

Test report

Light measurement results

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

awLed by audiowerk GmbH
LightSpion – Type C, horizontal
24.06.2025

Measurement Conditions

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

2 planes – 180°
7.5°
19.7 W
24.0 V – 0.825 A

Tested Light Source

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

FLEX STRIP HPS-4-IN-1 RGBW (6000K) 1m 250523
ASD08404
awLed by audiowerk GmbH
1000mm
10mm x 4mm
1m / Charge 250523

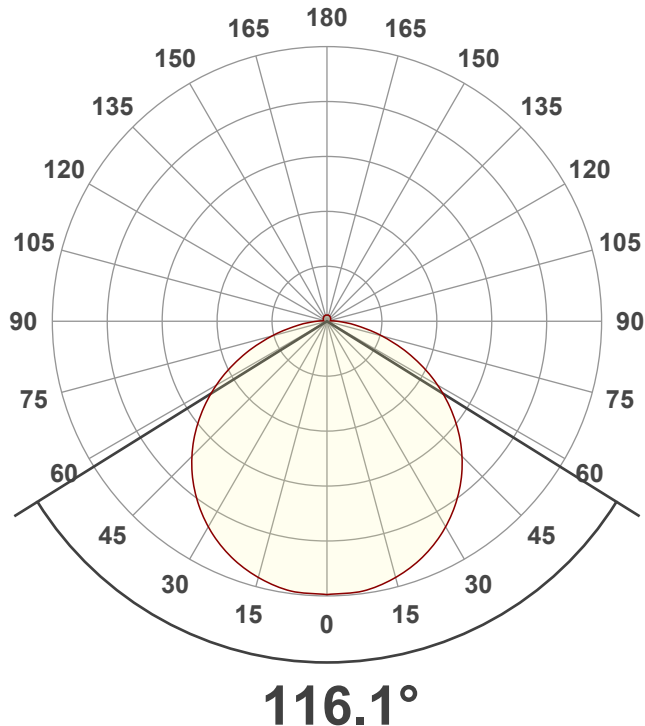
Main Light Measurement Results

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

1336 lm – 3.62% / 96.38%
68 lm/W
426 cd
15185 K
CRI 68.5
G

Polar light distribution diagram

Unit: 0-100% of peak intensity



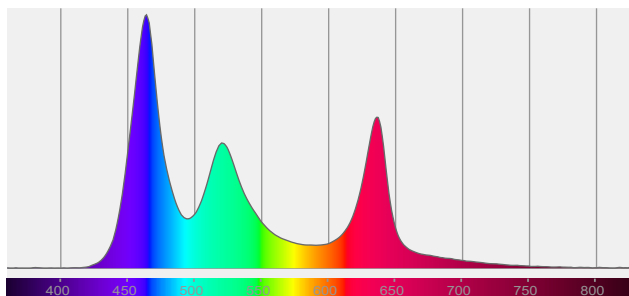
— C0 - C180
— C90 - C270

$\eta = 100.0\%$

Product photo

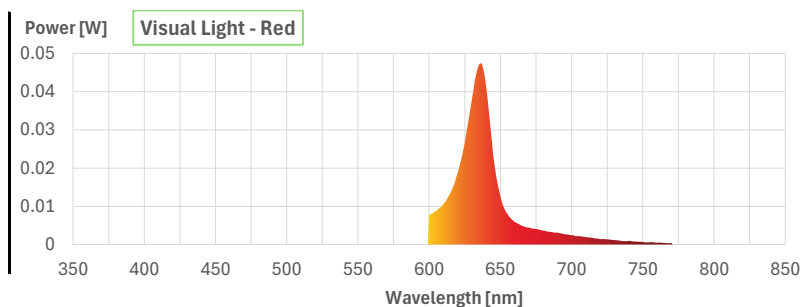


Spectral power distribution



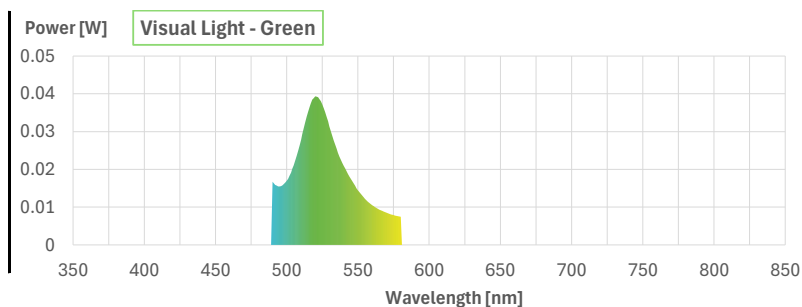
Light output 1 - LED Red:

Peak wavelength	636 nm
Output – Total Lumen	172 lm
Efficiency	30.65 lm/W
Input Power	5.60 W
Input RMS Voltage	24.02 V
Input RMS Current	0.23 A



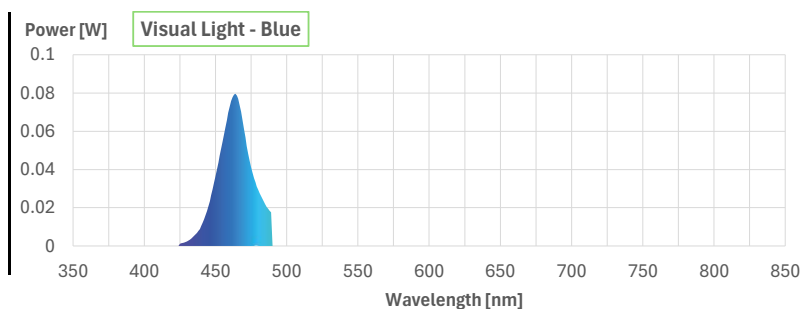
Light output 2 - LED Green:

Peak wavelength	520 nm
Output – Total Lumen	582 lm
Efficiency	105.34 lm/W
Input Power	5.53 W
Input RMS Voltage	24.02 V
Input RMS Current	0.23 A



Light output 3 - LED Blue:

Peak wavelength	464 nm
Output – Total Lumen	119 lm
Efficiency	21.71 lm/W
Input Power	5.50 W
Input RMS Voltage	24.02 V
Input RMS Current	0.23 A



Light output 4 - LED White:

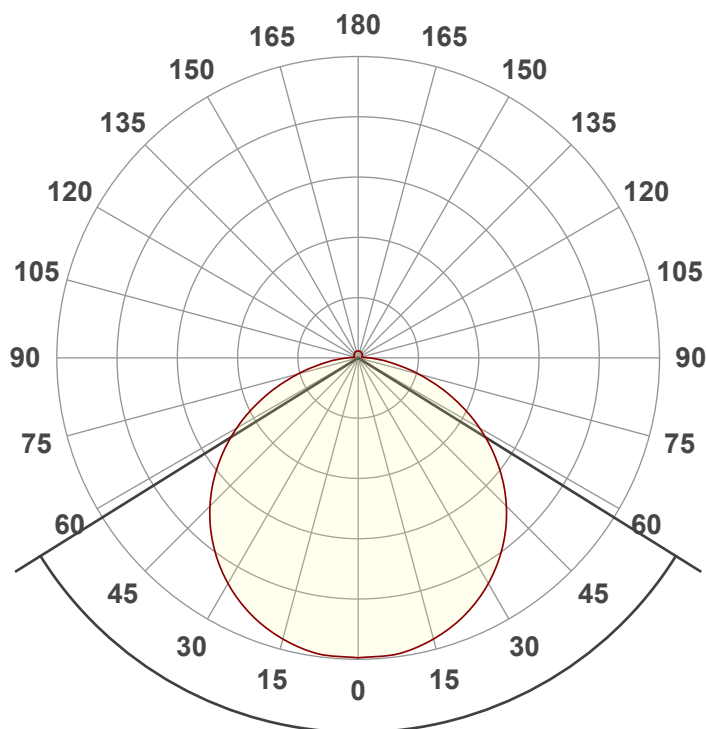
Correlated Color Temperature, CCT	6990 °K
Output – Total Lumen	493 lm
Efficiency	90 lm/W
Color Rendering Index	94 CRI
Input Power	5.45 W
Input RMS Voltage	24.02 V
Input RMS Current	0.23 A

Test report

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Luminous Intensity diagram

Unit: 0-100% of peak intensity



C0-C180
C90-C270

116.1°

Main Values

Output (total Lumen)	1336 lm
Lumen Up% / Down%	3.62% / 96.38%
Peak Intensity	426 cd
Beam Angle (50%-FWHM)	116.10°

EU Ecodesign parameters

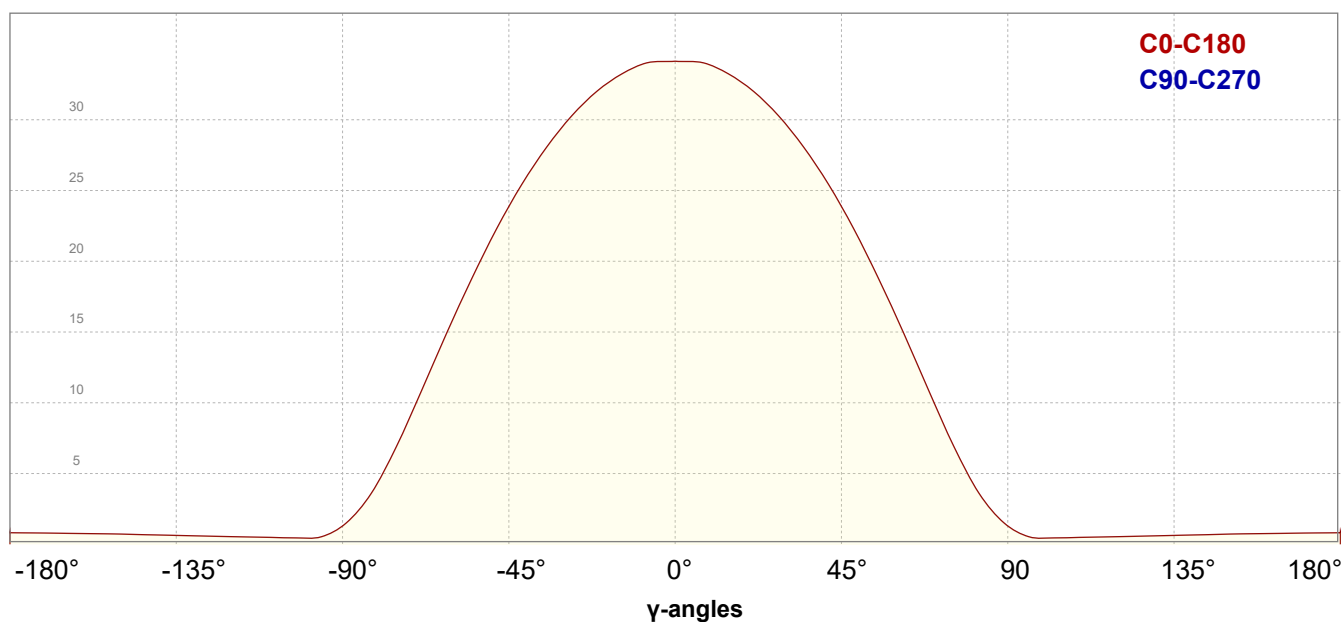
Directionality (DLS or NDLS)	NDLS
Ecodesign Useful Luminous	1336 lm
Ecodesign Energy Class	G

Intensity Ratio

In 120° cone	74.4%
In 90° cone	50.3%

Linear distribution diagram

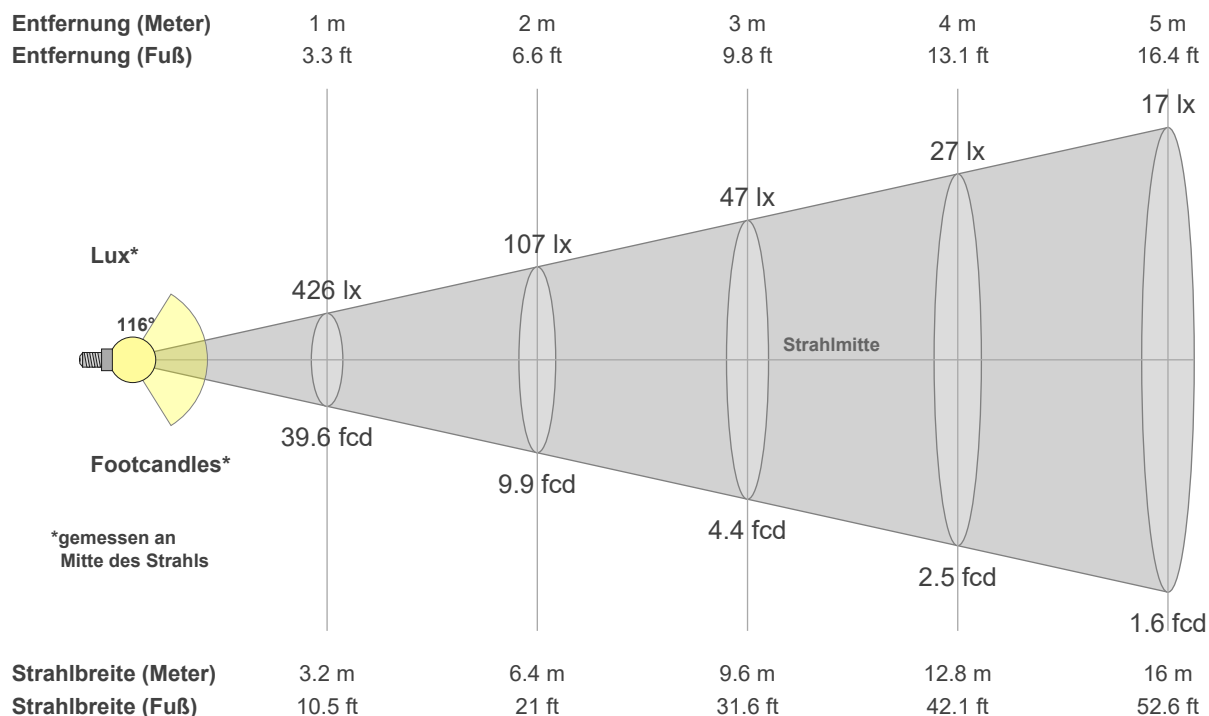
Intensity [cd]



Test report

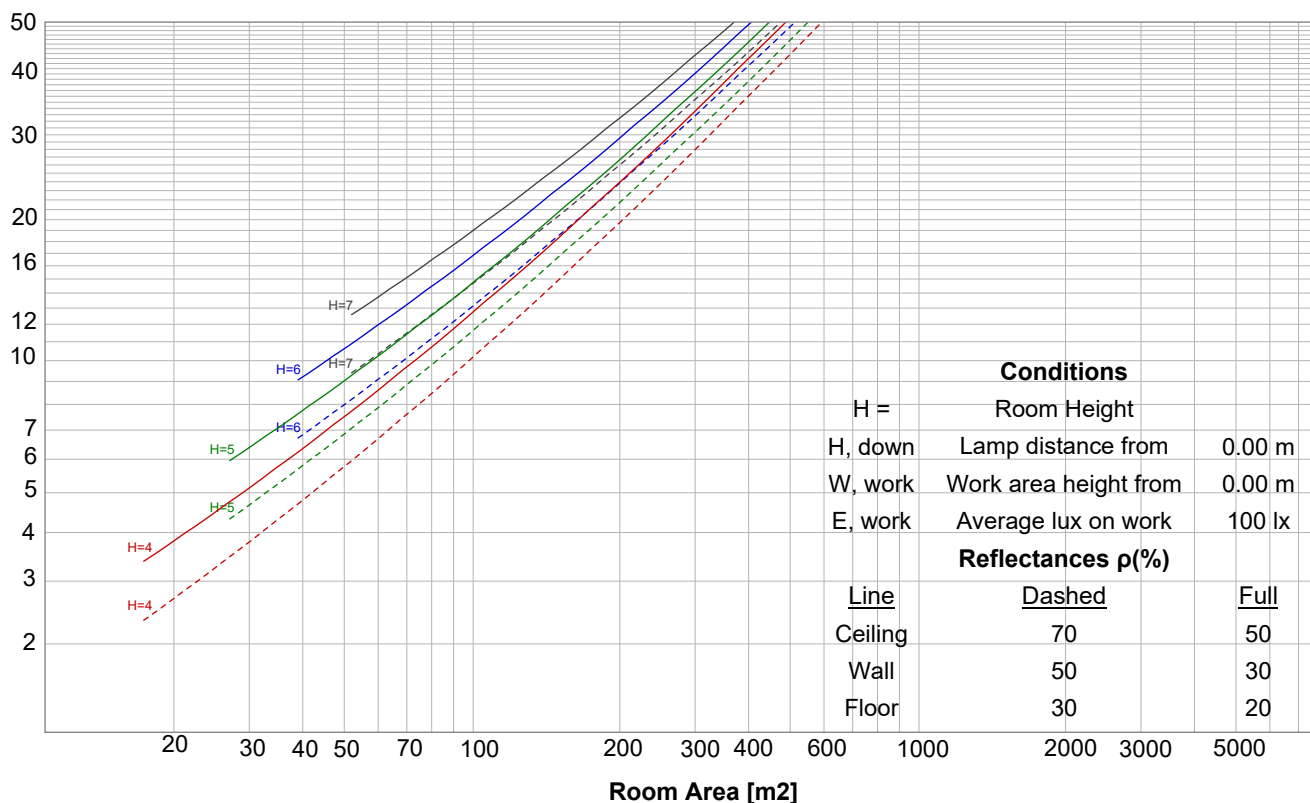
Light measurement results

Beam details



Luminaire budgetary diagram

LAMPS (number of lamps)



Test report

Light measurement results

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
426	107	47	27	17	12	9	7	5	4	4	3	3	2	2	2	1	1	1	1	lux
39.6	9.9	4.4	2.5	1.6	1.1	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	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
426	426	422	414	403	388	370	350	325	298	268	235	199	163	126	89	58	34	17	8	cd
100%	100%	99%	97%	94%	91%	87%	82%	76%	70%	63%	55%	47%	38%	29%	21%	14%	8%	4%	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
426	426	422	414	403	388	370	350	325	298	268	235	199	163	126	89	58	34	17	8	cd
100%	100%	99%	97%	94%	91%	87%	82%	76%	70%	63%	55%	47%	38%	29%	21%	14%	8%	4%	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
426	426	422	414	403	388	370	350	325	298	268	235	199	163	126	89	58	34	17	8	cd
100%	100%	99%	97%	94%	91%	87%	82%	76%	70%	63%	55%	47%	38%	29%	21%	14%	8%	4%	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
426	426	422	414	403	388	370	350	325	298	268	235	199	163	126	89	58	34	17	8	cd
100%	100%	99%	97%	94%	91%	87%	82%	76%	70%	63%	55%	47%	38%	29%	21%	14%	8%	4%	2%	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	25.6	26.7	25.9	27.1	27.4	27.3	28.5	27.6	28.8	29.1	
	3H	26.6	27.8	27.0	28.2	28.4	28.8	30.0	29.2	30.3	30.6	
	4H	27.0	28.1	27.4	28.5	28.8	29.4	30.6	29.9	30.9	31.3	
	6H	27.3	28.3	27.6	28.6	29.1	30.0	31.0	30.4	31.4	31.8	
	8H	27.3	28.3	27.7	28.7	29.2	30.2	31.2	30.6	31.6	32.1	
	12H	27.3	28.3	27.8	28.7	29.2	30.4	31.4	30.8	31.7	32.3	
4H	2H	26.1	27.3	26.6	27.7	28.0	27.5	28.7	28.0	29.1	29.4	
	3H	27.5	28.4	27.9	28.8	29.3	29.3	30.3	29.7	30.7	31.2	
	4H	27.9	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	29.5	29.9	30.6	31.4	31.1	31.8	32.3	
	8H	28.3	29.0	28.8	29.5	29.9	30.8	31.6	31.3	32.0	32.5	
	12H	28.3	29.0	28.9	29.5	30.0	31.0	31.7	31.6	32.2	32.7	
8H	4H	28.1	28.9	28.7	29.3	29.8	30.0	30.8	30.6	31.2	31.7	
	6H	28.5	29.1	29.1	29.7	30.3	30.7	31.3	31.3	31.9	32.5	
	8H	28.7	29.2	29.3	29.8	30.5	31.0	31.6	31.6	32.2	32.8	
	12H	28.8	29.3	29.4	29.8	30.5	31.3	31.8	32.0	32.4	33.0	
12H	4H	28.1	28.8	28.6	29.3	29.8	30.0	30.6	30.5	31.1	31.7	
	6H	28.6	29.1	29.2	29.7	30.4	30.7	31.3	31.3	31.9	32.6	
	8H	28.8	29.2	29.4	29.8	30.5	31.0	31.5	31.7	32.1	32.7	
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					0.9 / -1.0				

UGR-Daten konnten aufgrund fehlender/falscher Symmetrie nicht berechnet werden. Gehen Sie zu Bearbeiten -> Photometrisch ->

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	118.2	118.2	118.2	118.2	115.0	115.0	115.0	115.0	109.1	109.1	109.1	103.7	103.7	103.7	98.7	98.7	98.7	96.4
1	107.4	102.4	98.0	93.9	104.3	99.8	95.7	92.1	94.9	91.5	88.5	90.3	87.6	85.1	86.1	84.0	82.0	79.6
2	97.4	89.0	81.9	76.0	94.4	86.7	80.3	74.8	82.6	77.2	72.5	78.8	74.3	70.3	75.2	71.5	68.2	65.9
3	88.7	77.9	69.6	62.9	85.8	76.0	68.3	62.1	72.5	65.9	60.5	69.3	63.7	59.0	66.2	61.6	57.6	55.2
4	81.1	68.9	59.9	53.1	78.5	67.3	59.0	52.5	64.3	57.1	51.4	61.5	55.3	50.3	58.9	53.6	49.2	46.9
5	74.5	61.4	52.3	45.6	72.1	60.1	51.5	45.1	57.5	50.0	44.3	55.1	48.6	43.5	52.9	47.2	42.7	40.4
6	68.7	55.2	46.1	39.6	66.5	54.0	45.5	39.3	51.9	44.3	38.7	49.8	43.1	38.0	47.9	42.0	37.4	35.2
7	63.6	50.0	41.1	34.9	61.6	49.0	40.6	34.6	47.1	39.6	34.1	45.3	38.6	33.6	43.7	37.7	33.1	31.1
8	59.2	45.5	36.9	31.0	57.4	44.7	36.5	30.8	43.0	35.7	30.4	41.5	34.9	30.0	40.1	34.1	29.6	27.6
9	55.2	41.7	33.4	27.9	53.6	41.0	33.1	27.7	39.6	32.4	27.3	38.2	31.7	27.0	37.0	31.0	26.7	24.8
10	51.8	38.5	30.5	25.2	50.3	37.8	30.2	25.1	36.6	29.6	24.8	35.4	29.0	24.5	34.3	28.4	24.2	22.4

Test report

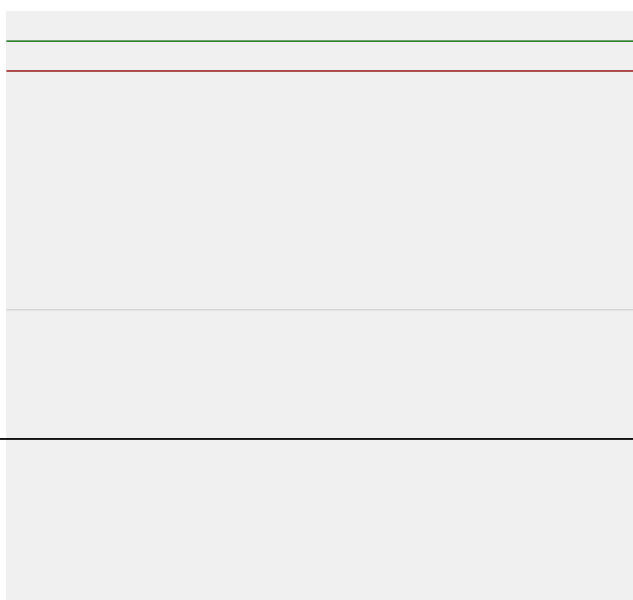
Light measurement results

Power details

Input power

Frequency of input power	0 Hz
Power feed to light source	19.7 W
RMS Input voltage feed V_{RMS}	24.0 V
RMS Input current feed I_{RMS}	0.825 A
Volt-Amp or apparent power = $V_{RMS} \cdot I_{RMS}$	19.79 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 29.0%

Lumen efficiency 68 lm/W

Stabilization details

Warmup Conditions

Stable period	3 Min	CCT start	14510 K
Stable change max	2.0%	CCT shift	+675 K
Minimum time	3 Min	CCT end	15185 K

Color Temperature Change

Warmup Result

Total warmup time	Lampe	Output start	1331 lm
Warmup variation	+0.5%	Output change	+6 lm
		Output end	1336 lm

Output Change

Stabilization Curve

