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	7/27/2026

Measurement Conditions

Tested c-planes	72 planes – 5.00°
Tested gamma resolution	0.45°
Input Power	32.65 W

Tested Light Source

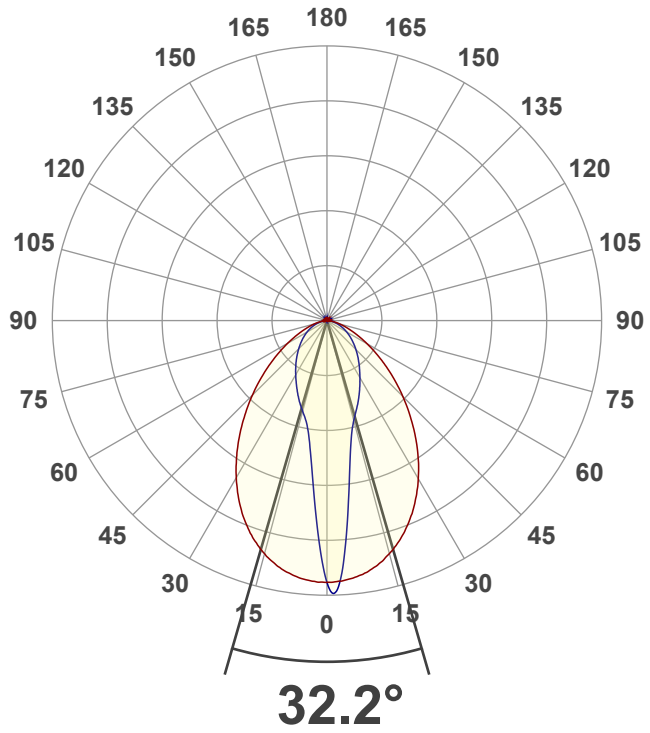
Luminaire	BPRO2-LIN-FLSH-LED35-SO-04-NGZ-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	3841 lm – 1.712% / 98.29%
Efficiency	117.6 lm/W
Peak Intensity	3893 cd
Correlated Color Temperature, CCT	3443 K
Color Rendering Index	CRI 84.0

Polar light distribution diagram

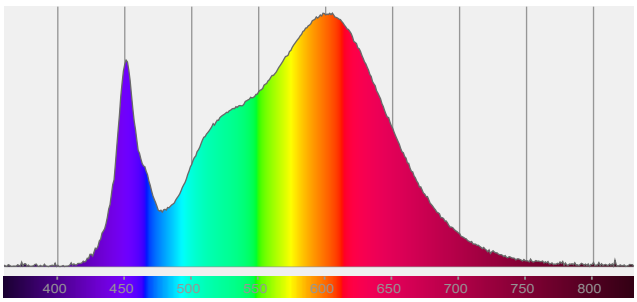
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	3557 cd	3557 cd	3557 cd	3557 cd	3557 cd
5°	3524 cd	3823 cd	3571 cd	3327 cd	2976 cd
15°	3278 cd	2923 cd	1830 cd	1539 cd	1406 cd
25°	2794 cd	1930 cd	1271 cd	1129 cd	1048 cd
35°	2144 cd	1382 cd	939.2 cd	822 cd	768.4 cd
45°	1457 cd	992.3 cd	667.1 cd	591.8 cd	555.9 cd
55°	865.8 cd	662.8 cd	456.4 cd	405.3 cd	384.4 cd
65°	438.2 cd	390.3 cd	282.9 cd	252.3 cd	240.3 cd
75°	183.2 cd	182.8 cd	141.8 cd	123.9 cd	118.9 cd
85°	44.96 cd	45.09 cd	33.38 cd	28.61 cd	28.13 cd
90°	3.555 cd	0.8071 cd	1.978 cd	0.8857 cd	3.639 cd

Spectral power distribution



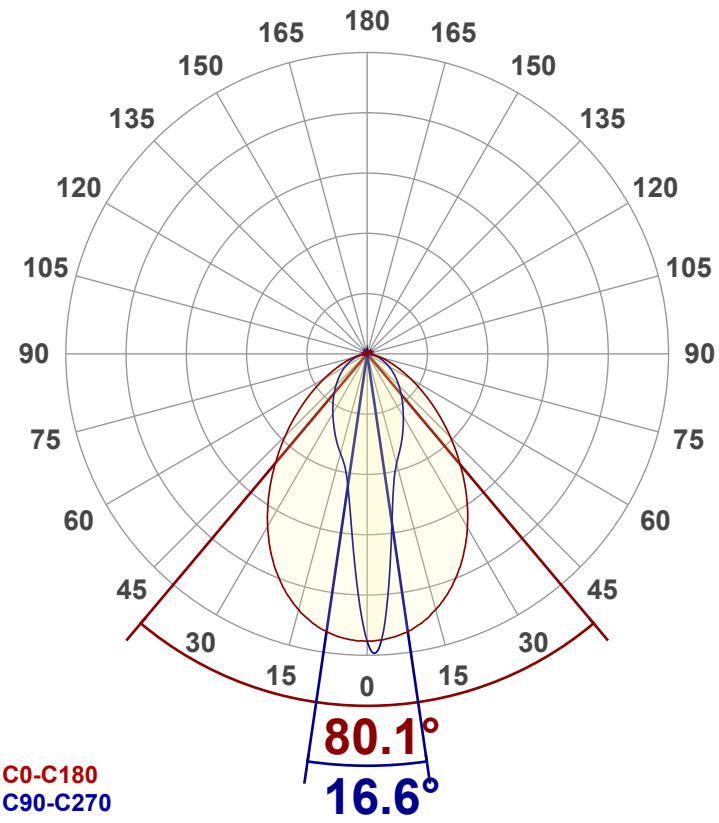
Prudential Lighting

Light measurement results

Print date 8/13/2026

Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	3841 lm
Lumen Up% / Down%	1.712% / 98.29%
Peak Intensity	3893 cd
Beam Angle (50%-FWHM)	32.2°

EU Ecodesign parameters

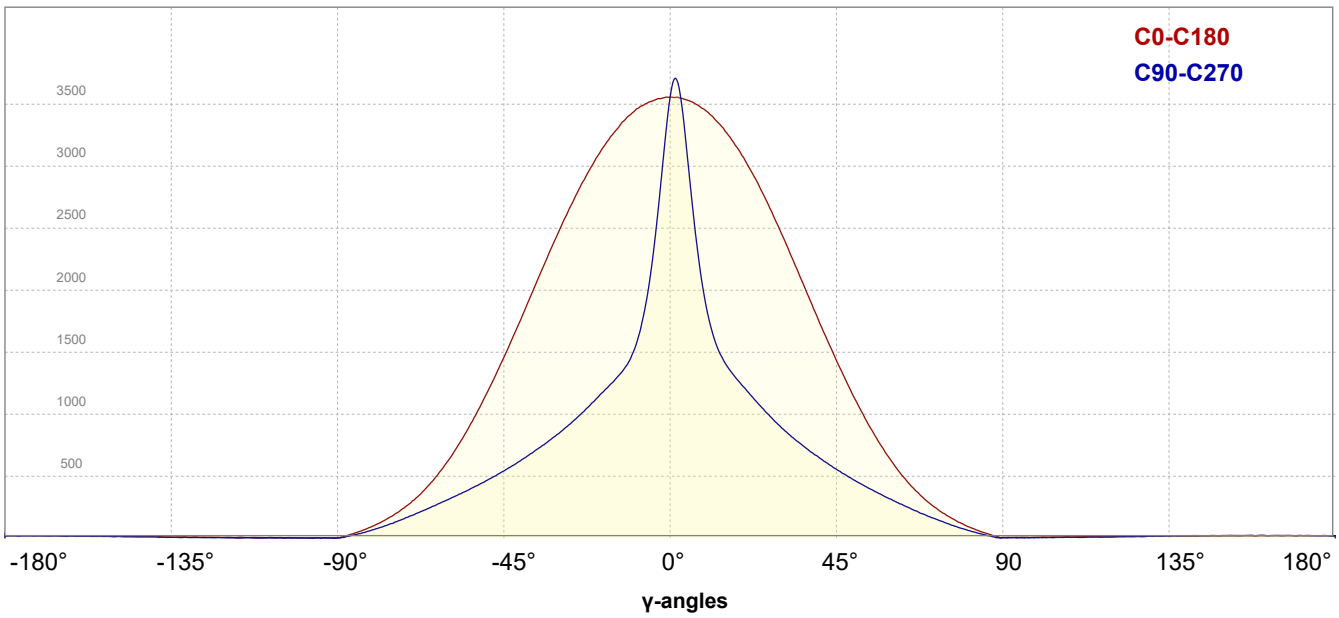
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous Flux	2502 lm
Ecodesign Energy Class	F

Intensity Ratio

In 120° cone	84.93%
In 90° cone	65.15%

Linear distribution diagram

Intensity [cd]

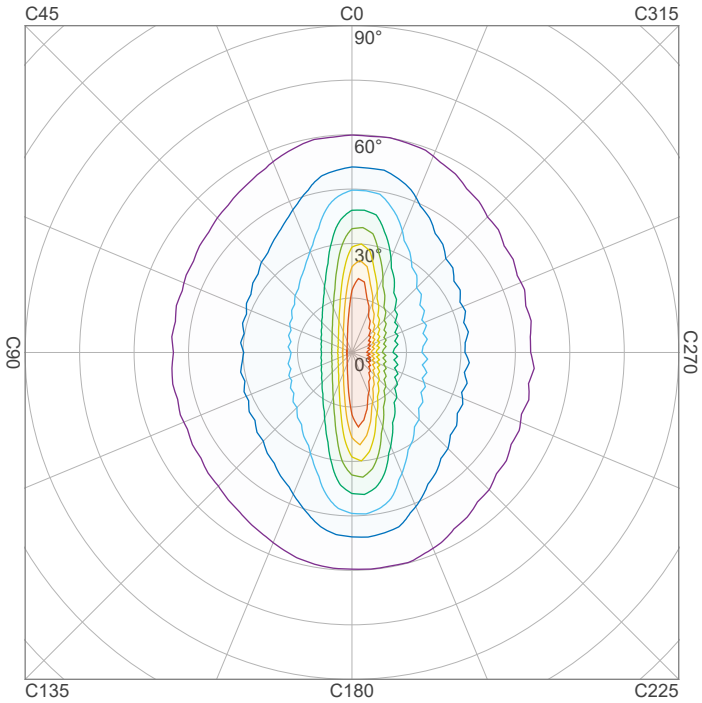


Prudential Lighting

Light measurement results

Print date 8/13/2026

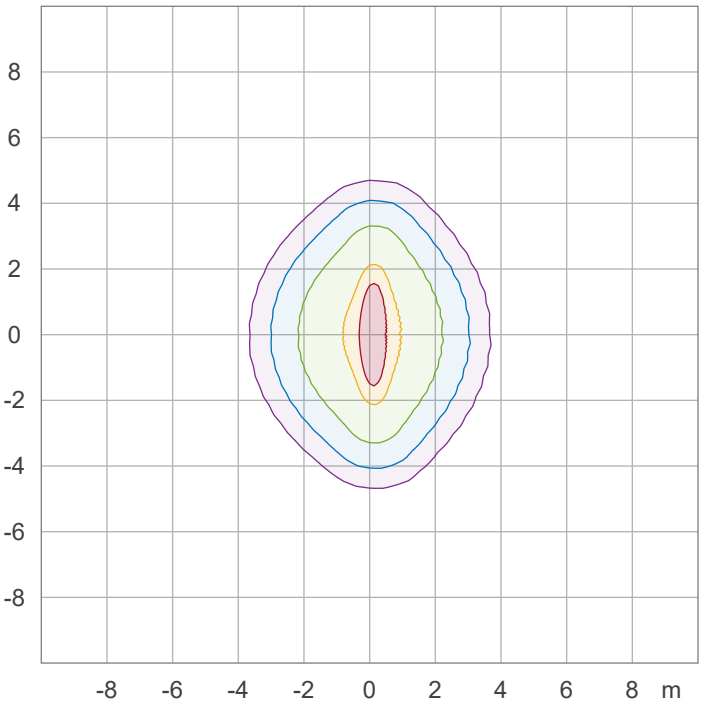
Iso-intensity Diagram (Iso-candela)



90 %	3500.7 cd
80 %	3111.7 cd
70 %	2722.8 cd
60 %	2333.8 cd
50 %	1944.8 cd
40 %	1555.9 cd
30 %	1166.9 cd
20 %	777.9 cd
10 %	389.0 cd

Peak intensity: 3889.7 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	215 lx
30.0 %	129 lx
10.0 %	43 lx
5.0 %	21.5 lx
3.0 %	12.9 lx

Peak illuminance: 430 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

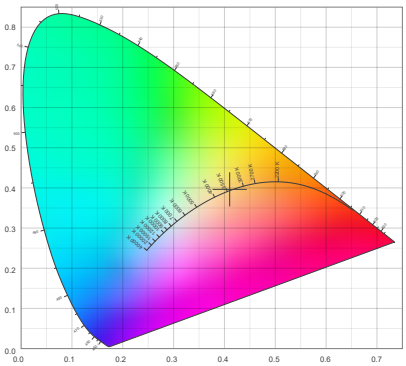
Light measurement results

Print date 8/13/2026

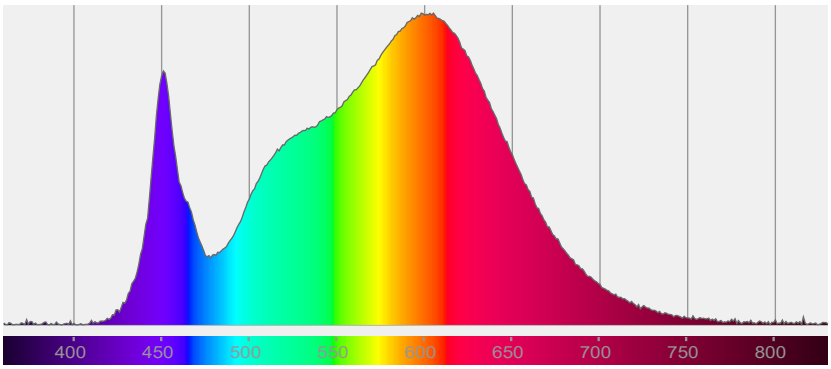
Color details

Correlated Color Temperature, Target	CCT = 3443 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3443 K	Color deviation from BBL	Duv = 0.0014
Color Rendering Index	CRI 84.0	Color coordinates CIE 1931	(x;y) = (0.4103;0.3963)
Color Rendering Index, R9 (red)	R9 = 10.2	Color coordinate CIEs 1960	(u;v) = (0.2366;0.3429)
Color Rendering TM30-18	Rf 85.5	Color coordinate CIEs 1976	(u';v') = (0.2366;0.5143)
	Rg 95.6	Color Quality Scale	CQS = 83.9

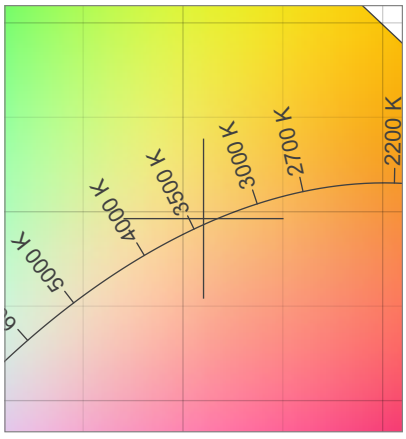
CIE 1931 Chromaticity diagram



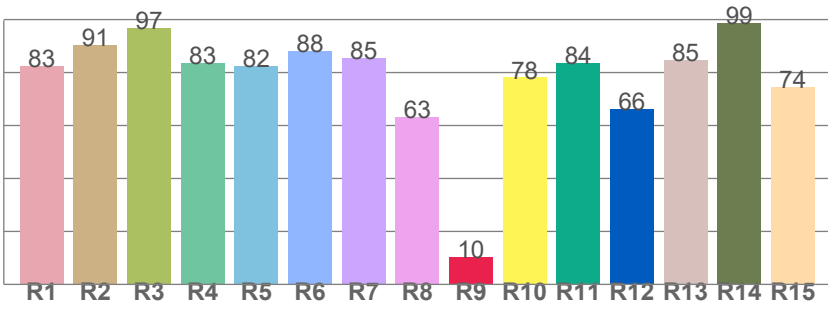
Spectral power distribution



CIE 1931 Chromaticity - zoomed



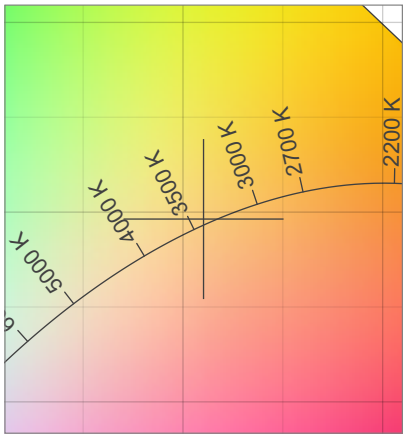
Color Rendering Index per reference color (CIE 1995)



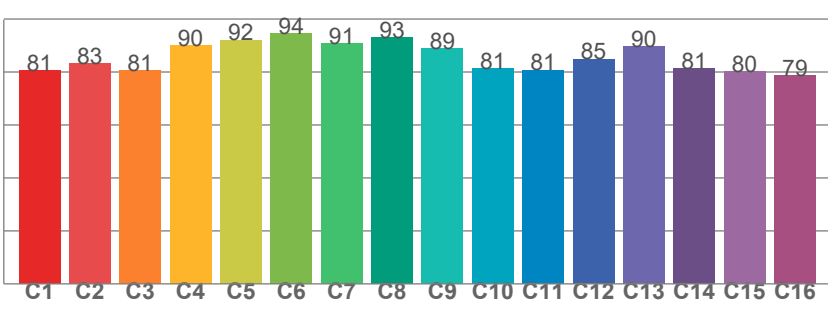
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.5	90.5	96.9	83.5	82.5	88.0	85.4	63.1	10.2	78.1	83.6	66.2	84.5	98.6	74.4

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	80.6	89.9	92.1	94.4	90.9	93.1	88.8	81.5	80.8	84.9	89.5	81.4	80.2	78.7

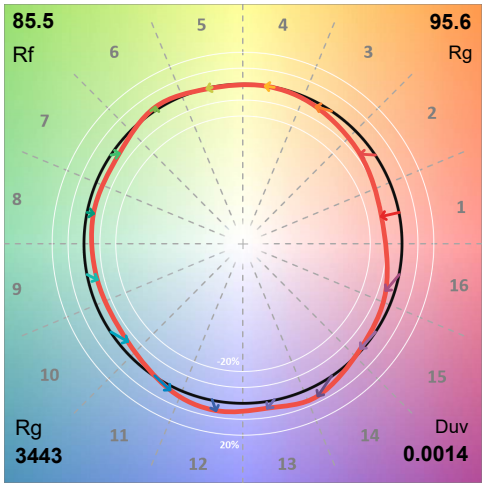
Prudential Lighting

Light measurement results

Print date 8/13/2026

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

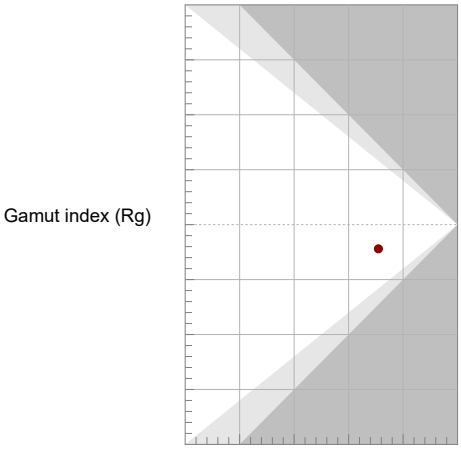
Color Vector Graphic



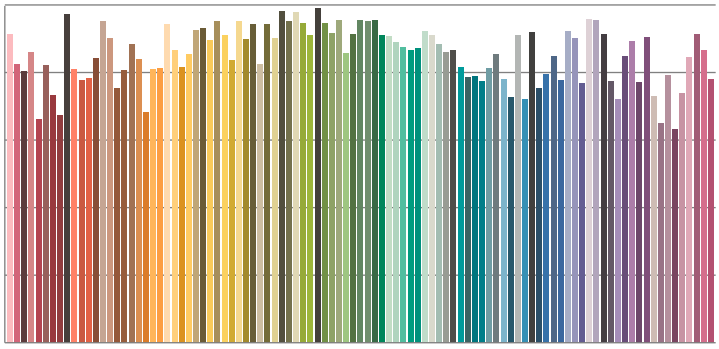
Color Distortion Graphic



Gamut Index vs. Fidelity Index

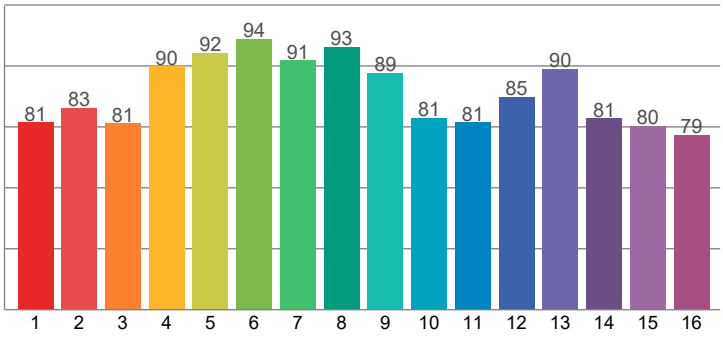


Color Rendition by Color Evaluation Sample (CES)

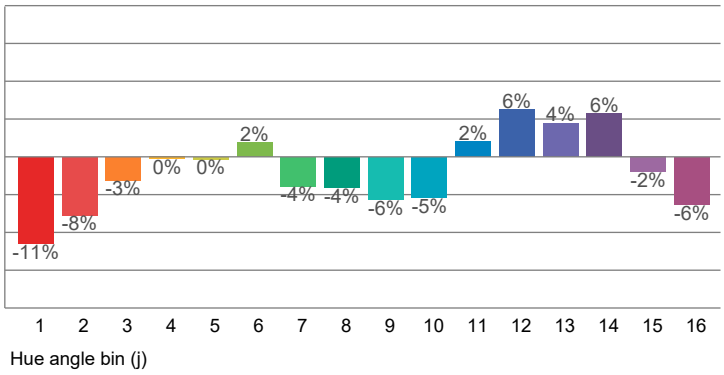


Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



Local Chroma Shift (per hue bin)



CIE x	0.4103
CIE y	0.4103
CIE u'	0.2366
CIE v'	0.5143

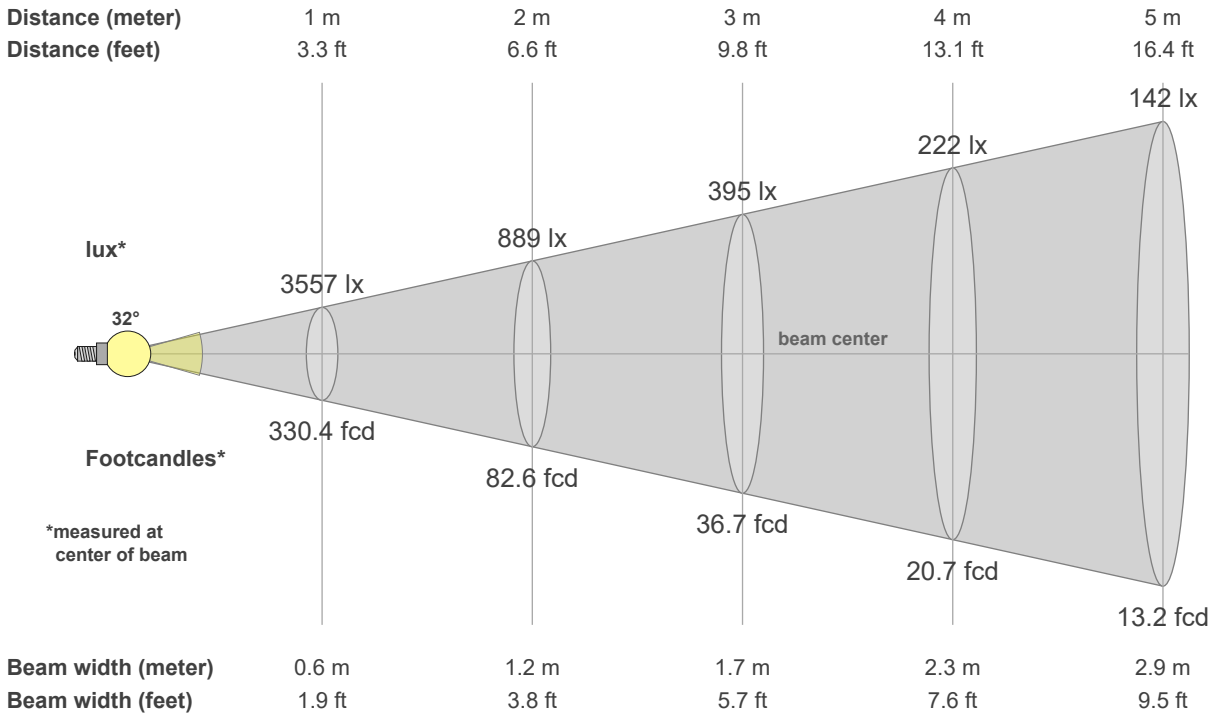
CIE	13.3-1995
Ra	84.0
R9	10.2

Prudential Lighting

Light measurement results

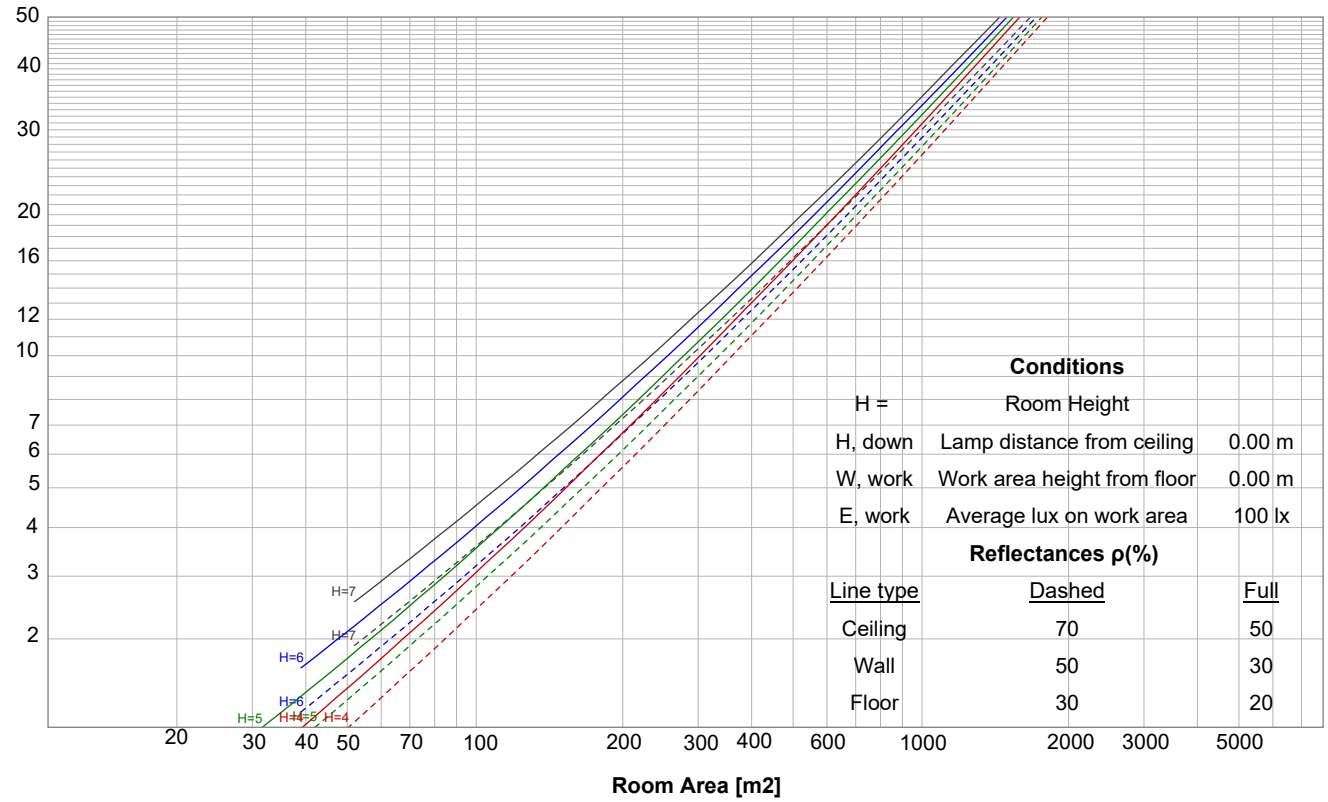
Print date 8/13/2026

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
3557	889	395	222	142	99	73	56	44	36	29	25	21	18	16	14	12	11	10	9	lux
330.4	82.6	36.7	20.7	13.2	9.2	6.7	5.2	4.1	3.3	2.7	2.3	2	1.7	1.5	1.3	1.1	1	0.9	0.8	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
3557	3524	3435	3278	3065	2794	2482	2144	1794	1457	1147	866	629	438	292	183	103	45	4	3	cd
100%	99%	97%	92%	86%	79%	70%	60%	50%	41%	32%	24%	18%	12%	8%	5%	3%	1%	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
3557	2976	1831	1406	1216	1048	895	768	658	556	465	384	311	240	175	119	70	28	4	3	cd
100%	84%	51%	40%	34%	29%	25%	22%	18%	16%	13%	11%	9%	7%	5%	3%	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
3557	3529	3440	3278	3062	2784	2464	2119	1769	1432	1122	850	617	428	286	182	102	45	6	8	cd
100%	99%	97%	92%	86%	78%	69%	60%	50%	40%	32%	24%	17%	12%	8%	5%	3%	1%	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
3557	2194	1500	1275	1124	978	848	737	636	543	460	383	313	246	183	121	72	31	2	2	cd
100%	62%	42%	36%	32%	27%	24%	21%	18%	15%	13%	11%	9%	7%	5%	3%	2%	1%	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	118.6	118.6	118.6	118.6	115.7	115.7	115.7	115.7	110.2	110.2	110.2	105.1	105.1	105.1	100.5	100.5	100.5	98.3
1	110.0	105.9	102.2	98.9	107.1	103.5	100.1	97.1	99.0	96.3	93.8	94.8	92.6	90.6	91.0	89.3	87.7	85.6
2	101.5	94.3	88.4	83.4	98.8	92.3	86.9	82.3	88.6	84.1	80.2	85.2	81.4	78.1	82.0	78.9	76.2	74.1
3	93.7	84.5	77.4	71.7	91.3	82.9	76.3	70.9	79.7	74.1	69.5	76.9	72.1	68.1	74.2	70.2	66.8	64.7
4	86.8	76.2	68.5	62.6	84.6	74.9	67.6	62.1	72.2	66.0	61.1	69.8	64.5	60.1	67.6	63.0	59.2	57.1
5	80.7	69.3	61.3	55.4	78.6	68.1	60.6	55.0	65.9	59.3	54.3	63.8	58.1	53.6	61.9	56.9	52.9	50.9
6	75.3	63.3	55.3	49.6	73.4	62.3	54.8	49.3	60.4	53.7	48.7	58.7	52.8	48.2	57.0	51.8	47.7	45.8
7	70.4	58.2	50.3	44.8	68.7	57.4	49.9	44.6	55.7	49.0	44.2	54.2	48.2	43.8	52.8	47.5	43.4	41.5
8	66.1	53.8	46.1	40.8	64.5	53.1	45.7	40.6	51.7	45.0	40.3	50.4	44.4	40.0	49.1	43.7	39.7	37.9
9	62.2	50.0	42.5	37.4	60.8	49.3	42.2	37.3	48.1	41.6	37.1	47.0	41.1	36.8	45.9	40.5	36.5	34.9
10	58.7	46.6	39.4	34.6	57.4	46.1	39.1	34.5	45.0	38.6	34.3	44.0	38.2	34.0	43.1	37.7	33.8	32.2

Prudential Lighting

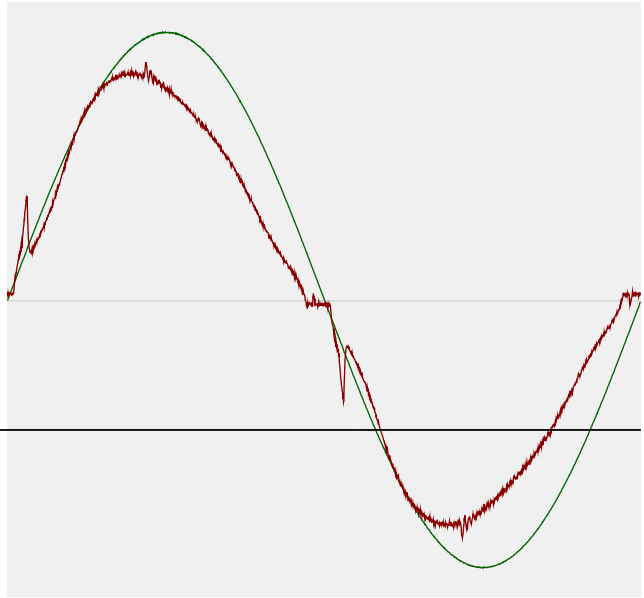
Light measurement results

Print date 8/13/2026

Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	32.65 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	10.94%
Total harmonic distortion of the voltage	0.1061%

Input power curve



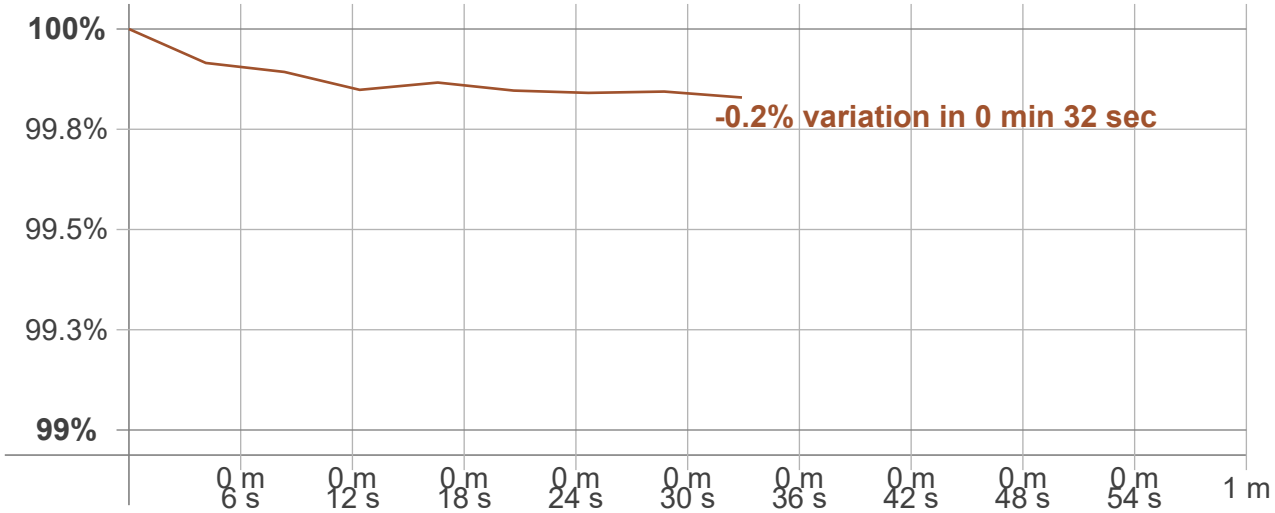
Efficiency

Radiated power efficiency	35.15
Lumen efficiency	117.6 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	3442 K
Stable change max	1%	CCT shift	1 K
Minimum time	15 min	CCT end	3443 K
Warmup Result		**Output Change**	
Total warmup time	Not completed	Output start	3844 lm
Warmup variation	-0.1708%	Output change	-2.8491 lm
		Output end	3841 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

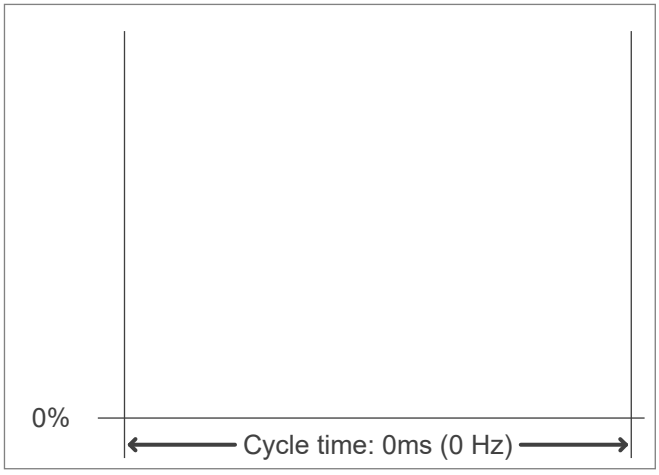
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

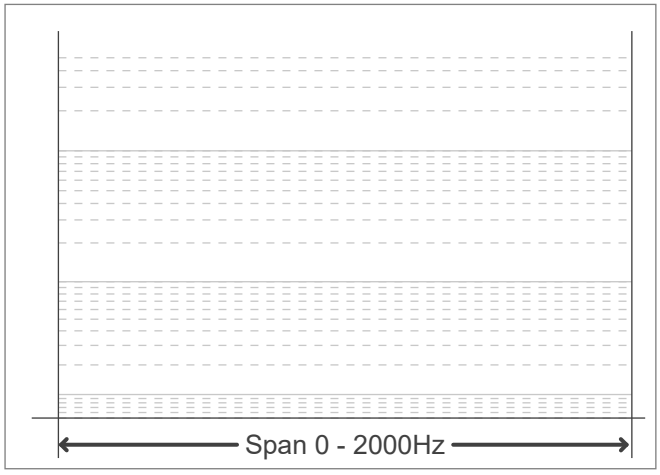
Flicker indices according to Lighting Research Center (2015)

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

