

Test report

Light measurement results

Laboratory and Equipment

Test lab
Spectrometer Manufacturer and Model
Measurement date

Viso LightSpion - Seriennummer: 1435906163 Sensorseriennumm
LightSpion – Type C, horizontal
24.09.2026

Measurement Conditions

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

4 planes – 90.00°
3.00°
12.8 W
24 V – 0.53 A

Tested Light Source

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

NEON FLEX 3D 1616 RGB 24V 12W 1m 260716
ANF3D1616RGB
awLed by audiowerk GmbH
1000mm
16mm x 16mm | 16mm x 16mm
Charge: 260716

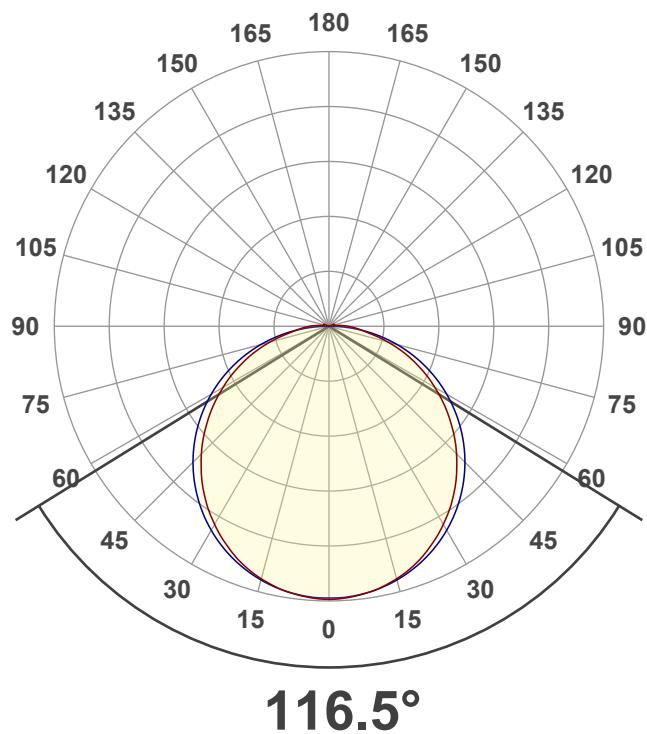
Main Light Measurement Results

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

335.9 lm – 1.079% / 98.92%
26.25 lm/W
109.1 cd
10519 K
CRI 46.6
G

Polar light distribution diagram

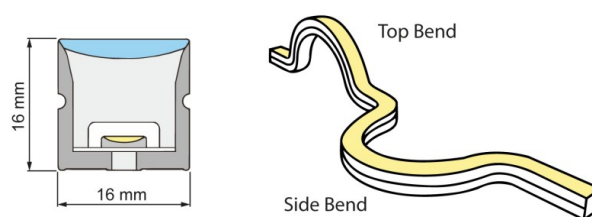
Unit: 0-100% of peak intensity



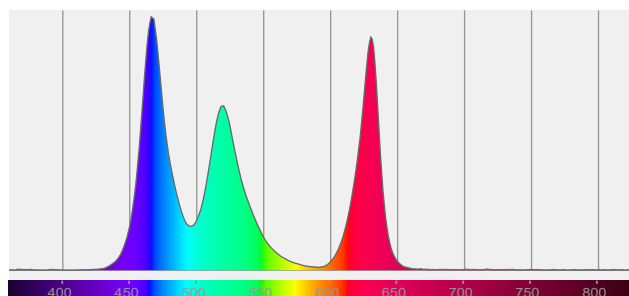
— C0 - C180
— C90 - C270

$\eta = 100\%$

Product photo

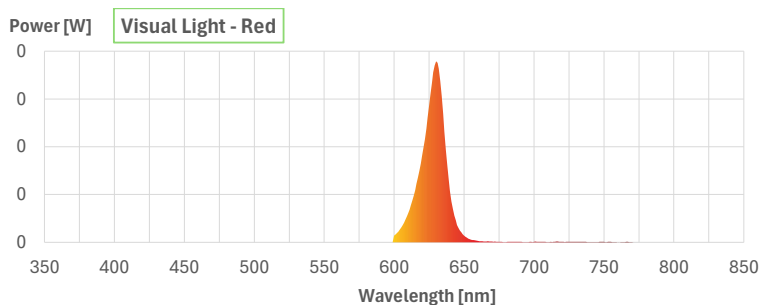


Spectral power distribution



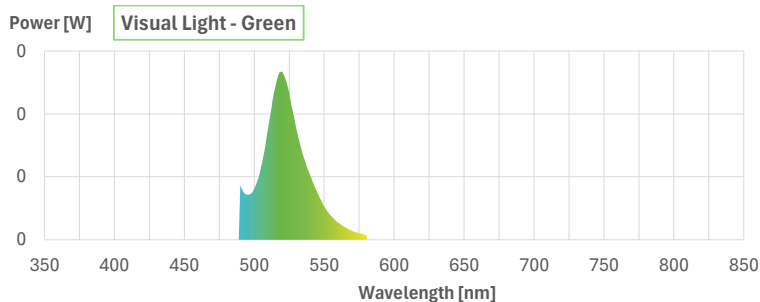
Light output 1 - LED Red:

Peak wavelength	630 nm
Output – Total Lumen	82 lm
Efficiency	16.17 lm/W
Input Power	5.08 W
Input RMS Voltage	24.00 V
Input RMS Current	0.21 A



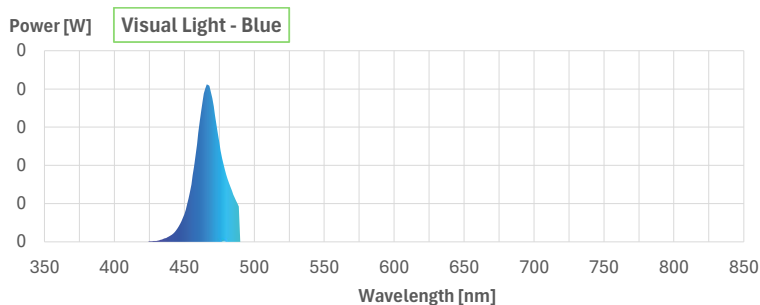
Light output 2 - LED Green:

Peak wavelength	520 nm
Output – Total Lumen	221 lm
Efficiency	47.87 lm/W
Input Power	4.62 W
Input RMS Voltage	24.00 V
Input RMS Current	0.19 A



Light output 3 - LED Blue:

Peak wavelength	466 nm
Output – Total Lumen	41 lm
Efficiency	8.63 lm/W
Input Power	4.81 W
Input RMS Voltage	24.00 V
Input RMS Current	0.20 A

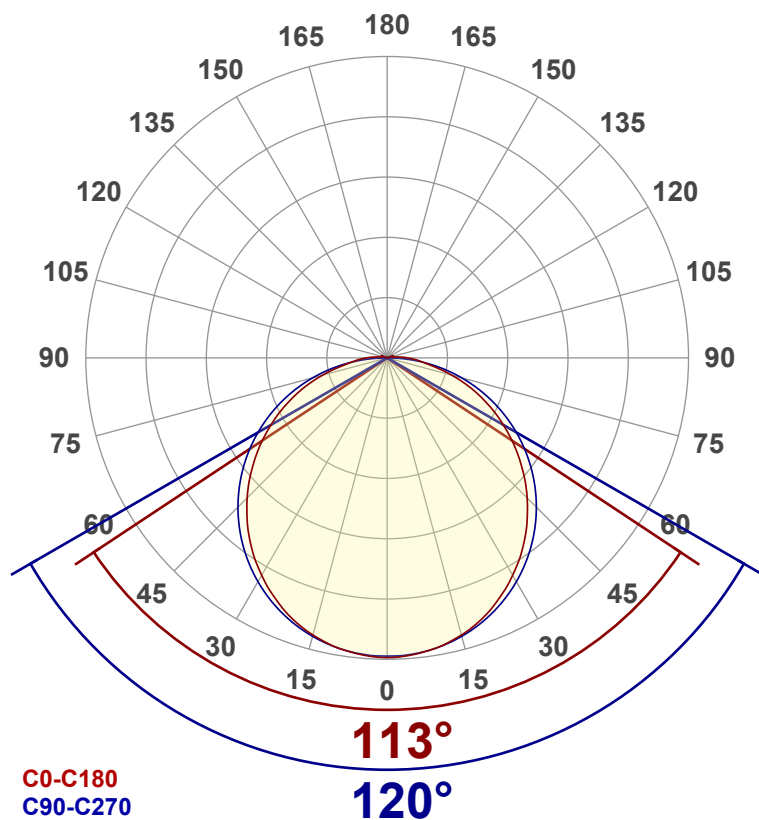


Test report

Light measurement results

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	335.9 lm
Lumen Up% / Down%	1.079% / 98.92%
Peak Intensity	109.1 cd
Beam Angle (50%-FWHM)	116.5°

EU Ecodesign parameters

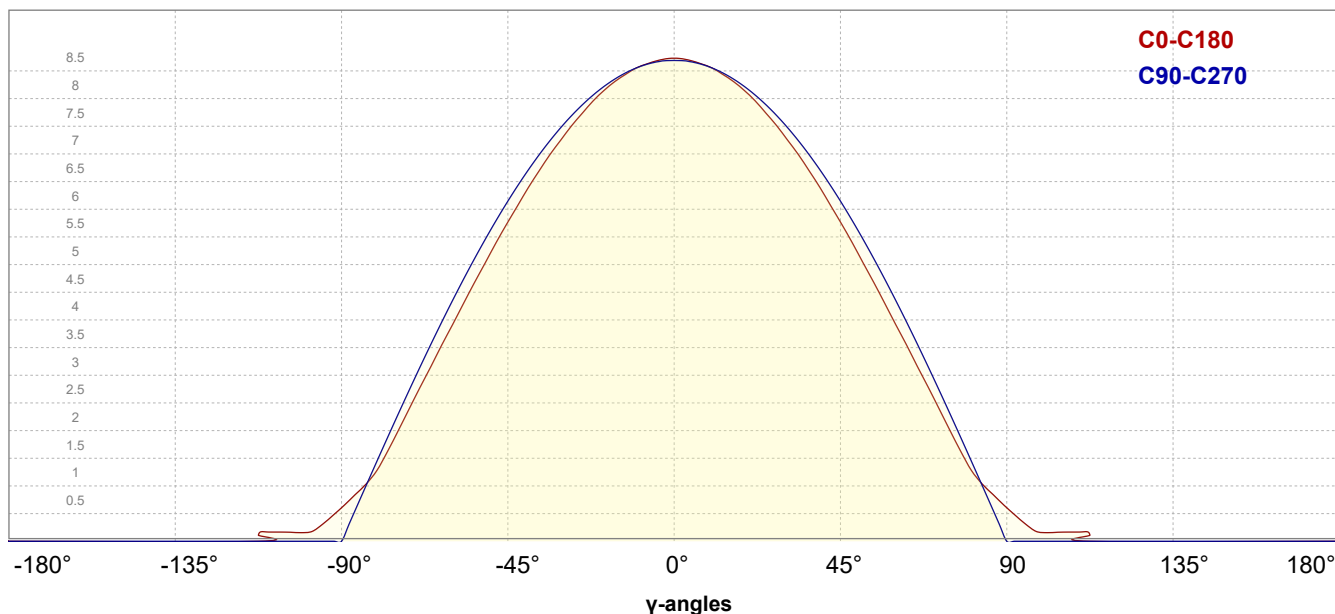
Directionality (DLS or NDLS)	NDLS
Ecodesign Useful Luminous Flux	335.9 lm
Ecodesign Energy Class	G

Intensity Ratio

In 120° cone	74.45%
In 90° cone	50.08%

Linear distribution diagram

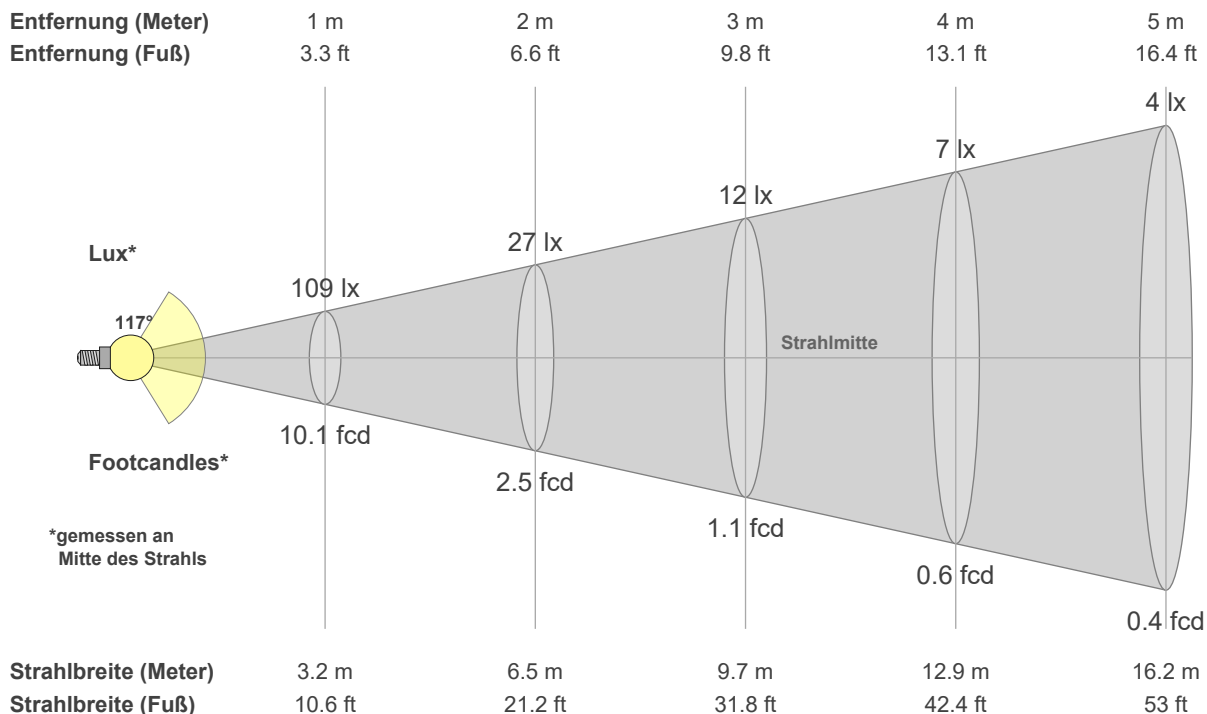
Intensity [cd]



Test report

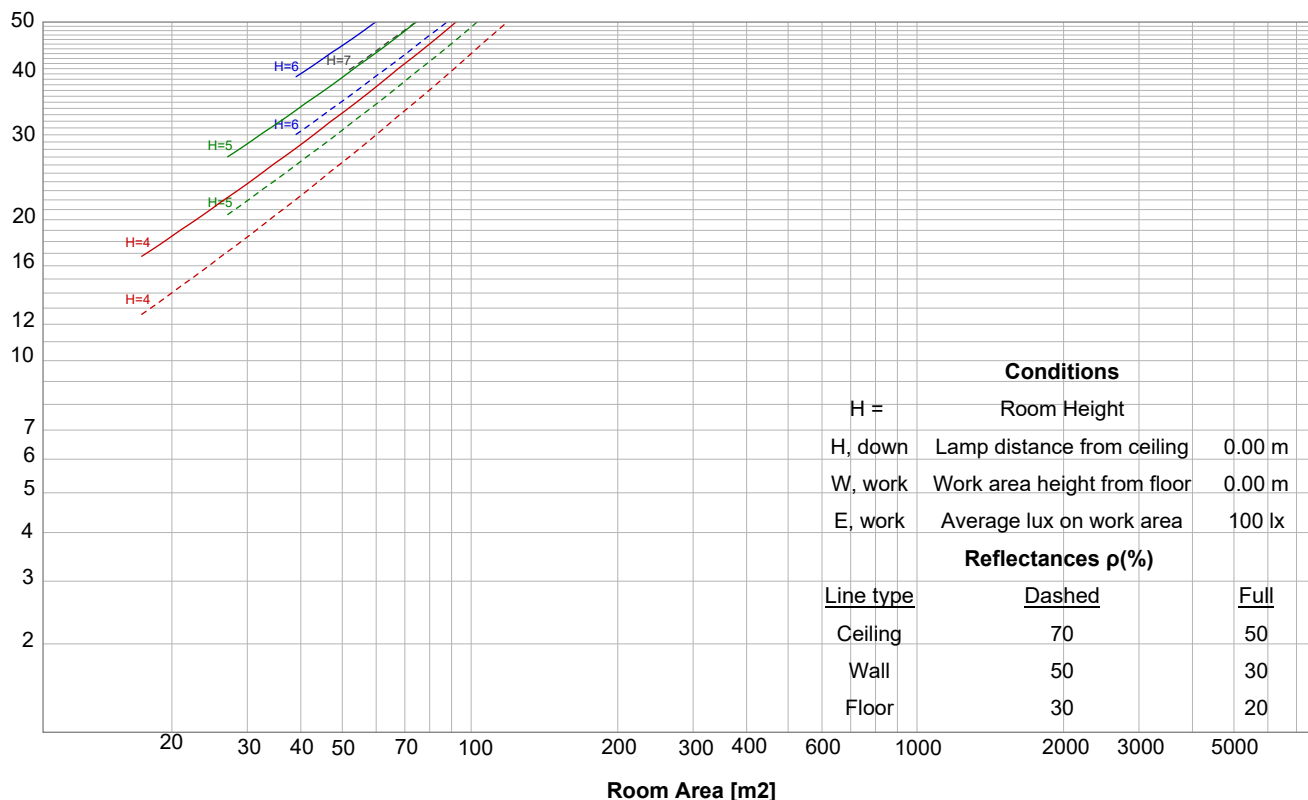
Light measurement results

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
109	27	12	7	4	3	2	2	1	1	1	1	1	1	0	0	0	0	0	0	lux
10.1	2.5	1.1	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	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
109	108	107	104	101	97	91	86	79	72	65	57	49	41	33	24	17	12	8	4	cd
100%	100%	98%	96%	93%	89%	84%	79%	73%	66%	59%	52%	45%	38%	30%	22%	15%	11%	7%	4%	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
109	108	107	105	102	98	94	89	83	77	70	62	54	46	37	28	19	9	0	0	cd
100%	99%	98%	96%	94%	90%	86%	82%	76%	71%	64%	57%	50%	42%	34%	26%	17%	9%	0%	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
109	108	107	104	101	97	91	86	79	72	65	57	49	41	33	24	17	12	8	4	cd
100%	100%	98%	96%	93%	89%	84%	79%	73%	66%	59%	52%	45%	38%	30%	22%	15%	11%	7%	4%	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
109	108	107	105	102	98	94	89	83	77	70	62	54	46	37	28	19	9	0	0	cd
100%	99%	98%	96%	94%	90%	86%	82%	76%	71%	64%	57%	50%	42%	34%	26%	17%	9%	0%	0%	of 0°val

Test report

Light measurement results

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		15.9	17.2	16.2	17.5	17.7	18.0	19.2	18.3	19.6	19.8
	3H		17.1	18.3	17.5	18.6	18.9	19.7	21.0	20.2	21.3	21.5
	4H		17.5	18.7	17.9	19.0	19.3	20.5	21.8	21.0	22.1	22.3
	6H		17.9	19.0	18.2	19.3	19.7	21.3	22.4	21.6	22.6	23.0
	8H		18.0	19.0	18.3	19.4	19.8	21.5	22.6	21.9	22.9	23.3
	12H		18.0	19.1	18.4	19.4	19.9	21.7	22.7	22.1	23.1	23.5
4H	2H		16.6	17.9	17.1	18.1	18.4	18.3	19.5	18.7	19.8	20.1
	3H		18.1	19.1	18.4	19.4	19.9	20.3	21.3	20.7	21.6	22.1
	4H		18.5	19.5	19.0	19.9	20.5	21.1	22.0	21.6	22.5	23.0
	6H		18.9	19.8	19.5	20.2	20.6	21.9	22.8	22.4	23.1	23.5
	8H		19.1	19.9	19.6	20.3	20.7	22.2	23.0	22.7	23.4	23.8
	12H		19.2	19.9	19.7	20.3	20.8	22.4	23.1	22.9	23.5	24.0
8H	4H		18.9	19.7	19.4	20.1	20.5	21.2	22.0	21.7	22.4	22.8
	6H		19.4	20.1	19.9	20.5	21.1	22.1	22.7	22.6	23.2	23.8
	8H		19.6	20.2	20.2	20.7	21.4	22.5	23.0	23.0	23.5	24.2
	12H		19.8	20.3	20.4	20.8	21.4	22.8	23.2	23.3	23.7	24.4
12H	4H		18.9	19.6	19.4	20.0	20.5	21.2	21.9	21.7	22.3	22.8
	6H		19.5	20.1	20.0	20.6	21.3	22.1	22.7	22.6	23.2	23.9
	8H		19.8	20.2	20.4	20.7	21.4	22.5	23.0	23.1	23.5	24.1
Variations with the observer position for the luminaire spacings, S:												
S = 1.0H			0.1 / -0.2					0.1 / -0.1				
S = 1.5H			0.2 / -0.4					0.4 / -0.4				
S = 2.0H			0.5 / -0.8					0.9 / -0.9				

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	118.8	118.8	118.8	118.8	115.9	115.9	115.9	115.9	110.5	110.5	110.5	105.6	105.6	105.6	101.0	101.0	101.0	98.9
1	107.5	102.3	97.7	93.5	104.6	99.9	95.7	91.9	95.4	92.0	88.7	91.3	88.5	85.8	87.5	85.2	83.1	80.8
2	97.4	88.6	81.4	75.3	94.6	86.6	79.9	74.3	82.8	77.2	72.4	79.3	74.6	70.5	76.1	72.2	68.8	66.5
3	88.5	77.4	68.9	62.1	85.8	75.7	67.8	61.4	72.6	65.8	60.2	69.6	63.8	59.0	66.9	62.0	57.8	55.5
4	80.8	68.4	59.3	52.3	78.4	67.0	58.4	51.9	64.3	56.9	51.0	61.8	55.4	50.2	59.4	53.9	49.4	47.1
5	74.2	61.0	51.7	44.8	72.0	59.7	51.0	44.5	57.5	49.8	43.9	55.3	48.6	43.3	53.4	47.5	42.7	40.5
6	68.5	54.8	45.6	39.0	66.5	53.8	45.1	38.8	51.8	44.1	38.3	50.0	43.1	37.9	48.3	42.2	37.4	35.3
7	63.4	49.6	40.6	34.3	61.6	48.7	40.2	34.2	47.1	39.4	33.8	45.5	38.6	33.5	44.0	37.9	33.2	31.1
8	59.0	45.2	36.5	30.5	57.4	44.5	36.2	30.4	43.0	35.5	30.1	41.7	34.9	29.9	40.4	34.2	29.6	27.7
9	55.1	41.5	33.1	27.4	53.6	40.8	32.8	27.3	39.6	32.2	27.1	38.4	31.7	26.9	37.3	31.2	26.7	24.8
10	51.7	38.2	30.2	24.8	50.3	37.7	29.9	24.7	36.6	29.5	24.6	35.6	29.0	24.4	34.6	28.6	24.2	22.4

Test report

Light measurement results

Power details

Input power

Frequency of input power	0.0 Hz
Power feed to light source	12.8 W
RMS Input voltage feed V _{RMS}	24 V
RMS Input current feed I _{RMS}	0.53 A
Volt-Amp or apparent power = V _{RMS} *I _{RMS}	12.8 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 10.53

Lumen efficiency 26.25 lm/W

Stabilization details

Warmup Conditions

Stable period	3 Min	CCT start	10316 K
Stable change max	5%	CCT shift	203 K
Minimum time	3 Min	CCT end	10519 K

Color Temperature Change

Warmup Result

Total warmup time	Lampe stabilisiert in	Output start	339.4 lm
Warmup variation	-1.1964%	Output change	-3.4623 lm
		Output end	335.9 lm

Output Change

Stabilization Curve

