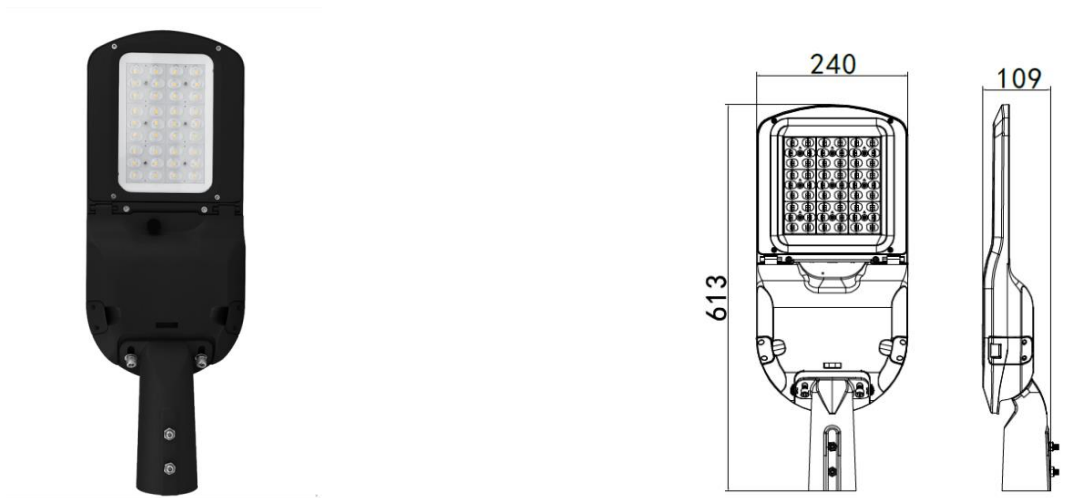




Product Overview

Product Name / Code	KINGSTON 75W Streetlight - LC6130-T4
Description	Spigot Dia 60mm, IP65, 4000K, T4 Optic
Manufacturer	Decrolux Lighting Pty Ltd



Laboratory and Equipment

System Name / Model	LabSpion / Freedom VIS (Custom Viso)
Manufacturer / Serial Number	Ibsen Photonics, Denmark / 2417457569
Sensor Name	LabSensor Model2
Sensor Serial Number / Calibration Date	3430823524 / 7/12/2022

Measurement Details

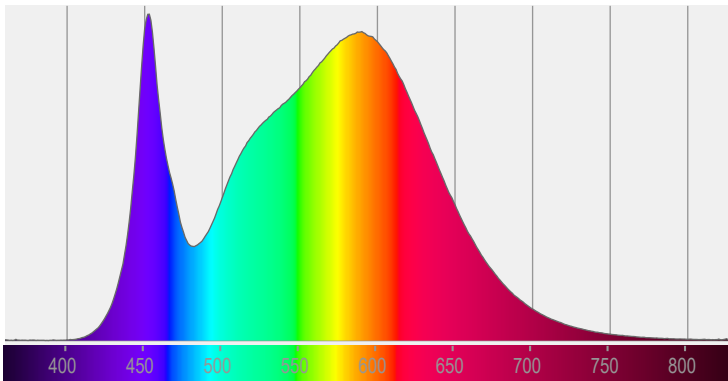
Test Date and Time	6/04/2023 5:06:28 PM
Operator	Johnny Elmer
C-Planes Measured	72
Measurement Resolution	5°
Measurement Distance	457.7cm
Measurement Number	VFR-230406-0049-MS
Tracking Link	http://www.visosystems.com/tracking/?id=VT230411-000588



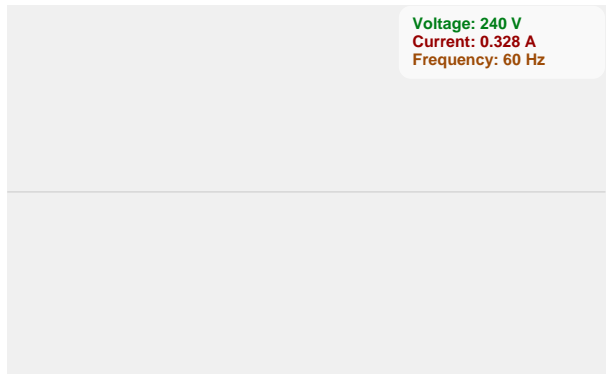
Performance

Total Lumen Output	11272 lm
Light Efficiency	147 Lumen/Watt
Peak (cd)	5388 cd
Nominal Power	76.9 W
Input Voltage	240 V
Frequency of Input Power	60 Hz
Power Factor	0.98
Warm-up (stabilisation) Time	Lamp stabilized in 52 min 54 sec
Warm-up Variation	-3.8

Spectral Power Distribution (SPD)



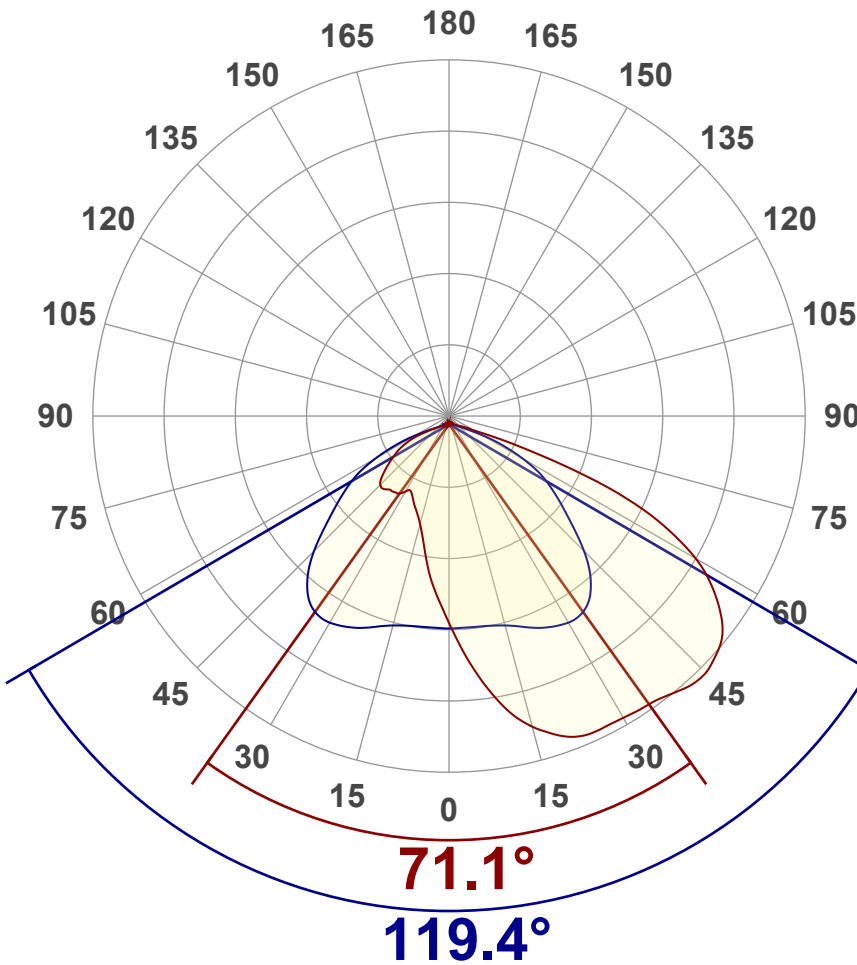
Input Power Curve



Optic Specifications

Correlated Colour Temperature, Target	4000K
Correlated Colour Temperature, Measured	4151K
Colour Rendering Index	CRI 79.4
R9 Value	R9 = -11.3
Colour Rendering TM30-18	R _f 81.7 - R _g 92.2
Colour Quality Scale	CQS = 79.4
Beam Angle	82.4°



Angular Distribution – 0° / 90° Plane

Main Values

Total Lumen Output	11272 lm
Lumen Up% / Down%	0.22 % / 99.78%
Peak Intensity	5388 cd
Beam Angle (50%)	82.4°
Beam Angle (90%)	119.4°
Beam Angle (10%)	71.9°

Cut-off Angle

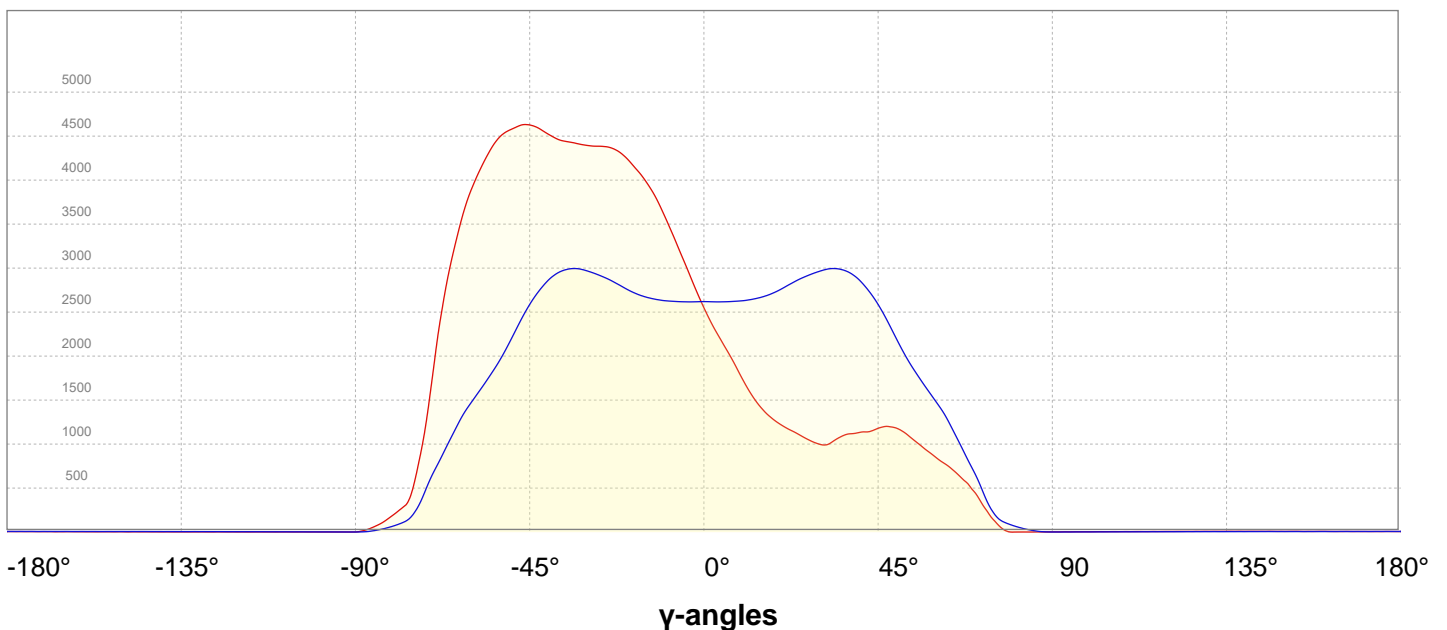
Average 2.5%	160.1°
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Field Angle

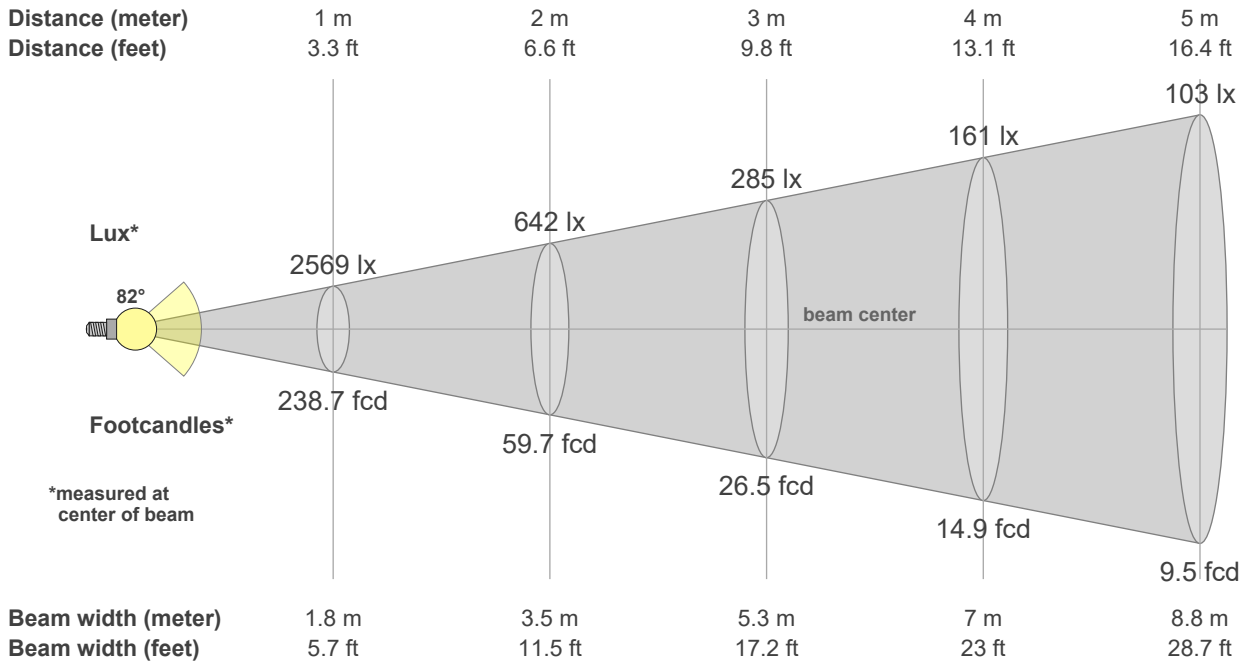
Average 10%	147.5°
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Intensity Ratio

In 120° Cone	74.5%
In 90° Cone	45.2%

C000-C180
C090-C270
Linear Distribution Diagram – Intensity (candela) vs γ -angle


Beam Details



Beam intensities from 1 – 20m

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
2569	642	285	161	103	71	52	40	32	26	21	18	15	13	11	10	9	8	7	6	lux
238.7	59.7	26.5	14.9	9.5	6.6	4.9	3.7	2.9	2.4	2	1.7	1.4	1.2	1.1	0.9	0.8	0.7	0.7	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
2569	3064	3577	3985	4249	4377	4393	4435	4517	4626	4572	4354	3899	3124	1803	530	203	64	2	1	cd
100%	119%	139%	155%	165%	170%	171%	173%	176%	180%	178%	169%	152%	122%	70%	21%	8%	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
2569	2617	2629	2671	2762	2880	2965	2988	2870	2585	2173	1795	1478	1099	663	209	72	18	1	1	cd
100%	102%	102%	104%	108%	112%	115%	116%	112%	101%	85%	70%	58%	43%	26%	8%	3%	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
2569	2136	1736	1403	1217	1097	997	1075	1131	1179	1176	1019	846	679	449	131	1	1	2	3	cd
100%	83%	68%	55%	47%	43%	39%	42%	44%	46%	46%	40%	33%	26%	17%	5%	0%	0%	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
2569	2617	2629	2671	2762	2880	2965	2988	2870	2585	2173	1795	1478	1099	663	209	72	18	1	1	cd
100%	102%	102%	104%	108%	112%	115%	116%	112%	101%	85%	70%	58%	43%	26%	8%	3%	1%	0%	0%	Of 0°val

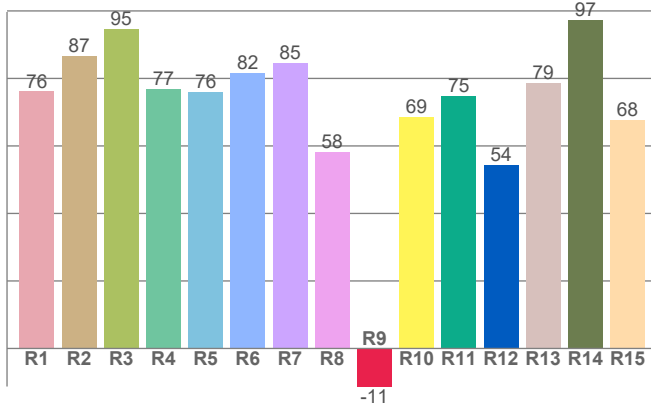


Colour Details

Correlated Colour Temperature, Target	CCT = 4000K
Correlated Colour Temperature, Measured	CCT = 4151K
Colour Rendering Index	CRI 79.4
Colour Rendering Index R9 Value	R9 = -11.3
Colour Rendering TM30-18	R _f 81.7, R _g 92.2
Colour Quality Scale	CQS = 79.4

MacAdam Steps	SDCM = 4.6
Colour Coordinates CIE 1931	(x;y) = (0.381;0.377)
Colour Coordinates CIEs 1960	(u;v) = (0.225; 0.334)
Colour Deviation from BBL	Duv = 0.0047
Colour Coordinate CIEs 1976 (CIELUV)	(u';v') = (0.225;0.225)

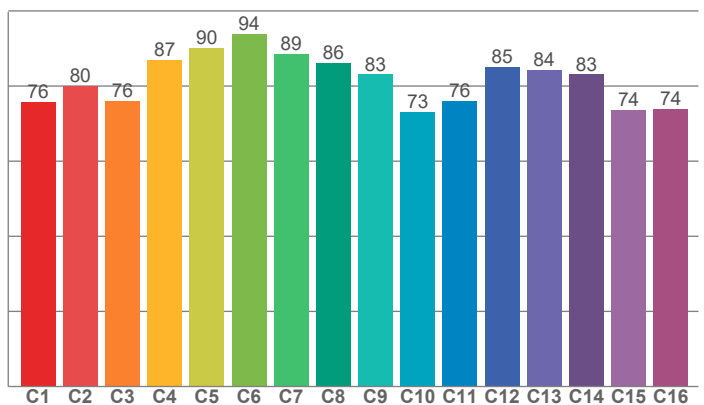
Colour Rendering Index per reference colour (CIE 1995)



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
76.1	86.6	94.8	76.9	76.1	81.6	84.6	58.1	-11.3	68.6	74.8	54.4	78.8	97.3	67.7

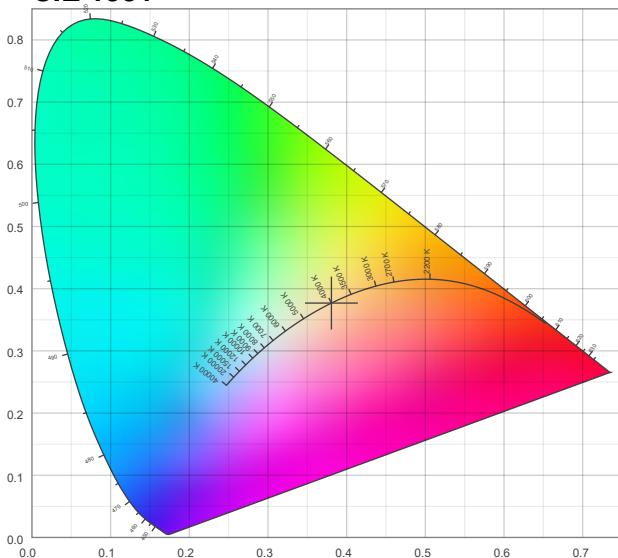
TM30-18 Rf-values per hue bin



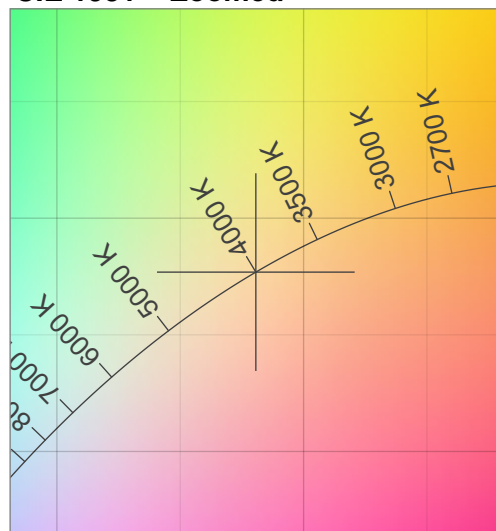
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75.7	80.1	76.1	86.9	90.1	93.9	88.6	86.1	83.1	73.0	76.1	85.1	84.3	83.1	73.7	73.8

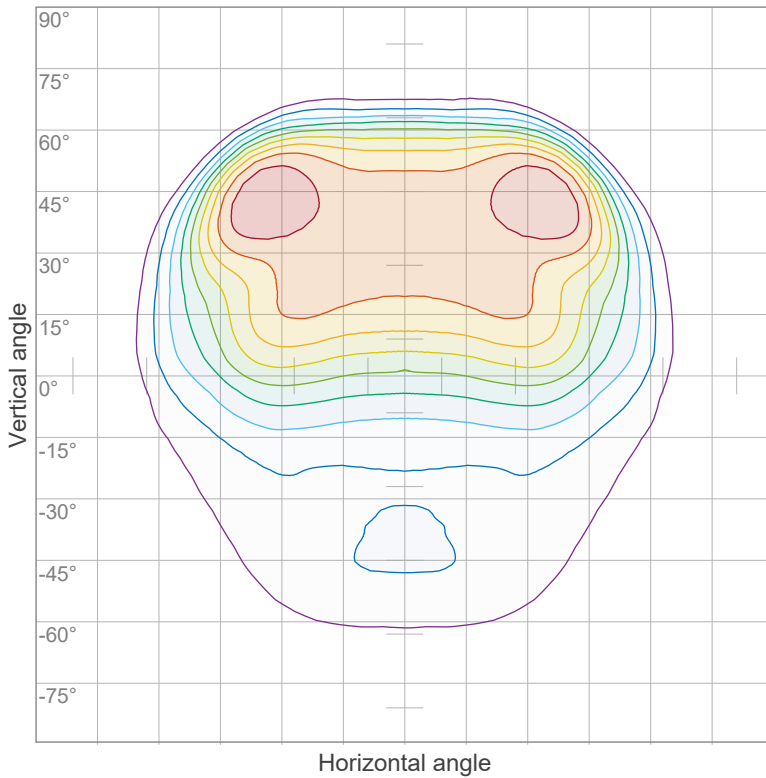
CIE 1931



CIE 1931 – Zoomed



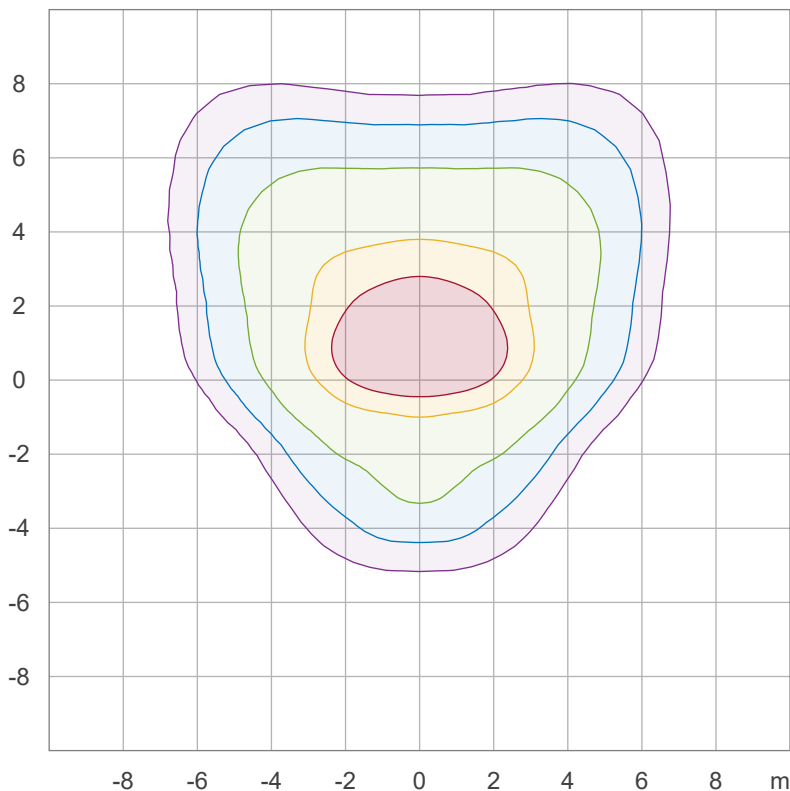
Iso-intensity Diagram (Iso-Candela)



90 %	4845.3 cd
80 %	4306.9 cd
70 %	3768.6 cd
60 %	3230.2 cd
50 %	2691.8 cd
40 %	2153.5 cd
30 %	1615.1 cd
20 %	1076.7 cd
10 %	538.4 cd

Peak intensity: 5383.7 cd
Number of c-planes: 72

Iso-illuminance Diagram (Iso-lux)



50.0 %	199.7 lx
30.0 %	119.8 lx
10.0 %	39.9 lx
5.0 %	20.0 lx
3.0 %	12.0 lx

Peak illuminance: 399.3 lx
Mounting height: 3.0 m
Number of c-planes: 72



Light Planning – UGR table

Uncorrected, comprehensive UGR table according to 117-1995

Reflectances		70	70	50	50	30	70	70	50	50	30
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 = mounting height above eye level											
X	Y	(Viewing direction orthogonal to lamp length axis)					(Viewing direction parallel to lamp length axis)				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
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 dimensions. Goto Edit->Photometric->Dimensions and set the fixture/lamp 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	0						
Floor reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0			
RCR		(RCR: Room Cavity Ratio)																
Room Values are expressed as percentage of Lumen delivered to the task surface																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	69	67
3	88	77	68	61	85	75	67	61	72	65	59	69	63	58	67	62	57	55
4	80	67	58	50	77	66	57	50	63	55	49	61	54	49	58	53	48	46
5	73	59	50	42	71	58	49	42	56	48	42	54	47	41	52	46	41	38
6	67	53	43	36	65	52	43	36	50	42	36	48	41	35	46	40	35	33
7	62	47	38	31	60	46	38	31	45	37	31	43	36	31	42	35	30	28
8	57	43	34	28	55	42	33	27	41	33	27	39	32	27	38	32	27	25
9	53	39	30	24	52	38	30	24	37	29	24	36	29	24	35	29	24	22
10	50	36	27	22	48	35	27	22	34	27	22	33	26	22	32	26	21	20

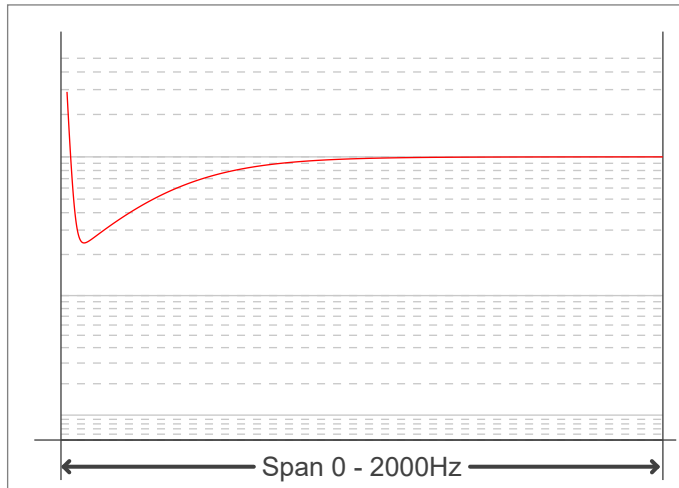
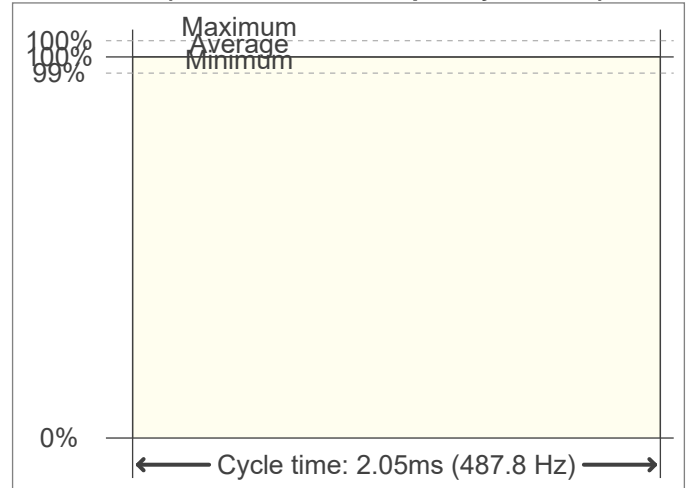


Flicker Details

Flicker Meter Type	Viso Systems LabFlicker
Frequency of Input Power	60 Hz
Flicker/TLA Sample Rate	20000 sample/s
Measurement Time	
PstLM	180 sec
All other indices	1.2 sec

Flicker Indices (IES)

Flicker Percentage	0.17%
Flicker Frequency	487.8 Hz
Flicker Index	0
Flicker SVM Value	0
Flicker PstLM Value	0.03

Flicker Frame

Flicker FFT (flicker curve in frequency domain)

IEEE 1789 Frequency/Modulation Plot
