

Light efficiency:

73 Lumen/Watt

Light quality:

CRI: 81,2

Color temperature:

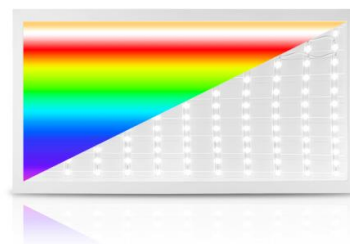
3000 K

Output: 1357 lm

Peak: 458 cd

Power: 18,6 W

PF: 0,93



Tracking number: [VT240920-008564](#)

Product name:

274501-3000K

Item number:

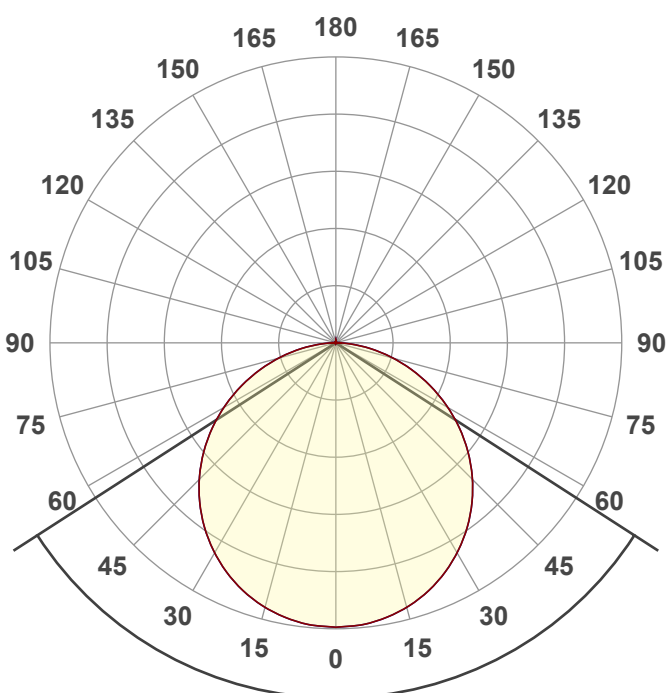
274501-3000K

Date and time:

20-9-2024 10:47:17

Description:

**BACK-LIT LED PANEEL | DOVER |
RGB+CCT | 60X30CM | 24W**



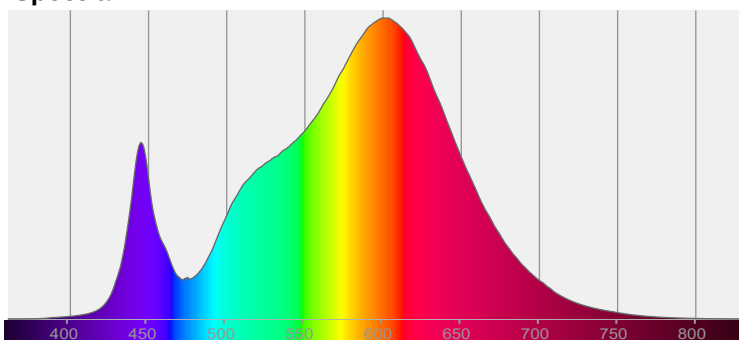
Beam angle

114,4°

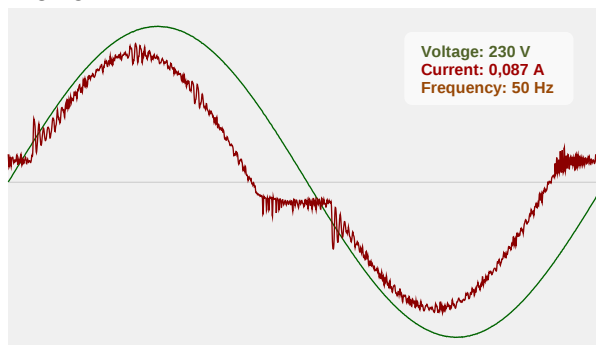


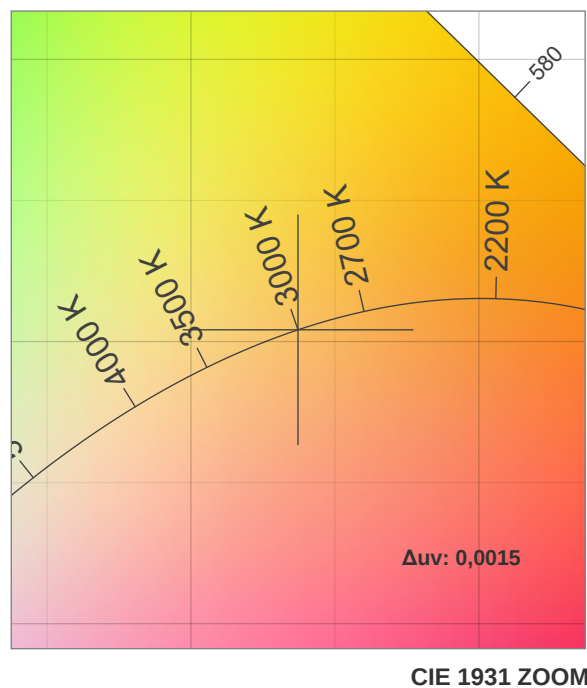
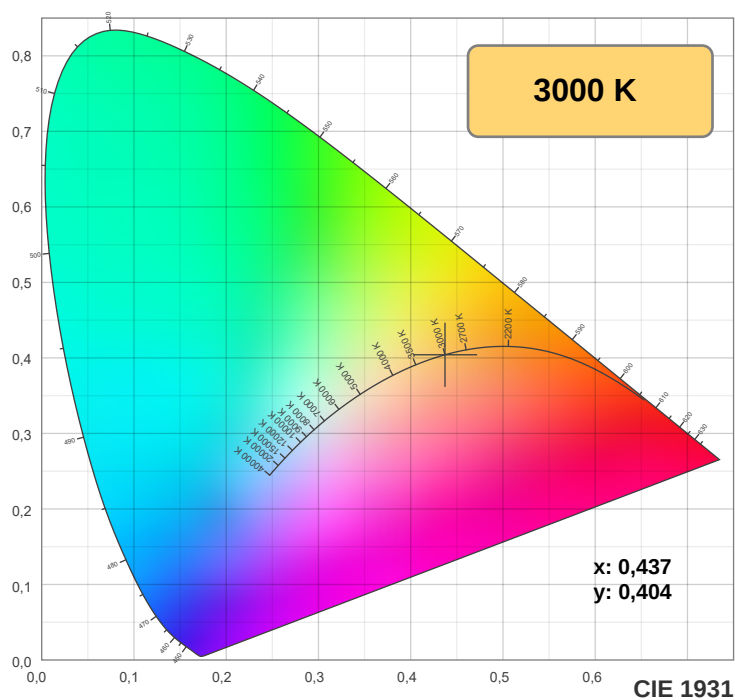
CIE 1931
x: 0,437
y: 0,404

Spectra

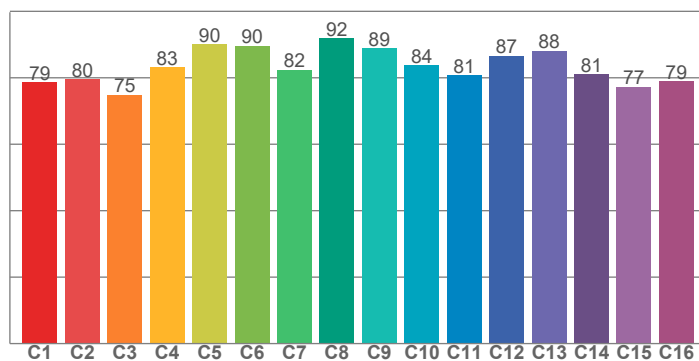


Power

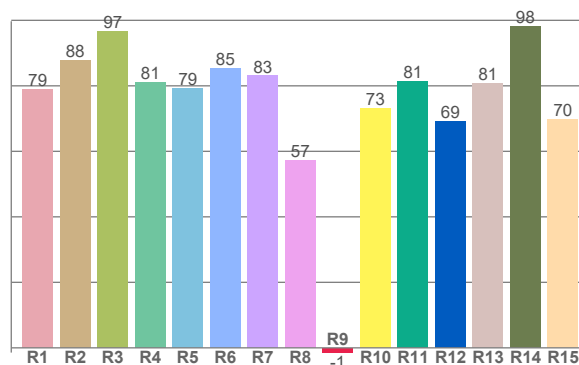




TM-30: 83,3



CRI: 81,2 (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
78,8	87,9	96,6	81,1	79,2	85,5	83,1	57,3	-1,4	73,2	81,3	69,3	80,7	98,2	69,7

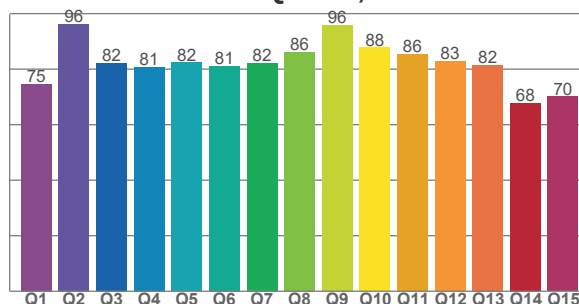
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
78,7	79,6	74,9	83,1	90,0	89,7	82,4	91,9	88,9	83,8	80,7	86,6	88,1	81,1	77,3	78,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
74,6	96,3	82,2	80,8	82,3	81,2	82,3	86,1	95,9	87,9	85,5	82,9	81,5	67,8	70,2

CQS: 80,8



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
3000 K	81,2	-1,4	83,3	97,4	80,8	0,437	0,404	0,251	0,348	0,0015

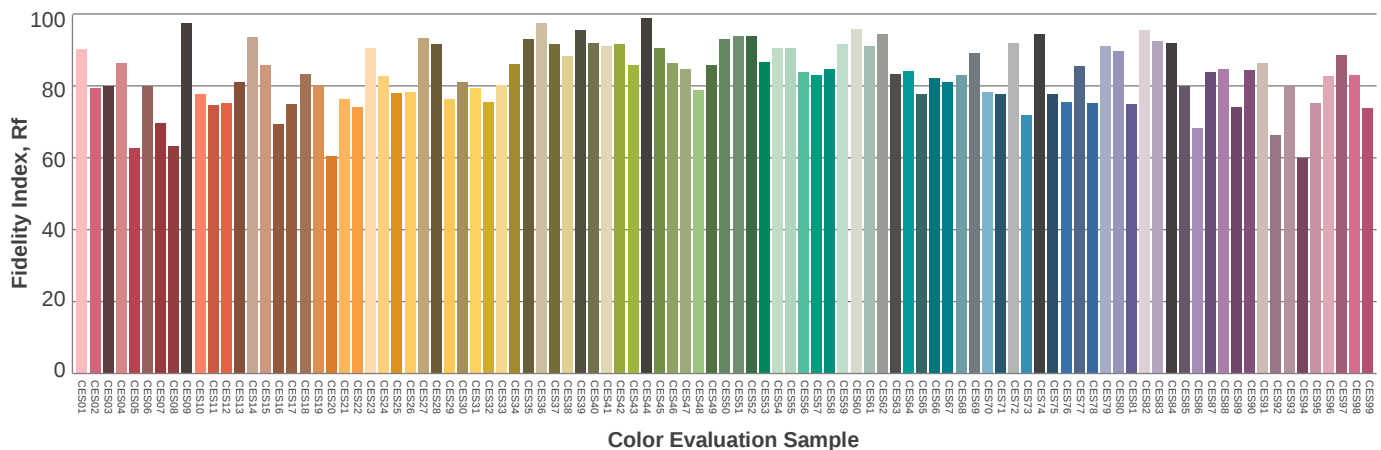
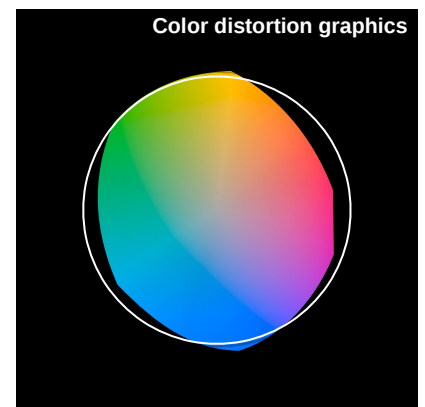
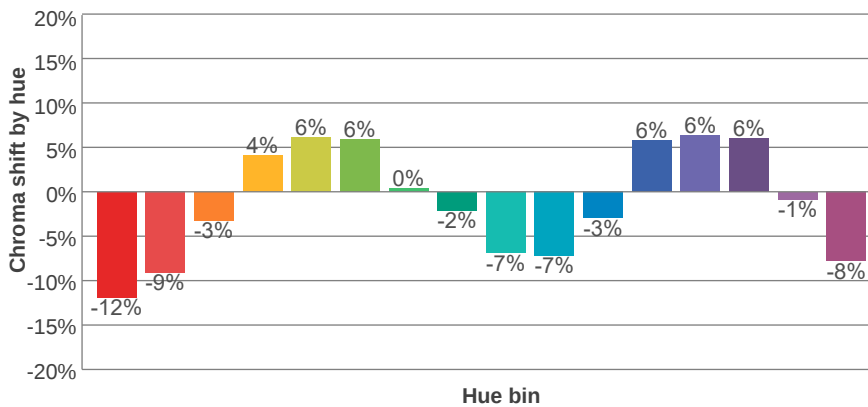
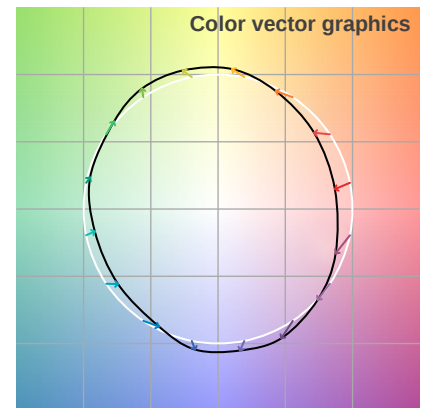
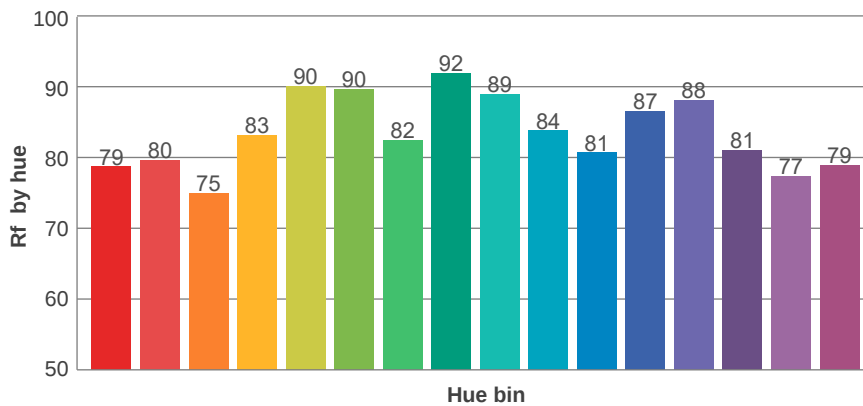
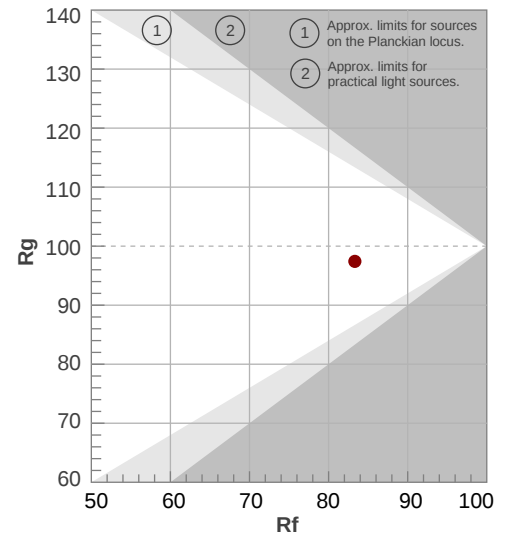
Rf 83,3

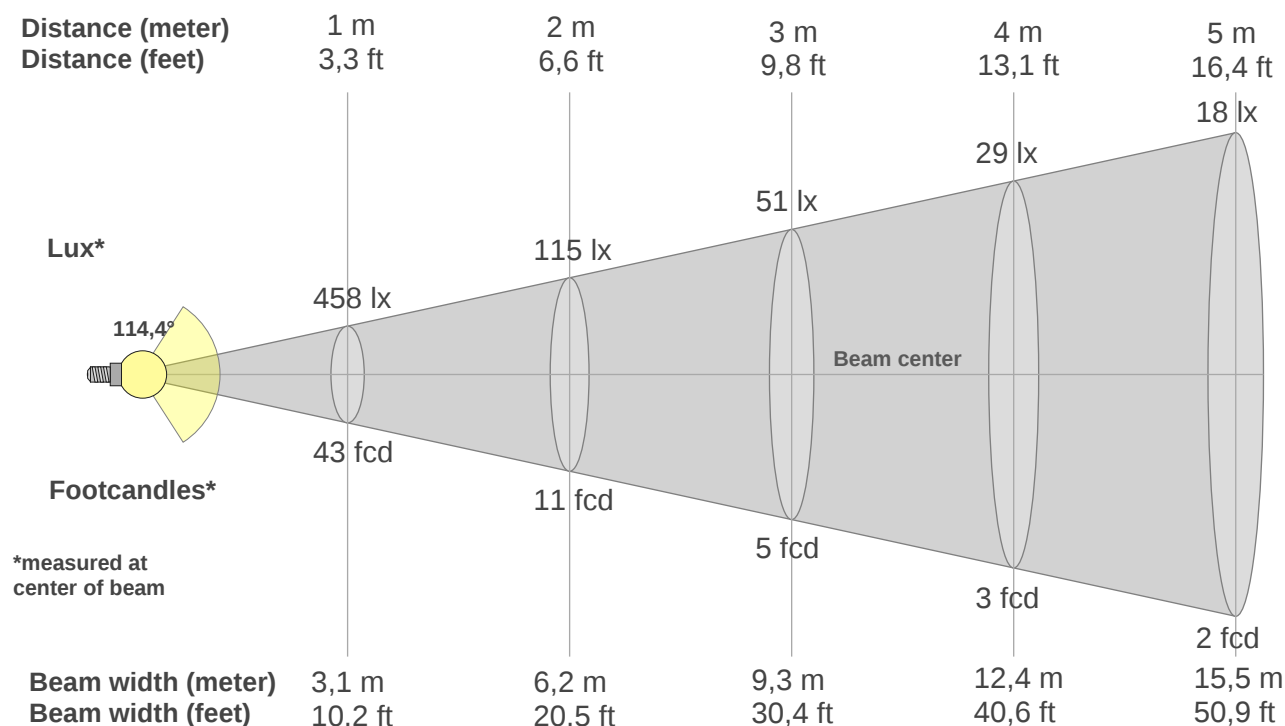
Fidelity index Rf

Rg 97,4

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	79	-12%	-2%
2	80	-9%	7%
3	75	-3%	13%
4	83	4%	10%
5	90	6%	6%
6	90	6%	-3%
7	82	0%	-11%
8	92	-2%	-4%
9	89	-7%	-2%
10	84	-7%	5%
11	81	-3%	12%
12	87	6%	4%
13	88	6%	-5%
14	81	6%	-14%
15	77	-1%	-15%
16	79	-8%	-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
458lx	115lx	51lx	29lx	18lx	13lx	9lx	7lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx
42,6fcd	10,6fcd	4,7fcd	2,7fcd	1,7fcd	1,2fcd	0,9fcd	0,7fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd

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°
458	457	451	441	428	411	391	367	341	311	279	245	209	171	133	96	60	28	6	1
100%	100%	98%	96%	93%	90%	85%	80%	74%	68%	61%	53%	46%	37%	29%	21%	13%	6%	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°
458	457	451	441	428	411	391	367	341	311	279	245	209	171	133	96	60	28	6	1
100%	100%	98%	96%	93%	90%	85%	80%	74%	68%	61%	53%	46%	37%	29%	21%	13%	6%	1%	0%

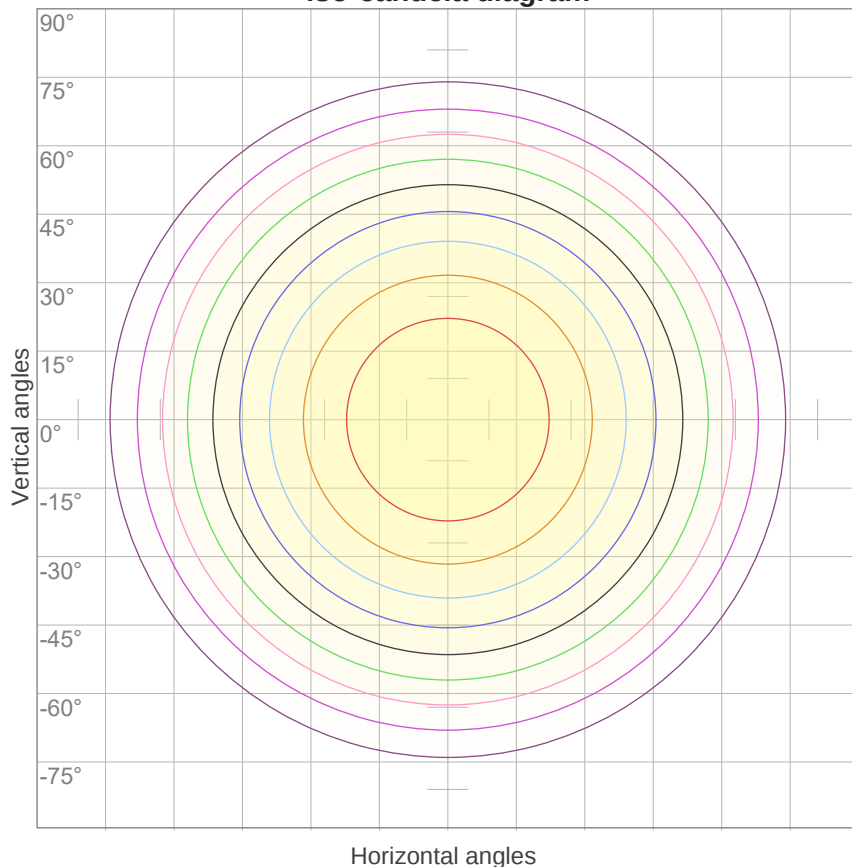
Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
458	457	451	441	428	411	391	367	341	311	279	245	209	171	133	96	60	28	6	1
100%	100%	98%	96%	93%	90%	85%	80%	74%	68%	61%	53%	46%	37%	29%	21%	13%	6%	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°
458	457	451	441	428	411	391	367	341	311	279	245	209	171	133	96	60	28	6	1
100%	100%	98%	96%	93%	90%	85%	80%	74%	68%	61%	53%	46%	37%	29%	21%	13%	6%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
114,4°	164,4°	177,3°	77,1%	52,2%

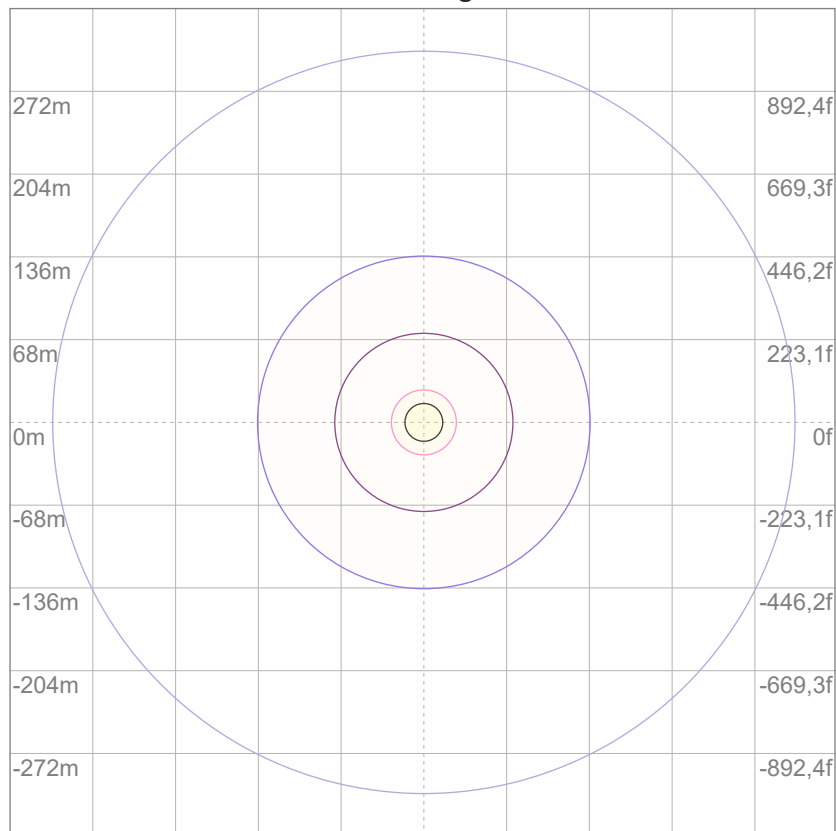
iso-candela diagram


10%	46 cd
20%	92 cd
30%	138 cd
40%	183 cd
50%	229 cd
60%	275 cd
70%	321 cd
80%	367 cd
90%	413 cd

Conditions:

Number of c-planes: 12

Candela at center: 458 cd

iso-lux diagram


3%	0,138 lx
5%	0,229 lx
10%	0,458 lx
30%	1,38 lx
50%	2,29 lx

Conditions:

Number of c-planes: 12

Lux at center: 4,58 lx

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

Glare evaluation according to UGR

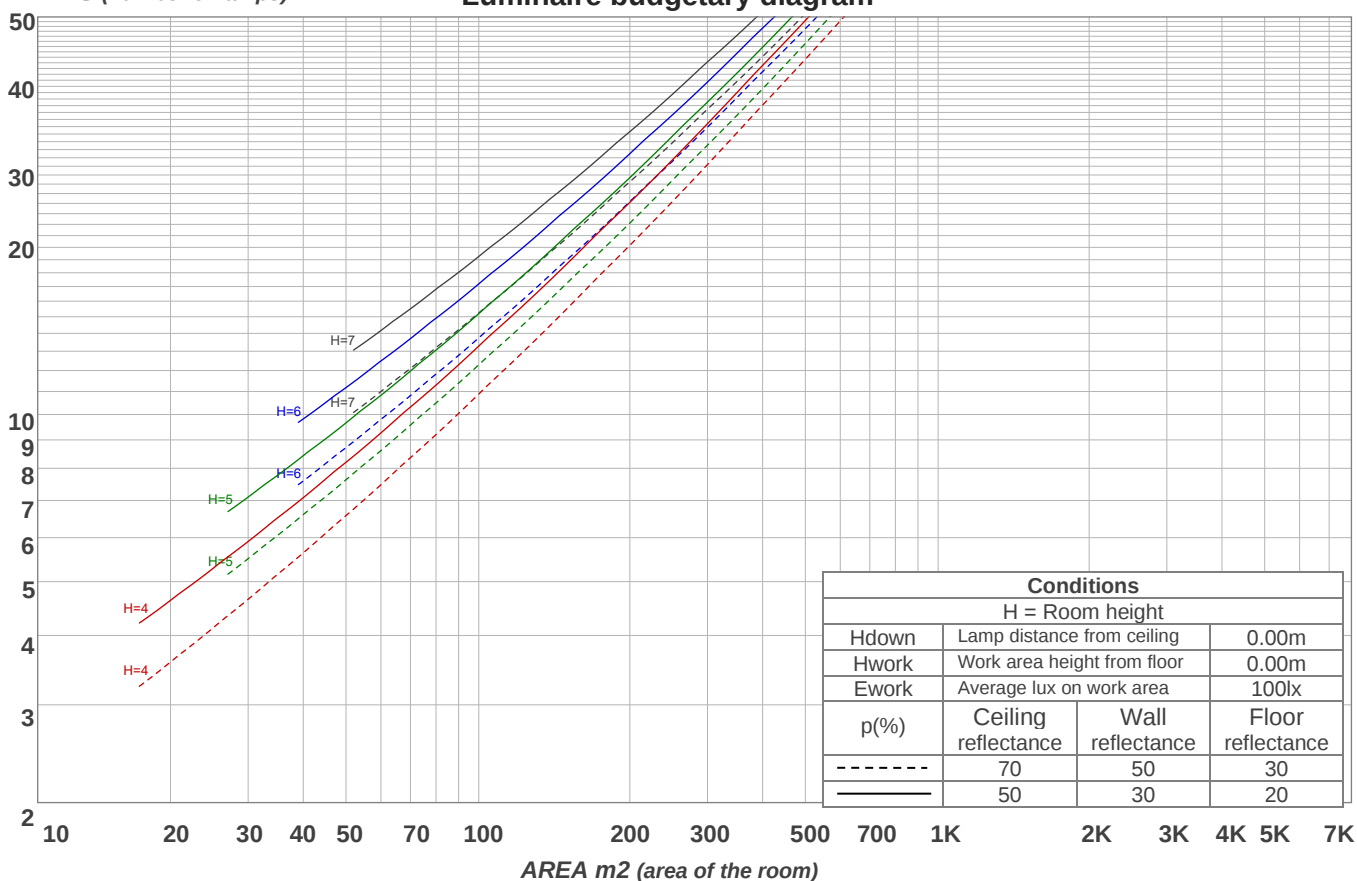
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	16,4	17,6	16,6	18,0	18,2	16,3	17,6	16,6	17,9	18,1
	3H	17,9	19,2	18,3	19,5	19,7	17,8	19,1	18,2	19,4	19,6
	4H	18,6	19,8	19,0	20,1	20,4	18,5	19,7	18,9	20,0	20,2
	6H	19,2	20,2	19,5	20,5	20,9	19,0	20,1	19,3	20,4	20,8
	8H	19,3	20,4	19,7	20,7	21,1	19,2	20,2	19,5	20,5	20,9
	12H	19,4	20,4	19,8	20,8	21,2	19,2	20,3	19,6	20,6	21,1
4H	2H	17,0	18,2	17,4	18,5	18,8	16,9	18,2	17,4	18,4	18,7
	3H	18,8	19,8	19,2	20,2	20,6	18,7	19,8	19,1	20,1	20,6
	4H	19,5	20,5	20,0	20,9	21,5	19,4	20,4	19,9	20,8	21,4
	6H	20,2	21,1	20,7	21,4	21,8	20,0	20,9	20,5	21,3	21,7
	8H	20,4	21,2	20,9	21,6	22,0	20,3	21,1	20,8	21,4	21,8
	12H	20,5	21,2	21,1	21,7	22,2	20,4	21,1	20,9	21,5	22,0
8H	4H	19,8	20,6	20,3	21,0	21,4	19,7	20,6	20,3	20,9	21,3
	6H	20,6	21,2	21,1	21,7	22,3	20,5	21,1	21,0	21,6	22,2
	8H	21,0	21,5	21,5	22,0	22,7	20,8	21,4	21,3	21,9	22,5
	12H	21,2	21,7	21,8	22,2	22,8	21,0	21,5	21,6	22,0	22,6
12H	4H	19,8	20,5	20,4	21,0	21,5	19,8	20,4	20,3	20,9	21,4
	6H	20,7	21,3	21,2	21,8	22,4	20,6	21,1	21,1	21,7	22,3
	8H	21,1	21,5	21,6	22,0	22,7	20,9	21,4	21,5	21,9	22,5
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 1357 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	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	95	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	52	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	36	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



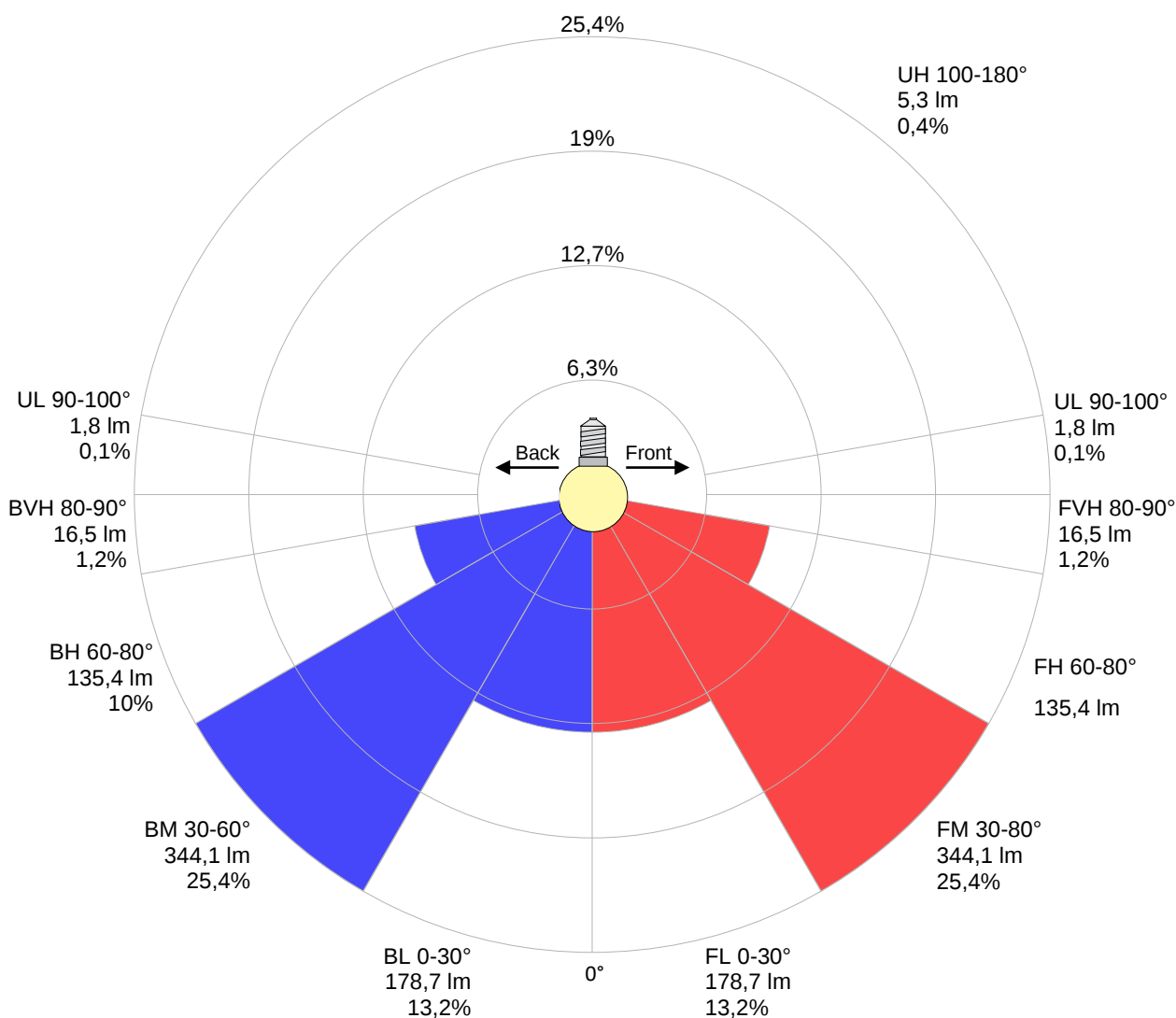
Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
{LUM0-10}	125 lm	189 lm	230 lm	240 lm	219 lm	169 lm	102 lm	32,9 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
1,72 lm	0,778 lm	0,793 lm	0,857 lm	0,901 lm	0,798 lm	0,617 lm	0,395 lm	0,142 lm

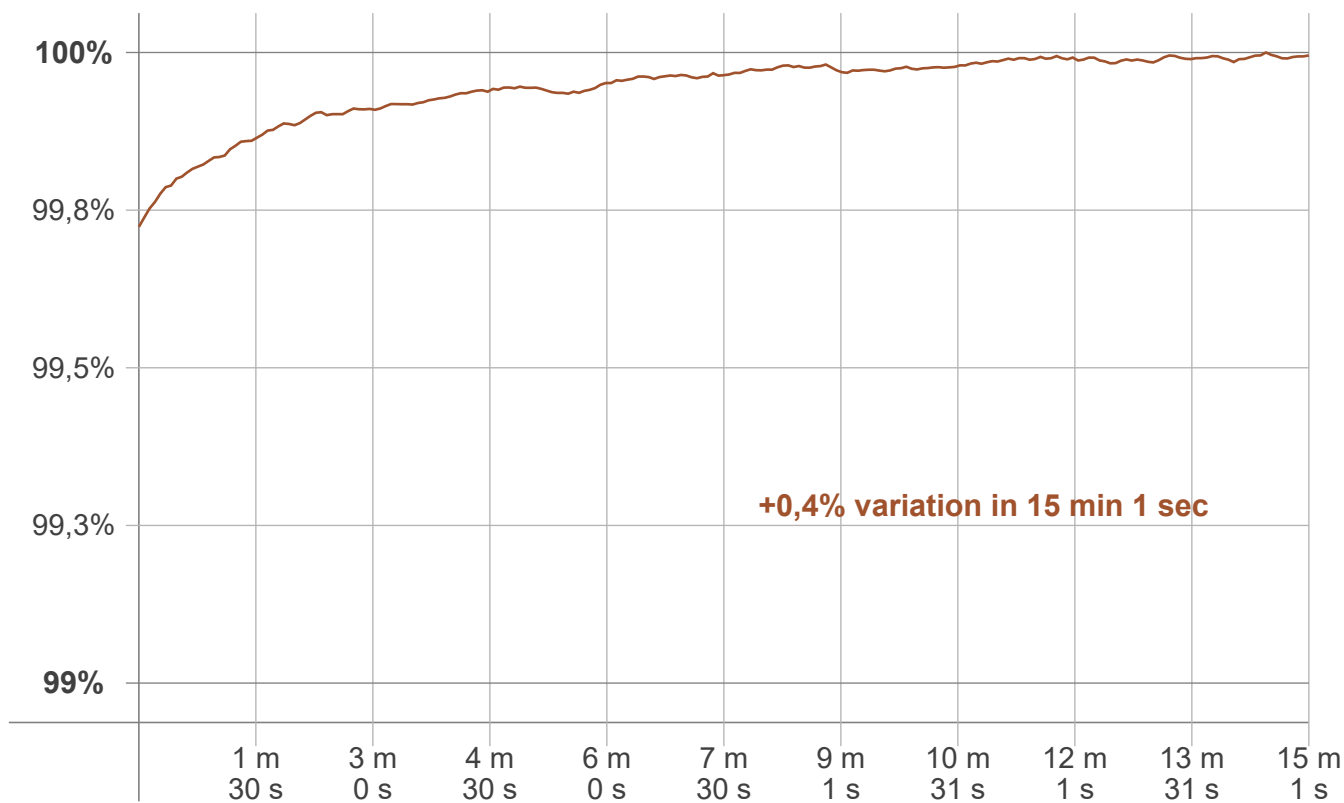
LCS table

BUG rating:	B1 U1 G1	
Forward light	Lumens	Lumens %
Low(0-30):	178,7	13,2%
Medium(30-60):	344,1	25,4%
High(60-80):	135,4	10%
Very high(80-90):	16,5	1,2%
Back light		
Low(0-30):	178,7	13,2%
Medium(30-60):	344,1	25,4%
High(60-80):	135,4	10%
Very high(80-90):	16,5	1,2%
Uplight		
Low(90-100):	1,8	0,1%
High(100-180):	5,3	0,4%

LCS graph



Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 15 min 1 sec
Warmup variation	+0,4%

Warmup conditions

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

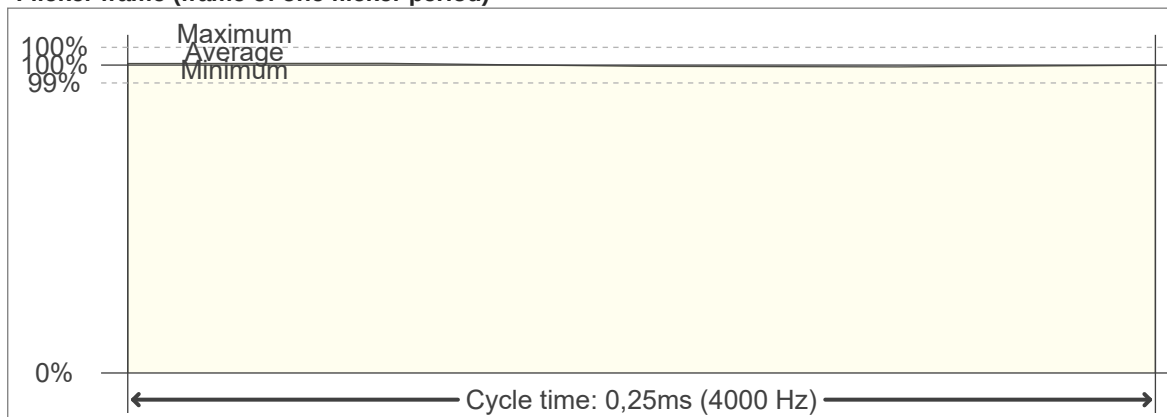
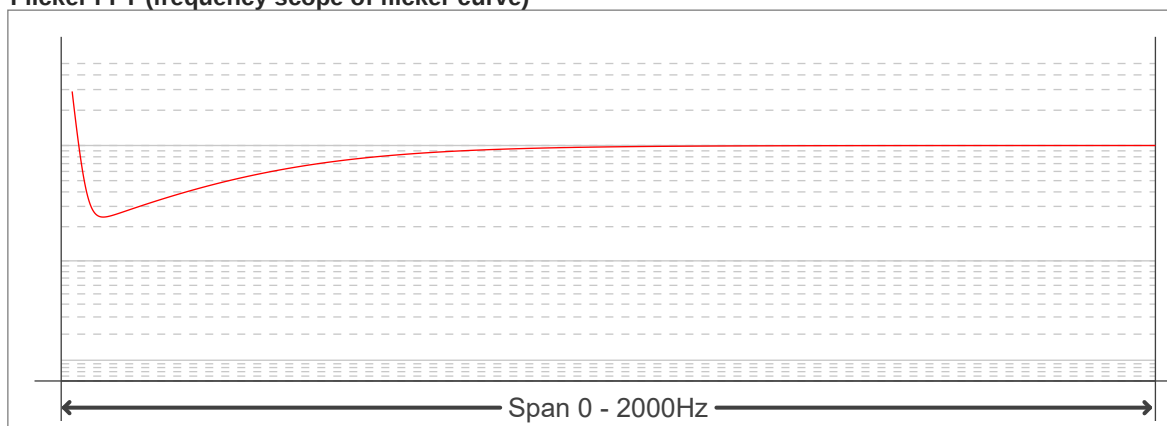
Color temperature change

CCT start	CCT change	CCT end
2999 K	+1 K	3000 K

Output change

Output start	Output change	Output end
1352 lm	+4 lm	1357 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:		4000 Hz	
Flicker index:	0	JA8/10 40Hz	0,04 %
Flicker percentage:	1,09 %	JA8/10 90Hz	0,09 %
SVM: (Visual flicker)	0	JA8/10 200Hz	0,18 %
PstLM	0,02	JA8/10 400Hz	0,18 %
Mp	0,02	JA8/10 1000Hz	0,22 %

Flicker conditions:

Sample rate:	20000 samples/second
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