

Light efficiency:



Light quality:



Color temperature:

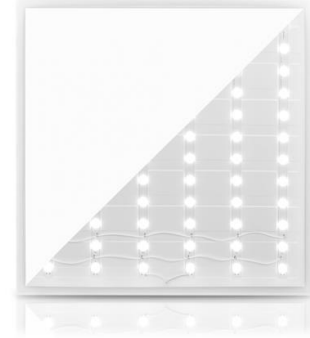


**Output: 3516 lm**

**Peak: 1187 cd**

**Power: 39,8 W**

**PF: 0,97**



Tracking number: [VT240917-001710](#)

Product name:

**273375**

Item number:

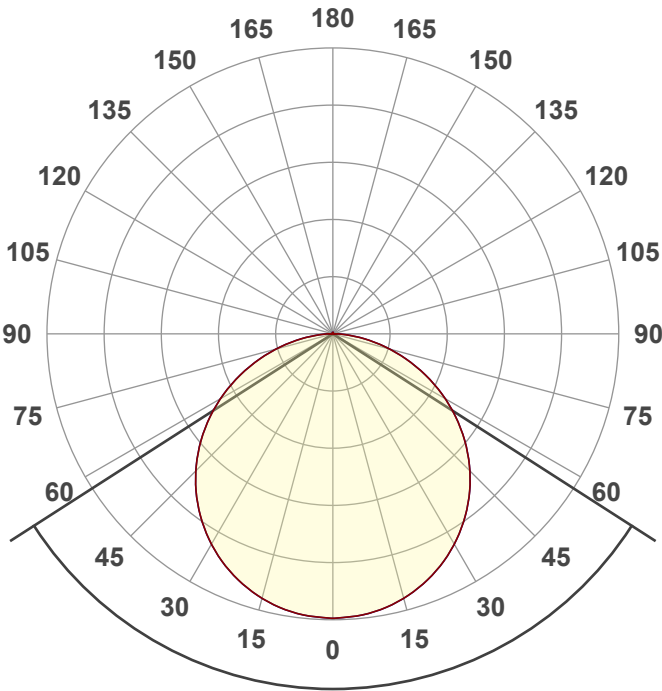
**273375**

Date and time:

**17-9-2024 15:10:09**

Description:

**BACK-LIT LED PANEEL | LEDA |  
60X60CM | 40W**

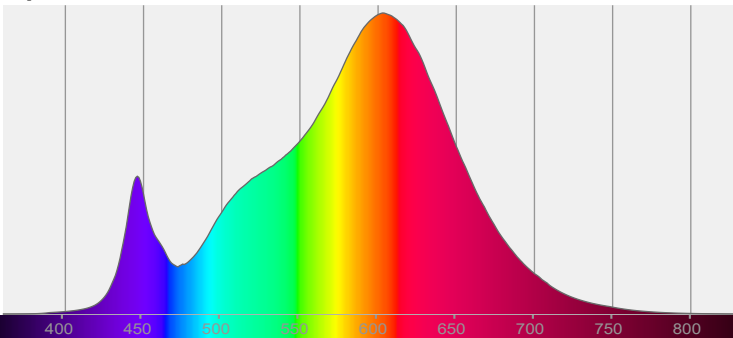


Beam angle **114,6°**

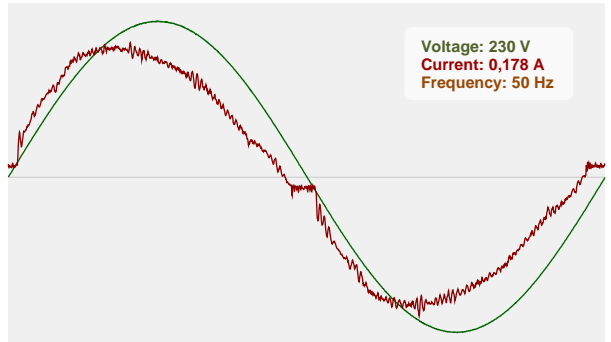


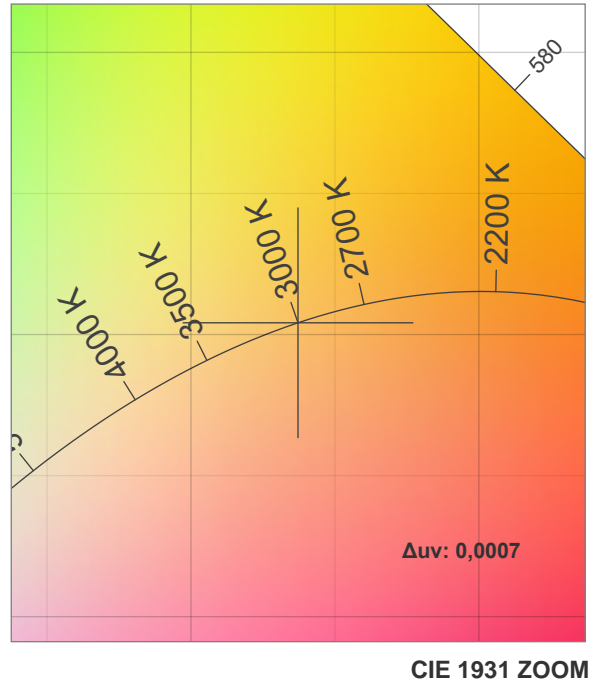
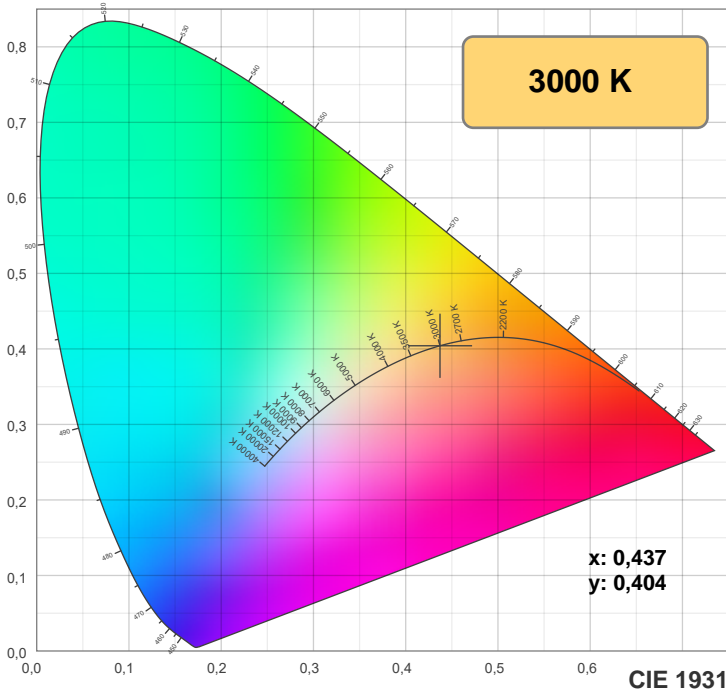
CIE 1931  
x: 0,437  
y: 0,404

Spectra

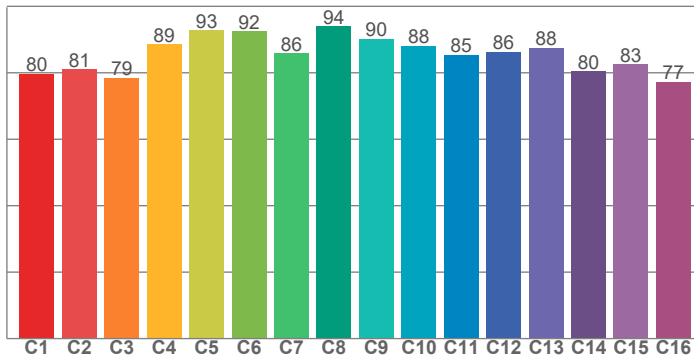


Power

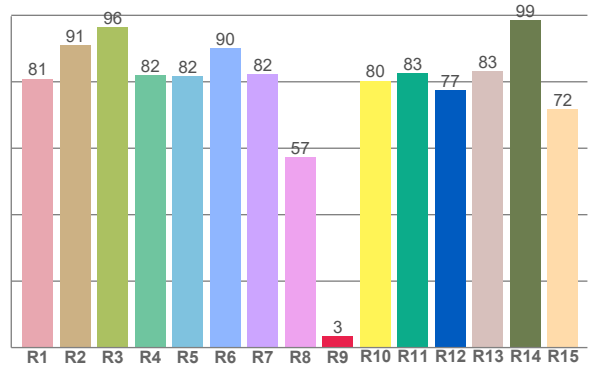




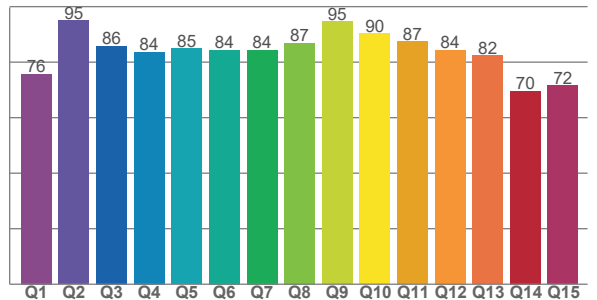
**TM-30: 85,6**



**CRI: 82,7 (R1-R8)**



**CQS: 82,5**



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
80,9	90,9	96,4	82,0	81,7	90,2	82,2	57,4	3,4	80,3	82,7	77,4	83,3	98,5	71,6

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
79,7	81,1	78,5	88,6	92,8	92,4	85,9	94,0	90,3	88,1	85,4	86,3	87,6	80,4	82,5	77,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
75,7	94,9	85,8	83,7	84,9	84,5	84,4	87,0	94,7	90,3	87,5	84,3	82,5	69,7	71,6

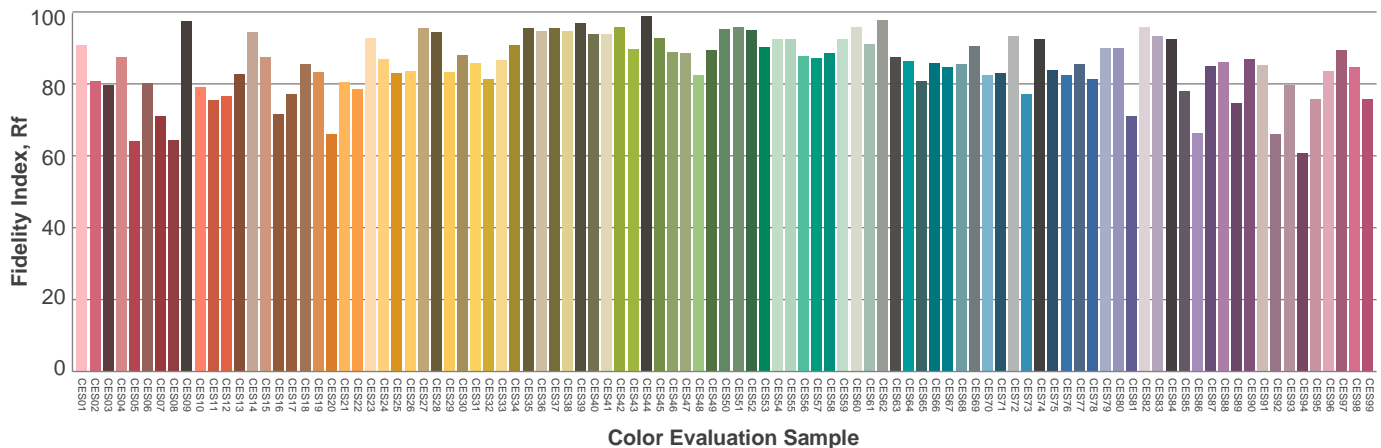
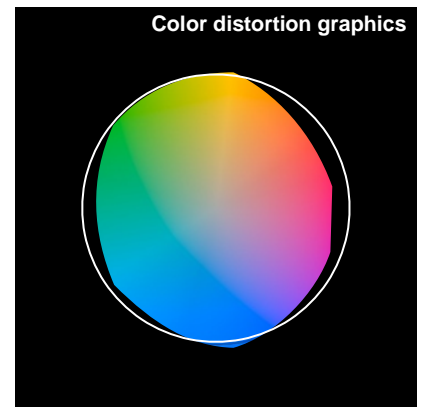
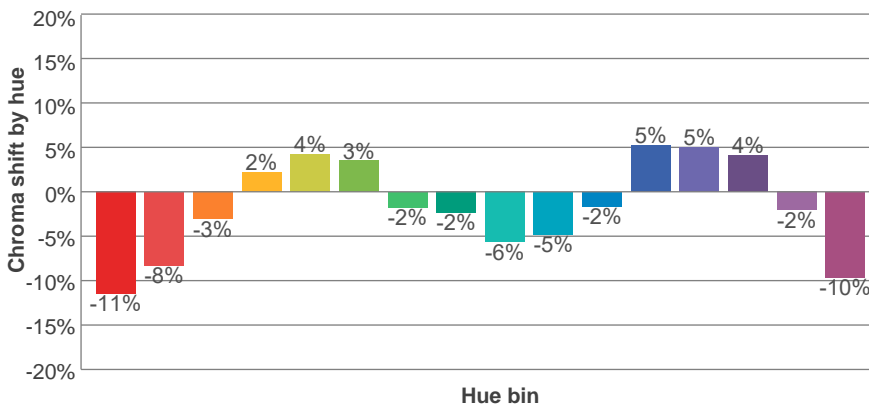
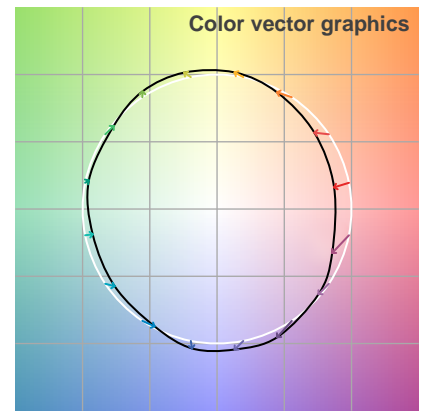
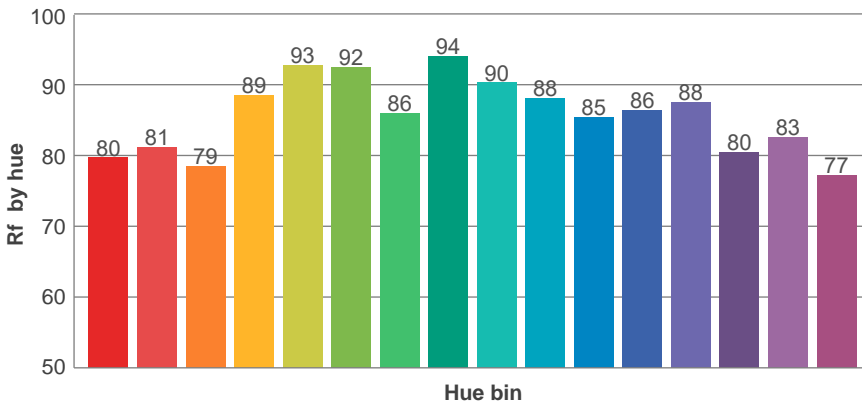
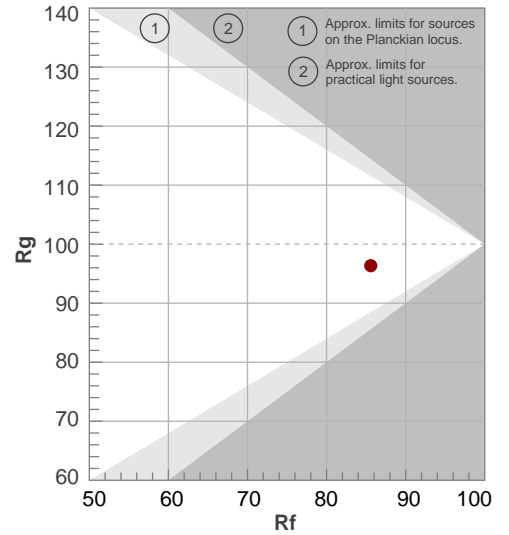
**Color parameters**

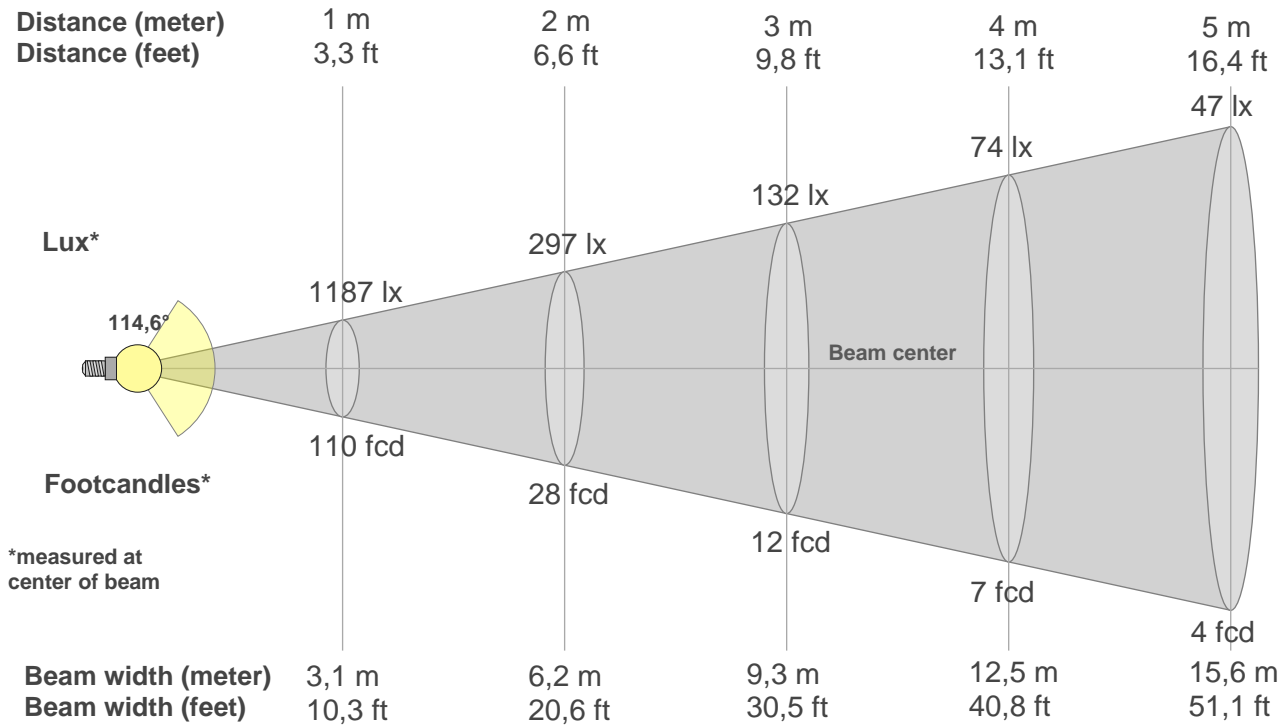
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	$\Delta uv$
3000 K	82,7	3,4	85,6	96,3	82,5	0,437	0,404	0,251	0,348	0,0007

**Rf 85,6**  
Fidelity index Rf

**Rg 96,3**  
Gamut index Rg

Hue Bin	R <sub>f</sub>	Shifts (%)	
		Chroma	Hue
1	80	-11%	-1%
2	81	-8%	7%
3	79	-3%	11%
4	89	2%	7%
5	93	4%	4%
6	92	3%	-3%
7	86	-2%	-9%
8	94	-2%	-2%
9	90	-6%	0%
10	88	-5%	5%
11	85	-2%	10%
12	86	5%	2%
13	88	5%	-8%
14	80	4%	-16%
15	83	-2%	-11%
16	77	-10%	-15%





**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
1187lx	297lx	132lx	74lx	47lx	33lx	24lx	19lx	15lx	12lx	10lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx
110,2fcd	27,6fcd	12,2fcd	6,9fcd	4,4fcd	3,1fcd	2,2fcd	1,7fcd	1,4fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd

**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°
1187	1182	1167	1142	1108	1065	1013	953	885	809	726	636	542	443	344	246	153	72	19	3
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°
1187	1182	1167	1142	1108	1065	1013	953	885	809	726	636	542	443	344	246	153	72	19	3
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°
1187	1182	1167	1142	1108	1065	1013	953	885	809	726	636	542	443	344	246	153	72	19	3
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°
1187	1182	1167	1142	1108	1065	1013	953	885	809	726	636	542	443	344	246	153	72	19	3
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°	164,1°	177,7°	77,2%	52,2%

**iso-candela diagram**



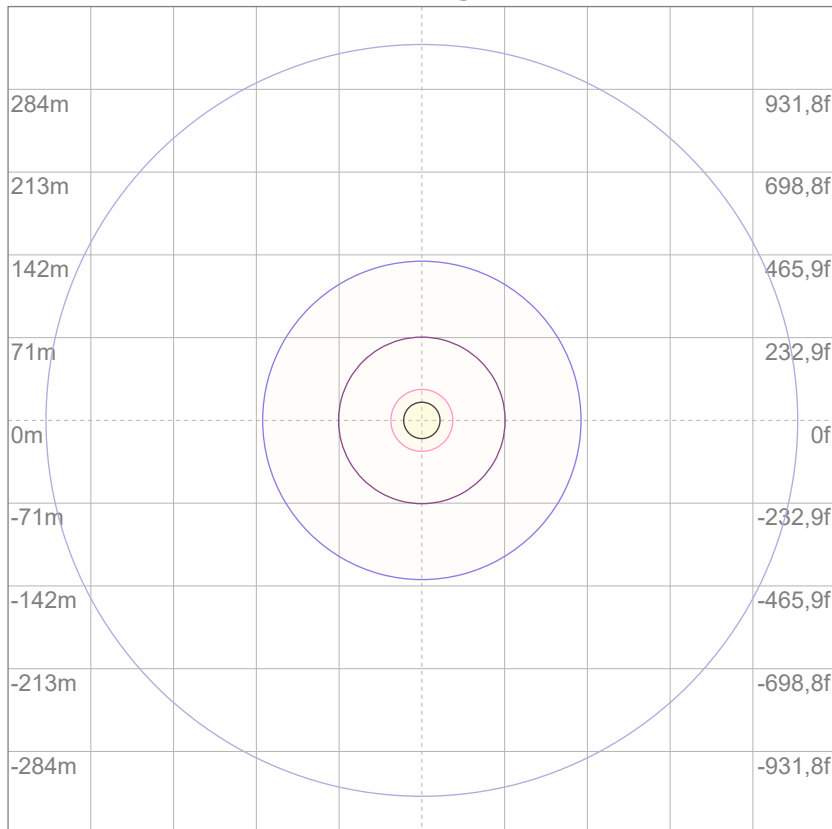
10%	119 cd
20%	237 cd
30%	356 cd
40%	475 cd
50%	593 cd
60%	712 cd
70%	831 cd
80%	949 cd
90%	1068 cd

Conditions:

Number of c-planes: 12

Candela at center: 1187 cd

**iso-lux diagram**



3%	0,356 lx
5%	0,593 lx
10%	1,19 lx
30%	3,56 lx
50%	5,93 lx

Conditions:

Number of c-planes: 12

Lux at center: 11,9 lx

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

Mounting height: 10 meters (33 feet)

Glare evaluation according to UGR

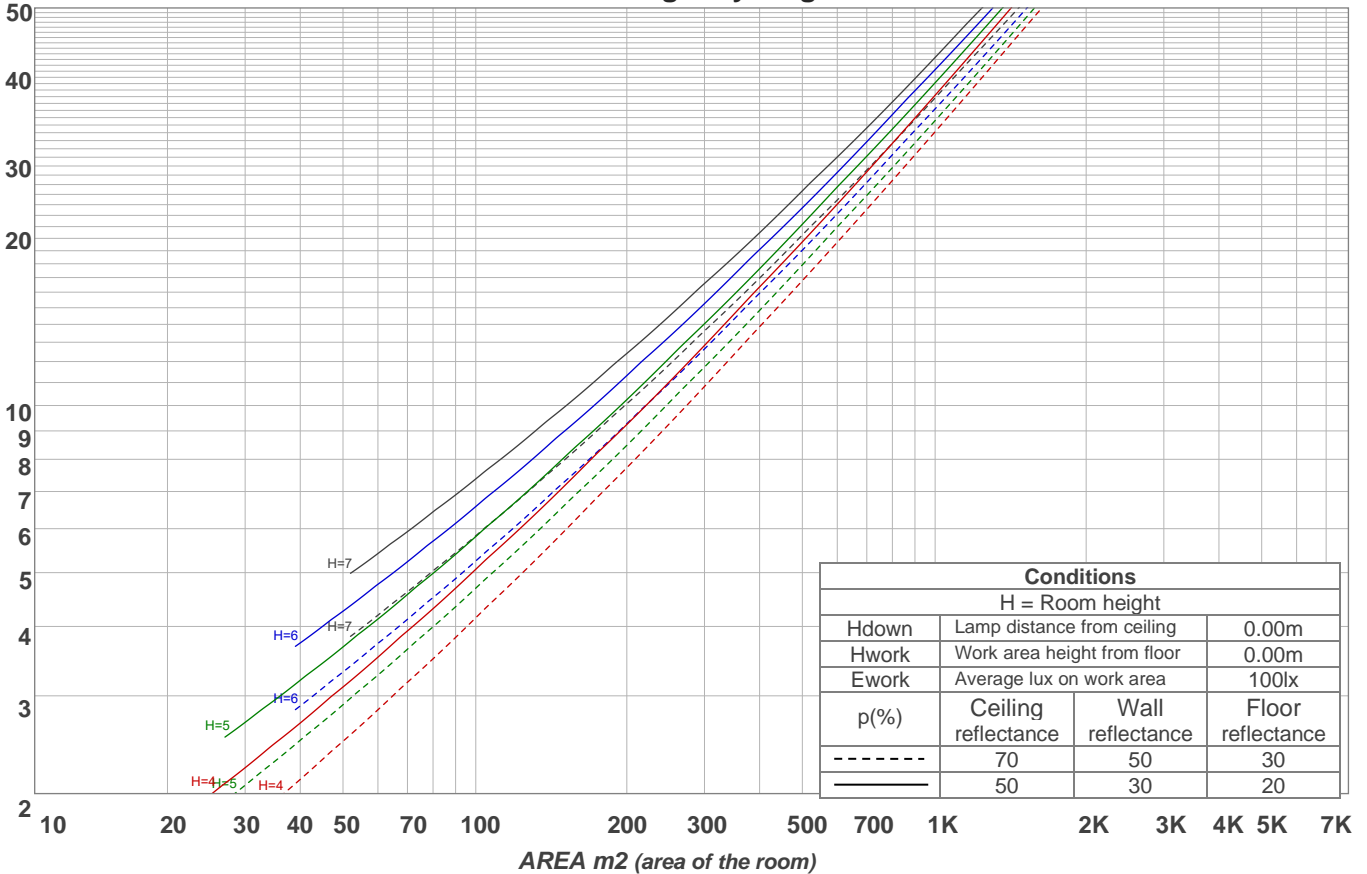
p Ceiling	70	70	50	50	30	70	70	50	50	30	
p Walls	50	30	50	30	30	50	30	50	30	30	
p Floor	20	20	20	20	20	20	20	20	20	20	
Room size X Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis					
2H	2H	17,0	18,2	17,3	18,6	18,8	17,0	18,2	17,3	18,6	18,8
	3H	18,5	19,8	18,9	20,1	20,3	18,5	19,8	18,9	20,1	20,3
	4H	19,2	20,4	19,6	20,7	20,9	19,2	20,4	19,6	20,7	20,9
	6H	19,7	20,8	20,0	21,1	21,5	19,7	20,8	20,0	21,1	21,5
	8H	19,9	20,9	20,2	21,2	21,7	19,9	20,9	20,2	21,2	21,7
12H	20,0	21,0	20,4	21,3	21,8	20,0	21,0	20,4	21,3	21,8	
4H	2H	17,6	18,8	18,0	19,1	19,4	17,6	18,8	18,0	19,1	19,4
	3H	19,4	20,4	19,8	20,8	21,3	19,4	20,4	19,8	20,8	21,3
	4H	20,1	21,1	20,6	21,5	22,0	20,1	21,1	20,6	21,5	22,0
	6H	20,7	21,6	21,3	22,0	22,4	20,7	21,6	21,3	22,0	22,4
	8H	21,0	21,8	21,5	22,2	22,6	21,0	21,8	21,5	22,2	22,6
12H	21,1	21,8	21,6	22,2	22,7	21,1	21,8	21,6	22,2	22,7	
8H	4H	20,4	21,2	21,0	21,6	22,0	20,4	21,2	21,0	21,6	22,0
	6H	21,2	21,8	21,7	22,3	22,9	21,2	21,8	21,7	22,3	22,9
	8H	21,5	22,1	22,1	22,6	23,3	21,5	22,1	22,1	22,6	23,3
	12H	21,8	22,2	22,4	22,7	23,4	21,8	22,2	22,4	22,7	23,4
12H	4H	20,5	21,1	21,0	21,6	22,1	20,5	21,1	21,0	21,6	22,1
	6H	21,3	21,8	21,8	22,4	23,0	21,3	21,8	21,8	22,4	23,0
	8H	21,6	22,1	22,2	22,6	23,2	21,6	22,1	22,2	22,6	23,2
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 / -0,4					
CIE 117-1995. Corrected glare indices referring to 3516 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	20	20	20
<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	99		
1	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	82		
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	68		
3	89	79	70	64	87	77	69	63	74	67	62	71	65	61	68	64	60	57		
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	55	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	43	39	37		
7	64	51	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32		
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	41	35	31	29		
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26		
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23		

LAMPS (number of lamps)

**Luminaire budgetary diagram**



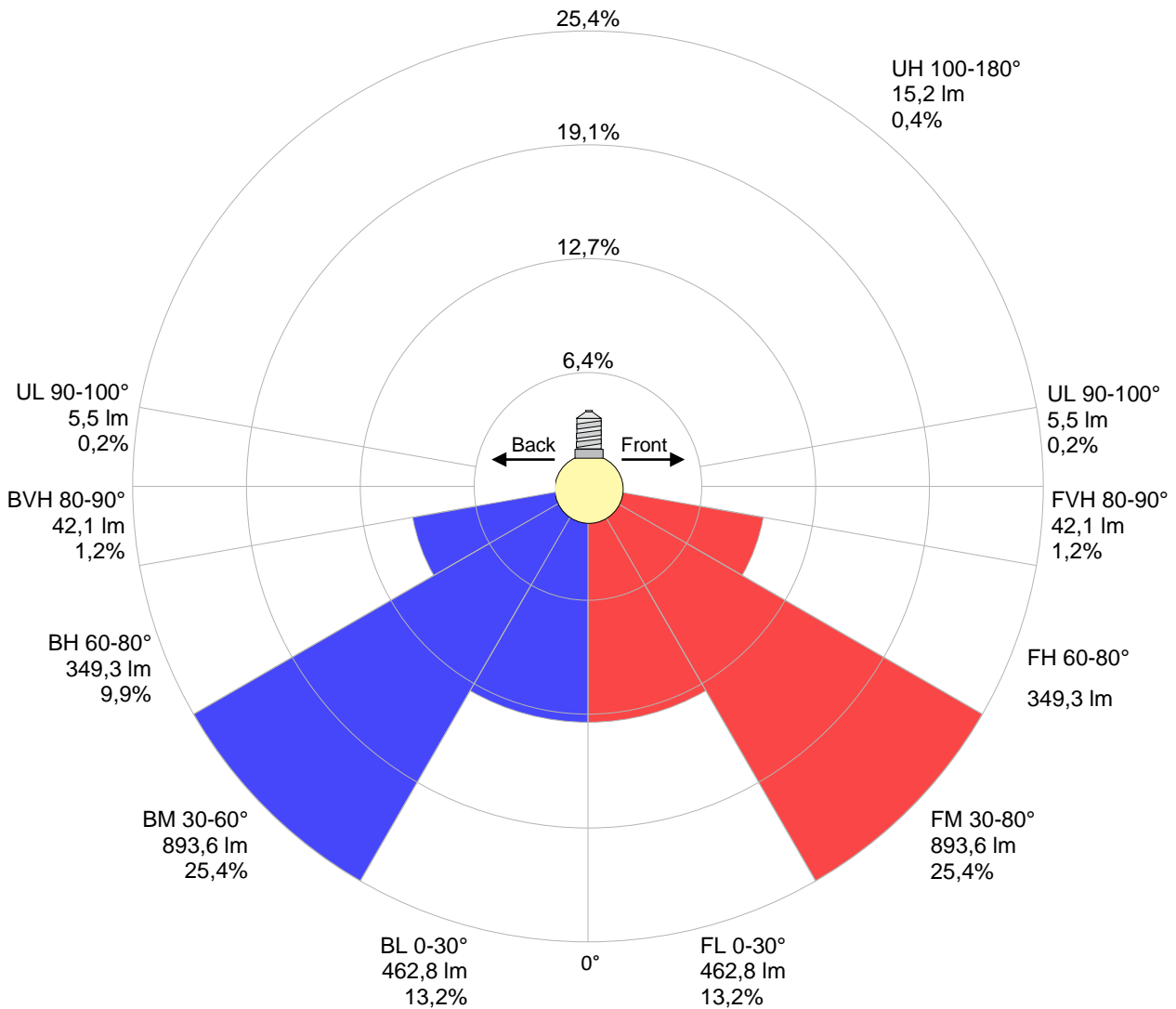
**Zonal Lumen Summary**

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
{LUM0-10}	322 lm	491 lm	596 lm	623 lm	568 lm	439 lm	260 lm	83,6 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
4,95 lm	2,32 lm	2,35 lm	2,57 lm	2,43 lm	2,27 lm	1,71 lm	1,12 lm	0,421 lm

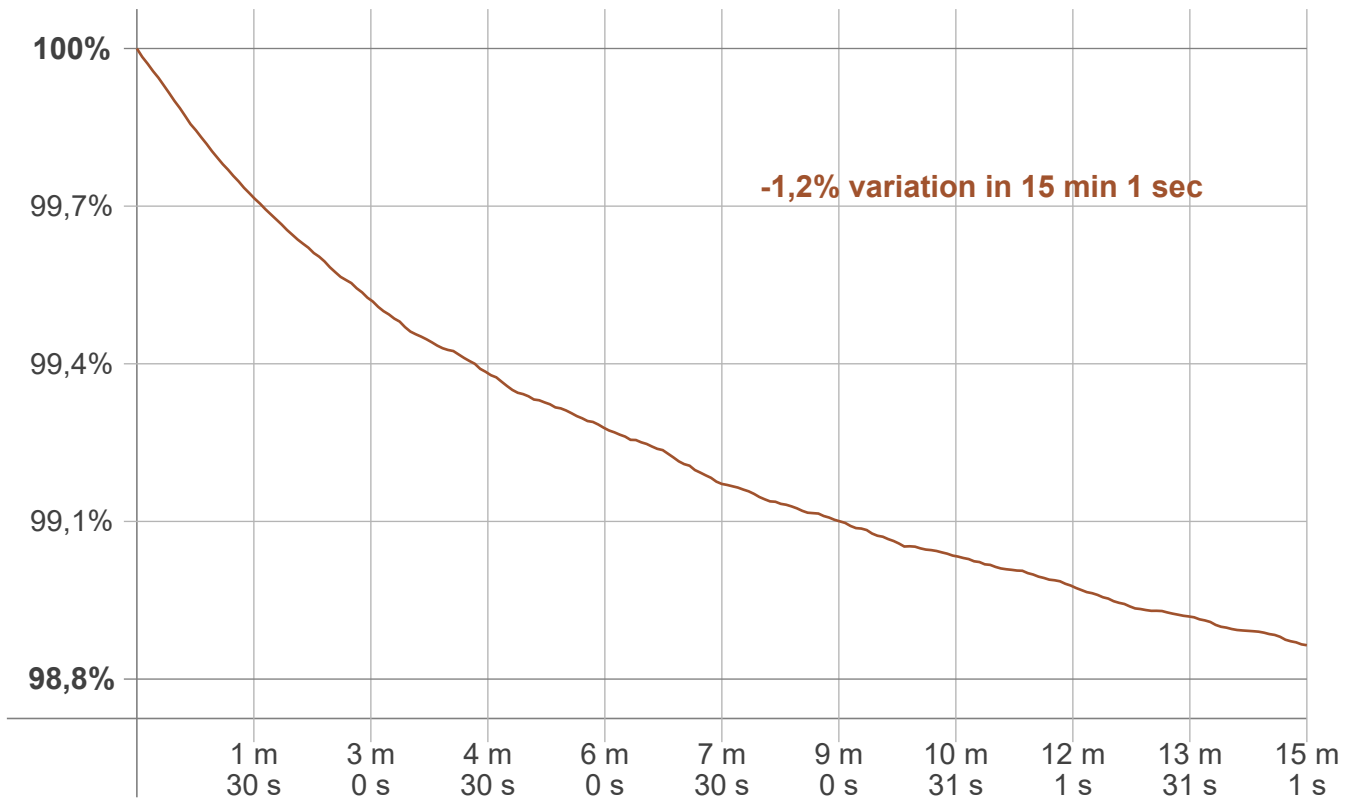
LCS table

BUG rating:	B1 U2 G1	
<b>Forward light</b>	Lumens	Lumens %
Low(0-30):	462,8	13,2%
Medium(30-60):	893,6	25,4%
High(60-80):	349,3	9,9%
Very high(80-90):	42,1	1,2%
<b>Back light</b>		
Low(0-30):	462,8	13,2%
Medium(30-60):	893,6	25,4%
High(60-80):	349,3	9,9%
Very high(80-90):	42,1	1,2%
<b>Uplight</b>		
Low(90-100):	5,5	0,2%
High(100-180):	15,2	0,4%

LCS graph



**Warmup curve**



**Warmup result**

<b>Warmup time:</b>	<b>Lamp stabilized in 15 min 1 sec</b>
<b>Warmup variation</b>	<b>-1,2%</b>

**Warmup conditions**

<b>Stable period:</b>	<b>15 min</b>
<b>Stable change max:</b>	<b>2,0%</b>
<b>Minimum time:</b>	<b>15 min</b>

**Color temperature change**

CCT start	CCT change	CCT end
2998 K	+2 K	3000 K

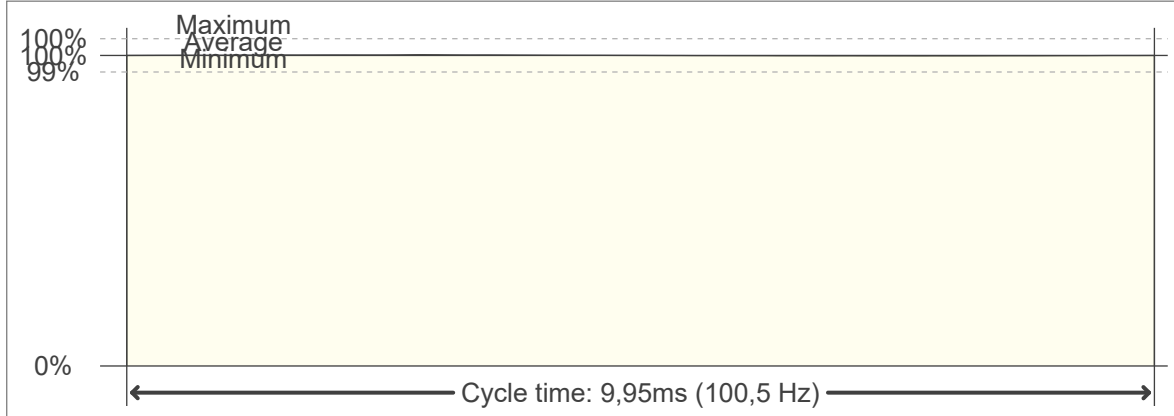
**Output change**

Output start	Output change	Output end
3558 lm	-42 lm	3516 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:		100,5 Hz	
Flicker index:	0	JA8/10 40Hz	0,02 %
Flicker percentage:	0,24 %	JA8/10 90Hz	0,03 %
SVM: (Visual flicker)	0,01	JA8/10 200Hz	0,19 %
PstLM	0,01	JA8/10 400Hz	0,2 %
Mp	0,01	JA8/10 1000Hz	0,22 %

**Flicker conditions:**

Sample rate:	20000 samples/second
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