Prudential Lighting

Light measurement results

Print date 9/29/2026

Laboratory and Equipment

Test lab	Viso LabSpion - serial: 2435469709 sensor serial: 0895736217 - T
Spectrometer Manufacturer and Model	LabSpion – Type C, horizontal
Measurement date	9/23/2026

Measurement Conditions

Tested c-planes	72 planes – 5.00°
Tested gamma resolution	1.00°
Input Power	15.95 W

Tested Light Source

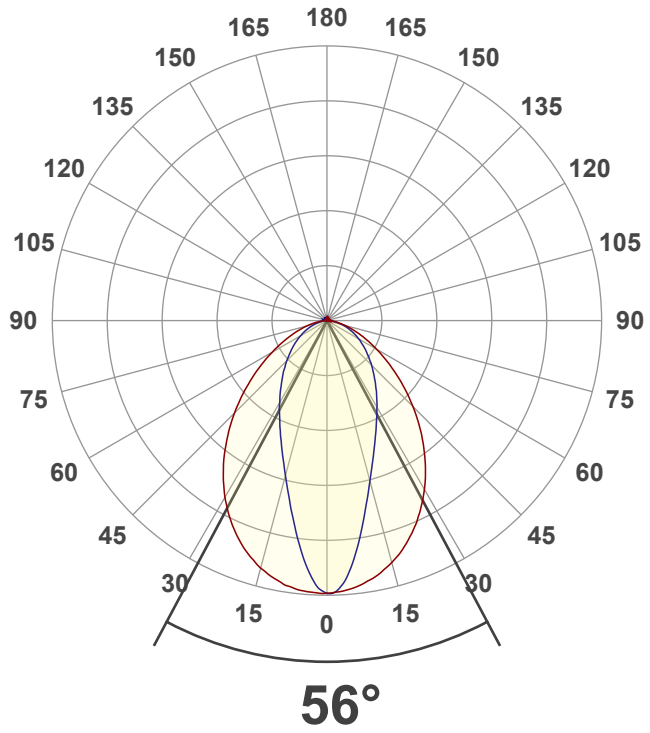
Luminaire	BPRO2-LIN-FLSH-LED35-LO-04-WGZ-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	1840 lm – 2.541% / 97.46%
Efficiency	115.4 lm/W
Peak Intensity	1291 cd
Correlated Color Temperature, CCT	3427 K
Color Rendering Index	CRI 84.6

Polar light distribution diagram

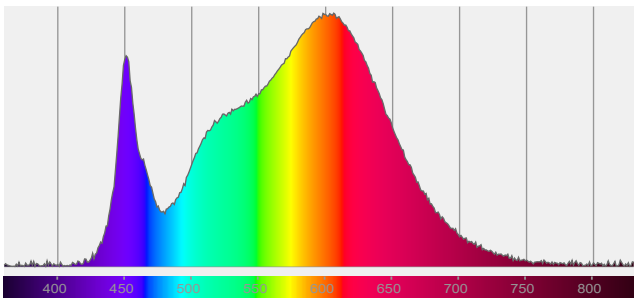
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	1270 cd	1270 cd	1270 cd	1270 cd	1270 cd
5°	1255 cd	1212 cd	1158 cd	1115 cd	1177 cd
15°	1167 cd	1001 cd	832.8 cd	744.2 cd	773.2 cd
25°	1007 cd	776.2 cd	601.9 cd	531.1 cd	542.9 cd
35°	797.4 cd	581.2 cd	440 cd	390.6 cd	401.8 cd
45°	566.4 cd	413.3 cd	315.4 cd	282.4 cd	293.6 cd
55°	355.4 cd	275.5 cd	216.4 cd	197.5 cd	208.4 cd
65°	194.1 cd	164.1 cd	133 cd	126.9 cd	136.2 cd
75°	86.39 cd	79.97 cd	68.52 cd	64.41 cd	72.11 cd
85°	20.92 cd	19.87 cd	19.76 cd	17.97 cd	21.85 cd
90°	6.956 cd	5.983 cd	4.424 cd	2.421 cd	3.615 cd

Spectral power distribution



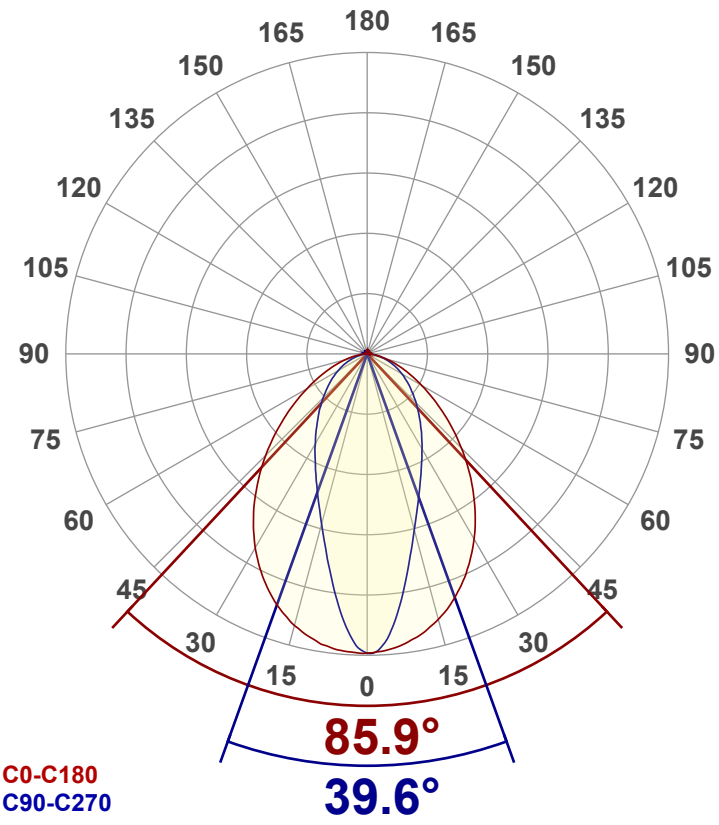
Prudential Lighting

Light measurement results

Print date 9/29/2026

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	1840 lm
Lumen Up% / Down%	2.541% / 97.46%
Peak Intensity	1291 cd
Beam Angle (50%-FWHM)	56.0°

EU Ecodesign parameters

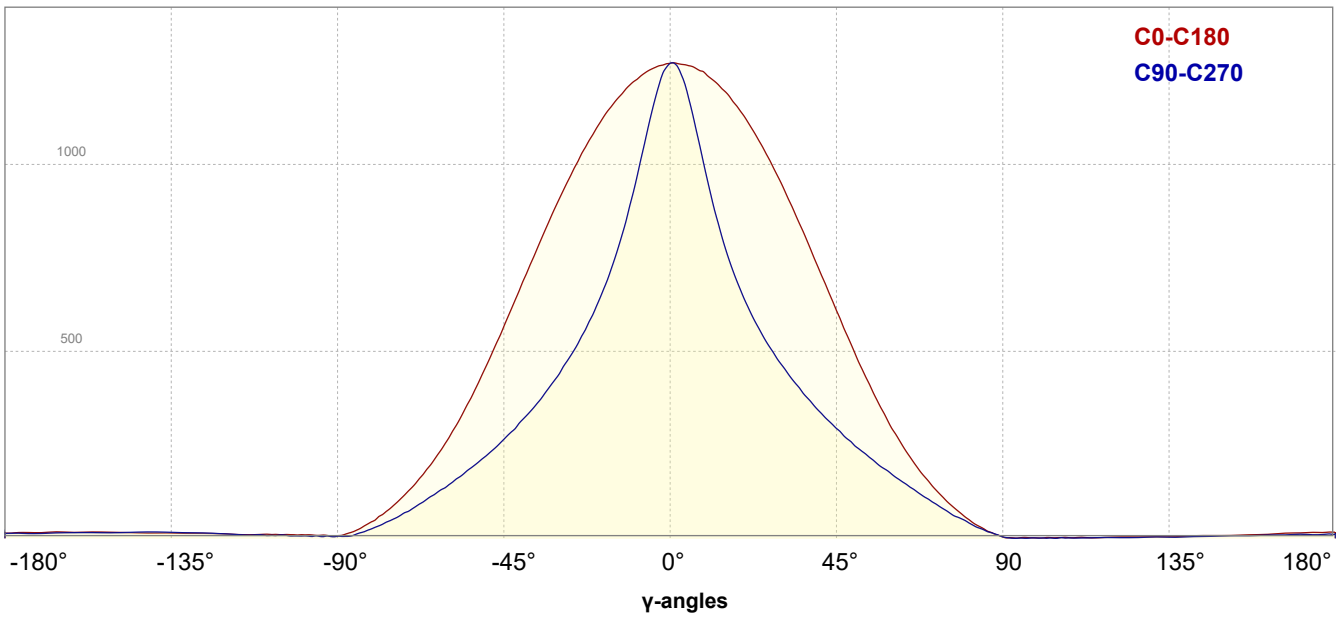
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous Flux	1179 lm
Ecodesign Energy Class	F

Intensity Ratio

In 120° cone	83.86%
In 90° cone	64.09%

Linear distribution diagram

Intensity [cd]

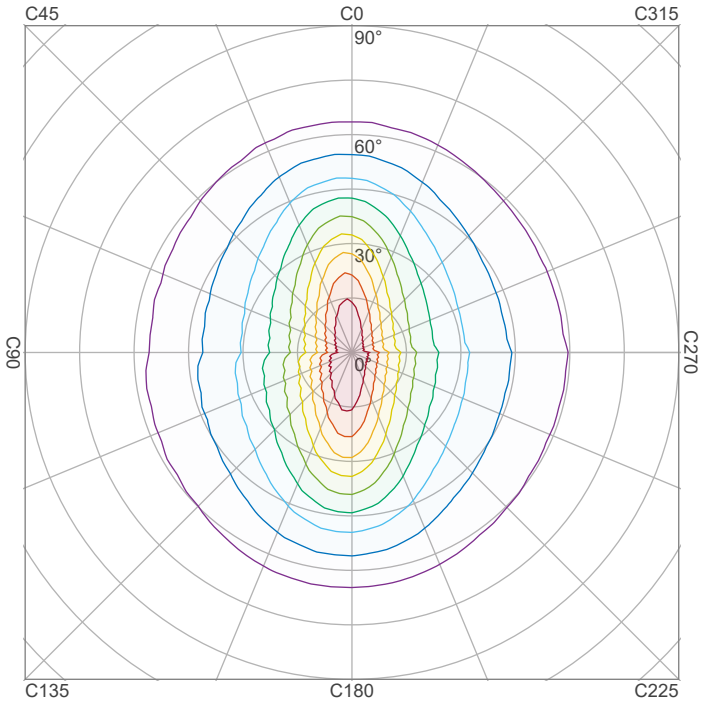


Prudential Lighting

Light measurement results

Print date 9/29/2026

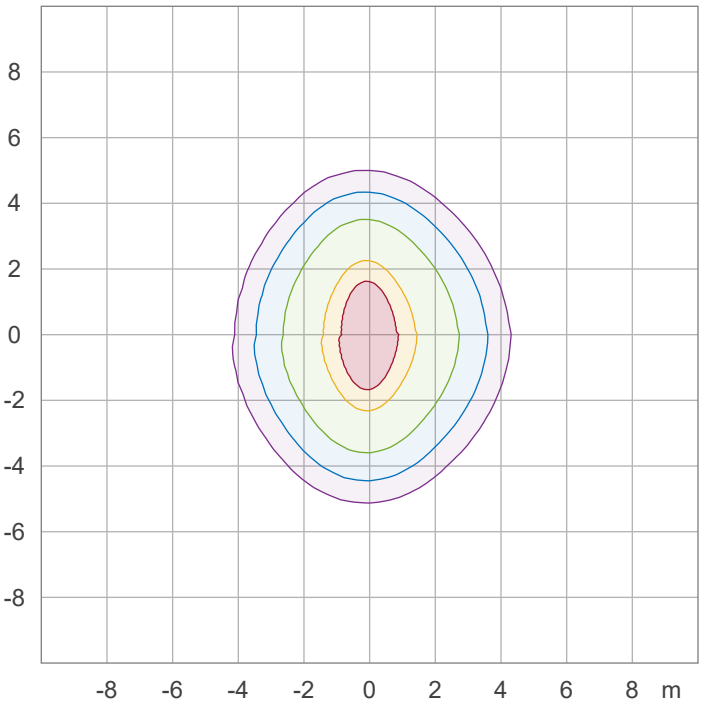
Iso-intensity Diagram (Iso-candela)



90 %	1162.2 cd
80 %	1033.1 cd
70 %	904.0 cd
60 %	774.8 cd
50 %	645.7 cd
40 %	516.6 cd
30 %	387.4 cd
20 %	258.3 cd
10 %	129.1 cd

Peak intensity: 1291.4 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	71.5 lx
30.0 %	42.9 lx
10.0 %	14.3 lx
5.0 %	7.15 lx
3.0 %	4.29 lx

Peak illuminance: 143 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

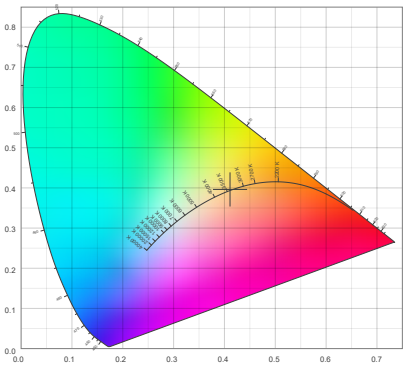
Light measurement results

Print date 9/29/2026

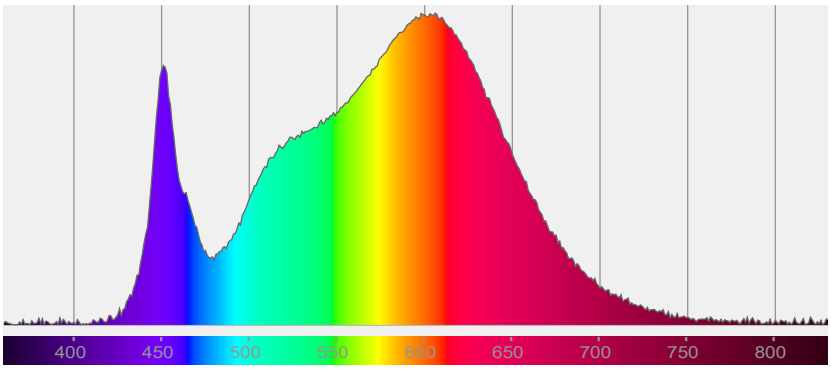
Color details

Correlated Color Temperature, Target	CCT = 3427 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3427 K	Color deviation from BBL	Duv = 0.0012
Color Rendering Index	CRI 84.6	Color coordinates CIE 1931	(x;y) = (0.4110;0.3962)
Color Rendering Index, R9 (red)	R9 = 12.4	Color coordinate CIEs 1960	(u;v) = (0.2371;0.3429)
Color Rendering TM30-18	Rf 85.7	Color coordinate CIEs 1976	(u';v') = (0.2371;0.5144)
	Rg 96.0	Color Quality Scale	CQS = 84.2

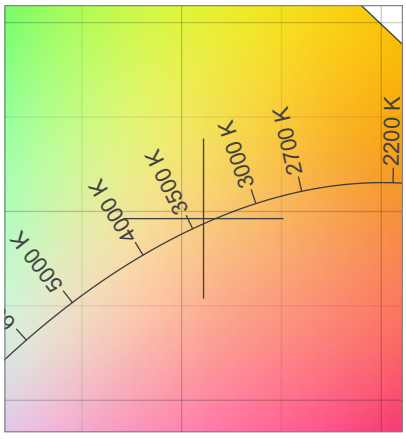
CIE 1931 Chromaticity diagram



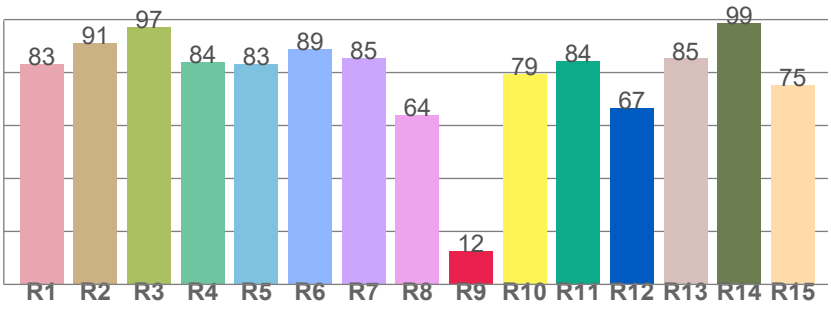
Spectral power distribution



CIE 1931 Chromaticity - zoomed



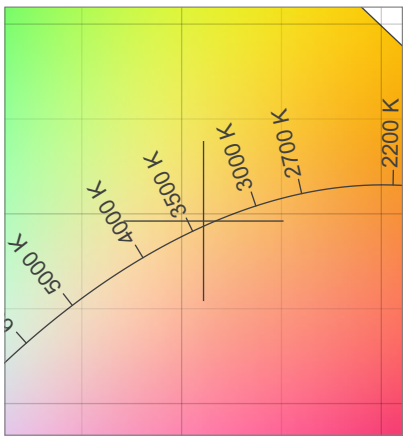
Color Rendering Index per reference color (CIE 1995)



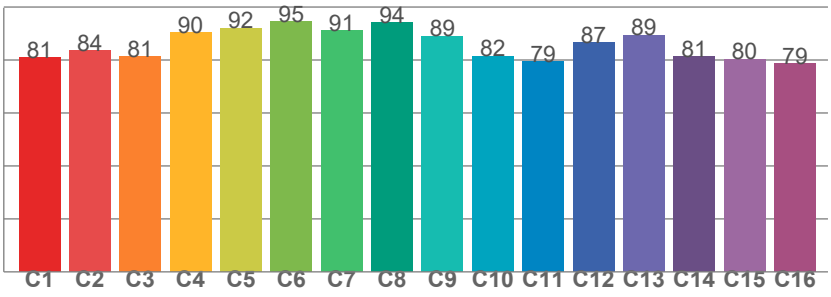
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83.2	91.1	97.0	84.0	83.2	88.7	85.5	63.8	12.4	79.4	84.3	66.5	85.3	98.7	75.2

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
81.1	83.6	81.3	90.3	92.1	94.7	91.0	94.1	89.1	81.5	79.5	86.7	89.5	81.4	80.4	78.8

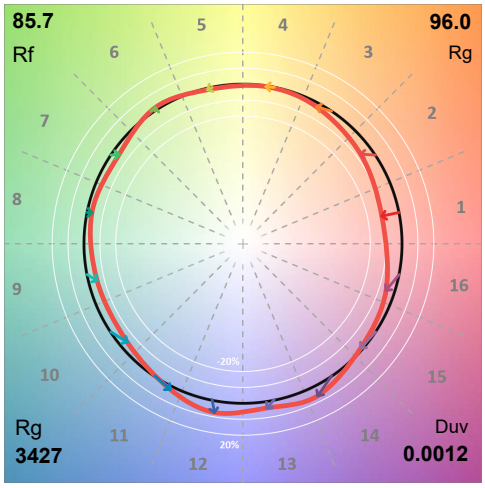
Prudential Lighting

Light measurement results

Print date 9/29/2026

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

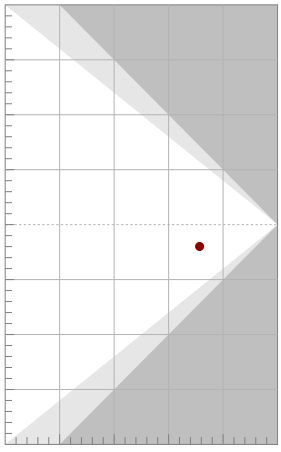
Color Vector Graphic



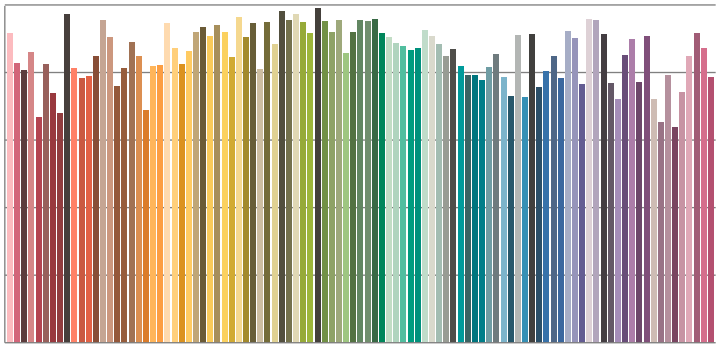
Color Distortion Graphic



Gamut Index vs. Fidelity Index

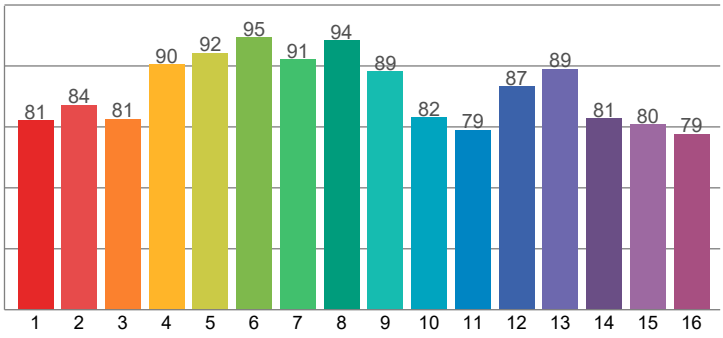


Color Rendition by Color Evaluation Sample (CES)

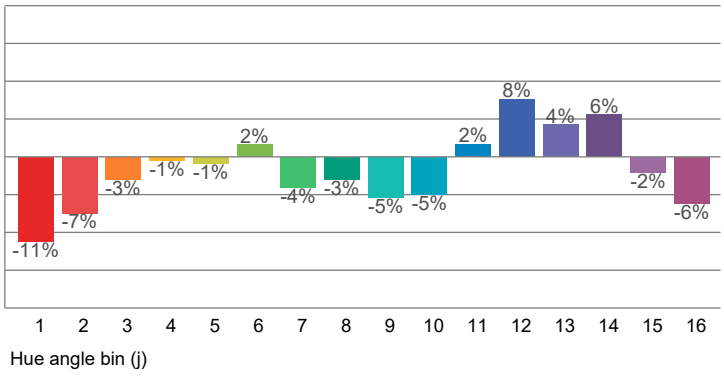


Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



Local Chroma Shift (per hue bin)



CIE x	0.4110
CIE y	0.4110
CIE u'	0.2371
CIE v'	0.5144

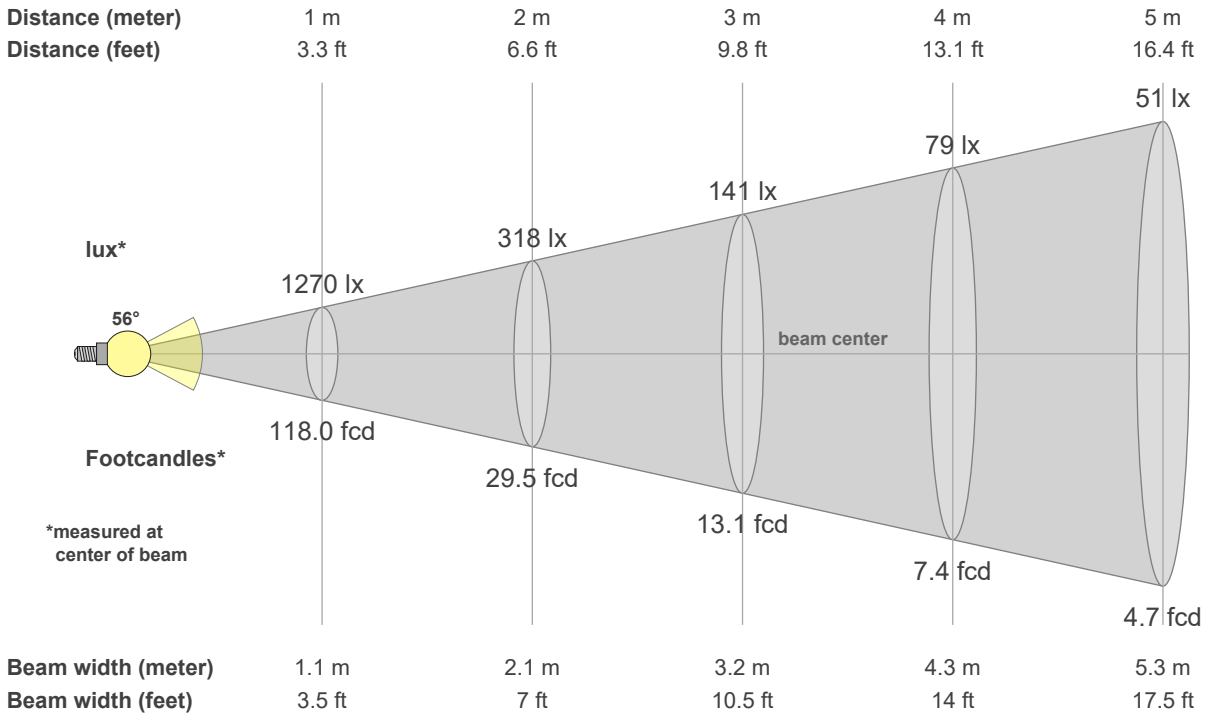
CIE	13.3-1995
Ra	84.6
R9	12.4

Prudential Lighting

Light measurement results

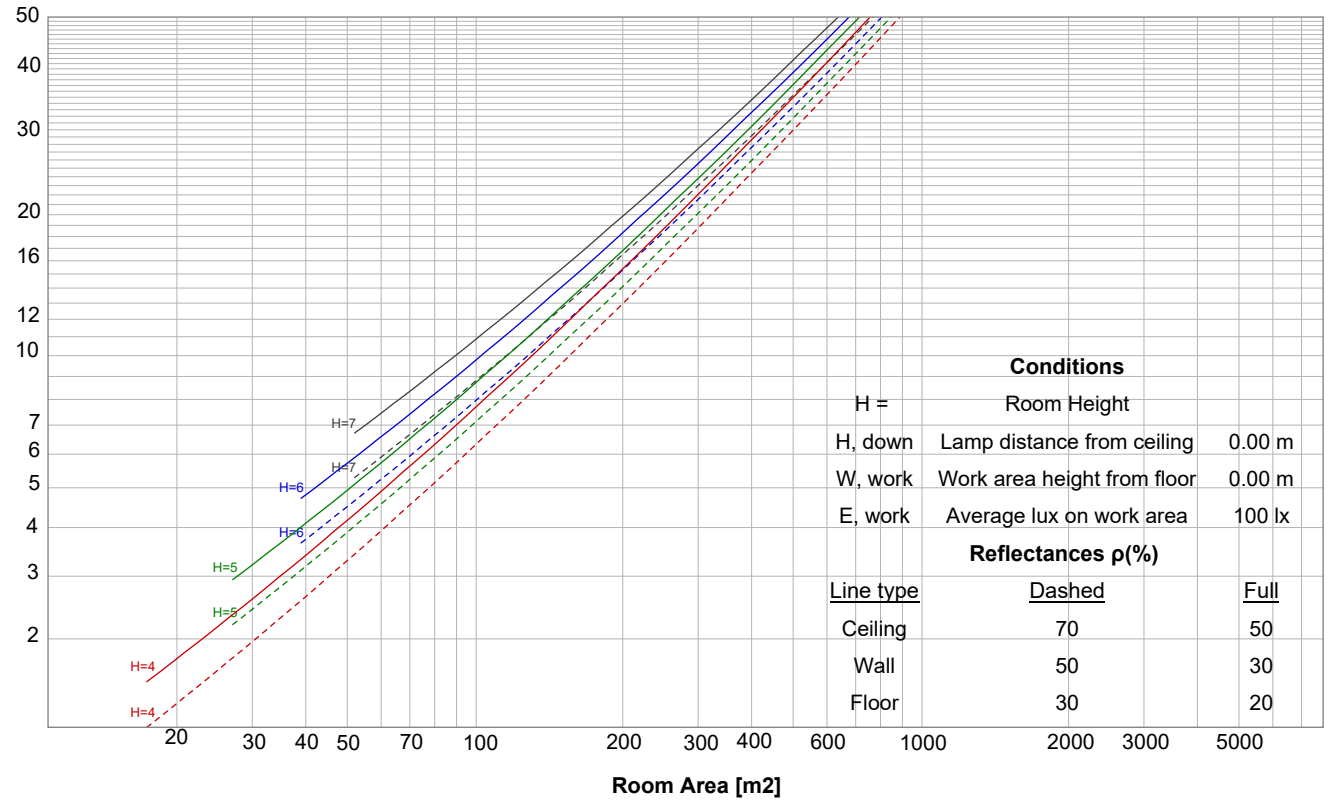
Print date 9/29/2026

Beam details



Luminaire budgetary diagram

LAMPS (number of lamps)



Prudential Lighting

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
1270	318	141	79	51	35	26	20	16	13	10	9	8	6	6	5	4	4	4	3	lux
118	29.5	13.1	7.4	4.7	3.3	2.4	1.8	1.5	1.2	1	0.8	0.7	0.6	0.5	0.5	0.4	0.4	0.3	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
1270	1255	1221	1167	1096	1007	908	797	683	566	456	355	267	194	135	86	48	21	7	8	cd
100%	99%	96%	92%	86%	79%	71%	63%	54%	45%	36%	28%	21%	15%	11%	7%	4%	2%	1%	1%	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
1270	1177	961	773	641	543	466	402	343	294	247	208	171	136	104	72	46	22	4	0	cd
100%	93%	76%	61%	50%	43%	37%	32%	27%	23%	19%	16%	13%	11%	8%	6%	4%	2%	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
1270	1264	1238	1194	1129	1047	951	841	726	609	495	388	293	216	152	97	56	24	4	2	cd
100%	100%	97%	94%	89%	82%	75%	66%	57%	48%	39%	31%	23%	17%	12%	8%	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
1270	1139	924	748	619	520	440	372	317	265	219	180	142	110	77	51	29	11	5	5	cd
100%	90%	73%	59%	49%	41%	35%	29%	25%	21%	17%	14%	11%	9%	6%	4%	2%	1%	0%	0%	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 H = mouting height above eye level		**Viewed Crosswise** (Viewing direction orthogonal to lamp length axis)					**Viewed Endwise** (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	n/a	n/a	n/a	n/a	n/a	n/a
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	118.4	118.4	118.4	118.4	115.4	115.4	115.4	115.4	109.7	109.7	109.7	104.5	104.5	104.5	99.7	99.7	99.7	97.5
1	109.6	105.5	101.8	98.4	106.7	103.0	99.7	96.6	98.4	95.6	93.1	94.1	91.9	89.8	90.1	88.4	86.8	84.6
2	101.1	93.8	87.9	82.8	98.3	91.8	86.3	81.7	87.9	83.4	79.4	84.4	80.6	77.3	81.1	78.0	75.2	73.1
3	93.3	83.9	76.7	71.0	90.7	82.2	75.6	70.2	79.0	73.3	68.7	76.0	71.2	67.2	73.2	69.2	65.8	63.7
4	86.3	75.6	67.8	61.8	84.0	74.2	66.9	61.3	71.5	65.2	60.2	68.9	63.5	59.2	66.6	62.0	58.1	56.1
5	80.1	68.6	60.5	54.6	78.0	67.4	59.8	54.2	65.1	58.4	53.4	62.9	57.1	52.6	60.9	55.9	51.9	49.9
6	74.6	62.6	54.5	48.7	72.7	61.6	53.9	48.4	59.6	52.8	47.8	57.7	51.8	47.2	56.0	50.8	46.7	44.7
7	69.8	57.5	49.5	43.9	68.0	56.6	49.0	43.7	54.9	48.1	43.2	53.3	47.2	42.8	51.8	46.4	42.3	40.4
8	65.4	53.0	45.2	39.9	63.8	52.2	44.9	39.7	50.8	44.1	39.3	49.4	43.4	39.0	48.1	42.7	38.6	36.8
9	61.5	49.2	41.6	36.5	60.0	48.5	41.3	36.4	47.2	40.7	36.1	46.0	40.0	35.8	44.9	39.5	35.5	33.8
10	58.0	45.8	38.5	33.6	56.6	45.2	38.2	33.5	44.1	37.7	33.3	43.0	37.2	33.0	42.0	36.7	32.8	31.1

Prudential Lighting

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Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	15.95 W
RMS Input voltage feed V,RMS	120 V
RMS Input current feed I,RMS	0.13 A
Volt-Amp or apparent power = V,RMS*I,RMS	16.1 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.99
Total harmonic distortion of the current	6.016%
Total harmonic distortion of the voltage	0.0803%

Input power curve



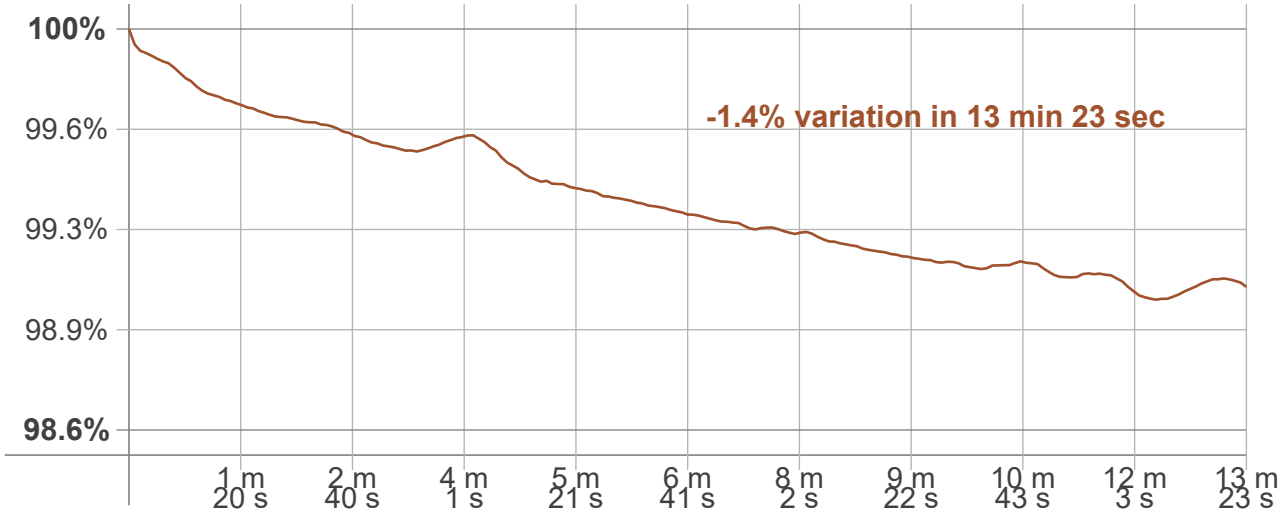
Efficiency

Radiated power efficiency	34.62
Lumen efficiency	115.4 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	3422 K
Stable change max	1%	CCT shift	5 K
Minimum time	15 min	CCT end	3427 K
Warmup Result		**Output Change**	
Total warmup time	Not completed	Output start	1858 lm
Warmup variation	-1.4325%	Output change	-18.074 lm
		Output end	1840 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

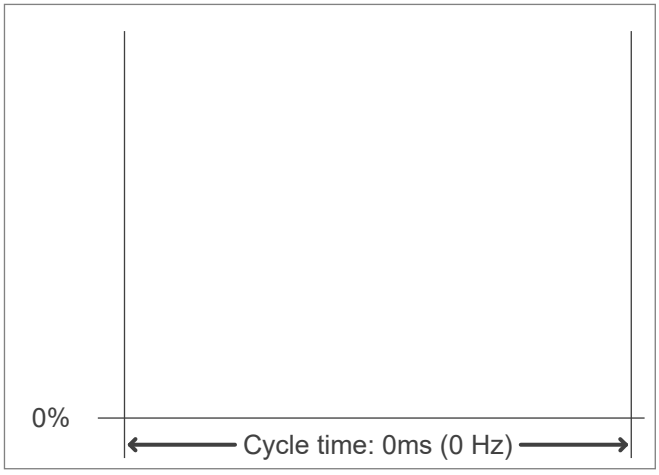
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

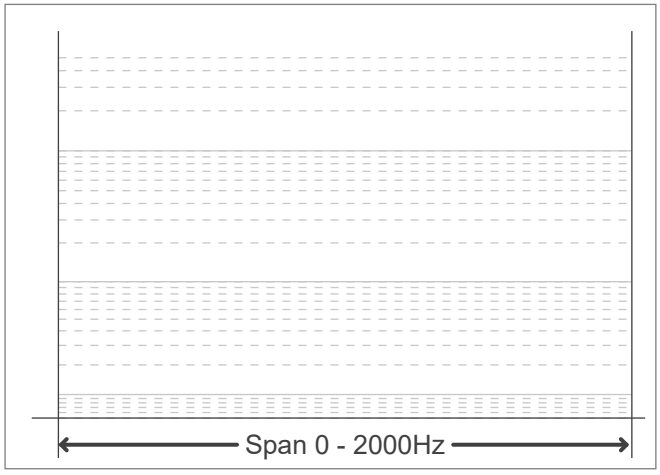
Flicker indices according to Lighting Research Center (2015)

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

