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	9/24/2026

Measurement Conditions

Tested c-planes	72 planes – 5.00°
Tested gamma resolution	1.00°
Input Power	43.46 W

Tested Light Source

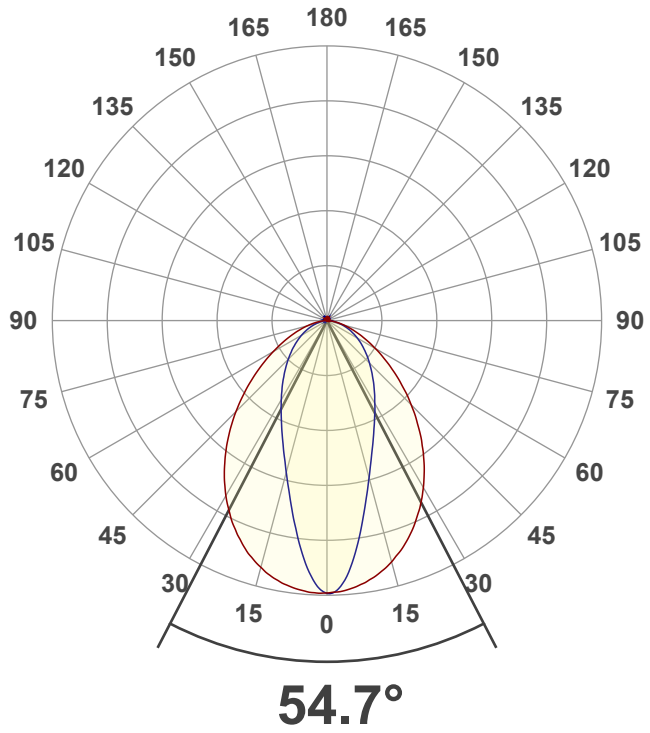
Luminaire	BPRO2-LIN-FLSH-LED35-HO-04-WGZ-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	4287 lm – 2.309% / 97.69%
Efficiency	98.64 lm/W
Peak Intensity	3085 cd
Correlated Color Temperature, CCT	3462 K
Color Rendering Index	CRI 84.0

Polar light distribution diagram

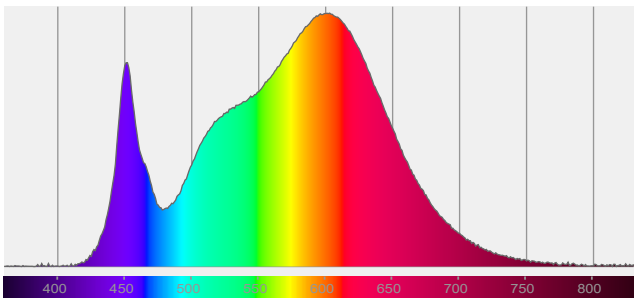
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	3037 cd	3037 cd	3037 cd	3037 cd	3037 cd
5°	3002 cd	2892 cd	2766 cd	2662 cd	2808 cd
15°	2785 cd	2379 cd	1969 cd	1747 cd	1815 cd
25°	2392 cd	1833 cd	1402 cd	1228 cd	1252 cd
35°	1882 cd	1363 cd	1018 cd	897.7 cd	916.5 cd
45°	1328 cd	967.4 cd	727.8 cd	650.6 cd	670.9 cd
55°	829.9 cd	641.5 cd	496.6 cd	454.2 cd	476.7 cd
65°	451.1 cd	378.4 cd	306.9 cd	287.9 cd	310.2 cd
75°	199.3 cd	182 cd	153.6 cd	147.1 cd	165.2 cd
85°	43.2 cd	45.31 cd	42.15 cd	38.84 cd	48.36 cd
90°	12.6 cd	10.64 cd	7.702 cd	7.158 cd	8.873 cd

Spectral power distribution



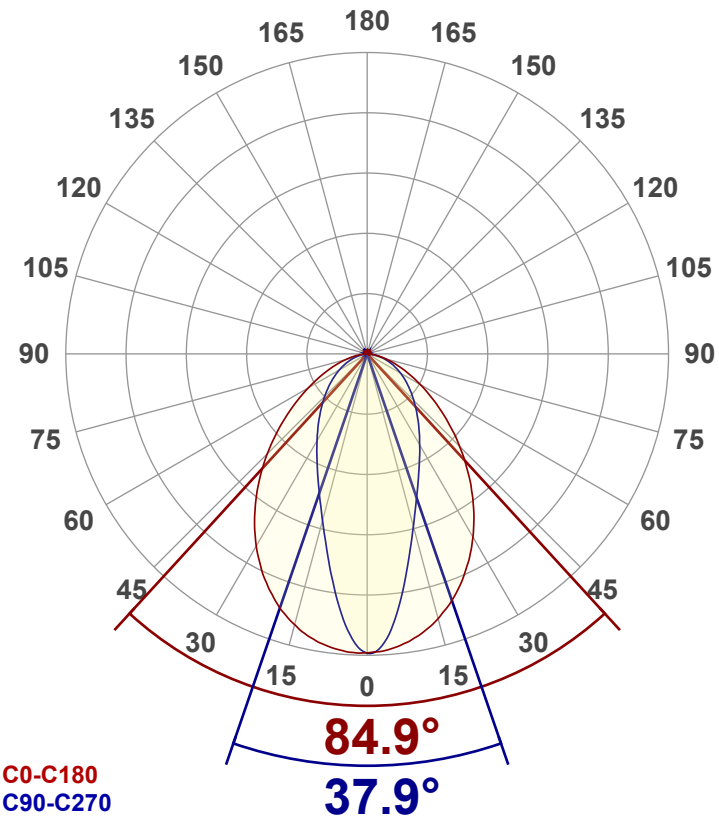
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Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	4287 lm
Lumen Up% / Down%	2.309% / 97.69%
Peak Intensity	3085 cd
Beam Angle (50%-FWHM)	54.7°

EU Ecodesign parameters

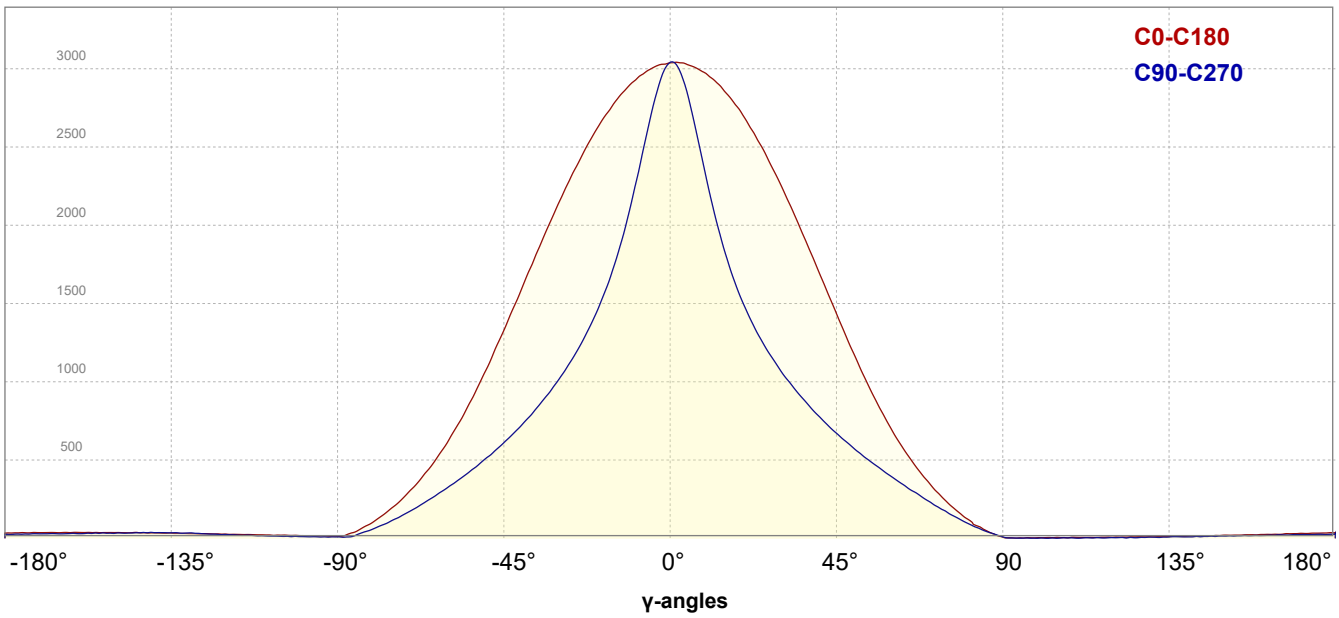
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous Flux	2770 lm
Ecodesign Energy Class	G

Intensity Ratio

In 120° cone	84.3%
In 90° cone	64.62%

Linear distribution diagram

Intensity [cd]

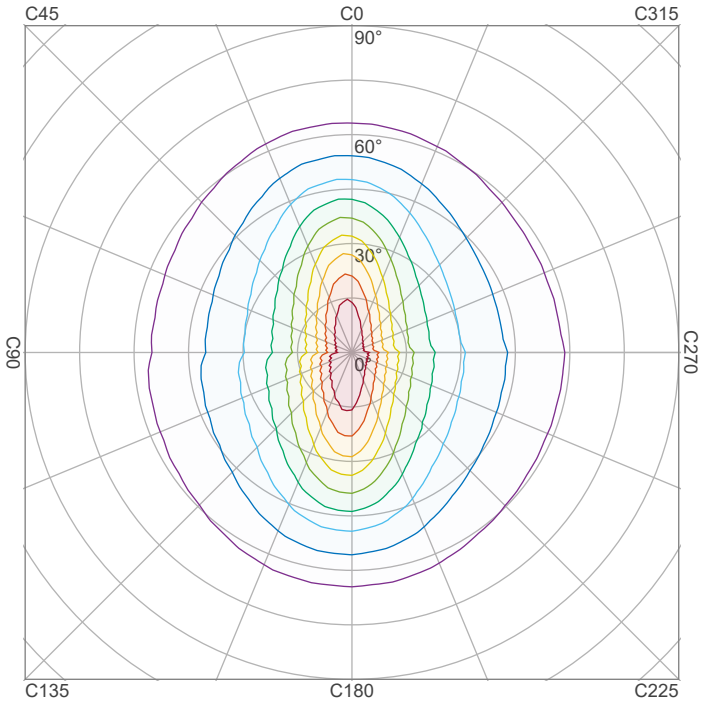


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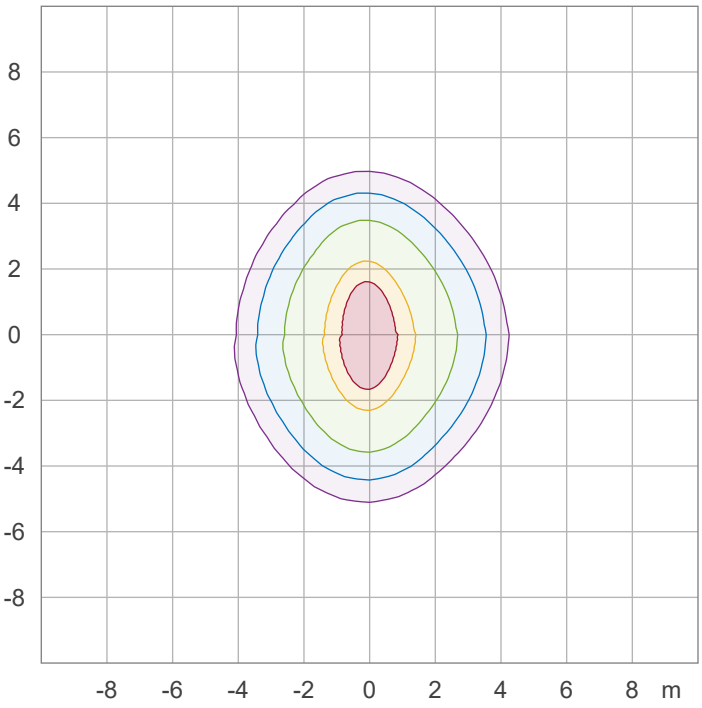
Iso-intensity Diagram (Iso-candela)



90 %	2773.9 cd
80 %	2465.7 cd
70 %	2157.5 cd
60 %	1849.3 cd
50 %	1541.1 cd
40 %	1232.9 cd
30 %	924.6 cd
20 %	616.4 cd
10 %	308.2 cd

Peak intensity: 3082.2 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	171 lx
30.0 %	103 lx
10.0 %	34.2 lx
5.0 %	17.1 lx
3.0 %	10.3 lx

Peak illuminance: 342 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

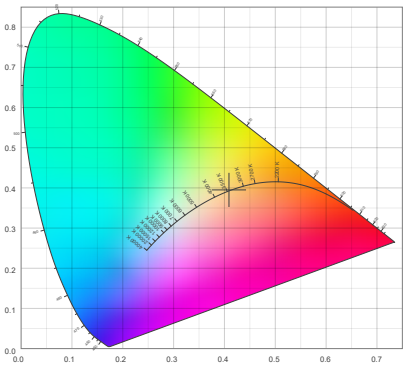
Light measurement results

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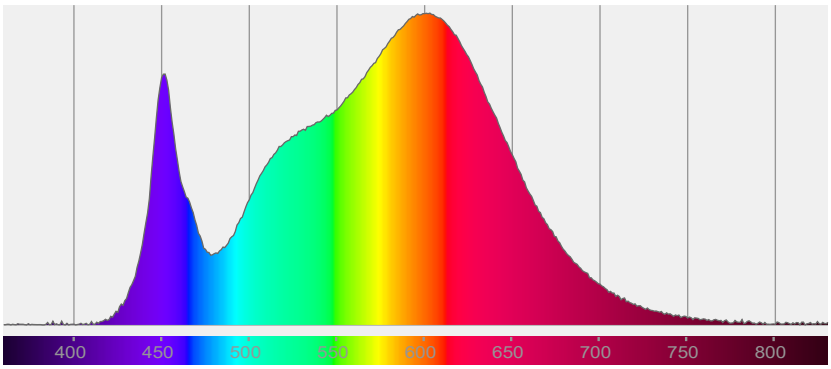
Color details

Correlated Color Temperature, Target	CCT = 3462 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3462 K	Color deviation from BBL	Duv = 0.0011
Color Rendering Index	CRI 84.0	Color coordinates CIE 1931	(x;y) = (0.4089;0.3950)
Color Rendering Index, R9 (red)	R9 = 10.1	Color coordinate CIEs 1960	(u;v) = (0.2363;0.3424)
Color Rendering TM30-18	Rf 85.3	Color coordinate CIEs 1976	(u';v') = (0.2363;0.5136)
	Rg 95.5	Color Quality Scale	CQS = 83.8

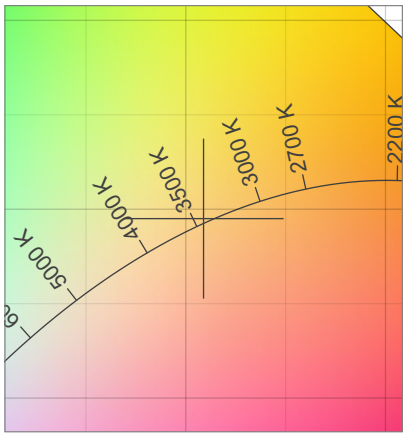
CIE 1931 Chromaticity diagram



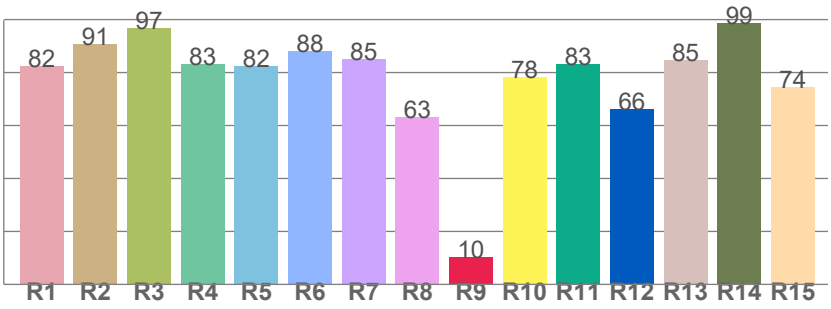
Spectral power distribution



CIE 1931 Chromaticity - zoomed



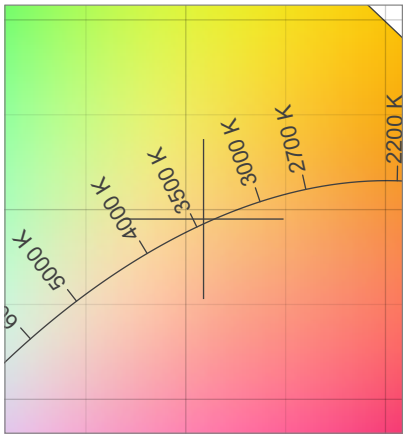
Color Rendering Index per reference color (CIE 1995)



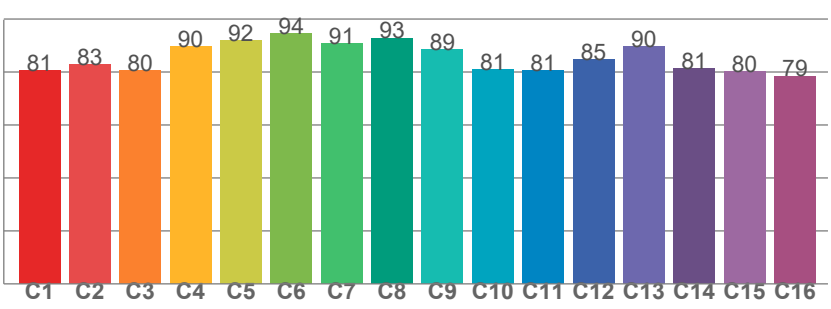
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.5	90.6	96.8	83.2	82.4	88.0	85.2	63.1	10.1	78.2	83.2	66.2	84.6	98.6	74.5

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	83.0	80.5	89.8	92.0	94.5	90.8	92.9	88.6	81.1	80.5	84.9	89.5	81.3	80.1	78.5

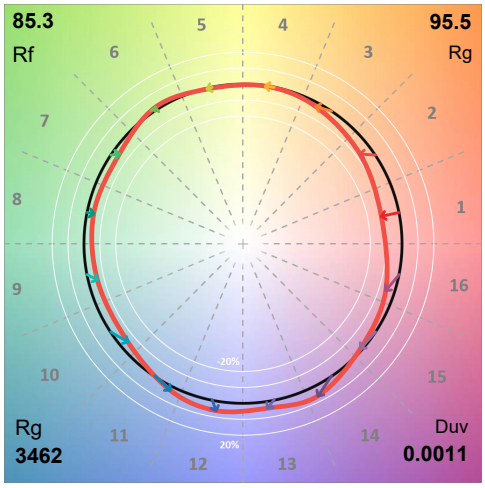
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Color details - ANSI/IES TM-30-18 Color Rendition Report

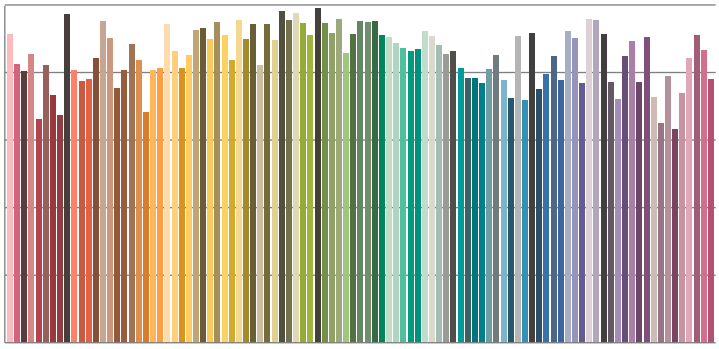
Color Vector Graphic



Color Distortion Graphic

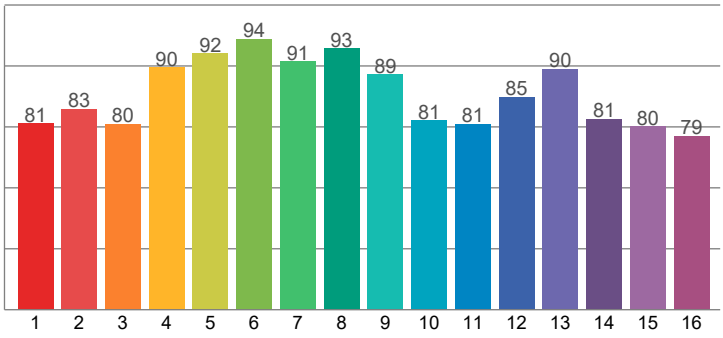


Color Rendition by Color Evaluation Sample (CES)



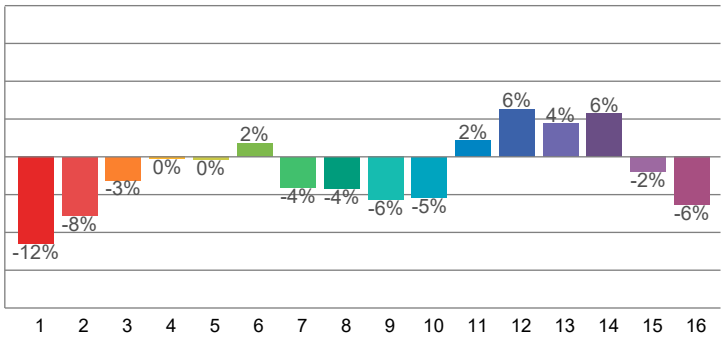
Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



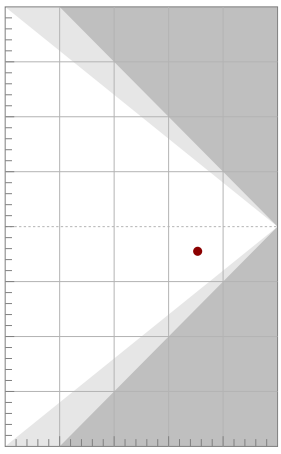
Hue angle bin (j)

Local Chroma Shift (per hue bin)



Hue angle bin (j)

Gamut Index vs. Fidelity Index



Gamut index (Rg)

Fidelity index (Rf)

CIE x	0.4089
CIE y	0.4089
CIE u'	0.2363
CIE v'	0.5136

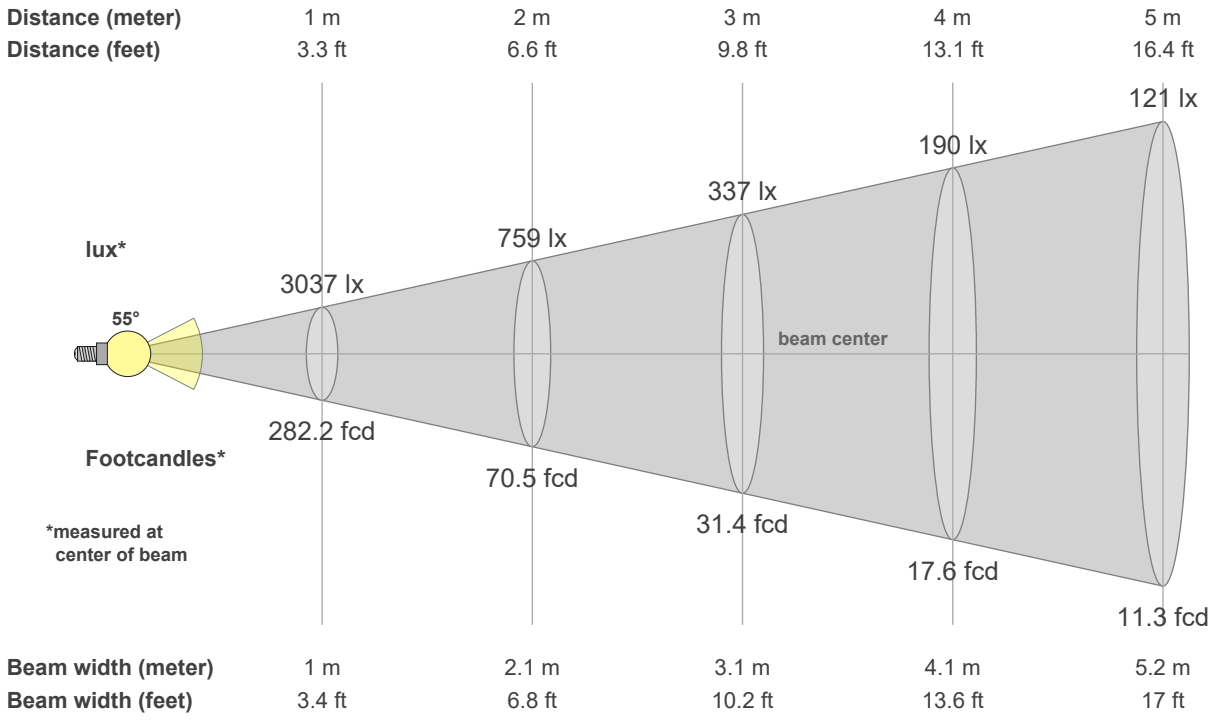
CIE	13.3-1995
Ra	84.0
R9	10.1

Prudential Lighting

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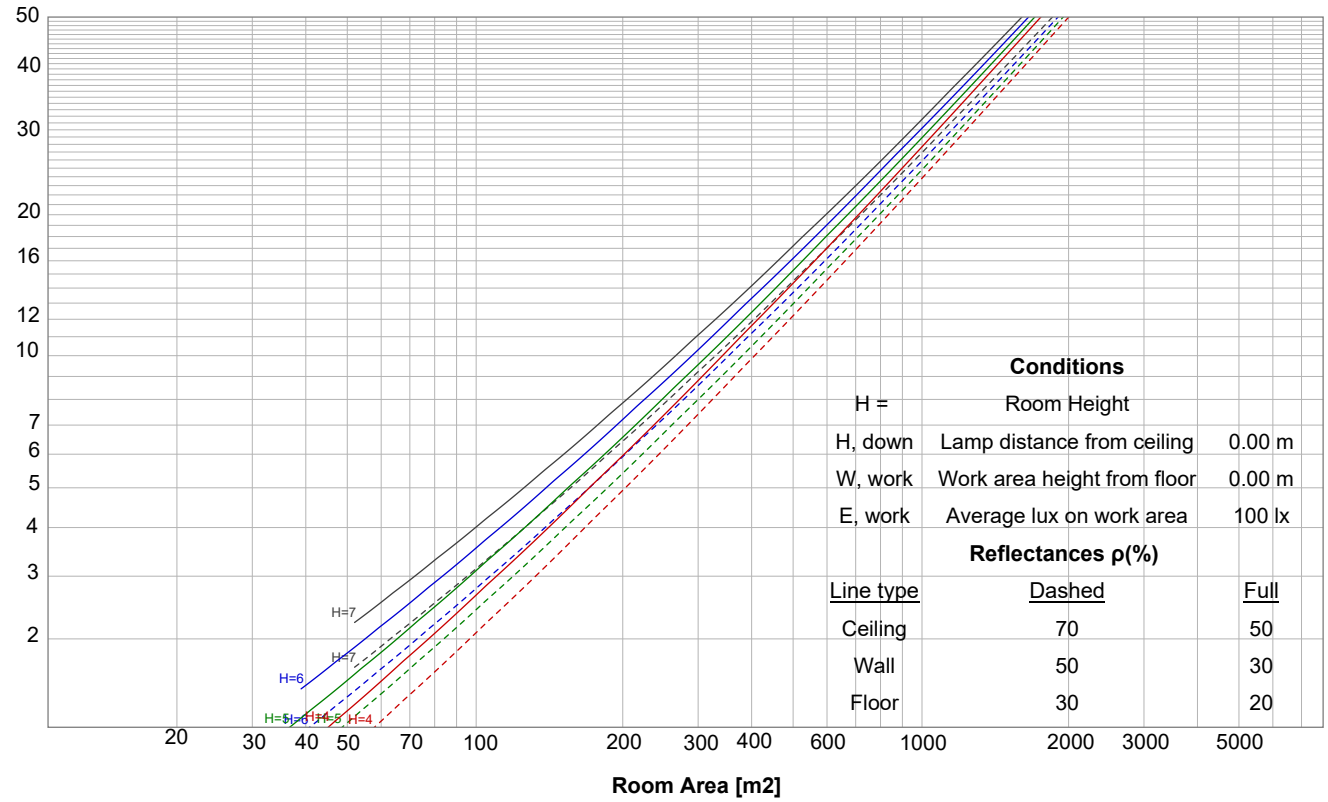
Print date 9/29/2026

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
3037	759	337	190	121	84	62	47	37	30	25	21	18	15	13	12	11	9	8	8	lux
282.2	70.5	31.4	17.6	11.3	7.8	5.8	4.4	3.5	2.8	2.3	2	1.7	1.4	1.3	1.1	1	0.9	0.8	0.7	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
3037	3002	2916	2785	2609	2392	2150	1882	1604	1328	1067	830	624	451	313	199	110	43	13	15	cd
100%	99%	96%	92%	86%	79%	71%	62%	53%	44%	35%	27%	21%	15%	10%	7%	4%	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
3037	2808	2277	1815	1488	1252	1067	916	785	671	568	477	392	310	236	165	101	48	9	1	cd
100%	92%	75%	60%	49%	41%	35%	30%	26%	22%	19%	16%	13%	10%	8%	5%	3%	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
3037	3024	2963	2848	2691	2491	2254	1992	1715	1435	1163	910	691	507	355	229	130	55	7	2	cd
100%	100%	98%	94%	89%	82%	74%	66%	56%	47%	38%	30%	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
3037	2721	2195	1754	1440	1205	1019	864	728	610	508	412	328	250	178	116	63	20	8	8	cd
100%	90%	72%	58%	47%	40%	34%	28%	24%	20%	17%	14%	11%	8%	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
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	118.5	118.5	118.5	118.5	115.5	115.5	115.5	115.5	109.8	109.8	109.8	104.7	104.7	104.7	99.9	99.9	99.9	97.7
1	109.8	105.6	102.0	98.6	106.9	103.2	99.8	96.8	98.6	95.9	93.4	94.3	92.2	90.1	90.4	88.7	87.1	84.9
2	101.2	94.0	88.1	83.1	98.5	92.0	86.6	82.0	88.2	83.7	79.7	84.7	80.9	77.6	81.4	78.3	75.6	73.5
3	93.5	84.2	77.0	71.3	90.9	82.5	75.9	70.5	79.3	73.7	69.0	76.3	71.6	67.6	73.6	69.6	66.2	64.1
4	86.5	75.9	68.1	62.1	84.2	74.5	67.2	61.6	71.8	65.5	60.6	69.3	63.9	59.5	66.9	62.3	58.5	56.5
5	80.4	68.9	60.8	54.9	78.2	67.7	60.1	54.5	65.4	58.8	53.7	63.3	57.5	53.0	61.3	56.3	52.3	50.3
6	74.9	62.9	54.8	49.0	72.9	61.9	54.3	48.8	59.9	53.2	48.2	58.1	52.1	47.6	56.4	51.1	47.1	45.1
7	70.0	57.7	49.8	44.2	68.2	56.9	49.3	44.0	55.2	48.5	43.6	53.6	47.6	43.1	52.2	46.8	42.7	40.8
8	65.6	53.3	45.6	40.2	64.0	52.5	45.2	40.1	51.1	44.4	39.7	49.7	43.7	39.4	48.5	43.1	39.0	37.2
9	61.7	49.4	41.9	36.8	60.3	48.8	41.6	36.7	47.5	41.0	36.4	46.3	40.4	36.1	45.2	39.8	35.9	34.2
10	58.2	46.1	38.8	34.0	56.9	45.5	38.5	33.8	44.4	38.0	33.6	43.4	37.5	33.4	42.4	37.0	33.1	31.5

Prudential Lighting

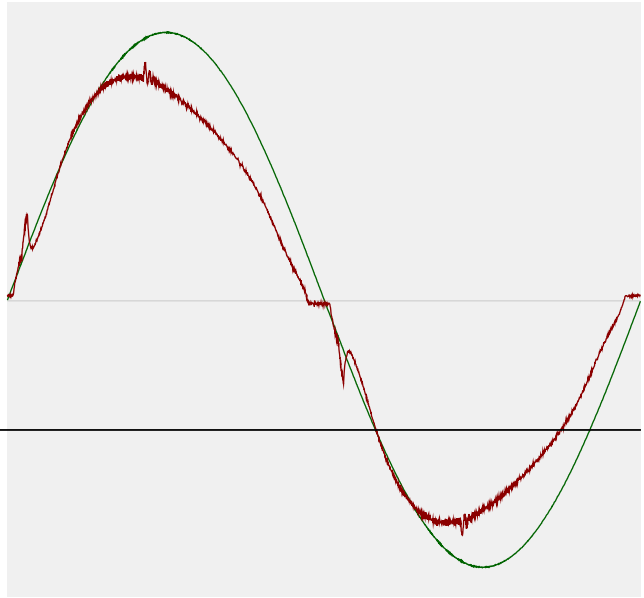
Light measurement results

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Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	43.46 W
RMS Input voltage feed V,RMS	120 V
RMS Input current feed I,RMS	0.37 A
Volt-Amp or apparent power = V,RMS*I,RMS	44.1 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.99
Total harmonic distortion of the current	8.56%
Total harmonic distortion of the voltage	0.0916%

Input power curve



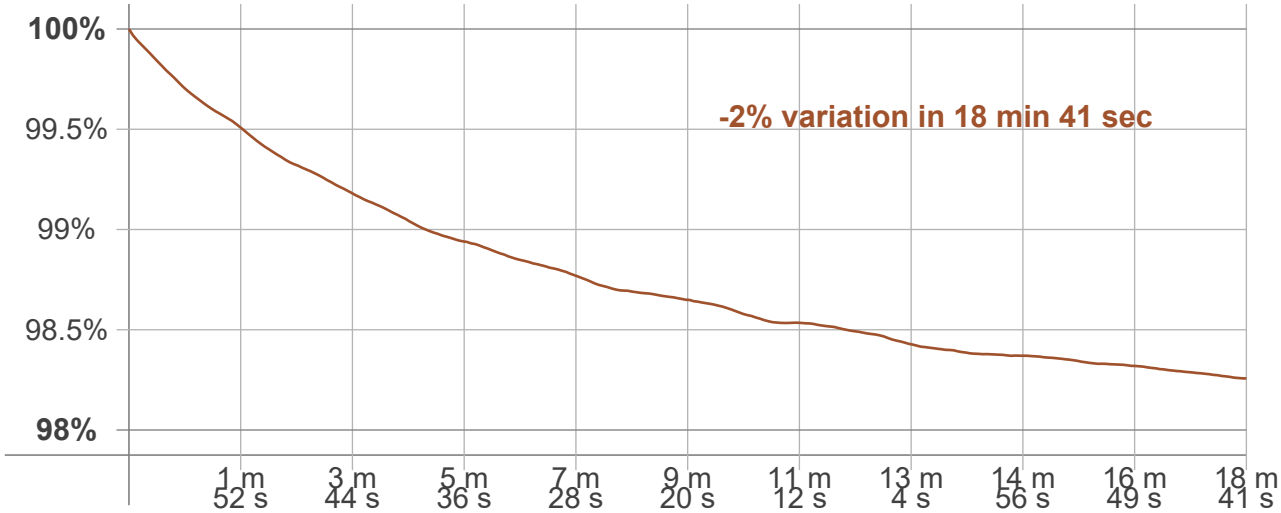
Efficiency

Radiated power efficiency	29.47
Lumen efficiency	98.64 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	3457 K
Stable change max	1%	CCT shift	5 K
Minimum time	15 min	CCT end	3462 K
Warmup Result		**Output Change**	
Total warmup time	Lamp stabilized in	Output start	4367 lm
Warmup variation	-1.9964%	Output change	-79.937 lm
		Output end	4287 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

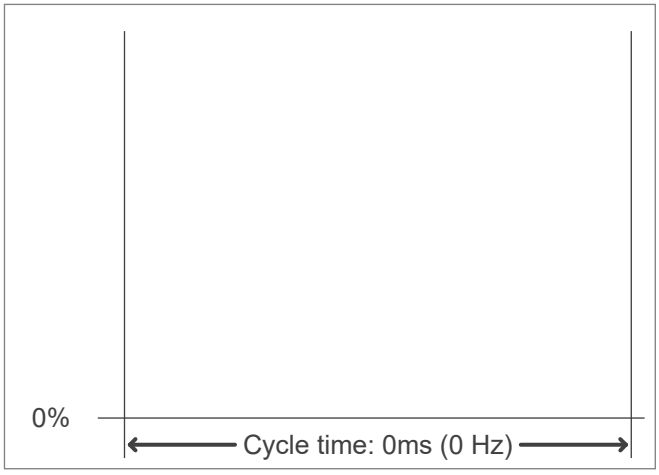
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

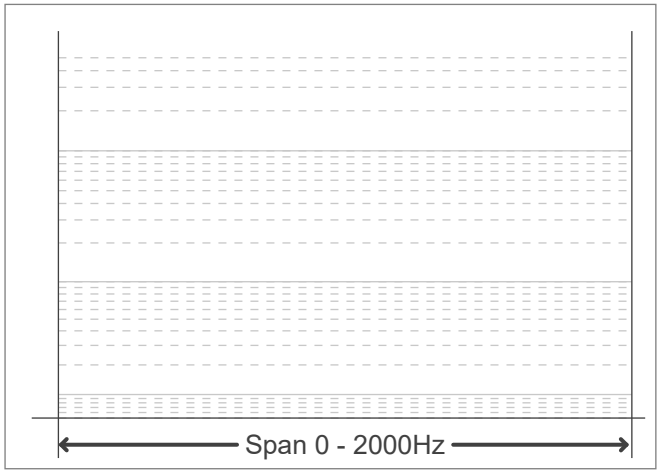
Flicker indices according to Lighting Research Center (2015)

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

