Prudential Lighting

Light measurement results

Print date 8/13/2026

Laboratory and Equipment

Test lab	Viso LabSpion - serial: 2435469709 sensor serial: 0895736217 - T
Spectrometer Manufacturer and Model	LabSpion – Type C, horizontal
Measurement date	8/3/2026

Measurement Conditions

Tested c-planes	72 planes – 5.00°
Tested gamma resolution	1.00°
Input Power	32.64 W

Tested Light Source

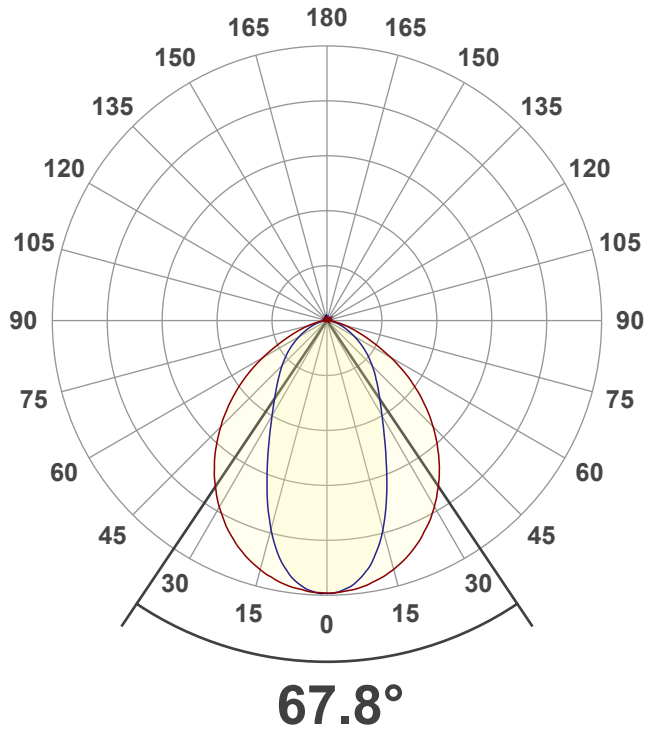
Luminaire	BPRO2-LIN-FLSH-LED35-SO-04-LGP-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	3709 lm – 3.589% / 96.41%
Efficiency	113.6 lm/W
Peak Intensity	2280 cd
Correlated Color Temperature, CCT	3439 K
Color Rendering Index	CRI 84.2

Polar light distribution diagram

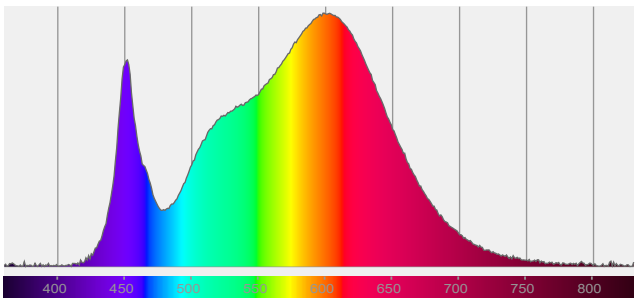
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	2277 cd	2277 cd	2277 cd	2277 cd	2277 cd
5°	2260 cd	2255 cd	2244 cd	2233 cd	2231 cd
15°	2151 cd	2102 cd	1982 cd	1857 cd	1806 cd
25°	1934 cd	1799 cd	1477 cd	1232 cd	1152 cd
35°	1630 cd	1384 cd	976.7 cd	804.4 cd	761.4 cd
45°	1254 cd	951.2 cd	645.7 cd	558.4 cd	534.4 cd
55°	836.5 cd	584.5 cd	410.7 cd	364 cd	349 cd
65°	411.1 cd	300.8 cd	224.5 cd	202.1 cd	190.9 cd
75°	158.8 cd	129.5 cd	103 cd	93.24 cd	88.16 cd
85°	34.93 cd	35.4 cd	30.93 cd	28.09 cd	26.4 cd
90°	7.005 cd	6.426 cd	5.59 cd	3.699 cd	2.896 cd

Spectral power distribution



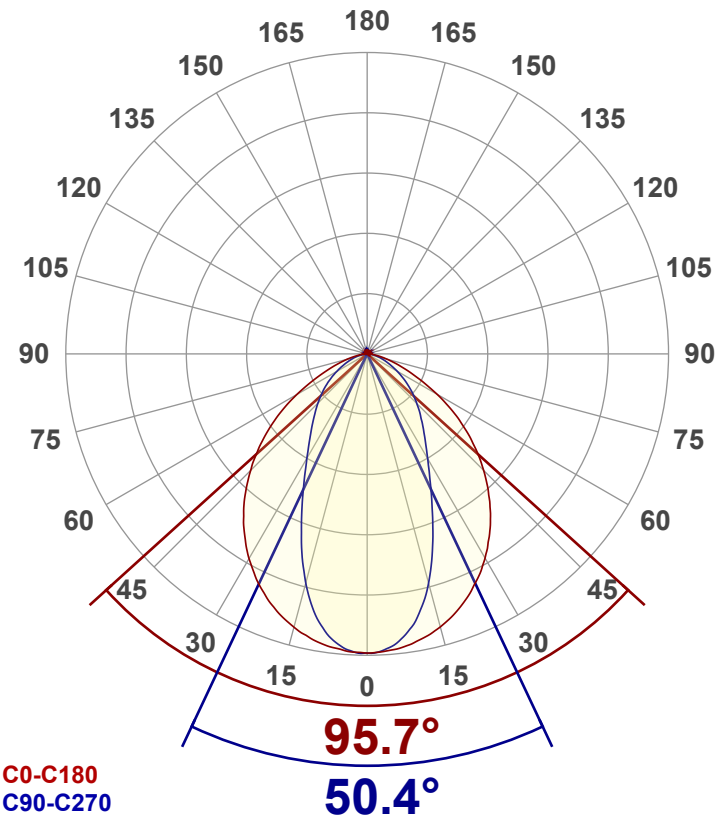
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Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	3709 lm
Lumen Up% / Down%	3.589% / 96.41%
Peak Intensity	2280 cd
Beam Angle (50%-FWHM)	67.8°

EU Ecodesign parameters

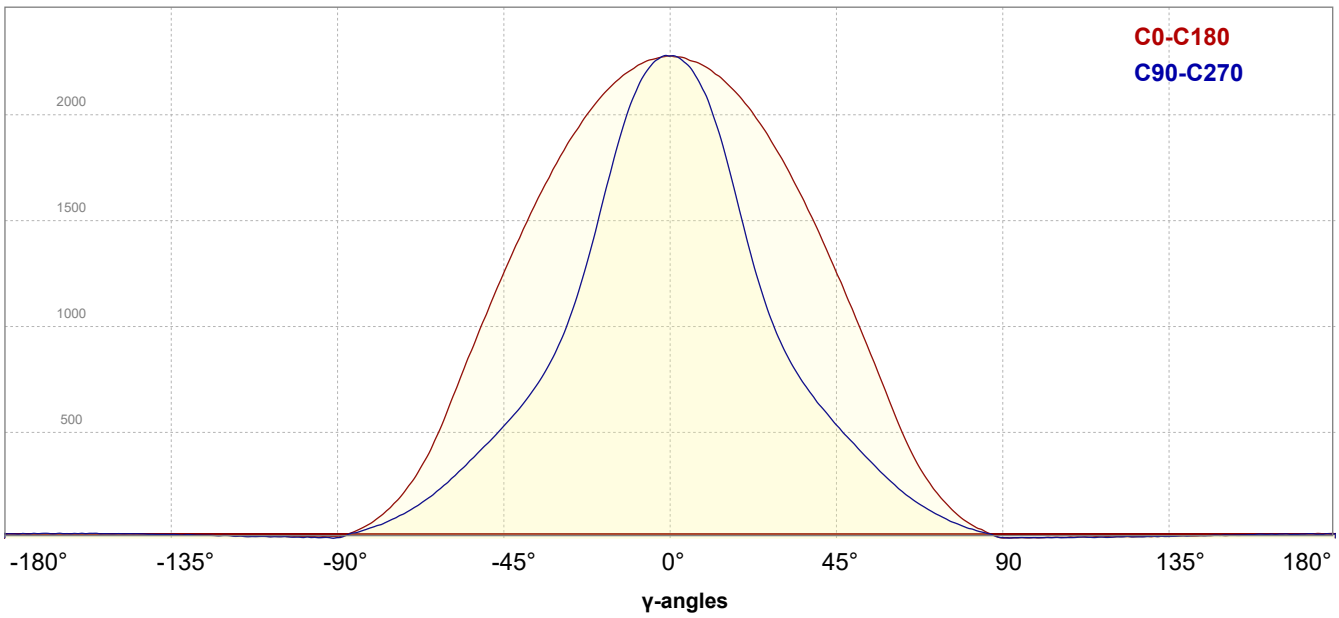
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous Flux	3170 lm
Ecodesign Energy Class	E

Intensity Ratio

In 120° cone	85.46%
In 90° cone	66.26%

Linear distribution diagram

Intensity [cd]

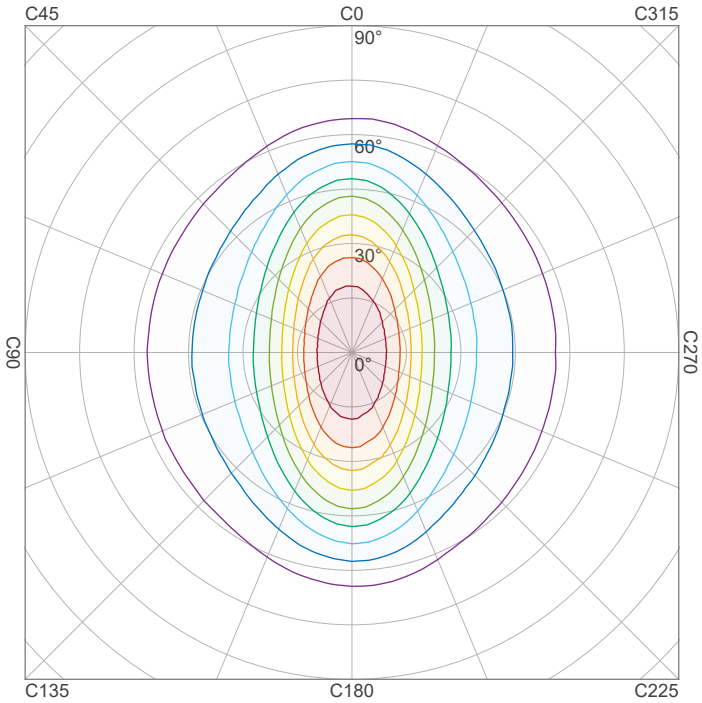


Prudential Lighting

Light measurement results

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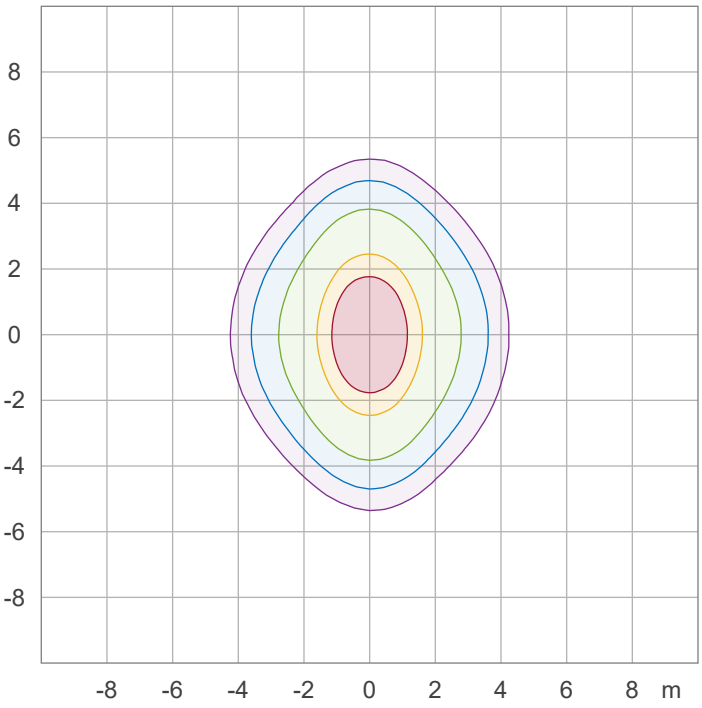
Iso-intensity Diagram (Iso-candela)



90 %	2051.4 cd
80 %	1823.5 cd
70 %	1595.5 cd
60 %	1367.6 cd
50 %	1139.7 cd
40 %	911.7 cd
30 %	683.8 cd
20 %	455.9 cd
10 %	227.9 cd

Peak intensity: 2279.3 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	127 lx
30.0 %	75.9 lx
10.0 %	25.3 lx
5.0 %	12.7 lx
3.0 %	7.59 lx

Peak illuminance: 253 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

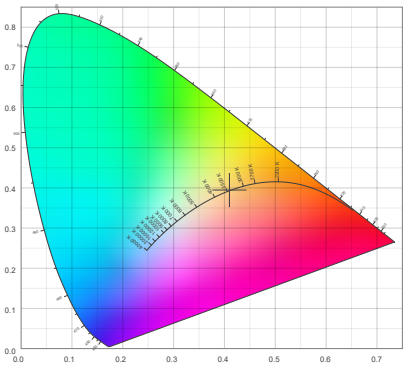
Light measurement results

Print date 8/13/2026

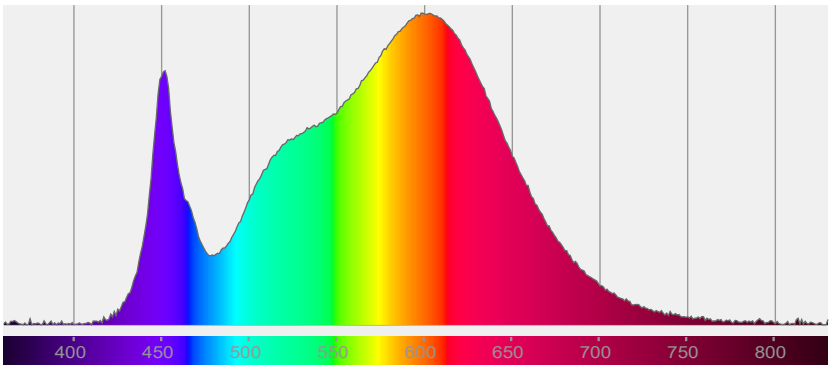
Color details

Correlated Color Temperature, Target	CCT = 3439 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3439 K	Color deviation from BBL	Duv = 0.0008
Color Rendering Index	CRI 84.2	Color coordinates CIE 1931	(x;y) = (0.4098;0.3947)
Color Rendering Index, R9 (red)	R9 = 11.1	Color coordinate CIEs 1960	(u;v) = (0.2370;0.3424)
Color Rendering TM30-18	Rf 85.5	Color coordinate CIEs 1976	(u';v') = (0.2370;0.5136)
	Rg 96.0	Color Quality Scale	CQS = 83.8

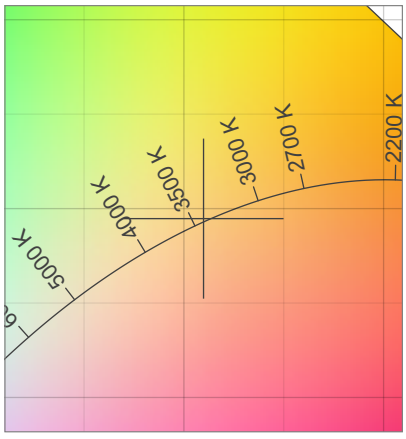
CIE 1931 Chromaticity diagram



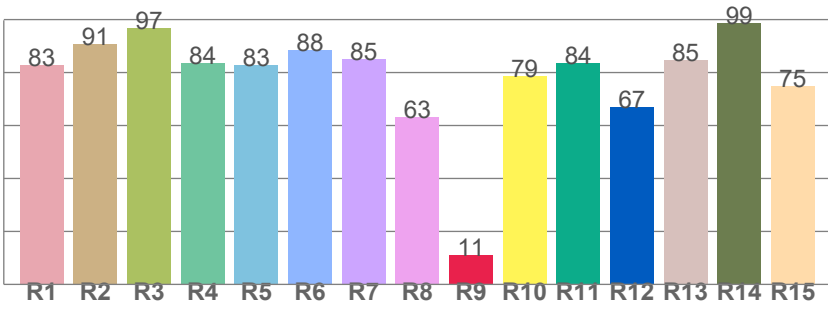
Spectral power distribution



CIE 1931 Chromaticity - zoomed



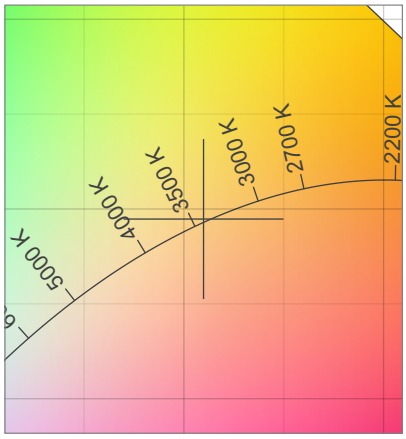
Color Rendering Index per reference color (CIE 1995)



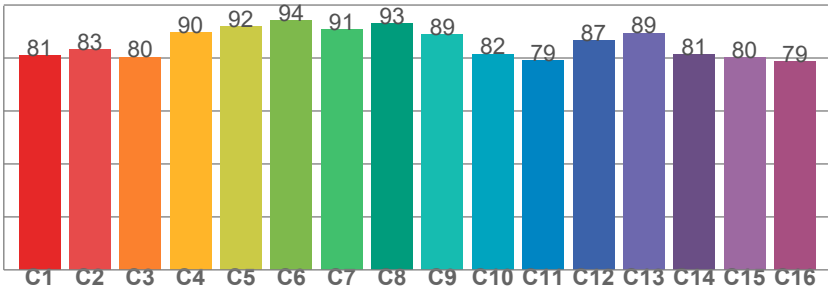
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.8	90.8	96.8	83.5	82.8	88.3	85.2	63.3	11.1	78.7	83.6	66.9	84.9	98.6	74.9

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	83.1	80.4	89.8	92.1	94.3	90.9	93.1	88.9	81.5	79.1	86.6	89.5	81.4	80.3	78.8

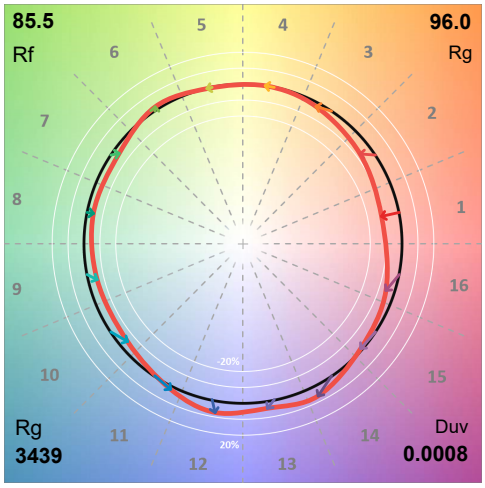
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Color details - ANSI/IES TM-30-18 Color Rendition Report

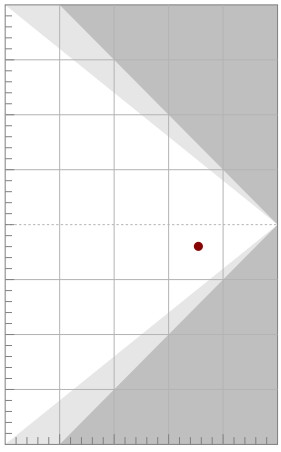
Color Vector Graphic



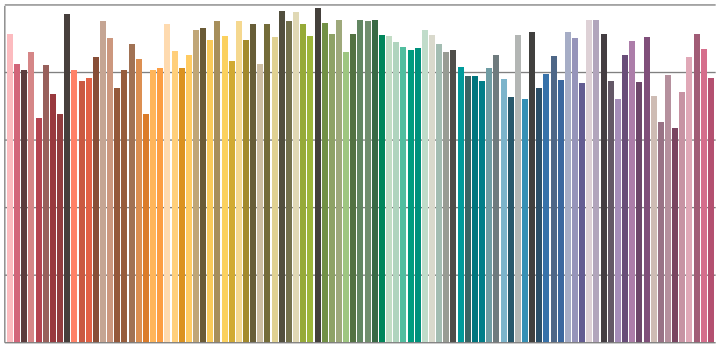
Color Distortion Graphic



Gamut Index vs. Fidelity Index

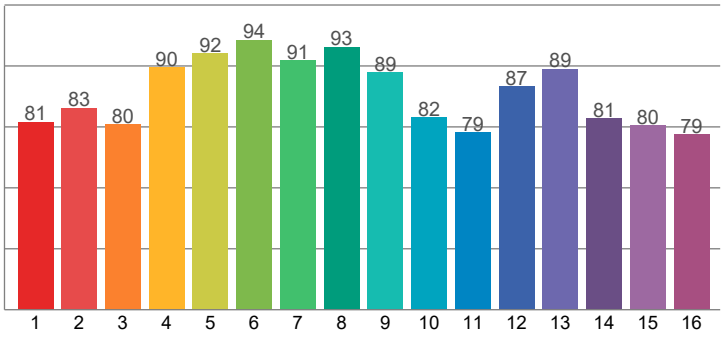


Color Rendition by Color Evaluation Sample (CES)

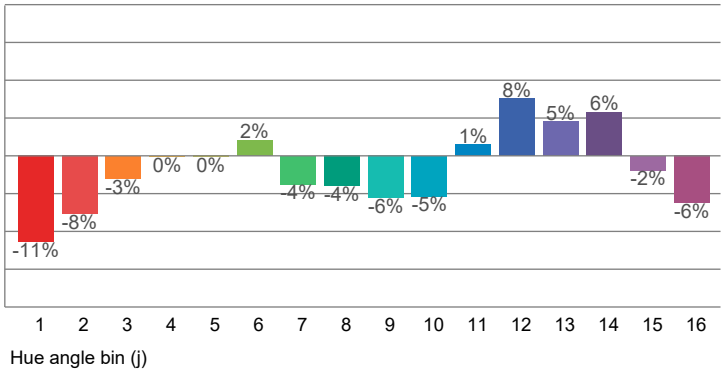


Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



Local Chroma Shift (per hue bin)



CIE x	0.4098
CIE y	0.4098
CIE u'	0.2370
CIE v'	0.5136

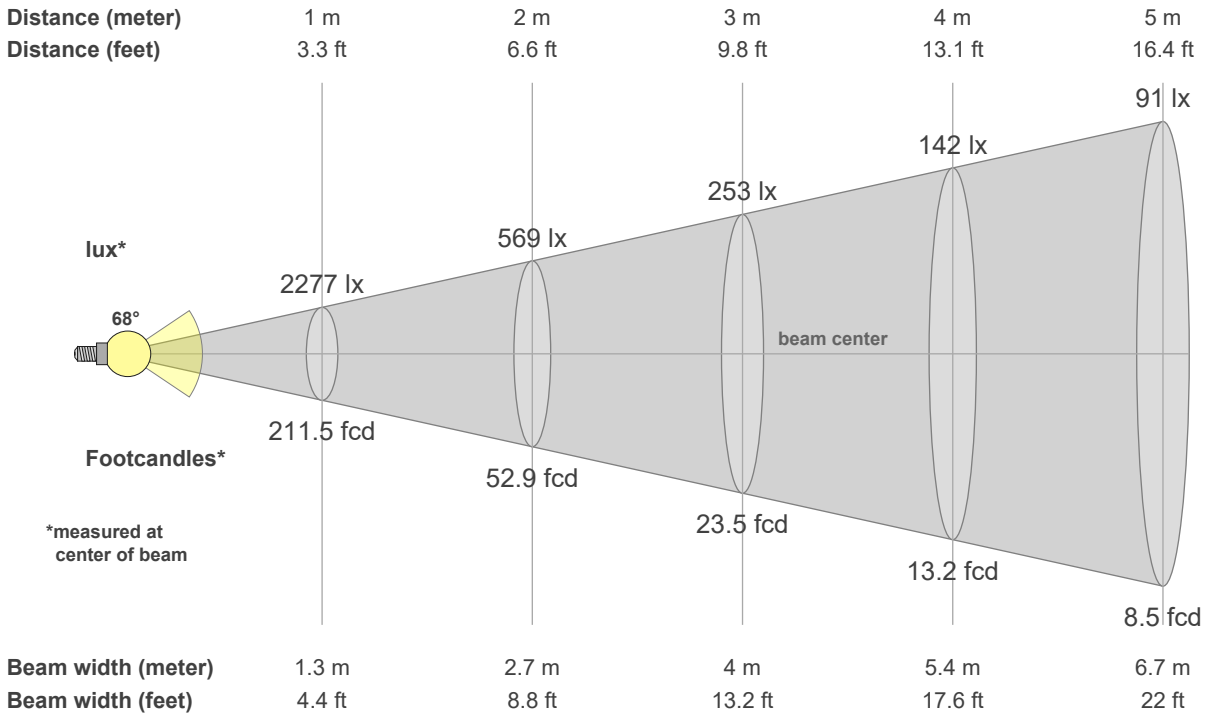
CIE	**13.3-1995**
Ra	84.2
R9	11.1

Prudential Lighting

Light measurement results

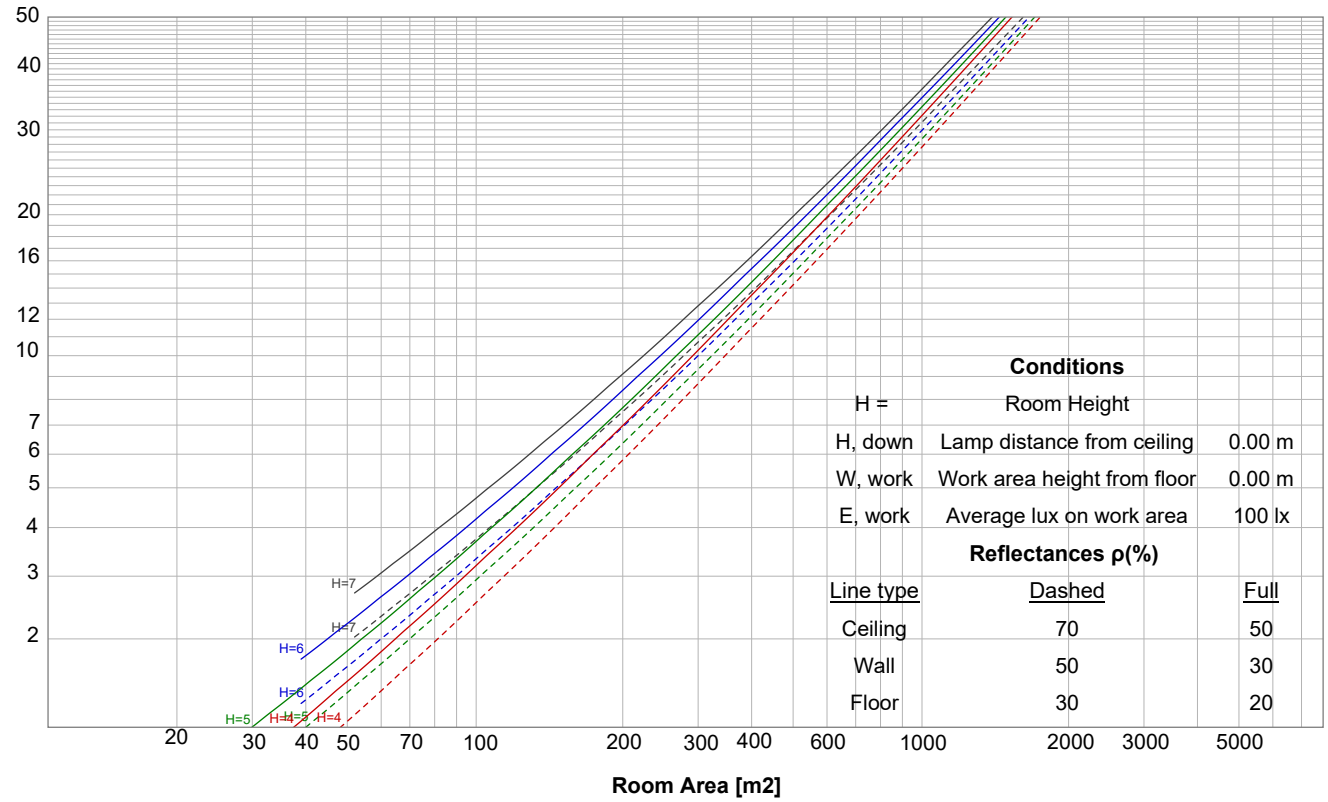
Print date 8/13/2026

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
2277	569	253	142	91	63	46	36	28	23	19	16	13	12	10	9	8	7	6	6	lux
211.5	52.9	23.5	13.2	8.5	5.9	4.3	3.3	2.6	2.1	1.7	1.5	1.3	1.1	0.9	0.8	0.7	0.7	0.6	0.5	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
2277	2260	2217	2151	2057	1934	1795	1630	1449	1254	1047	837	614	411	264	159	83	35	7	6	cd
100%	99%	97%	94%	90%	85%	79%	72%	64%	55%	46%	37%	27%	18%	12%	7%	4%	2%	0%	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
2277	2231	2078	1806	1464	1152	922	761	638	534	441	349	264	191	134	88	52	26	3	3	cd
100%	98%	91%	79%	64%	51%	40%	33%	28%	23%	19%	15%	12%	8%	6%	4%	2%	1%	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
2277	2259	2222	2153	2060	1942	1799	1634	1454	1254	1050	838	618	416	266	158	81	34	1	3	cd
100%	99%	98%	95%	90%	85%	79%	72%	64%	55%	46%	37%	27%	18%	12%	7%	4%	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
2277	2236	2080	1805	1463	1153	918	752	630	530	439	350	267	195	137	91	55	26	3	3	cd
100%	98%	91%	79%	64%	51%	40%	33%	28%	23%	19%	15%	12%	9%	6%	4%	2%	1%	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 = 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	118.2	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	109.8	105.9	102.3	99.1	106.9	103.3	100.1	97.2	98.5	95.9	93.5	94.1	92.0	90.1	90.0	88.3	86.8	84.6
2	101.6	94.6	88.9	84.1	98.8	92.5	87.2	82.8	88.5	84.1	80.4	84.8	81.2	78.1	81.4	78.5	75.9	73.7
3	93.9	84.9	78.0	72.4	91.3	83.2	76.7	71.6	79.8	74.4	69.9	76.7	72.1	68.3	73.8	70.0	66.7	64.6
4	87.1	76.7	69.1	63.3	84.7	75.2	68.1	62.7	72.4	66.3	61.5	69.7	64.5	60.3	67.3	62.9	59.2	57.2
5	80.9	69.7	61.8	56.0	78.7	68.4	61.1	55.6	66.0	59.6	54.7	63.8	58.2	53.8	61.7	56.8	53.0	51.0
6	75.4	63.7	55.7	50.1	73.4	62.6	55.1	49.7	60.5	53.9	49.0	58.6	52.8	48.4	56.8	51.7	47.7	45.8
7	70.5	58.5	50.6	45.2	68.7	57.5	50.1	44.9	55.7	49.2	44.4	54.1	48.2	43.8	52.5	47.3	43.3	41.5
8	66.1	54.0	46.3	41.1	64.5	53.1	45.9	40.8	51.6	45.1	40.4	50.2	44.3	40.0	48.8	43.5	39.6	37.8
9	62.2	50.0	42.6	37.6	60.7	49.3	42.2	37.4	48.0	41.5	37.0	46.7	40.9	36.7	45.5	40.2	36.4	34.7
10	58.6	46.6	39.4	34.6	57.2	46.0	39.1	34.4	44.8	38.5	34.2	43.7	37.9	33.9	42.6	37.4	33.6	32.0

Prudential Lighting

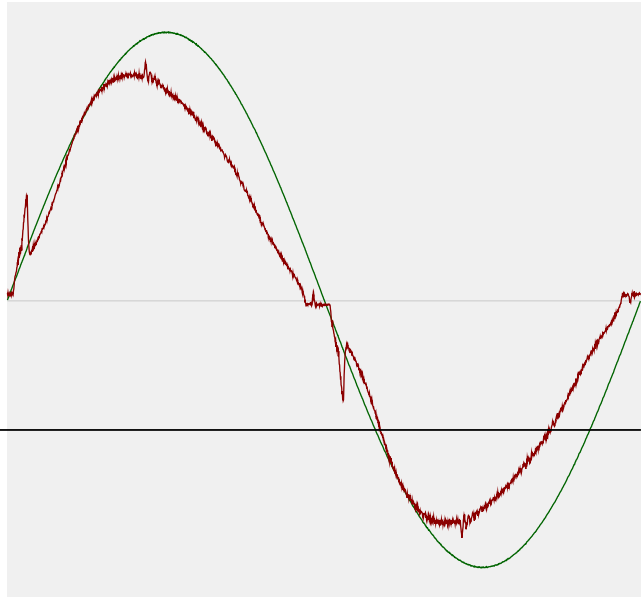
Light measurement results

Print date 8/13/2026

Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	32.64 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	33.3 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.98
Total harmonic distortion of the current	10.98%
Total harmonic distortion of the voltage	0.1034%

Input power curve



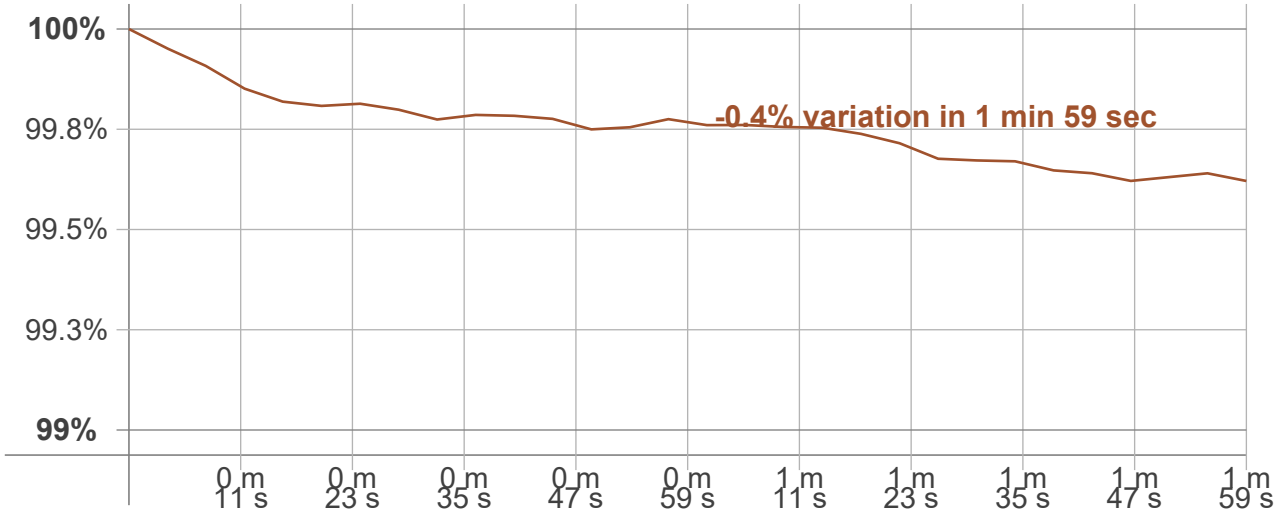
Efficiency

Radiated power efficiency	34.1
Lumen efficiency	113.6 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	3438 K
Stable change max	1%	CCT shift	1 K
Minimum time	15 min	CCT end	3439 K
Warmup Result		**Output Change**	
Total warmup time	Not completed	Output start	3720 lm
Warmup variation	-0.4086%	Output change	-10.786 lm
		Output end	3709 lm

Stabilization Curve



Prudential Lighting

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

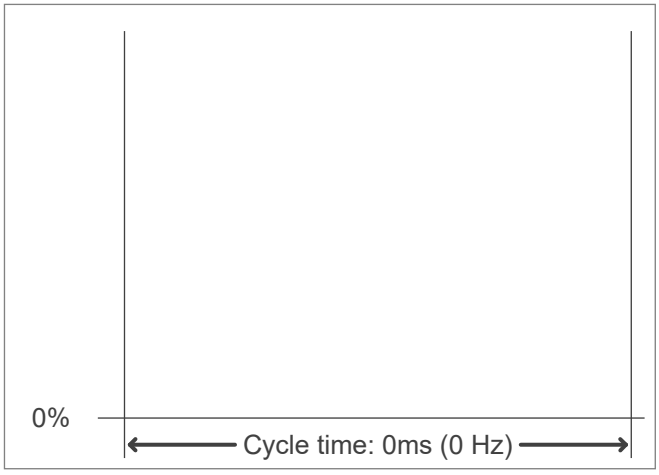
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

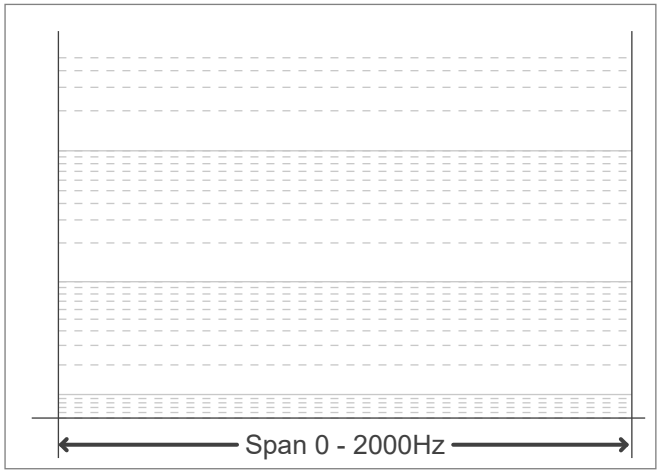
Flicker indices according to Lighting Research Center (2015)

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

