

## Light efficiency:

n/a Lumen/Watt

## Light quality:

CRI: 94.8

## Color temperature:

5045 K

Output: 605 lm

Peak: 208 cd

Power: 0.00 W

PF: n/a

No photo

Tracking number: [n/a](#)

Product name:

**Suspan X PrimaLine 9 -5000K**

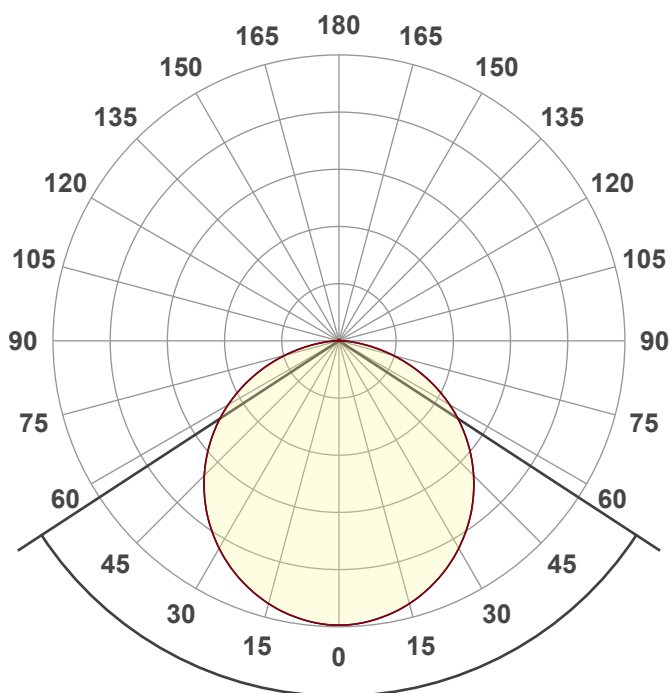
Item number:

**AL-01-22-2404-CU-IN**

Date and time:

**10/11/2023 8:49:12 AM**

Description:



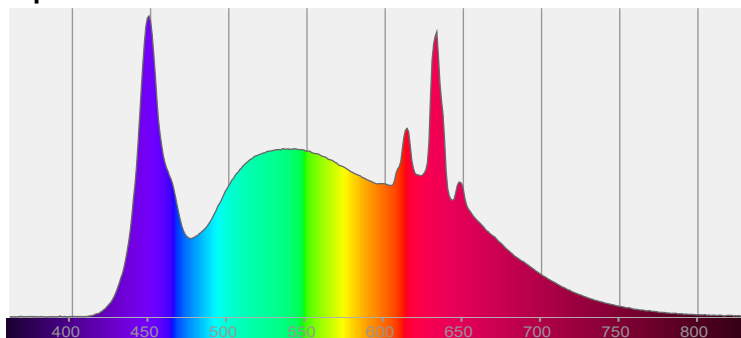
Beam angle

**113.7°**

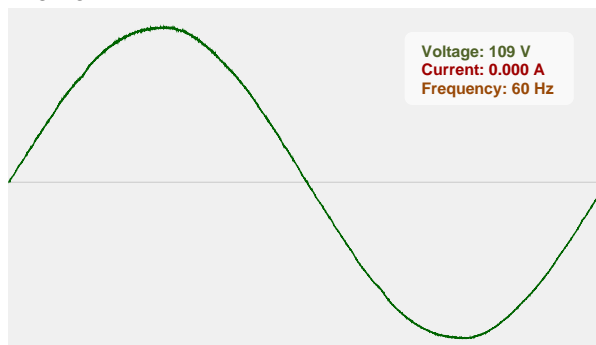


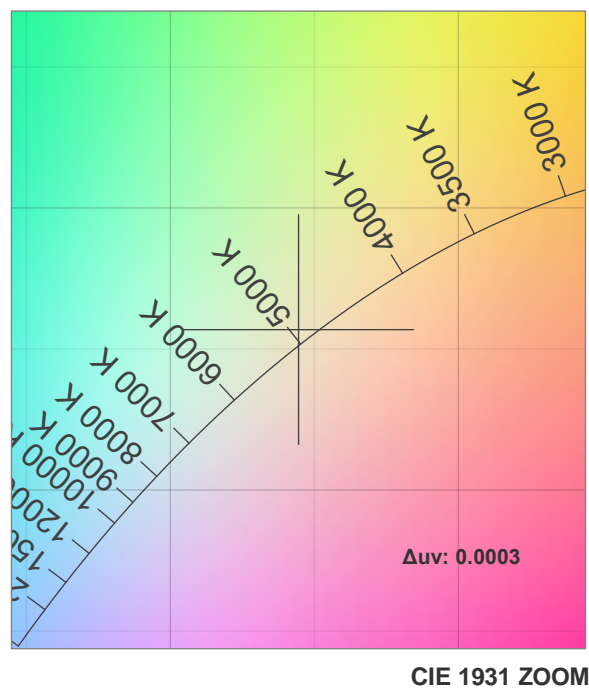
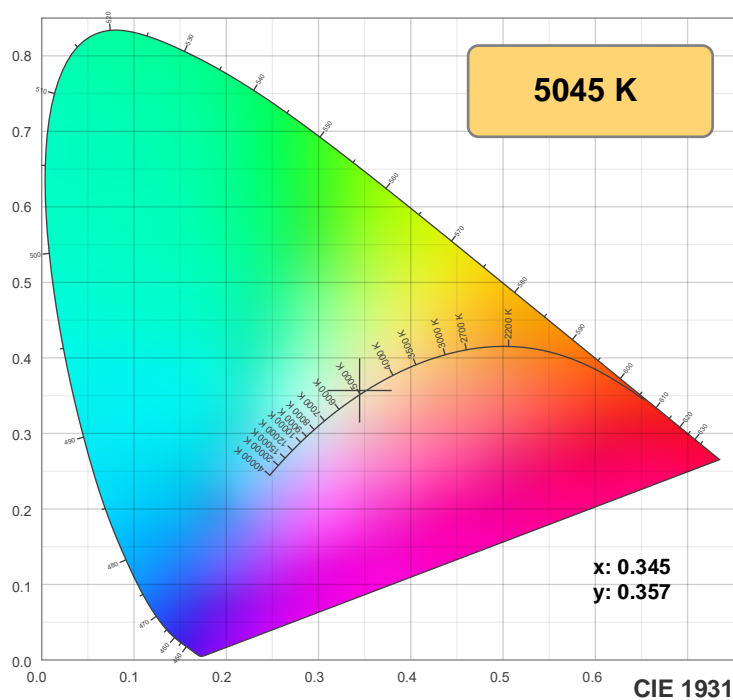
CIE 1931  
x: 0.345  
y: 0.357

## Spectra

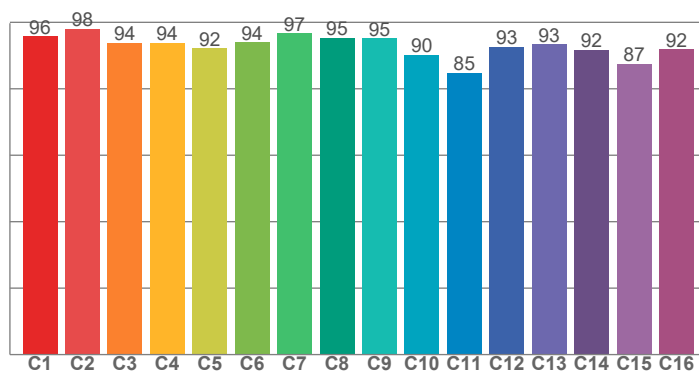


## Power

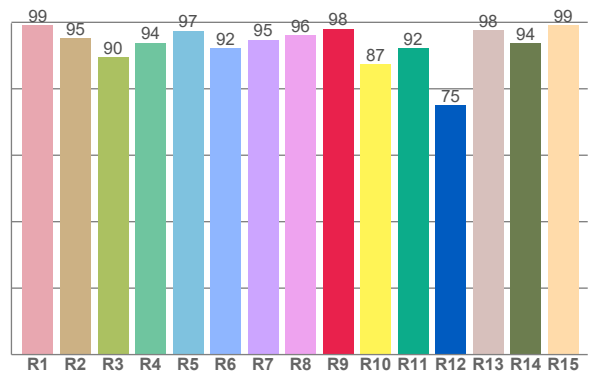




**TM30: 92.9**



**CRI: 94.8 (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
99.1	95.2	89.6	93.9	97.5	92.3	94.7	96.1	98.0	87.3	92.2	75.0	97.7	93.7	99.1

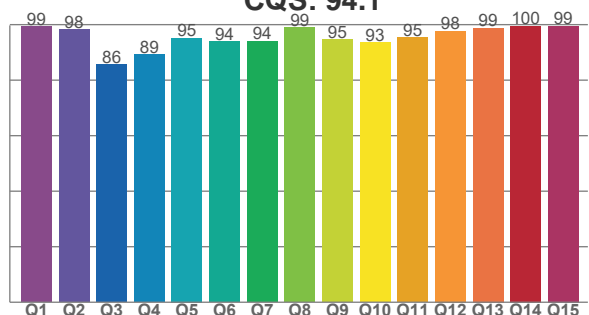
**TM30 C values, 16 binned values out of total of 99 C values**

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
95.8	98.0	93.8	93.9	92.1	94.0	96.6	95.4	95.2	90.2	84.7	92.7	93.4	91.8	87.5	91.9

**CQS Q values**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
99.3	98.3	85.6	89.2	95.2	93.9	94.0	98.9	94.7	93.5	95.4	97.7	98.8	99.5	99.5

**CQS: 94.1**



## 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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	$\Delta uv$
5045 K	94.8	98.0	92.9	103.2	94.1	0.345	0.357	0.209	0.325	0.0003

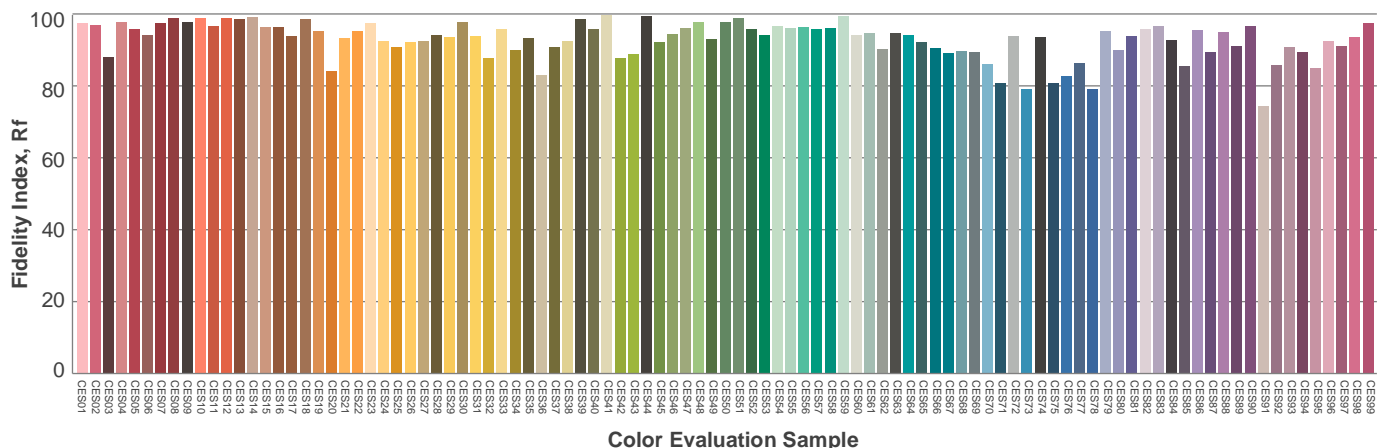
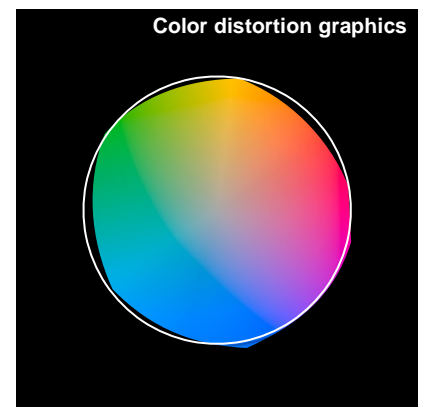
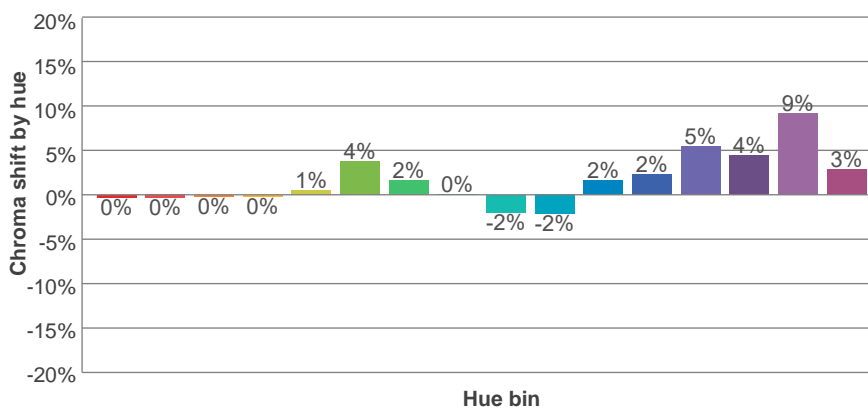
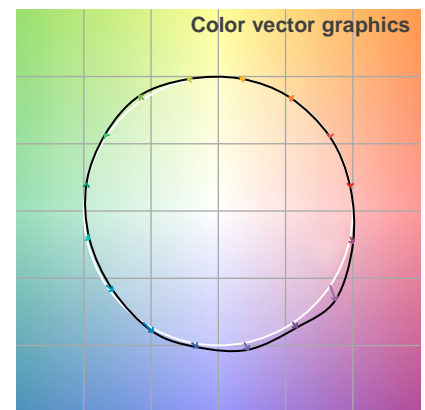
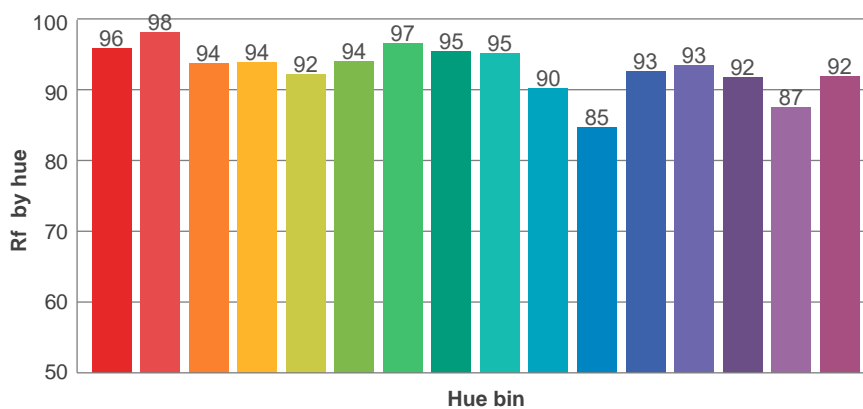
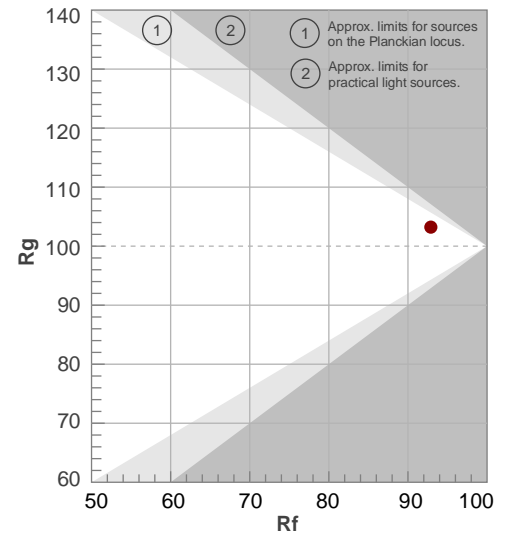
**Rf 92.9**

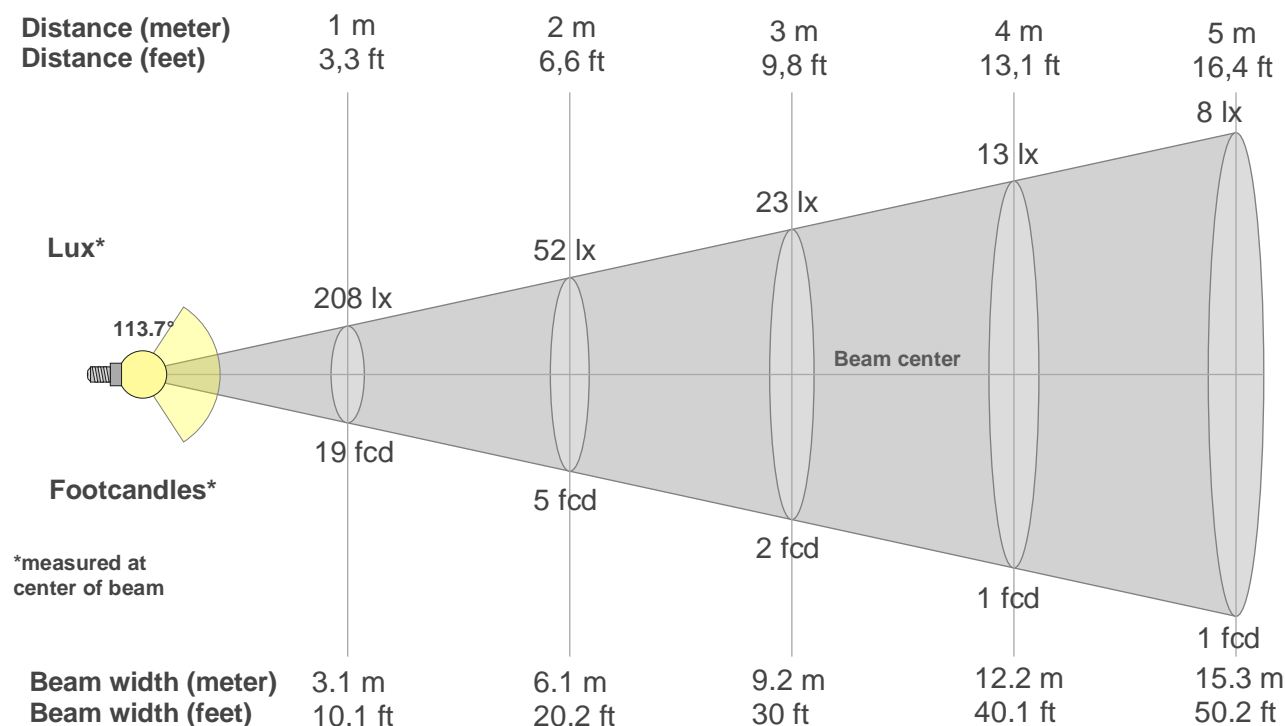
Fidelity index Rf

**Rg 103.2**

Gamut index Rg

Hue Bin	R <sub>f</sub>	Shifts (%)	
		Chroma	Hue
1	96	0%	-1%
2	98	0%	-1%
3	94	0%	3%
4	94	0%	3%
5	92	1%	3%
6	94	4%	1%
7	97	2%	-1%
8	95	0%	-1%
9	95	-2%	2%
10	90	-2%	6%
11	85	2%	9%
12	93	2%	4%
13	93	5%	2%
14	92	4%	0%
15	87	9%	-7%
16	92	3%	-4%





### 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
208lx	52lx	23lx	13lx	8lx	6lx	4lx	3lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx
19.3fcd	4.8fcd	2.1fcd	1.2fcd	0.8fcd	0.5fcd	0.4fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0fcd

### 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°
208	207	203	199	192	184	175	164	152	139	125	110	93	76	59	41	24	10	2	1
100%	99%	98%	96%	93%	89%	84%	79%	73%	67%	60%	53%	45%	37%	28%	20%	11%	5%	1%	0%

### 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°
208	207	203	199	192	184	175	164	152	139	125	110	93	76	59	41	24	10	2	1
100%	99%	98%	96%	93%	89%	84%	79%	73%	67%	60%	53%	45%	37%	28%	20%	11%	5%	1%	0%

### Intensities in 180° c-plane

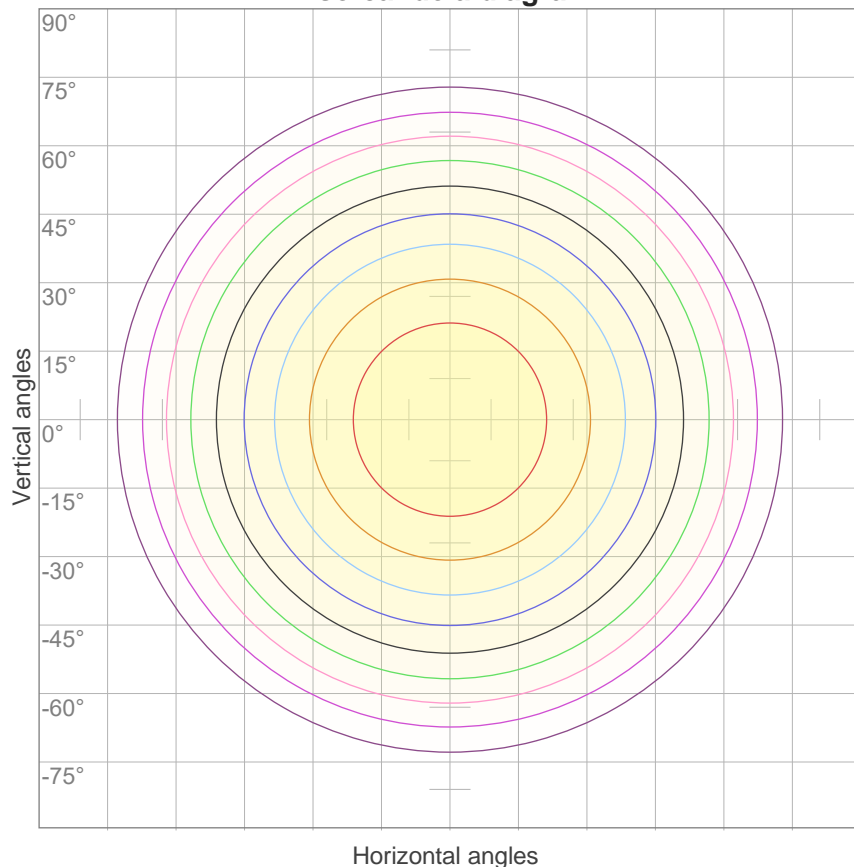
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
208	207	203	199	192	184	175	164	152	139	125	110	93	76	59	41	24	10	2	1
100%	99%	98%	96%	93%	89%	84%	79%	73%	67%	60%	53%	45%	37%	28%	20%	11%	5%	1%	0%

### 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°
208	207	203	199	192	184	175	164	152	139	125	110	93	76	59	41	24	10	2	1
100%	99%	98%	96%	93%	89%	84%	79%	73%	67%	60%	53%	45%	37%	28%	20%	11%	5%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
113.7°	161.9°	174.3°	77.5%	52.5%

**iso-candela diagram**

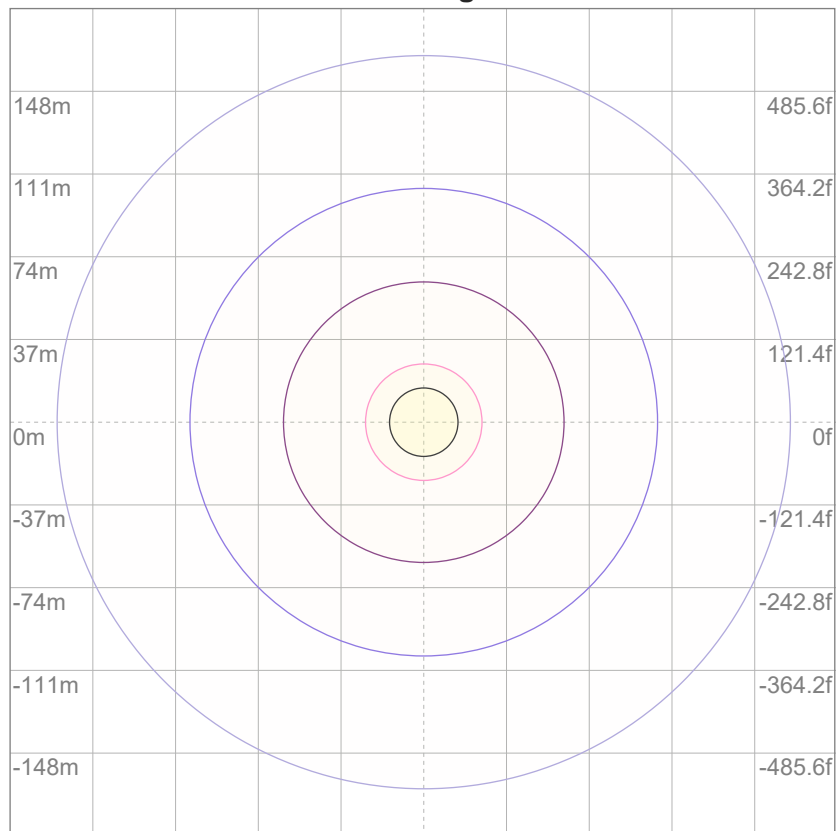


10%	21 cd
20%	42 cd
30%	62 cd
40%	83 cd
50%	104 cd
60%	125 cd
70%	145 cd
80%	166 cd
90%	187 cd

Conditions:

Number of c-planes: 12  
Candela at center: 208 cd

**iso-lux diagram**



3%	62.3m lx
5%	0.104 lx
10%	0.208 lx
30%	0.623 lx
50%	1.04 lx

Conditions:

Number of c-planes: 12  
Lux at center: 2.08 lx

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

**Glare evaluation according to UGR**

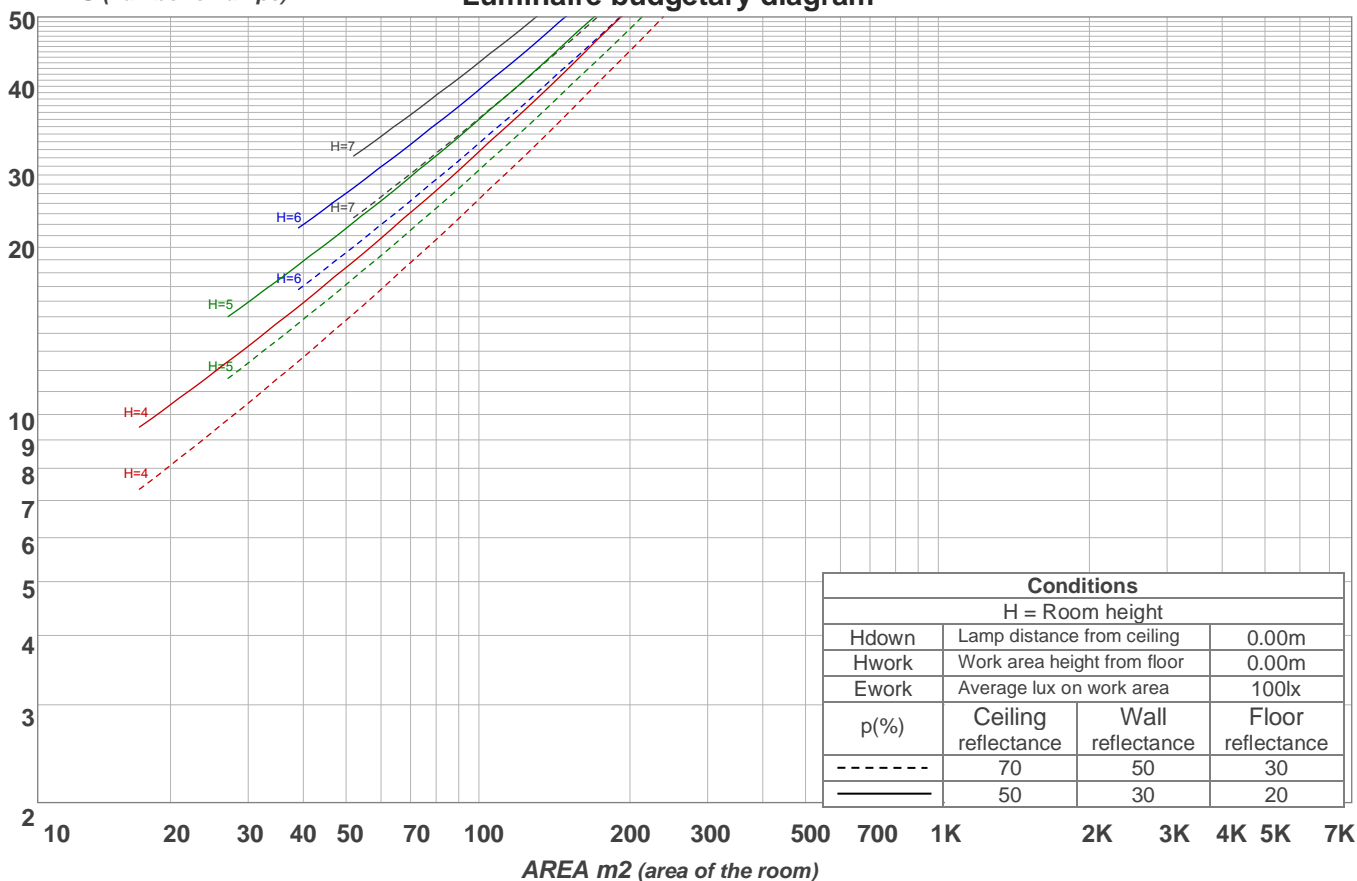
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X      Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	19.5	20.7	19.8	21.1	21.3	21.0	22.2	21.3	22.6	22.8
	3H	20.5	21.8	21.0	22.1	22.3	22.4	23.7	22.8	24.0	24.2
	4H	20.9	22.1	21.3	22.4	22.7	23.0	24.2	23.4	24.5	24.7
	6H	21.2	22.2	21.5	22.5	22.9	23.4	24.4	23.7	24.7	25.1
	8H	21.2	22.2	21.5	22.5	23.0	23.5	24.5	23.8	24.8	25.2
	12H	21.2	22.2	21.5	22.5	23.0	23.5	24.5	23.9	24.8	25.3
4H	2H	20.1	21.3	20.5	21.6	21.9	21.3	22.5	21.7	22.8	23.1
	3H	21.4	22.4	21.8	22.7	23.2	22.9	23.9	23.3	24.3	24.8
	4H	21.8	22.7	22.2	23.1	23.7	23.5	24.4	24.0	24.9	25.4
	6H	22.0	22.9	22.5	23.3	23.7	23.9	24.8	24.5	25.2	25.6
	8H	22.1	22.9	22.6	23.3	23.7	24.1	24.9	24.6	25.2	25.6
	12H	22.1	22.7	22.6	23.2	23.7	24.1	24.8	24.6	25.2	25.7
8H	4H	22.0	22.8	22.5	23.2	23.6	23.6	24.4	24.1	24.8	25.2
	6H	22.3	22.9	22.8	23.4	24.0	24.1	24.7	24.6	25.2	25.8
	8H	22.4	23.0	23.0	23.5	24.2	24.3	24.8	24.8	25.4	26.0
	12H	22.5	22.9	23.1	23.4	24.1	24.4	24.8	25.0	25.3	26.0
12H	4H	22.0	22.6	22.5	23.1	23.6	23.6	24.2	24.1	24.7	25.2
	6H	22.4	22.9	22.9	23.4	24.1	24.1	24.7	24.7	25.2	25.8
	8H	22.5	22.9	23.1	23.4	24.1	24.3	24.7	24.9	25.3	25.9
Variation of the observer position for the luminaire distance S											
S = 1.0H		0.1 / -0.2					0.1 / -0.1				
S = 1.5H		0.3 / -0.5					0.4 / -0.5				
S = 2.0H		0.7 / -1.0					1.0 / -1.1				
CIE 117-1995. Corrected glare indices referring to 605 lm total luminous flux											

### 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	0
RCR	(RCR: Room Cavity Ratio) 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	101	101	101	99
1	108	104	99	95	106	101	97	94	97	93	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	76	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	47	73	61	53	46	59	51	46	57	50	45	55	49	44	42
6	69	56	47	41	67	55	47	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	35	31	29
9	56	42	34	29	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

LAMPS (number of lamps)

### Luminaire budgetary diagram



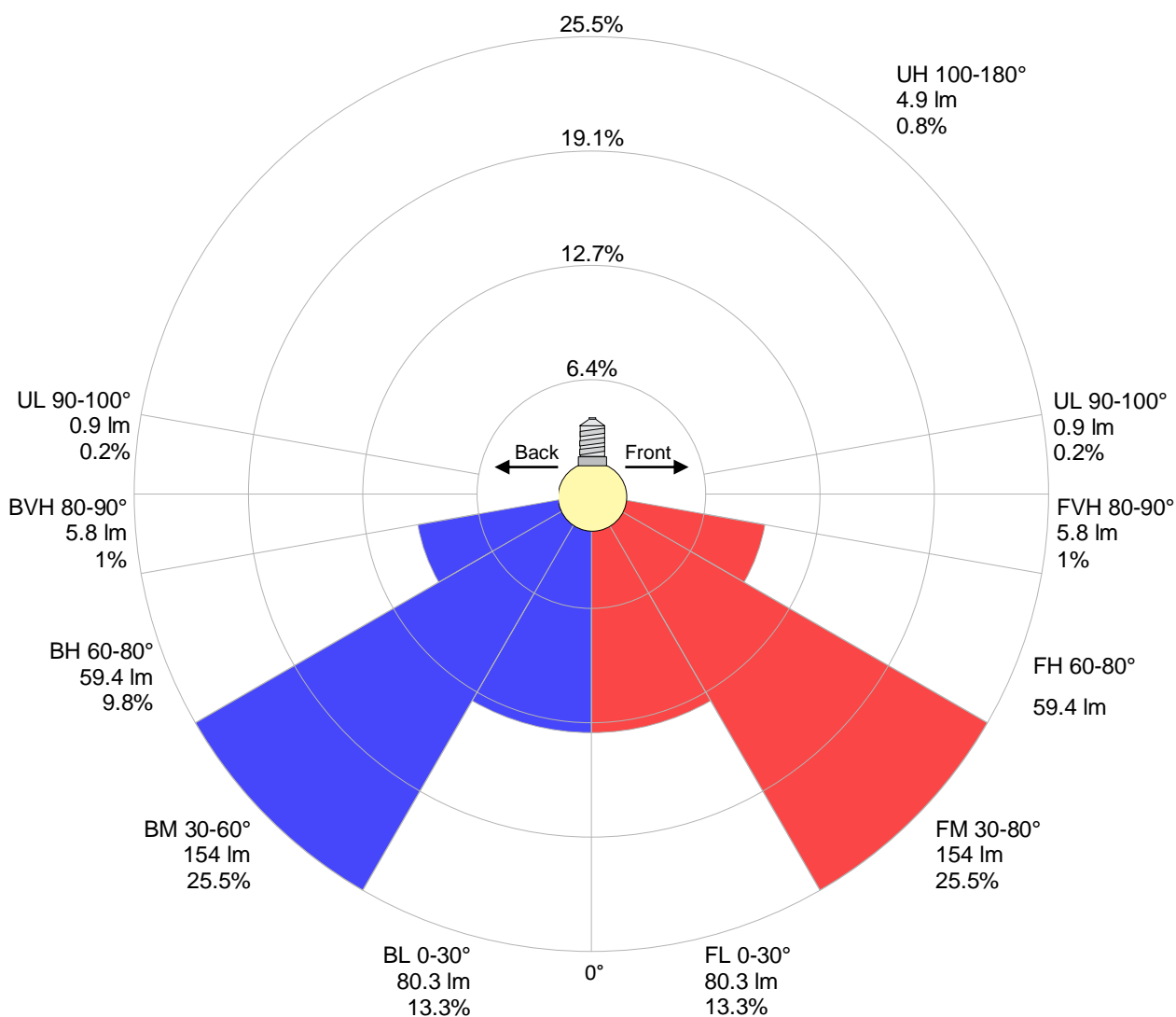
### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
{LUM0-10}	56.1 lm	85.0 lm	103 lm	107 lm	98.0 lm	75.5 lm	43.2 lm	11.4 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.910 lm	0.839 lm	0.850 lm	0.827 lm	0.780 lm	0.653 lm	0.511 lm	0.330 lm	0.115 lm

**LCS table**

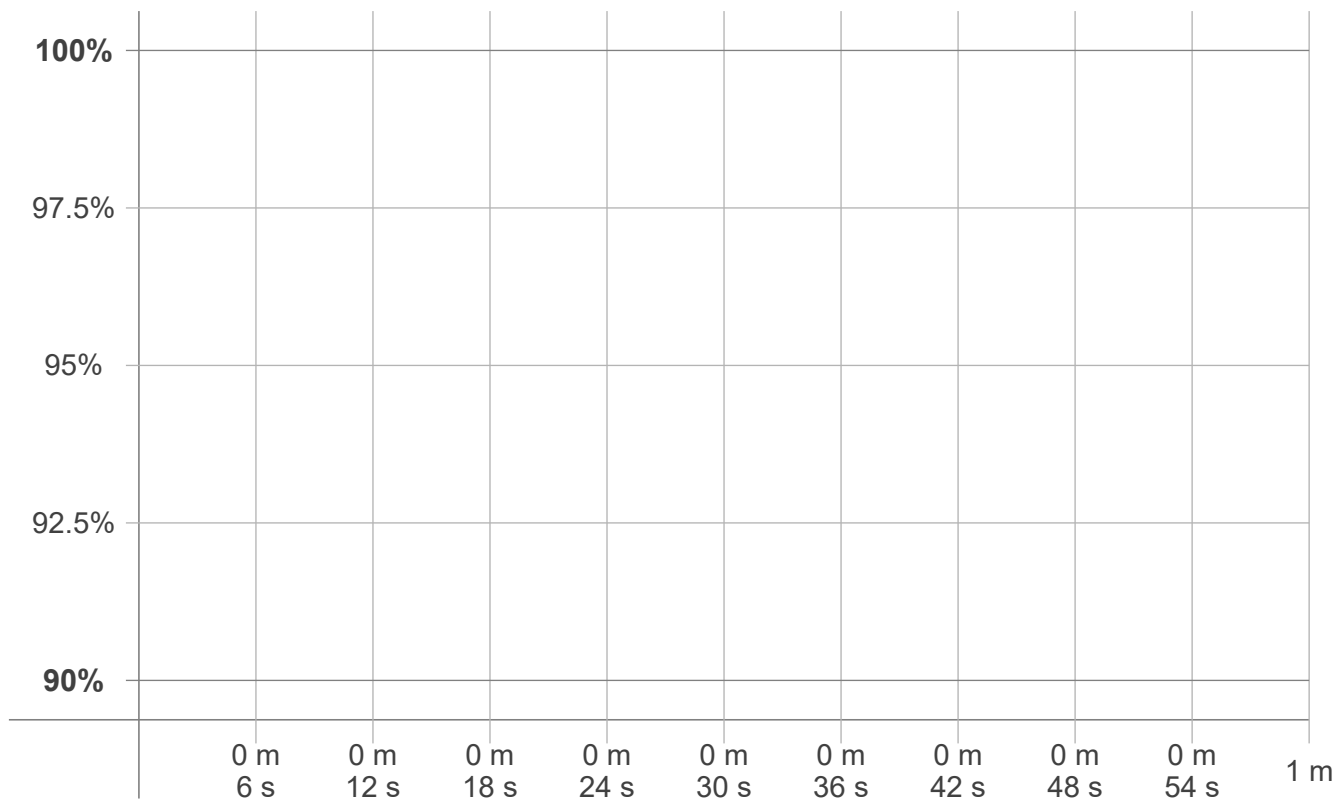
BUG rating:	B0 U1 G0	
Forward light	Lumens	Lumens %
Low(0-30):	80.3	13.3%
Medium(30-60):	154	25.5%
High(60-80):	59.4	9.8%
Very high(80-90):	5.8	1%
Back light		
Low(0-30):	80.3	13.3%
Medium(30-60):	154	25.5%
High(60-80):	59.4	9.8%
Very high(80-90):	5.8	1%
Uplight		
Low(90-100):	0.9	0.2%
High(100-180):	4.9	0.8%

**LCS graph**





**Warmup curve**



**Warmup result**

Warmup time:	n/a
Warmup variation	n/a%

**Warmup conditions**

Stable period:	n/a
Stable change max:	n/a%
Minimum time:	n/a

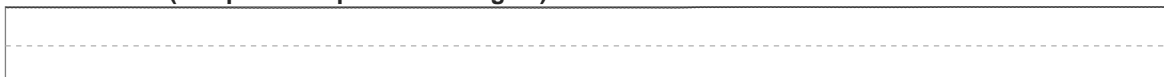
**Color temperature change**

CCT start	CCT change	CCT end
n/a K	n/a K	5045 K

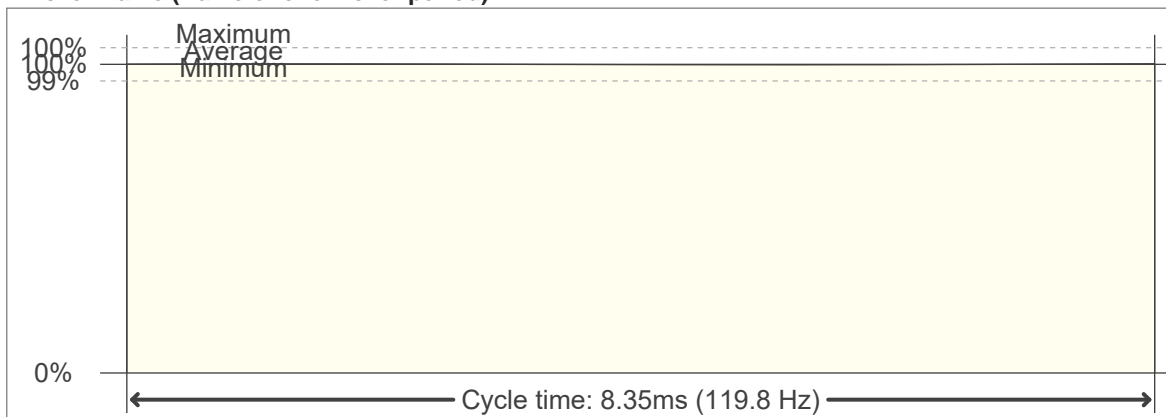
**Output change**

Output start	Output change	Output end
n/a lm	n/a lm	605 lm

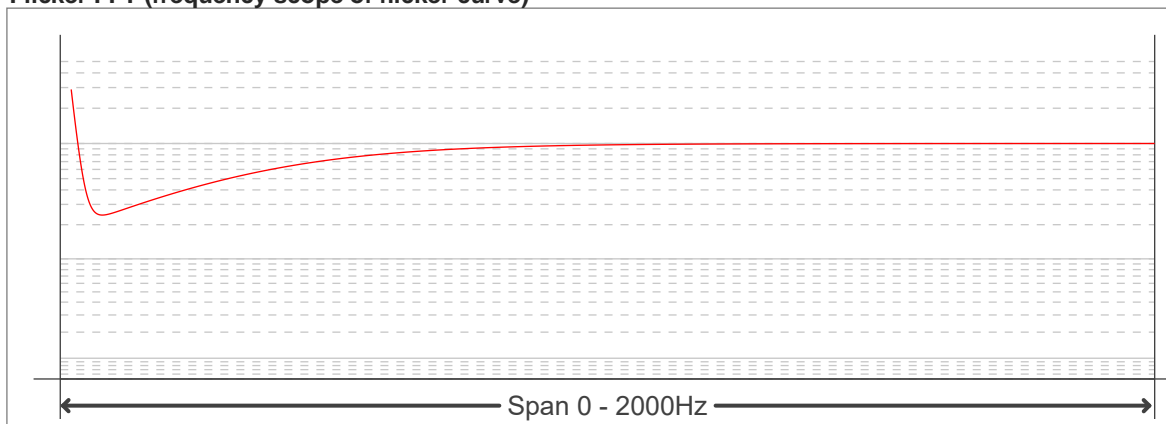
**Flicker curve (complete sampled flicker signal)**



**Flicker frame (frame of one flicker period)**



**Flicker FFT (frequency scope of flicker curve)**



**Flicker results:**

Flicker frequency:		119.76 Hz	
Flicker index:	0	JA8/10 40Hz	0.6 %
Flicker percentage:	0.83 %	JA8/10 90Hz	0.61 %
SVM: (Visual flicker)	0.01	JA8/10 200Hz	0.82 %
PstLM	0	JA8/10 400Hz	0.82 %
Mp	0.1	JA8/10 1000Hz	0.82 %

**Flicker conditions:**

Sample rate:	20000 samples/second
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