3	104.3	99.4	99.4	99.4	97.2
1	108.6	104.0	99.9	96.2	105.6	101.5	97.7	94.4	96.7	93.7	90.9	92.3	89.9	87.6	88.3	86.3	84.5	82.3
2	99.2	91.3	84.7	79.2	96.3	89.1	83.1	78.1	85.2	80.2	75.8	81.5	77.3	73.7	78.1	74.7	71.7	69.4
3	90.7	80.5	72.7	66.4	88.0	78.8	71.5	65.6	75.4	69.2	64.1	72.3	67.1	62.7	69.4	65.0	61.3	59.0
4	83.2	71.6	63.1	56.6	80.7	70.1	62.2	56.0	67.2	60.4	55.0	64.6	58.7	53.9	62.1	57.1	52.9	50.7
5	76.6	64.1	55.3	48.9	74.3	62.8	54.6	48.5	60.4	53.2	47.7	58.1	51.8	46.9	56.0	50.6	46.2	44.0
6	70.8	57.7	49.0	42.7	68.7	56.7	48.4	42.4	54.6	47.3	41.8	52.6	46.2	41.3	50.8	45.1	40.7	38.6
7	65.6	52.4	43.8	37.8	63.7	51.4	43.3	37.5	49.7	42.4	37.1	48.0	41.5	36.6	46.4	40.6	36.2	34.2
8	61.1	47.8	39.4	33.7	59.4	47.0	39.0	33.5	45.4	38.3	33.1	44.0	37.5	32.8	42.6	36.8	32.4	30.5
9	57.0	43.9	35.8	30.3	55.5	43.1	35.4	30.2	41.8	34.8	29.9	40.5	34.1	29.6	39.3	33.5	29.3	27.4
10	53.5	40.4	32.7	27.5	52.1	39.8	32.4	27.3	38.6	31.8	27.1	37.5	31.3	26.8	36.5	30.7	26.6	24.8

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## Power details

### Input power

Frequency of input power	0 Hz
Power feed to light source	0.55 W
RMS Input voltage feed V,RMS	24.0 V
RMS Input current feed I,RMS	0.023 A
Volt-Amp or apparent power =	0.55 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 13.2%

Lumen efficiency 64 lm/W

## Stabilization details

### Warmup Conditions

Stable period	n/a
Stable change max	n/a%
Minimum time	n/a

### Color Temperature Change

CCT start	n/a K
CCT shift	n/a K
CCT end	0 K

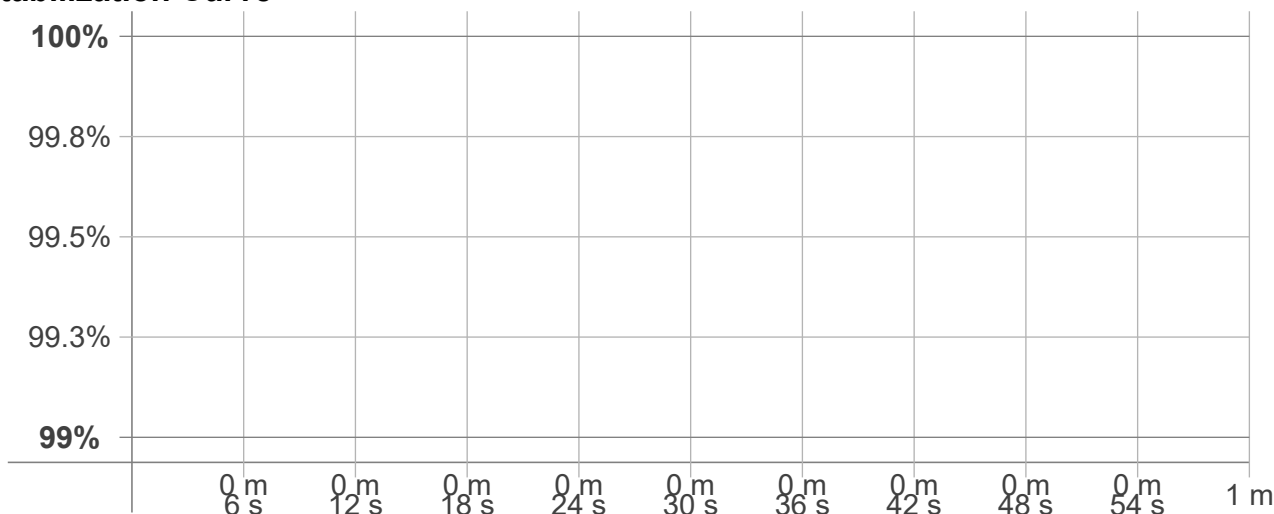
### Warmup Result

Total warmup time	n/a
Warmup variation	n/a%

### Output Change

Output start	n/a lm
Output change	n/a lm
Output end	35.5 lm

## Stabilization Curve



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## Flicker TLA details

Flicker Meter Type	Viso Systems LabFlicker
Frequency of input power	0 Hz
Flicker/TLA sample rate	n/a samples/s

Measurement time	
PstLM	180 sec.
All other indices	1,5 sec,

### Flicker indices according to Illuminating Engineering Society

Flicker frequency	n/a Hz
Percent Flicker	n/a %
Flicker index	n/a

### Flicker indices according to California Energy Commission (CEC)

JA8/10 40 Hz	n/a %
JA8/10 90 Hz	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

PstLM value ( $F < 80$ Hz)	n/a
SVM value ( $80 < F < 2000$ Hz)	n/a

### Flicker indices according to Lighting Research Center (2015)

Perception metric, Assist Mp	n/a
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### Flicker frame (frame of one flicker period in time domain)



### Flicker FFT (flicker curve in frequency domain)



### IEEE 1789 Frequency/modulation plot

