

Light efficiency:



Light quality:



Color temperature:

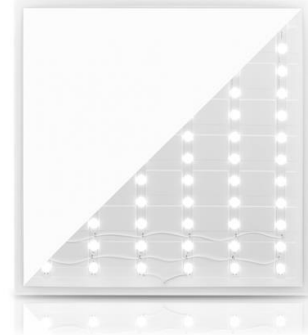


Output: 4211 lm

Peak: 1417 cd

Power: 34,6 W

PF: 0,96



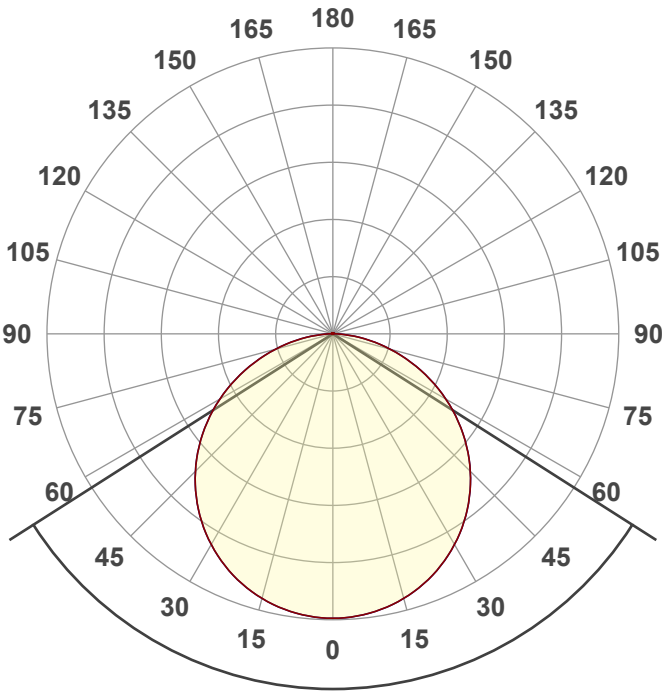
Tracking number: [n/a](#)

Product name:  
272859-3000K

Item number:  
272859-3000K

Date and time:  
17-9-2024 12:59:58

Description:  
BACK-LIT LED PANEEL | ARIEL |  
60X60CM | 36W

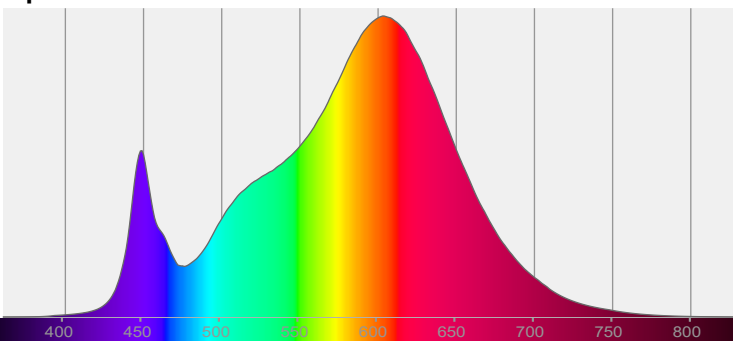


Beam angle **115°**

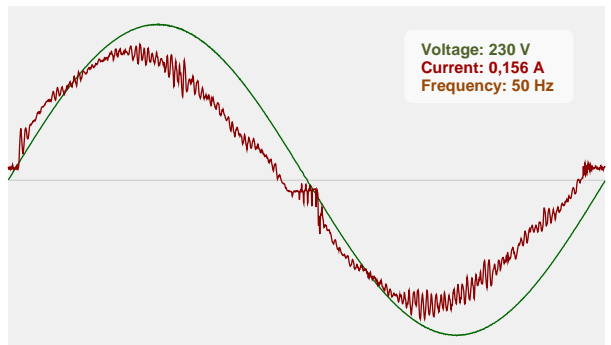


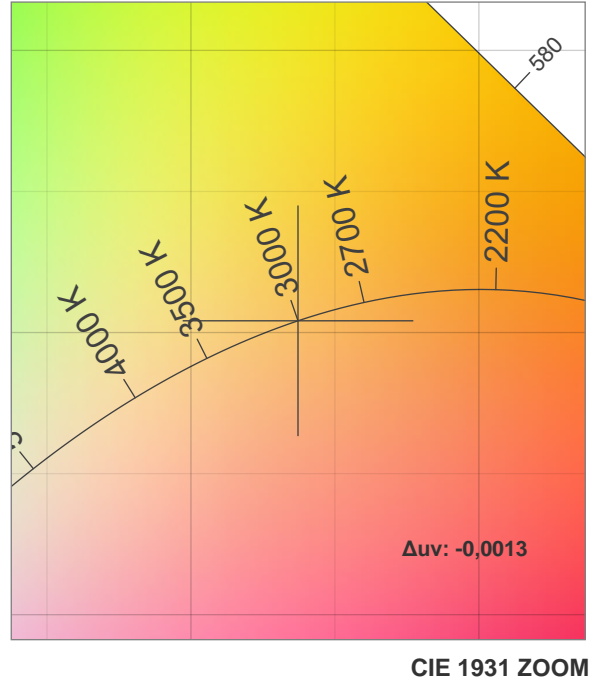
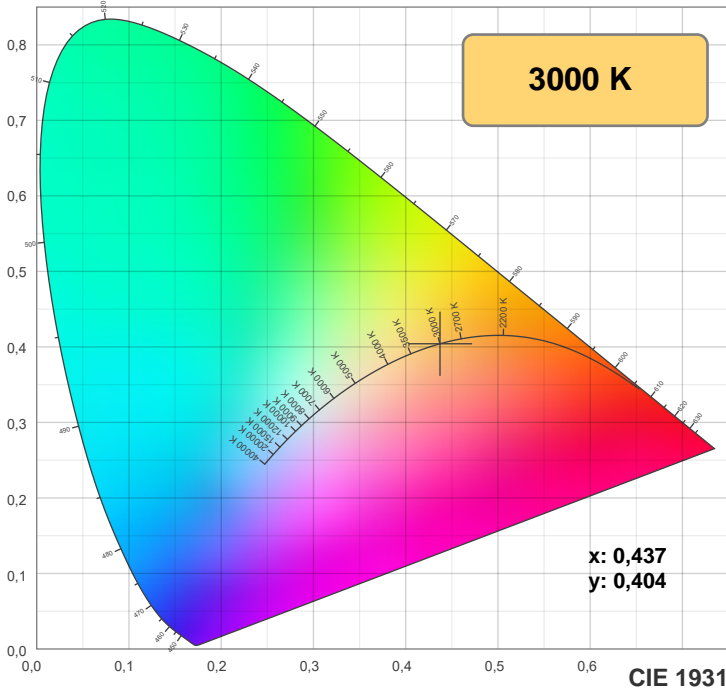
CIE 1931  
x: 0,437  
y: 0,404

Spectra

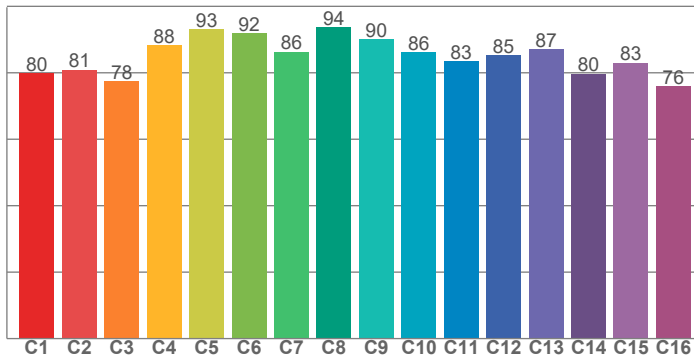


Power

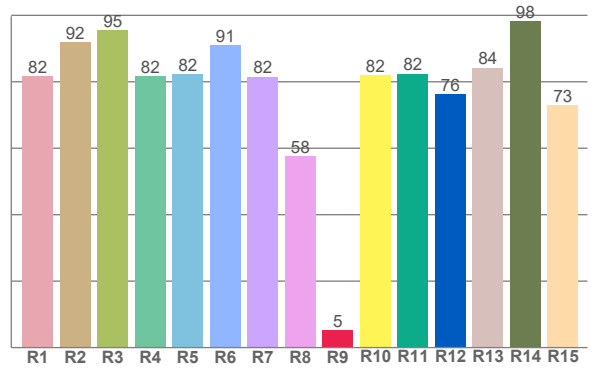




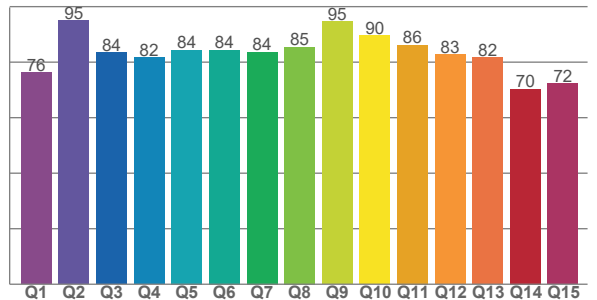
**TM-30: 85,0**



**CRI: 82,9 (R1-R8)**



**CQS: 82,0**



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
81,7	91,8	95,5	81,8	82,4	90,9	81,5	57,6	5,3	82,1	82,4	76,3	84,3	98,2	72,9

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
79,8	80,9	77,5	88,3	93,1	91,8	86,4	93,7	90,1	86,2	83,4	85,3	87,1	79,6	83,0	75,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
76,3	95,0	83,5	81,6	84,3	84,4	83,6	85,4	94,7	89,6	86,1	82,8	81,6	70,4	72,2

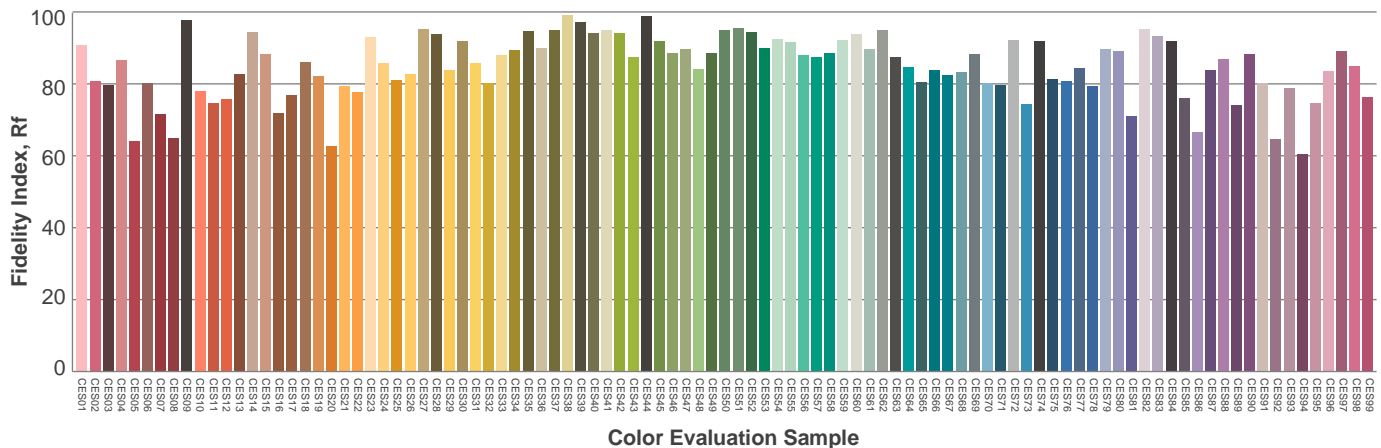
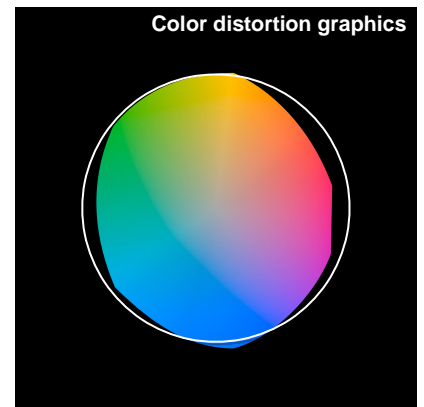
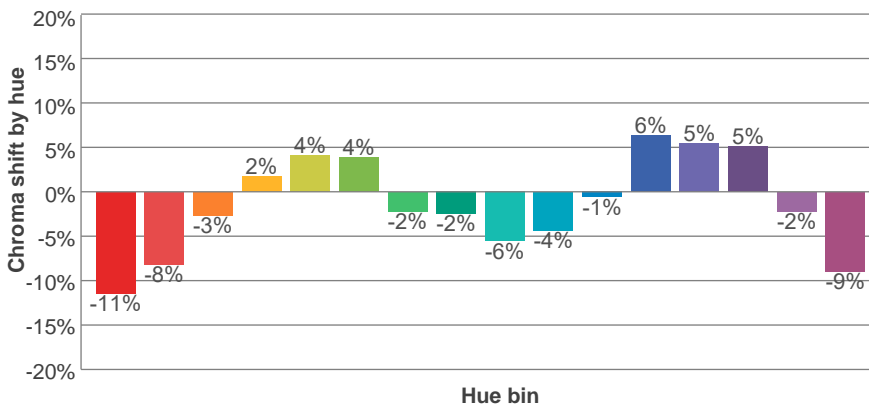
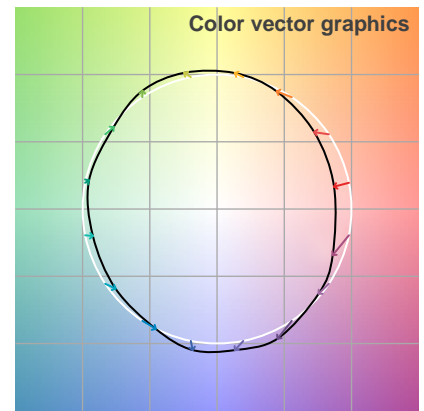
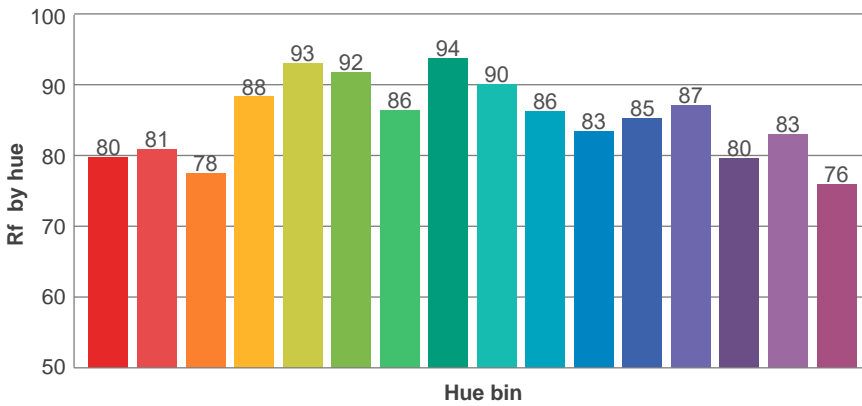
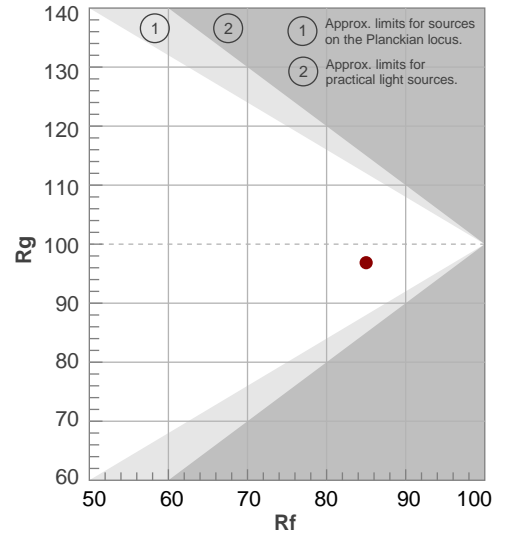
**Color parameters**

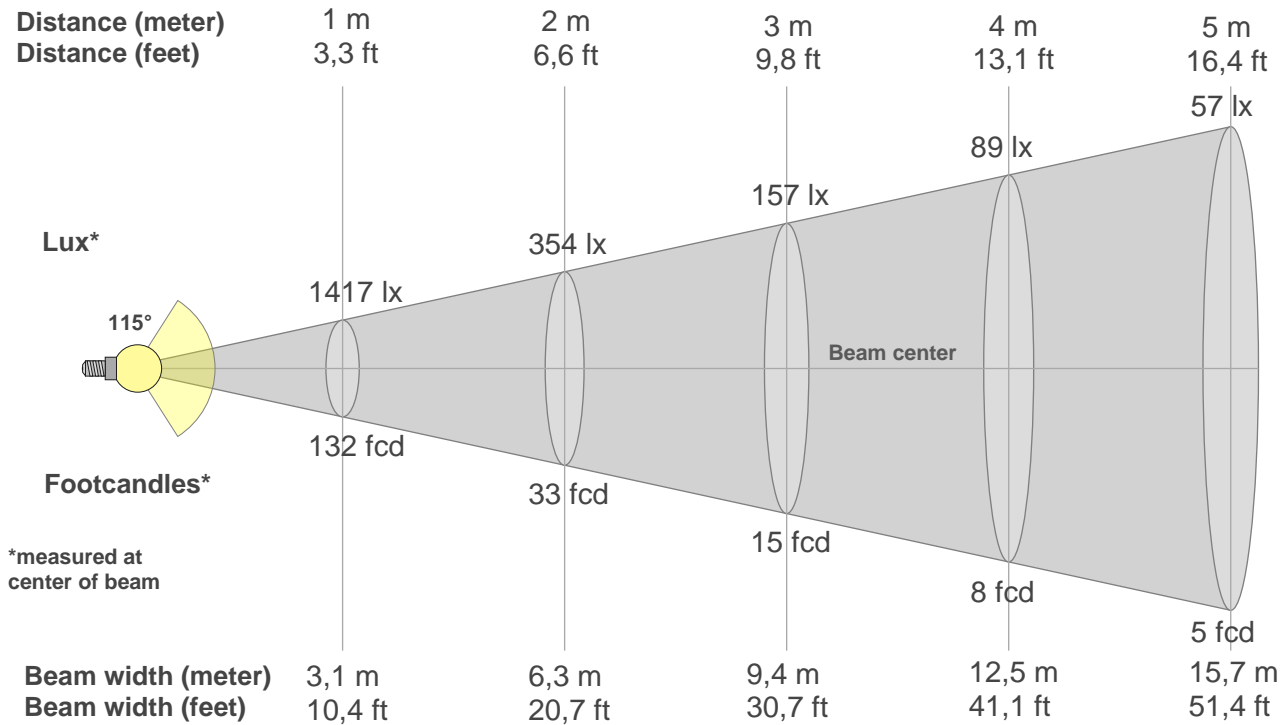
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	$\Delta uv$
3000 K	82,9	5,3	85,0	96,9	82,0	0,437	0,404	0,251	0,348	-0,0013

**Rf 85,0**  
Fidelity index Rf

**Rg 96,9**  
Gamut index Rg

Hue Bin	R <sub>f</sub>	Shifts (%)	
		Chroma	Hue
1	80	-11%	-1%
2	81	-8%	7%
3	78	-3%	12%
4	88	2%	7%
5	93	4%	4%
6	92	4%	-3%
7	86	-2%	-8%
8	94	-2%	-2%
9	90	-6%	2%
10	86	-4%	7%
11	83	-1%	12%
12	85	6%	3%
13	87	5%	-7%
14	80	5%	-16%
15	83	-2%	-10%
16	76	-9%	-17%





**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
1417lx	354lx	157lx	89lx	57lx	39lx	29lx	22lx	17lx	14lx	12lx	10lx	8lx	7lx	6lx	6lx	5lx	4lx	4lx	4lx
131,6fcd	32,9fcd	14,6fcd	8,2fcd	5,3fcd	3,7fcd	2,7fcd	2,1fcd	1,6fcd	1,3fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,5fcd	0,4fcd	0,4fcd	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°
1417	1411	1393	1364	1324	1273	1212	1140	1059	968	869	763	650	533	414	297	186	87	22	2
100%	100%	98%	96%	93%	90%	86%	80%	75%	68%	61%	54%	46%	38%	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°
1417	1411	1393	1364	1324	1273	1212	1140	1059	968	869	763	650	533	414	297	186	87	22	2
100%	100%	98%	96%	93%	90%	86%	80%	75%	68%	61%	54%	46%	38%	29%	21%	13%	6%	2%	0%

**Intensities in 180° c-plane**

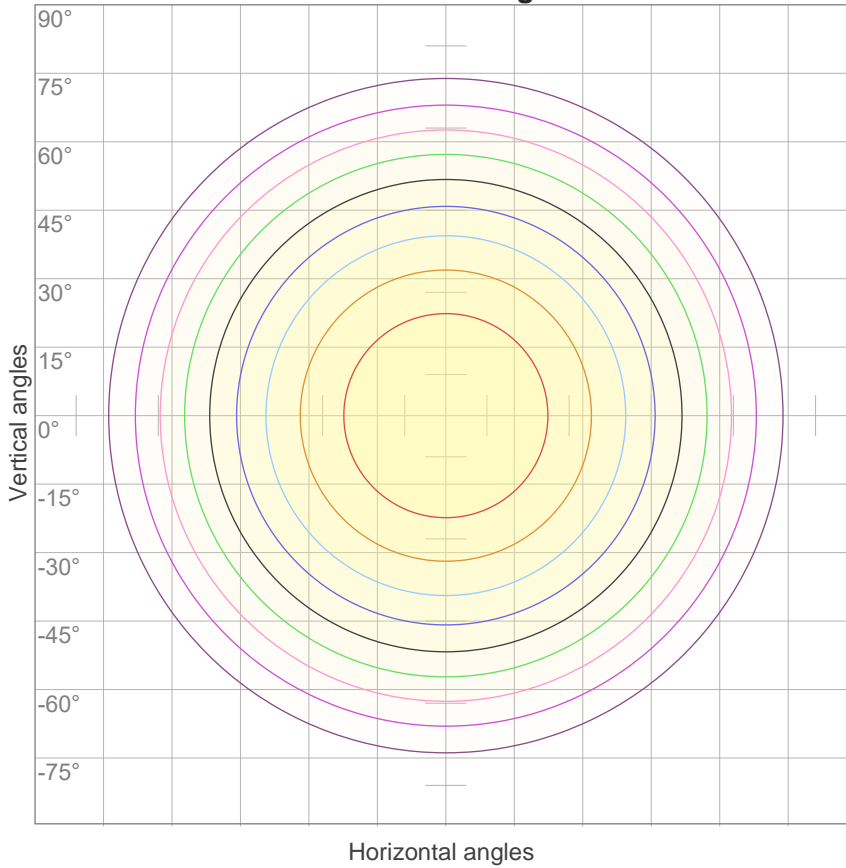
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
1417	1411	1393	1364	1324	1273	1212	1140	1059	968	869	763	650	533	414	297	186	87	22	2
100%	100%	98%	96%	93%	90%	86%	80%	75%	68%	61%	54%	46%	38%	29%	21%	13%	6%	2%	0%

**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°
1417	1411	1393	1364	1324	1273	1212	1140	1059	968	869	763	650	533	414	297	186	87	22	2
100%	100%	98%	96%	93%	90%	86%	80%	75%	68%	61%	54%	46%	38%	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
115°	164,1°	176,6°	77,3%	52,2%

**iso-candela diagram**



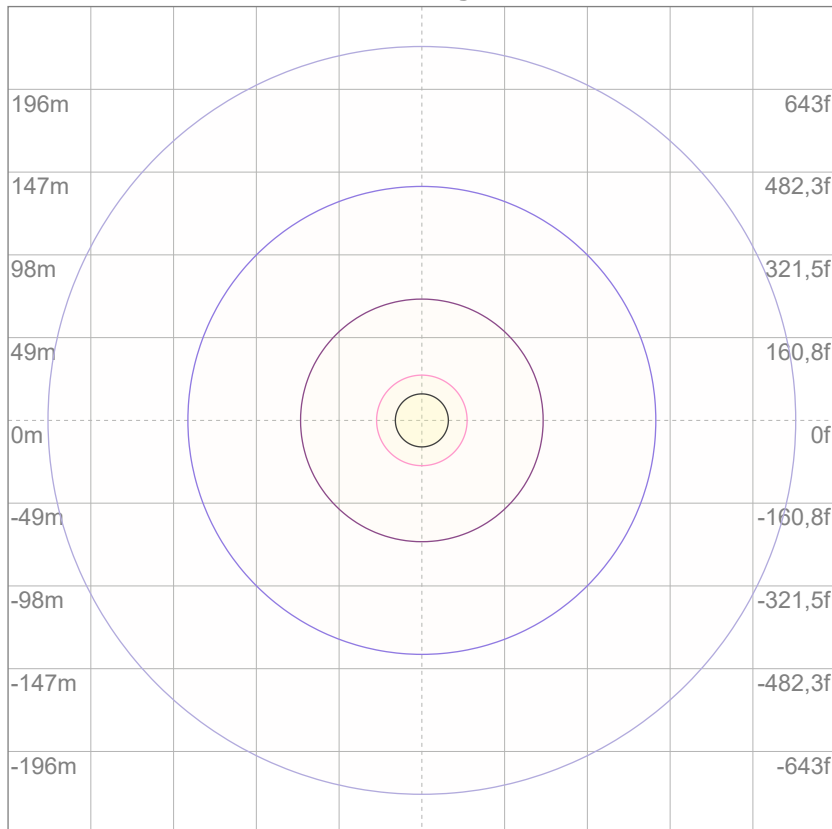
10%	142 cd
20%	283 cd
30%	425 cd
40%	567 cd
50%	708 cd
60%	850 cd
70%	992 cd
80%	1133 cd
90%	1275 cd

Conditions:

Number of c-planes: 72

Candela at center: 1417 cd

**iso-lux diagram**



Mounting height: 10 meters (33 feet)

3%	0,425 lx
5%	0,708 lx
10%	1,42 lx
30%	4,25 lx
50%	7,08 lx

Conditions:

Number of c-planes: 72

Lux at center: 14,2 lx

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

**Glare evaluation according to UGR**

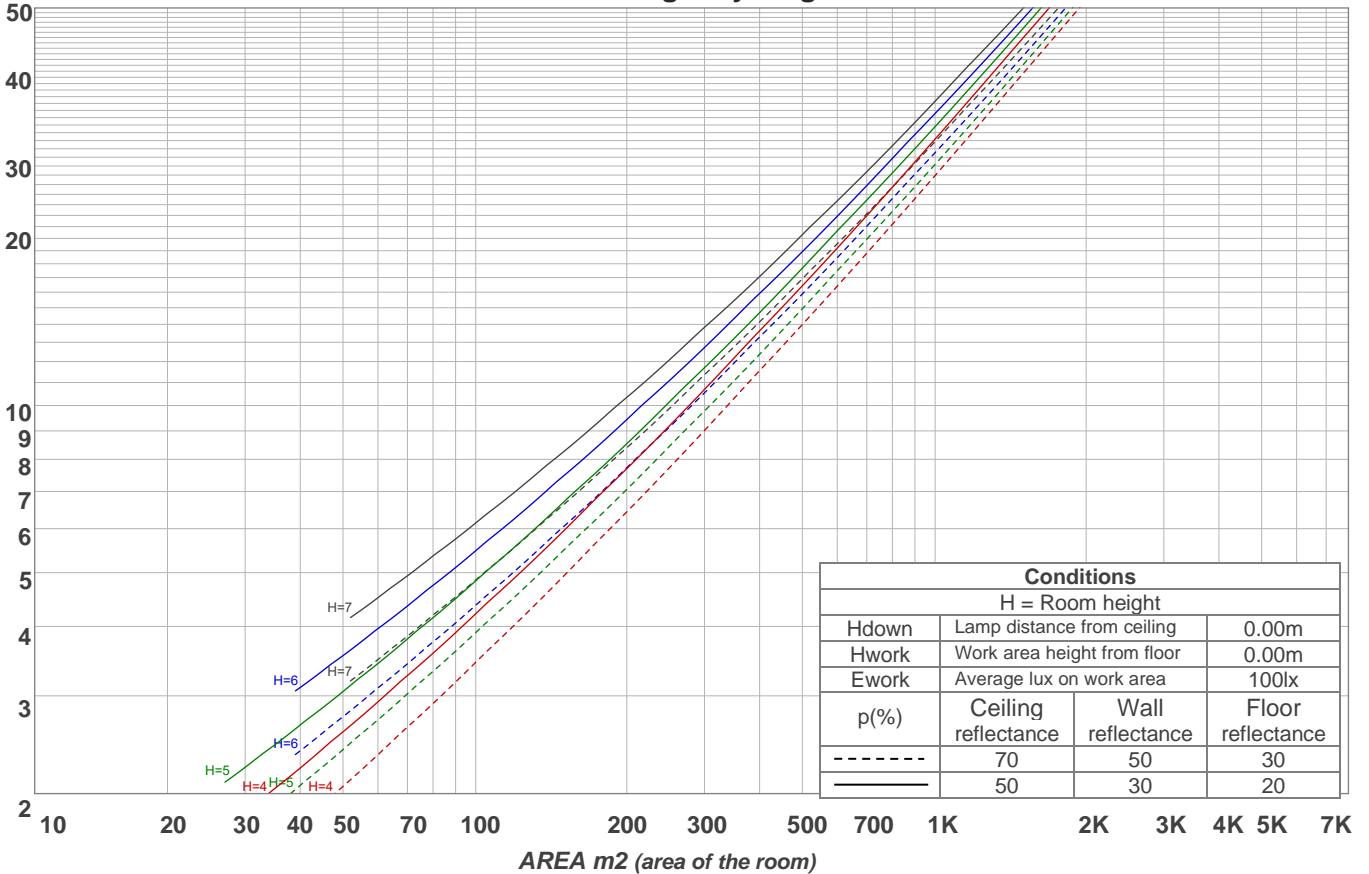
p Ceiling	70	70	50	50	30	70	70	50	50	30	
p Walls	50	30	50	30	30	50	30	50	30	30	
p Floor	20	20	20	20	20	20	20	20	20	20	
Room size X Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis					
2H	2H	17,6	18,9	17,9	19,2	19,4	17,6	18,9	17,9	19,2	19,4
	3H	19,1	20,4	19,6	20,7	20,9	19,1	20,4	19,6	20,7	20,9
	4H	19,8	21,0	20,2	21,3	21,6	19,8	21,0	20,2	21,3	21,6
	6H	20,4	21,5	20,7	21,7	22,1	20,4	21,5	20,7	21,7	22,1
	8H	20,5	21,6	20,9	21,9	22,3	20,5	21,6	20,9	21,9	22,3
12H	20,6	21,7	21,0	22,0	22,5	20,6	21,7	21,0	22,0	22,5	
4H	2H	18,3	19,5	18,7	19,8	20,0	18,3	19,5	18,7	19,8	20,0
	3H	20,1	21,1	20,5	21,4	21,9	20,1	21,1	20,5	21,4	21,9
	4H	20,8	21,7	21,2	22,2	22,7	20,8	21,7	21,2	22,2	22,7
	6H	21,4	22,3	21,9	22,7	23,1	21,4	22,3	21,9	22,7	23,1
	8H	21,6	22,5	22,2	22,8	23,2	21,6	22,5	22,2	22,8	23,2
12H	21,8	22,5	22,3	22,9	23,4	21,8	22,5	22,3	22,9	23,4	
8H	4H	21,1	21,9	21,6	22,3	22,7	21,1	21,9	21,6	22,3	22,7
	6H	21,9	22,5	22,4	23,0	23,5	21,9	22,5	22,4	23,0	23,5
	8H	22,2	22,8	22,7	23,3	23,9	22,2	22,8	22,7	23,3	23,9
	12H	22,5	22,9	23,0	23,4	24,0	22,5	22,9	23,0	23,4	24,0
12H	4H	21,1	21,8	21,6	22,2	22,7	21,1	21,8	21,6	22,2	22,7
	6H	22,0	22,5	22,5	23,0	23,7	22,0	22,5	22,5	23,0	23,7
	8H	22,3	22,8	22,9	23,3	23,9	22,3	22,8	22,9	23,3	23,9
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 4211 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	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	99			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	87	89	87	85	83			
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	44	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**



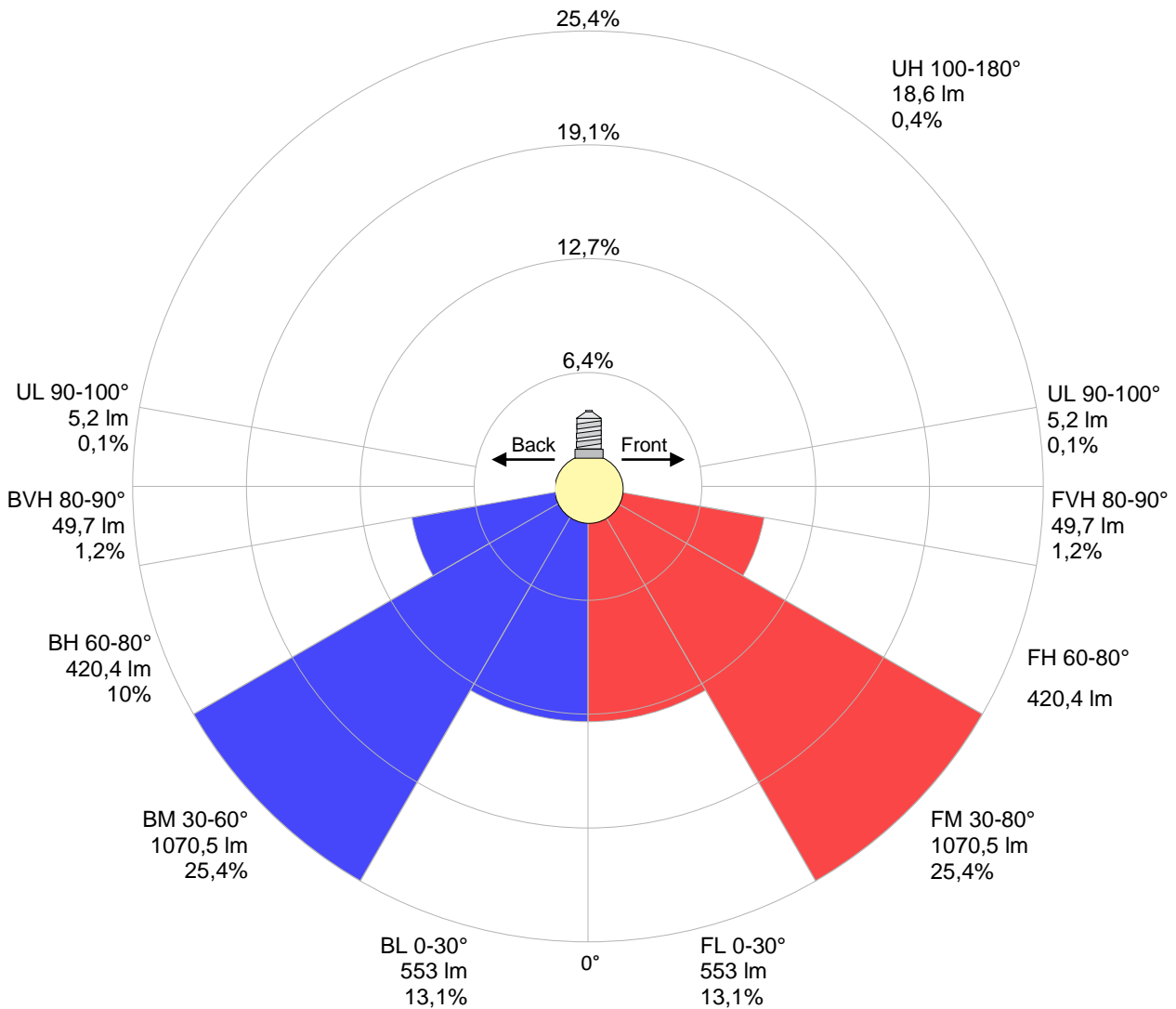
**Zonal Lumen Summary**

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
{LUM0-10}	386 lm	588 lm	715 lm	748 lm	683 lm	528 lm	313 lm	95,0 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
2,56 lm	2,53 lm	3,06 lm	3,19 lm	3,00 lm	2,77 lm	2,20 lm	1,39 lm	0,484 lm

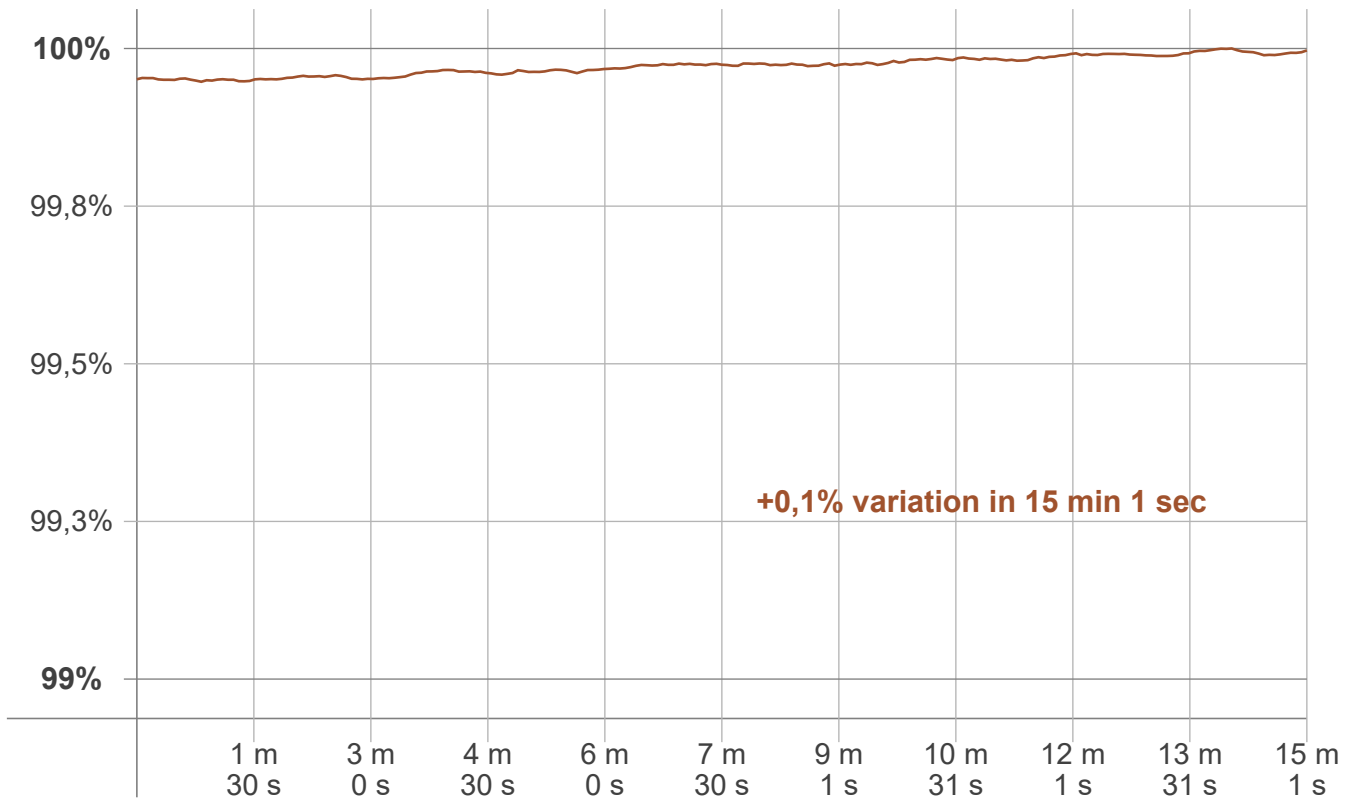
LCS table

BUG rating:	B2 U2 G1	
<b>Forward light</b>	Lumens	Lumens %
Low(0-30):	553	13,1%
Medium(30-60):	1070,5	25,4%
High(60-80):	420,4	10%
Very high(80-90):	49,7	1,2%
<b>Back light</b>		
Low(0-30):	553	13,1%
Medium(30-60):	1070,5	25,4%
High(60-80):	420,4	10%
Very high(80-90):	49,7	1,2%
<b>Uplight</b>		
Low(90-100):	5,2	0,1%
High(100-180):	18,6	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>+0,1%</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**

<b>CCT start</b>	<b>CCT change</b>	<b>CCT end</b>
<b>2999 K</b>	<b>+1 K</b>	<b>3000 K</b>

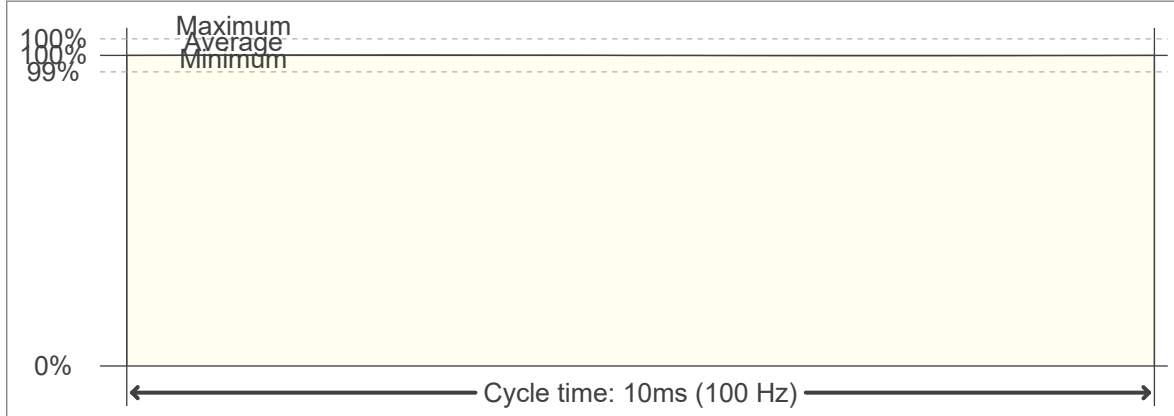
**Output change**

<b>Output start</b>	<b>Output change</b>	<b>Output end</b>
<b>4209 lm</b>	<b>+2 lm</b>	<b>4211 lm</b>

**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 Hz	
Flicker index:	0	JA8/10 40Hz	0,02 %
Flicker percentage:	0,22 %	JA8/10 90Hz	0,03 %
SVM: (Visual flicker)	0,01	JA8/10 200Hz	0,17 %
PstLM	0,01	JA8/10 400Hz	0,18 %
Mp	0,01	JA8/10 1000Hz	0,21 %

**Flicker conditions:**

Sample rate:	20000 samples/second
--------------	----------------------