

Test report

Light measurement results

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

Viso LightSpion - Seriennummer: 1435906163
LightSpion – Type C, horizontal
21.11.2025

Measurement Conditions

Tested c-planes
Tested gamma resolution
Input Power
Input RMS Voltage and Current

4 planes – 90°
7.5°
19.6 W
24.0 V – 0.817 A

Tested Light Source

Luminaire
Item No.
Manufacturer
Measured length
Dimension (Lamp w x h) | (Light w x h)
Description

FLEX STRIP HP-COB RGBW (4000K) 1m 251115
ASD8COB84008
awL^{ed} by audiowerk GmbH
1000mm
12mm x 1000mm | 4mm x 1000mm
Charge 251115

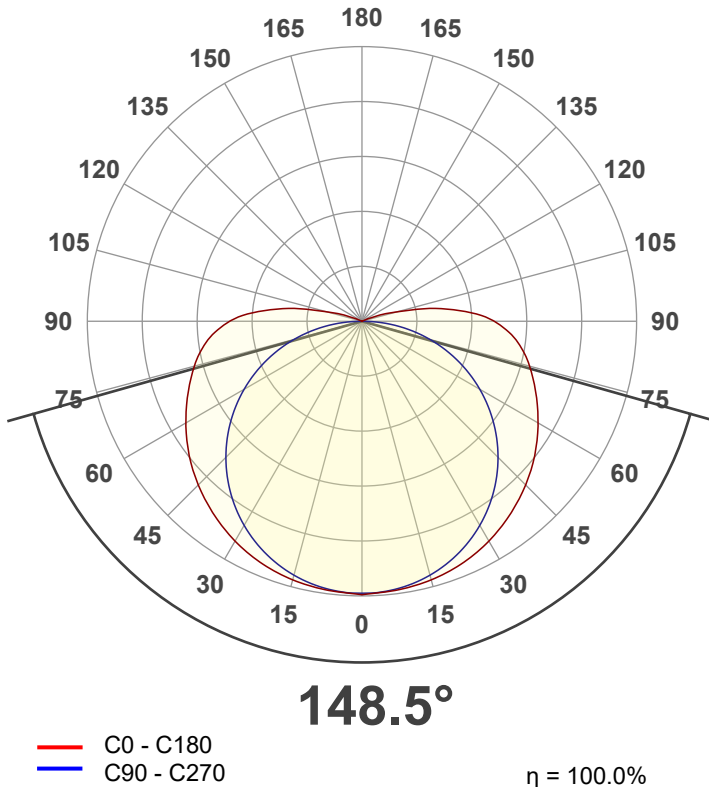
Main Light Measurement Results

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

934 lm – 6.91% / 93.09%
48 lm/W
222 cd
24588 K
CRI 55.7
G

Polar light distribution diagram

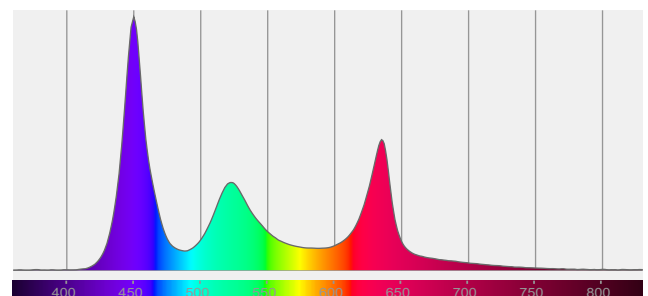
Unit: 0-100% of peak intensity



Product photo



Spectral power distribution

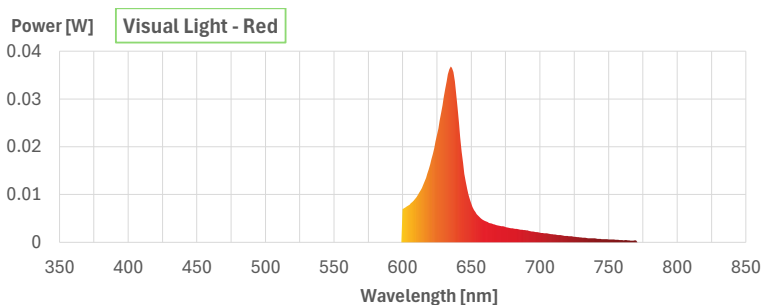


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Light measurement results

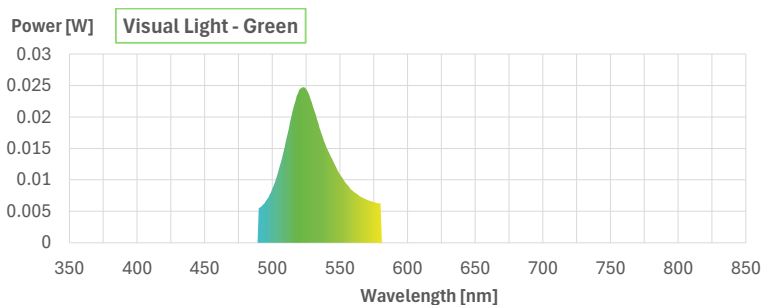
Light output 1 - LED Red:

Peak wavelength	635 nm
Output – Total Lumen	136 lm
Efficiency	24.92 lm/W
Input Power	5.46 W
Input RMS Voltage	24.00 V
Input RMS Current	0.23 A



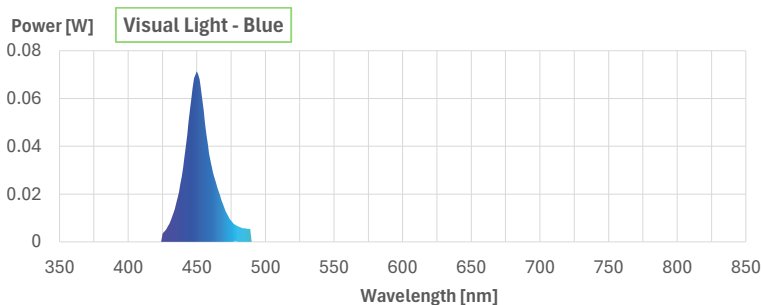
Light output 2 - LED Green:

Peak wavelength	523 nm
Output – Total Lumen	409 lm
Efficiency	71.69 lm/W
Input Power	5.71 W
Input RMS Voltage	23.99 V
Input RMS Current	0.24 A



Light output 3 - LED Blue:

Peak wavelength	450 nm
Output – Total Lumen	68 lm
Efficiency	12.20 lm/W
Input Power	5.54 W
Input RMS Voltage	24.00 V
Input RMS Current	0.23 A



Light output 4 - LED White:

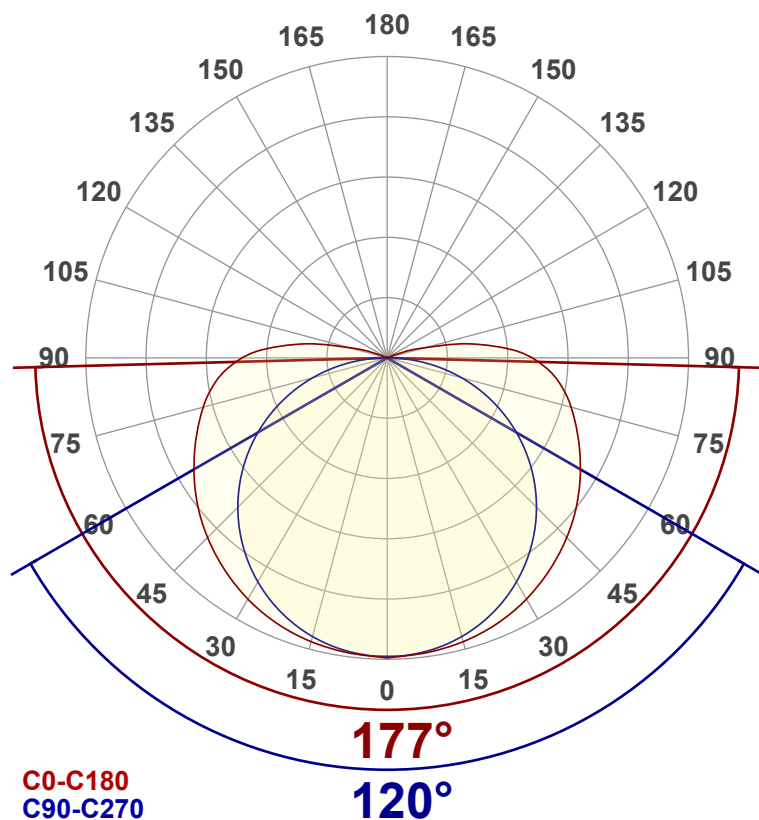
Correlated Color Temperature, CCT	4077 °K
Output – Total Lumen	346 lm
Efficiency	64 lm/W
Color Rendering Index	92 CRI
Input Power	5.39 W
Input RMS Voltage	24.00 V
Input RMS Current	0.23 A

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Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	934 lm
Lumen Up% / Down%	6.91% / 93.09%
Peak Intensity	222 cd
Beam Angle (50%-FWHM)	148.51°

EU Ecodesign parameters

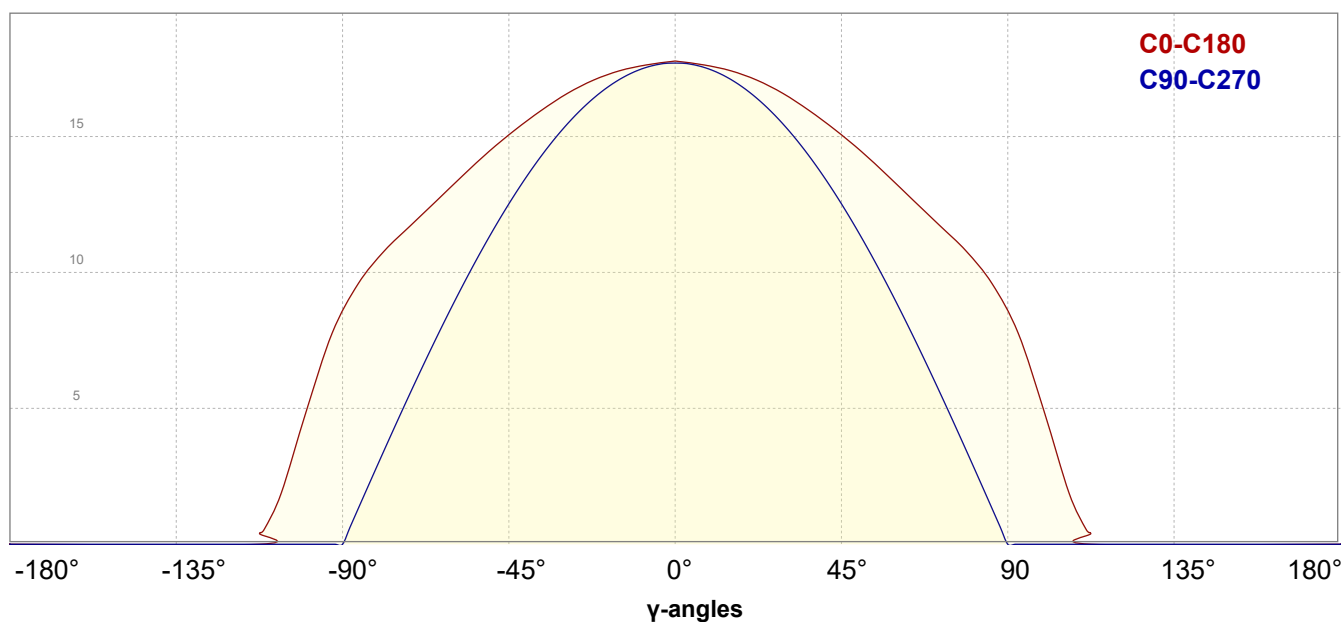
Directionality (DLS or NDLS)	NDLS
Ecodesign Useful Luminous	934 lm
Ecodesign Energy Class	G

Intensity Ratio

In 120° cone	60.4%
In 90° cone	38.8%

Linear distribution diagram

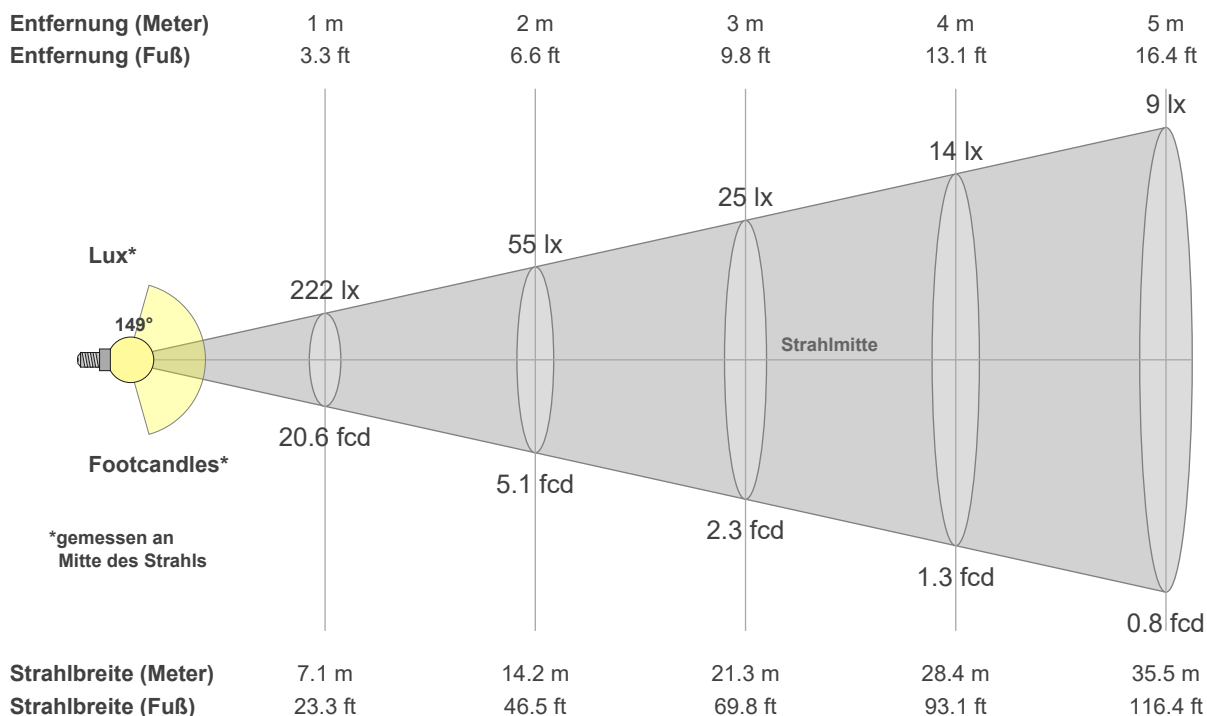
Intensity [cd]



Test report

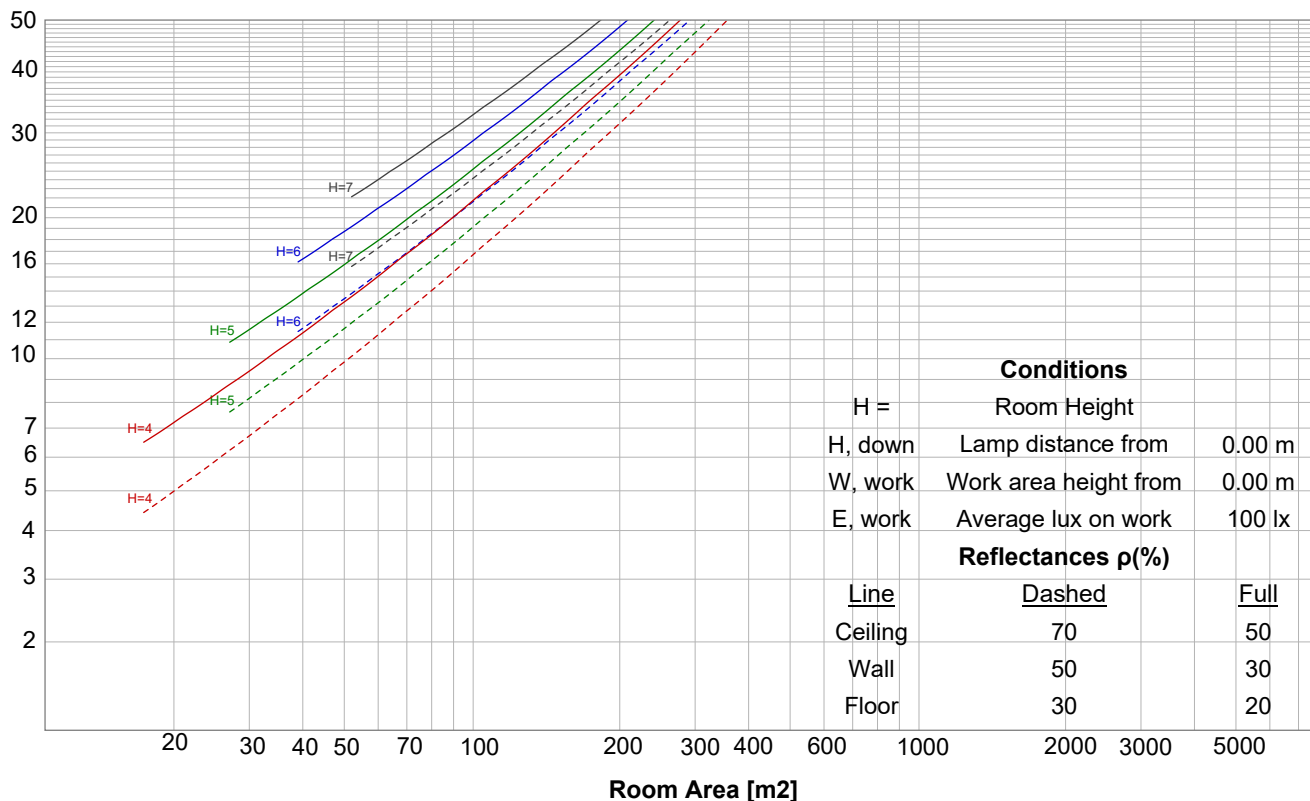
Light measurement results

Beam details



Luminaire budgetary diagram

LAMPS (number of lamps)



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
222	55	25	14	9	6	5	3	3	2	2	2	1	1	1	1	1	1	1	1	lux
20.6	5.1	2.3	1.3	0.8	0.6	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	fc

Intensities in 0° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°	γ
222	220	216	209	200	188	175	160	146	130	106	65	18	0	0	0	0	0	0	0	cd
100%	99%	97%	94%	90%	85%	79%	72%	66%	59%	48%	29%	8%	0%	0%	0%	0%	0%	0%	0%	of 0°val

Intensities in 90° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°	γ
222	219	210	197	179	156	130	100	68	35	0	0	0	0	0	0	0	0	0	0	cd
100%	99%	95%	89%	81%	71%	59%	45%	31%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	of 0°val

Intensities in 180° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°	γ
222	220	216	209	200	188	175	160	146	130	106	65	18	0	0	0	0	0	0	0	cd
100%	99%	97%	94%	90%	85%	79%	72%	66%	59%	48%	29%	8%	0%	0%	0%	0%	0%	0%	0%	of 0°val

Intensities in 270° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°	γ
222	219	210	197	179	156	130	100	68	35	0	0	0	0	0	0	0	0	0	0	cd
100%	99%	95%	89%	81%	71%	59%	45%	31%	16%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	of 0°val

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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	7.1	8.4	7.5	8.8	9.2	10.8	12.1	11.2	12.5	12.9	
	3H	8.8	10.1	9.3	10.5	10.9	12.5	13.8	13.0	14.2	14.6	
	4H	9.7	11.0	10.2	11.4	11.8	13.3	14.6	13.8	15.0	15.4	
	6H	10.7	11.8	11.1	12.2	12.7	14.0	15.1	14.4	15.5	16.0	
	8H	11.1	12.2	11.5	12.6	13.2	14.2	15.3	14.7	15.7	16.3	
	12H	11.5	12.6	12.0	13.0	13.6	14.4	15.5	14.9	15.9	16.5	
4H	2H	7.8	9.0	8.3	9.4	9.8	10.8	12.1	11.3	12.5	12.9	
	3H	9.7	10.8	10.2	11.3	11.8	12.7	13.8	13.2	14.2	14.8	
	4H	10.7	11.8	11.2	12.2	12.9	13.5	14.6	14.1	15.0	15.7	
	6H	11.7	12.7	12.3	13.1	13.6	14.2	15.2	14.8	15.6	16.2	
	8H	12.2	13.1	12.8	13.6	14.1	14.5	15.4	15.1	15.9	16.4	
	12H	12.7	13.4	13.3	14.0	14.6	14.7	15.4	15.3	16.0	16.6	
8H	4H	11.0	11.9	11.6	12.4	12.9	13.6	14.4	14.2	14.9	15.5	
	6H	12.2	12.9	12.8	13.5	14.2	14.4	15.1	15.0	15.7	16.3	
	8H	12.9	13.5	13.5	14.1	14.9	14.7	15.4	15.3	16.0	16.7	
	12H	13.5	14.1	14.2	14.7	15.4	15.0	15.5	15.7	16.2	16.9	
12H	4H	11.1	11.8	11.6	12.3	12.9	13.6	14.3	14.2	14.9	15.5	
	6H	12.3	13.0	12.9	13.6	14.3	14.4	15.1	15.0	15.7	16.4	
	8H	13.0	13.6	13.7	14.2	14.9	14.8	15.3	15.5	15.9	16.7	
Variations with the observer position for the luminaire spacings, S:												
S = 1.0H		0.1 / -0.1						0.7 / -0.9				
S = 1.5H		0.1 / -0.1						1.5 / -1.5				
S = 2.0H		0.2 / -0.3						2.4 / -2.0				

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	117.4	117.4	117.4	117.4	113.9	113.9	113.9	113.9	107.3	107.3	107.3	101.2	101.2	101.2	95.7	95.7	95.7	93.1
1	103.6	97.3	91.7	86.7	100.0	94.3	89.2	84.6	88.6	84.4	80.6	83.4	80.0	76.8	78.6	75.9	73.3	70.5
2	92.8	82.9	74.7	67.8	89.3	80.3	72.8	66.4	75.5	69.2	63.7	71.0	65.8	61.2	66.9	62.6	58.8	56.0
3	83.8	71.7	62.3	54.8	80.5	69.5	60.8	53.8	65.4	58.0	51.9	61.6	55.3	50.1	58.0	52.8	48.3	45.6
4	76.2	62.8	53.0	45.5	73.2	61.0	51.8	44.7	57.5	49.6	43.3	54.2	47.4	42.0	51.2	45.4	40.6	38.0
5	69.8	55.7	45.8	38.5	67.1	54.1	44.9	38.0	51.1	43.1	36.9	48.3	41.3	35.8	45.7	39.6	34.8	32.3
6	64.2	49.8	40.1	33.2	61.8	48.5	39.4	32.8	45.9	37.9	31.9	43.5	36.4	31.0	41.2	35.0	30.2	27.8
7	59.4	45.0	35.6	29.0	57.2	43.8	34.9	28.7	41.6	33.7	27.9	39.5	32.5	27.2	37.5	31.3	26.6	24.3
8	55.2	40.9	31.8	25.6	53.2	39.8	31.3	25.3	37.9	30.2	24.8	36.1	29.2	24.2	34.4	28.2	23.6	21.5
9	51.5	37.4	28.7	22.9	49.6	36.5	28.3	22.6	34.8	27.4	22.1	33.2	26.5	21.7	31.7	25.6	21.2	19.2
10	48.2	34.4	26.1	20.6	46.5	33.6	25.7	20.4	32.1	24.9	20.0	30.7	24.2	19.6	29.4	23.4	19.1	17.3

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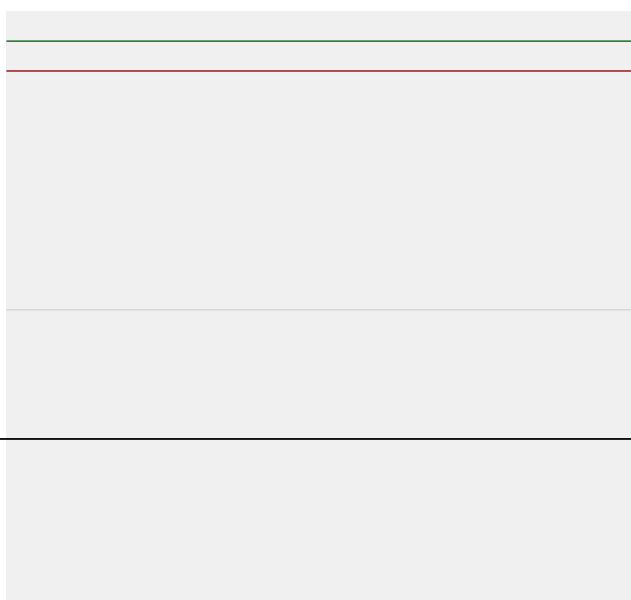
Light measurement results

Power details

Input power

Frequency of input power	0 Hz
Power feed to light source	19.6 W
RMS Input voltage feed V,RMS	24.0 V
RMS Input current feed I,RMS	0.817 A
Volt-Amp or apparent power = V,RMS*I,RMS	19.61 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 21.4%

Lumen efficiency 48 lm/W

Stabilization details

Warmup Conditions

Stable period	3 Min	CCT start	23788 K
Stable change max	2.4%	CCT shift	+800 K
Minimum time	3 Min	CCT end	24588 K

Color Temperature Change

Warmup Result

Total warmup time	Lampe
Warmup variation	-0.7%

Output Change

Output start	940 lm
Output change	-5 lm
Output end	934 lm

Stabilization Curve

