

Light efficiency:



Output: 34813 lm

Light quality:



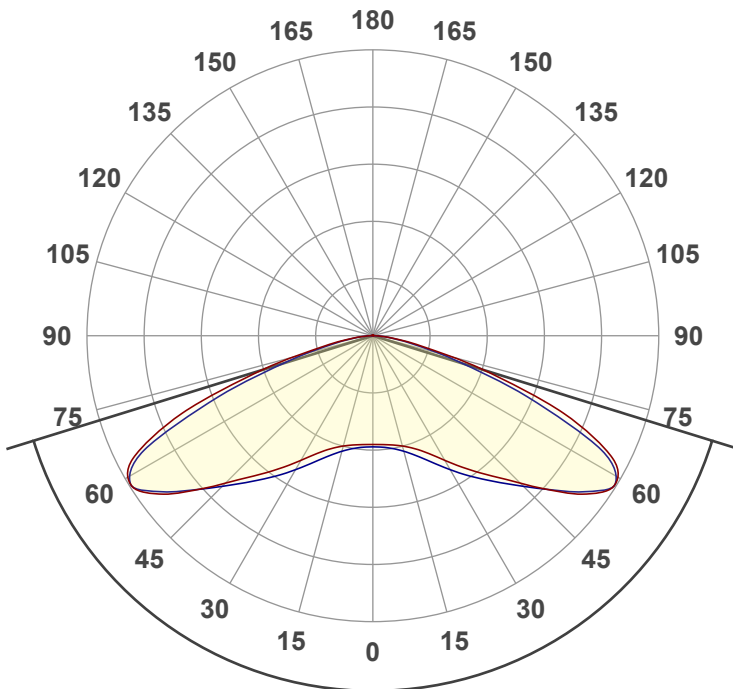
Peak: 11171 cd

Color temperature:



Power: 245 W

PF: 0.99



Product name:

PLLD4-50K240W-xLT5BR1

Date and time:

7/14/2023 1:41:27 PM

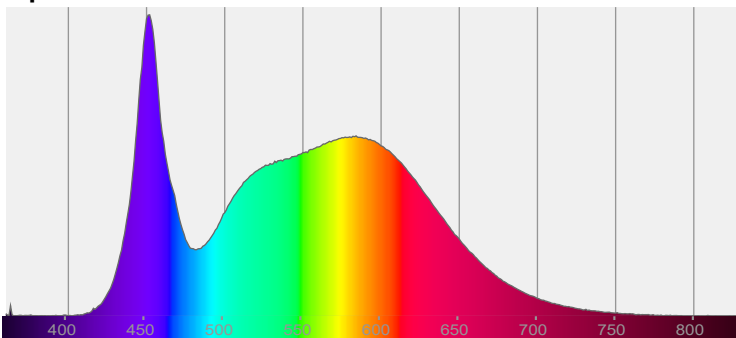
Beam angle

145.6°

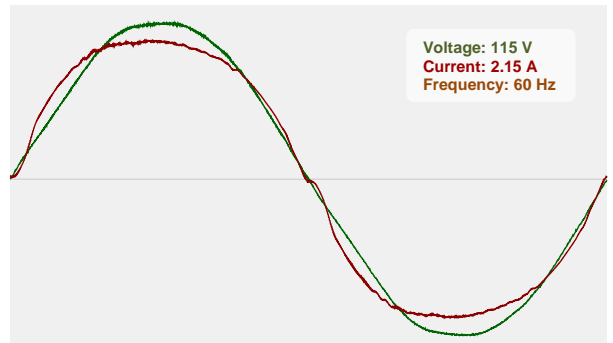


CIE 1931  
x: 0.343  
y: 0.352

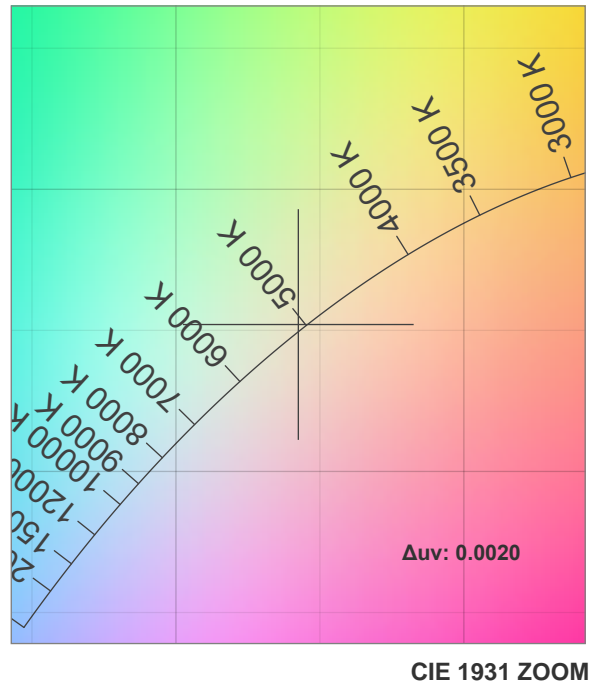
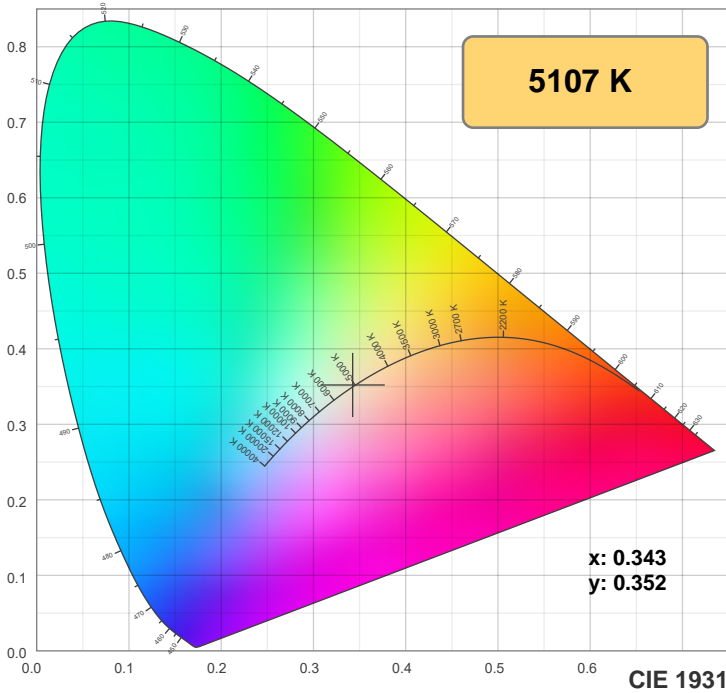
Spectra



Power

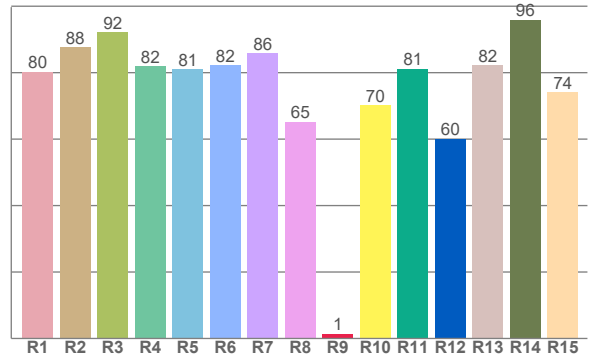
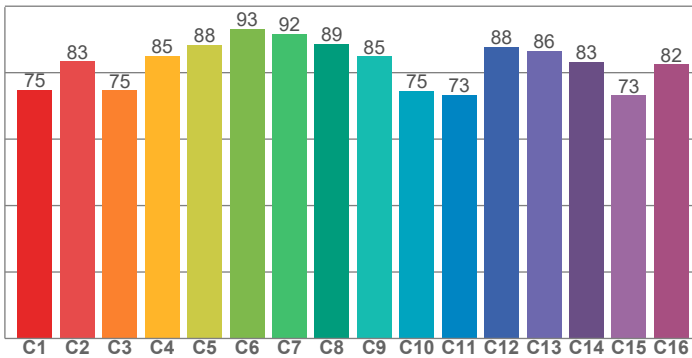


## Color Specifications



**TM30: 82.6**

**CRI: 82.0 (R1-R8)**



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
80.3	87.6	92.1	81.9	81.0	82.3	85.8	65.3	1.5	70.2	81.2	60.1	82.3	95.9	74.0

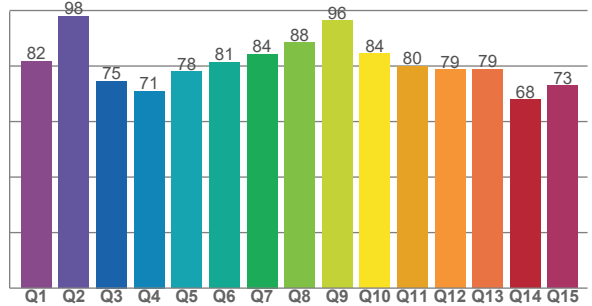
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74.8	83.4	74.7	85.1	88.3	93.3	91.8	88.7	84.9	74.5	73.4	87.9	86.5	83.2	73.2	82.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81.7	97.9	74.6	71.0	78.0	81.4	84.4	88.4	96.3	84.4	80.0	78.6	78.9	67.9	73.0

**CQS: 79.4**



## Color parameters

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color division from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
5107 K	82.0	1.5	82.6	95.6	79.4	0.343	0.352	0.209	0.323	0.0020

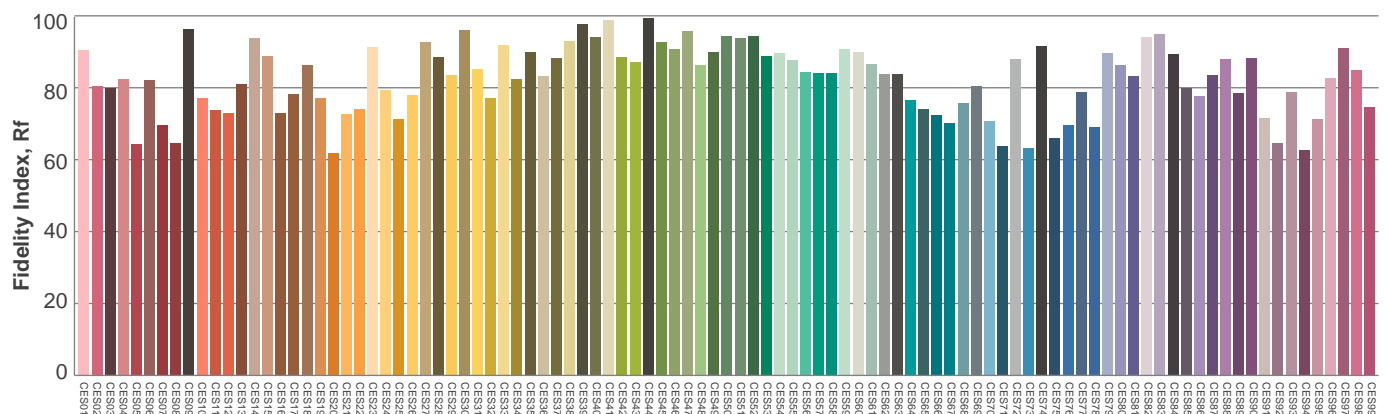
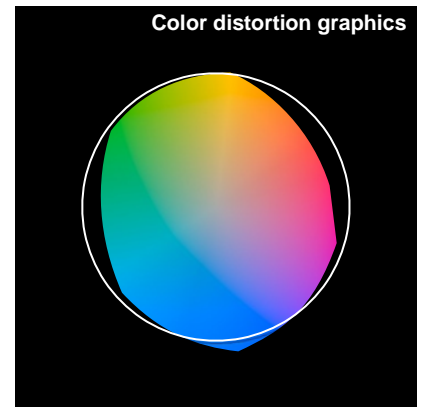
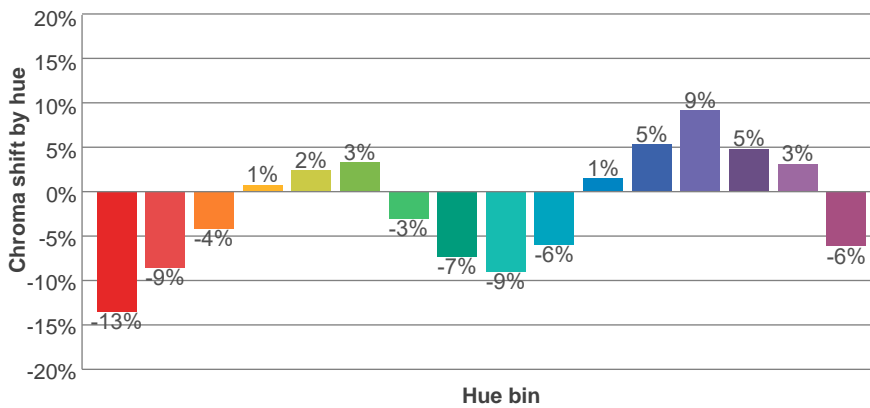
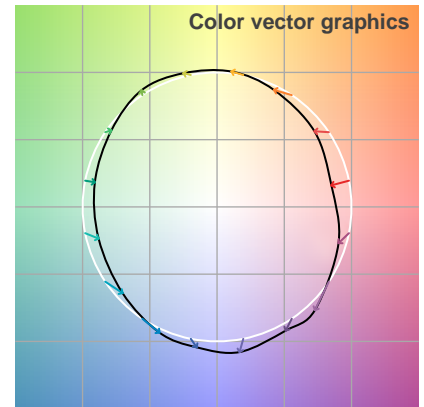
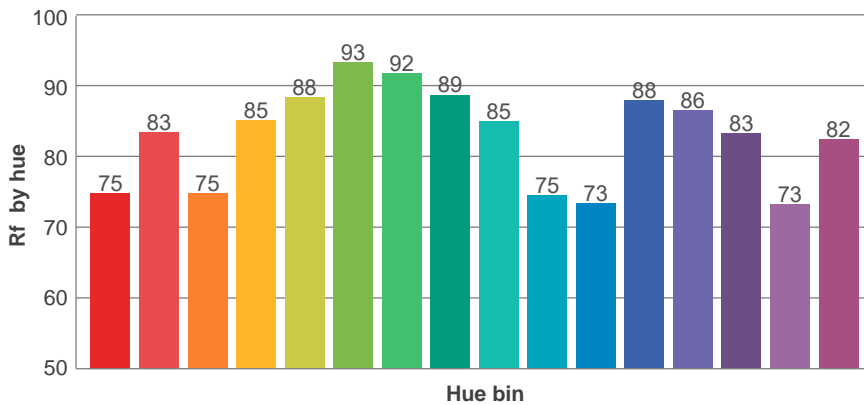
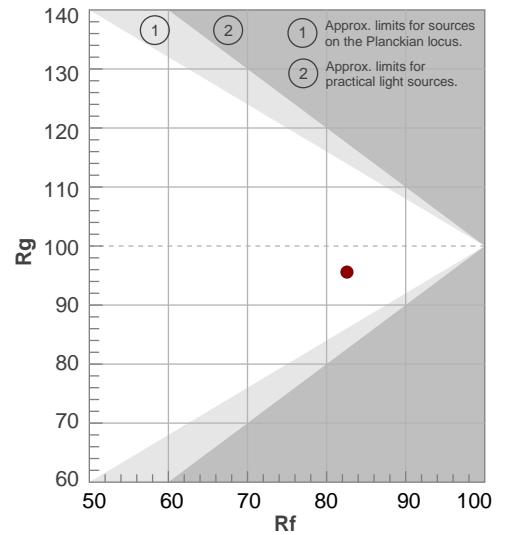


## TM30 Report

**Rf 82.6**  
Fidelity index Rf

**Rg 95.6**  
Gammut index Rg

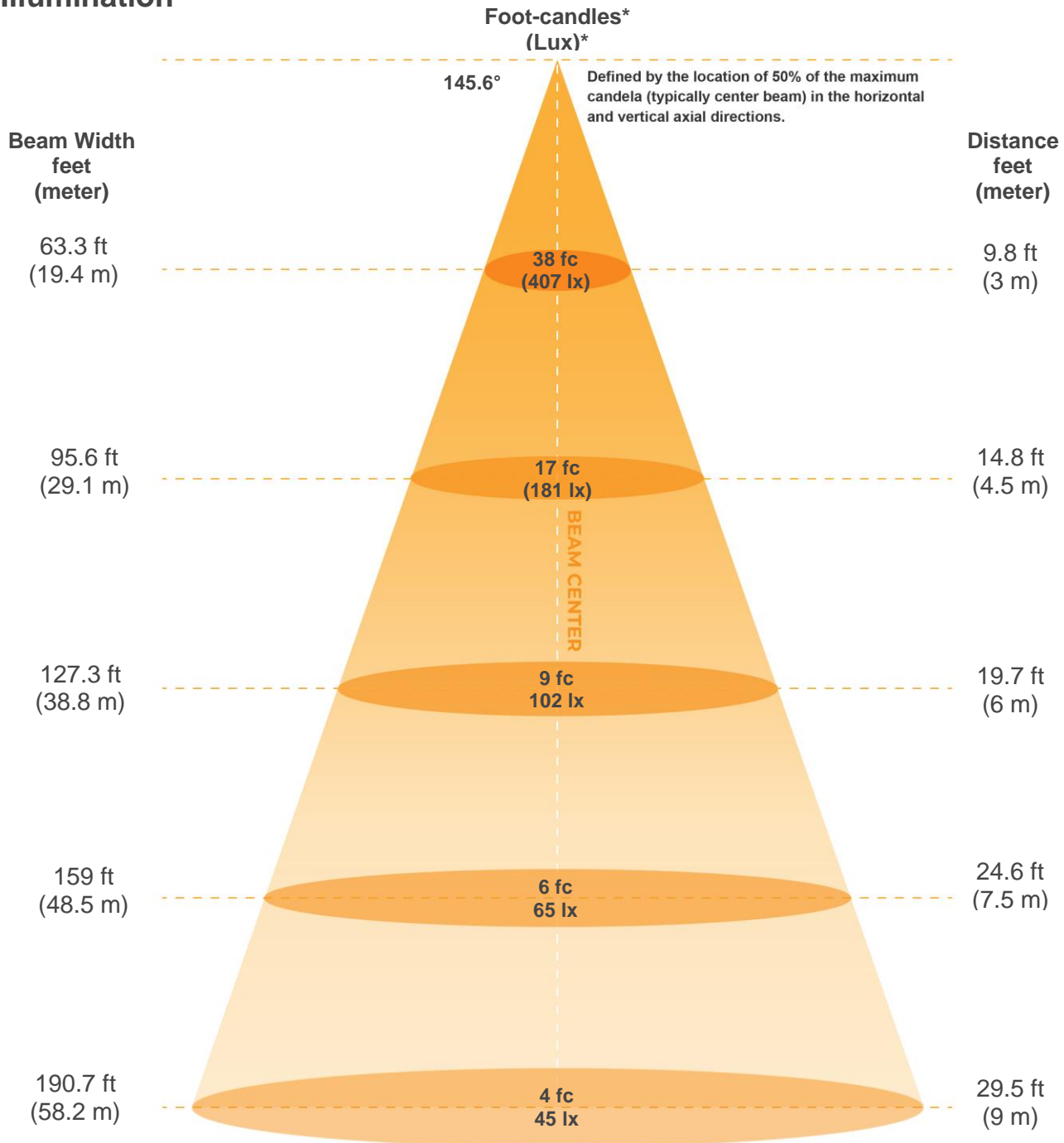
Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	75	-13%	-1%
2	83	-9%	7%
3	75	-4%	13%
4	85	1%	9%
5	88	2%	5%
6	93	3%	-1%
7	92	-3%	-4%
8	89	-7%	0%
9	85	-9%	6%
10	75	-6%	14%
11	73	1%	16%
12	88	5%	6%
13	86	9%	-5%
14	83	5%	-9%
15	73	3%	-23%
16	82	-6%	-9%



Color Evaluation Sample



## Illumination



### Beam intensities from 1-20m

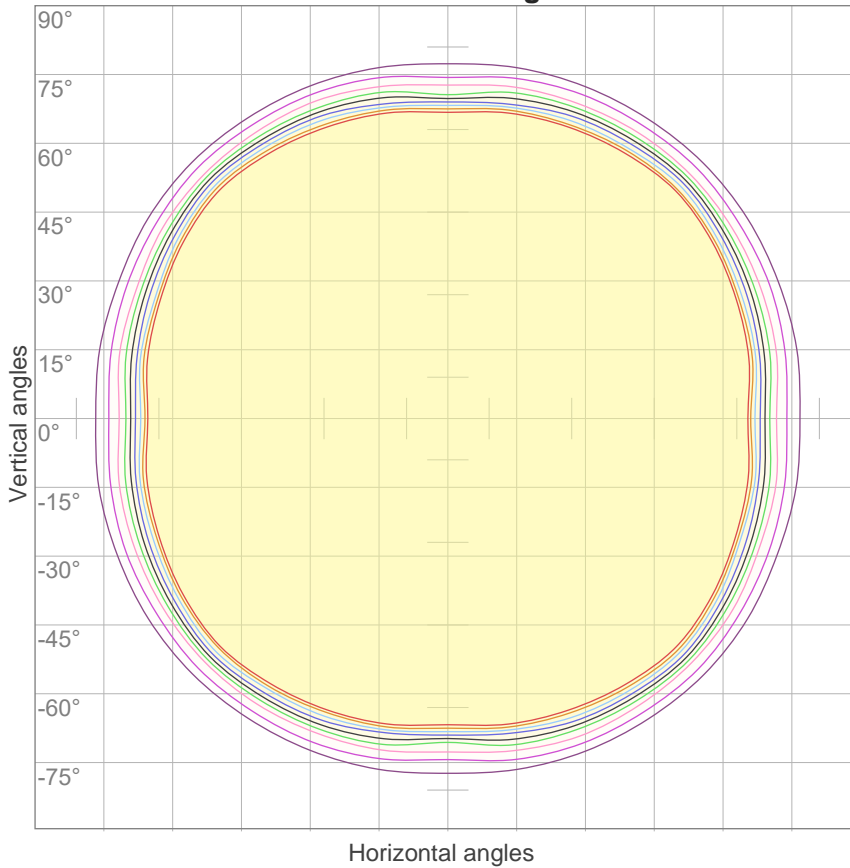
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
3661lx	915lx	407lx	229lx	146lx	102lx	75lx	57lx	45lx	37lx	30lx	25lx	22lx	19lx	16lx	14lx	13lx	11lx	10lx	9lx
340.1fc	85fcd	37.8fcd	21.3fcd	13.6fcd	9.4fcd	6.9fcd	5.3fcd	4.2fcd	3.4fcd	2.8fcd	2.4fcd	2fcd	1.7fcd	1.5fcd	1.3fcd	1.2fcd	1fcd	0.9fcd	0.9fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
145.6°	165.5°	176°	59.5%	27.3%



ISO Diagrams

ISO candela diagram



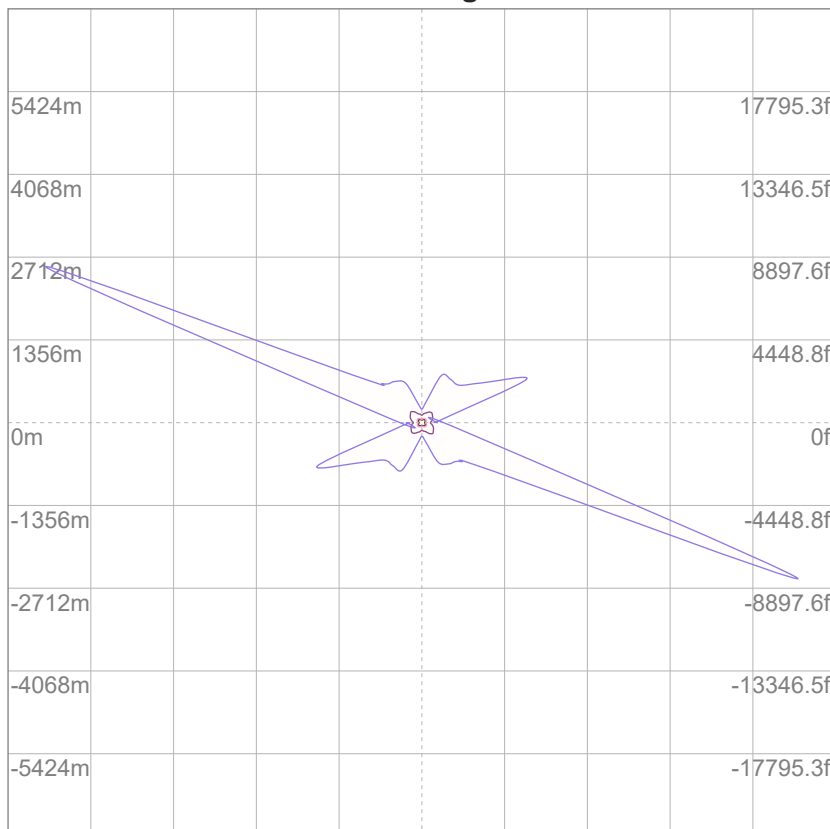
10%	366 cd
20%	732 cd
30%	1098 cd
40%	1464 cd
50%	1831 cd
60%	2197 cd
70%	2563 cd
80%	2929 cd
90%	3295 cd

Conditions:

Number of c-planes: 16

Candela at center: 3661 cd

ISO lux diagram



3%	1.10 lx
5%	1.83 lx
10%	3.66 lx
30%	11.0 lx
50%	18.3 lx

Conditions:

Number of c-planes: 16

Lux at center: 36.6 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

Mounting height: 10 meters (33 feet) UGR



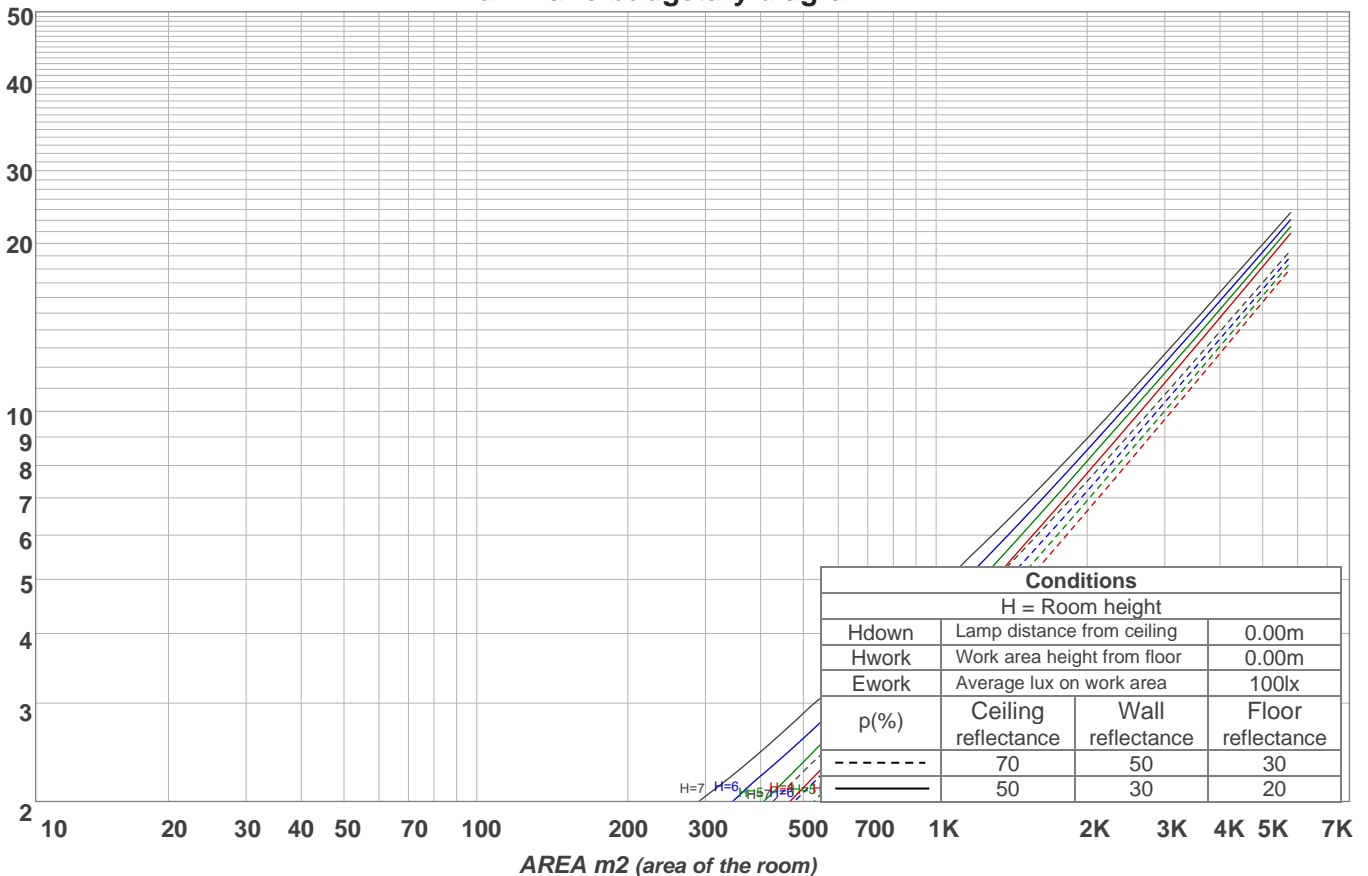
## Light Planning

### 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	0
<b>RCR</b>	<b>(RCR: Room Cavity Ratio)</b>																		
	Room Values are expressed as percentage of Lumens 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	106	100	94	89	103	97	92	88	93	89	85	89	85	82	85	82	80	77	
2	93	83	74	67	90	81	73	66	77	70	64	73	68	63	70	65	61	59	
3	83	69	59	51	80	68	58	51	64	56	50	61	54	49	59	53	48	45	
4	74	59	48	40	71	58	48	40	55	46	39	52	45	38	50	43	38	35	
5	66	51	40	32	64	50	40	32	47	38	31	45	37	31	43	36	30	28	
6	60	45	34	26	58	44	33	26	41	33	26	40	32	25	38	31	25	23	
7	55	39	29	22	53	39	29	22	37	28	22	35	27	21	34	27	21	19	
8	51	35	25	19	49	35	25	19	33	24	18	32	24	18	30	23	18	16	
9	47	32	22	16	46	31	22	16	30	22	16	29	21	16	28	21	16	14	
10	44	29	20	14	42	28	20	14	27	19	14	26	19	14	25	19	14	12	

LAMPS (number of lamps)

### Luminaire budgetary diagram



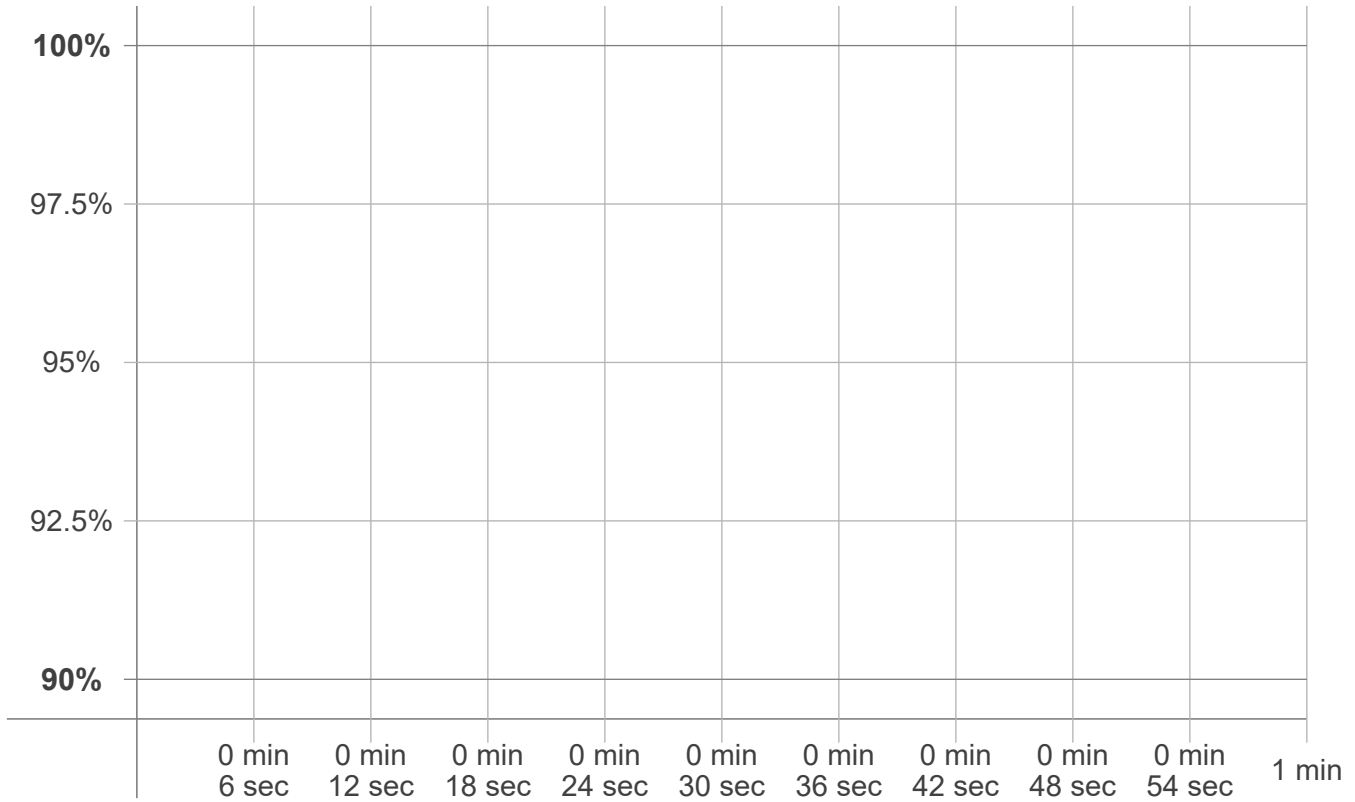
### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
354 lm	1112 lm	2093 lm	3506 lm	5445 lm	8203 lm	8985 lm	4201 lm	770 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
28.6 lm	18.5 lm	20.6 lm	20.6 lm	19.3 lm	16.1 lm	11.5 lm	6.62 lm	2.14 lm



**Stabilization**

**Warmup curve**



**Warmup result**

<b>Warmup time:</b>	<b>n/a</b>
<b>Warmup variation</b>	<b>n/a%</b>

**Warmup conditions**

<b>Stable period:</b>	<b>n/a</b>
<b>Stable change max:</b>	<b>n/a%</b>
<b>Minimum time:</b>	<b>n/a</b>

**Color temperature change**

<b>CCT start</b>	<b>CCT change</b>	<b>CCT end</b>
<b>n/a K</b>	<b>n/a K</b>	<b>5107 K</b>

**Output change**

<b>Output start</b>	<b>Output change</b>	<b>Output end</b>
<b>n/a lm</b>	<b>n/a lm</b>	<b>34813 lm</b>

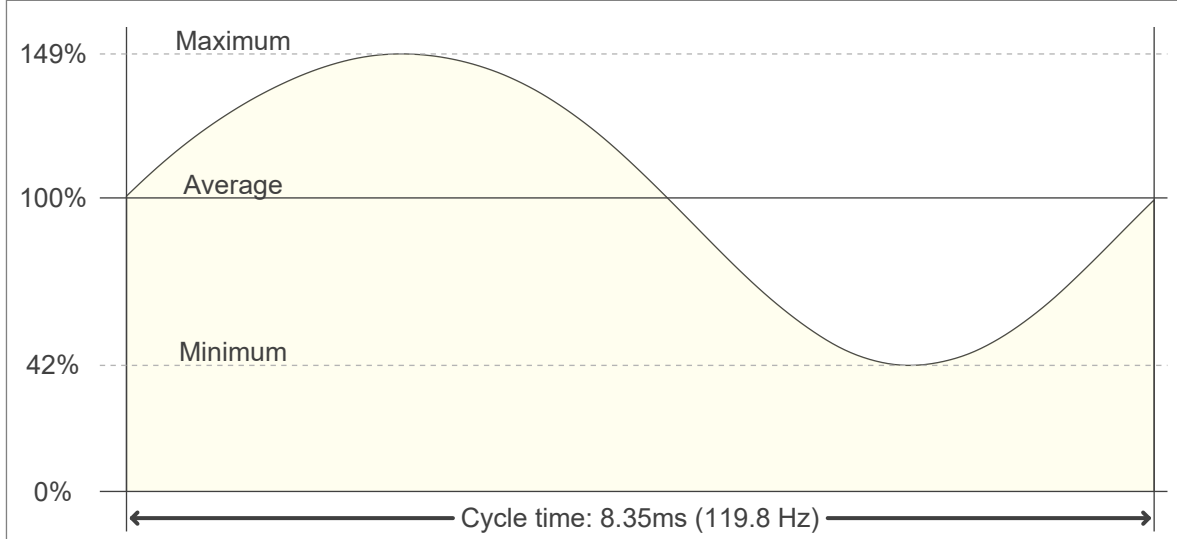


## Flicker Specifications

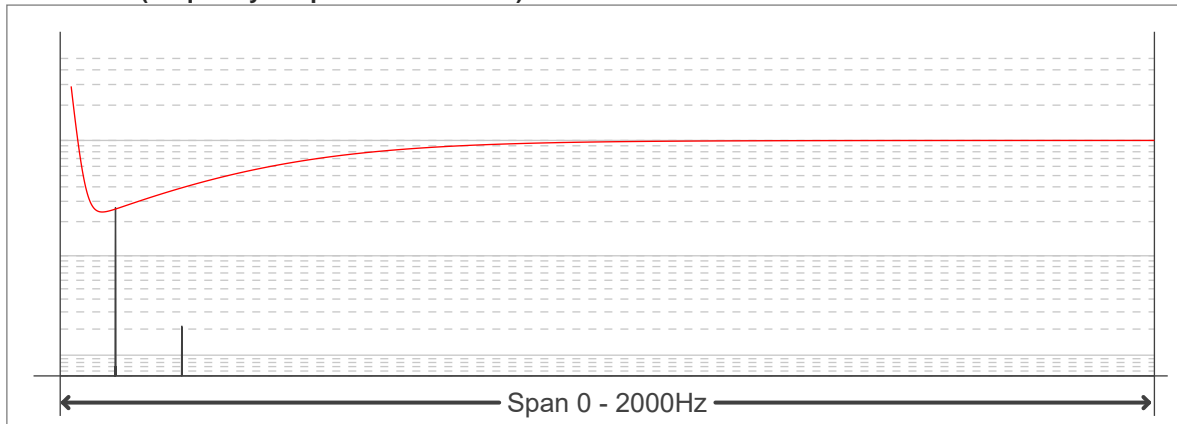
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



**Flicker results:**

<b>Flicker frequency:</b>	<b>119.76 Hz</b>
<b>Flicker index:</b>	<b>0.17</b>
<b>Flicker percentage:</b>	<b>55.35 %</b>
<b>SVM: (Visual flicker)</b>	<b>1.93</b>

**Flicker conditions:**

<b>Sample rate:</b>	<b>20000 samples/second</b>
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