

Light efficiency:

76 Lumen/Watt

Light quality:

CRI: 83,2

Color temperature:

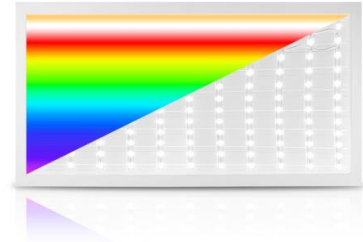
4000 K

Output: 1442 lm

Peak: 486 cd

Power: 19,1 W

PF: 0,93



Tracking number: [VT240920-009946](#)

Product name:

274501-4000K

Item number:

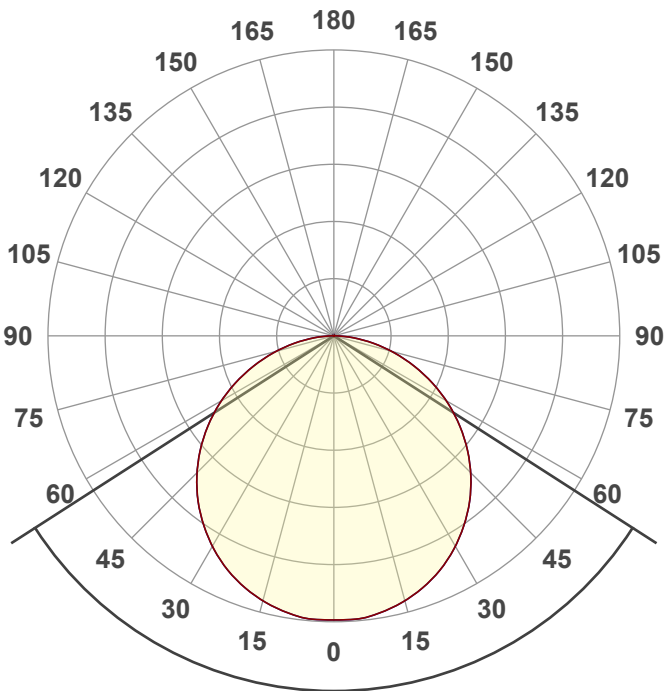
274501-4000K

Date and time:

20-9-2024 09:58:59

Description:

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



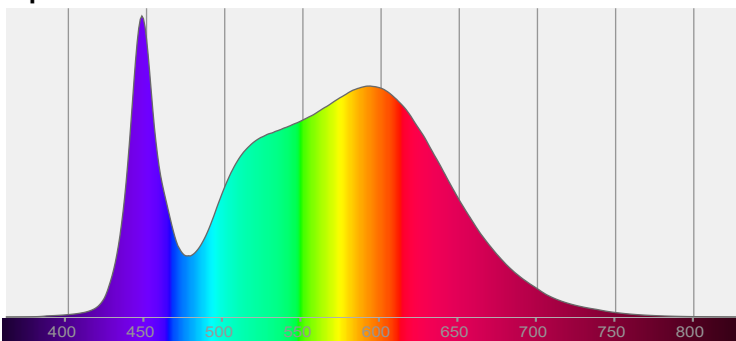
Beam angle

114,5°

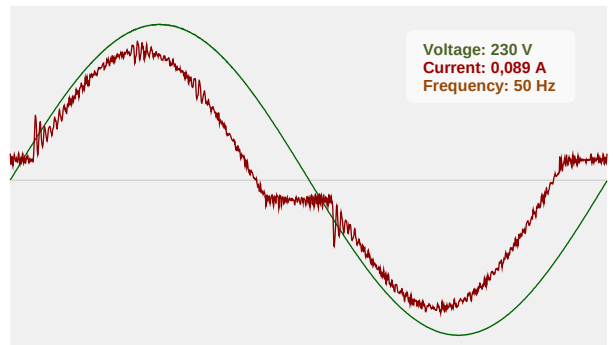


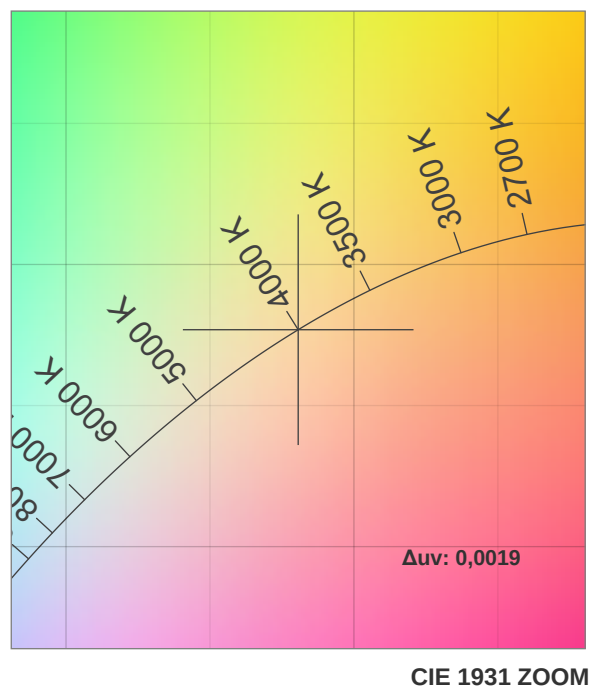
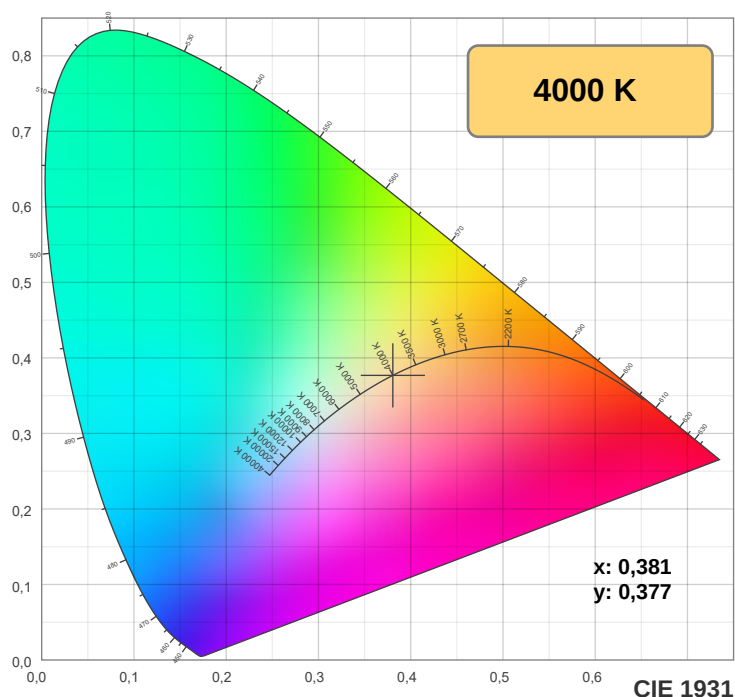
CIE 1931
x: 0,381
y: 0,377

Spectra

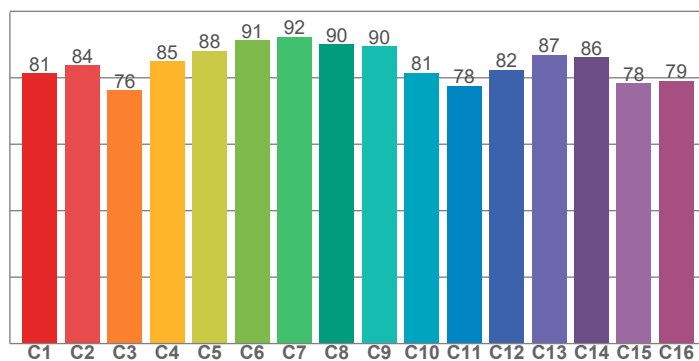


Power

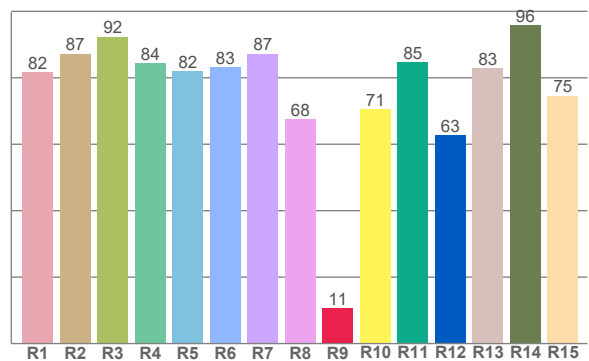




TM-30: 84,1



CRI: 83,2 (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
81,7	87,2	92,3	84,5	82,1	83,1	87,2	67,6	10,8	70,5	84,6	62,8	82,8	95,8	74,6

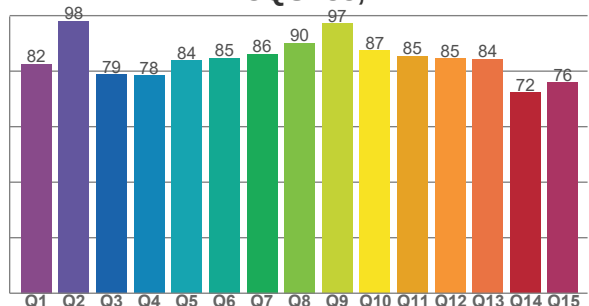
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
81,4	83,7	76,3	85,0	88,2	91,3	92,3	90,1	89,6	81,5	77,6	82,4	86,9	86,2	78,4	79,1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82,5	98,1	78,8	78,4	83,8	84,7	86,1	90,1	97,2	87,4	85,5	84,6	84,3	72,2	76,0

CQS: 83,2



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	Δuv
4000 K	83,2	10,8	84,1	97,9	83,2	0,381	0,377	0,225	0,334	0,0019

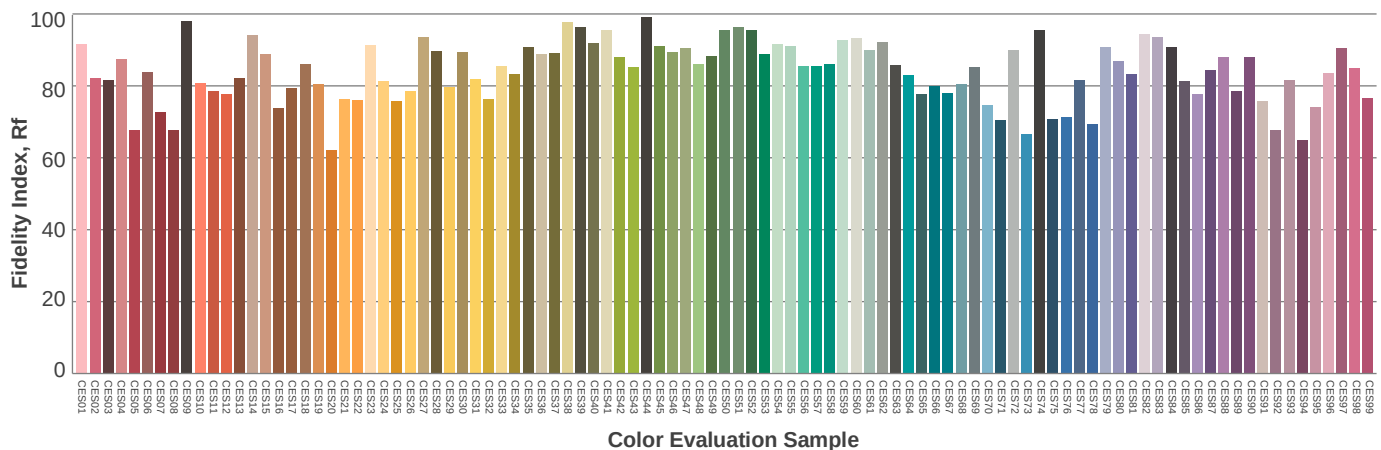
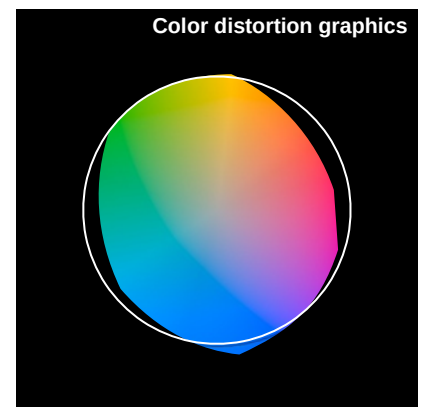
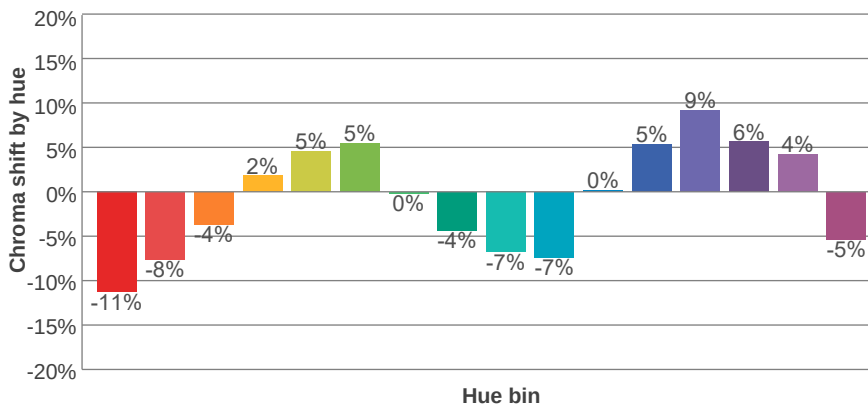
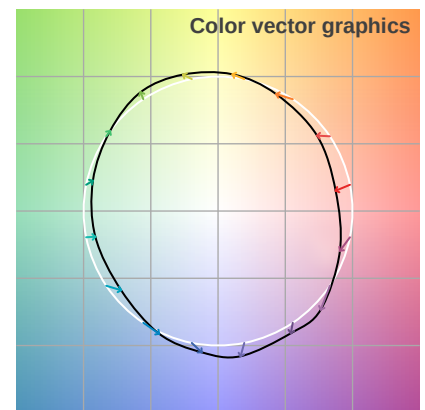
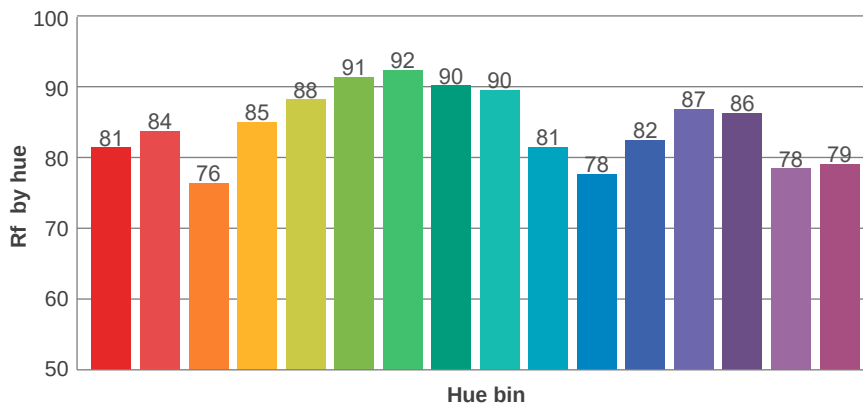
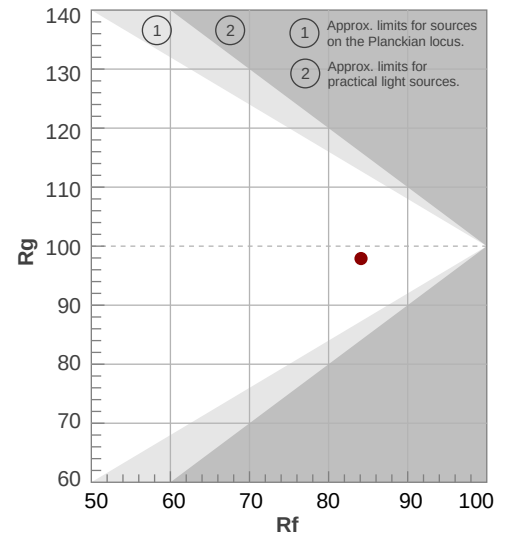
Rf 84,1

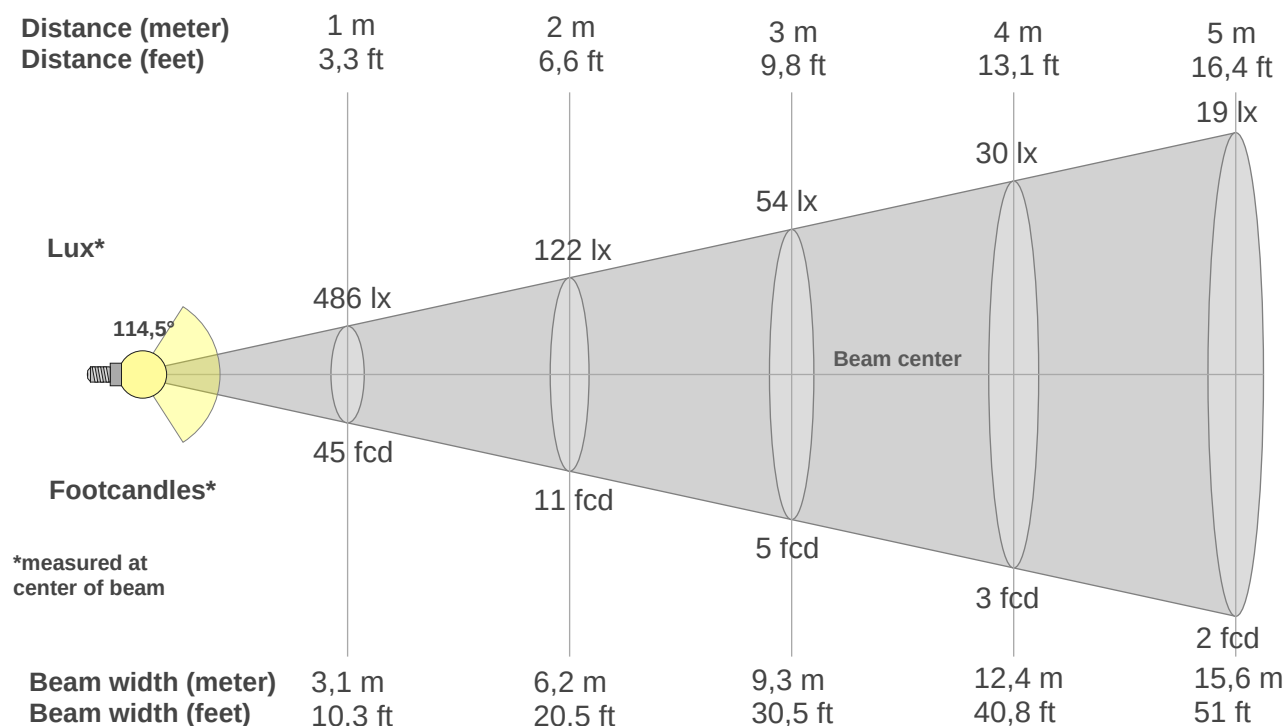
Fidelity index Rf

Rg 97,9

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	81	-11%	-2%
2	84	-8%	6%
3	76	-4%	12%
4	85	2%	9%
5	88	5%	6%
6	91	5%	-1%
7	92	0%	-5%
8	90	-4%	-4%
9	90	-7%	1%
10	81	-7%	9%
11	78	0%	14%
12	82	5%	9%
13	87	9%	-5%
14	86	6%	-5%
15	78	4%	-19%
16	79	-5%	-11%




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
486lx	122lx	54lx	30lx	19lx	14lx	10lx	8lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	2lx	1lx	1lx
45,2fcd	11,3fcd	5fcd	2,8fcd	1,8fcd	1,3fcd	0,9fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd	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°
486	486	480	469	455	438	416	390	362	331	297	261	222	182	142	102	64	30	6	1
100%	100%	99%	96%	94%	90%	85%	80%	75%	68%	61%	54%	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°
486	486	480	469	455	438	416	390	362	331	297	261	222	182	142	102	64	30	6	1
100%	100%	99%	96%	94%	90%	85%	80%	75%	68%	61%	54%	46%	37%	29%	21%	13%	6%	1%	0%

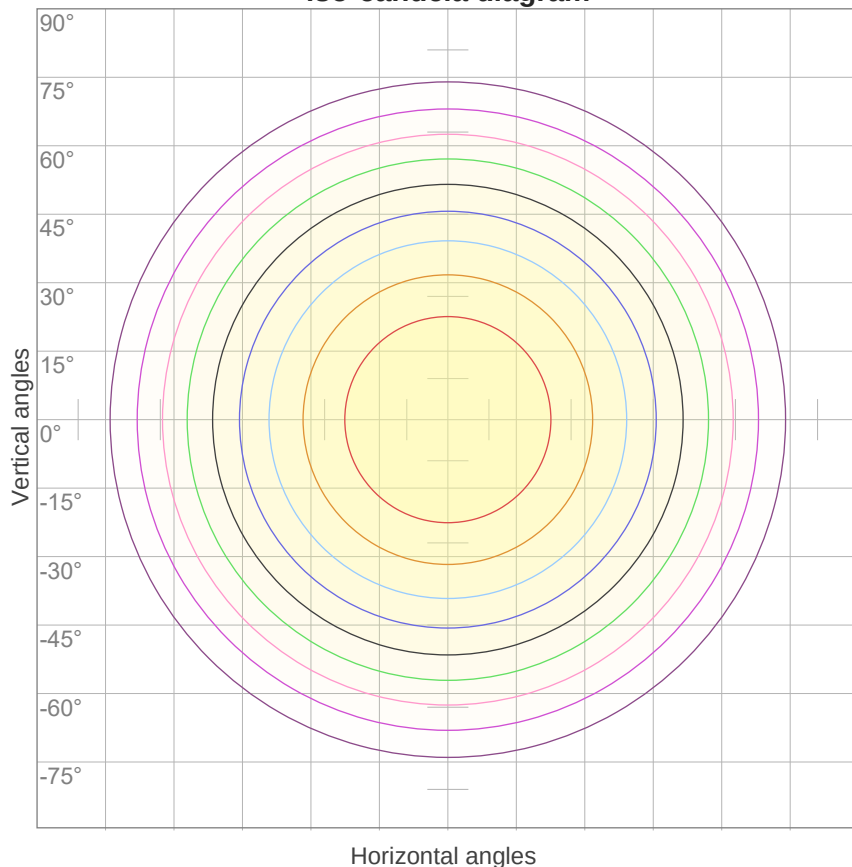
Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
486	486	480	469	455	438	416	390	362	331	297	261	222	182	142	102	64	30	6	1
100%	100%	99%	96%	94%	90%	85%	80%	75%	68%	61%	54%	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°
486	486	480	469	455	438	416	390	362	331	297	261	222	182	142	102	64	30	6	1
100%	100%	99%	96%	94%	90%	85%	80%	75%	68%	61%	54%	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
114,5°	164,4°	176,7°	77,1%	52,2%

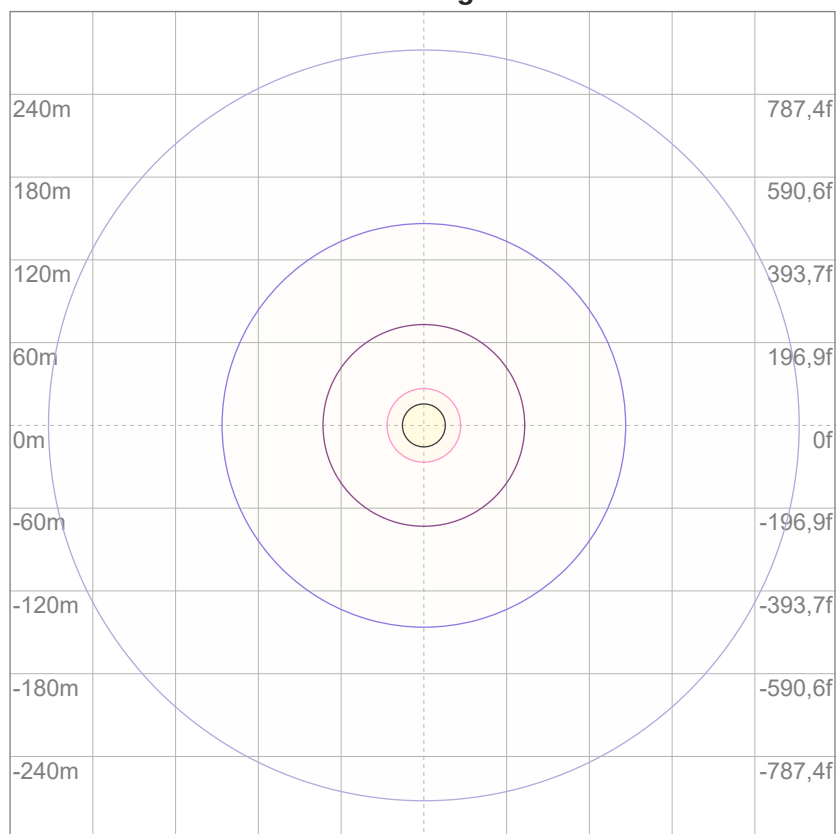
iso-candela diagram


10%	49 cd
20%	97 cd
30%	146 cd
40%	195 cd
50%	243 cd
60%	292 cd
70%	341 cd
80%	389 cd
90%	438 cd

Conditions:

Number of c-planes: 12

Candela at center: 486 cd

iso-lux diagram


3%	0,146 lx
5%	0,243 lx
10%	0,486 lx
30%	1,46 lx
50%	2,43 lx

Conditions:

Number of c-planes: 12

Lux at center: 4,86 lx

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

Glare evaluation according to UGR

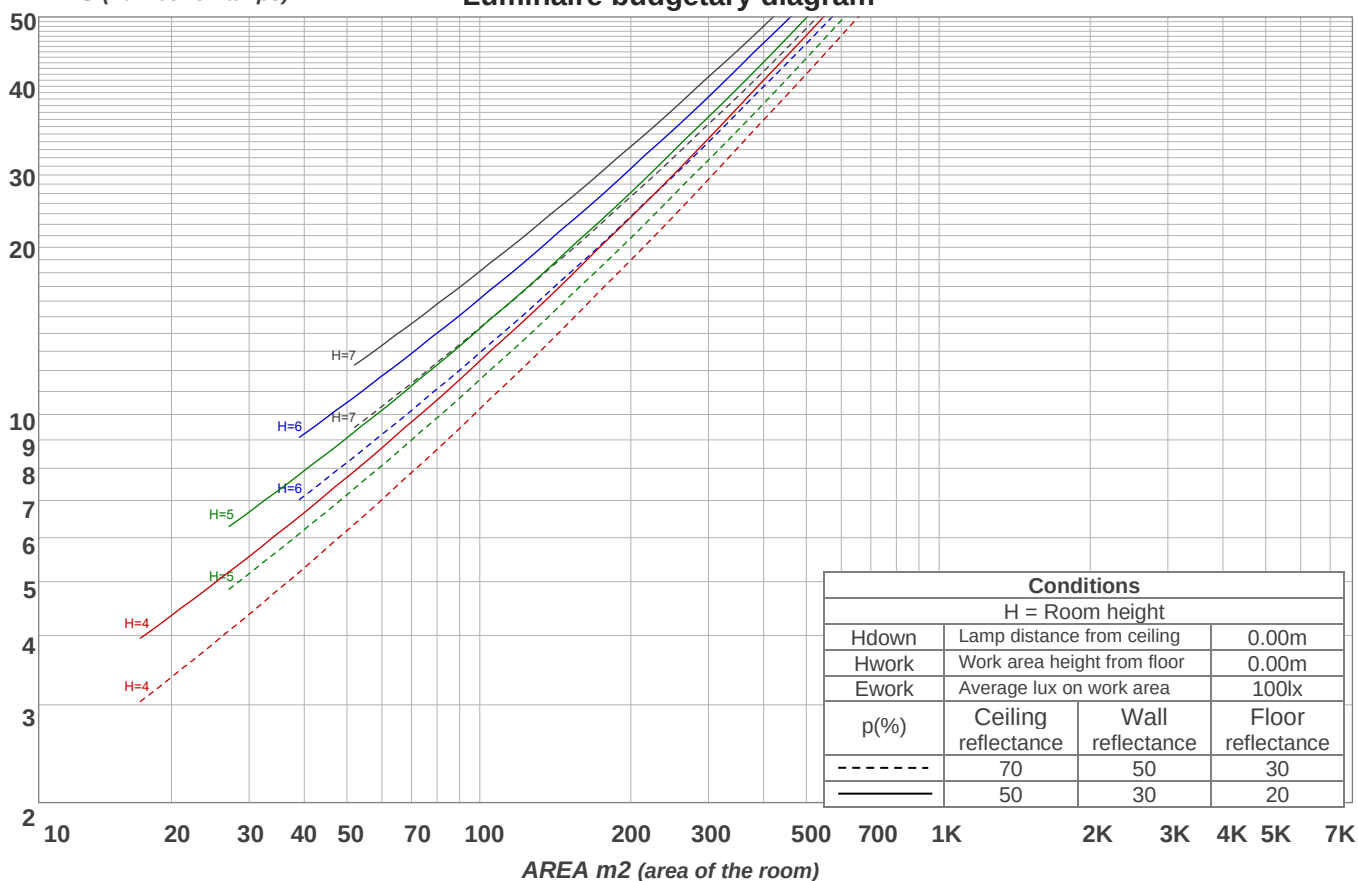
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	16,6	17,9	16,9	18,2	18,4	16,6	17,8	16,8	18,1	18,3
	3H	18,1	19,4	18,5	19,7	19,9	18,0	19,3	18,5	19,6	19,8
	4H	18,8	20,0	19,2	20,3	20,6	18,7	19,9	19,1	20,2	20,5
	6H	19,4	20,4	19,7	20,7	21,1	19,2	20,3	19,6	20,6	21,0
	8H	19,5	20,6	19,9	20,9	21,3	19,4	20,4	19,7	20,7	21,2
	12H	19,6	20,7	20,0	21,0	21,5	19,5	20,5	19,8	20,8	21,3
4H	2H	17,2	18,4	17,6	18,7	19,0	17,2	18,4	17,6	18,7	18,9
	3H	19,0	20,1	19,4	20,4	20,9	19,0	20,0	19,3	20,3	20,8
	4H	19,8	20,7	20,2	21,1	21,7	19,7	20,6	20,1	21,0	21,6
	6H	20,4	21,3	20,9	21,6	22,0	20,3	21,2	20,8	21,5	21,9
	8H	20,6	21,4	21,1	21,8	22,2	20,5	21,3	21,0	21,7	22,1
	12H	20,8	21,5	21,3	21,9	22,4	20,6	21,3	21,1	21,7	22,2
8H	4H	20,1	20,9	20,6	21,2	21,6	20,0	20,8	20,5	21,2	21,6
	6H	20,8	21,5	21,4	21,9	22,5	20,7	21,4	21,2	21,8	22,4
	8H	21,2	21,7	21,7	22,3	22,9	21,0	21,6	21,6	22,1	22,8
	12H	21,4	21,9	22,0	22,4	23,0	21,3	21,7	21,8	22,2	22,9
12H	4H	20,1	20,7	20,6	21,2	21,7	20,0	20,7	20,5	21,1	21,6
	6H	20,9	21,5	21,4	22,0	22,7	20,8	21,4	21,3	21,9	22,5
	8H	21,3	21,7	21,9	22,2	22,9	21,1	21,6	21,7	22,1	22,7
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 1442 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	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	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



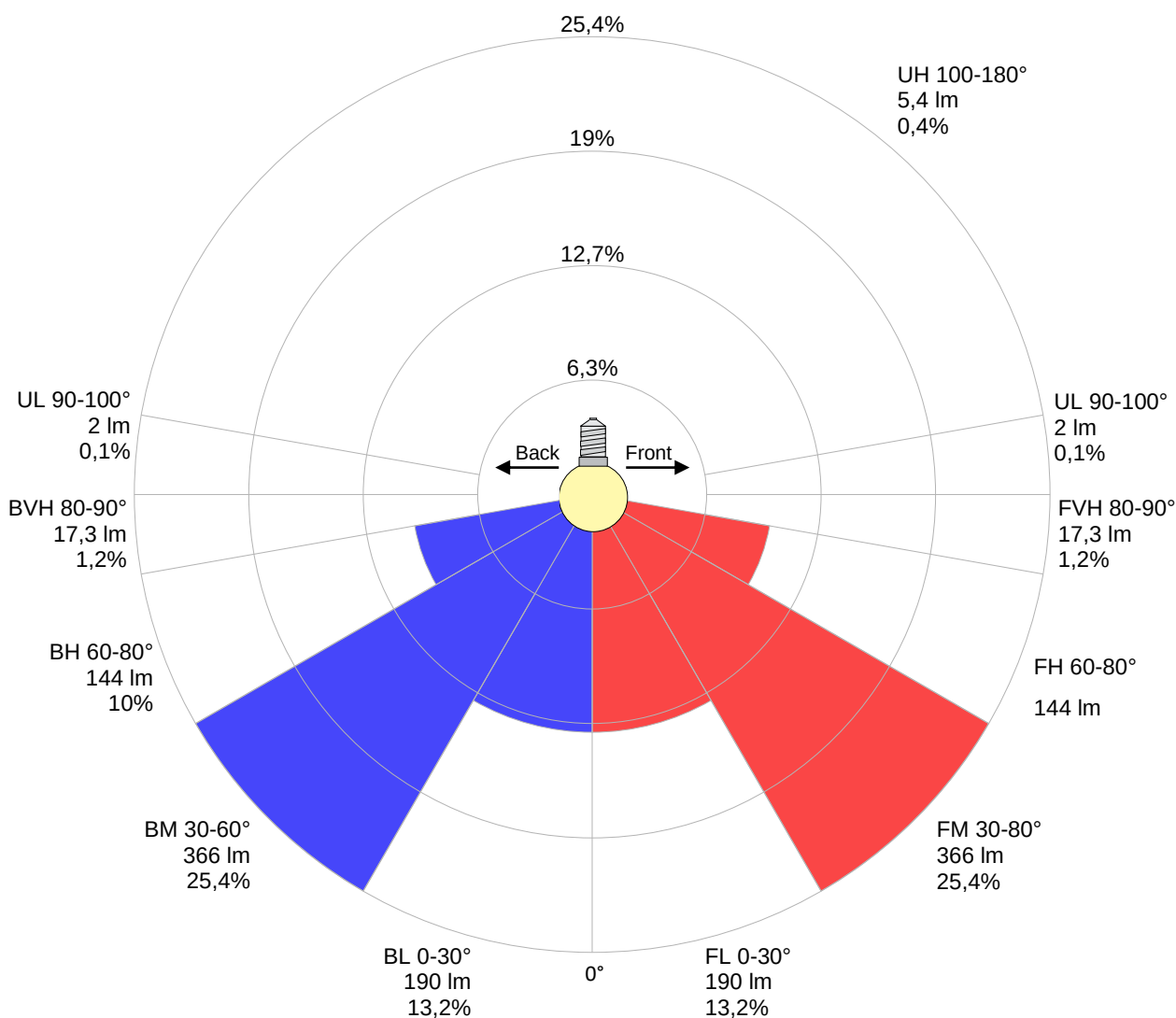
Zonal Lumen Summary

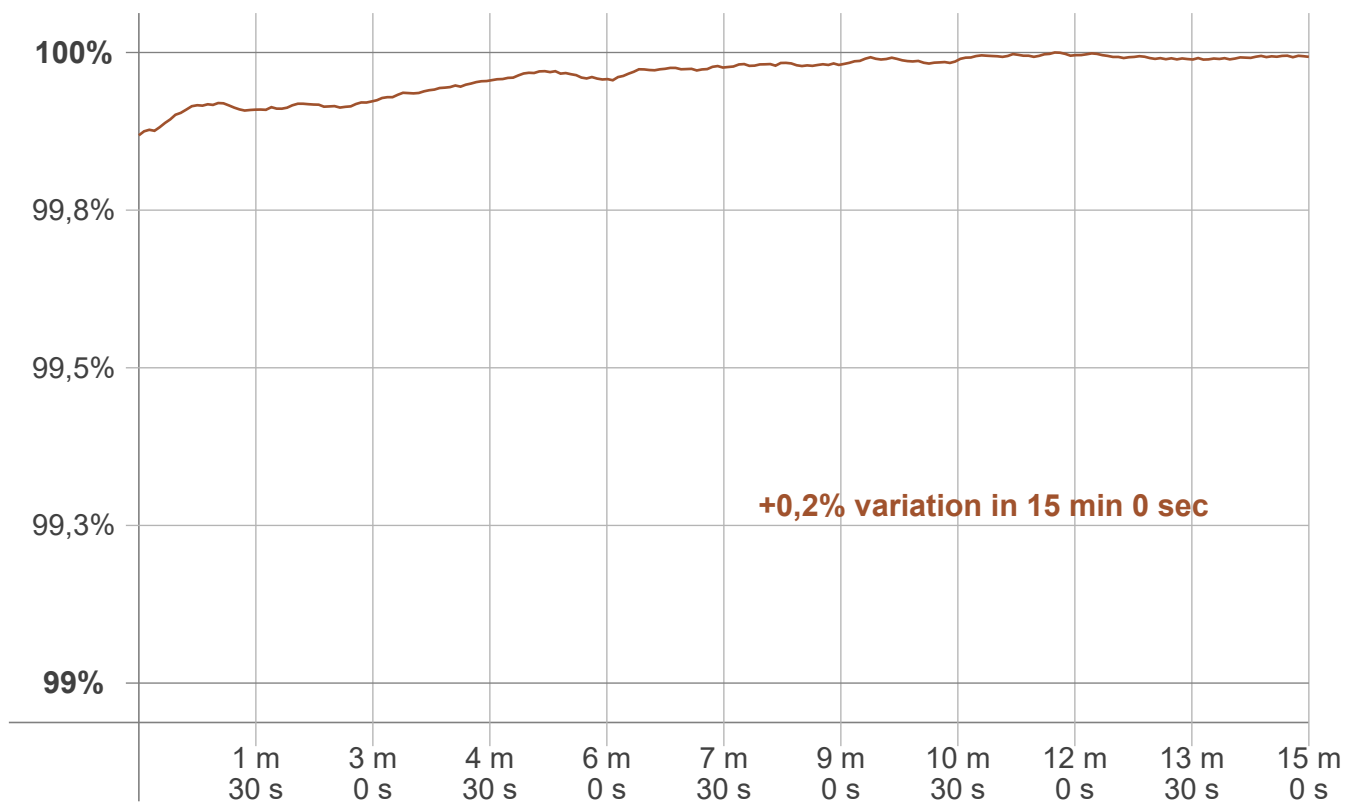
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
{LUM0-10}	132 lm	202 lm	244 lm	255 lm	233 lm	180 lm	108 lm	34,5 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
2,00 lm	0,706 lm	0,858 lm	0,984 lm	0,894 lm	0,786 lm	0,604 lm	0,422 lm	0,138 lm

LCS table

BUG rating:	B1 U1 G1	
Forward light	Lumens	Lumens %
Low(0-30):	190	13,2%
Medium(30-60):	366	25,4%
High(60-80):	144	10%
Very high(80-90):	17,3	1,2%
Back light		
Low(0-30):	190	13,2%
Medium(30-60):	366	25,4%
High(60-80):	144	10%
Very high(80-90):	17,3	1,2%
Uplight		
Low(90-100):	2	0,1%
High(100-180):	5,4	0,4%

LCS graph



Warmup curve

Warmup result

Warmup time:	Lamp stabilized in 15 min 0 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
3999 K	+1 K	4000 K

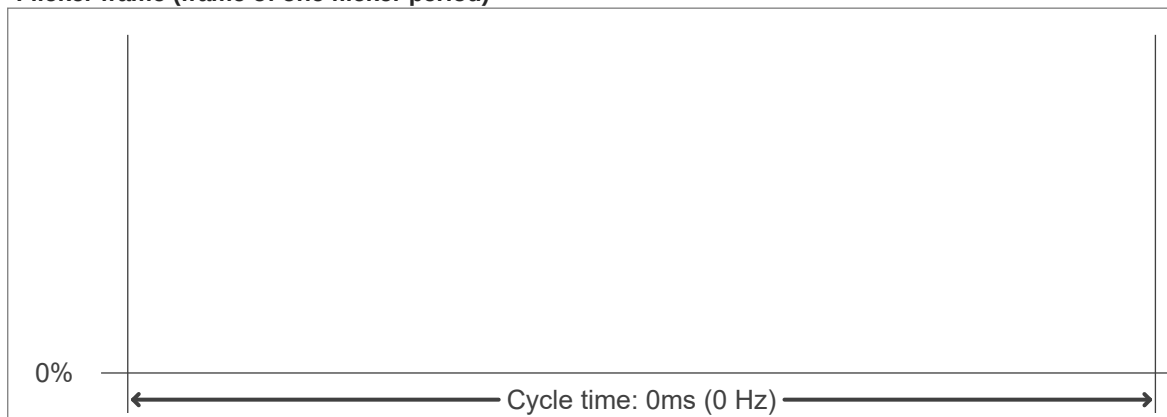
Output change

Output start	Output change	Output end
1440 lm	+2 lm	1442 lm

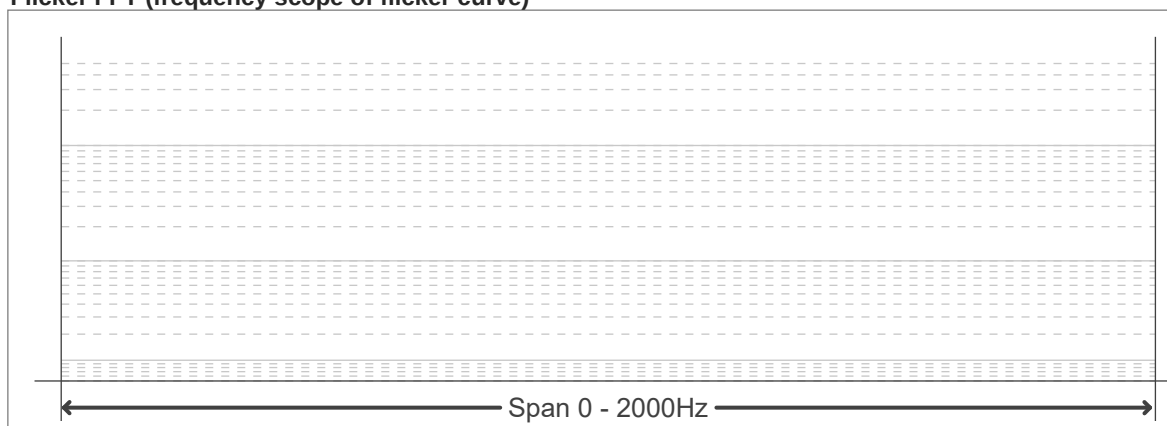
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:		n/a Hz	
Flicker index:	n/a	JA8/10 40Hz	n/a %
Flicker percentage:	n/a %	JA8/10 90Hz	n/a %
SVM: (Visual flicker)	n/a	JA8/10 200Hz	n/a %
PstLM	n/a	JA8/10 400Hz	n/a %
Mp	n/a	JA8/10 1000Hz	n/a %

Flicker conditions:

Sample rate:	n/a samples/second
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