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	43.09 W

Tested Light Source

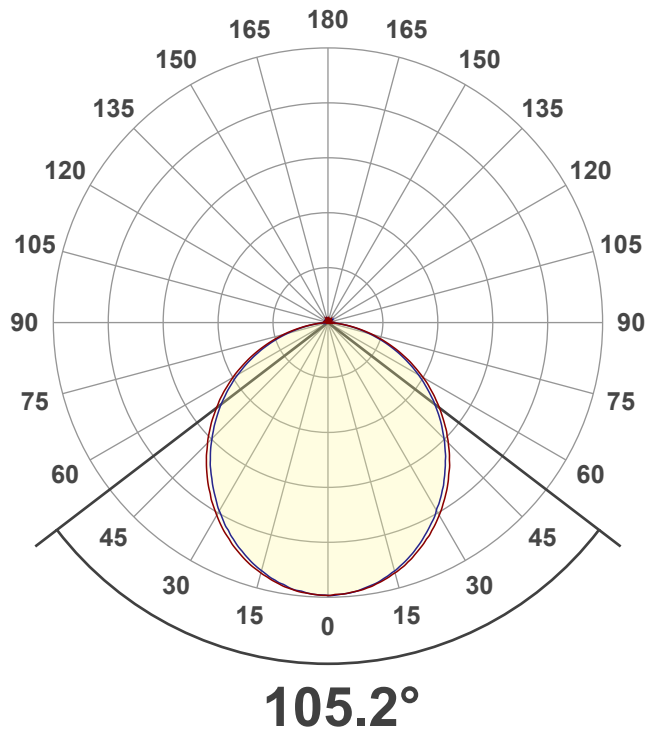
Luminaire	BPRO2-LIN-FLSH-LED35-HO-04-SAL-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	4673 lm – 4.385% / 95.61%
Efficiency	108.5 lm/W
Peak Intensity	1705 cd
Correlated Color Temperature, CCT	3457 K
Color Rendering Index	CRI 84.2

Polar light distribution diagram

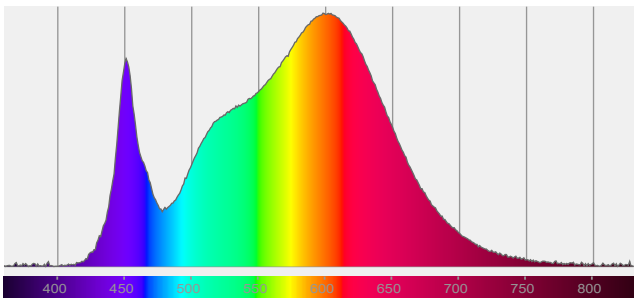
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	1701 cd	1701 cd	1701 cd	1701 cd	1701 cd
5°	1688 cd	1690 cd	1690 cd	1689 cd	1689 cd
15°	1615 cd	1613 cd	1609 cd	1605 cd	1603 cd
25°	1476 cd	1471 cd	1462 cd	1451 cd	1448 cd
35°	1287 cd	1277 cd	1263 cd	1249 cd	1252 cd
45°	1061 cd	1051 cd	1032 cd	1020 cd	1024 cd
55°	813.9 cd	805.4 cd	786.8 cd	778.5 cd	777.7 cd
65°	552.7 cd	544.8 cd	528.1 cd	523.7 cd	521.8 cd
75°	286.8 cd	284.3 cd	272.4 cd	270.3 cd	267.4 cd
85°	58.58 cd	62.4 cd	60.14 cd	56.26 cd	50.47 cd
90°	9.801 cd	9.606 cd	9.044 cd	8.03 cd	5.854 cd

Spectral power distribution



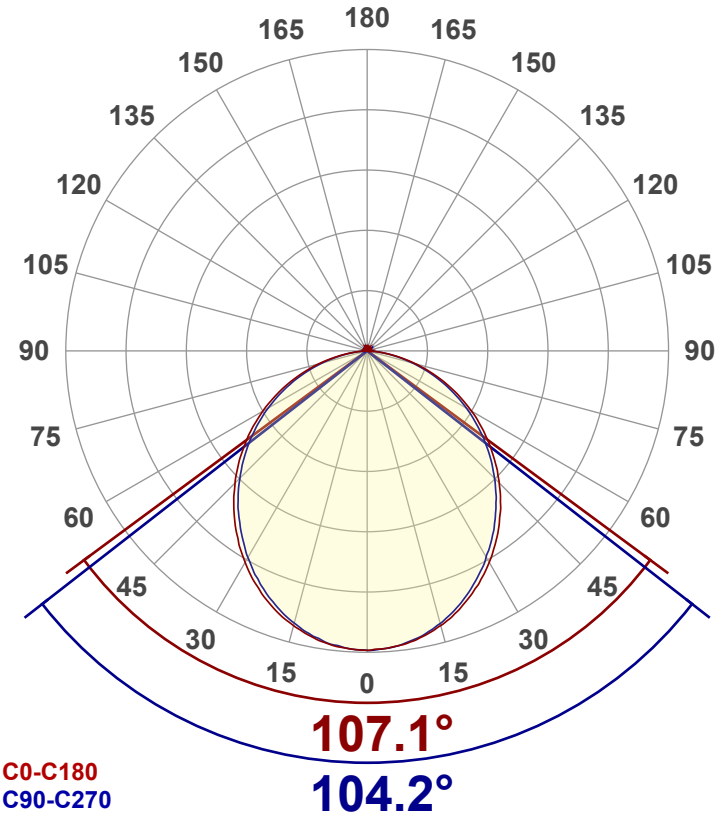
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Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	4673 lm
Lumen Up% / Down%	4.385% / 95.61%
Peak Intensity	1705 cd
Beam Angle (50%-FWHM)	105.2°

EU Ecodesign parameters

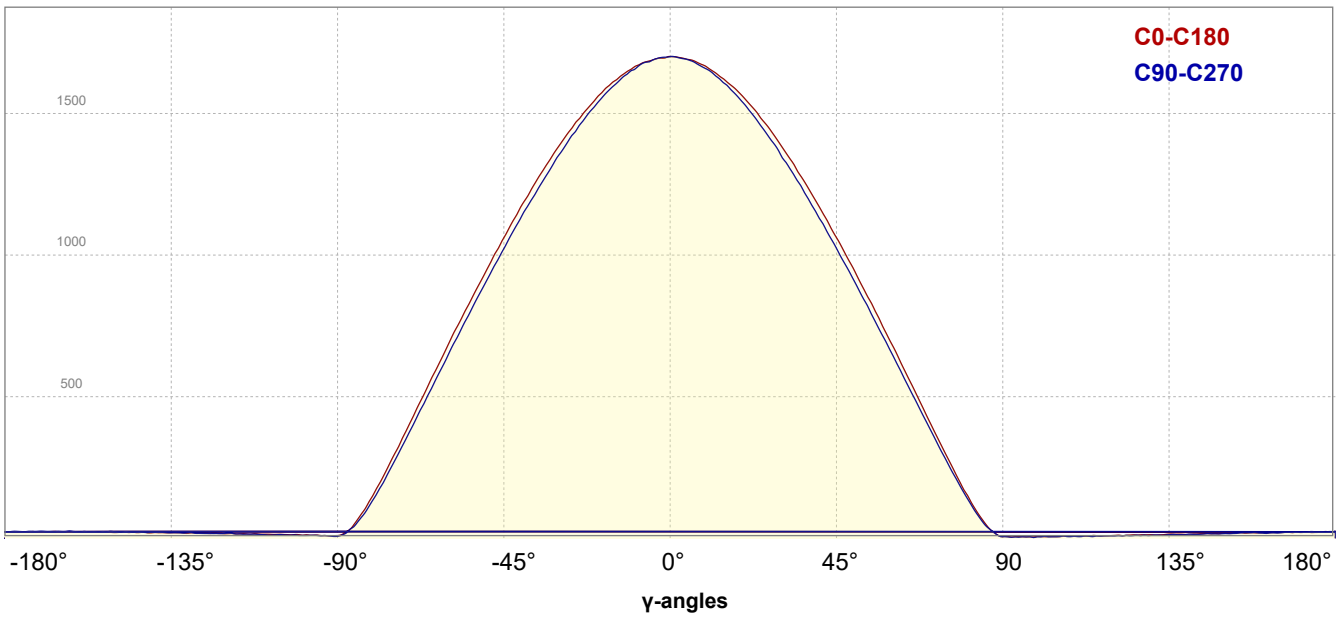
Directionality (DLS or NDLS)	NDLS
Ecodesign Useful Luminous Flux	4673 lm
Ecodesign Energy Class	F

Intensity Ratio

In 120° cone	76.7%
In 90° cone	53.15%

Linear distribution diagram

Intensity [cd]

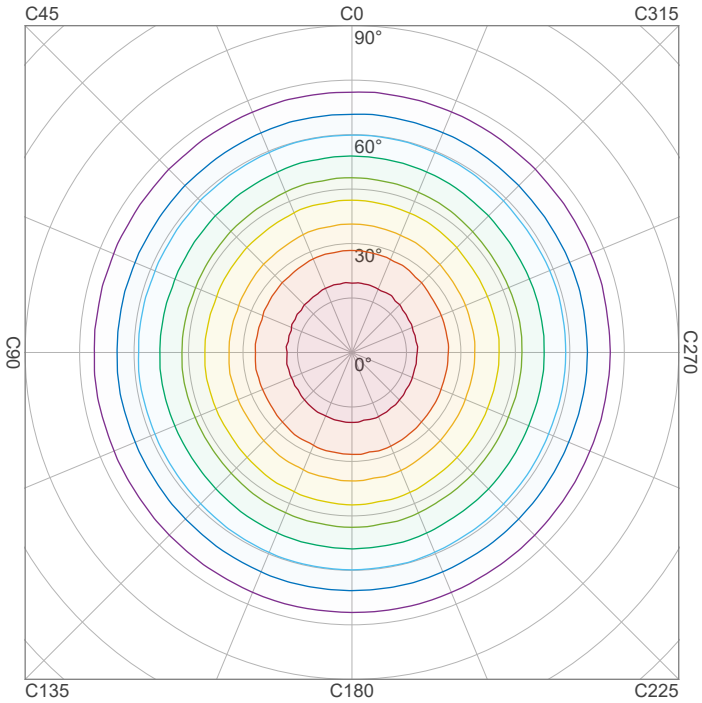


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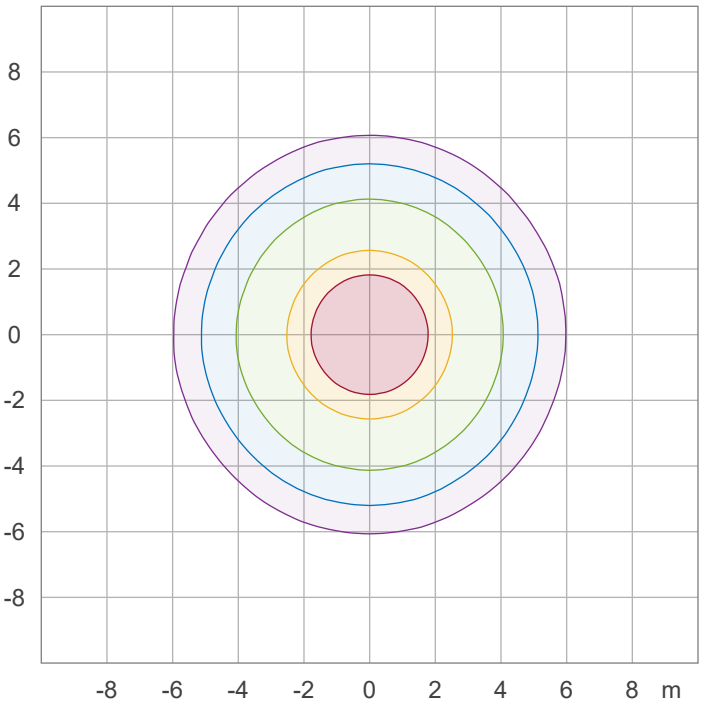
Iso-intensity Diagram (Iso-candela)



90 %	1534.3 cd
80 %	1363.9 cd
70 %	1193.4 cd
60 %	1022.9 cd
50 %	852.4 cd
40 %	681.9 cd
30 %	511.4 cd
20 %	341.0 cd
10 %	170.5 cd

Peak intensity: 1704.8 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	94.7 lx
30.0 %	56.8 lx
10.0 %	18.9 lx
5.0 %	9.47 lx
3.0 %	5.68 lx

Peak illuminance: 189 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

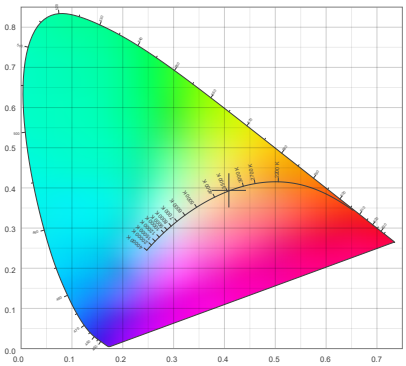
Light measurement results

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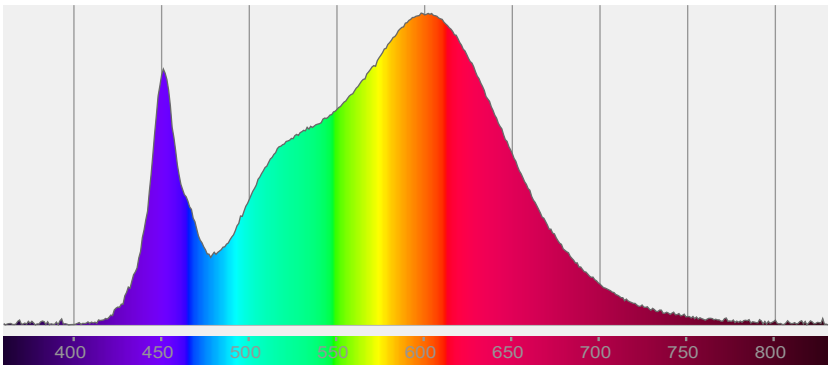
Color details

Correlated Color Temperature, Target	CCT = 3457 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3457 K	Color deviation from BBL	Duv = 0.0007
Color Rendering Index	CRI 84.2	Color coordinates CIE 1931	(x;y) = (0.4087;0.3939)
Color Rendering Index, R9 (red)	R9 = 11.4	Color coordinate CIEs 1960	(u;v) = (0.2366;0.3421)
Color Rendering TM30-18	Rf 85.5	Color coordinate CIEs 1976	(u';v') = (0.2366;0.5131)
	Rg 95.9	Color Quality Scale	CQS = 83.9

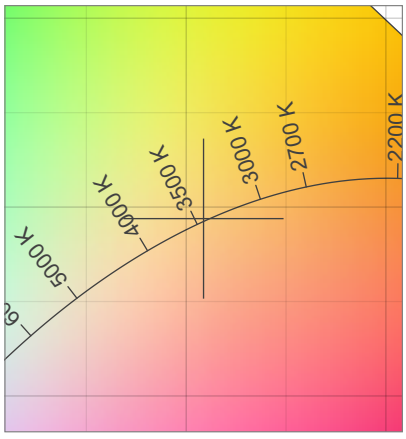
CIE 1931 Chromaticity diagram



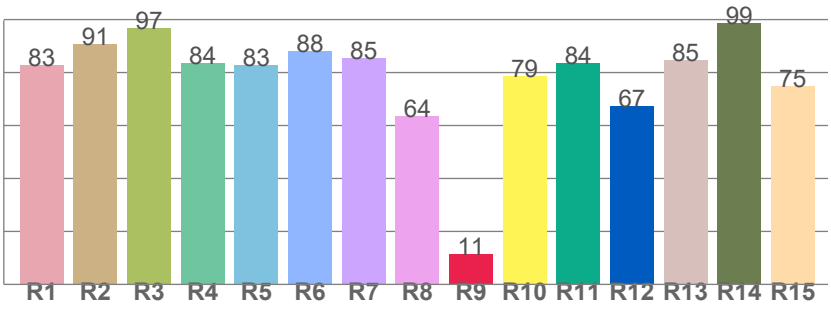
Spectral power distribution



CIE 1931 Chromaticity - zoomed



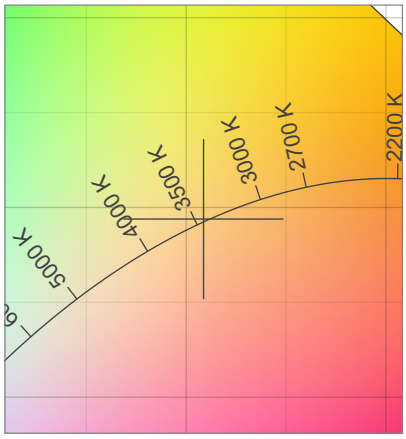
Color Rendering Index per reference color (CIE 1995)



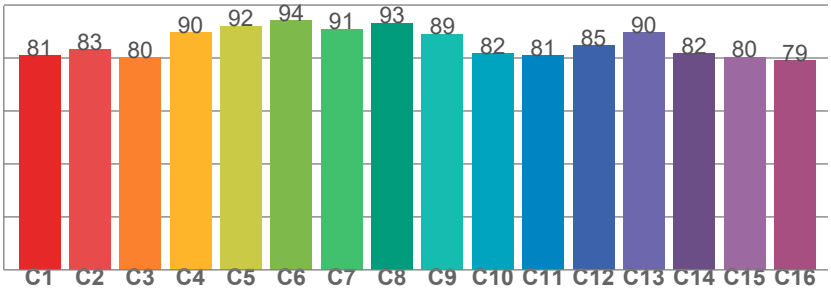
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.8	90.8	96.8	83.6	82.9	88.2	85.3	63.5	11.4	78.6	83.7	67.3	84.9	98.5	75.0

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	83.1	80.3	89.7	92.1	94.2	91.0	93.2	89.1	81.7	80.8	84.9	89.6	81.6	80.4	78.9

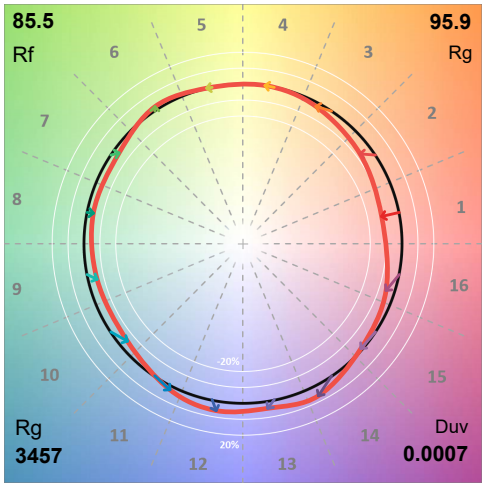
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Color details - ANSI/IES TM-30-18 Color Rendition Report

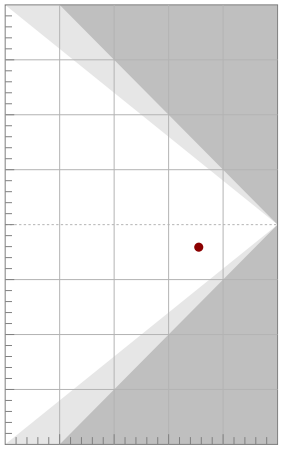
Color Vector Graphic



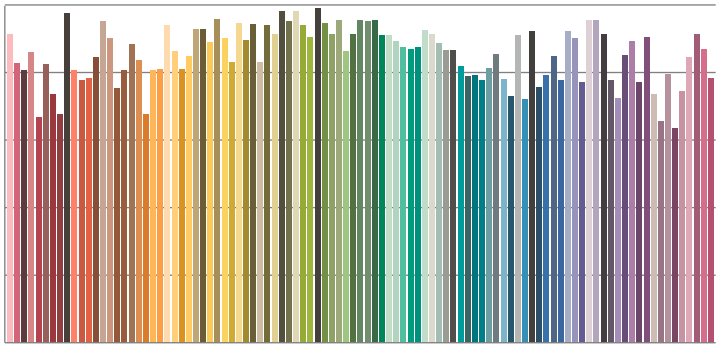
Color Distortion Graphic



Gamut Index vs. Fidelity Index

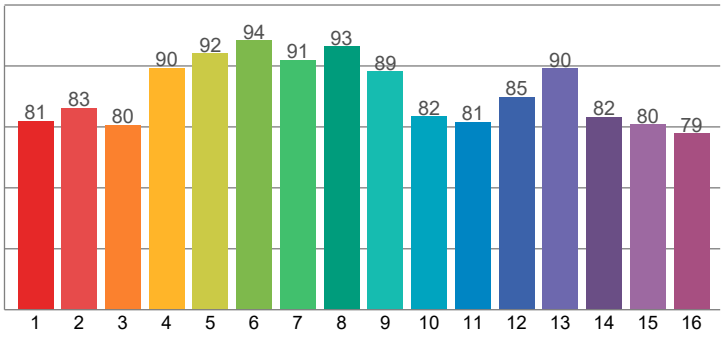


Color Rendition by Color Evaluation Sample (CES)

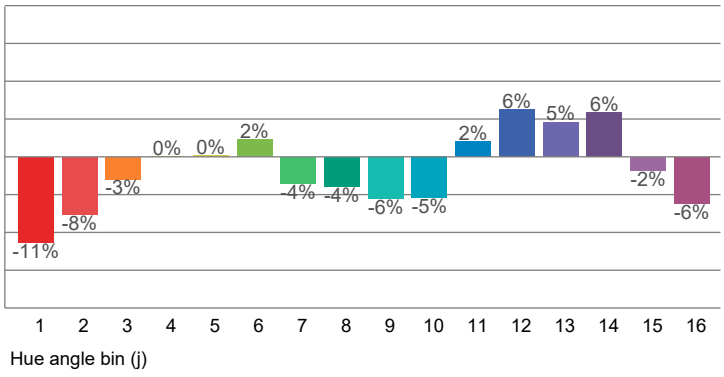


Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



Local Chroma Shift (per hue bin)



CIE x	0.4087
CIE y	0.4087
CIE u'	0.2366
CIE v'	0.5131

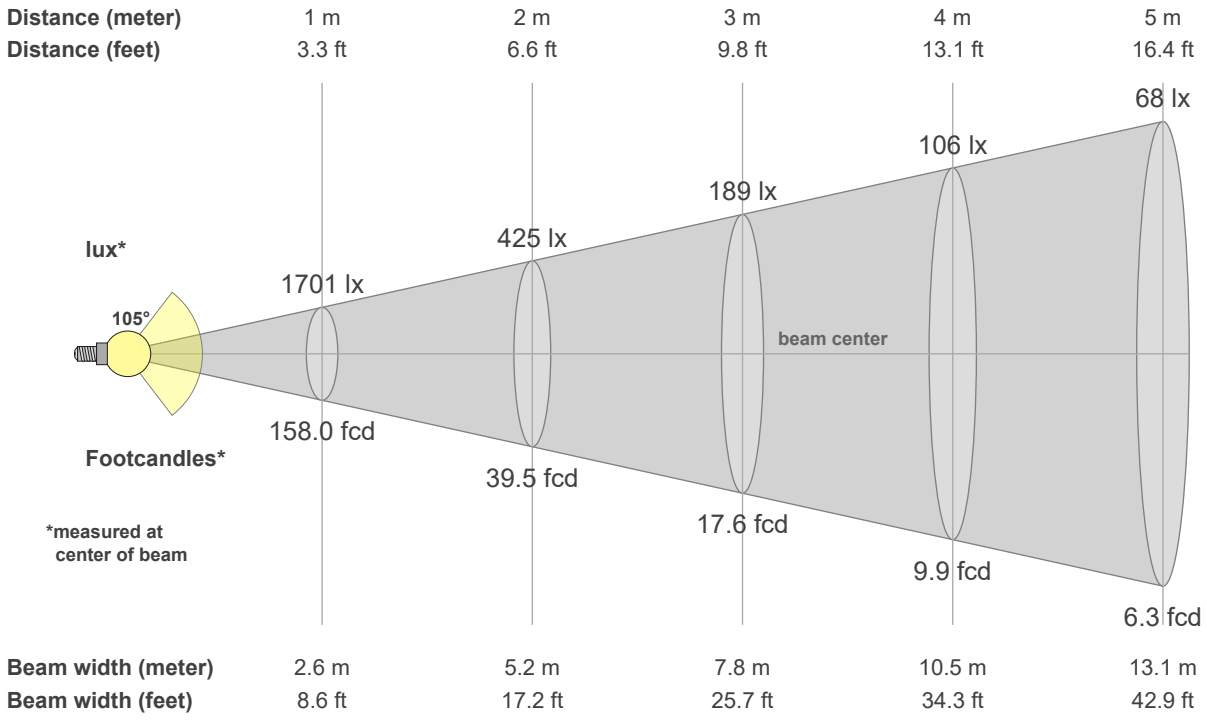
CIE	13.3-1995
Ra	84.2
R9	11.4

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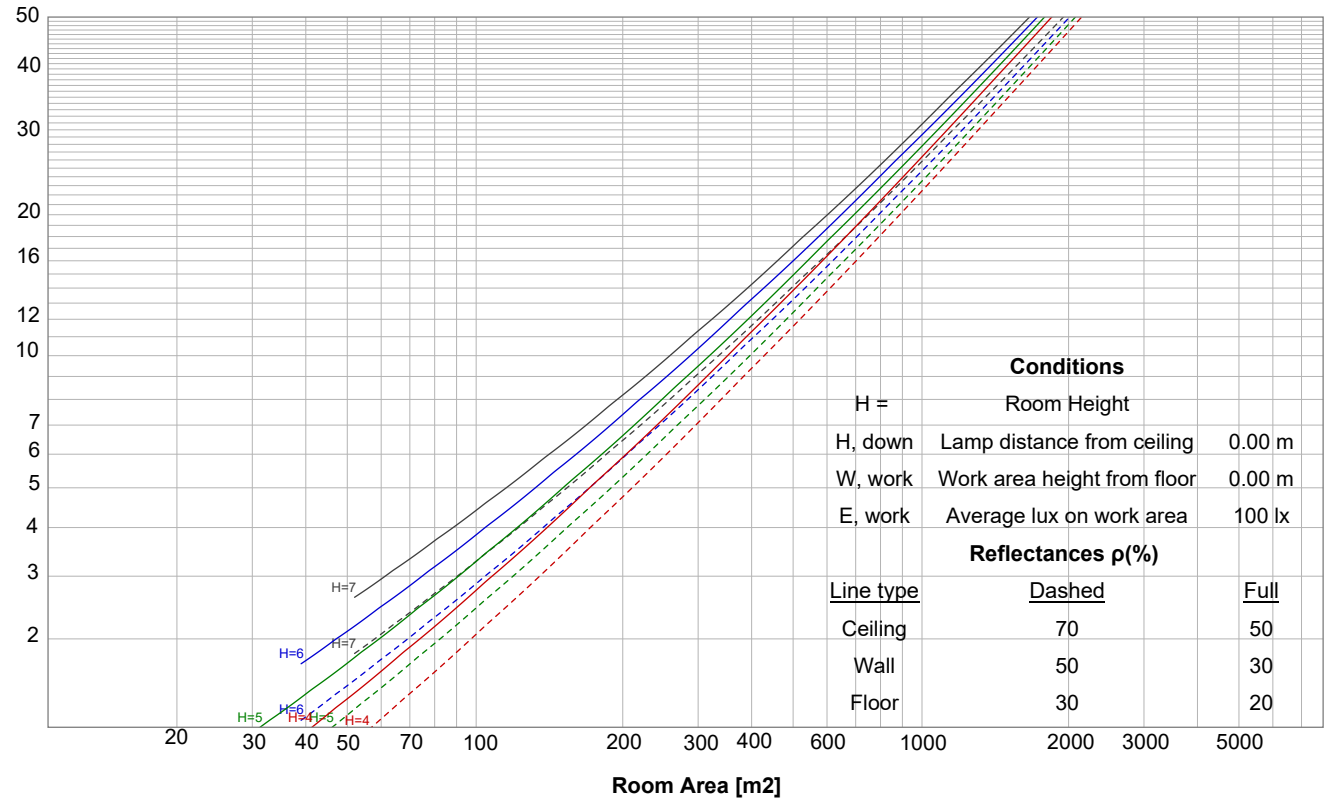
Print date 8/13/2026

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
1701	425	189	106	68	47	35	27	21	17	14	12	10	9	8	7	6	5	5	4	lux
158	39.5	17.6	9.9	6.3	4.4	3.2	2.5	2	1.6	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
1701	1688	1661	1615	1553	1476	1387	1287	1179	1061	938	814	685	553	418	287	162	59	10	10	cd
100%	99%	98%	95%	91%	87%	82%	76%	69%	62%	55%	48%	40%	33%	25%	17%	10%	3%	1%	1%	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
1701	1689	1656	1603	1534	1448	1352	1252	1138	1024	903	778	652	522	394	267	149	50	6	5	cd
100%	99%	97%	94%	90%	85%	79%	74%	67%	60%	53%	46%	38%	31%	23%	16%	9%	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
1701	1690	1663	1616	1555	1476	1387	1286	1178	1062	941	815	685	552	417	286	160	57	6	5	cd
100%	99%	98%	95%	91%	87%	82%	76%	69%	62%	55%	48%	40%	32%	25%	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
1701	1687	1654	1601	1532	1449	1355	1250	1142	1023	901	777	649	518	389	262	144	50	7	9	cd
100%	99%	97%	94%	90%	85%	80%	73%	67%	60%	53%	46%	38%	30%	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
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	118.0	118.0	118.0	118.0	114.7	114.7	114.7	114.7	108.7	108.7	108.7	103.1	103.1	103.1	98.0	98.0	98.0	95.6
1	108.0	103.4	99.2	95.5	104.9	100.7	96.9	93.5	95.7	92.6	89.8	91.0	88.5	86.3	86.8	84.8	82.9	80.6
2	98.4	90.3	83.7	78.1	95.4	88.1	82.0	76.8	83.8	78.7	74.3	79.9	75.7	72.0	76.3	72.9	69.8	67.4
3	89.8	79.5	71.5	65.1	87.0	77.6	70.2	64.2	74.0	67.7	62.5	70.7	65.4	60.9	67.6	63.1	59.3	57.0
4	82.3	70.5	61.9	55.3	79.7	68.9	60.9	54.7	65.8	58.9	53.5	63.0	57.1	52.3	60.4	55.3	51.1	48.8
5	75.7	63.1	54.2	47.7	73.3	61.7	53.4	47.2	59.1	51.9	46.3	56.7	50.4	45.4	54.4	48.9	44.6	42.3
6	70.0	56.8	48.0	41.7	67.8	55.7	47.4	41.4	53.4	46.1	40.6	51.3	44.9	39.9	49.4	43.7	39.3	37.1
7	64.9	51.6	42.9	36.9	62.9	50.6	42.4	36.6	48.6	41.3	36.0	46.8	40.3	35.5	45.1	39.3	34.9	32.9
8	60.4	47.1	38.7	32.9	58.6	46.2	38.2	32.7	44.5	37.4	32.2	43.0	36.5	31.8	41.5	35.7	31.3	29.4
9	56.5	43.2	35.1	29.7	54.8	42.5	34.8	29.5	41.0	34.0	29.1	39.6	33.3	28.7	38.3	32.6	28.3	26.5
10	53.0	39.9	32.1	26.9	51.5	39.2	31.8	26.8	38.0	31.1	26.4	36.7	30.5	26.1	35.6	29.9	25.8	24.0

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Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	43.09 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	43.7 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.99
Total harmonic distortion of the current	8.881%
Total harmonic distortion of the voltage	0.1%

Input power curve



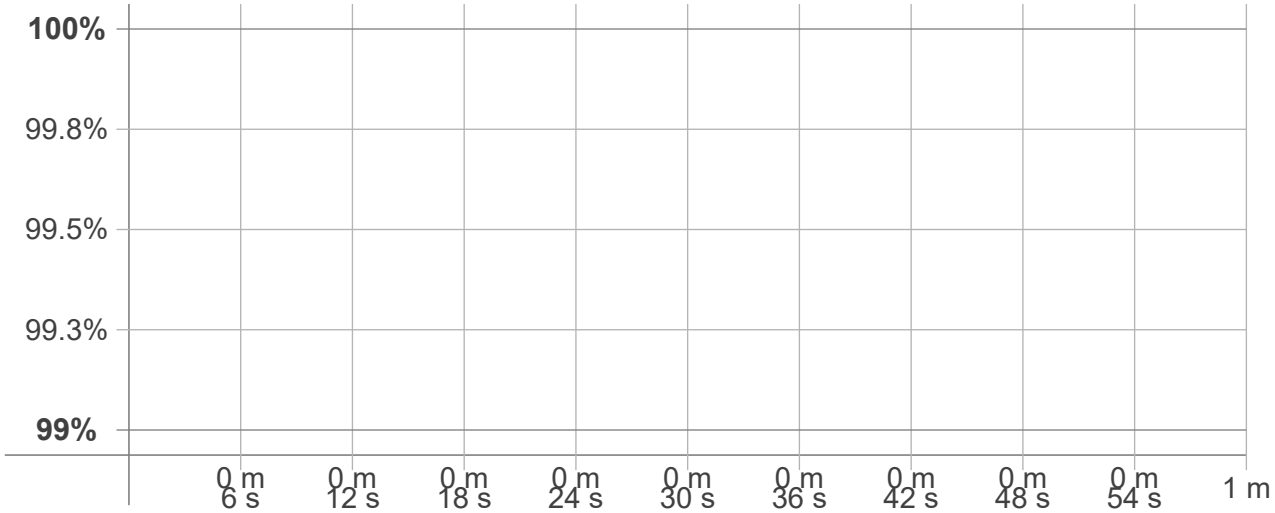
Efficiency

Radiated power efficiency	32.63
Lumen efficiency	108.5 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	n/a	CCT start	NaN K
Stable change max	n/a%	CCT shift	NaN K
Minimum time	n/a	CCT end	3457 K
Warmup Result		**Output Change**	
Total warmup time	n/a	Output start	NaN lm
Warmup variation	NaN%	Output change	NaN lm
		Output end	4673 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

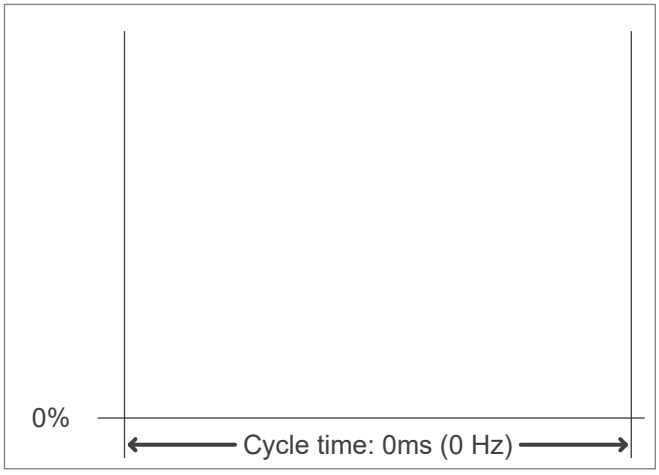
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

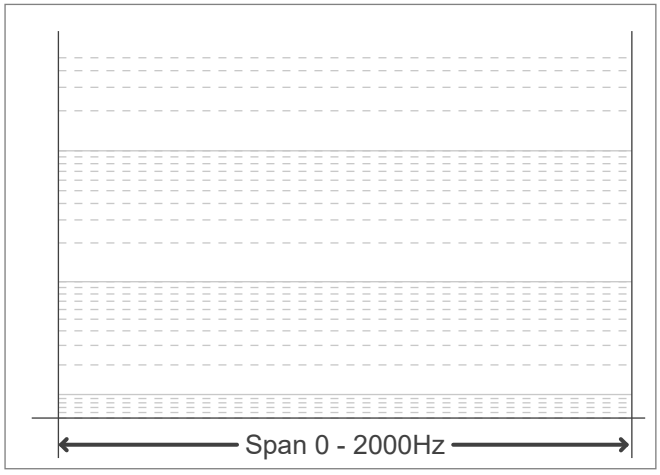
Flicker indices according to Lighting Research Center (2015)

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

