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	7/23/2026

Measurement Conditions

Tested c-planes	72 planes – 5.00°
Tested gamma resolution	1.00°
Input Power	15.57 W

Tested Light Source

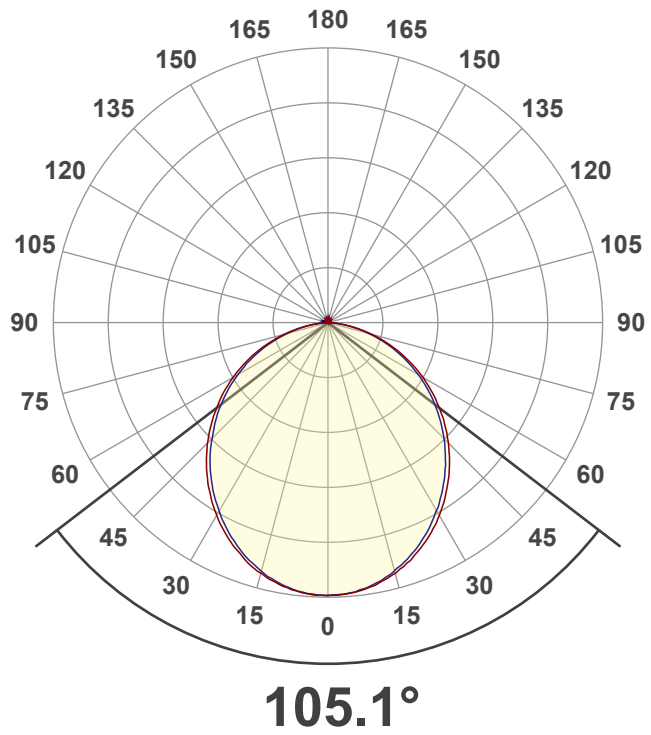
Luminaire	BPRO2-LIN-FLSH-LED35-LO-04-SAL-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	1713 lm – 1.597% / 98.4%
Efficiency	110 lm/W
Peak Intensity	643.7 cd
Correlated Color Temperature, CCT	3427 K
Color Rendering Index	CRI 84.5

Polar light distribution diagram

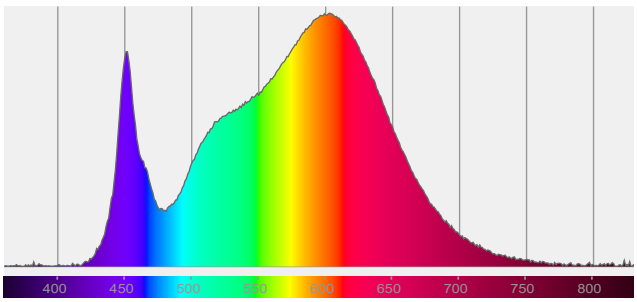
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	642.7 cd	642.7 cd	642.7 cd	642.7 cd	642.7 cd
5°	639.2 cd	639.5 cd	639.4 cd	638.3 cd	638.5 cd
15°	611.6 cd	611.4 cd	607.4 cd	606.2 cd	605.3 cd
25°	558.6 cd	556.9 cd	550.5 cd	548.3 cd	548 cd
35°	485.9 cd	484.1 cd	474.3 cd	471.8 cd	472.5 cd
45°	401.2 cd	398 cd	388.6 cd	385.9 cd	386.7 cd
55°	307.4 cd	304.3 cd	294.8 cd	294.1 cd	294.2 cd
65°	207.1 cd	205.7 cd	198 cd	197.3 cd	196.9 cd
75°	106.5 cd	107.5 cd	100.4 cd	101.1 cd	99.38 cd
85°	21.02 cd	22.47 cd	21.16 cd	19.94 cd	18.58 cd
90°	2.714 cd	2.864 cd	2.003 cd	2.935 cd	0.304 cd

Spectral power distribution



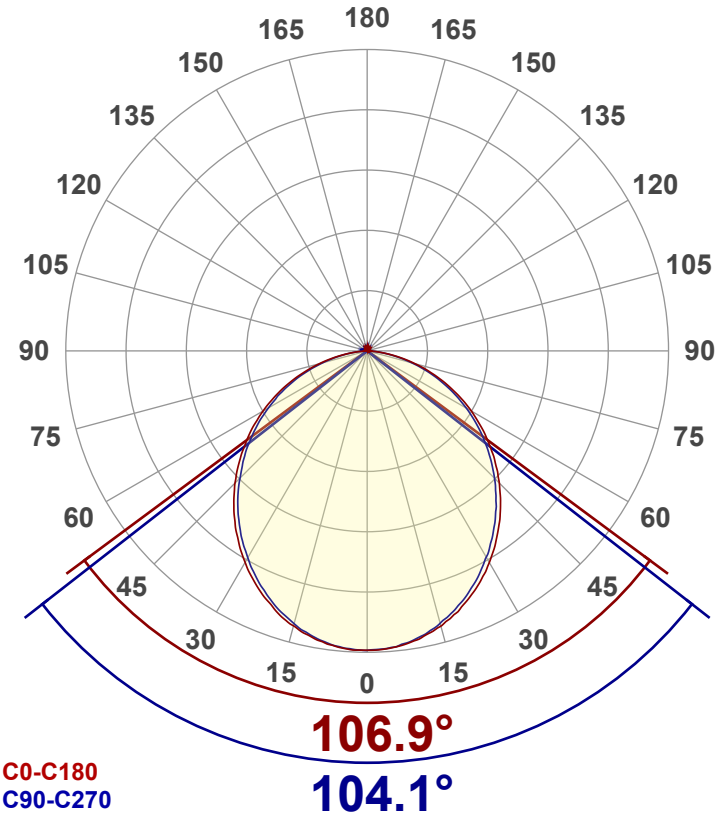
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Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	1713 lm
Lumen Up% / Down%	1.597% / 98.4%
Peak Intensity	643.7 cd
Beam Angle (50%-FWHM)	105.1°

EU Ecodesign parameters

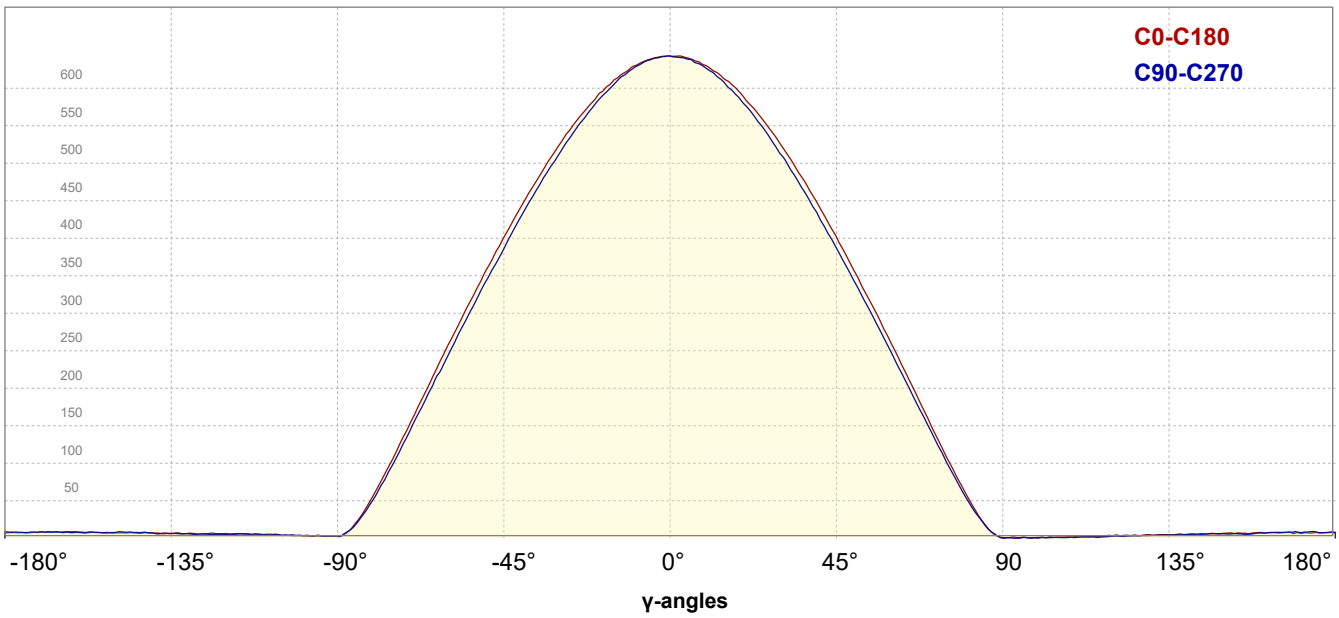
Directionality (DLS or NDLS)	NDLS
Ecodesign Useful Luminous Flux	1713 lm
Ecodesign Energy Class	F

Intensity Ratio

In 120° cone	79.03%
In 90° cone	54.79%

Linear distribution diagram

Intensity [cd]

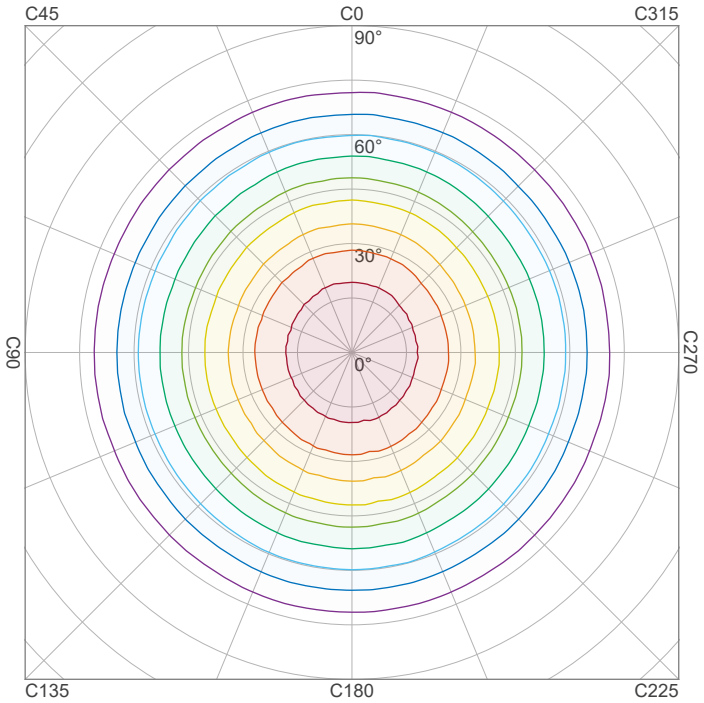


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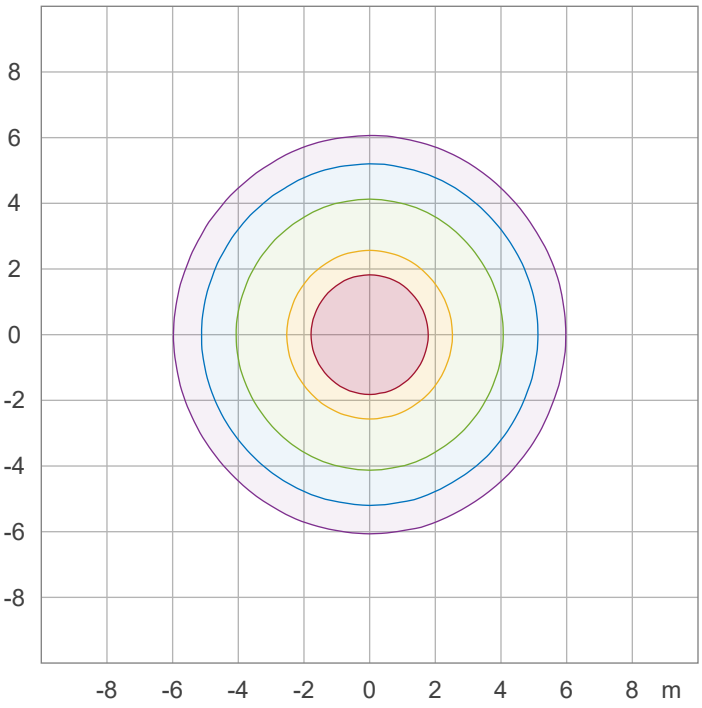
Iso-intensity Diagram (Iso-candela)



90 %	579.1 cd
80 %	514.8 cd
70 %	450.4 cd
60 %	386.1 cd
50 %	321.7 cd
40 %	257.4 cd
30 %	193.0 cd
20 %	128.7 cd
10 %	64.3 cd

Peak intensity: 643.4 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	35.7 lx
30.0 %	21.4 lx
10.0 %	7.15 lx
5.0 %	3.57 lx
3.0 %	2.14 lx

Peak illuminance: 71.5 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

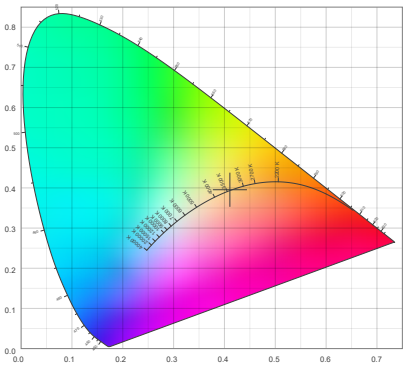
Light measurement results

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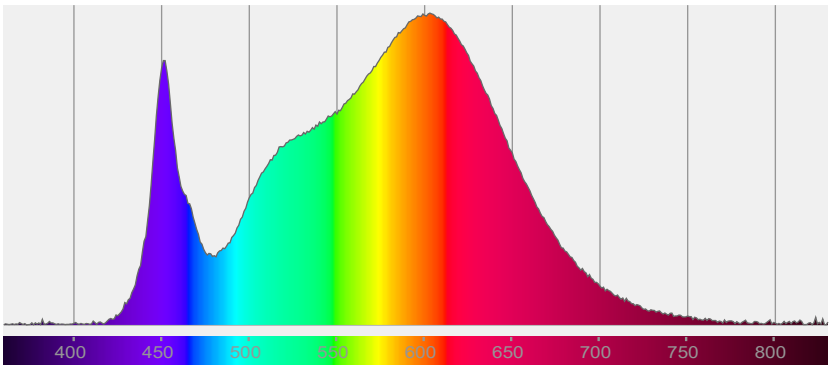
Color details

Correlated Color Temperature, Target	CCT = 3427 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3427 K	Color deviation from BBL	Duv = 0.0009
Color Rendering Index	CRI 84.5	Color coordinates CIE 1931	(x;y) = (0.4107;0.3954)
Color Rendering Index, R9 (red)	R9 = 12.5	Color coordinate CIEs 1960	(u;v) = (0.2373;0.3427)
Color Rendering TM30-18	Rf 85.6	Color coordinate CIEs 1976	(u';v') = (0.2373;0.5140)
	Rg 96.1	Color Quality Scale	CQS = 84.1

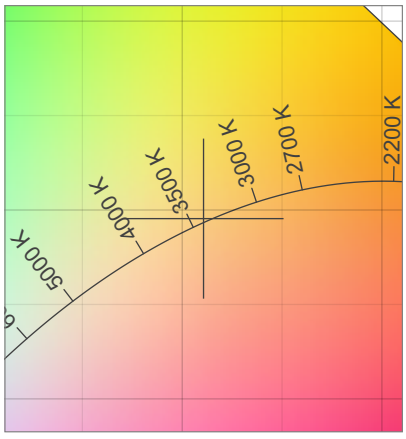
CIE 1931 Chromaticity diagram



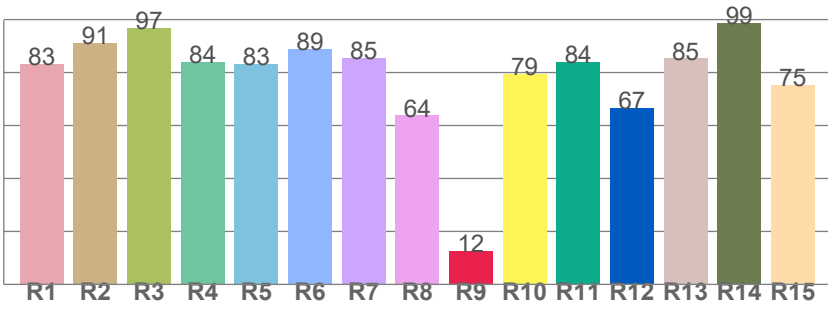
Spectral power distribution



CIE 1931 Chromaticity - zoomed



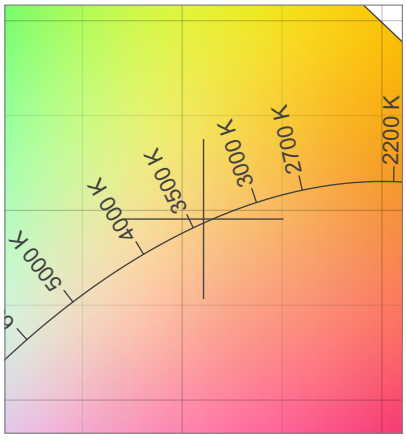
Color Rendering Index per reference color (CIE 1995)



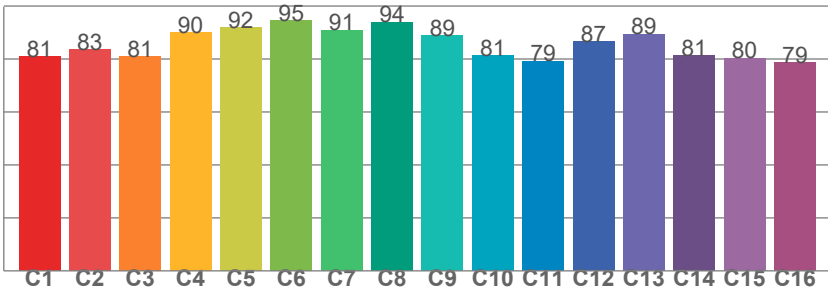
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83.2	91.2	96.9	83.8	83.1	88.7	85.4	63.8	12.5	79.4	84.0	66.5	85.3	98.7	75.3

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
81.0	83.5	81.1	90.1	92.0	94.6	90.9	94.0	88.9	81.4	79.2	86.5	89.5	81.3	80.4	78.7

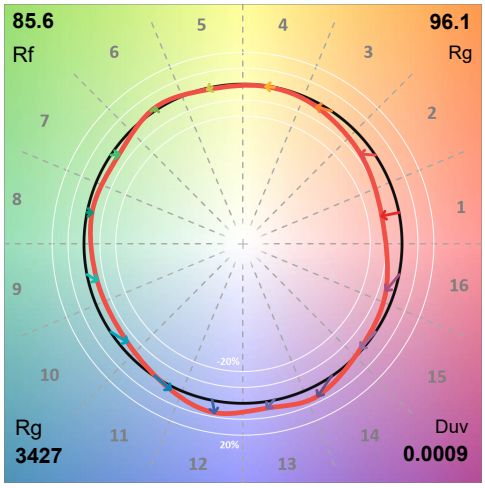
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Color details - ANSI/IES TM-30-18 Color Rendition Report

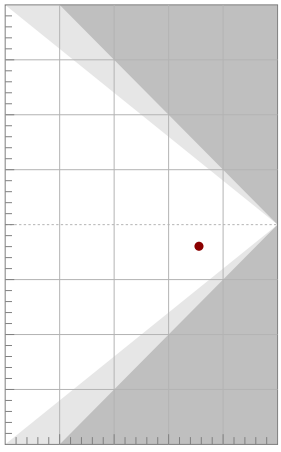
Color Vector Graphic



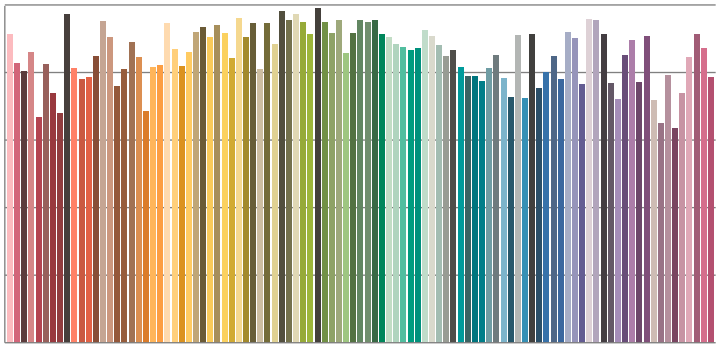
Color Distortion Graphic



Gamut Index vs. Fidelity Index

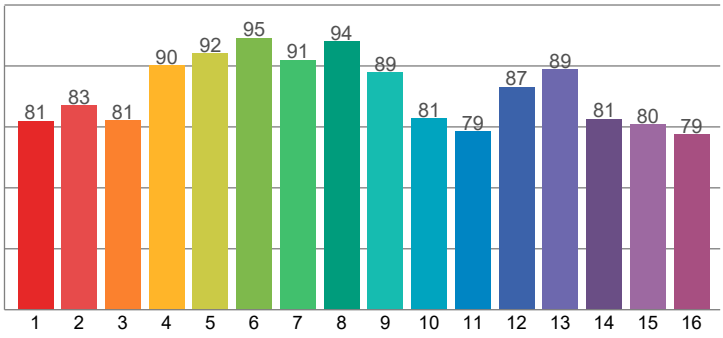


Color Rendition by Color Evaluation Sample (CES)

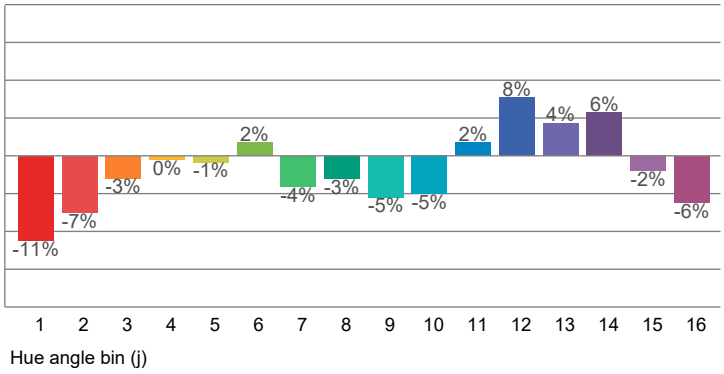


Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



Local Chroma Shift (per hue bin)



CIE x	0.4107
CIE y	0.4107
CIE u'	0.2373
CIE v'	0.5140

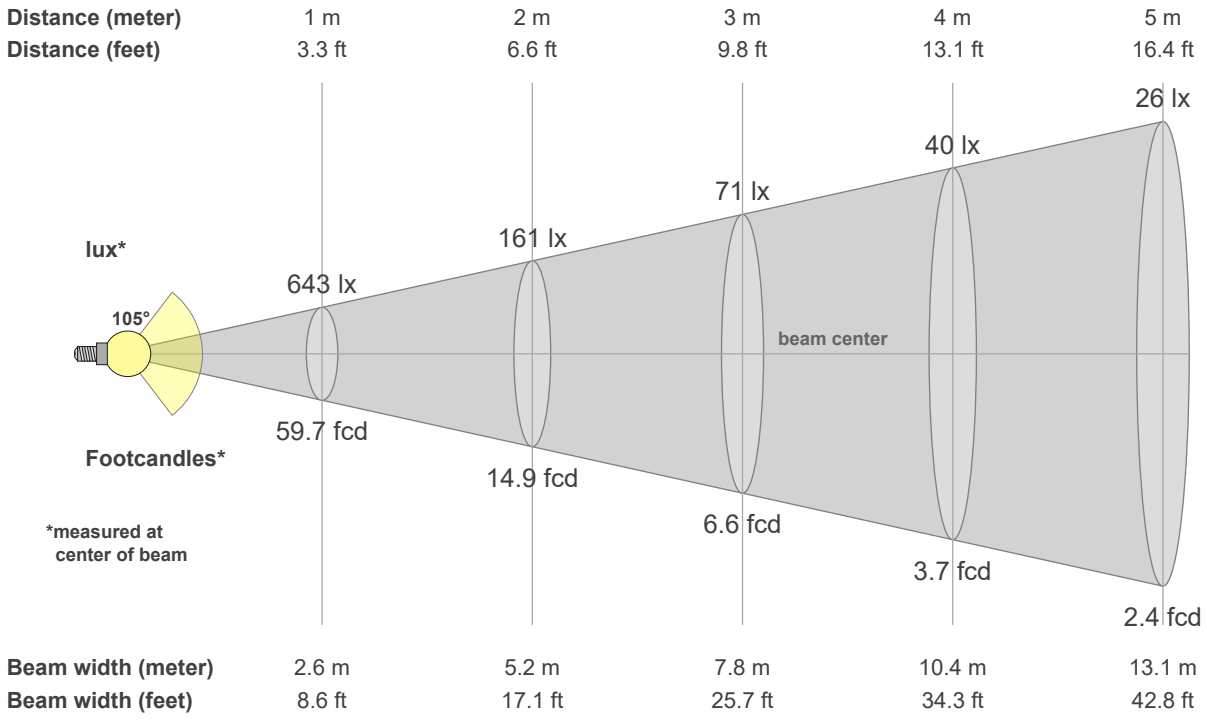
CIE	13.3-1995
Ra	84.5
R9	12.5

Prudential Lighting

Light measurement results

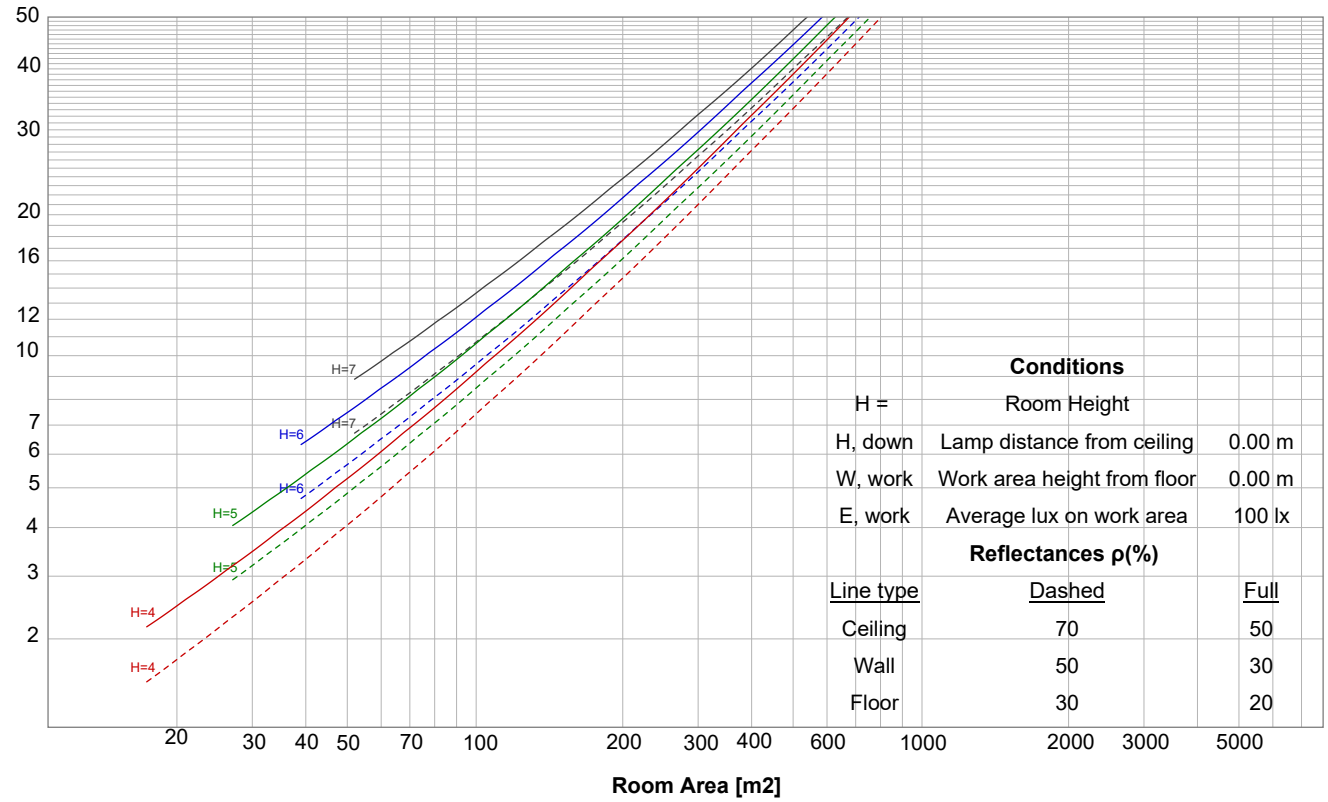
Print date 8/13/2026

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
643	161	71	40	26	18	13	10	8	6	5	4	4	3	3	3	2	2	2	2	lux
59.7	14.9	6.6	3.7	2.4	1.7	1.2	0.9	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.1	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
643	639	629	612	587	559	525	486	445	401	355	307	258	207	157	106	60	21	3	3	cd
100%	99%	98%	95%	91%	87%	82%	76%	69%	62%	55%	48%	40%	32%	24%	17%	9%	3%	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
643	638	626	605	579	548	511	473	431	387	341	294	246	197	148	99	55	19	0	0	cd
100%	99%	97%	94%	90%	85%	80%	74%	67%	60%	53%	46%	38%	31%	23%	15%	8%	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
643	640	629	611	587	558	524	486	445	401	355	307	258	208	157	106	59	19	1	1	cd
100%	100%	98%	95%	91%	87%	82%	76%	69%	62%	55%	48%	40%	32%	24%	17%	9%	3%	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
643	639	626	606	581	549	513	474	432	386	341	293	245	197	148	99	54	19	3	4	cd
100%	99%	97%	94%	90%	85%	80%	74%	67%	60%	53%	46%	38%	31%	23%	15%	8%	3%	0%	1%	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	118.7	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	100.6	100.6	100.6	98.4
1	108.7	104.0	99.9	96.1	105.8	101.6	97.8	94.4	97.1	94.0	91.1	92.9	90.4	88.1	89.1	87.1	85.2	83.0
2	99.0	90.9	84.2	78.6	96.2	88.9	82.8	77.5	85.1	79.9	75.5	81.6	77.3	73.5	78.4	74.8	71.7	69.5
3	90.4	80.0	72.0	65.6	87.8	78.3	70.9	64.9	75.1	68.8	63.5	72.1	66.8	62.2	69.4	64.9	61.0	58.7
4	82.8	71.0	62.3	55.7	80.4	69.6	61.5	55.2	66.9	59.9	54.3	64.3	58.3	53.4	62.0	56.8	52.5	50.3
5	76.2	63.5	54.6	48.1	74.0	62.3	54.0	47.8	60.0	52.7	47.1	57.9	51.5	46.4	55.9	50.3	45.8	43.6
6	70.4	57.3	48.4	42.1	68.4	56.2	47.9	41.8	54.3	46.9	41.3	52.4	45.9	40.8	50.7	44.9	40.4	38.3
7	65.4	52.0	43.3	37.2	63.5	51.1	42.9	37.0	49.4	42.0	36.7	47.8	41.2	36.3	46.4	40.4	35.9	33.9
8	60.9	47.5	39.1	33.3	59.2	46.7	38.7	33.1	45.3	38.0	32.8	43.9	37.3	32.5	42.6	36.7	32.2	30.3
9	56.9	43.6	35.5	30.0	55.4	42.9	35.2	29.9	41.7	34.6	29.6	40.5	34.0	29.4	39.4	33.5	29.1	27.3
10	53.4	40.3	32.4	27.2	52.0	39.7	32.2	27.1	38.6	31.7	26.9	37.6	31.2	26.7	36.6	30.7	26.5	24.8

Prudential Lighting

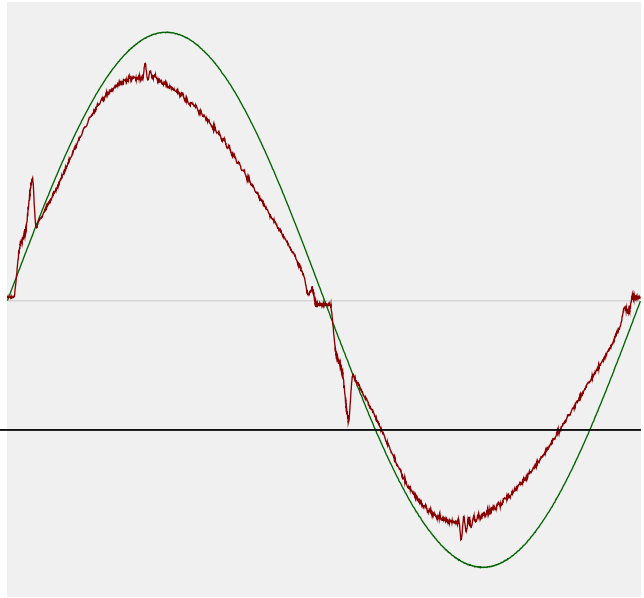
Light measurement results

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Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	15.57 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	15.7 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.99
Total harmonic distortion of the current	6.544%
Total harmonic distortion of the voltage	0.0588%

Input power curve



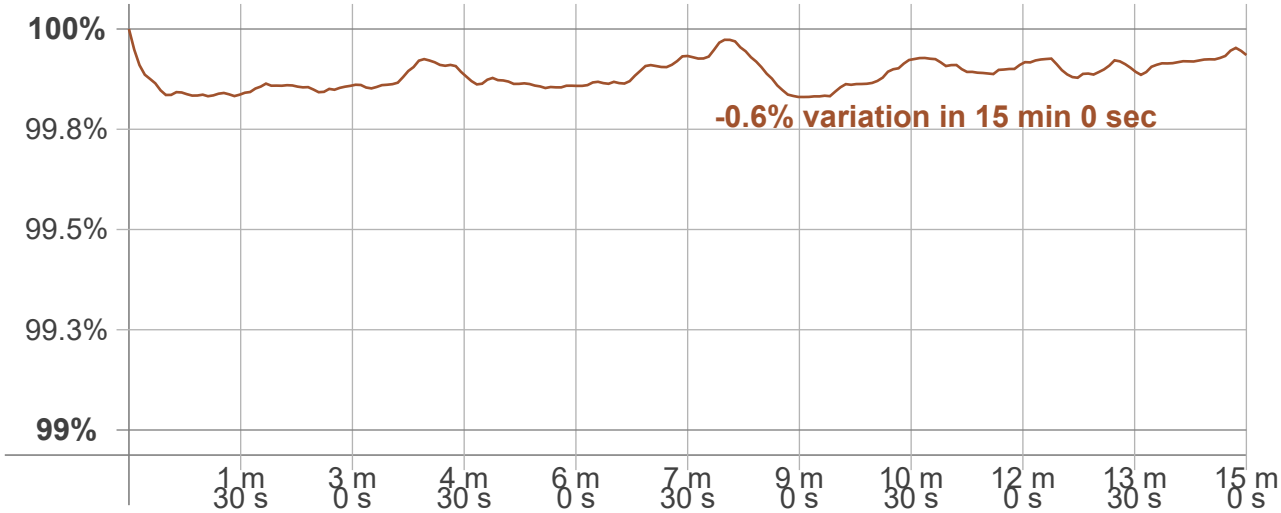
Efficiency

Radiated power efficiency	32.97
Lumen efficiency	110 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	3430 K
Stable change max	2%	CCT shift	-3 K
Minimum time	15 min	CCT end	3427 K
Warmup Result		**Output Change**	
Total warmup time	Lamp stabilized in	Output start	1718 lm
Warmup variation	-0.6372%	Output change	-4.8717 lm
		Output end	1713 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

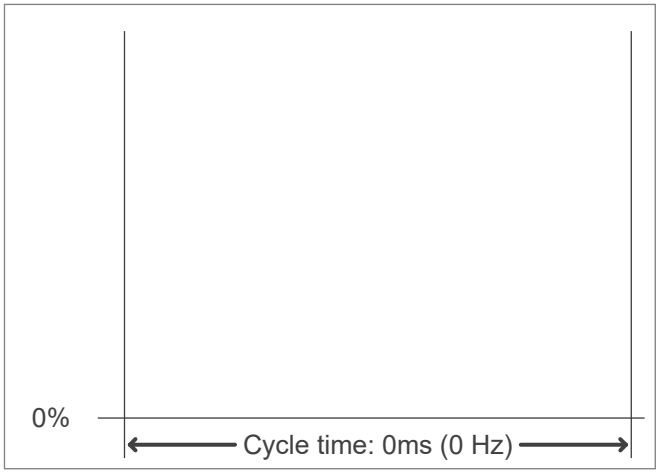
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

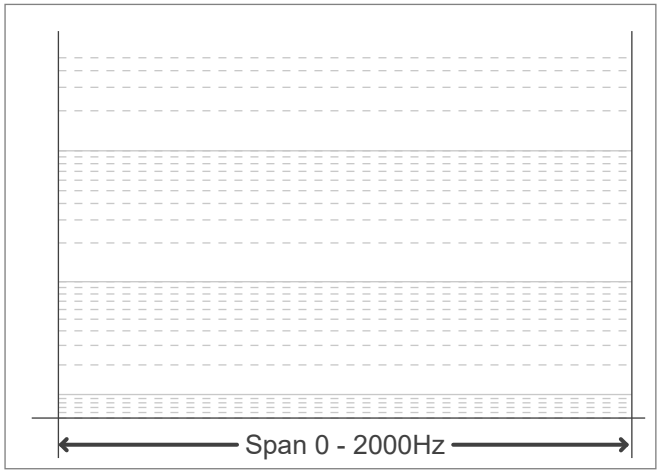
Flicker indices according to Lighting Research Center (2015)

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

