Prudential Lighting

Light measurement results

Print date 8/14/2026

Laboratory and Equipment

Test lab	Viso LabSpion - serial: 2435469709 sensor serial: 0895736217 - T
Spectrometer Manufacturer and Model	LabSpion – Type C, horizontal
Measurement date	8/14/2026

Measurement Conditions

Tested c-planes	72 planes – 5.00°
Tested gamma resolution	1.00°
Input Power	32.53 W

Tested Light Source

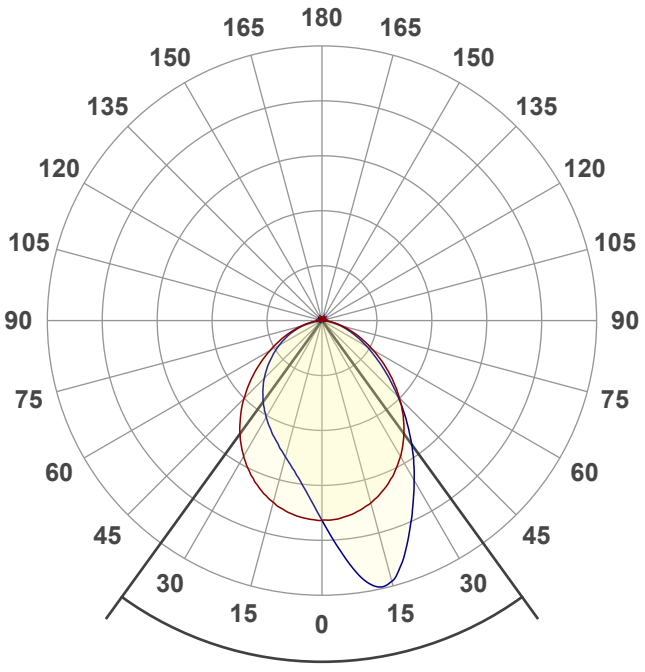
Luminaire	BPRO2-LIN-FLSH-LED35-SO-04-WWF-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	3327 lm – 2.024% / 97.98%
Efficiency	102.3 lm/W
Peak Intensity	1951 cd
Correlated Color Temperature, CCT	3462 K
Color Rendering Index	CRI 84.1

Polar light distribution diagram

Unit: 0-100% of peak intensity



71.8°

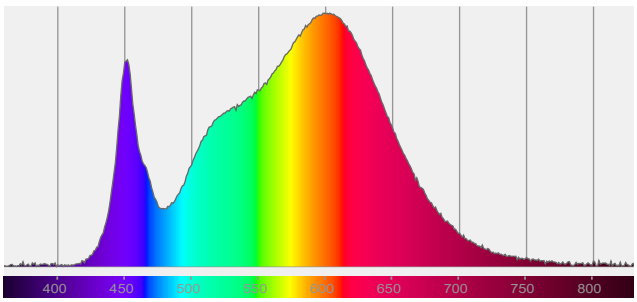
C0 - C180
C90 - C270

η = 100%

Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	1427 cd	1427 cd	1427 cd	1427 cd	1427 cd
5°	1421 cd	1511 cd	1596 cd	1653 cd	1673 cd
15°	1349 cd	1618 cd	1830 cd	1869 cd	1928 cd
25°	1212 cd	1565 cd	1620 cd	1497 cd	1525 cd
35°	1019 cd	1328 cd	1242 cd	1115 cd	1128 cd
45°	782.8 cd	999.9 cd	900.5 cd	774.9 cd	768.2 cd
55°	538.7 cd	677.6 cd	605 cd	493.2 cd	480.4 cd
65°	319 cd	397.2 cd	355.7 cd	280.7 cd	275.6 cd
75°	150.9 cd	185.2 cd	166.7 cd	132.6 cd	131.1 cd
85°	34.42 cd	39.67 cd	39.22 cd	34.01 cd	36.99 cd
90°	7.391 cd	7.551 cd	6.294 cd	5.062 cd	2.357 cd

Spectral power distribution



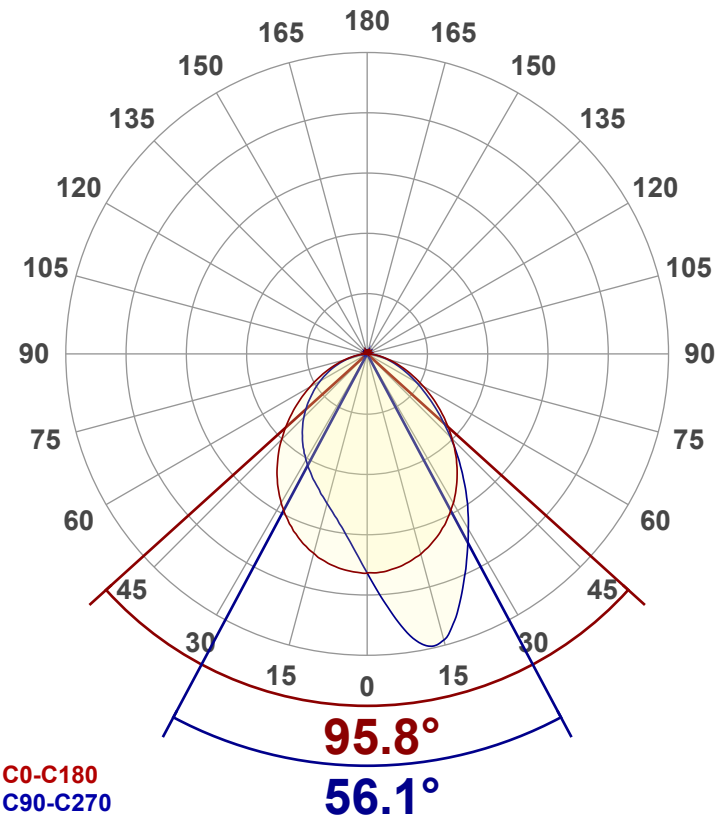
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Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	3327 lm
Lumen Up% / Down%	2.024% / 97.98%
Peak Intensity	1951 cd
Beam Angle (50%-FWHM)	71.8°

EU Ecodesign parameters

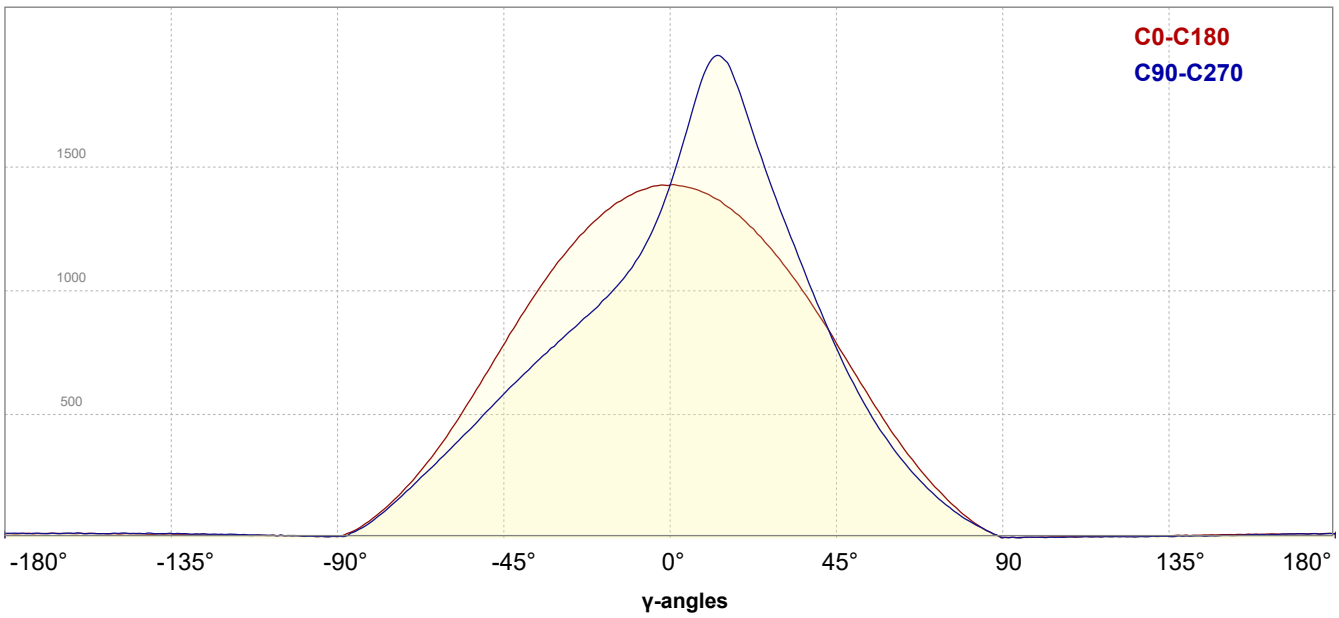
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous Flux	2748 lm
Ecodesign Energy Class	F

Intensity Ratio

In 120° cone	82.61%
In 90° cone	60.56%

Linear distribution diagram

Intensity [cd]

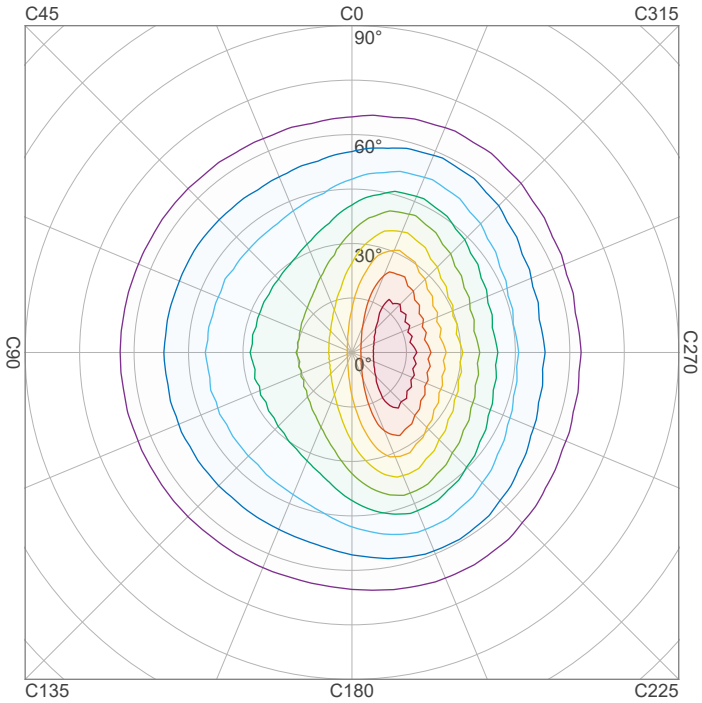


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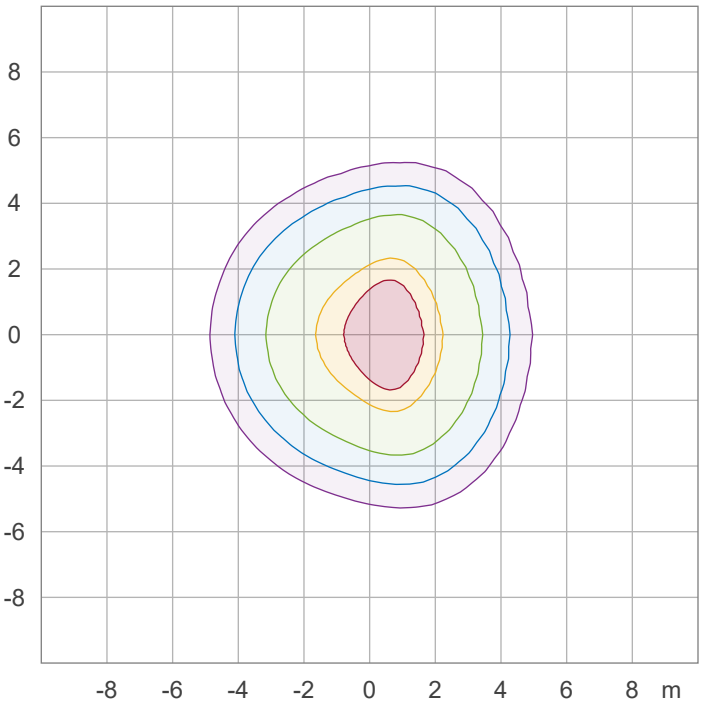
Iso-intensity Diagram (Iso-candela)



90 %	1755.0 cd
80 %	1560.0 cd
70 %	1365.0 cd
60 %	1170.0 cd
50 %	975.0 cd
40 %	780.0 cd
30 %	585.0 cd
20 %	390.0 cd
10 %	195.0 cd

Peak intensity: 1950.0 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	101 lx
30.0 %	60.8 lx
10.0 %	20.3 lx
5.0 %	10.1 lx
3.0 %	6.08 lx

Peak illuminance: 203 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

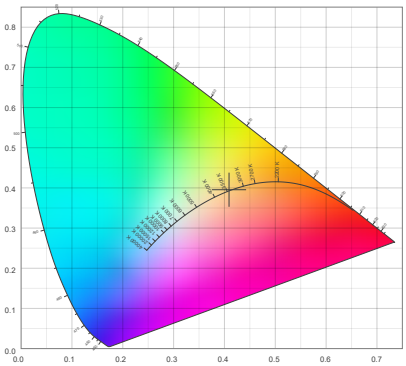
Light measurement results

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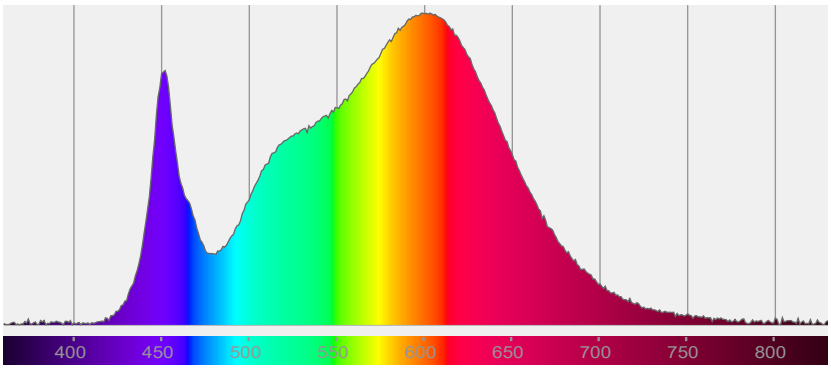
Color details

Correlated Color Temperature, Target	CCT = 3462 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3462 K	Color deviation from BBL	Duv = 0.0013
Color Rendering Index	CRI 84.1	Color coordinates CIE 1931	(x;y) = (0.4090;0.3955)
Color Rendering Index, R9 (red)	R9 = 10.7	Color coordinate CIEs 1960	(u;v) = (0.2362;0.3425)
Color Rendering TM30-18	Rf 85.5	Color coordinate CIEs 1976	(u';v') = (0.2362;0.5138)
	Rg 95.5	Color Quality Scale	CQS = 84.0

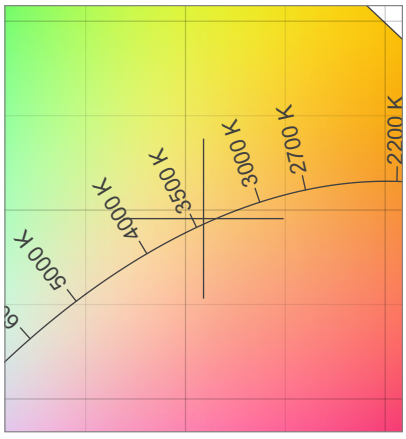
CIE 1931 Chromaticity diagram



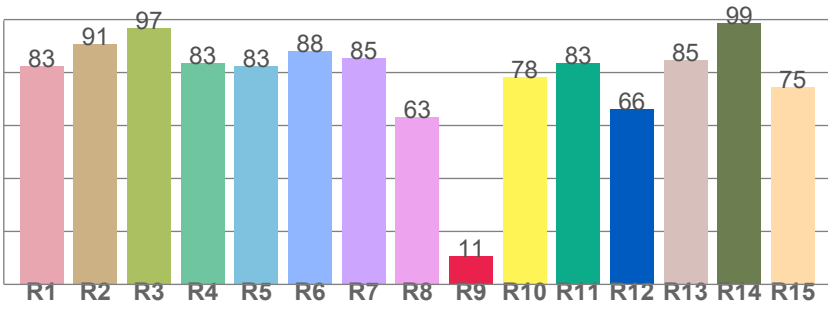
Spectral power distribution



CIE 1931 Chromaticity - zoomed



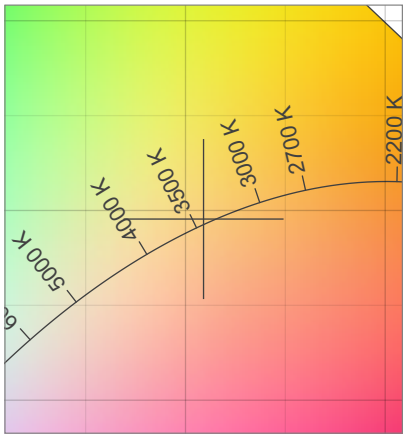
Color Rendering Index per reference color (CIE 1995)



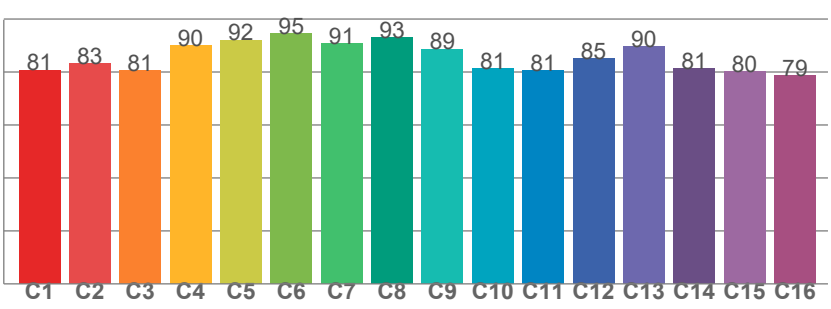
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.6	90.6	96.8	83.4	82.6	88.1	85.4	63.3	10.7	78.3	83.5	66.3	84.6	98.6	74.6

CIE 1931 Chromaticity - SDCM



TM30-18 Rf-values per hue bin



TM30-18 Rf-values per hue bin

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80.8	83.2	80.7	89.9	92.1	94.5	90.9	93.0	88.7	81.3	80.7	85.0	89.6	81.4	80.2	78.7

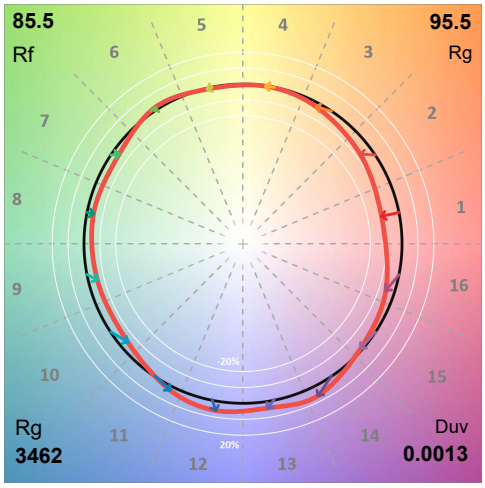
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Color details - ANSI/IES TM-30-18 Color Rendition Report

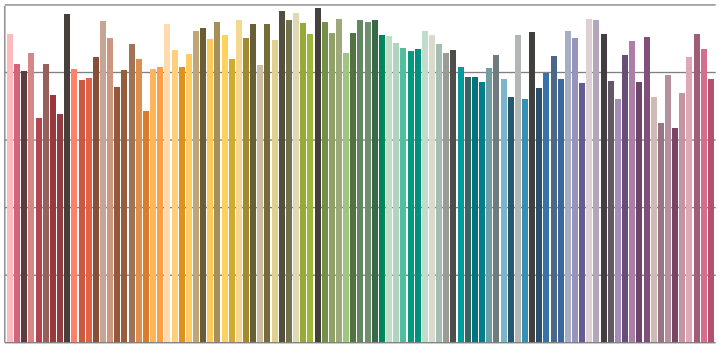
Color Vector Graphic



Color Distortion Graphic

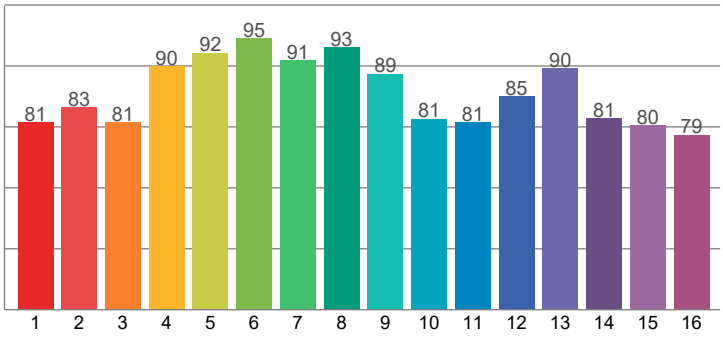


Color Rendition by Color Evaluation Sample (CES)



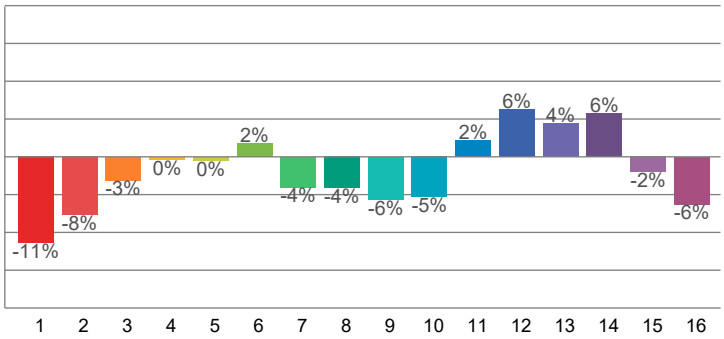
Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



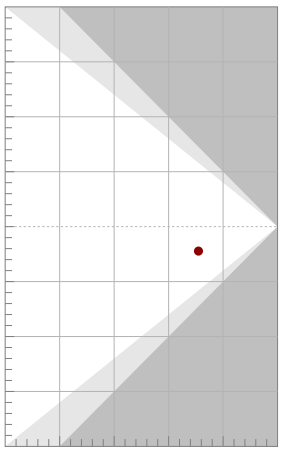
Hue angle bin (j)

Local Chroma Shift (per hue bin)



Hue angle bin (j)

Gamut Index vs. Fidelity Index



Gamut index (Rg)

Fidelity index (Rf)

CIE x	0.4090
CIE y	0.4090
CIE u'	0.2362
CIE v'	0.5138

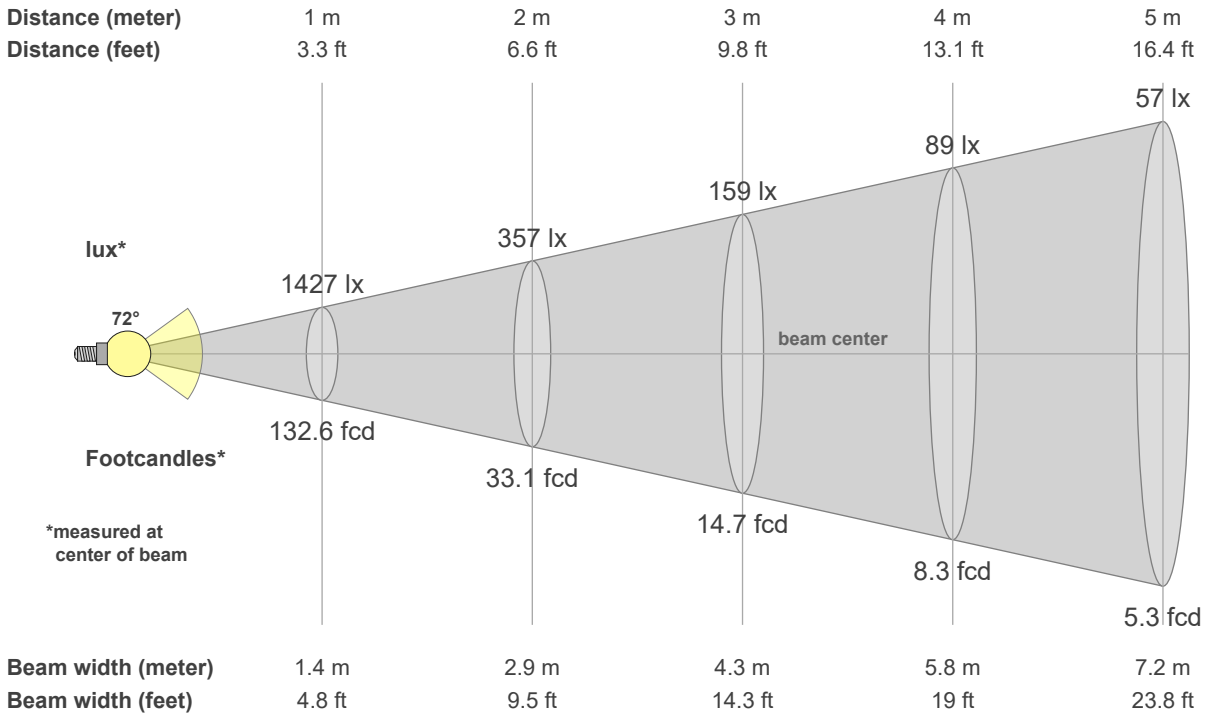
CIE	13.3-1995
Ra	84.1
R9	10.7

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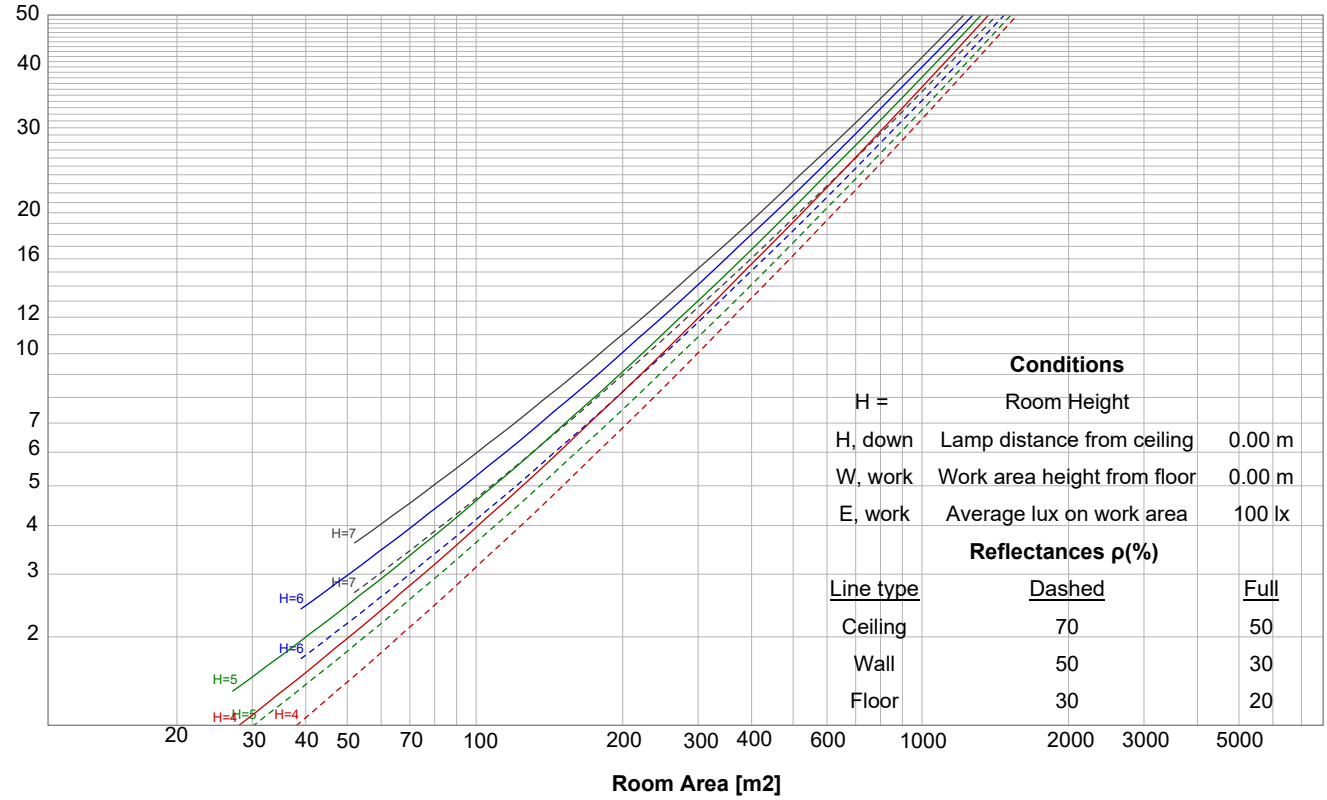
Print date 8/14/2026

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
1427	357	159	89	57	40	29	22	18	14	12	10	8	7	6	6	5	4	4	4	lux
132.6	33.1	14.7	8.3	5.3	3.7	2.7	2.1	1.6	1.3	1.1	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.3	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
1427	1421	1392	1349	1287	1212	1122	1019	905	783	660	539	422	319	228	151	86	34	7	7	cd
100%	100%	98%	95%	90%	85%	79%	71%	63%	55%	46%	38%	30%	22%	16%	11%	6%	2%	1%	0%	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
1427	1673	1903	1928	1748	1525	1318	1128	942	768	615	480	370	276	197	131	77	37	2	2	cd
100%	117%	133%	135%	122%	107%	92%	79%	66%	54%	43%	34%	26%	19%	14%	9%	5%	3%	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
1427	1418	1392	1345	1285	1209	1120	1019	907	787	666	544	429	327	236	156	89	35	4	4	cd
100%	99%	97%	94%	90%	85%	78%	71%	64%	55%	47%	38%	30%	23%	17%	11%	6%	2%	0%	0%	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
1427	1236	1102	1009	931	863	797	729	657	583	507	428	353	279	207	139	76	29	7	7	cd
100%	87%	77%	71%	65%	60%	56%	51%	46%	41%	36%	30%	25%	20%	14%	10%	5%	2%	1%	1%	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 = mouting height above eye level		(Viewing direction orthogonal to lamp length axis)					(Viewing direction parallel to lamp length axis)				
X	**Y**										
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Variations with the observer position for the luminaire spacings, S:											
n/a		n/a					n/a				
n/a		n/a					n/a				
n/a		n/a					n/a				

UGR data could not be calculated due to missing light source dimensions. Go to Edit -> Photometric -> Dimensions and set the source dimensions.

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	118.6	118.6	118.6	118.6	115.6	115.6	115.6	115.6	110.0	110.0	110.0	104.9	104.9	104.9	100.2	100.2	100.2	98.0
1	109.3	105.0	101.1	97.6	106.4	102.5	99.0	95.8	98.0	95.1	92.4	93.7	91.4	89.3	89.9	88.0	86.3	84.1
2	100.3	92.7	86.4	81.2	97.5	90.7	84.9	80.0	86.8	82.0	77.9	83.3	79.3	75.9	80.1	76.8	73.9	71.7
3	92.1	82.3	74.8	68.7	89.5	80.6	73.6	68.0	77.4	71.5	66.6	74.4	69.4	65.2	71.7	67.5	63.8	61.7
4	84.8	73.6	65.4	59.2	82.4	72.2	64.5	58.6	69.5	62.9	57.6	67.0	61.3	56.7	64.6	59.8	55.7	53.6
5	78.4	66.3	57.9	51.6	76.2	65.1	57.2	51.3	62.8	55.9	50.5	60.7	54.6	49.8	58.7	53.4	49.1	47.1
6	72.7	60.1	51.7	45.6	70.7	59.1	51.1	45.3	57.1	50.0	44.8	55.3	49.0	44.2	53.6	48.0	43.7	41.7
7	67.6	54.8	46.5	40.7	65.8	53.9	46.1	40.5	52.2	45.2	40.0	50.7	44.3	39.6	49.2	43.5	39.2	37.3
8	63.1	50.3	42.2	36.6	61.5	49.5	41.8	36.4	48.0	41.1	36.1	46.7	40.4	35.8	45.4	39.7	35.5	33.6
9	59.1	46.3	38.5	33.2	57.7	45.7	38.2	33.1	44.4	37.6	32.8	43.2	37.0	32.5	42.1	36.4	32.3	30.5
10	55.6	42.9	35.3	30.3	54.2	42.3	35.1	30.2	41.2	34.6	30.0	40.2	34.1	29.7	39.2	33.6	29.5	27.8

Prudential Lighting

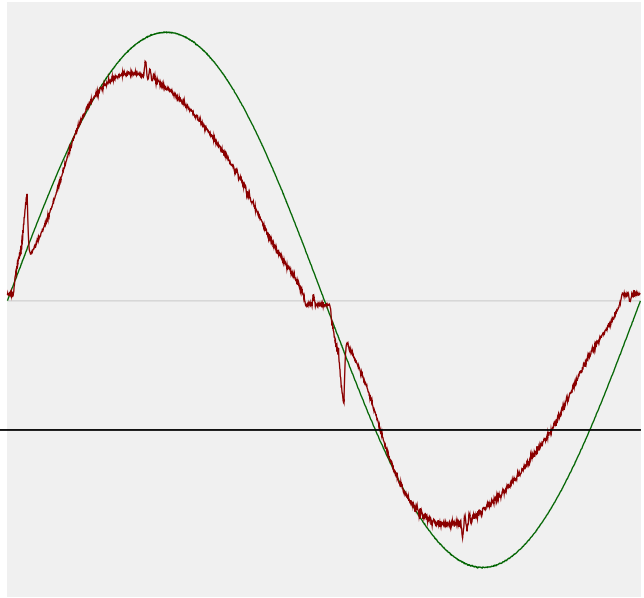
Light measurement results

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Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	32.53 W
RMS Input voltage feed V,RMS	120 V
RMS Input current feed I,RMS	0.28 A
Volt-Amp or apparent power = V,RMS*I,RMS	33.2 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.98
Total harmonic distortion of the current	11.08%
Total harmonic distortion of the voltage	0.0724%

Input power curve



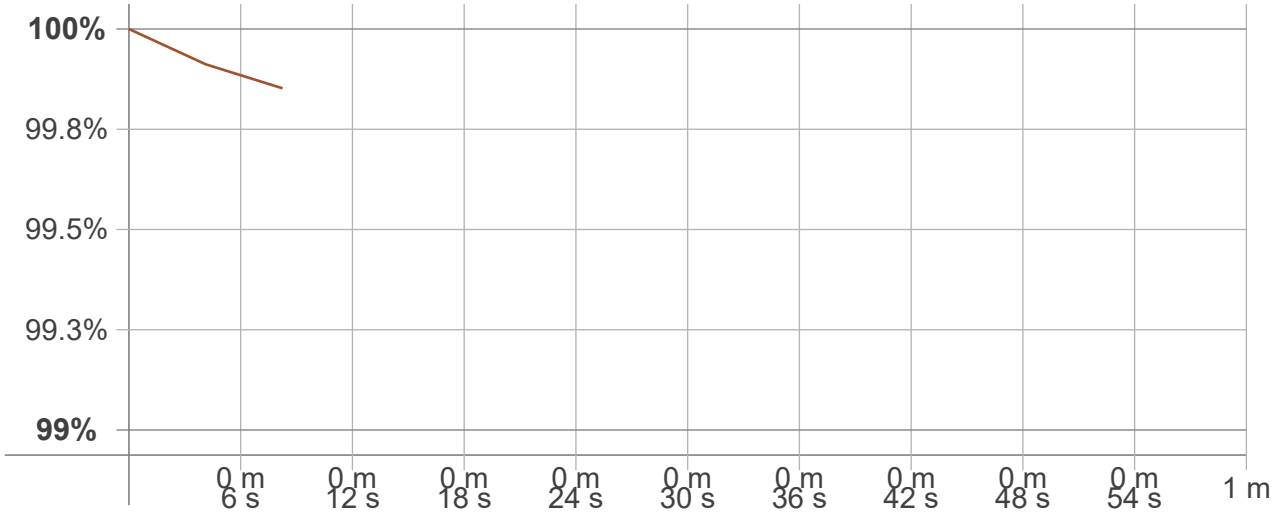
Efficiency

Radiated power efficiency	30.71
Lumen efficiency	102.3 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	3463 K
Stable change max	1%	CCT shift	-1 K
Minimum time	15 min	CCT end	3462 K
Warmup Result		**Output Change**	
Total warmup time	Not completed	Output start	3331 lm
Warmup variation	-0.1479%	Output change	-4.9264 lm
		Output end	3327 lm

Stabilization Curve



Prudential Lighting

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Flicker TLA details

Flicker Meter Type	Viso Systems LabFlicker
Frequency of input power	60.0 Hz
Flicker/TLA sample rate	NaN samples/s

Measurement time

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

Flicker indices according to Illuminating Engineering Society (IES)

Flicker frequency	NaN Hz
Percent Flicker	NaN %
Flicker index	NaN

TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC 61000-4-15)

PstLM value (F < 80 Hz)	NaN
SVM value (80 < F < 2000 Hz)	NaN

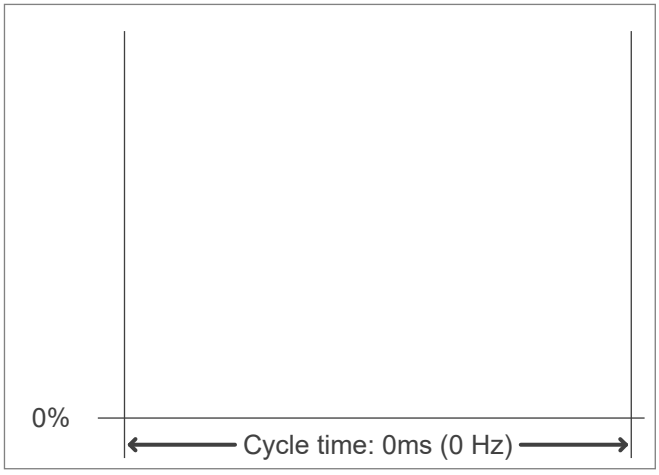
Flicker indices according to California Energy Commission (CEC) 2016b

JA8/10 40 Hz	NaN %
JA8/10 90 Hz	NaN %
JA8/10 200 Hz	NaN %
JA8/10 400 Hz	NaN %
JA8/10 1000 Hz	NaN %

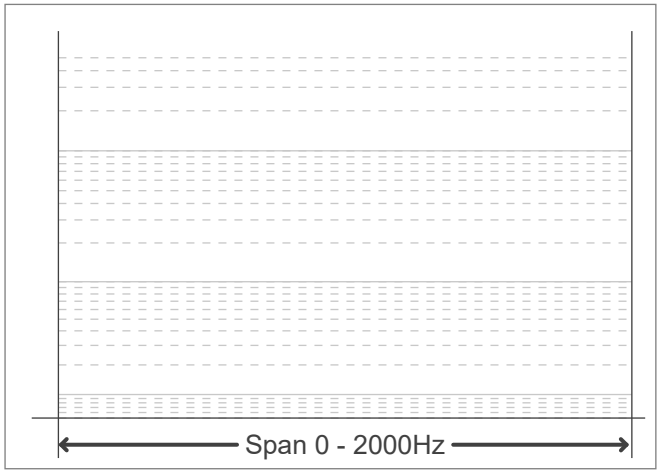
Flicker indices according to Lighting Research Center (2015)

Perception metric, Assist Mp	NaN

Flicker frame (frame of one flicker period in time domain)



Flicker FFT (flicker curve in frequency domain)



IEEE 1789 Frequency/modulation plot

