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	33.07 W

Tested Light Source

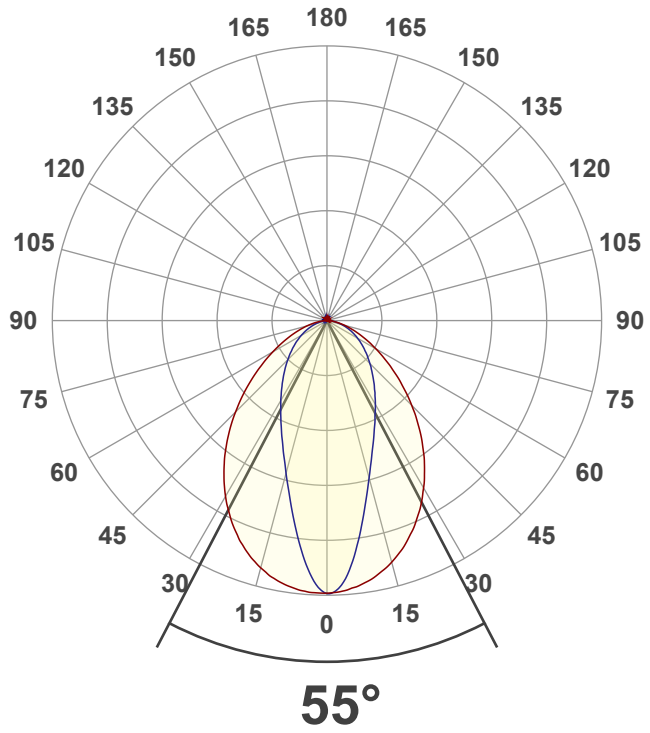
Luminaire	BPRO2-LIN-FLSH-LED35-SO-04-WGZ-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	3504 lm – 2.496% / 97.5%
Efficiency	105.9 lm/W
Peak Intensity	2499 cd
Correlated Color Temperature, CCT	3454 K
Color Rendering Index	CRI 84.2

Polar light distribution diagram

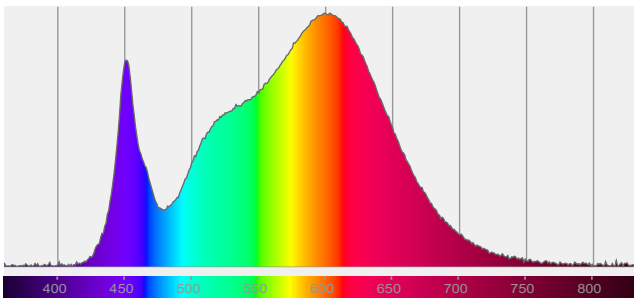
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	2460 cd	2460 cd	2460 cd	2460 cd	2460 cd
5°	2429 cd	2341 cd	2239 cd	2155 cd	2271 cd
15°	2257 cd	1925 cd	1596 cd	1420 cd	1470 cd
25°	1942 cd	1485 cd	1143 cd	1005 cd	1023 cd
35°	1532 cd	1108 cd	830.2 cd	735.7 cd	747.8 cd
45°	1082 cd	788.6 cd	596 cd	533.9 cd	547.8 cd
55°	677.6 cd	523.1 cd	406.8 cd	373.6 cd	389.5 cd
65°	369.2 cd	309.2 cd	251.9 cd	238.7 cd	255.5 cd
75°	164.8 cd	148.4 cd	127.3 cd	121.8 cd	136.2 cd
85°	38.43 cd	37.8 cd	35.58 cd	34.14 cd	40.33 cd
90°	12.08 cd	9.895 cd	8.673 cd	7.705 cd	8.604 cd

Spectral power distribution



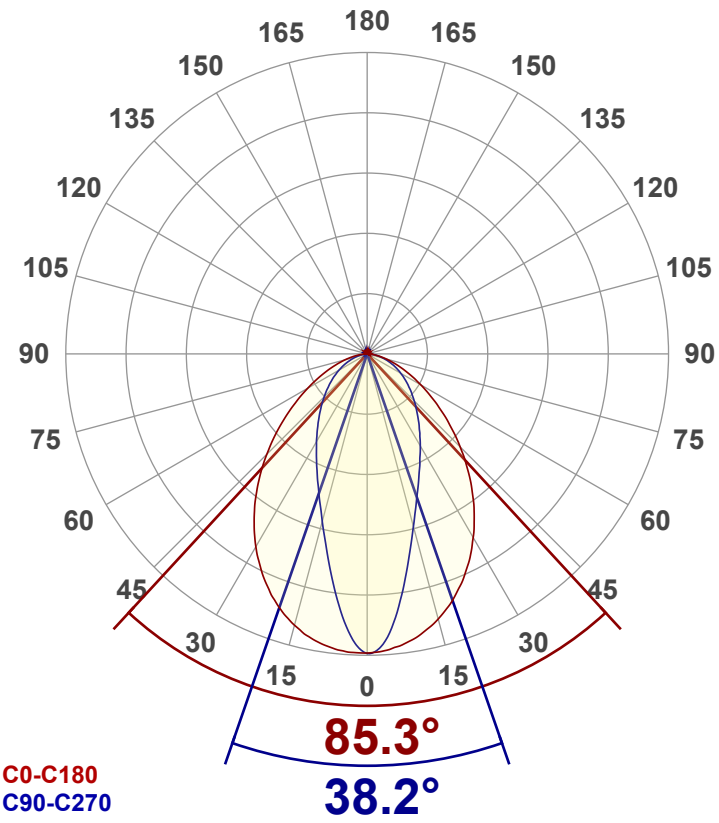
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Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	3504 lm
Lumen Up% / Down%	2.496% / 97.5%
Peak Intensity	2499 cd
Beam Angle (50%-FWHM)	55.0°

EU Ecodesign parameters

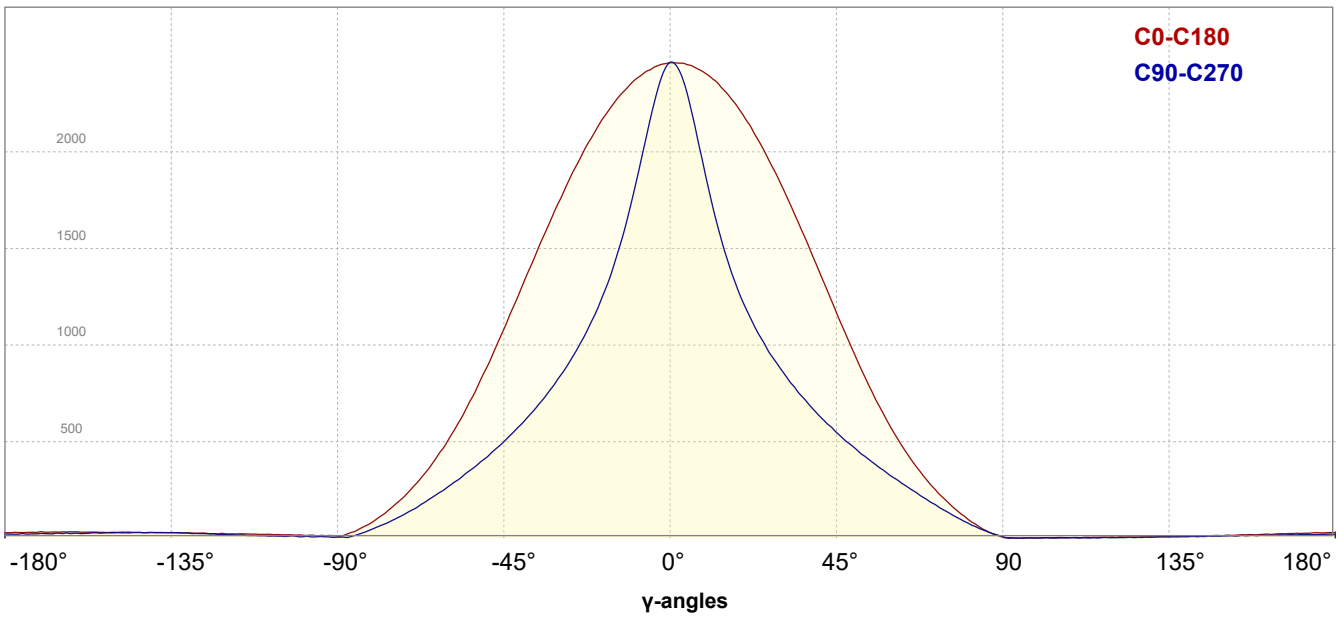
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous Flux	2254 lm
Ecodesign Energy Class	G

Intensity Ratio

In 120° cone	84.02%
In 90° cone	64.33%

Linear distribution diagram

Intensity [cd]

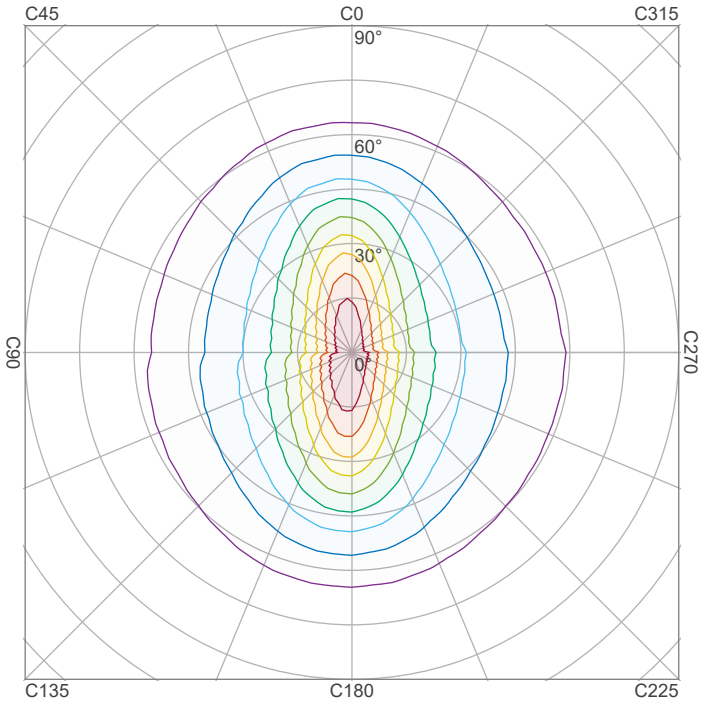


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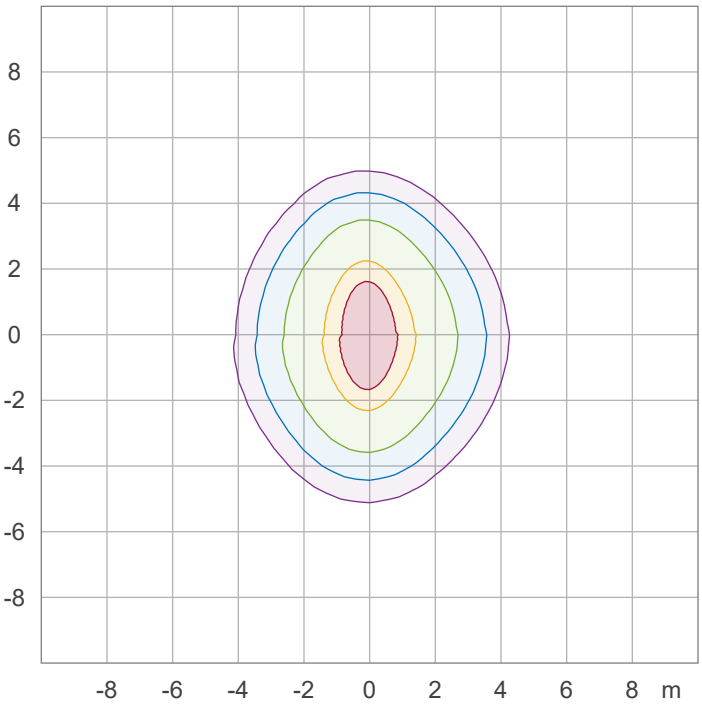
Iso-intensity Diagram (Iso-candela)



90 %	2245.7 cd
80 %	1996.2 cd
70 %	1746.7 cd
60 %	1497.2 cd
50 %	1247.6 cd
40 %	998.1 cd
30 %	748.6 cd
20 %	499.1 cd
10 %	249.5 cd

Peak intensity: 2495.3 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	138 lx
30.0 %	83 lx
10.0 %	27.7 lx
5.0 %	13.8 lx
3.0 %	8.3 lx

Peak illuminance: 277 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

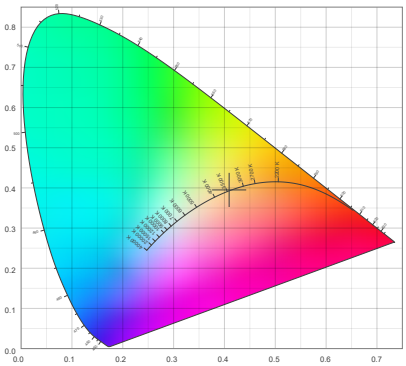
Light measurement results

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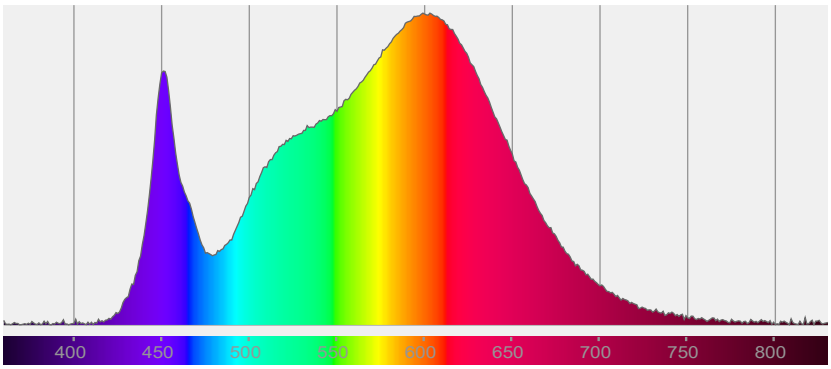
Color details

Correlated Color Temperature, Target	CCT = 3454 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3454 K	Color deviation from BBL	Duv = 0.0010
Color Rendering Index	CRI 84.2	Color coordinates CIE 1931	(x;y) = (0.4092;0.3950)
Color Rendering Index, R9 (red)	R9 = 11.2	Color coordinate CIEs 1960	(u;v) = (0.2365;0.3424)
Color Rendering TM30-18	Rf 85.5	Color coordinate CIEs 1976	(u';v') = (0.2365;0.5136)
	Rg 95.7	Color Quality Scale	CQS = 84.0

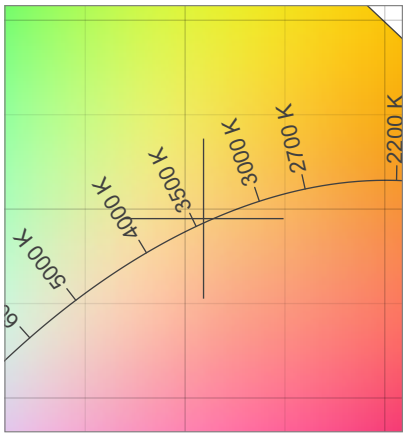
CIE 1931 Chromaticity diagram



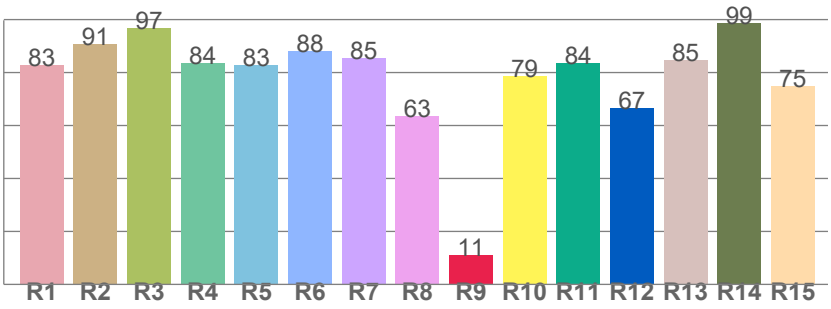
Spectral power distribution



CIE 1931 Chromaticity - zoomed



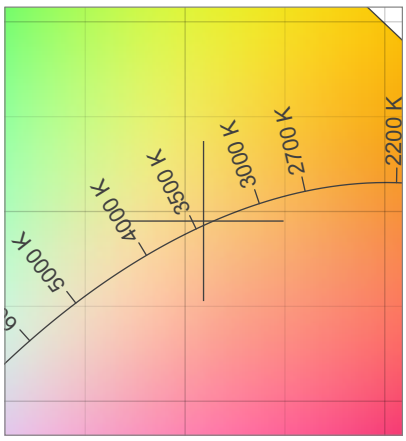
Color Rendering Index per reference color (CIE 1995)



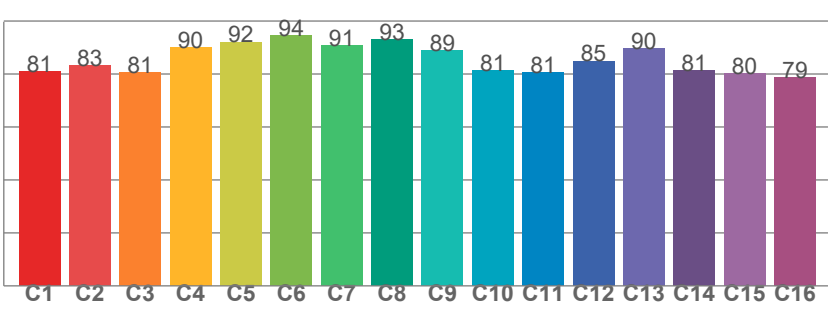
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.8	90.8	96.8	83.6	82.8	88.3	85.4	63.4	11.2	78.6	83.7	66.6	84.9	98.6	74.8

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
80.8	83.2	80.7	89.9	92.1	94.5	90.9	93.1	88.8	81.4	80.7	84.9	89.5	81.4	80.3	78.7

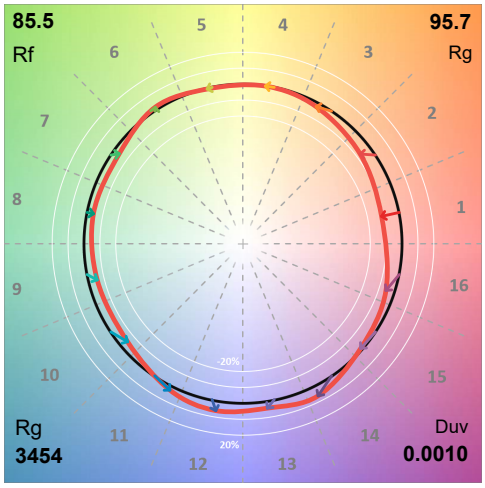
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Color details - ANSI/IES TM-30-18 Color Rendition Report

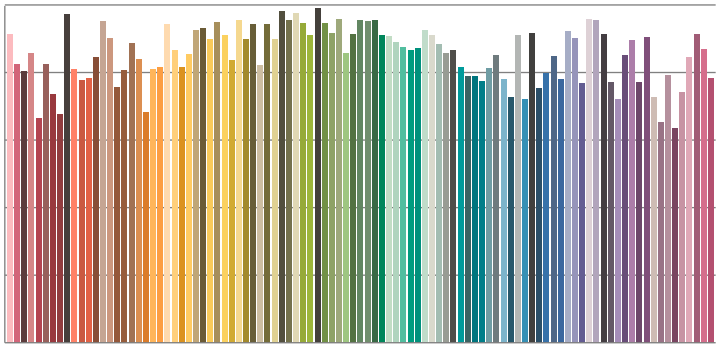
Color Vector Graphic



Color Distortion Graphic

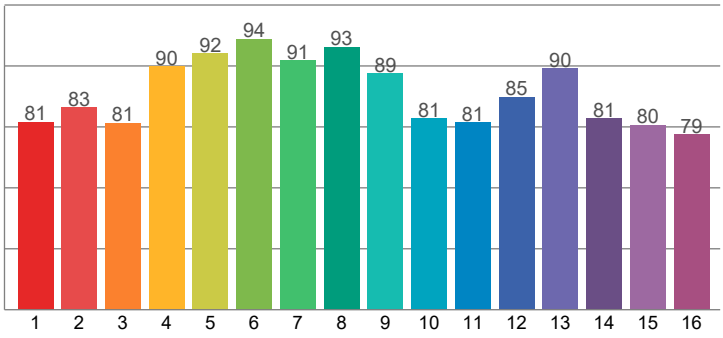


Color Rendition by Color Evaluation Sample (CES)



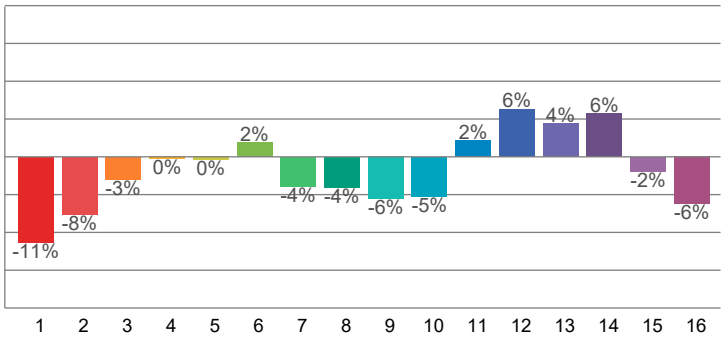
Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



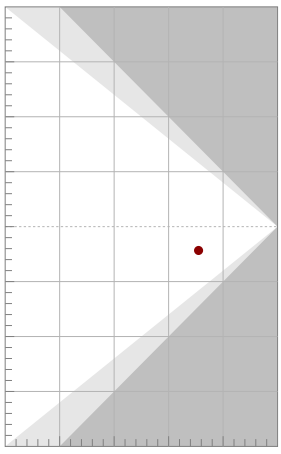
Hue angle bin (j)

Local Chroma Shift (per hue bin)



Hue angle bin (j)

Gamut Index vs. Fidelity Index



Gamut index (Rg)

Fidelity index (Rf)

CIE x	0.4092
CIE y	0.4092
CIE u'	0.2365
CIE v'	0.5136

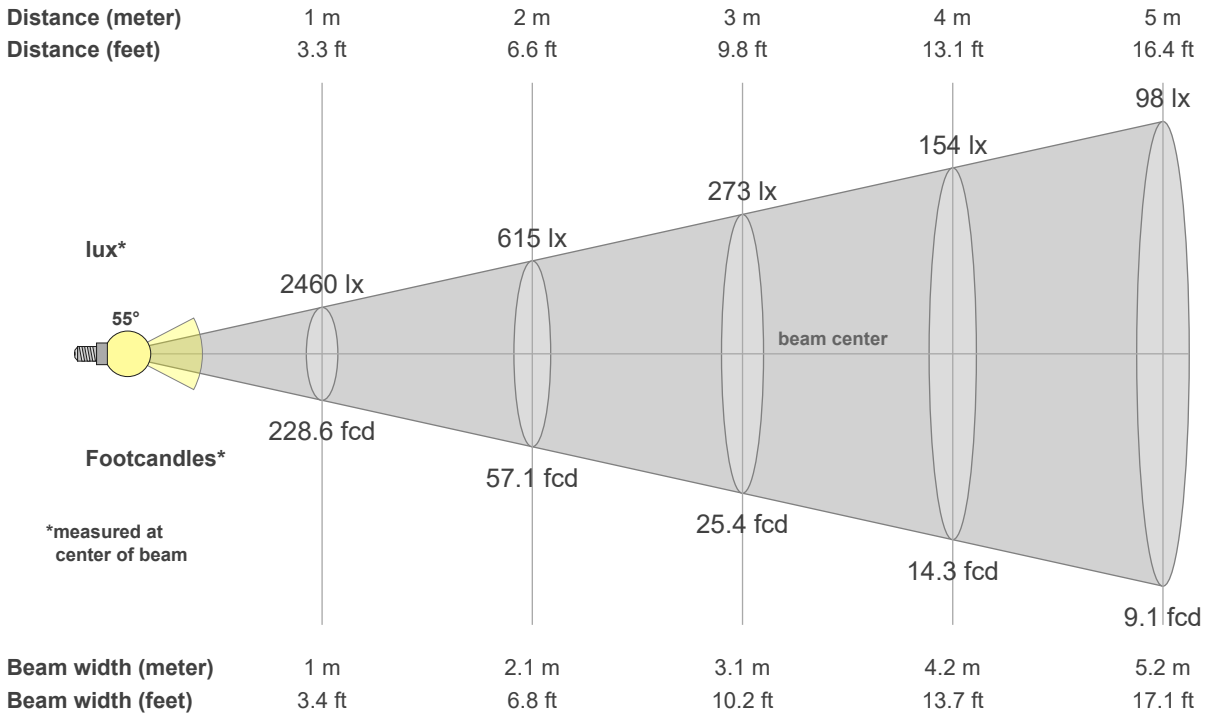
CIE	**13.3-1995**
Ra	84.2
R9	11.2

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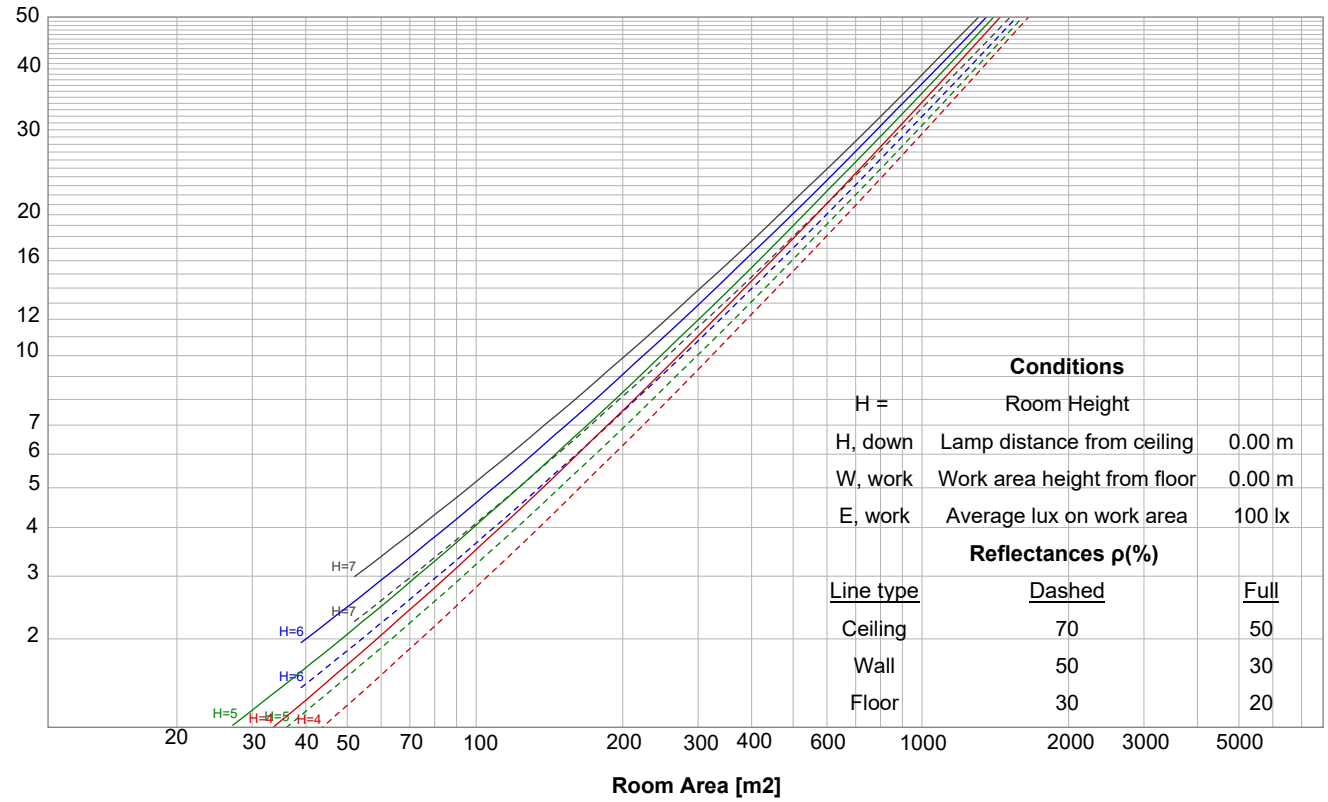
Print date 9/29/2026

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
2460	615	273	154	98	68	50	38	30	25	20	17	15	13	11	10	9	8	7	6	lux
228.6	57.1	25.4	14.3	9.1	6.3	4.7	3.6	2.8	2.3	1.9	1.6	1.4	1.2	1	0.9	0.8	0.7	0.6	0.6	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
2460	2429	2364	2257	2116	1942	1744	1532	1307	1082	870	678	510	369	256	165	91	38	12	14	cd
100%	99%	96%	92%	86%	79%	71%	62%	53%	44%	35%	28%	21%	15%	10%	7%	4%	2%	0%	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
2460	2271	1842	1470	1210	1023	874	748	641	548	466	389	319	255	193	136	84	40	9	1	cd
100%	92%	75%	60%	49%	42%	36%	30%	26%	22%	19%	16%	13%	10%	8%	6%	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
2460	2449	2400	2310	2182	2021	1831	1619	1396	1167	947	742	564	413	288	189	108	44	5	1	cd
100%	100%	98%	94%	89%	82%	74%	66%	57%	47%	39%	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
2460	2199	1778	1427	1173	985	834	705	596	499	414	340	268	204	144	94	52	16	6	8	cd
100%	89%	72%	58%	48%	40%	34%	29%	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
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	115.4	115.4	115.4	115.4	109.7	109.7	109.7	104.5	104.5	104.5	99.7	99.7	99.7	97.5
1	109.7	105.6	101.9	98.5	106.8	103.1	99.7	96.7	98.4	95.7	93.2	94.2	92.0	89.9	90.2	88.5	86.9	84.7
2	101.1	93.9	88.0	83.0	98.4	91.9	86.4	81.8	88.0	83.5	79.6	84.5	80.7	77.4	81.2	78.1	75.4	73.2
3	93.3	84.1	76.9	71.2	90.8	82.3	75.7	70.4	79.1	73.5	68.9	76.1	71.4	67.4	73.4	69.4	66.0	63.9
4	86.4	75.8	68.0	62.0	84.1	74.3	67.1	61.4	71.6	65.3	60.4	69.1	63.7	59.3	66.7	62.1	58.3	56.3
5	80.3	68.7	60.7	54.7	78.1	67.5	60.0	54.3	65.2	58.6	53.6	63.1	57.3	52.8	61.1	56.1	52.1	50.1
6	74.8	62.8	54.7	48.9	72.8	61.7	54.1	48.6	59.7	53.0	48.0	57.9	52.0	47.4	56.2	50.9	46.9	44.9
7	69.9	57.6	49.7	44.1	68.1	56.7	49.2	43.9	55.0	48.3	43.4	53.4	47.4	42.9	52.0	46.6	42.5	40.6
8	65.5	53.2	45.4	40.1	63.9	52.4	45.0	39.9	50.9	44.3	39.5	49.6	43.6	39.2	48.3	42.9	38.8	37.0
9	61.6	49.3	41.8	36.7	60.2	48.7	41.5	36.6	47.4	40.8	36.3	46.2	40.2	36.0	45.0	39.6	35.7	34.0
10	58.1	45.9	38.7	33.8	56.8	45.4	38.4	33.7	44.2	37.9	33.4	43.2	37.3	33.2	42.2	36.8	33.0	31.3

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Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	33.07 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	33.7 VA
Displacement factor of AC power feed	0.99
Power factor of AC current feed	0.98
Total harmonic distortion of the current	10.78%
Total harmonic distortion of the voltage	0.1062%

Input power curve



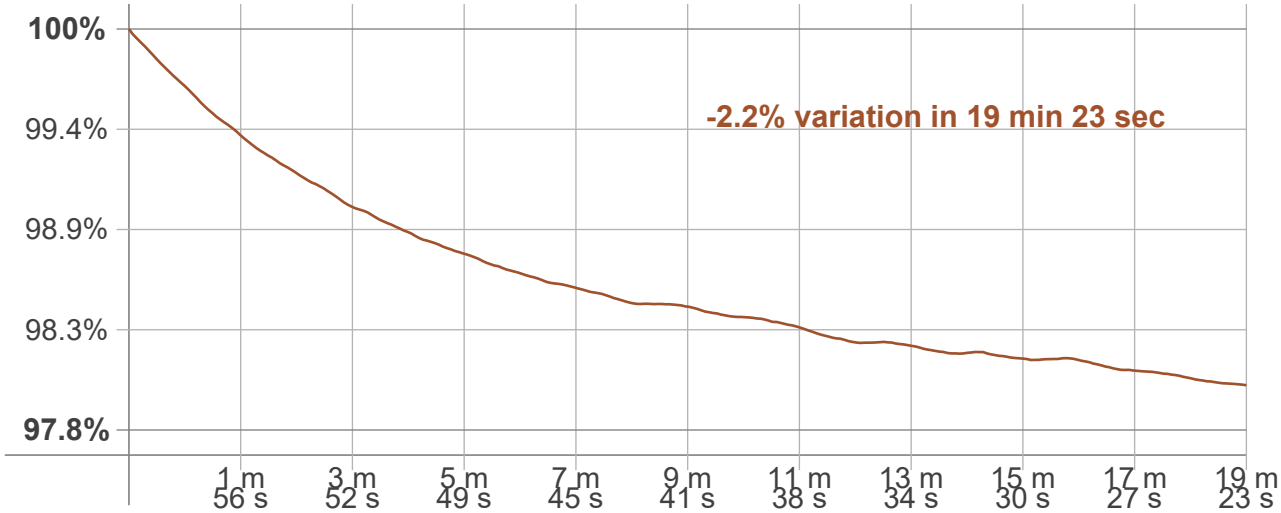
Efficiency

Radiated power efficiency	31.76
Lumen efficiency	105.9 lm/W

Stabilization details

Warmup Conditions		Color Temperature Change	
Stable period	15 min	CCT start	3450 K
Stable change max	1%	CCT shift	4 K
Minimum time	15 min	CCT end	3454 K
Warmup Result		**Output Change**	
Total warmup time	Lamp stabilized in	Output start	3577 lm
Warmup variation	-2.2159%	Output change	-73.836 lm
		Output end	3504 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

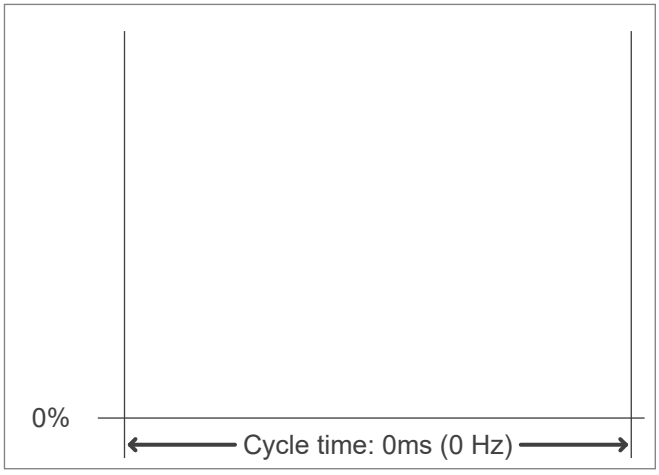
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

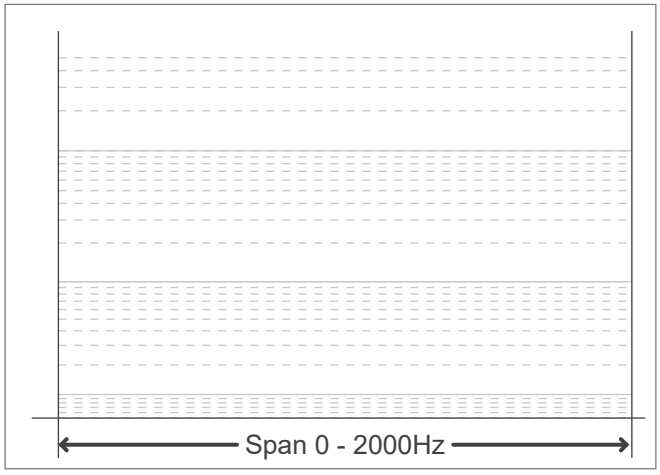
Flicker indices according to Lighting Research Center (2015)

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

