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	8/3/2026

Measurement Conditions

Tested c-planes	72 planes – 5.00°
Tested gamma resolution	1.00°
Input Power	23.16 W

Tested Light Source

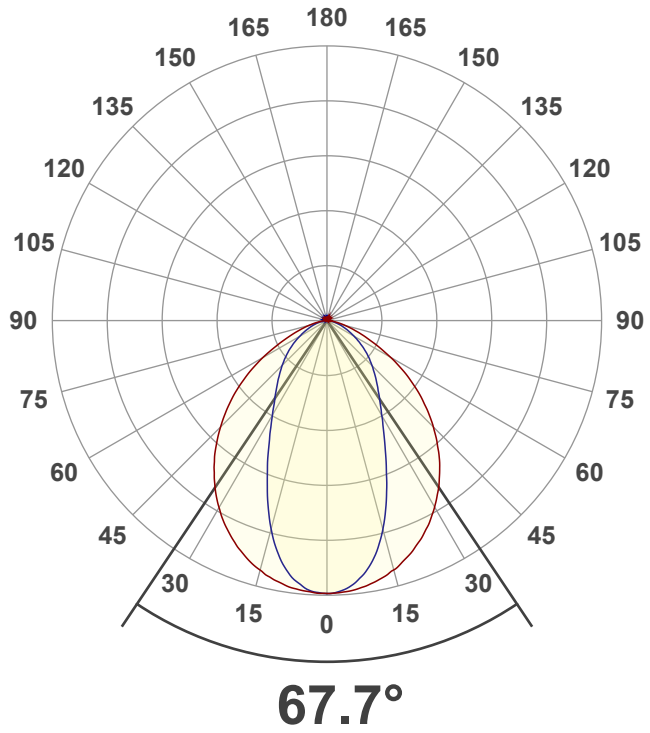
Luminaire	BPRO2-LIN-FLSH-LED35-MO-04-LGP-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	2668 lm – 3.385% / 96.61%
Efficiency	115.2 lm/W
Peak Intensity	1648 cd
Correlated Color Temperature, CCT	3426 K
Color Rendering Index	CRI 84.4

Polar light distribution diagram

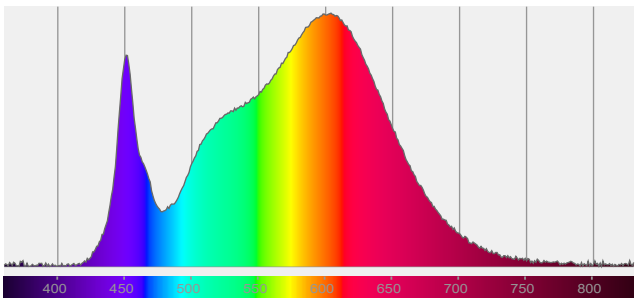
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	1645 cd	1645 cd	1645 cd	1645 cd	1645 cd
5°	1636 cd	1630 cd	1624 cd	1612 cd	1609 cd
15°	1556 cd	1520 cd	1435 cd	1340 cd	1302 cd
25°	1401 cd	1299 cd	1066 cd	886 cd	827.4 cd
35°	1180 cd	999.1 cd	704.2 cd	578.4 cd	547.5 cd
45°	907.5 cd	684.7 cd	464.5 cd	402 cd	384.8 cd
55°	603 cd	421.3 cd	288.2 cd	263.3 cd	249.1 cd
65°	297.2 cd	216.1 cd	160.1 cd	146.1 cd	137.8 cd
75°	113.2 cd	93.09 cd	72.38 cd	68 cd	60.5 cd
85°	25.97 cd	25.21 cd	21.32 cd	22.06 cd	17.06 cd
90°	4.301 cd	4.608 cd	4.676 cd	3.489 cd	0.1302 cd

Spectral power distribution



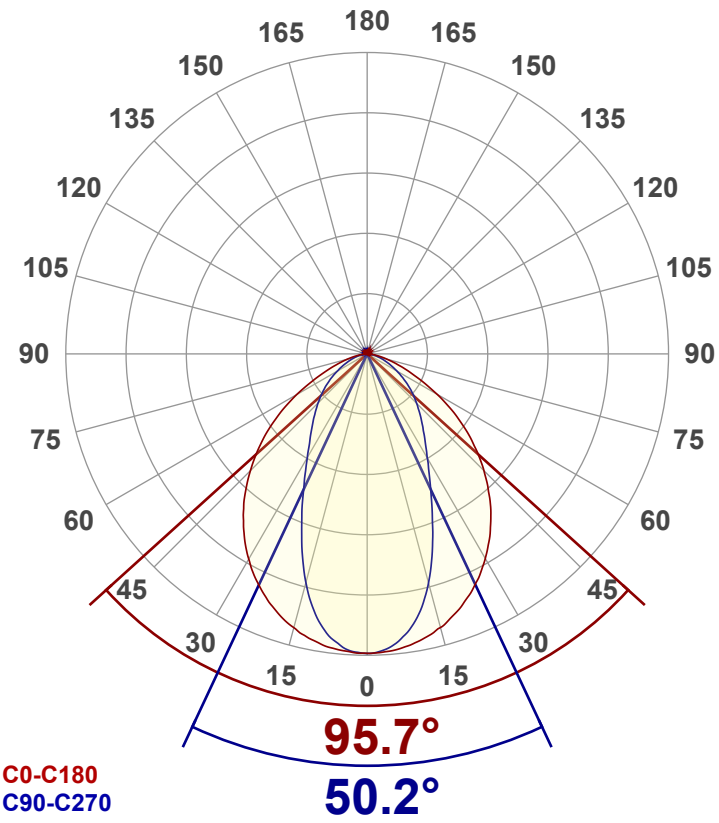
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Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	2668 lm
Lumen Up% / Down%	3.385% / 96.61%
Peak Intensity	1648 cd
Beam Angle (50%-FWHM)	67.7°

EU Ecodesign parameters

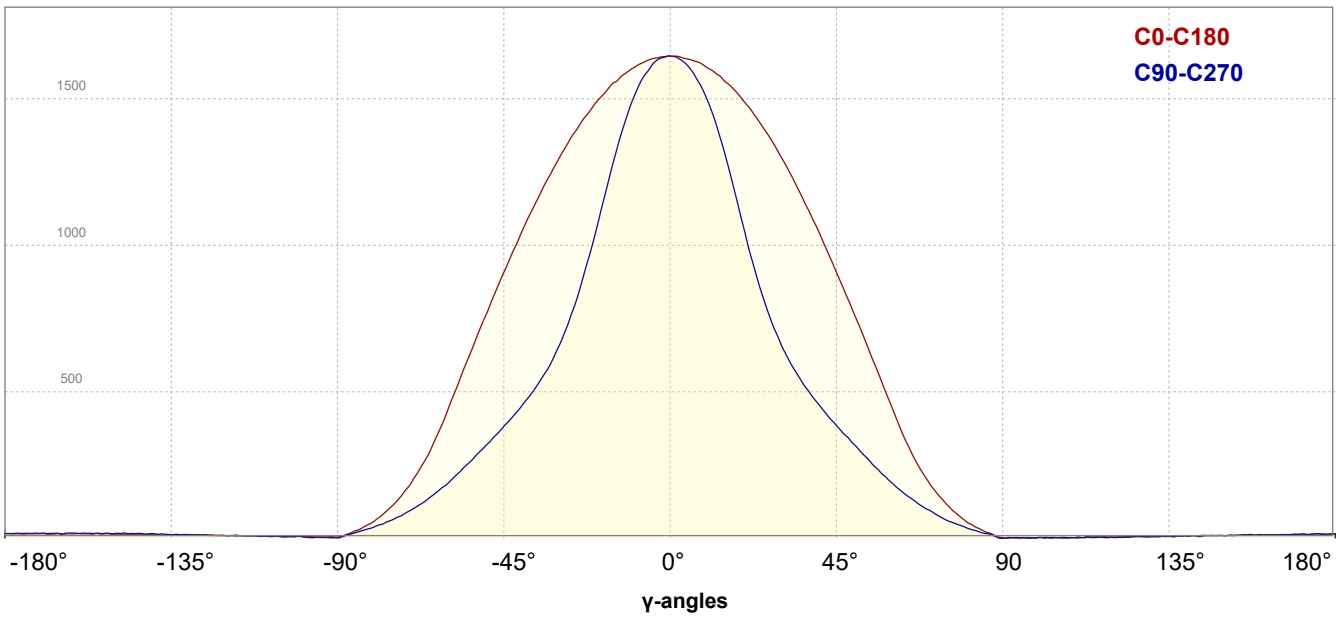
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous Flux	2286 lm
Ecodesign Energy Class	E

Intensity Ratio

In 120° cone	85.68%
In 90° cone	66.46%

Linear distribution diagram

Intensity [cd]

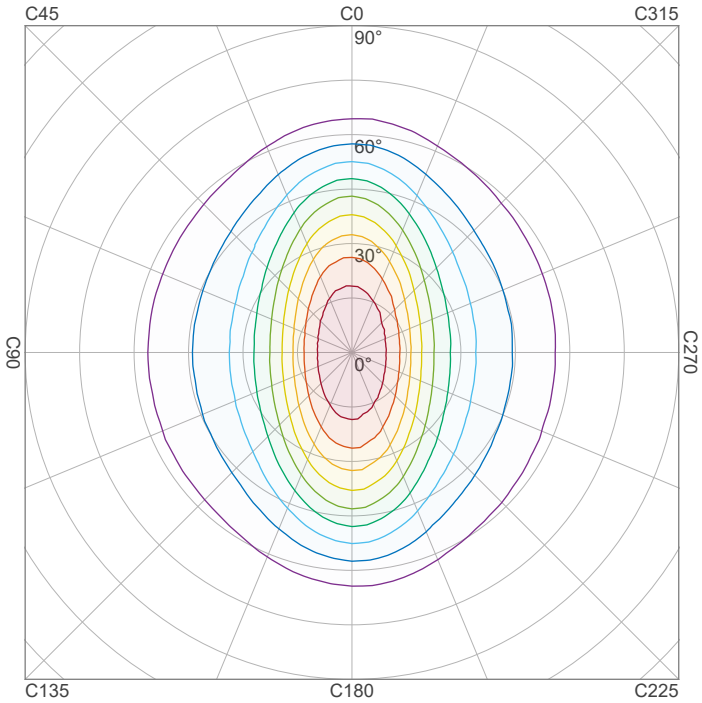


Prudential Lighting

Light measurement results

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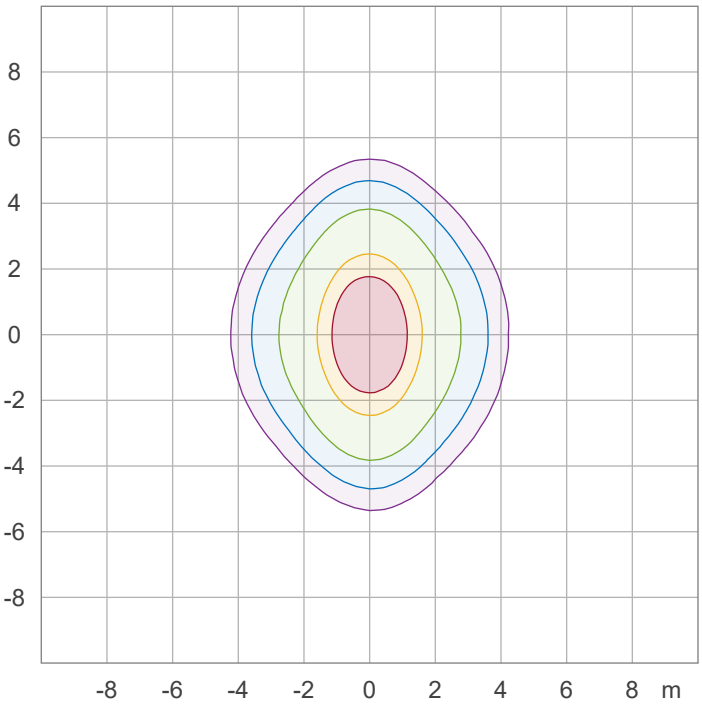
Iso-intensity Diagram (Iso-candela)



90 %	1482.9 cd
80 %	1318.1 cd
70 %	1153.3 cd
60 %	988.6 cd
50 %	823.8 cd
40 %	659.0 cd
30 %	494.3 cd
20 %	329.5 cd
10 %	164.8 cd

Peak intensity: 1647.6 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	91.5 lx
30.0 %	54.9 lx
10.0 %	18.3 lx
5.0 %	9.15 lx
3.0 %	5.49 lx

Peak illuminance: 183 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

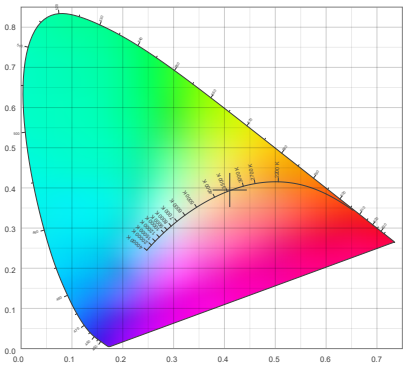
Light measurement results

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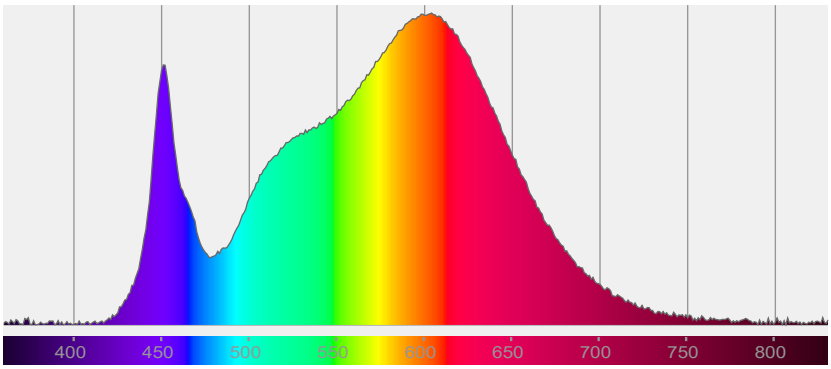
Color details

Correlated Color Temperature, Target	CCT = 3426 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3426 K	Color deviation from BBL	Duv = 0.0007
Color Rendering Index	CRI 84.4	Color coordinates CIE 1931	(x;y) = (0.4105;0.3947)
Color Rendering Index, R9 (red)	R9 = 11.8	Color coordinate CIEs 1960	(u;v) = (0.2374;0.3425)
Color Rendering TM30-18	Rf 85.5	Color coordinate CIEs 1976	(u';v') = (0.2374;0.5137)
	Rg 96.2	Color Quality Scale	CQS = 83.9

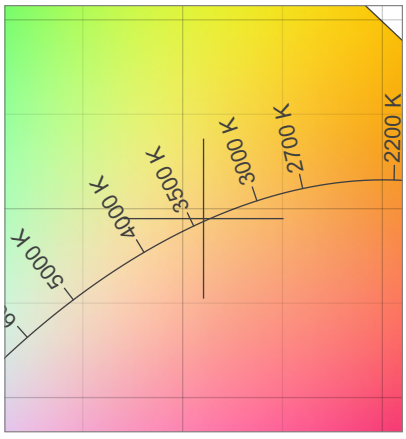
CIE 1931 Chromaticity diagram



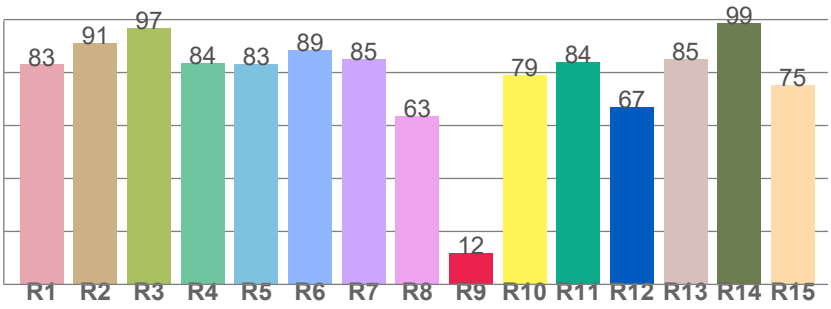
Spectral power distribution



CIE 1931 Chromaticity - zoomed



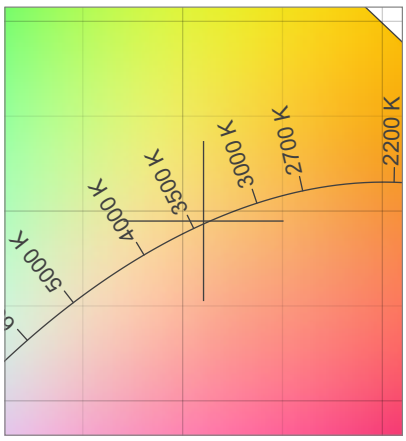
Color Rendering Index per reference color (CIE 1995)



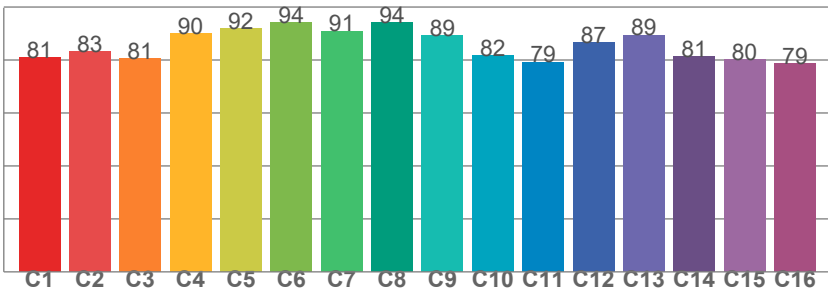
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
83.0	91.0	96.9	83.7	83.0	88.6	85.2	63.5	11.8	79.2	84.0	67.1	85.1	98.7	75.1

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	83.2	80.6	89.9	92.1	94.3	91.0	94.0	89.2	81.7	79.3	86.6	89.5	81.4	80.3	78.8

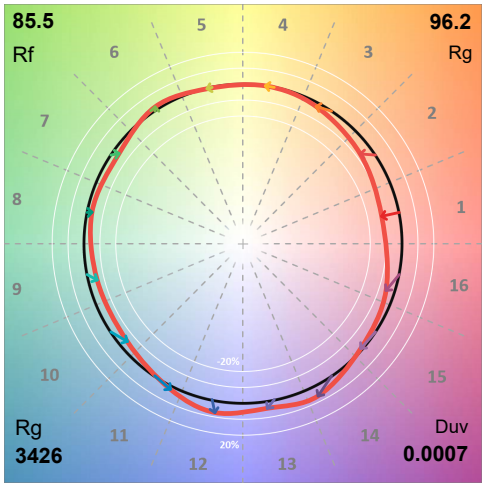
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Color details - ANSI/IES TM-30-18 Color Rendition Report

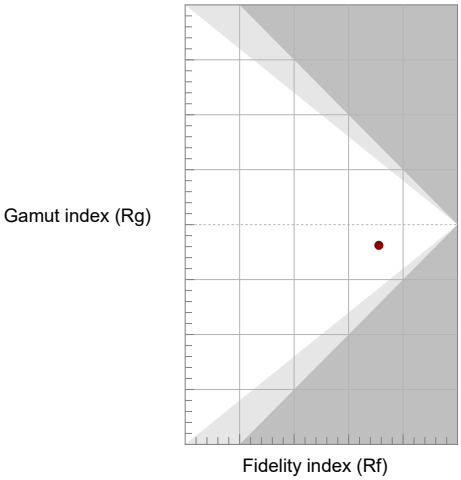
Color Vector Graphic



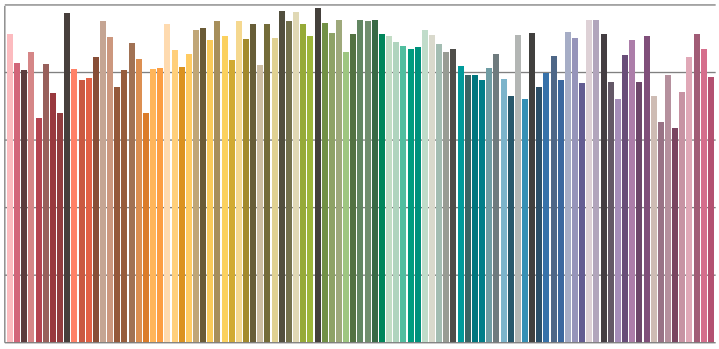
Color Distortion Graphic



Gamut Index vs. Fidelity Index

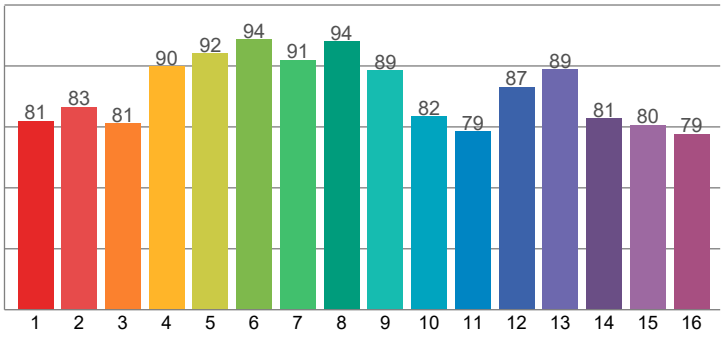


Color Rendition by Color Evaluation Sample (CES)

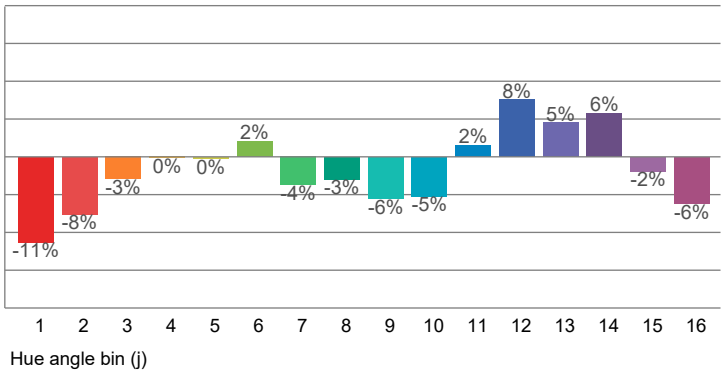


Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



Local Chroma Shift (per hue bin)



CIE x	0.4105
CIE y	0.4105
CIE u'	0.2374
CIE v'	0.5137

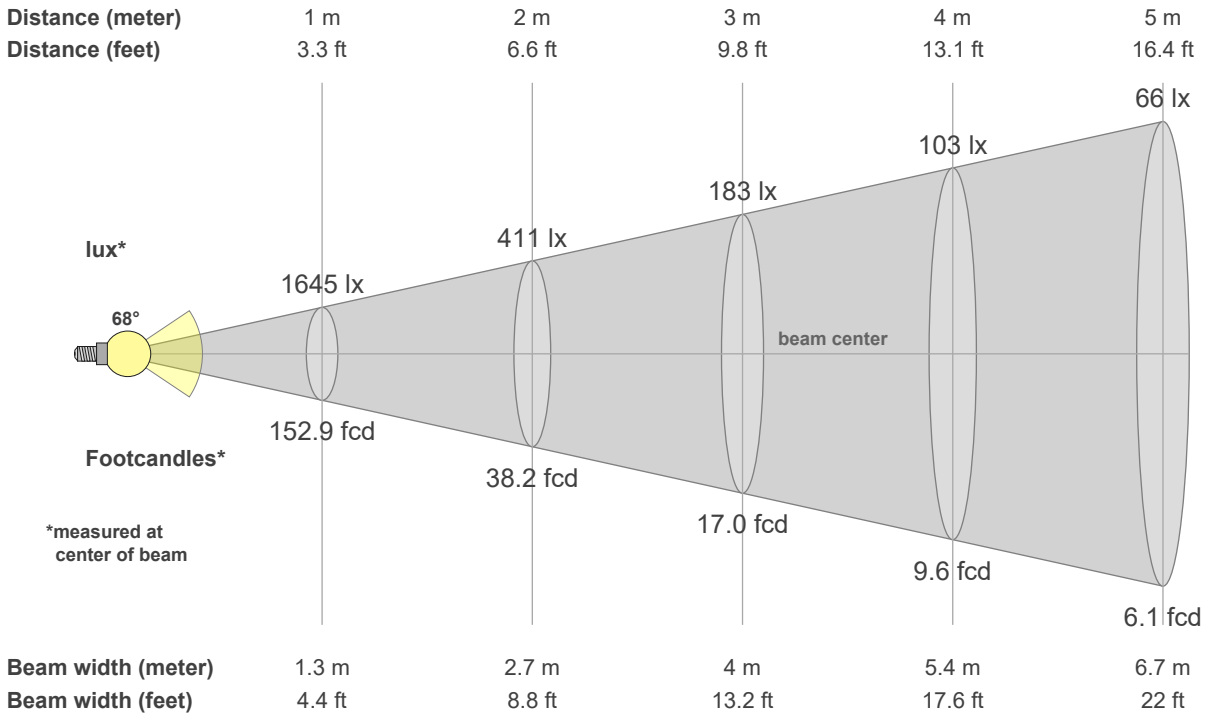
CIE	13.3-1995
Ra	84.4
R9	11.8

Prudential Lighting

Light measurement results

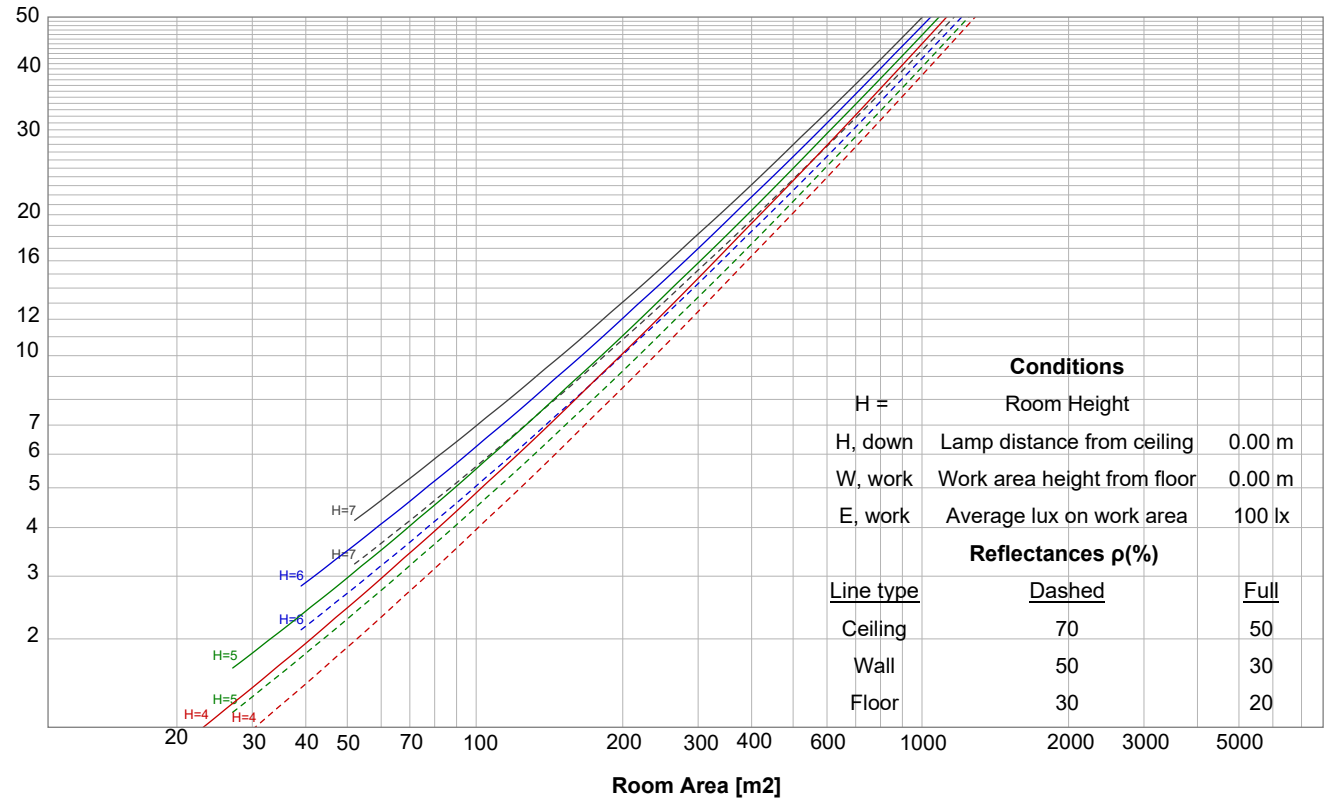
Print date 8/13/2026

Beam details



Luminaire budgetary diagram

LAMPS (number of lamps)



Prudential Lighting

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
1645	411	183	103	66	46	34	26	20	16	14	11	10	8	7	6	6	5	5	4	lux
152.9	38.2	17	9.6	6.1	4.2	3.1	2.4	1.9	1.5	1.3	1.1	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4	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
1645	1636	1605	1556	1488	1401	1298	1180	1050	908	758	603	443	297	190	113	59	26	4	4	cd
100%	99%	98%	95%	90%	85%	79%	72%	64%	55%	46%	37%	27%	18%	12%	7%	4%	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
1645	1609	1497	1302	1055	827	662	547	460	385	318	249	189	138	96	61	37	17	0	1	cd
100%	98%	91%	79%	64%	50%	40%	33%	28%	23%	19%	15%	11%	8%	6%	4%	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
1645	1635	1607	1558	1491	1405	1302	1182	1052	907	759	604	447	300	191	114	58	24	1	2	cd
100%	99%	98%	95%	91%	85%	79%	72%	64%	55%	46%	37%	27%	18%	12%	7%	4%	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
1645	1613	1500	1301	1052	827	658	541	455	382	315	251	189	139	97	64	39	20	1	3	cd
100%	98%	91%	79%	64%	50%	40%	33%	28%	23%	19%	15%	12%	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
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	118.2	118.2	118.2	118.2	115.1	115.1	115.1	115.1	109.2	109.2	109.2	103.9	103.9	103.9	98.9	98.9	98.9	96.6
1	109.9	105.9	102.4	99.2	106.9	103.4	100.2	97.3	98.6	96.0	93.6	94.2	92.1	90.2	90.2	88.5	87.0	84.8
2	101.6	94.7	89.0	84.1	98.8	92.6	87.3	82.9	88.6	84.3	80.5	84.9	81.4	78.2	81.6	78.6	76.0	73.9
3	94.0	85.0	78.1	72.5	91.4	83.2	76.8	71.7	79.9	74.5	70.0	76.8	72.3	68.4	74.0	70.2	66.9	64.8
4	87.1	76.8	69.2	63.4	84.8	75.3	68.2	62.8	72.5	66.4	61.6	69.9	64.7	60.5	67.4	63.0	59.4	57.3
5	81.0	69.8	61.9	56.1	78.8	68.5	61.1	55.6	66.1	59.7	54.8	63.9	58.3	53.9	61.8	57.0	53.1	51.1
6	75.5	63.7	55.8	50.1	73.5	62.7	55.2	49.8	60.6	54.0	49.2	58.7	52.9	48.5	56.9	51.8	47.9	45.9
7	70.6	58.5	50.7	45.2	68.8	57.6	50.2	45.0	55.8	49.3	44.5	54.2	48.3	43.9	52.7	47.4	43.4	41.6
8	66.2	54.0	46.4	41.1	64.5	53.2	46.0	40.9	51.7	45.2	40.5	50.3	44.4	40.1	48.9	43.6	39.7	37.9
9	62.2	50.1	42.7	37.6	60.7	49.4	42.3	37.5	48.1	41.6	37.1	46.8	41.0	36.8	45.6	40.3	36.5	34.8
10	58.7	46.6	39.5	34.7	57.3	46.0	39.2	34.5	44.9	38.6	34.2	43.8	38.0	34.0	42.7	37.5	33.7	32.1

Prudential Lighting

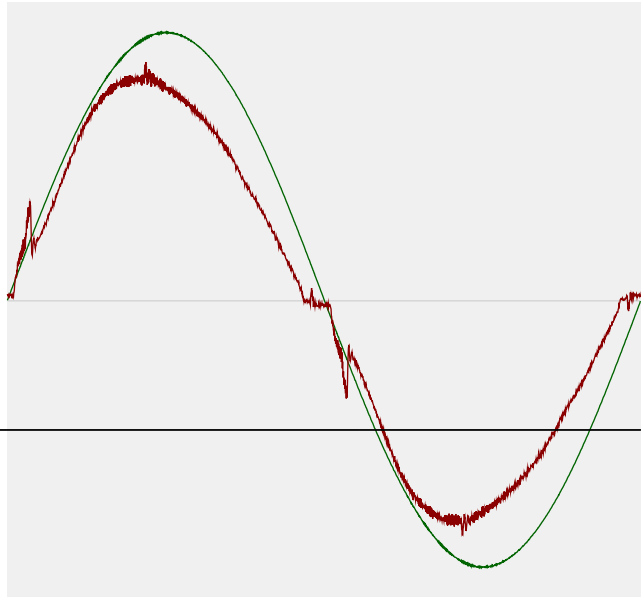
Light measurement results

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Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	23.16 W
RMS Input voltage feed V,RMS	120 V
RMS Input current feed I,RMS	0.20 A
Volt-Amp or apparent power = V,RMS*I,RMS	23.5 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.99
Total harmonic distortion of the current	8.462%
Total harmonic distortion of the voltage	0.0935%

Input power curve



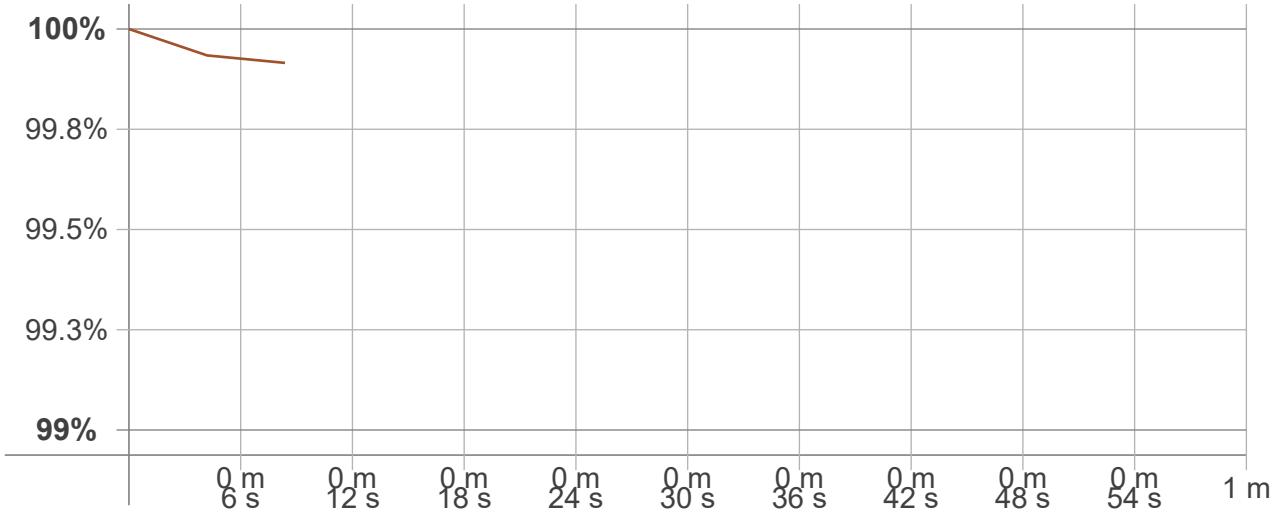
Efficiency

Radiated power efficiency	34.65
Lumen efficiency	115.2 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	3425 K
Stable change max	1%	CCT shift	1 K
Minimum time	15 min	CCT end	3426 K
Warmup Result		**Output Change**	
Total warmup time	Not completed	Output start	2671 lm
Warmup variation	-0.0845%	Output change	-2.2566 lm
		Output end	2668 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

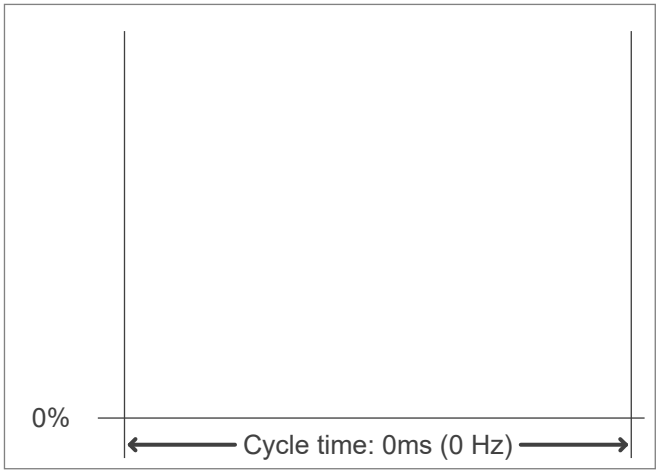
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

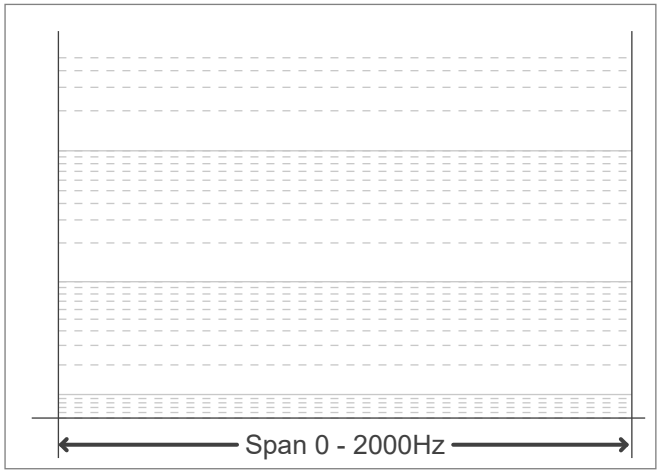
Flicker indices according to Lighting Research Center (2015)

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

