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	7/31/2026

Measurement Conditions

Tested c-planes	72 planes – 5.00°
Tested gamma resolution	1.00°
Input Power	42.87 W

Tested Light Source

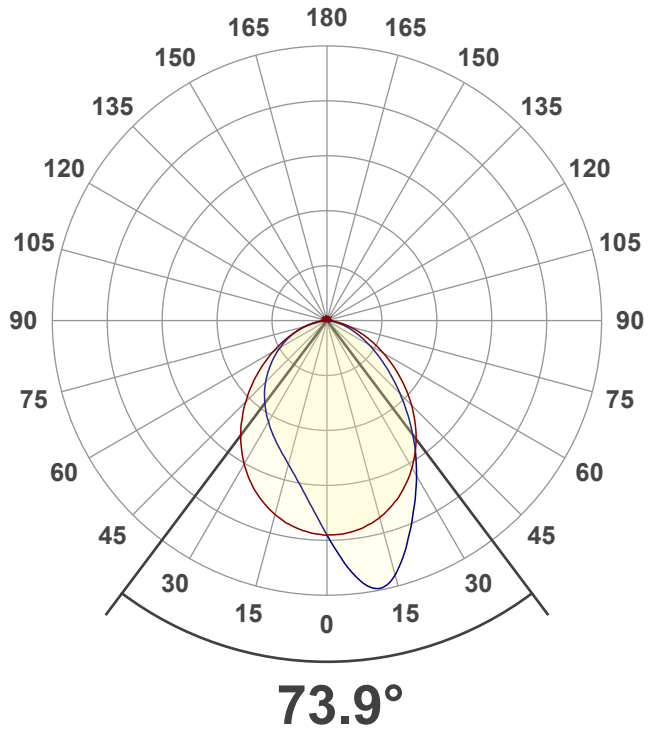
Luminaire	BPRO2-LIN-FLSH-LED35-HO-04-WWF-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	4793 lm – 1.655% / 98.35%
Efficiency	111.8 lm/W
Peak Intensity	2729 cd
Correlated Color Temperature, CCT	3449 K
Color Rendering Index	CRI 83.9

Polar light distribution diagram

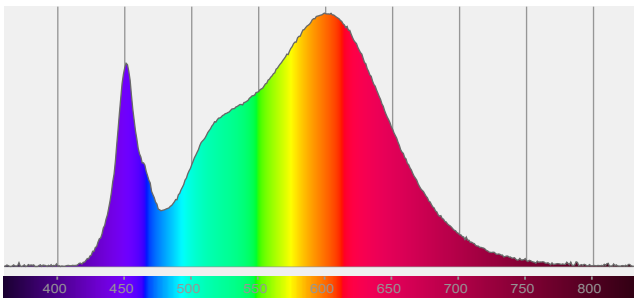
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	2093 cd	2093 cd	2093 cd	2093 cd	2093 cd
5°	2084 cd	2210 cd	2320 cd	2399 cd	2429 cd
15°	1989 cd	2350 cd	2606 cd	2668 cd	2569 cd
25°	1789 cd	2269 cd	2304 cd	2159 cd	2011 cd
35°	1509 cd	1938 cd	1785 cd	1623 cd	1493 cd
45°	1167 cd	1477 cd	1302 cd	1132 cd	1009 cd
55°	805.4 cd	1002 cd	876.7 cd	717.7 cd	627.1 cd
65°	482.3 cd	590.2 cd	515.6 cd	406.9 cd	352.2 cd
75°	229.4 cd	270.8 cd	235.1 cd	184.5 cd	159 cd
85°	51.05 cd	58.03 cd	48.16 cd	40.83 cd	35.76 cd
90°	4.544 cd	2.53 cd	1.234 cd	1.721 cd	5.269 cd

Spectral power distribution



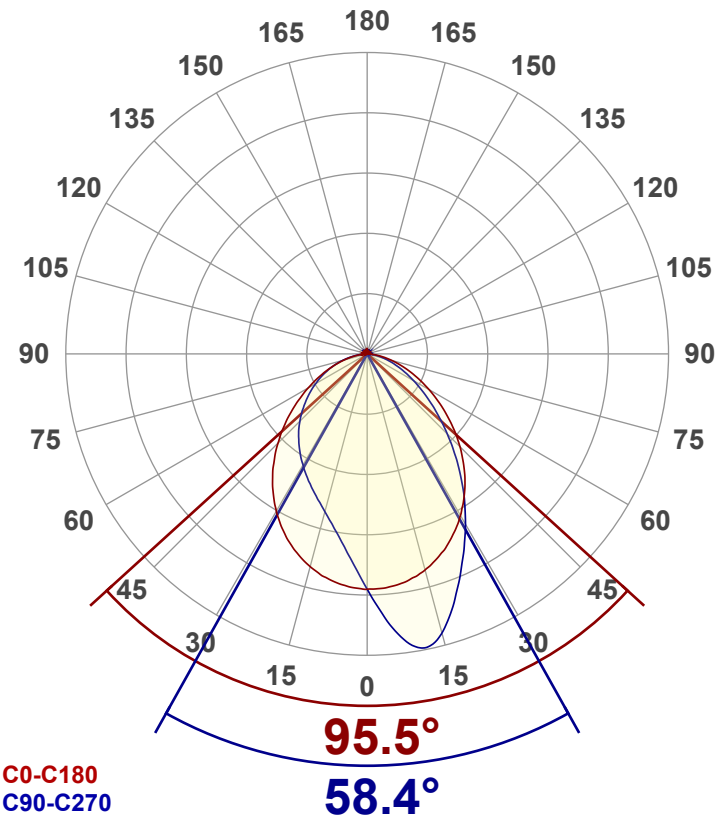
Prudential Lighting

Light measurement results

Print date 8/13/2026

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	4793 lm
Lumen Up% / Down%	1.655% / 98.35%
Peak Intensity	2729 cd
Beam Angle (50%-FWHM)	73.9°

EU Ecodesign parameters

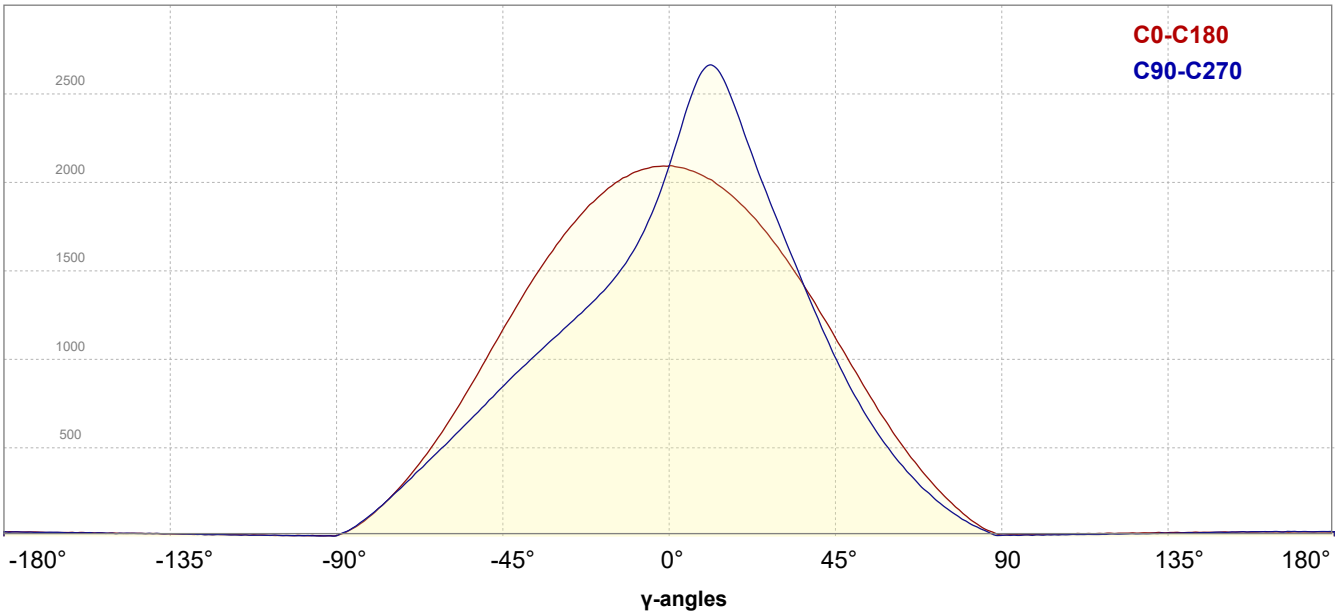
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous Flux	3970 lm
Ecodesign Energy Class	F

Intensity Ratio

In 120° cone	82.81%
In 90° cone	60.62%

Linear distribution diagram

Intensity [cd]

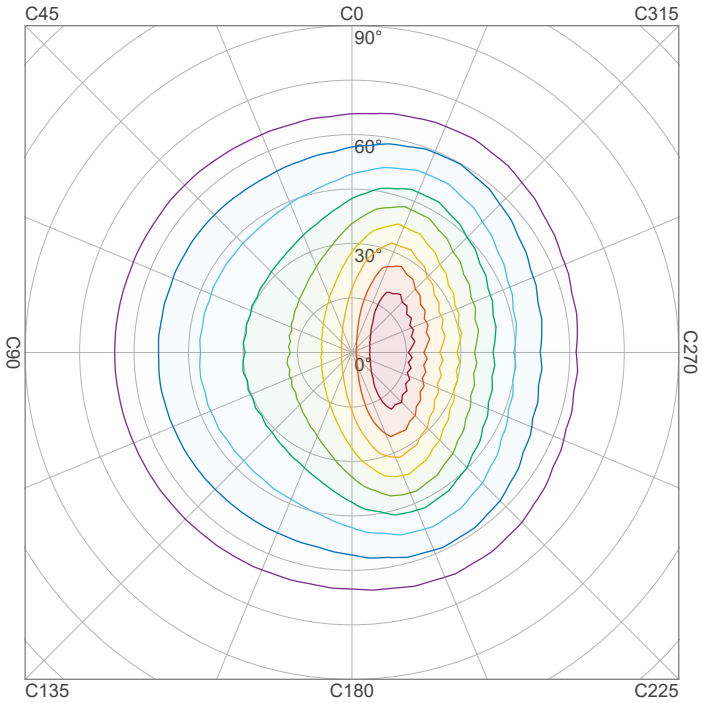


Prudential Lighting

Light measurement results

Print date 8/13/2026

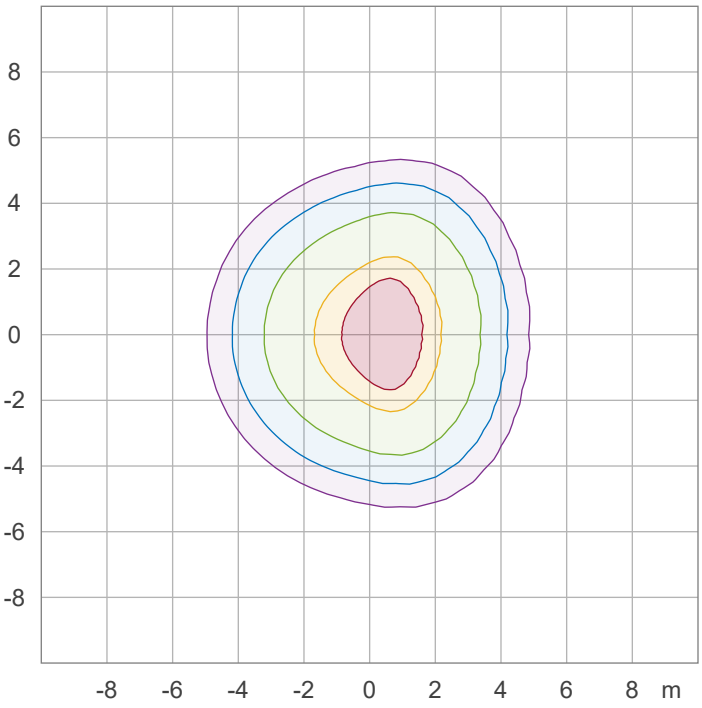
Iso-intensity Diagram (Iso-candela)



90 %	2454.7 cd
80 %	2182.0 cd
70 %	1909.2 cd
60 %	1636.5 cd
50 %	1363.7 cd
40 %	1091.0 cd
30 %	818.2 cd
20 %	545.5 cd
10 %	272.7 cd

Peak intensity: 2727.5 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	143 lx
30.0 %	85.7 lx
10.0 %	28.6 lx
5.0 %	14.3 lx
3.0 %	8.57 lx

Peak illuminance: 286 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

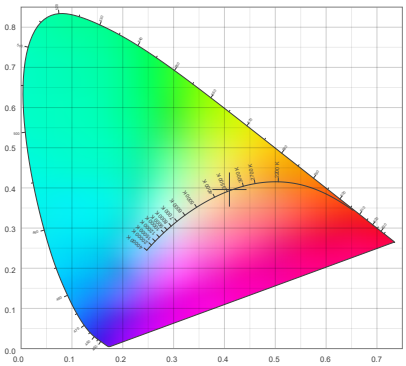
Light measurement results

Print date 8/13/2026

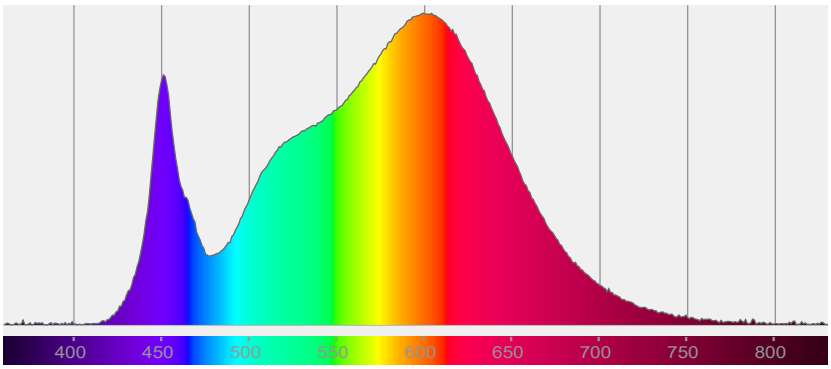
Color details

Correlated Color Temperature, Target	CCT = 3449 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3449 K	Color deviation from BBL	Duv = 0.0013
Color Rendering Index	CRI 83.9	Color coordinates CIE 1931	(x;y) = (0.4098;0.3959)
Color Rendering Index, R9 (red)	R9 = 9.5	Color coordinate CIEs 1960	(u;v) = (0.2365;0.3427)
Color Rendering TM30-18	Rf 85.4	Color coordinate CIEs 1976	(u';v') = (0.2365;0.5141)
	Rg 95.6	Color Quality Scale	CQS = 83.7

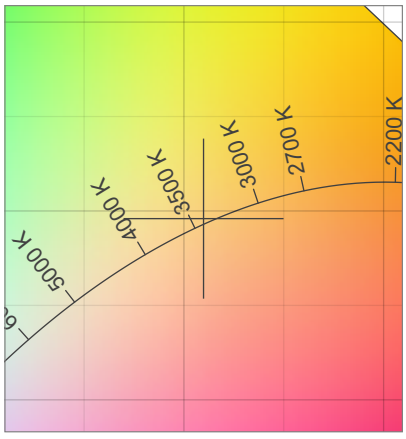
CIE 1931 Chromaticity diagram



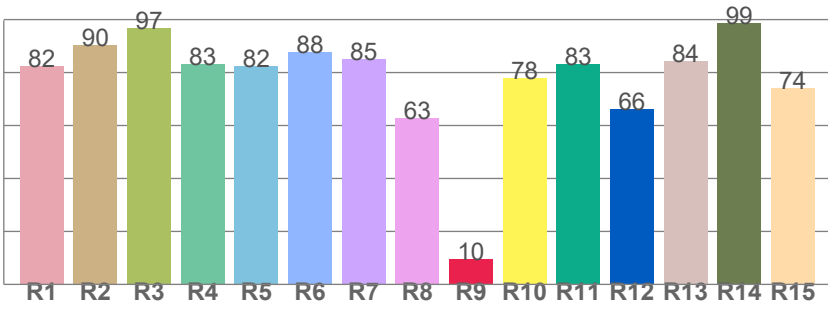
Spectral power distribution



CIE 1931 Chromaticity - zoomed



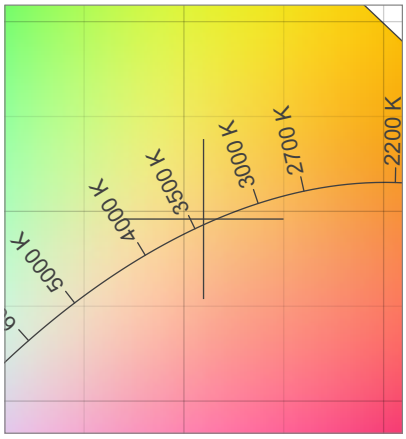
Color Rendering Index per reference color (CIE 1995)



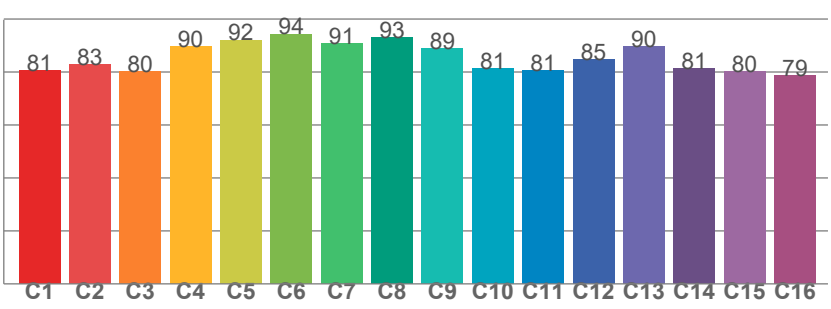
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.3	90.4	96.8	83.2	82.3	87.8	85.2	62.9	9.5	77.9	83.2	66.3	84.3	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
80.6	82.9	80.3	89.7	92.1	94.4	90.8	93.0	88.7	81.4	80.6	84.9	89.5	81.3	80.1	78.6

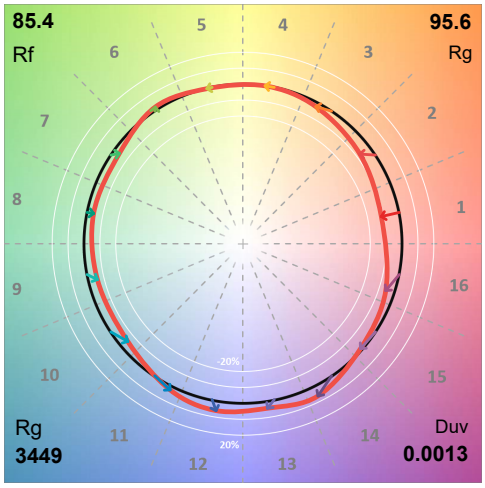
Prudential Lighting

Light measurement results

Print date 8/13/2026

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

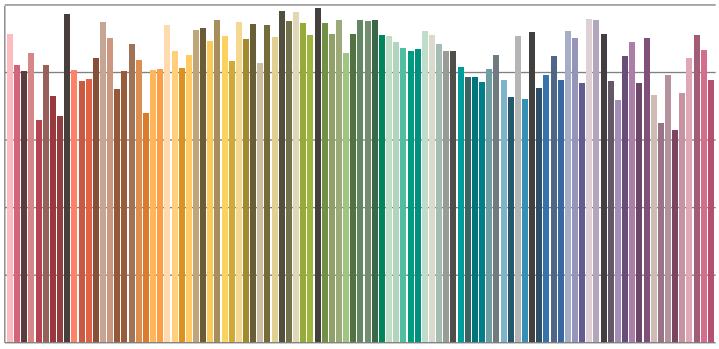
Color Vector Graphic



Color Distortion Graphic

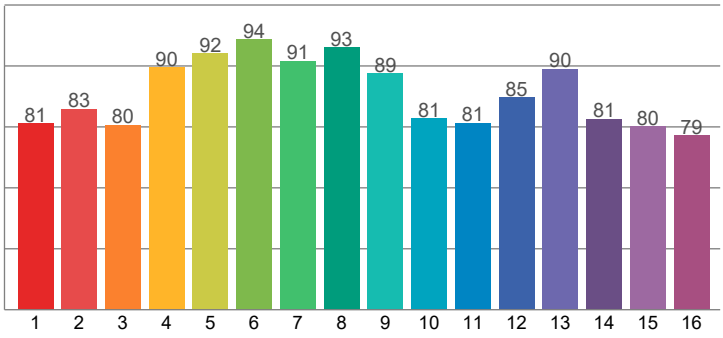


Color Rendition by Color Evaluation Sample (CES)



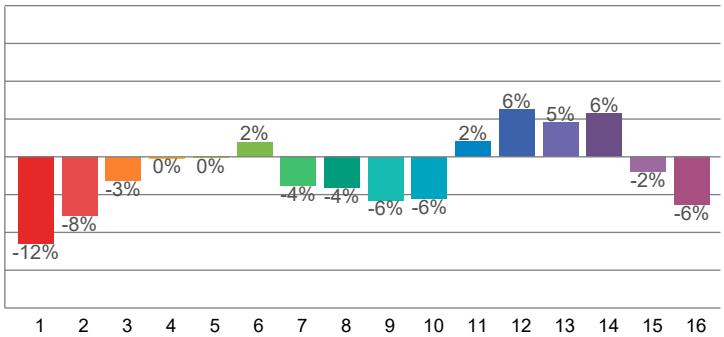
Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



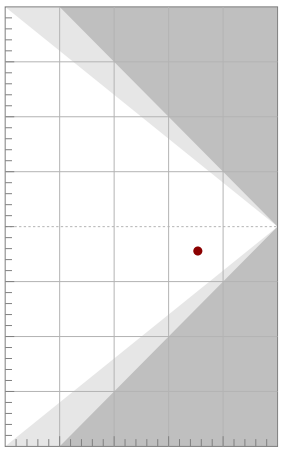
Hue angle bin (j)

Local Chroma Shift (per hue bin)



Hue angle bin (j)

Gamut Index vs. Fidelity Index



Gamut index (Rg)

Fidelity index (Rf)

CIE x	0.4098
CIE y	0.4098
CIE u'	0.2365
CIE v'	0.5141

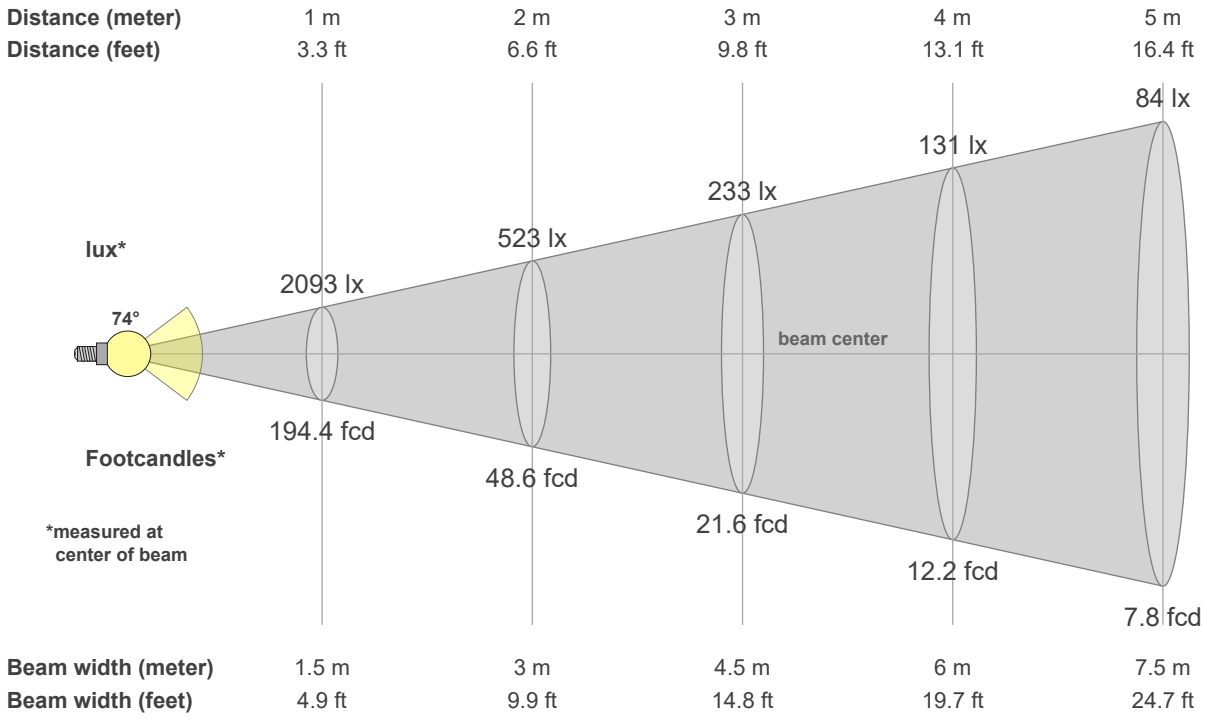
CIE	13.3-1995
Ra	83.9
R9	9.5

Prudential Lighting

Light measurement results

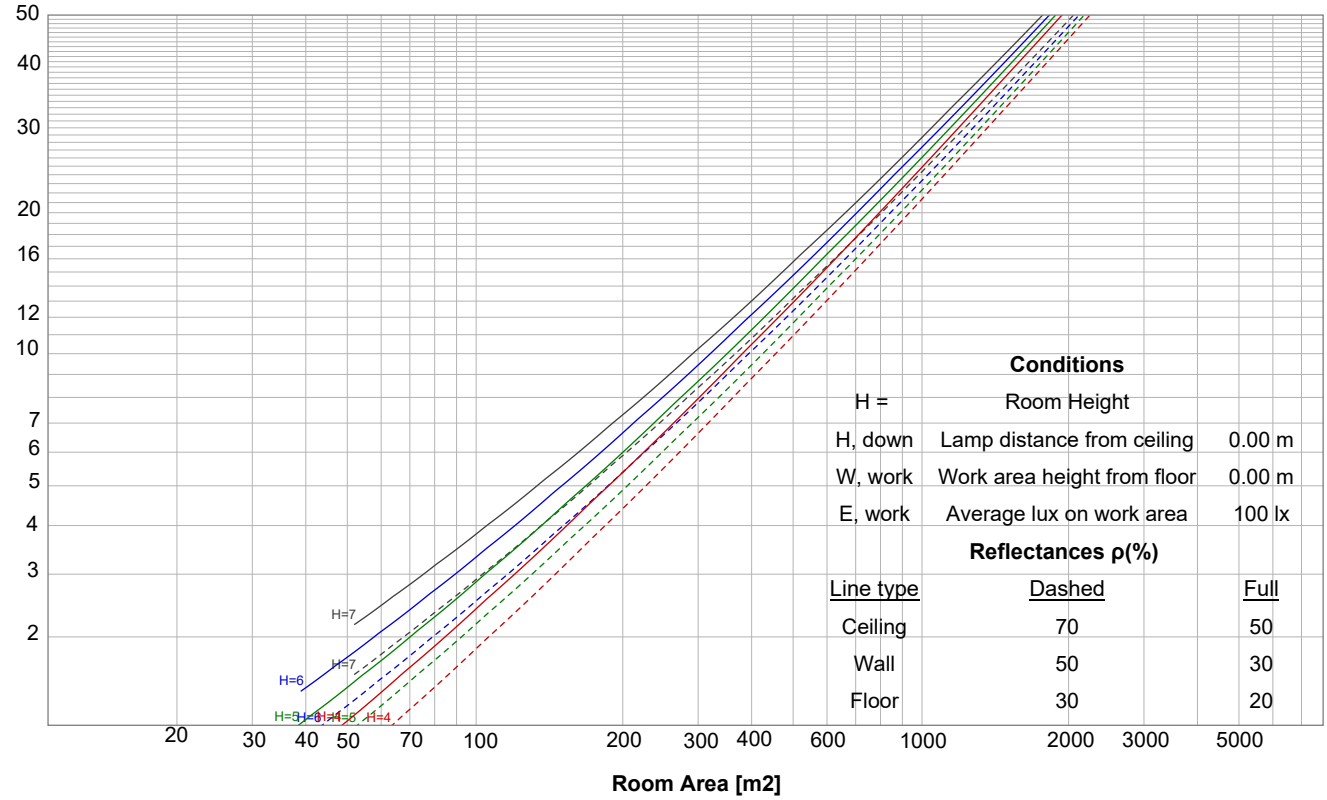
Print date 8/13/2026

Beam details



Luminaire budgetary diagram

LAMPS (number of lamps)



Prudential Lighting

Light measurement results

Print date 8/13/2026

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
2093	523	233	131	84	58	43	33	26	21	17	15	12	11	9	8	7	6	6	5	lux
194.4	48.6	21.6	12.2	7.8	5.4	4	3	2.4	1.9	1.6	1.4	1.2	1	0.9	0.8	0.7	0.6	0.5	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
2093	2084	2051	1989	1900	1789	1659	1509	1344	1167	984	805	636	482	347	229	129	51	5	3	cd
100%	100%	98%	95%	91%	85%	79%	72%	64%	56%	47%	38%	30%	23%	17%	11%	6%	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
2093	2429	2652	2569	2297	2011	1749	1493	1243	1009	803	627	478	352	248	159	89	36	5	5	cd
100%	116%	127%	123%	110%	96%	84%	71%	59%	48%	38%	30%	23%	17%	12%	8%	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
2093	2073	2028	1959	1866	1750	1616	1464	1297	1121	945	770	606	458	329	216	120	46	7	8	cd
100%	99%	97%	94%	89%	84%	77%	70%	62%	54%	45%	37%	29%	22%	16%	10%	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
2093	1809	1602	1453	1338	1239	1141	1046	949	846	739	634	528	428	324	227	133	55	4	2	cd
100%	86%	77%	69%	64%	59%	55%	50%	45%	40%	35%	30%	25%	20%	15%	11%	6%	3%	0%	0%	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
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	118.7	118.7	118.7	118.7	115.7	115.7	115.7	115.7	110.2	110.2	110.2	105.2	105.2	105.2	100.5	100.5	100.5	98.3
1	109.4	105.0	101.2	97.6	106.6	102.6	99.1	95.9	98.1	95.2	92.6	94.0	91.6	89.5	90.2	88.3	86.6	84.4
2	100.3	92.7	86.5	81.2	97.6	90.7	85.0	80.1	87.0	82.2	78.0	83.5	79.5	76.0	80.3	77.0	74.1	71.9
3	92.1	82.3	74.8	68.7	89.6	80.6	73.7	68.0	77.5	71.5	66.6	74.6	69.5	65.3	71.9	67.6	64.0	61.8
4	84.8	73.6	65.4	59.1	82.5	72.2	64.6	58.7	69.5	62.9	57.7	67.1	61.4	56.8	64.8	59.9	55.8	53.7
5	78.4	66.3	57.9	51.6	76.2	65.1	57.2	51.3	62.9	55.9	50.6	60.8	54.7	49.9	58.8	53.5	49.2	47.2
6	72.7	60.1	51.6	45.6	70.7	59.1	51.1	45.3	57.2	50.1	44.8	55.4	49.1	44.3	53.7	48.1	43.8	41.8
7	67.6	54.8	46.5	40.7	65.9	53.9	46.1	40.5	52.3	45.2	40.1	50.7	44.4	39.7	49.3	43.6	39.3	37.4
8	63.2	50.3	42.2	36.6	61.6	49.5	41.8	36.4	48.1	41.1	36.1	46.8	40.4	35.8	45.5	39.8	35.5	33.7
9	59.2	46.3	38.5	33.2	57.7	45.7	38.2	33.1	44.5	37.6	32.8	43.3	37.0	32.6	42.2	36.5	32.3	30.5
10	55.6	42.9	35.3	30.3	54.3	42.4	35.1	30.2	41.3	34.6	30.0	40.3	34.1	29.8	39.3	33.7	29.6	27.9

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	42.87 W
RMS Input voltage feed V,RMS	120 V
RMS Input current feed I,RMS	0.36 A
Volt-Amp or apparent power = V,RMS*I,RMS	43.5 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.99
Total harmonic distortion of the current	8.961%
Total harmonic distortion of the voltage	0.1021%

Input power curve



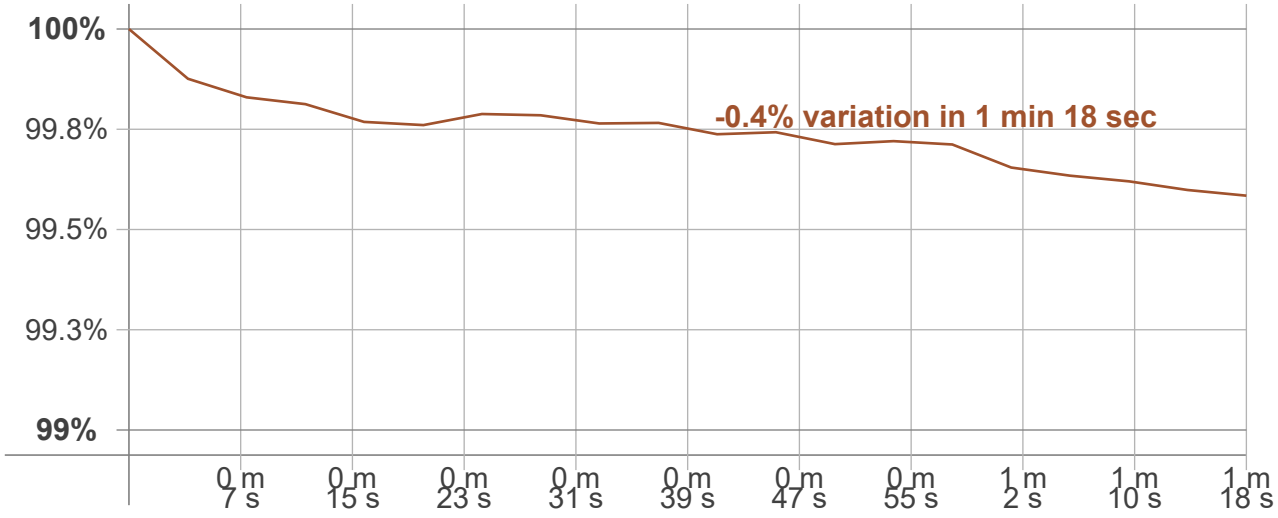
Efficiency

Radiated power efficiency	33.36
Lumen efficiency	111.8 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	3448 K
Stable change max	1%	CCT shift	1 K
Minimum time	15 min	CCT end	3449 K
Warmup Result		**Output Change**	
Total warmup time	Not completed	Output start	4800 lm
Warmup variation	-0.4156%	Output change	-6.8909 lm
		Output end	4793 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

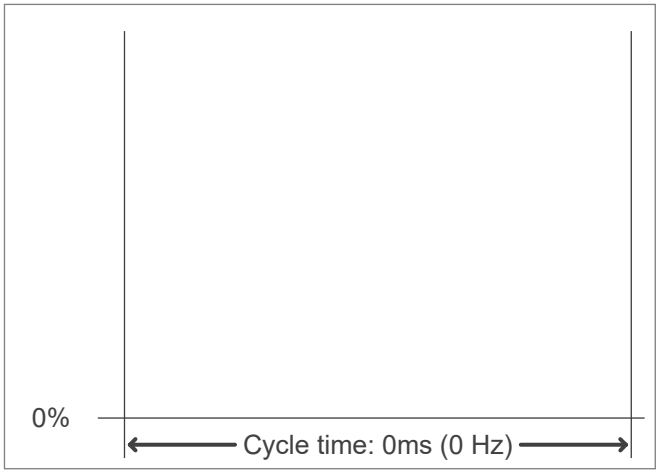
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

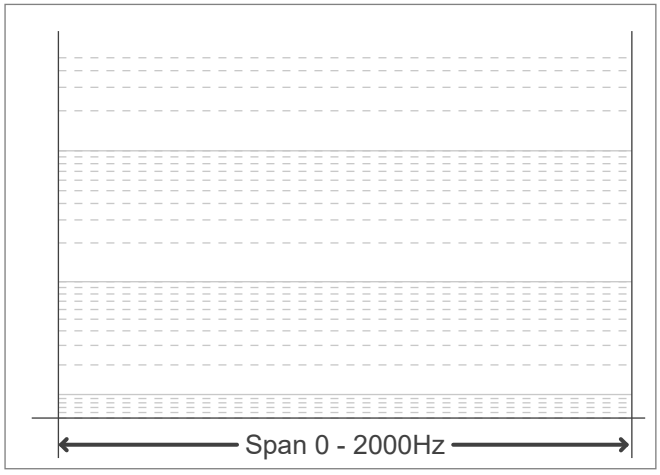
Flicker indices according to Lighting Research Center (2015)

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

