

Test report

Light measurement results

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

awLed by audiowerk GmbH
LightSpion – Type C, horizontal
11.08.2026

Measurement Conditions

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

2 planes – 180.00°
7.50°
21.11 W
24 V – 0.88 A

Tested Light Source

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

FLEX STRIP HP-420 FREE-CUT 4-IN-1 RGBW (4000K) 1m 2607
ASD08FC108
awLed by audiowerk GmbH
1000mm
10mm x 1000mm | 4mm x 4mm
Charge 260716

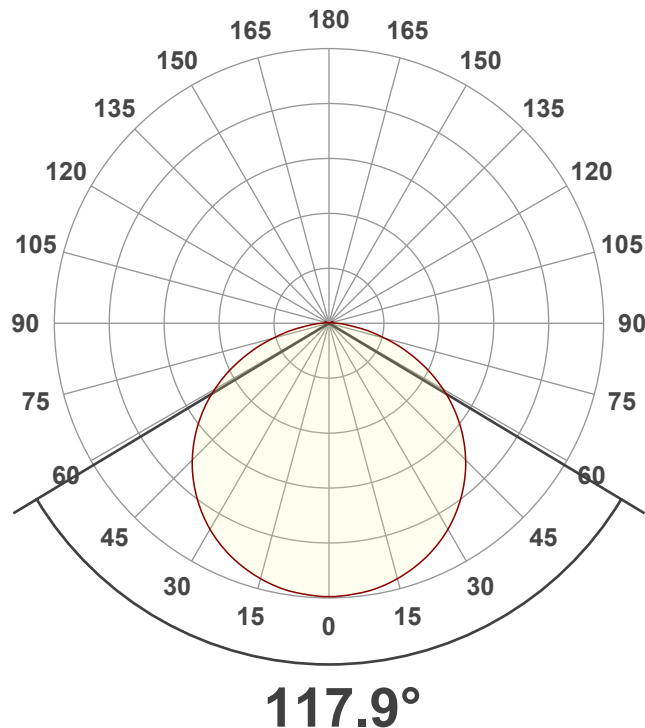
Main Light Measurement Results

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

1199 lm – 1.127% / 98.87%
56.78 lm/W
388.6 cd
NaN K
CRI 0.0
G

Polar light distribution diagram

Unit: 0-100% of peak intensity



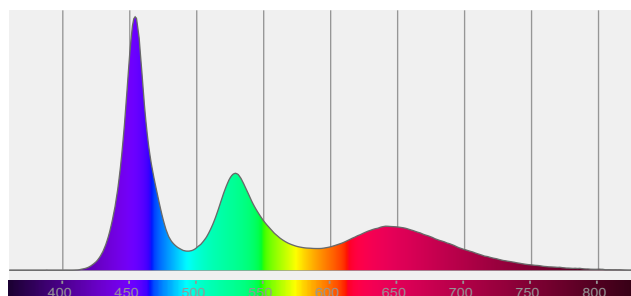
— C0 - C180
— C90 - C270

$\eta = 100\%$

Product photo

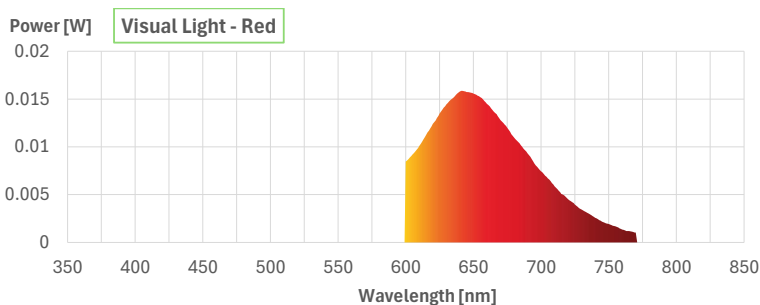


Spectral power distribution



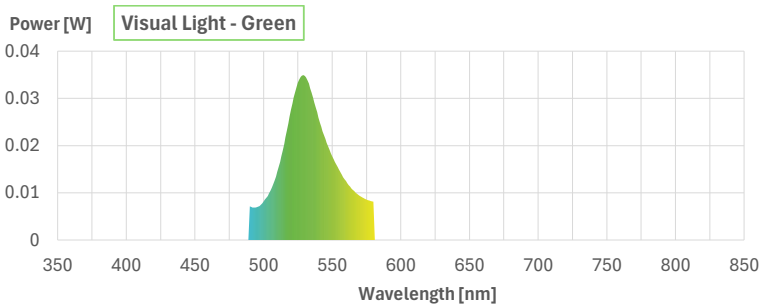
Light output 1 - LED Red:

Peak wavelength	641 nm
Output – Total Lumen	79 lm
Efficiency	13.31 lm/W
Input Power	5.91 W
Input RMS Voltage	24.00 V
Input RMS Current	0.25 A



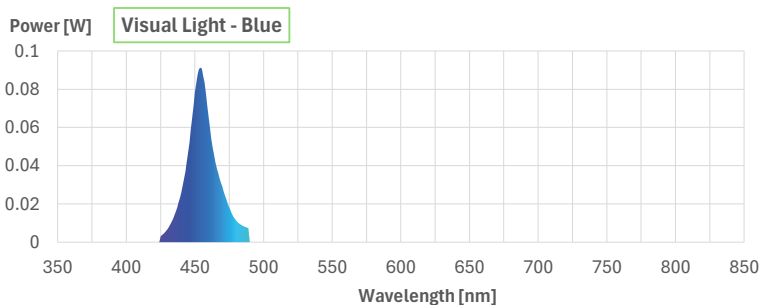
Light output 2 - LED Green:

Peak wavelength	529 nm
Output – Total Lumen	617 lm
Efficiency	101.53 lm/W
Input Power	6.08 W
Input RMS Voltage	24.00 V
Input RMS Current	0.25 A



Light output 3 - LED Blue:

Peak wavelength	454 nm
Output – Total Lumen	86 lm
Efficiency	14.57 lm/W
Input Power	5.88 W
Input RMS Voltage	24.00 V
Input RMS Current	0.25 A



Light output 4 - LED White:

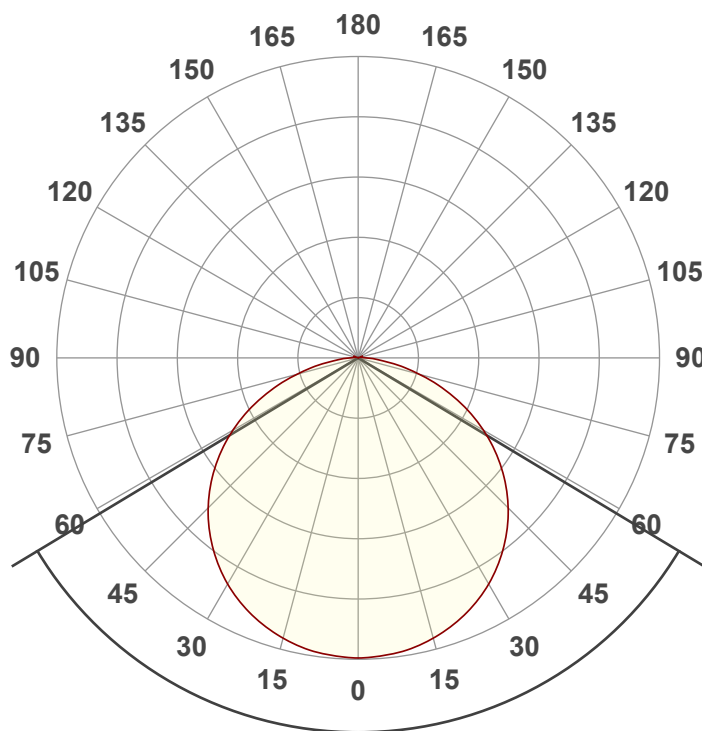
Correlated Color Temperature, CCT	4176 °K
Output – Total Lumen	440 lm
Efficiency	75 lm/W
Color Rendering Index	95 CRI
Input Power	5.88 W
Input RMS Voltage	24.00 V
Input RMS Current	0.25 A

Test report

Light measurement results

Luminous Intensity diagram

Unit: 0-100% of peak intensity



C0-C180
C90-C270

117.9°

Main Values

Output (total Lumen)	1199 lm
Lumen Up% / Down%	1.127% / 98.87%
Peak Intensity	388.6 cd
Beam Angle (50%-FWHM)	117.9°

EU Ecodesign parameters

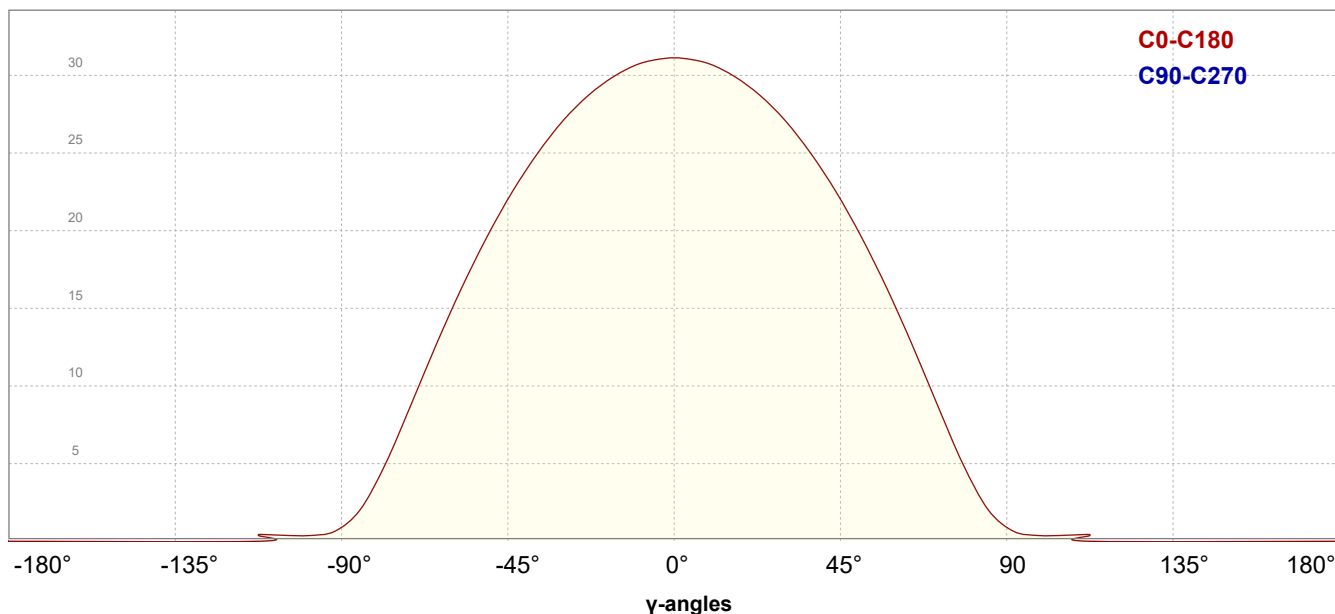
Directionality (DLS or NDLS)	NDLS
Ecodesign Useful Luminous Flux	1199 lm
Ecodesign Energy Class	G

Intensity Ratio

In 120° cone	76.34%
In 90° cone	51.09%

Linear distribution diagram

Intensity [cd]

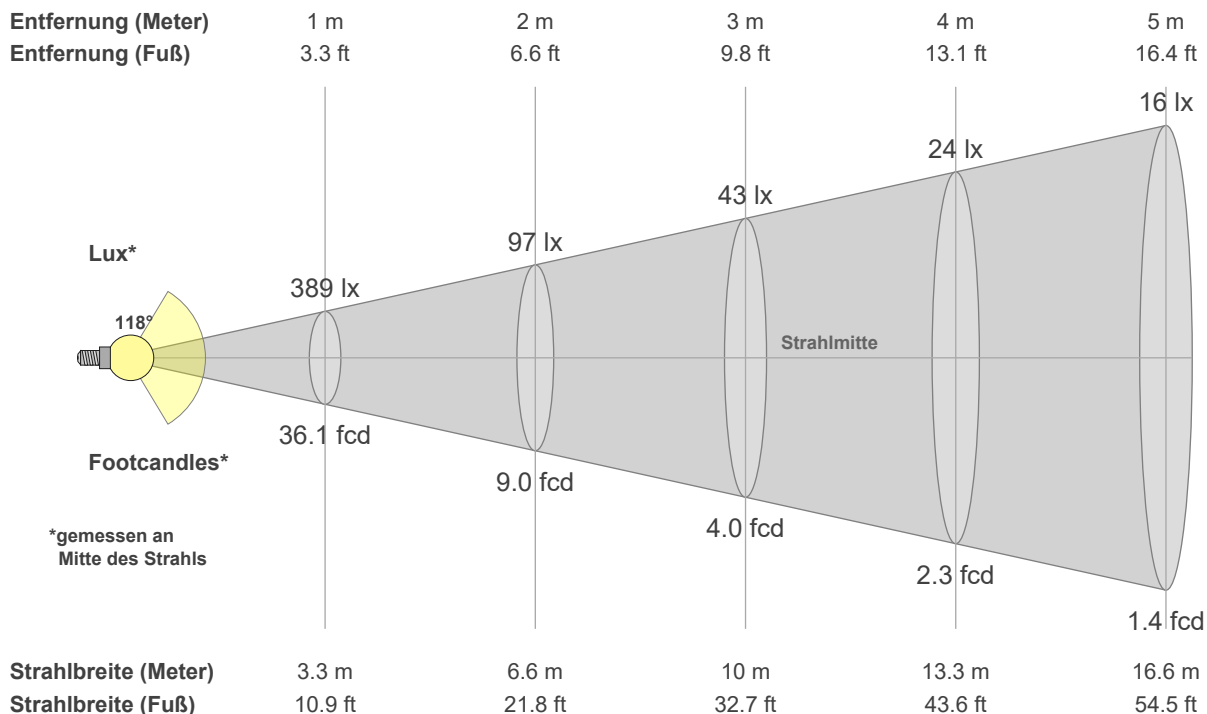


C0-C180
C90-C270

Test report

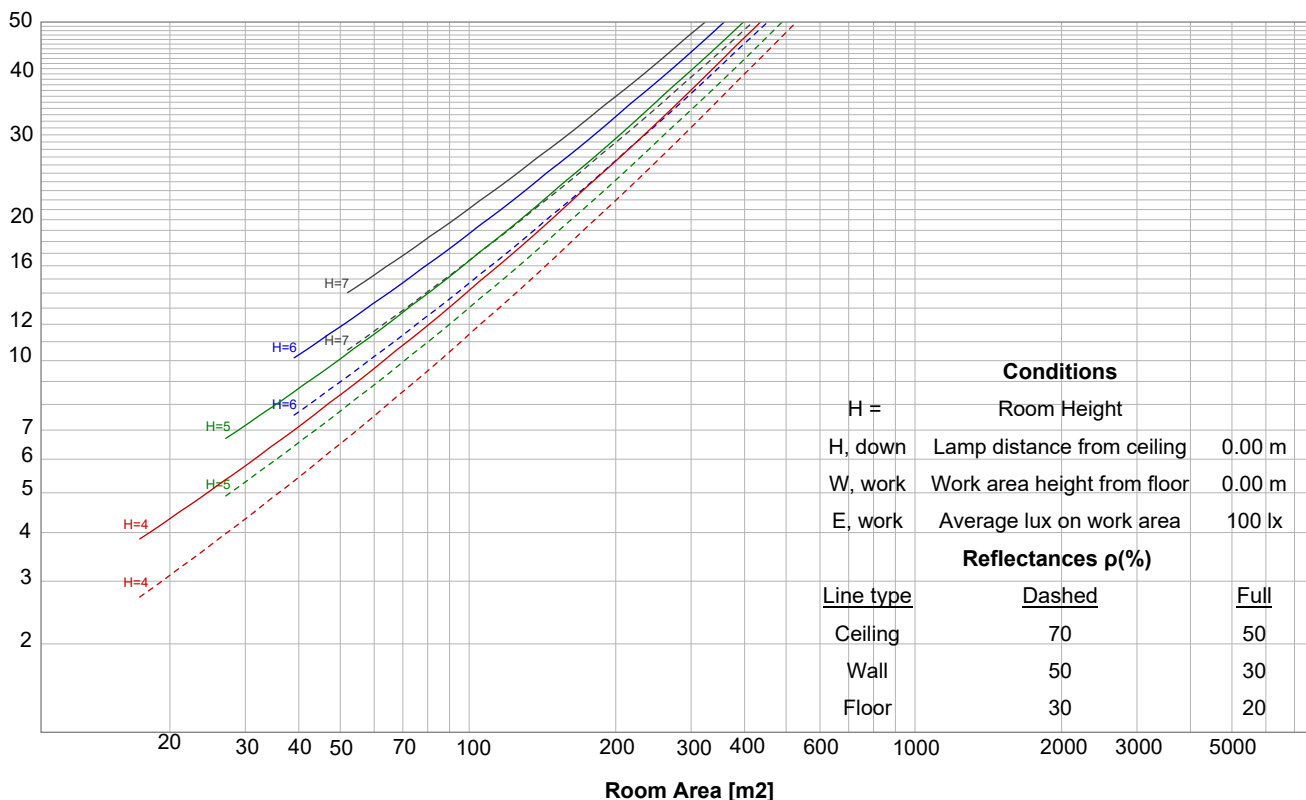
Light measurement results

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
389	97	43	24	16	11	8	6	5	4	3	3	2	2	2	2	1	1	1	1	lux
36.1	9	4	2.3	1.4	1	0.7	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	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
389	387	384	376	366	354	339	320	298	275	248	219	187	154	118	84	52	25	13	6	cd
100%	100%	99%	97%	94%	91%	87%	82%	77%	71%	64%	56%	48%	40%	30%	22%	13%	6%	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
389	387	384	376	366	354	339	320	298	275	248	219	187	154	118	84	52	25	13	6	cd
100%	100%	99%	97%	94%	91%	87%	82%	77%	71%	64%	56%	48%	40%	30%	22%	13%	6%	3%	2%	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
389	387	384	376	366	354	339	320	298	275	248	219	187	154	118	84	52	25	13	6	cd
100%	100%	99%	97%	94%	91%	87%	82%	77%	71%	64%	56%	48%	40%	30%	22%	13%	6%	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
389	387	384	376	366	354	339	320	298	275	248	219	187	154	118	84	52	25	13	6	cd
100%	100%	99%	97%	94%	91%	87%	82%	77%	71%	64%	56%	48%	40%	30%	22%	13%	6%	3%	2%	of 0°val

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		25.5	26.7	25.8	27.0	27.3	27.2	28.4	27.5	28.8	29.0
	3H		26.5	27.8	27.0	28.1	28.4	28.7	30.0	29.2	30.3	30.6
	4H		26.9	28.1	27.4	28.4	28.7	29.4	30.6	29.8	30.9	31.2
	6H		27.2	28.3	27.6	28.6	29.0	30.0	31.0	30.3	31.3	31.7
	8H		27.3	28.3	27.6	28.6	29.1	30.1	31.2	30.5	31.5	31.9
	12H		27.3	28.3	27.7	28.7	29.1	30.3	31.3	30.7	31.7	32.1
4H	2H		26.1	27.3	26.5	27.6	27.9	27.5	28.7	27.9	29.0	29.3
	3H		27.4	28.5	27.8	28.8	29.3	29.3	30.3	29.7	30.6	31.1
	4H		27.8	28.8	28.3	29.2	29.8	29.9	30.9	30.4	31.3	31.9
	6H		28.2	29.0	28.7	29.4	29.8	30.5	31.4	31.0	31.8	32.2
	8H		28.2	29.0	28.8	29.4	29.9	30.7	31.6	31.3	32.0	32.4
	12H		28.3	29.0	28.8	29.4	29.9	30.9	31.6	31.5	32.1	32.6
8H	4H		28.1	28.9	28.6	29.3	29.7	30.0	30.8	30.5	31.2	31.6
	6H		28.5	29.1	29.0	29.6	30.2	30.7	31.3	31.2	31.8	32.4
	8H		28.7	29.2	29.2	29.8	30.4	31.0	31.5	31.5	32.1	32.8
	12H		28.8	29.2	29.4	29.8	30.4	31.2	31.7	31.8	32.2	32.9
12H	4H		28.1	28.8	28.6	29.2	29.7	30.0	30.7	30.5	31.1	31.6
	6H		28.6	29.1	29.1	29.7	30.3	30.7	31.3	31.2	31.8	32.5
	8H		28.7	29.2	29.3	29.7	30.4	31.0	31.5	31.6	32.0	32.6
Variations with the observer position for the luminaire spacings, S:												
S = 1.0H			0.1 / -0.2					0.1 / -0.1				
S = 1.5H			0.3 / -0.5					0.4 / -0.5				
S = 2.0H			0.6 / -0.9					1.0 / -1.0				

UGR-Daten konnten aufgrund fehlender/falscher Symmetrie nicht berechnet werden. Gehen Sie zu Bearbeiten -> Photometrisch -> Korrekturen und wählen Sie Asymmetrie korrigieren (UGR für asymmetrische Verteilungen nicht definiert)..

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	50	30	10	0
Floor reflectance	20	20	20	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	118.8	118.8	118.8	118.8	115.9	115.9	115.9	115.9	110.5	110.5	110.5	105.5	105.5	105.5	101.0	101.0	101.0	98.9			
1	108.0	103.0	98.5	94.5	105.1	100.6	96.6	92.9	96.1	92.8	89.7	92.0	89.3	86.8	88.2	86.0	84.0	81.8			
2	97.9	89.4	82.4	76.4	95.2	87.4	80.9	75.4	83.6	78.2	73.5	80.2	75.6	71.6	77.0	73.2	69.8	67.6			
3	89.1	78.2	69.8	63.2	86.5	76.5	68.8	62.5	73.4	66.7	61.2	70.4	64.8	60.0	67.7	62.9	58.8	56.5			
4	81.4	69.1	60.1	53.2	79.0	67.7	59.3	52.8	65.0	57.7	51.9	62.5	56.2	51.1	60.2	54.8	50.3	48.0			
5	74.7	61.6	52.4	45.6	72.5	60.4	51.8	45.3	58.1	50.5	44.7	56.0	49.3	44.1	54.0	48.2	43.5	41.3			
6	68.9	55.3	46.2	39.7	66.9	54.3	45.7	39.5	52.4	44.7	39.0	50.6	43.8	38.6	48.9	42.8	38.1	36.0			
7	63.8	50.1	41.2	34.9	62.0	49.2	40.8	34.8	47.6	39.9	34.4	46.0	39.2	34.1	44.5	38.4	33.7	31.7			
8	59.4	45.6	37.0	31.1	57.7	44.9	36.7	30.9	43.5	36.0	30.7	42.1	35.3	30.4	40.8	34.7	30.1	28.2			
9	55.4	41.8	33.5	27.9	53.9	41.2	33.2	27.8	39.9	32.7	27.6	38.8	32.1	27.3	37.7	31.6	27.1	25.3			
10	51.9	38.6	30.5	25.2	50.6	38.0	30.3	25.1	36.9	29.8	25.0	35.9	29.4	24.8	34.9	28.9	24.6	22.8			

Test report

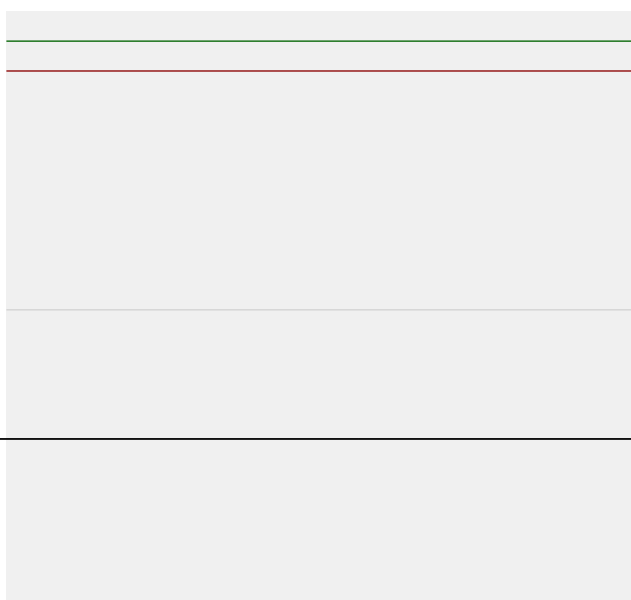
Light measurement results

Power details

Input power

Frequency of input power	0.0 Hz
Power feed to light source	21.11 W
RMS Input voltage feed V _{RMS}	24 V
RMS Input current feed I _{RMS}	0.88 A
Volt-Amp or apparent power = V _{RMS} *I _{RMS}	21.1 VA
Displacement factor of AC power feed	0.00
Power factor of AC current feed	1.00
Total harmonic distortion of the current	0%
Total harmonic distortion of the voltage	0%

Input power curve



Efficiency

Radiated power efficiency 25.86

Lumen efficiency 56.78 lm/W

Stabilization details

Warmup Conditions

Stable period	3 Min
Stable change max	5%
Minimum time	3 Min

Color Temperature Change

CCT start	-1974 K
CCT shift	1974 K
CCT end	NaN K

Warmup Result

Total warmup time	Lampe stabilisiert in
Warmup variation	-0.7583%

Output Change

Output start	1206 lm
Output change	-7.4843 lm
Output end	1199 lm

Stabilization Curve

