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	7/24/2026

Measurement Conditions

Tested c-planes	72 planes – 5.00°
Tested gamma resolution	1.00°
Input Power	15.6 W

Tested Light Source

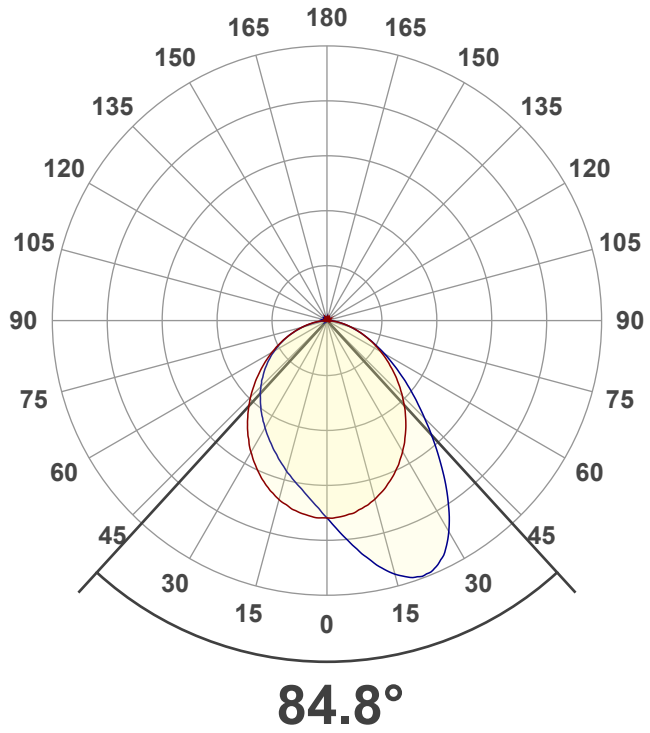
Luminaire	BPRO2-LIN-FLSH-LED35-LO-04-WWG-NU-SC-DM01
Basic Luminous Shape	NONE
Item No.	
Manufacturer	Prudential Lighting
Description	

Main Light Measurement Results

Output – Total Lumen (Up% / Down%)	1782 lm – 1.925% / 98.07%
Efficiency	114.2 lm/W
Peak Intensity	923 cd
Correlated Color Temperature, CCT	3426 K
Color Rendering Index	CRI 84.3

Polar light distribution diagram

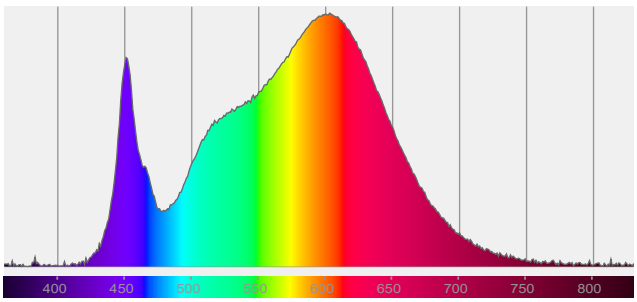
Unit: 0-100% of peak intensity



Zonal Lumen Summary:

VA/HA	0°	22.5°	45°	67.5°	90°
0°	667.4 cd	667.4 cd	667.4 cd	667.4 cd	667.4 cd
5°	662.9 cd	690.4 cd	715.9 cd	735.9 cd	740.3 cd
15°	625.1 cd	711.1 cd	802.1 cd	863.1 cd	887.3 cd
25°	555 cd	685.6 cd	820.2 cd	874.3 cd	900.4 cd
35°	463 cd	610.8 cd	733.1 cd	706.4 cd	707.3 cd
45°	360.5 cd	494 cd	560.9 cd	479.3 cd	467.1 cd
55°	257.8 cd	355.1 cd	375.8 cd	300.3 cd	292 cd
65°	164.6 cd	218.6 cd	218.4 cd	171 cd	167.9 cd
75°	83.72 cd	106 cd	99.66 cd	80.8 cd	80.97 cd
85°	22.37 cd	24.85 cd	22.83 cd	19.54 cd	22.07 cd
90°	3.421 cd	3.443 cd	2.88 cd	2.646 cd	1.852 cd

Spectral power distribution



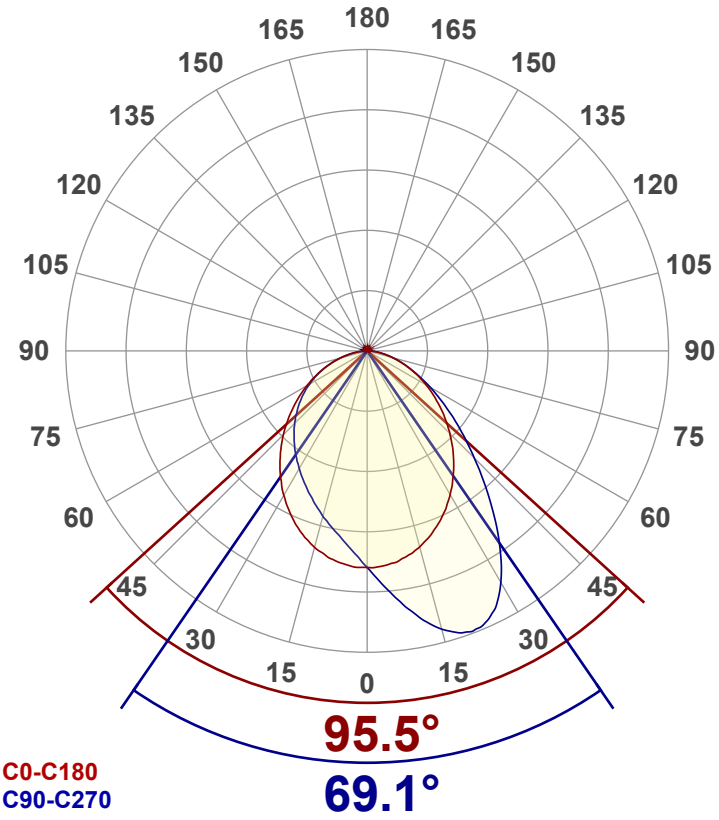
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Luminous Intensity diagram

Unit: 0-100% of peak intensity



Main Values

Output (total Lumen)	1782 lm
Lumen Up% / Down%	1.925% / 98.07%
Peak Intensity	923 cd
Beam Angle (50%-FWHM)	84.8°

EU Ecodesign parameters

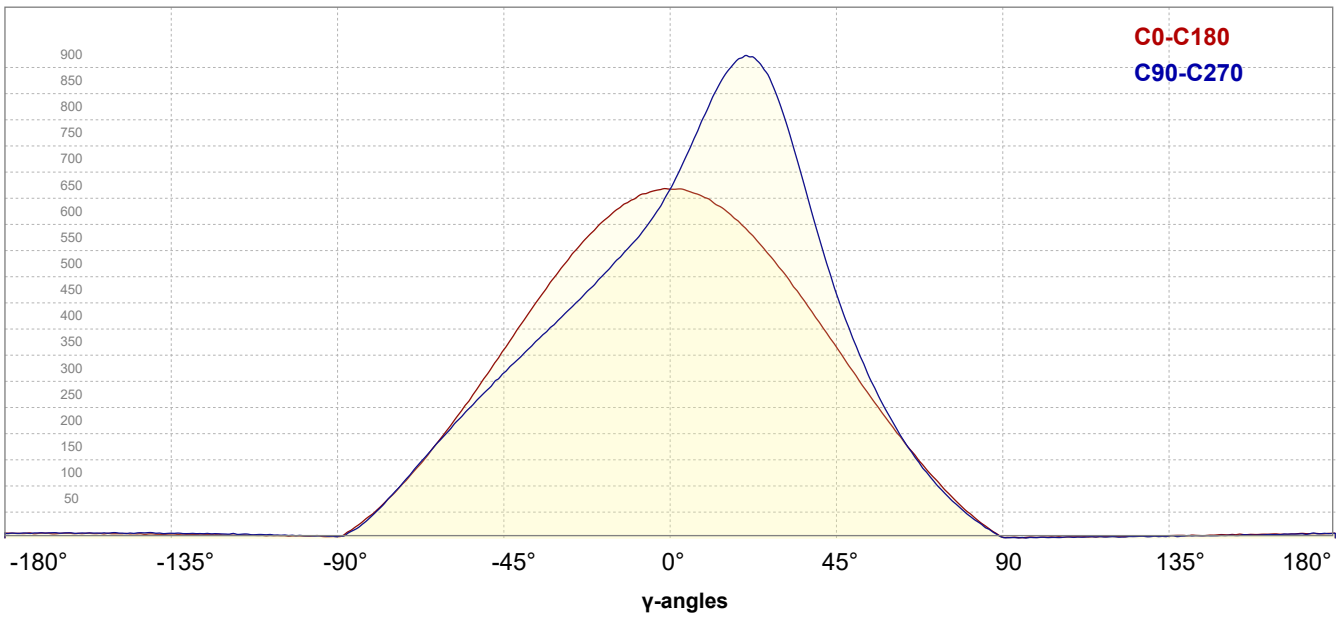
Directionality (DLS or NDLS)	DLS
Ecodesign Useful Luminous Flux	1448 lm
Ecodesign Energy Class	F

Intensity Ratio

In 120° cone	81.26%
In 90° cone	58.24%

Linear distribution diagram

Intensity [cd]

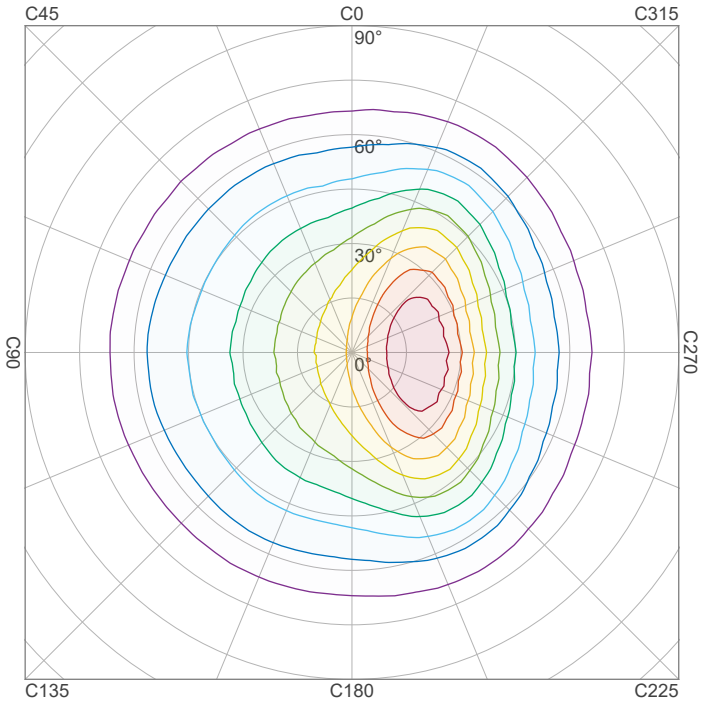


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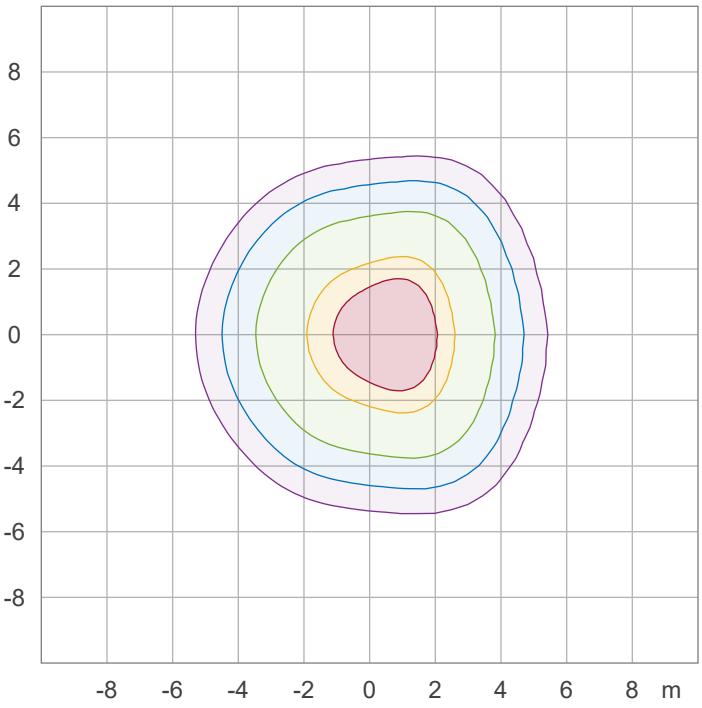
Iso-intensity Diagram (Iso-candela)



90 %	829.4 cd
80 %	737.2 cd
70 %	645.1 cd
60 %	552.9 cd
50 %	460.8 cd
40 %	368.6 cd
30 %	276.5 cd
20 %	184.3 cd
10 %	92.2 cd

Peak intensity: 921.5 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	44.5 lx
30.0 %	26.7 lx
10.0 %	8.89 lx
5.0 %	4.45 lx
3.0 %	2.67 lx

Peak illuminance: 88.9 lx
Mounting height: 3 m
Number of c-planes: 72

Prudential Lighting

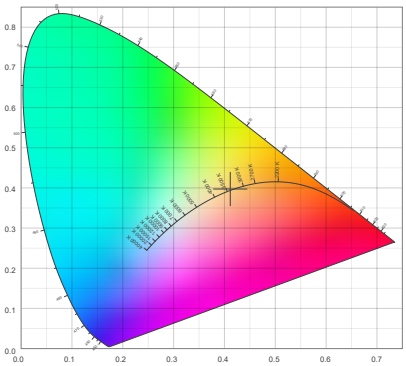
Light measurement results

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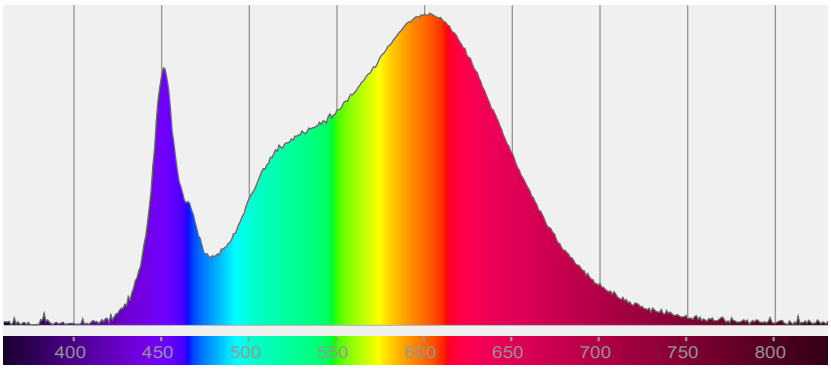
Color details

Correlated Color Temperature, Target	CCT = 3426 K	MacAdam Steps	SDCM = NaN
Correlated Color Temperature, Measured	CCT = 3426 K	Color deviation from BBL	Duv = 0.0015
Color Rendering Index	CRI 84.3	Color coordinates CIE 1931	(x;y) = (0.4114;0.3972)
Color Rendering Index, R9 (red)	R9 = 11.2	Color coordinate CIEs 1960	(u;v) = (0.2370;0.3432)
Color Rendering TM30-18	Rf 85.6	Color coordinate CIEs 1976	(u';v') = (0.2370;0.5148)
	Rg 95.8	Color Quality Scale	CQS = 84.1

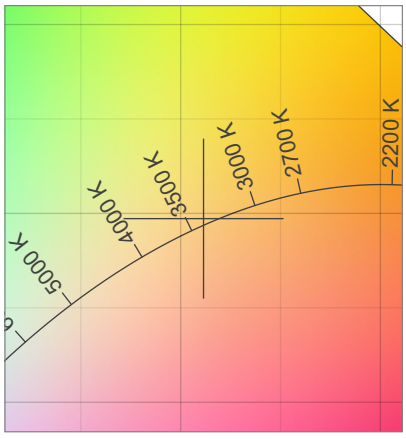
CIE 1931 Chromaticity diagram



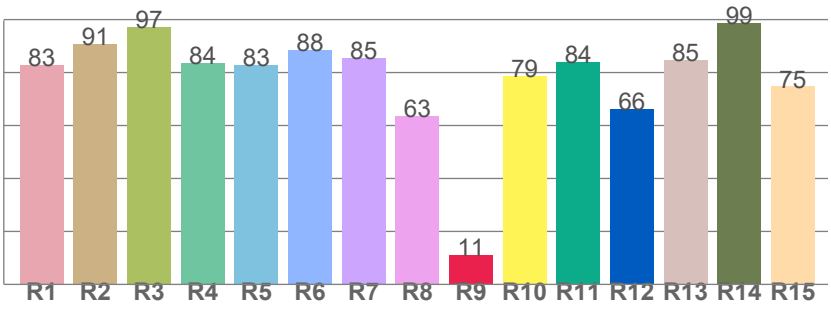
Spectral power distribution



CIE 1931 Chromaticity - zoomed



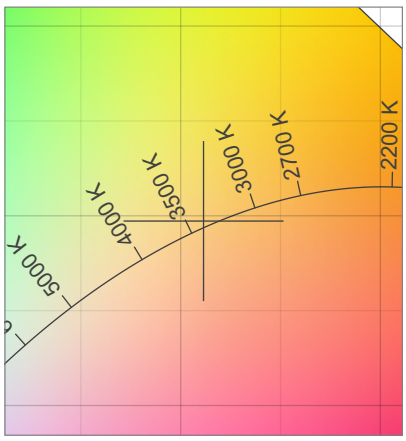
Color Rendering Index per reference color (CIE 1995)



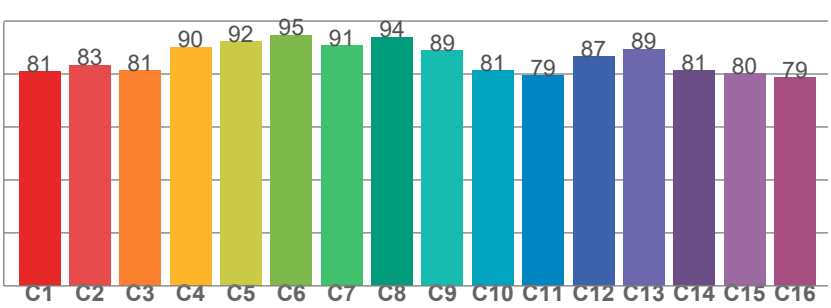
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.8	90.8	97.0	83.6	82.8	88.4	85.4	63.4	11.2	78.8	83.8	66.2	84.9	98.7	74.7

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	83.4	81.2	90.2	92.2	94.7	90.9	94.0	88.9	81.4	79.4	86.7	89.5	81.3	80.2	78.7

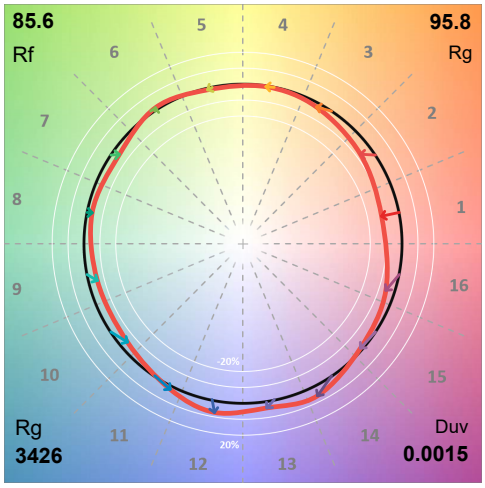
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Color details - ANSI/IES TM-30-18 Color Rendition Report

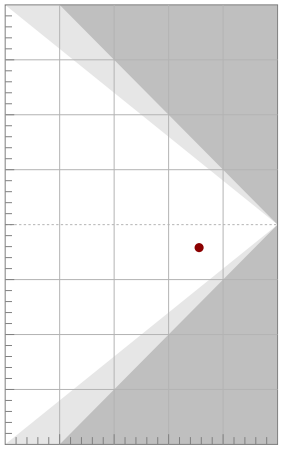
Color Vector Graphic



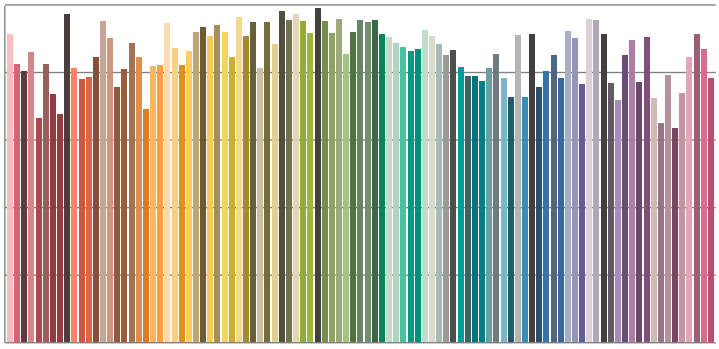
Color Distortion Graphic



Gamut Index vs. Fidelity Index

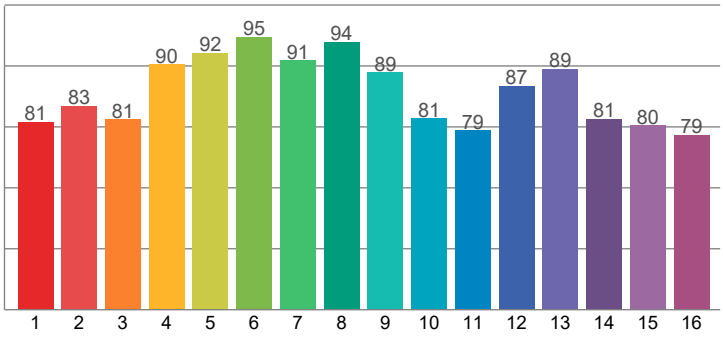


Color Rendition by Color Evaluation Sample (CES)

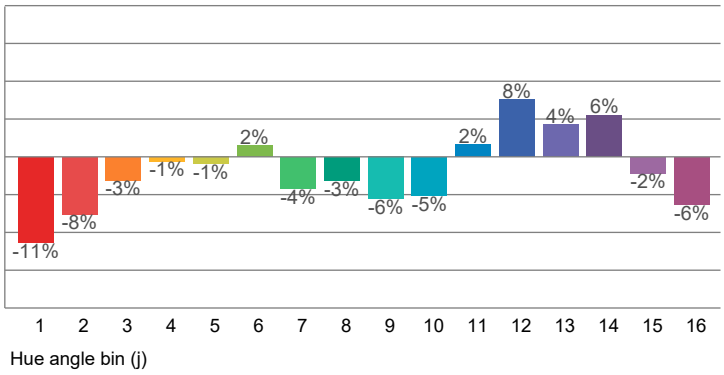


Color evaluation sample CES01 through CES99

Local Color Fidelity (per hue bin)



Local Chroma Shift (per hue bin)



CIE x	0.4114
CIE y	0.4114
CIE u'	0.2370
CIE v'	0.5148

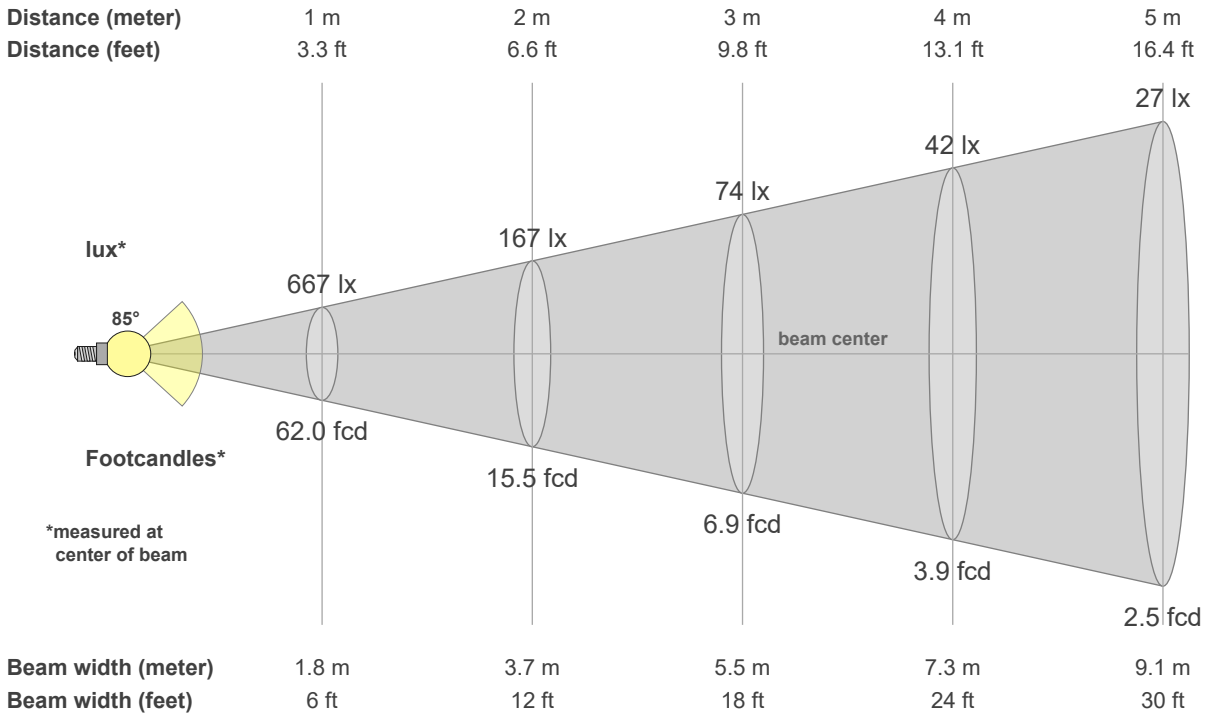
CIE	13.3-1995
Ra	84.3
R9	11.2

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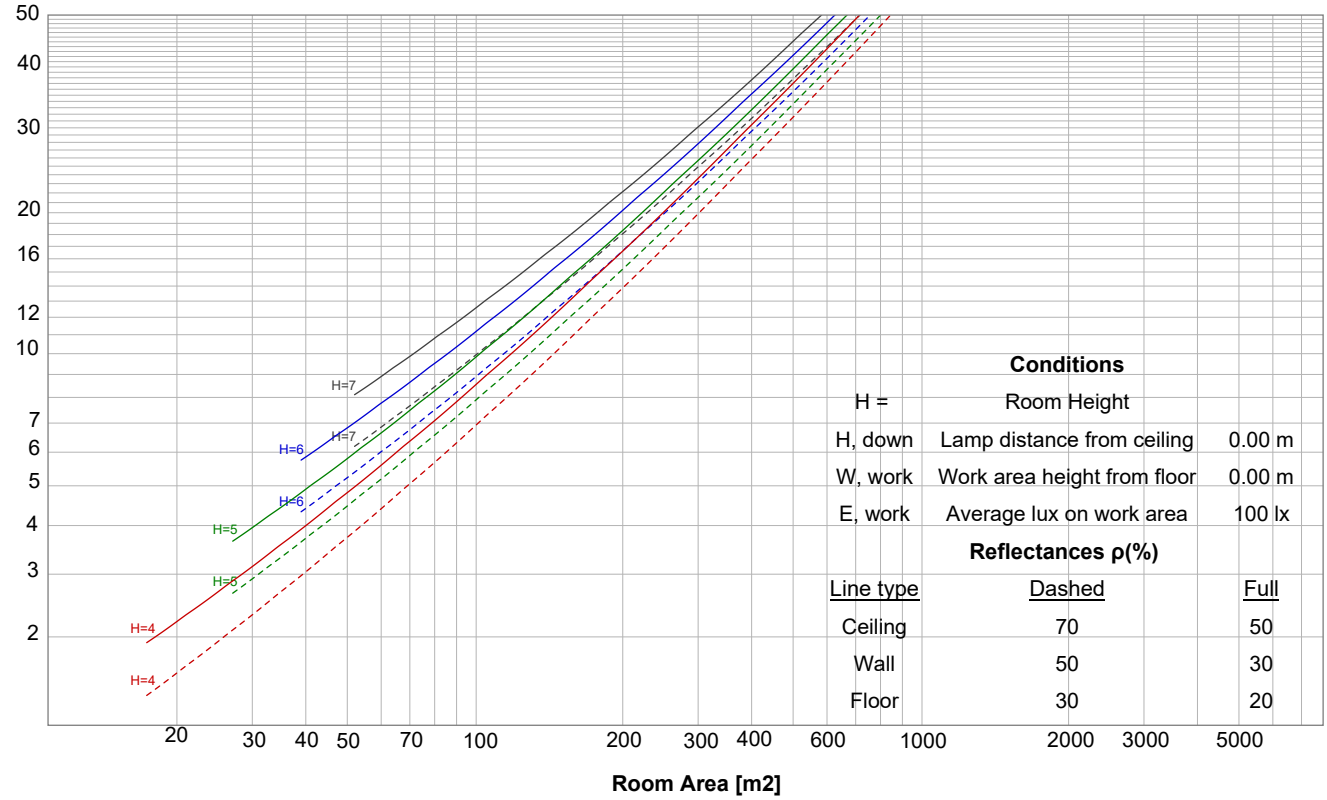
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Beam details



Luminaire budgetary diagram

LAMPS (number of lamps)



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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
667	167	74	42	27	19	14	10	8	7	6	5	4	3	3	3	2	2	2	2	lux
62	15.5	6.9	3.9	2.5	1.7	1.3	1	0.8	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	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
667	663	648	625	593	555	511	463	412	360	309	258	210	165	123	84	50	22	3	5	cd
100%	99%	97%	94%	89%	83%	77%	69%	62%	54%	46%	39%	31%	25%	18%	13%	7%	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
667	740	819	887	921	900	824	707	581	467	373	292	225	168	121	81	48	22	2	1	cd
100%	111%	123%	133%	138%	135%	123%	106%	87%	70%	56%	44%	34%	25%	18%	12%	7%	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
667	663	650	627	595	557	514	466	416	365	314	263	215	169	126	88	53	25	2	1	cd
100%	99%	97%	94%	89%	83%	77%	70%	62%	55%	47%	39%	32%	25%	19%	13%	8%	4%	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
667	610	565	527	489	453	419	385	350	316	280	244	205	165	125	85	48	18	3	5	cd
100%	91%	85%	79%	73%	68%	63%	58%	52%	47%	42%	37%	31%	25%	19%	13%	7%	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	118.6	118.6	118.6	118.6	115.6	115.6	115.6	115.6	110.0	110.0	110.0	104.9	104.9	104.9	100.3	100.3	100.3	98.1
1	109.0	104.5	100.5	96.9	106.1	102.1	98.4	95.1	97.5	94.5	91.8	93.3	90.9	88.6	89.4	87.5	85.7	83.5
2	99.7	91.9	85.4	80.0	96.9	89.8	83.9	78.9	86.0	81.1	76.8	82.5	78.4	74.8	79.2	75.9	72.8	70.6
3	91.3	81.2	73.5	67.3	88.7	79.5	72.4	66.6	76.3	70.2	65.2	73.3	68.2	63.8	70.6	66.2	62.5	60.3
4	83.9	72.4	64.0	57.6	81.5	70.9	63.1	57.1	68.2	61.4	56.1	65.7	59.9	55.1	63.4	58.3	54.2	52.0
5	77.3	65.0	56.3	49.9	75.1	63.8	55.6	49.6	61.4	54.3	48.9	59.3	53.1	48.2	57.3	51.9	47.5	45.4
6	71.6	58.7	50.1	43.9	69.6	57.7	49.5	43.6	55.7	48.5	43.1	53.9	47.5	42.6	52.1	46.5	42.0	40.0
7	66.5	53.4	44.9	38.9	64.7	52.5	44.4	38.7	50.8	43.6	38.3	49.2	42.7	37.9	47.7	41.9	37.5	35.6
8	62.0	48.8	40.6	34.9	60.3	48.1	40.2	34.7	46.6	39.5	34.4	45.2	38.8	34.1	43.9	38.1	33.8	31.9
9	57.9	44.9	36.9	31.5	56.5	44.2	36.6	31.4	42.9	36.0	31.1	41.7	35.4	30.8	40.6	34.8	30.6	28.8
10	54.4	41.5	33.8	28.6	53.0	40.9	33.5	28.5	39.8	33.0	28.3	38.7	32.5	28.1	37.7	32.0	27.9	26.2

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Power details

Input power	
Frequency of input power	60.0 Hz
Power feed to light source	15.6 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	6.513%
Total harmonic distortion of the voltage	0.094%

Input power curve



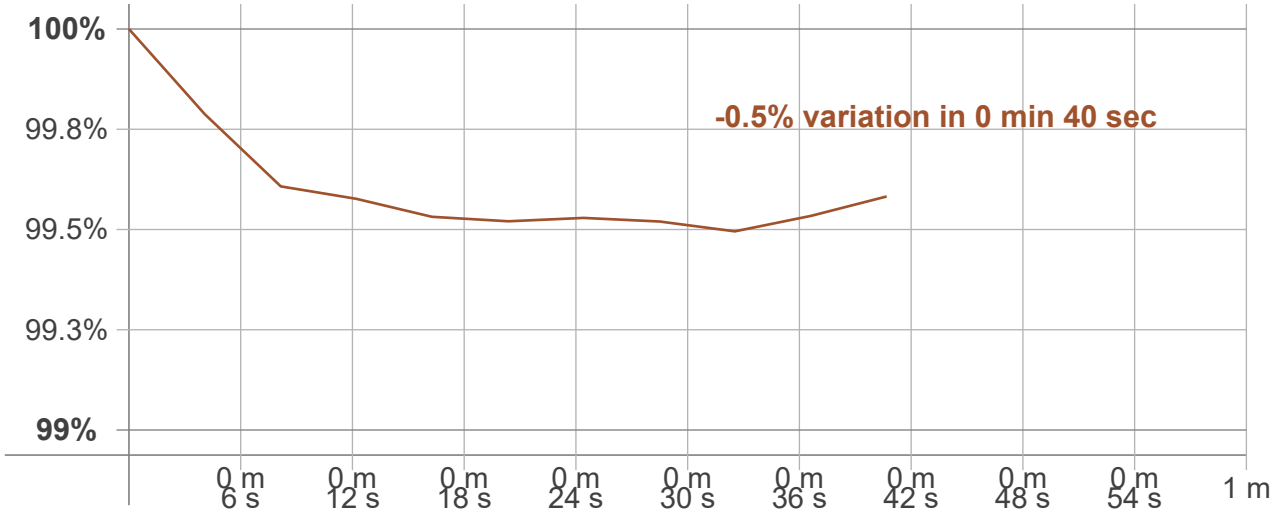
Efficiency

Radiated power efficiency	34.2
Lumen efficiency	114.2 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	1785 lm
Warmup variation	-0.5046%	Output change	-3.0173 lm
		Output end	1782 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

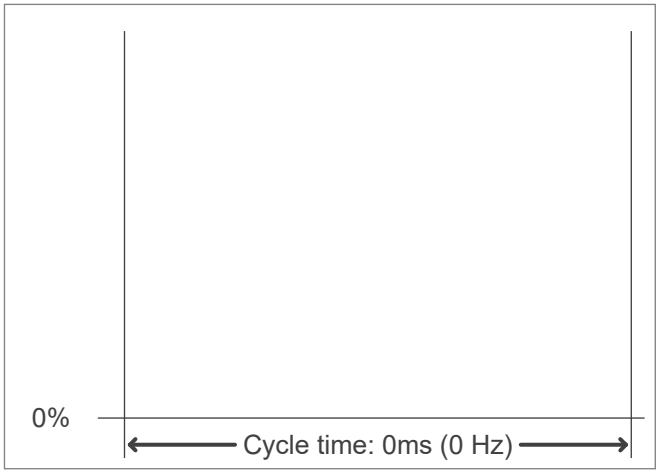
Flicker indices according to California Energy Commission (CEC) 2016b

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 %

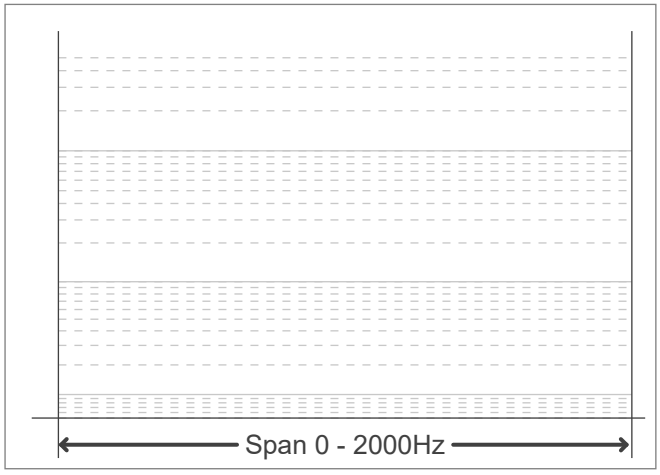
Flicker indices according to Lighting Research Center (2015)

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

