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	7/24/2026

Measurement Conditions

Tested c-planes	72 planes – 5.00°
Tested gamma resolution	1.00°
Input Power	32.67 W

Tested Light Source

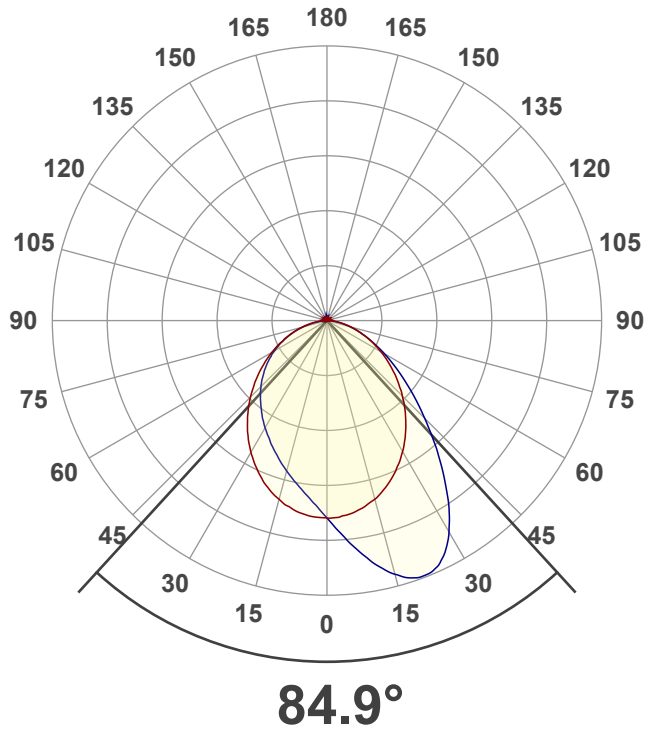
Luminaire	BPRO2-LIN-FLSH-LED35-SO-04-WWG-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	3676 lm – 1.898% / 98.1%
Efficiency	112.5 lm/W
Peak Intensity	1906 cd
Correlated Color Temperature, CCT	3434 K
Color Rendering Index	CRI 84.0

Polar light distribution diagram

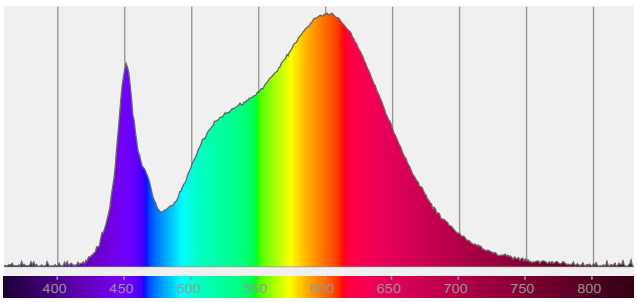
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	1379 cd	1379 cd	1379 cd	1379 cd	1379 cd
5°	1367 cd	1425 cd	1480 cd	1520 cd	1532 cd
15°	1291 cd	1467 cd	1653 cd	1778 cd	1834 cd
25°	1146 cd	1414 cd	1690 cd	1799 cd	1867 cd
35°	956.5 cd	1259 cd	1510 cd	1454 cd	1460 cd
45°	744.5 cd	1015 cd	1156 cd	986.7 cd	965.9 cd
55°	534.4 cd	730.6 cd	774.9 cd	619.9 cd	602.9 cd
65°	341.1 cd	449.8 cd	451 cd	352.8 cd	346.2 cd
75°	174.5 cd	218.9 cd	208.2 cd	166.8 cd	165.8 cd
85°	46.49 cd	50.81 cd	47.32 cd	40.07 cd	44.65 cd
90°	8.863 cd	7.242 cd	6.089 cd	6.377 cd	4.914 cd

Spectral power distribution



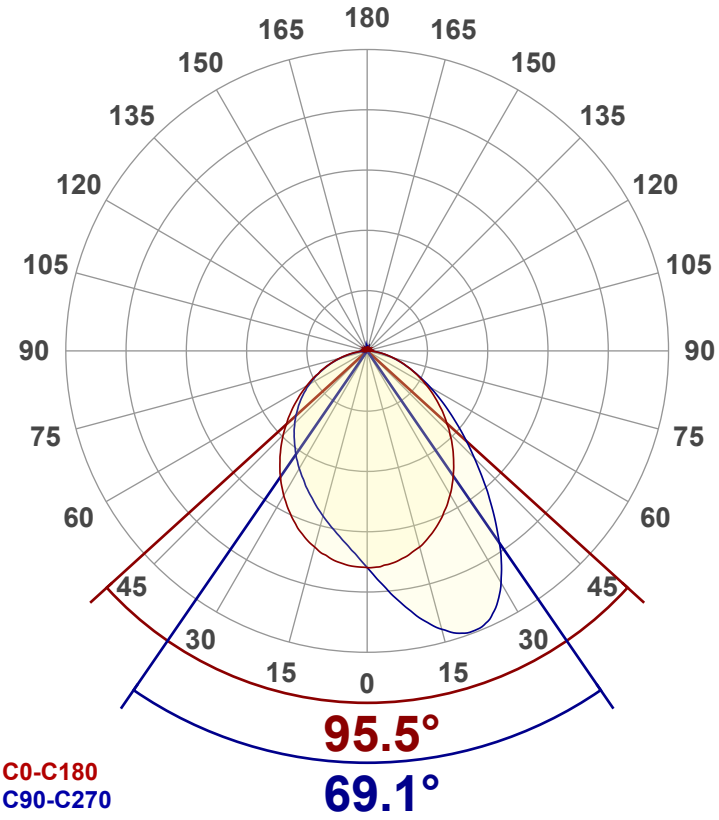
Prudential Lighting

Light measurement results

Print date 8/13/2026

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	3676 lm
Lumen Up% / Down%	1.898% / 98.1%
Peak Intensity	1906 cd
Beam Angle (50%-FWHM)	84.9°

EU Ecodesign parameters

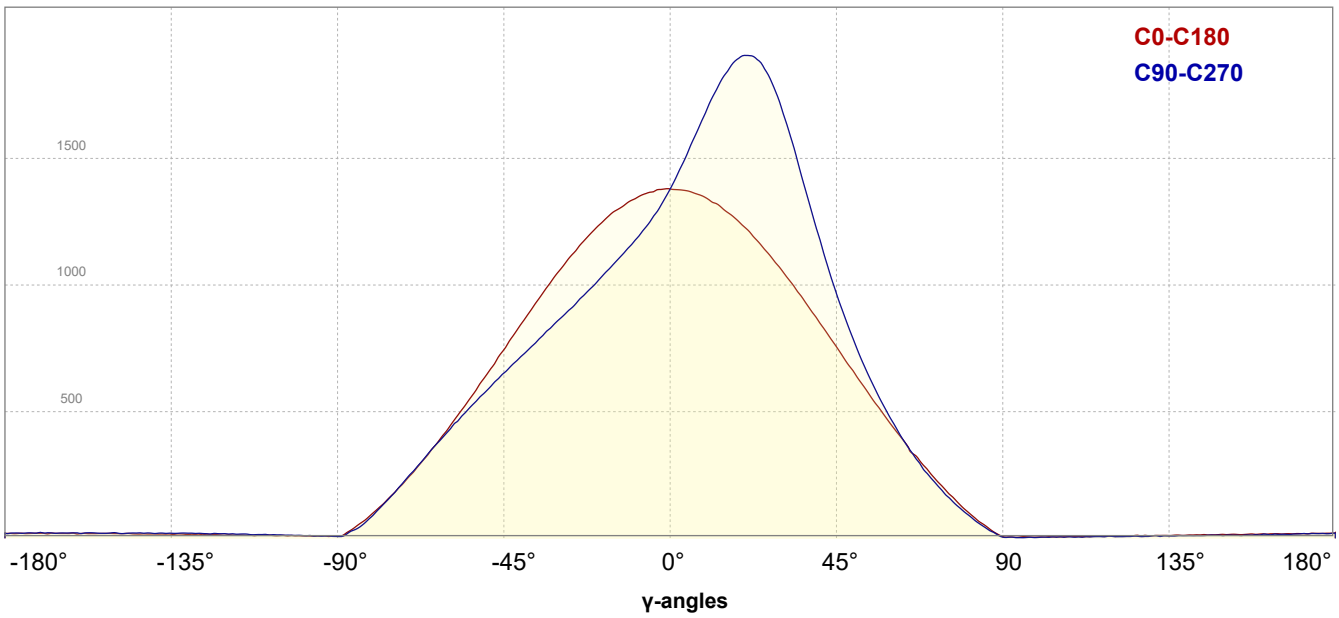
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous Flux	2988 lm
Ecodesign Energy Class	F

Intensity Ratio

In 120° cone	81.29%
In 90° cone	58.26%

Linear distribution diagram

Intensity [cd]

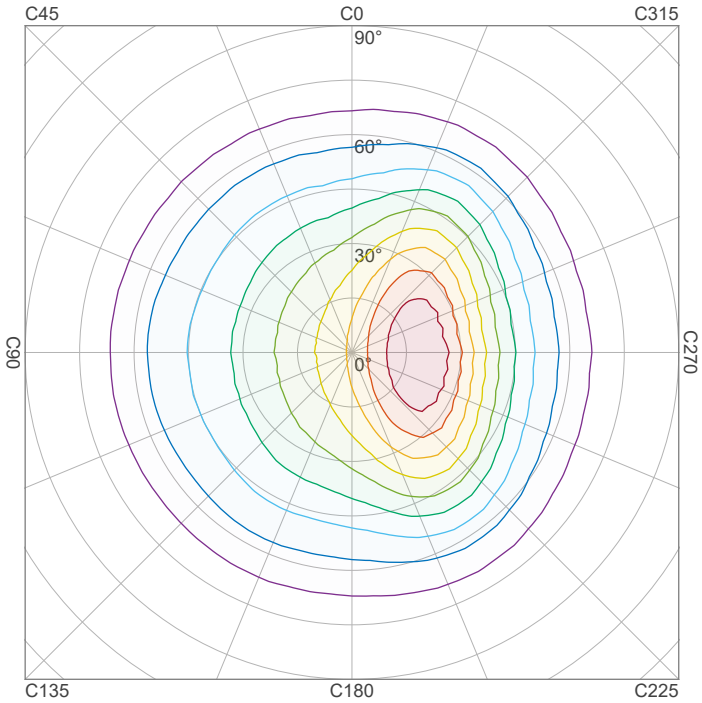


Prudential Lighting

Light measurement results

Print date 8/13/2026

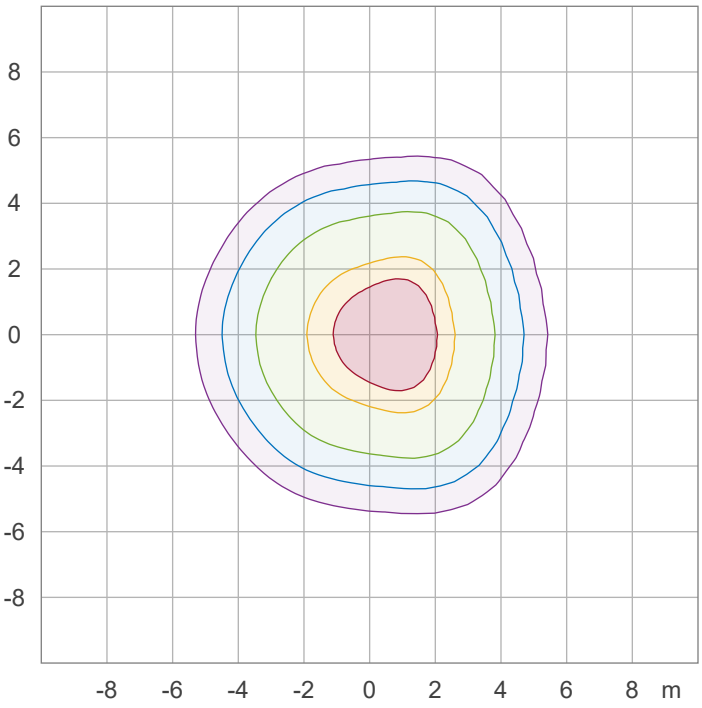
Iso-intensity Diagram (Iso-candela)



90 %	1715.5 cd
80 %	1524.9 cd
70 %	1334.3 cd
60 %	1143.7 cd
50 %	953.1 cd
40 %	762.4 cd
30 %	571.8 cd
20 %	381.2 cd
10 %	190.6 cd

Peak intensity: 1906.1 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	92 lx
30.0 %	55.2 lx
10.0 %	18.4 lx
5.0 %	9.2 lx
3.0 %	5.52 lx

Peak illuminance: 184 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

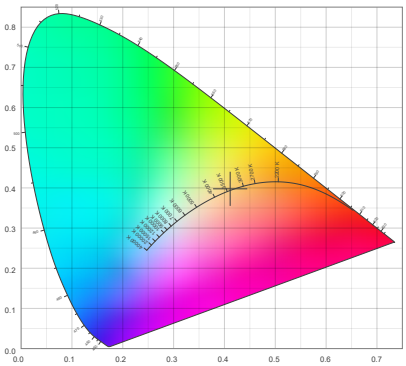
Light measurement results

Print date 8/13/2026

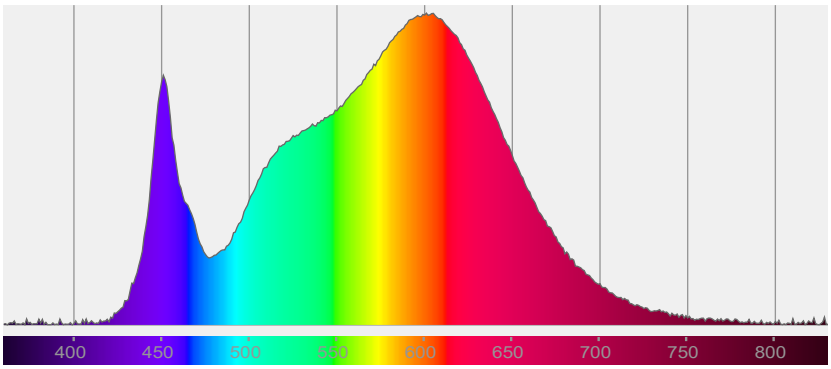
Color details

Correlated Color Temperature, Target	CCT = 3434 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3434 K	Color deviation from BBL	Duv = 0.0018
Color Rendering Index	CRI 84.0	Color coordinates CIE 1931	(x;y) = (0.4113;0.3977)
Color Rendering Index, R9 (red)	R9 = 9.9	Color coordinate CIEs 1960	(u;v) = (0.2367;0.3433)
Color Rendering TM30-18	Rf 85.5	Color coordinate CIEs 1976	(u';v') = (0.2367;0.5150)
	Rg 95.8	Color Quality Scale	CQS = 83.9

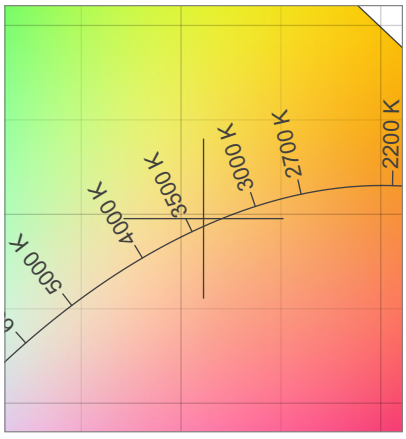
CIE 1931 Chromaticity diagram



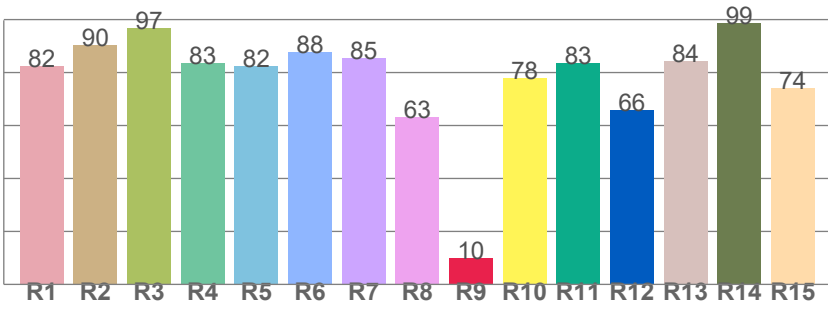
Spectral power distribution



CIE 1931 Chromaticity - zoomed



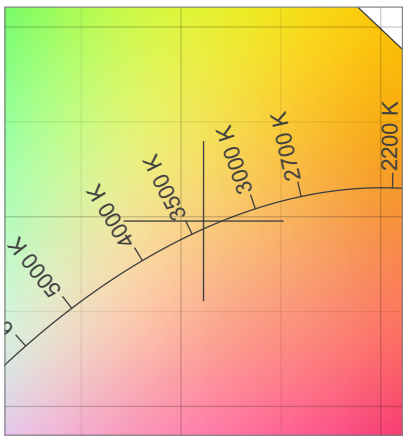
Color Rendering Index per reference color (CIE 1995)



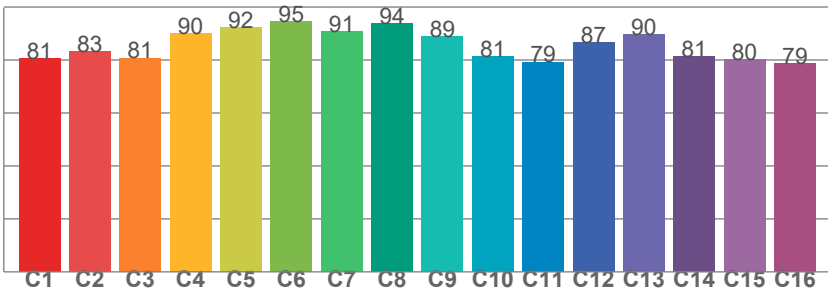
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.4	90.4	96.9	83.4	82.3	87.8	85.5	63.1	9.9	77.8	83.5	65.8	84.4	98.5	74.2

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
80.7	83.1	80.8	90.0	92.1	94.6	90.9	93.9	89.0	81.4	79.2	86.7	89.5	81.3	80.1	78.6

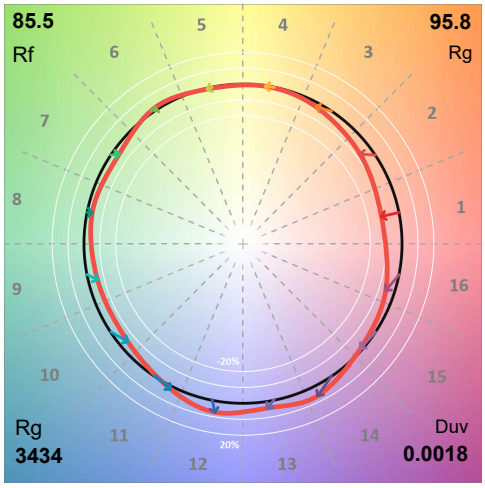
Prudential Lighting

Light measurement results

Print date 8/13/2026

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

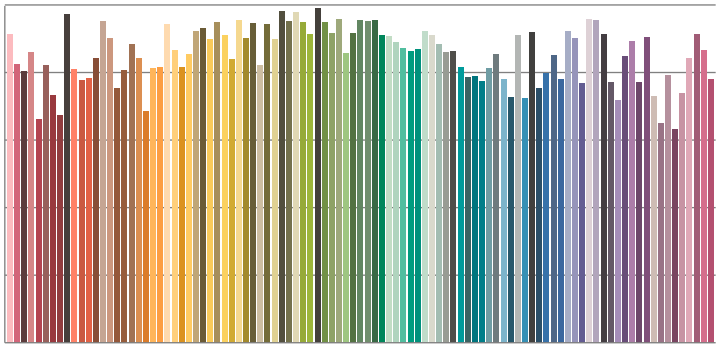
Color Vector Graphic



Color Distortion Graphic

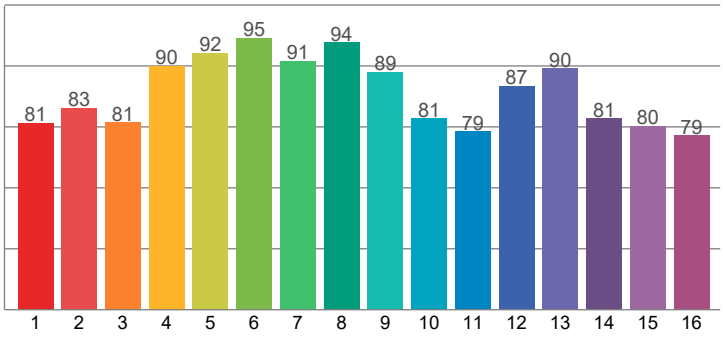


Color Rendition by Color Evaluation Sample (CES)



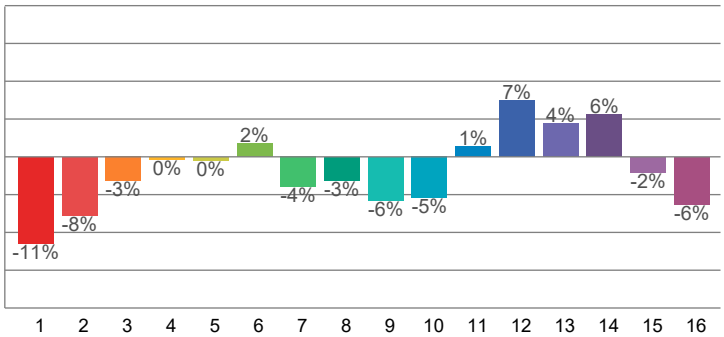
Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



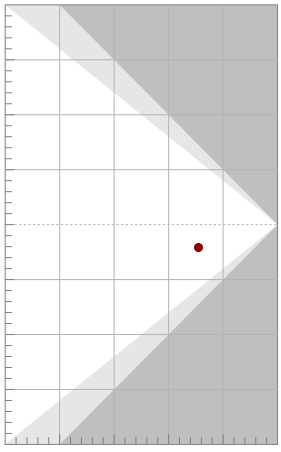
Hue angle bin (j)

Local Chroma Shift (per hue bin)



Hue angle bin (j)

Gamut Index vs. Fidelity Index



Gamut index (Rg)

Fidelity index (Rf)

CIE x	0.4113
CIE y	0.4113
CIE u'	0.2367
CIE v'	0.5150

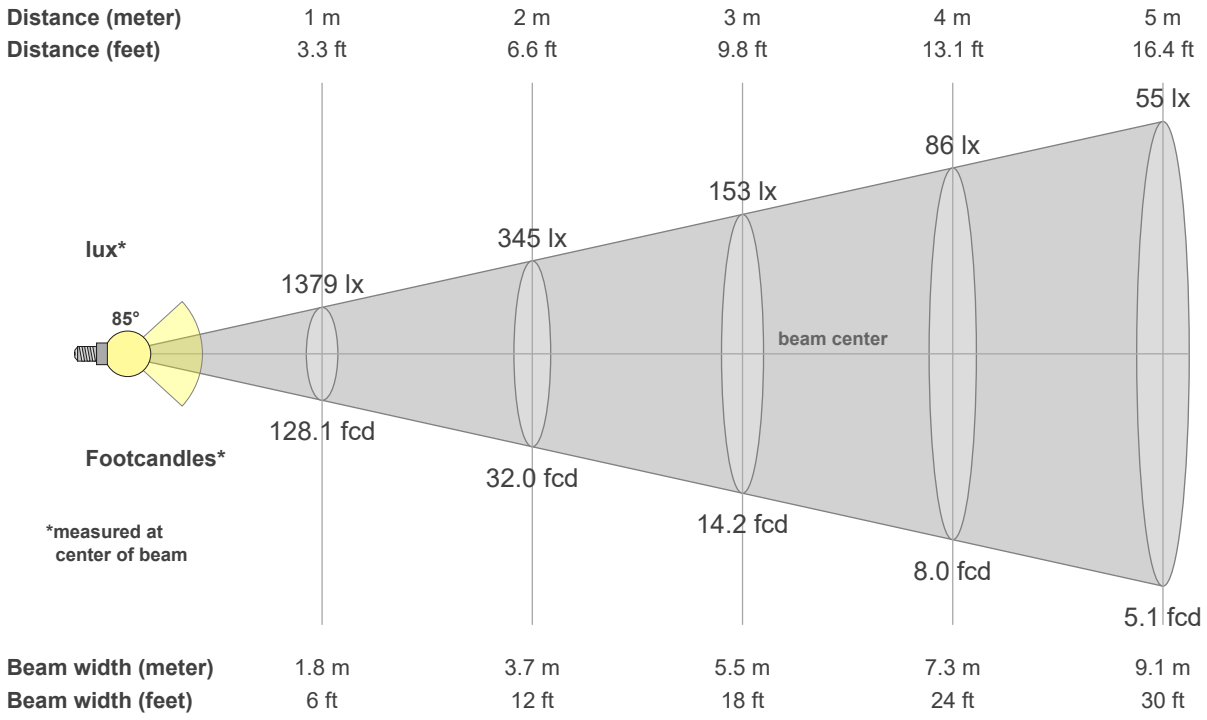
CIE	13.3-1995
Ra	84.0
R9	9.9

Prudential Lighting

Light measurement results

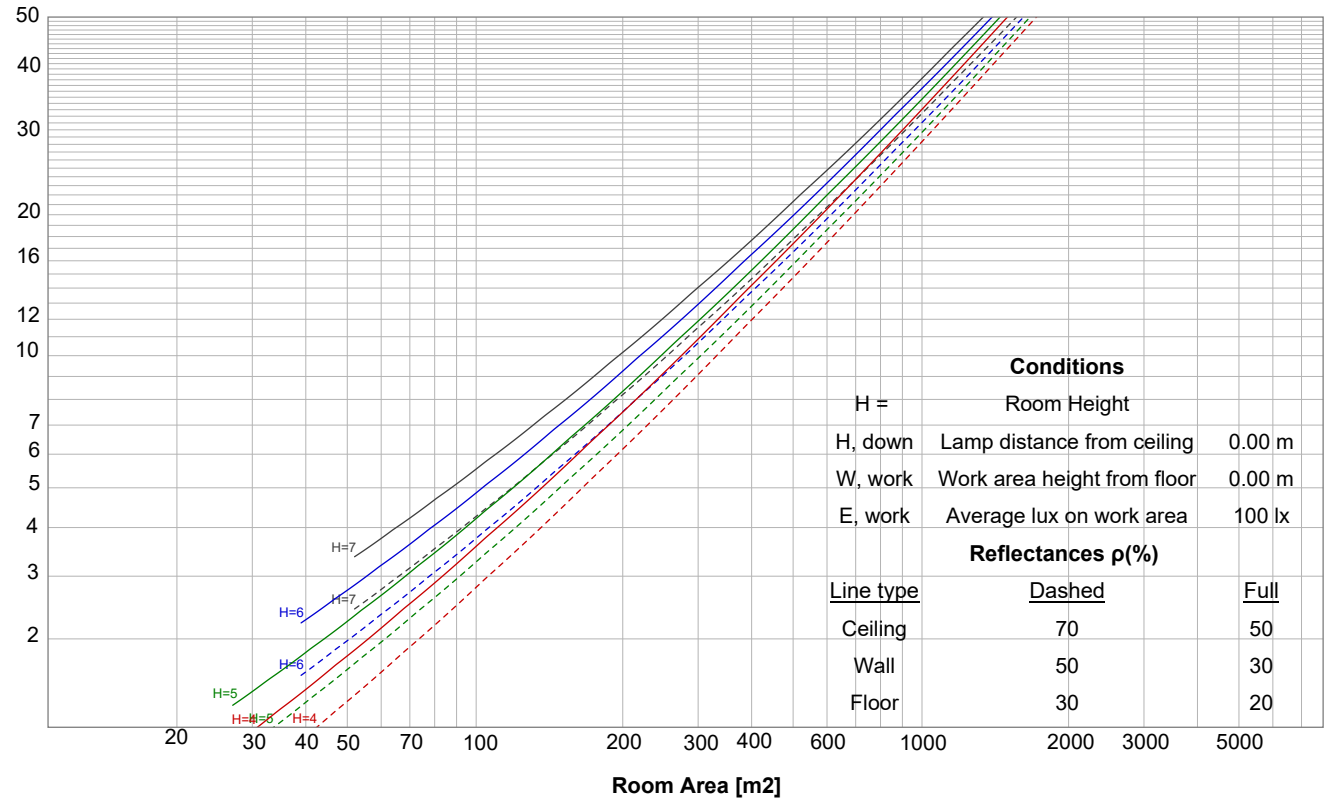
Print date 8/13/2026

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
1379	345	153	86	55	38	28	22	17	14	11	10	8	7	6	5	5	4	4	3	lux
128.1	32	14.2	8	5.1	3.6	2.6	2	1.6	1.3	1.1	0.9	0.8	0.7	0.6	0.5	0.4	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
1379	1367	1337	1291	1226	1146	1056	957	852	744	639	534	434	341	253	175	105	46	9	9	cd
100%	99%	97%	94%	89%	83%	77%	69%	62%	54%	46%	39%	31%	25%	18%	13%	8%	3%	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
1379	1532	1695	1834	1906	1867	1704	1460	1203	966	769	603	464	346	248	166	99	45	5	2	cd
100%	111%	123%	133%	138%	135%	124%	106%	87%	70%	56%	44%	34%	25%	18%	12%	7%	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
1379	1370	1341	1292	1230	1150	1062	964	861	756	650	544	444	342	264	183	111	53	7	5	cd
100%	99%	97%	94%	89%	83%	77%	70%	62%	55%	47%	39%	32%	25%	19%	13%	8%	4%	1%	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
1379	1260	1167	1087	1009	935	864	793	722	652	578	503	423	342	257	173	97	36	7	9	cd
100%	91%	85%	79%	73%	68%	63%	58%	52%	47%	42%	36%	31%	25%	19%	13%	7%	3%	1%	1%	of 0°val

Prudential Lighting

Light measurement results

Print date 8/13/2026

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
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	110.1	110.1	110.1	105.0	105.0	105.0	100.3	100.3	100.3	98.1
1	109.0	104.5	100.5	96.9	106.1	102.1	98.4	95.1	97.5	94.5	91.8	93.3	90.9	88.7	89.4	87.5	85.7	83.5
2	99.7	91.9	85.4	80.0	96.9	89.9	83.9	78.9	86.0	81.1	76.8	82.5	78.4	74.8	79.3	75.9	72.9	70.7
3	91.3	81.3	73.5	67.3	88.7	79.5	72.4	66.6	76.3	70.2	65.2	73.4	68.2	63.8	70.6	66.2	62.5	60.3
4	83.9	72.4	64.0	57.6	81.5	71.0	63.1	57.1	68.2	61.5	56.1	65.7	59.9	55.1	63.4	58.4	54.2	52.1
5	77.3	65.0	56.3	50.0	75.2	63.8	55.7	49.6	61.5	54.3	48.9	59.3	53.1	48.2	57.3	51.9	47.5	45.4
6	71.6	58.7	50.1	43.9	69.6	57.7	49.5	43.6	55.7	48.5	43.1	53.9	47.5	42.6	52.2	46.5	42.1	40.0
7	66.5	53.4	44.9	39.0	64.7	52.5	44.5	38.7	50.8	43.6	38.3	49.2	42.8	37.9	47.7	42.0	37.5	35.6
8	62.0	48.8	40.6	34.9	60.3	48.1	40.2	34.7	46.6	39.5	34.4	45.2	38.8	34.1	43.9	38.1	33.8	31.9
9	58.0	44.9	36.9	31.5	56.5	44.2	36.6	31.4	43.0	36.0	31.1	41.8	35.4	30.9	40.6	34.8	30.6	28.8
10	54.4	41.5	33.8	28.6	53.0	40.9	33.5	28.5	39.8	33.0	28.3	38.7	32.5	28.1	37.8	32.0	27.9	26.2

Prudential Lighting

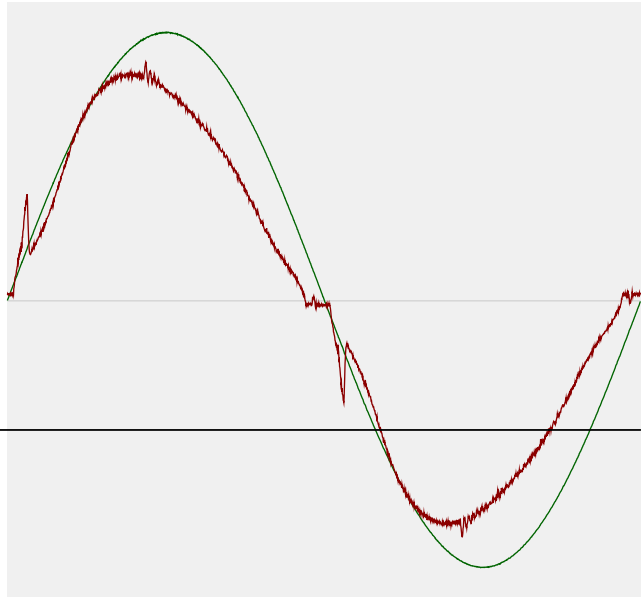
Light measurement results

Print date 8/13/2026

Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	32.67 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	33.4 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.98
Total harmonic distortion of the current	11.01%
Total harmonic distortion of the voltage	0.1035%

Input power curve



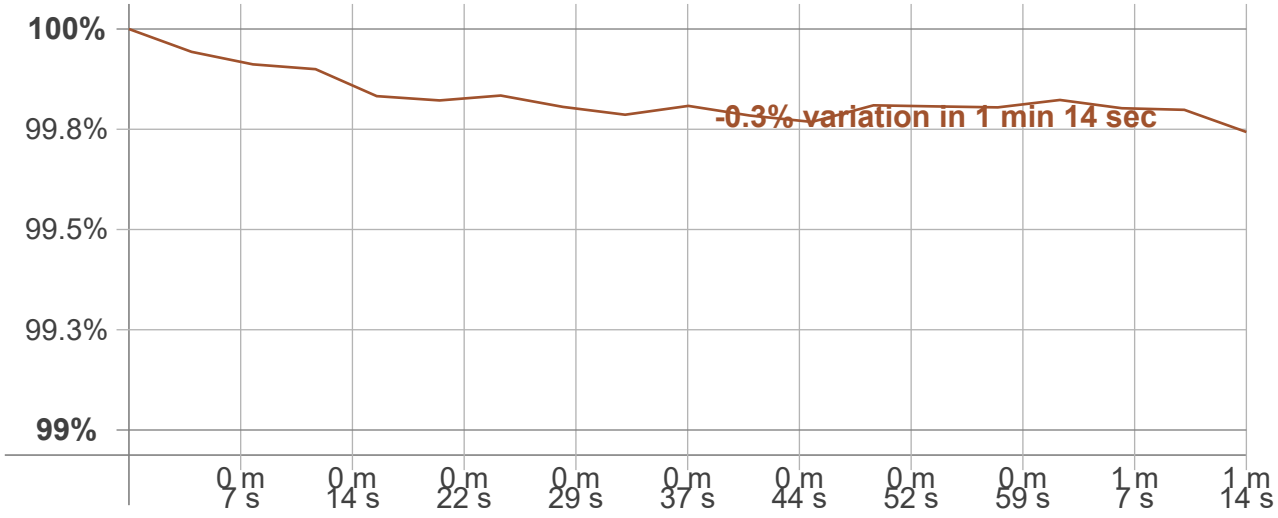
Efficiency

Radiated power efficiency	33.58
Lumen efficiency	112.5 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	3434 K
Stable change max	2%	CCT shift	0 K
Minimum time	15 min	CCT end	3434 K
Warmup Result		**Output Change**	
Total warmup time	Not completed	Output start	3678 lm
Warmup variation	-0.2568%	Output change	-2.8414 lm
		Output end	3676 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

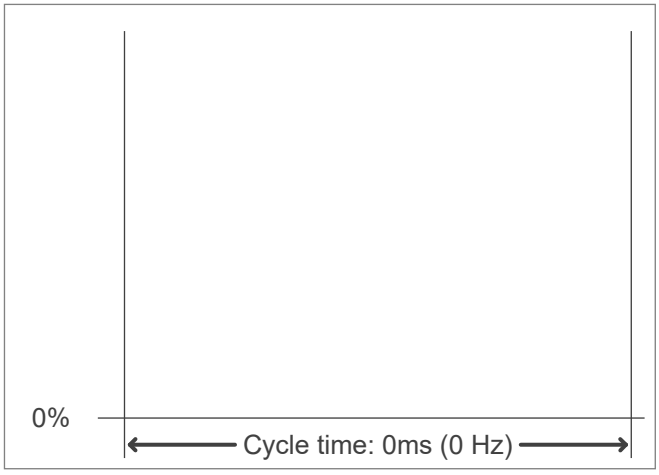
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

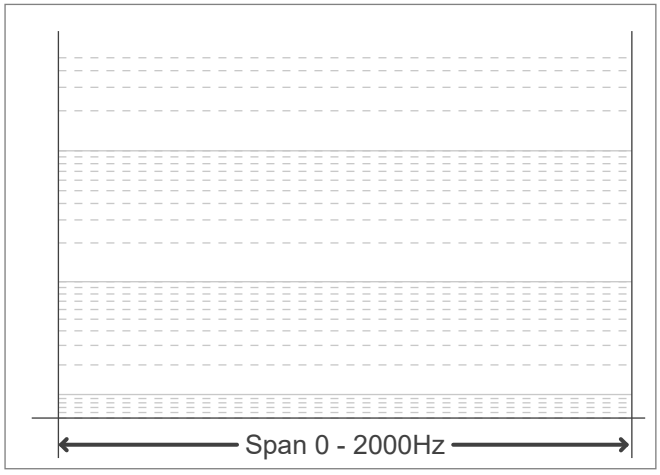
Flicker indices according to Lighting Research Center (2015)

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

