

Light efficiency:



Light quality:



Color temperature:

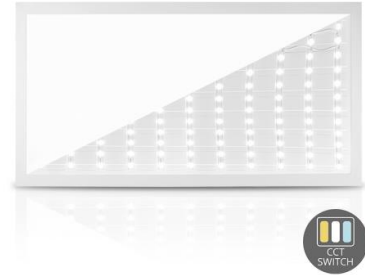


Output: 2283 lm

Peak: 772 cd

Power: 23,8 W

PF: 0,95



Tracking number: [VT240918-009726](#)

Product name:

271777

Item number:

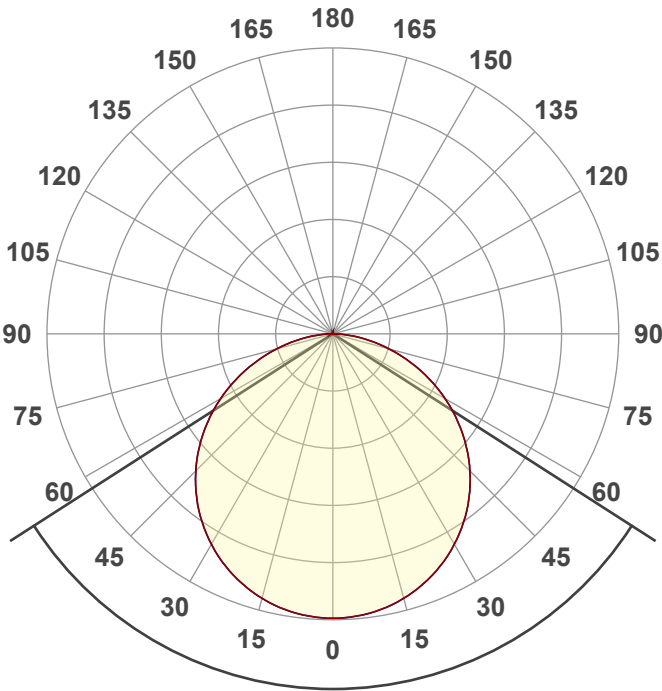
271777

Date and time:

18-9-2024 09:48:38

Description:

**BACK-LIT LED PANEEL | 60X30CM |
24W | CCT-SWITCH**



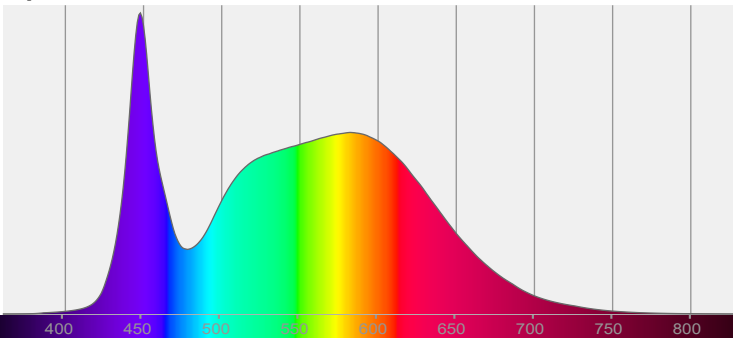
Beam angle

114,6°

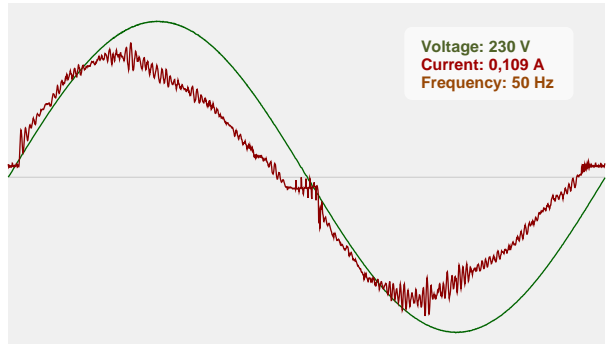


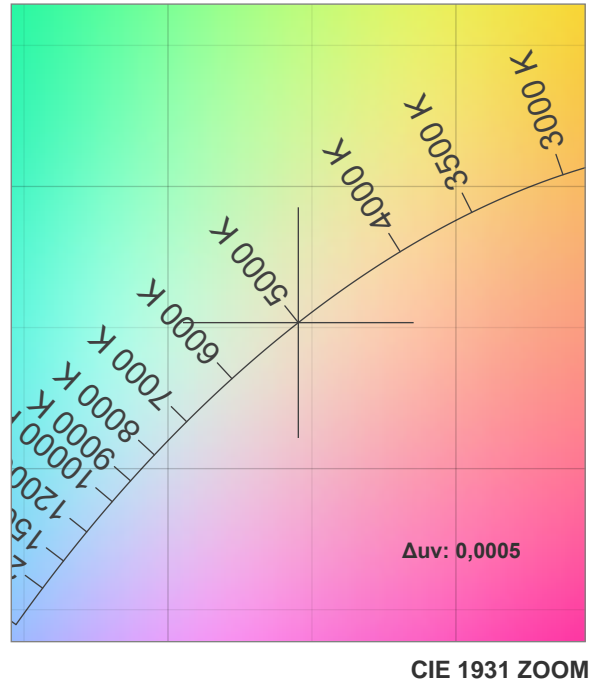
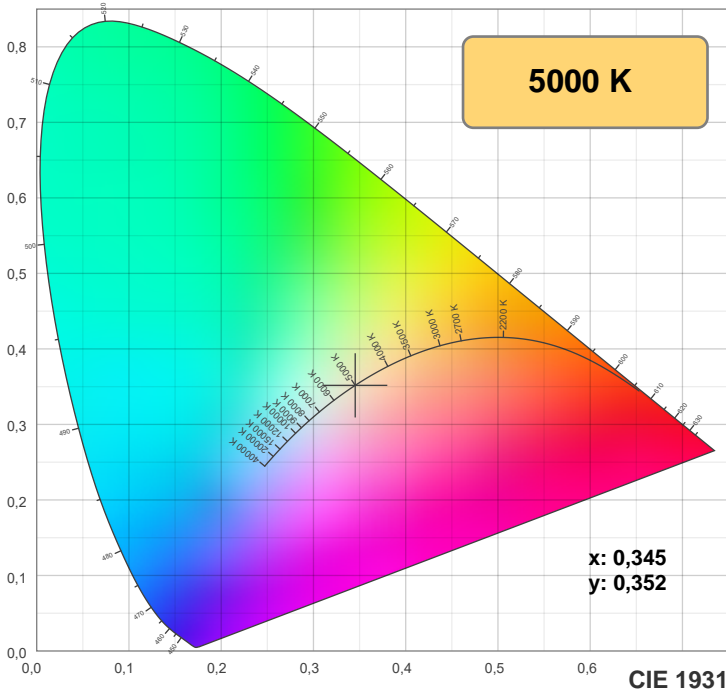
CIE 1931
x: 0,345
y: 0,352

Spectra



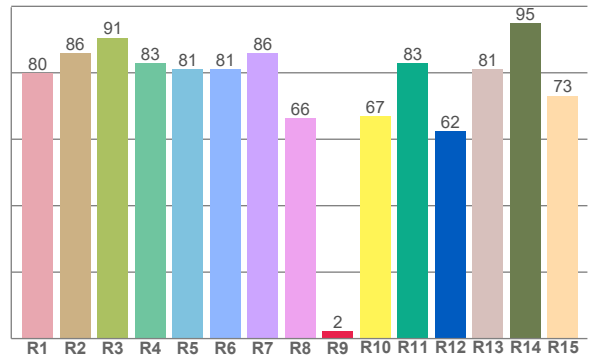
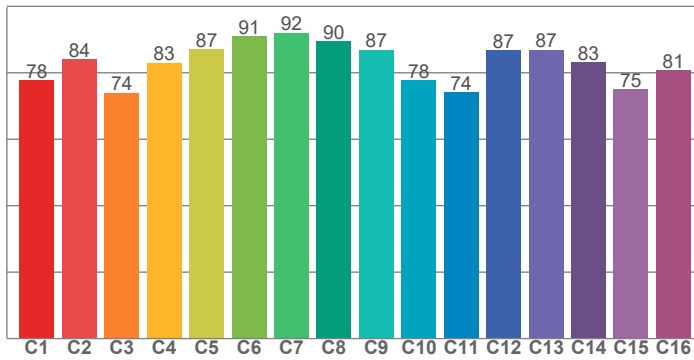
Power



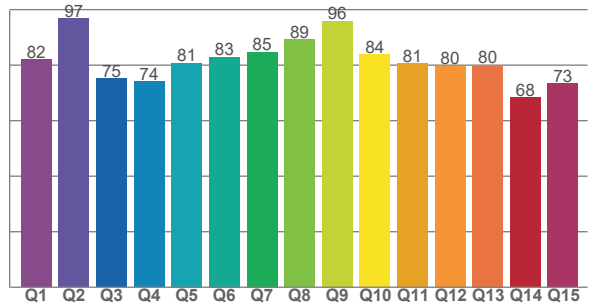


TM-30: 82,7

CRI: 81,7 (R1-R8)



CQS: 80,3



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
79,9	85,8	90,6	82,8	81,0	81,1	85,8	66,3	2,2	66,9	82,8	62,3	81,2	94,9	73,1

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
77,8	84,0	73,9	83,0	87,1	90,9	92,0	89,5	86,9	77,8	74,1	86,7	86,9	83,1	75,0	80,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,1	96,9	75,3	74,1	80,8	82,9	84,8	89,2	95,9	83,8	80,6	79,7	80,0	68,3	73,5

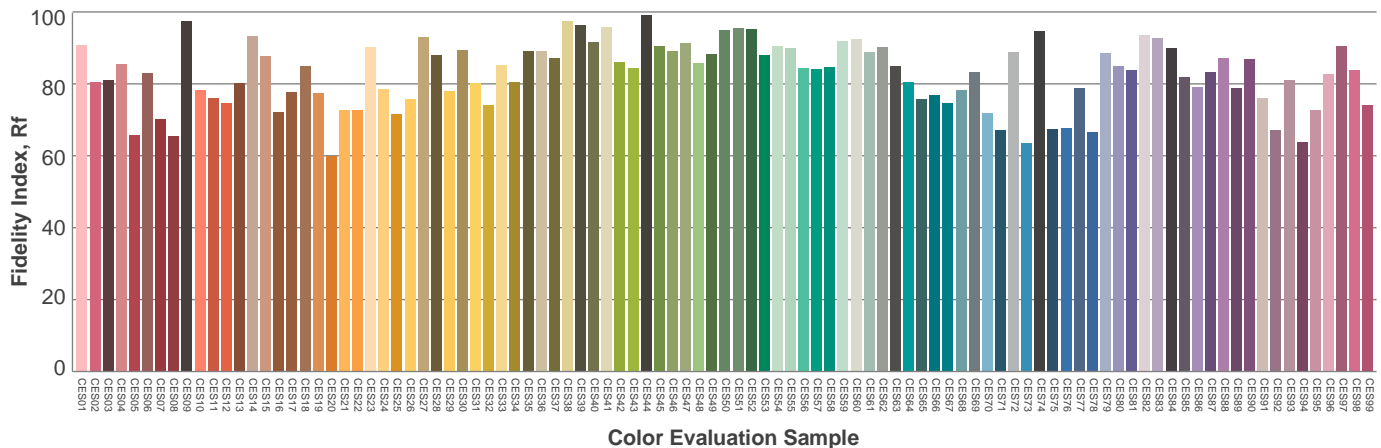
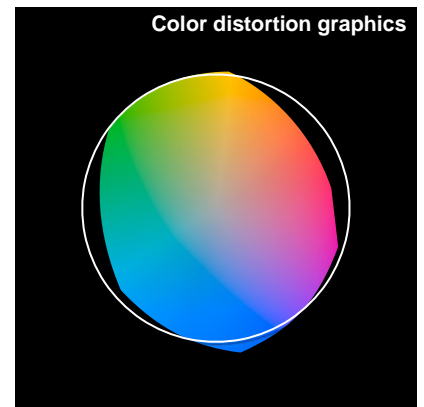
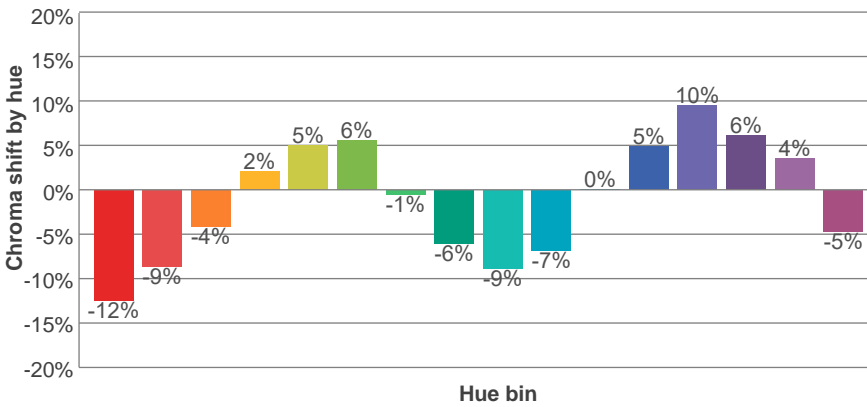
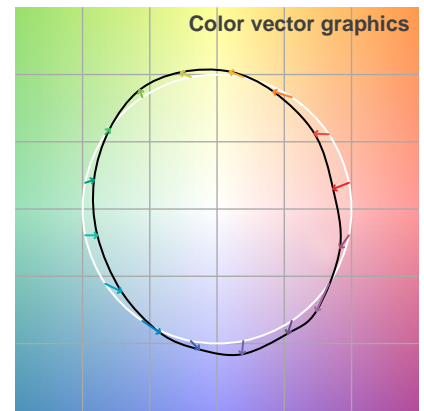
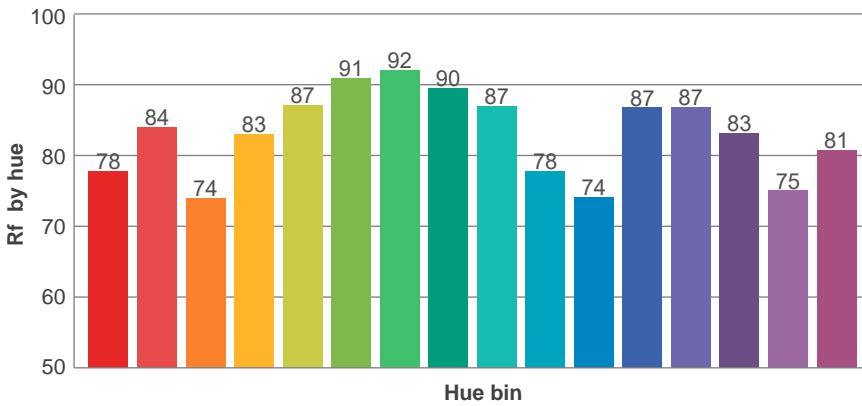
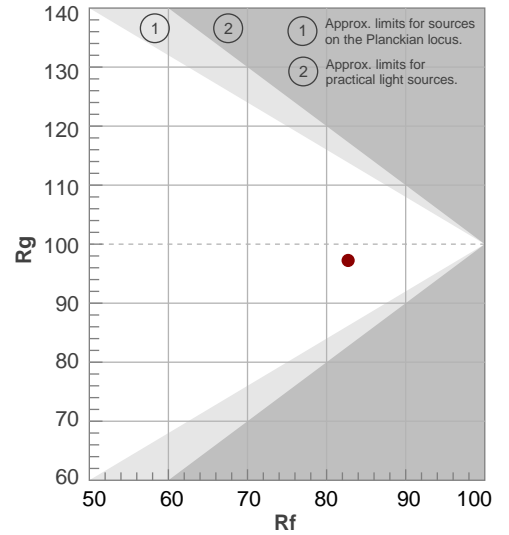
Color parameters

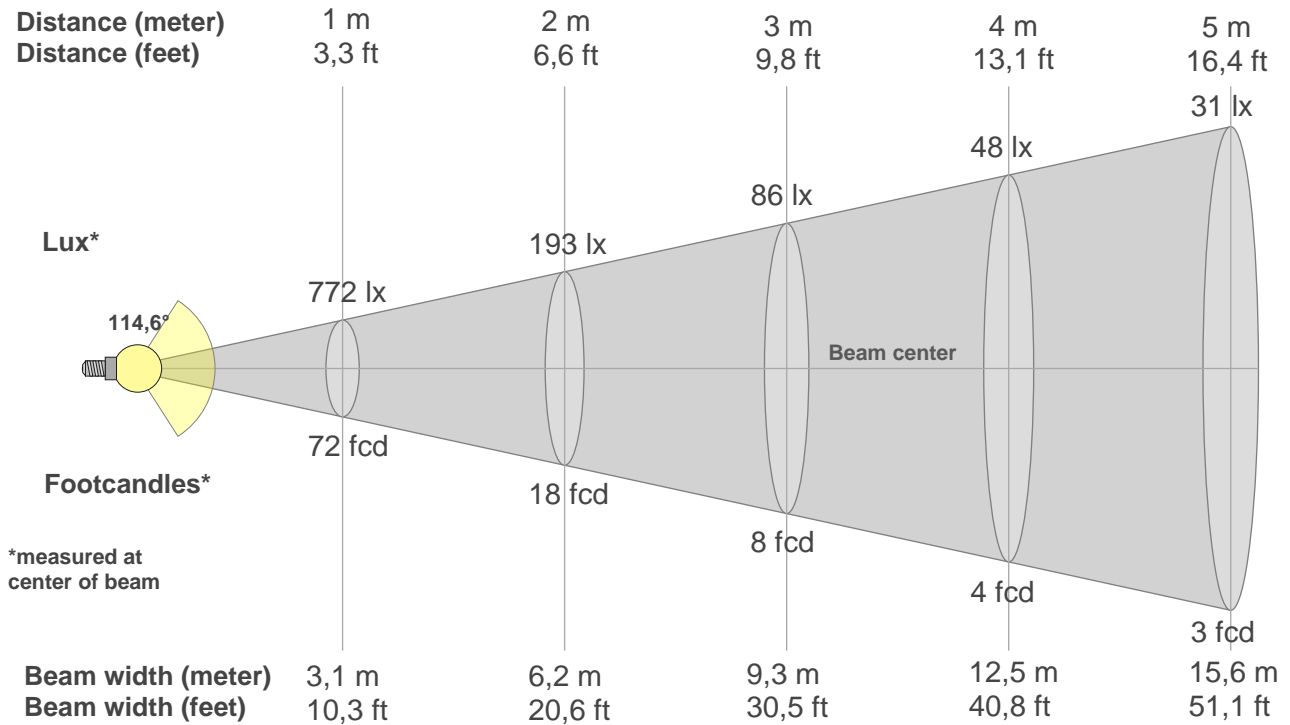
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
5000 K	81,7	2,2	82,7	97,2	80,3	0,345	0,352	0,211	0,323	0,0005

Rf 82,7
Fidelity index Rf

Rg 97,2
Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	78	-12%	-2%
2	84	-9%	6%
3	74	-4%	14%
4	83	2%	11%
5	87	5%	6%
6	91	6%	-1%
7	92	-1%	-5%
8	90	-6%	-3%
9	87	-9%	2%
10	78	-7%	11%
11	74	0%	16%
12	87	5%	7%
13	87	10%	-3%
14	83	6%	-8%
15	75	4%	-22%
16	81	-5%	-10%





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
772lx	193lx	86lx	48lx	31lx	21lx	16lx	12lx	10lx	8lx	6lx	5lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx
71,7fcd	17,9fcd	8fcd	4,5fcd	2,9fcd	2fcd	1,5fcd	1,1fcd	0,9fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd

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°
772	769	759	743	721	693	660	620	576	526	472	414	352	288	223	159	99	46	12	2
100%	100%	98%	96%	93%	90%	85%	80%	75%	68%	61%	54%	46%	37%	29%	21%	13%	6%	2%	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°
772	769	759	743	721	693	660	620	576	526	472	414	352	288	223	159	99	46	12	2
100%	100%	98%	96%	93%	90%	85%	80%	75%	68%	61%	54%	46%	37%	29%	21%	13%	6%	2%	0%

Intensities in 180° c-plane

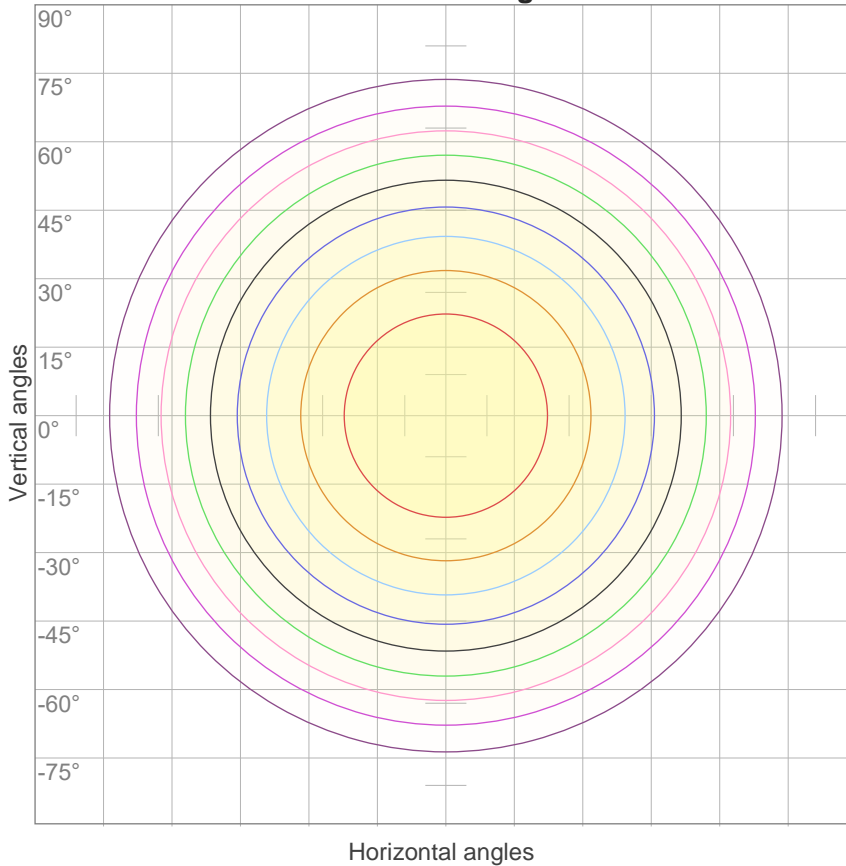
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
772	769	759	743	721	693	660	620	576	526	472	414	352	288	223	159	99	46	12	2
100%	100%	98%	96%	93%	90%	85%	80%	75%	68%	61%	54%	46%	37%	29%	21%	13%	6%	2%	0%

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°
772	769	759	743	721	693	660	620	576	526	472	414	352	288	223	159	99	46	12	2
100%	100%	98%	96%	93%	90%	85%	80%	75%	68%	61%	54%	46%	37%	29%	21%	13%	6%	2%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
114,6°	163,7°	176,8°	77,5%	52,4%

iso-candela diagram



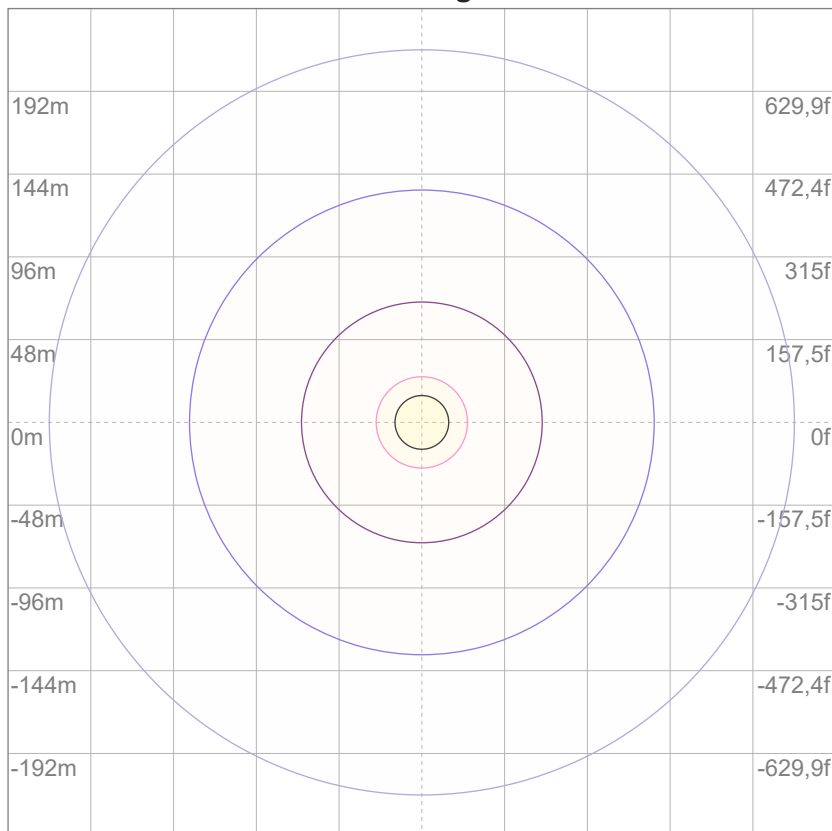
10%	77 cd
20%	154 cd
30%	232 cd
40%	309 cd
50%	386 cd
60%	463 cd
70%	540 cd
80%	618 cd
90%	695 cd

Conditions:

Number of c-planes: 12

Candela at center: 772 cd

iso-lux diagram



3%	0,232 lx
5%	0,386 lx
10%	0,772 lx
30%	2,32 lx
50%	3,86 lx

Conditions:

Number of c-planes: 12

Lux at center: 7,72 lx

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

Glare evaluation according to UGR

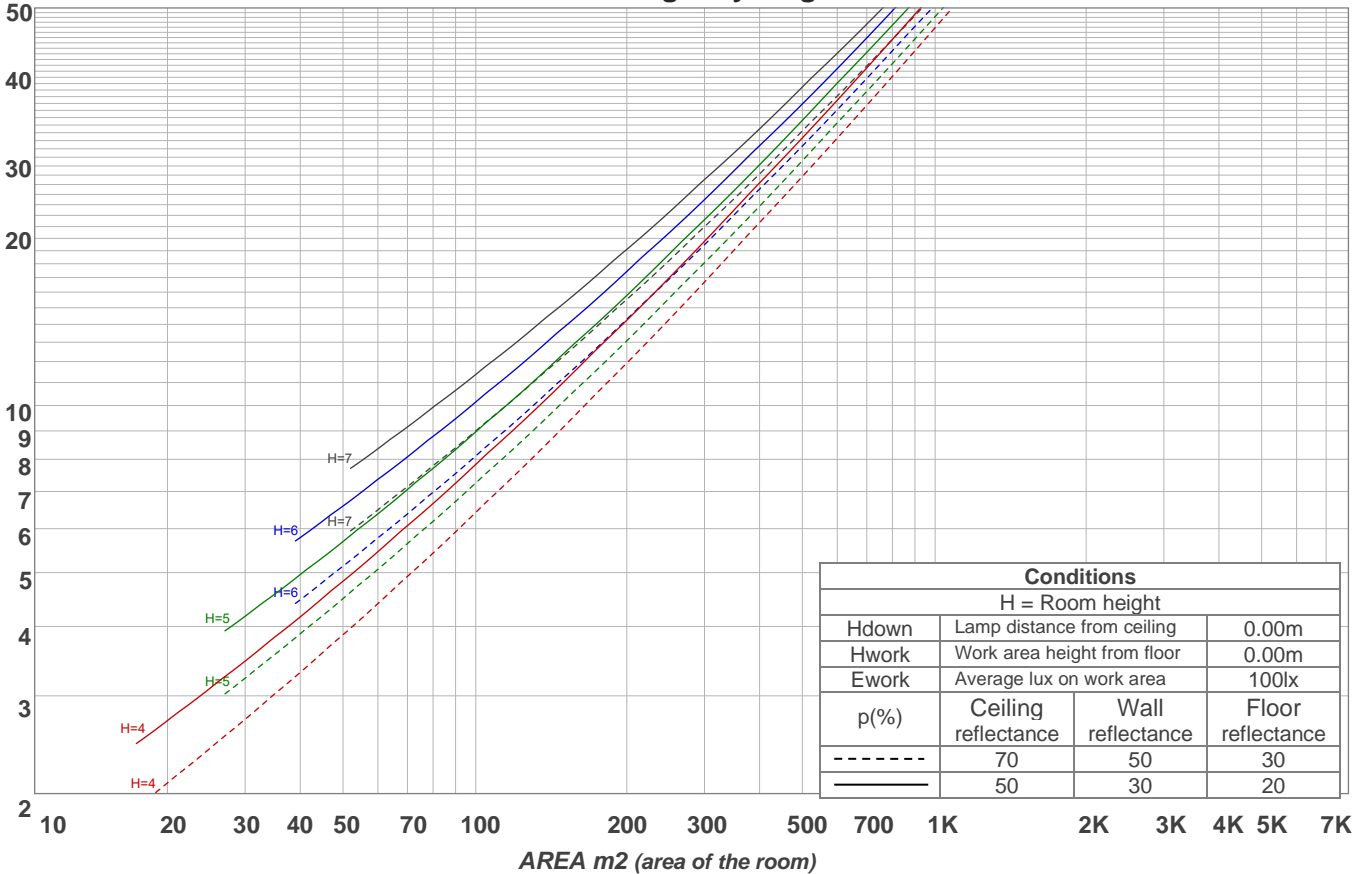
p Ceiling	70	70	50	50	30	70	70	50	50	30	
p Walls	50	30	50	30	30	50	30	50	30	30	
p Floor	20	20	20	20	20	20	20	20	20	20	
Room size X Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis					
2H	2H	18,1	19,4	18,4	19,7	19,9	18,1	19,3	18,3	19,6	19,8
	3H	19,6	20,9	20,0	21,2	21,4	19,5	20,8	19,9	21,1	21,3
	4H	20,3	21,5	20,7	21,8	22,0	20,2	21,4	20,6	21,7	21,9
	6H	20,8	21,9	21,1	22,2	22,6	20,7	21,8	21,0	22,0	22,4
	8H	21,0	22,0	21,3	22,3	22,8	20,8	21,9	21,2	22,2	22,6
12H	21,1	22,1	21,5	22,4	22,9	20,9	21,9	21,3	22,3	22,7	
4H	2H	18,7	19,9	19,1	20,2	20,5	18,7	19,9	19,1	20,2	20,4
	3H	20,5	21,5	20,9	21,9	22,3	20,5	21,5	20,8	21,8	22,3
	4H	21,2	22,2	21,7	22,6	23,1	21,1	22,1	21,6	22,5	23,0
	6H	21,8	22,7	22,3	23,1	23,5	21,7	22,6	22,2	23,0	23,3
	8H	22,0	22,9	22,6	23,2	23,6	21,9	22,7	22,4	23,1	23,5
12H	22,2	22,9	22,7	23,3	23,8	22,0	22,7	22,5	23,1	23,6	
8H	4H	21,5	22,3	22,0	22,7	23,1	21,4	22,2	21,9	22,6	23,0
	6H	22,3	22,9	22,8	23,4	23,9	22,2	22,8	22,7	23,2	23,8
	8H	22,6	23,1	23,1	23,7	24,3	22,5	23,0	23,0	23,5	24,2
	12H	22,8	23,3	23,4	23,8	24,4	22,7	23,1	23,2	23,6	24,3
12H	4H	21,5	22,2	22,0	22,6	23,1	21,4	22,1	21,9	22,5	23,0
	6H	22,3	22,9	22,9	23,4	24,1	22,2	22,8	22,8	23,3	24,0
	8H	22,7	23,1	23,3	23,7	24,3	22,6	23,0	23,1	23,5	24,1
Variation of the observer position for the luminaire distance S											
S = 1.0H	0,1 / -0,1					0,1 / -0,1					
S = 1.5H	0,1 / -0,2					0,1 / -0,2					
S = 2.0H	0,4 / -0,4					0,4 / -0,5					
CIE 117-1995. Corrected glare indices referring to 2283 lm total luminous flux											

Coefficients of Utilization

Ceiling reflectance	80				70				50			30			10			0	
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	
Wall reflectance																			
Floor reflectance	20	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	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	90	83	77	96	88	82	76	84	79	74	81	76	72	78	74	71	69	
3	90	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	57	
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49	
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42	
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37	
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	34	32	
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	35	31	29	
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26	
10	52	39	31	26	51	38	31	26	37	30	26	36	30	25	36	30	25	23	

LAMPS (number of lamps)

Luminaire budgetary diagram



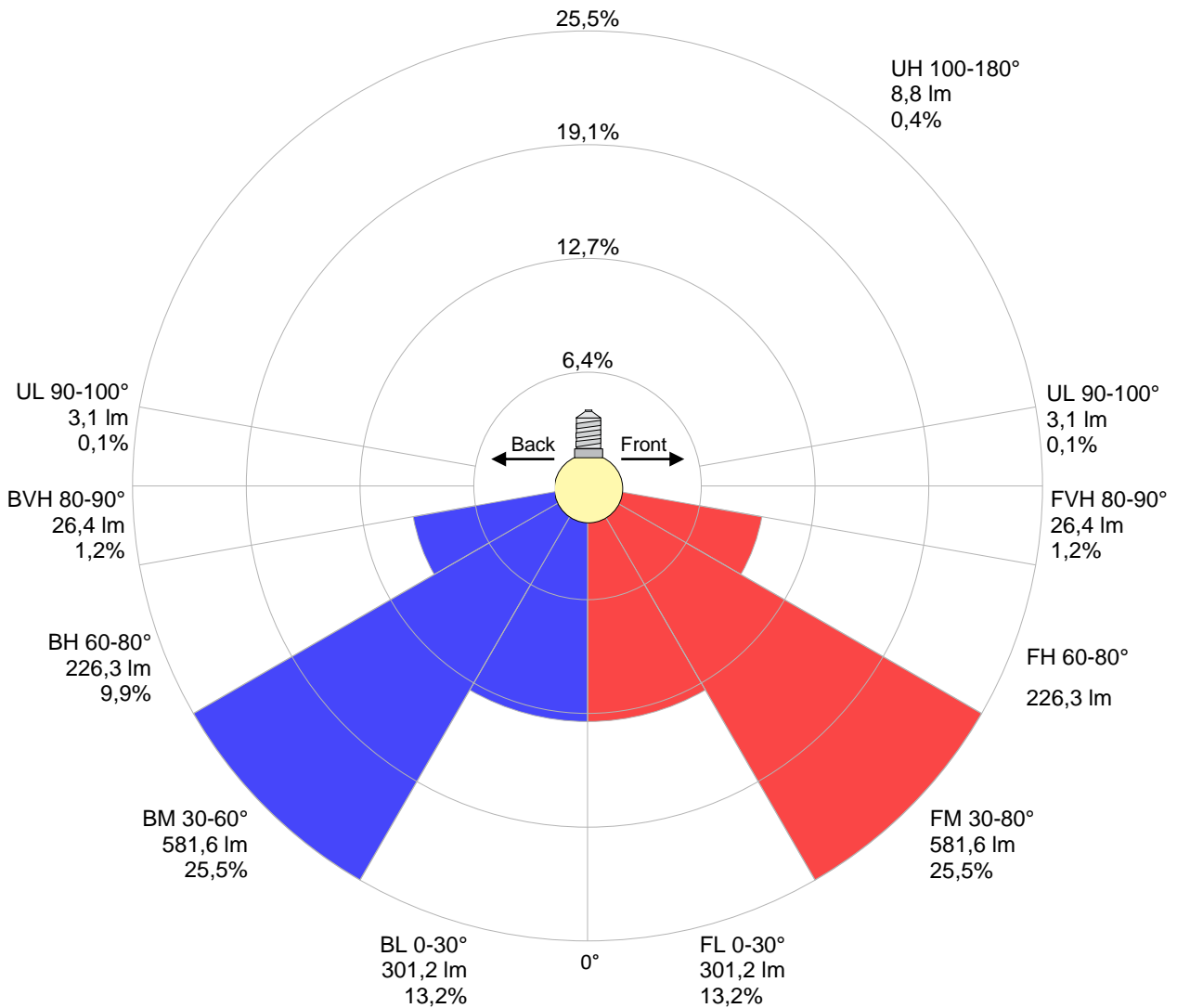
Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
{LUM0-10}	210 lm	320 lm	389 lm	406 lm	370 lm	285 lm	168 lm	50,7 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
1,88 lm	1,15 lm	1,31 lm	1,46 lm	1,45 lm	1,37 lm	1,09 lm	0,690 lm	0,238 lm

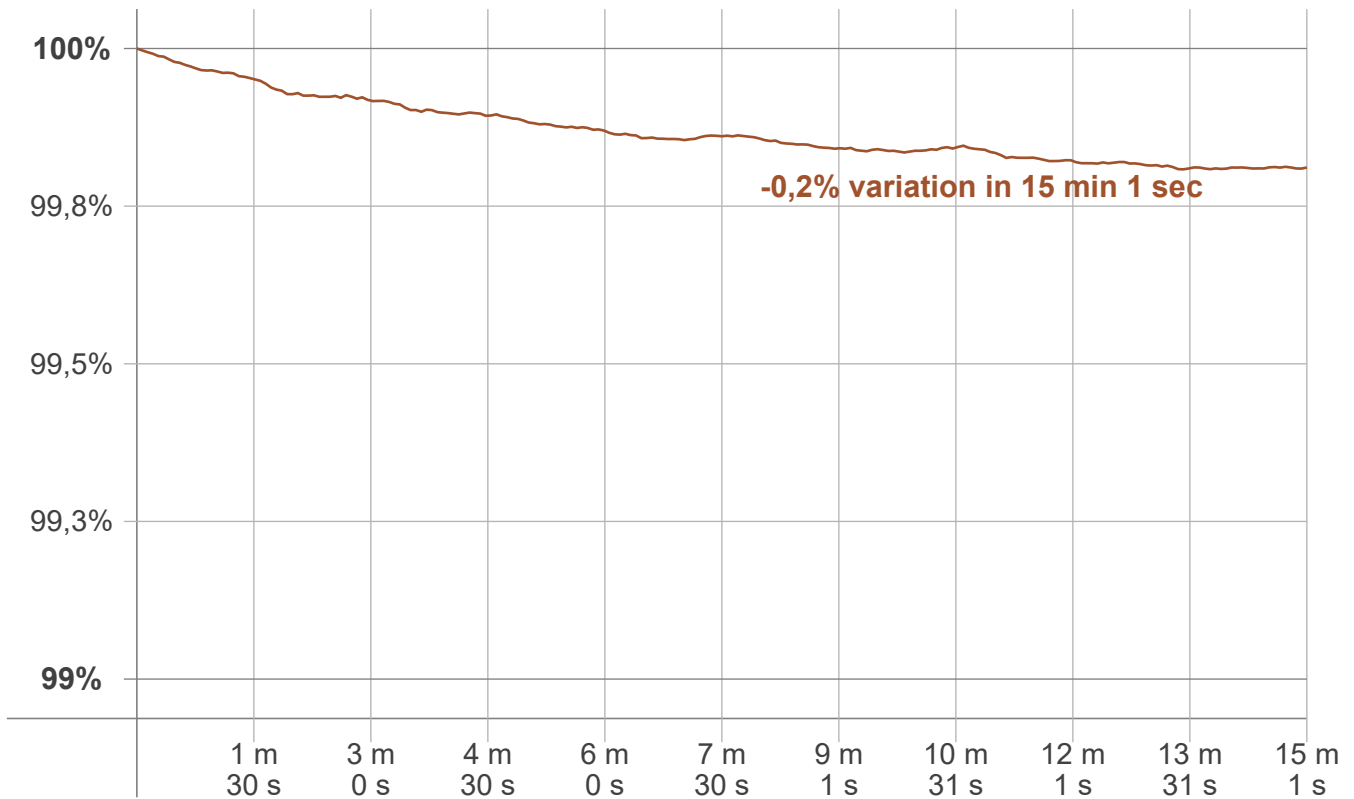
LCS table

BUG rating:	B1 U1 G1	
Forward light	Lumens	Lumens %
Low(0-30):	301,2	13,2%
Medium(30-60):	581,6	25,5%
High(60-80):	226,3	9,9%
Very high(80-90):	26,4	1,2%
Back light		
Low(0-30):	301,2	13,2%
Medium(30-60):	581,6	25,5%
High(60-80):	226,3	9,9%
Very high(80-90):	26,4	1,2%
Uplight		
Low(90-100):	3,1	0,1%
High(100-180):	8,8	0,4%

LCS graph



Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 15 min 1 sec
Warmup variation	-0,2%

Warmup conditions

Stable period:	15 min
Stable change max:	2,0%
Minimum time:	15 min

Color temperature change

CCT start	CCT change	CCT end
4998 K	+2 K	5000 K

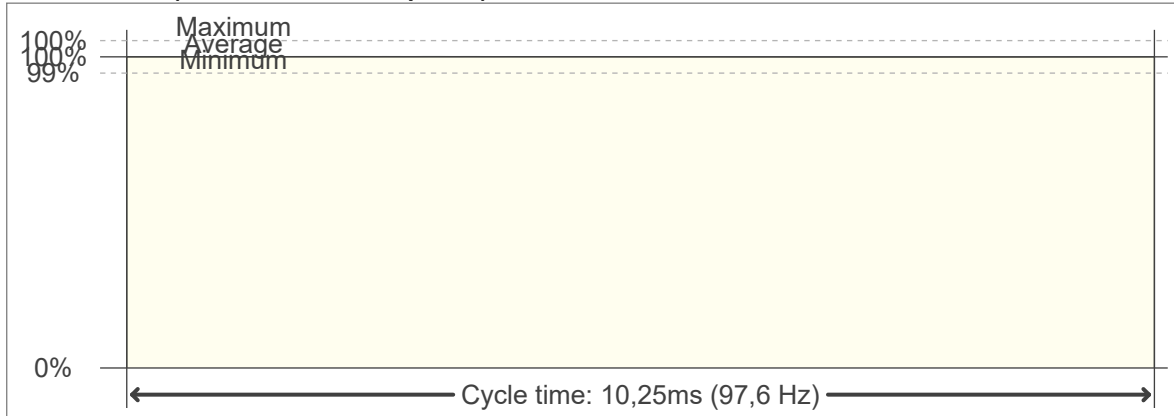
Output change

Output start	Output change	Output end
2288 lm	-5 lm	2283 lm

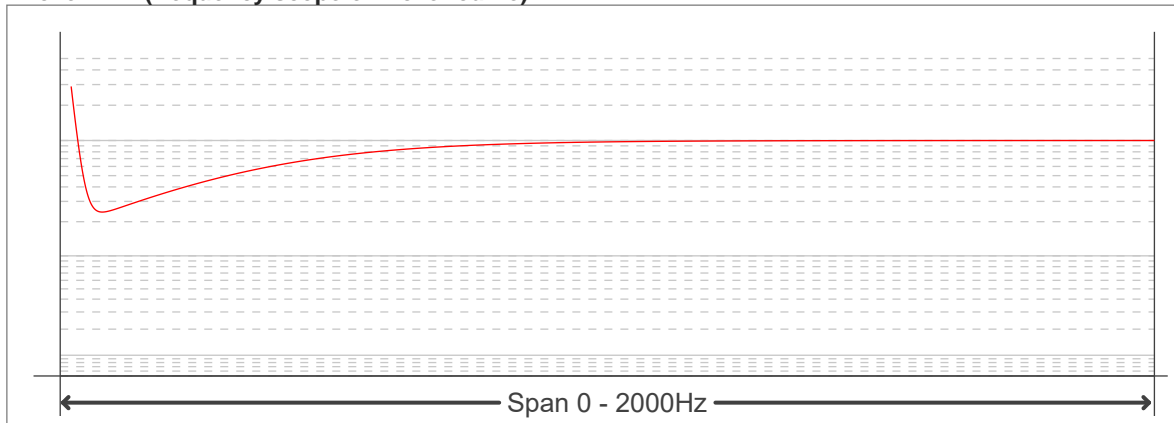
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:		97,56 Hz	
Flicker index:	0	JA8/10 40Hz	0,01 %
Flicker percentage:	0,1 %	JA8/10 90Hz	0,01 %
SVM: (Visual flicker)	0	JA8/10 200Hz	0,09 %
PstLM	0,01	JA8/10 400Hz	0,1 %
Mp	0	JA8/10 1000Hz	0,1 %

Flicker conditions:

Sample rate:	20000 samples/second
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