

Light efficiency:

109 Lumen/Watt

Light quality:

CRI: 81,6

Color temperature:

6500 K

Output: 1764 lm

Peak: 3021 cd

Power: 16,2 W

PF: 0,59



Tracking number: [VT240918-006315](#)

Product name:

804299

Item number:

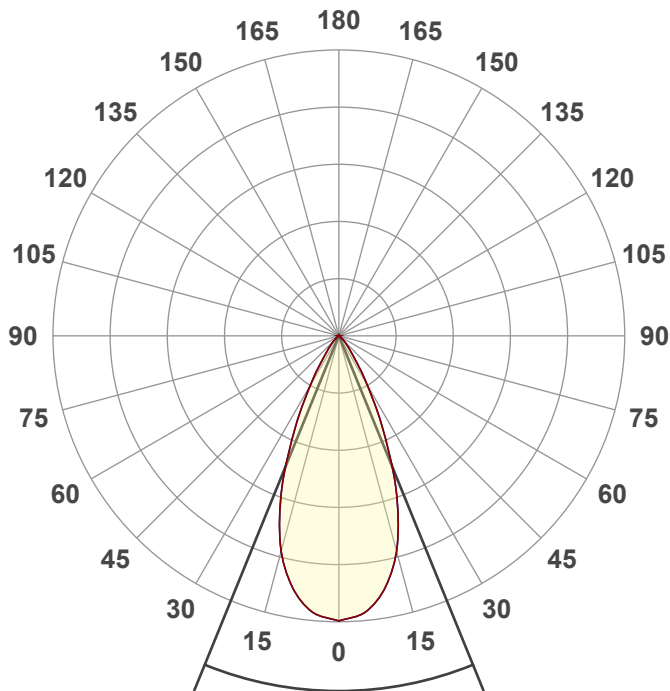
804299

Date and time:

18-9-2024 10:46:38

Description:

**KANTELBARE DOWNLIGHT | Ø100 |
15W | CCT-SWITCH**



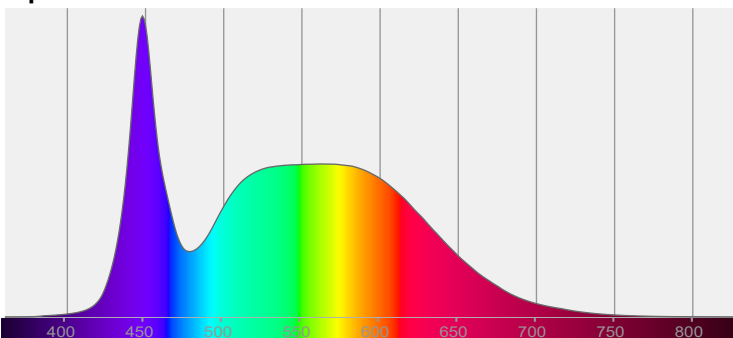
Beam angle

44,4°

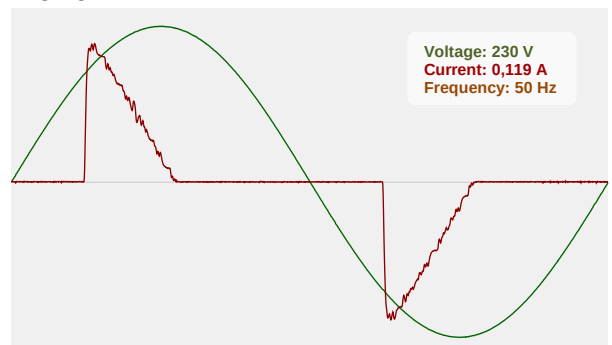


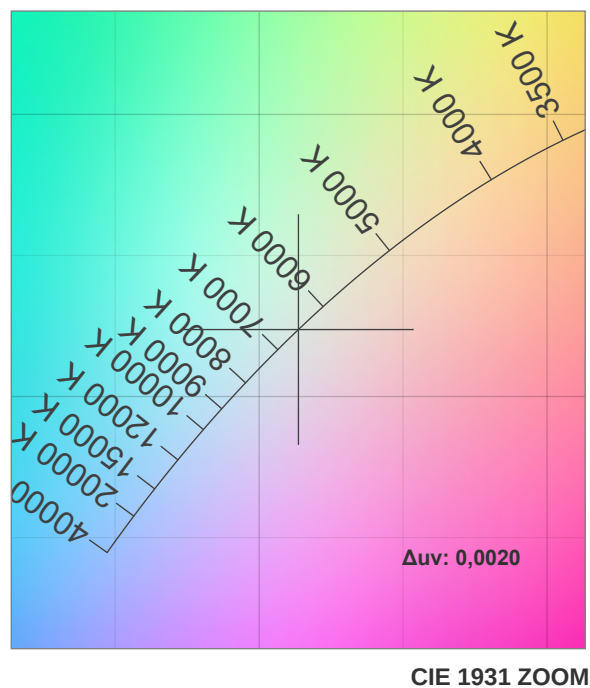
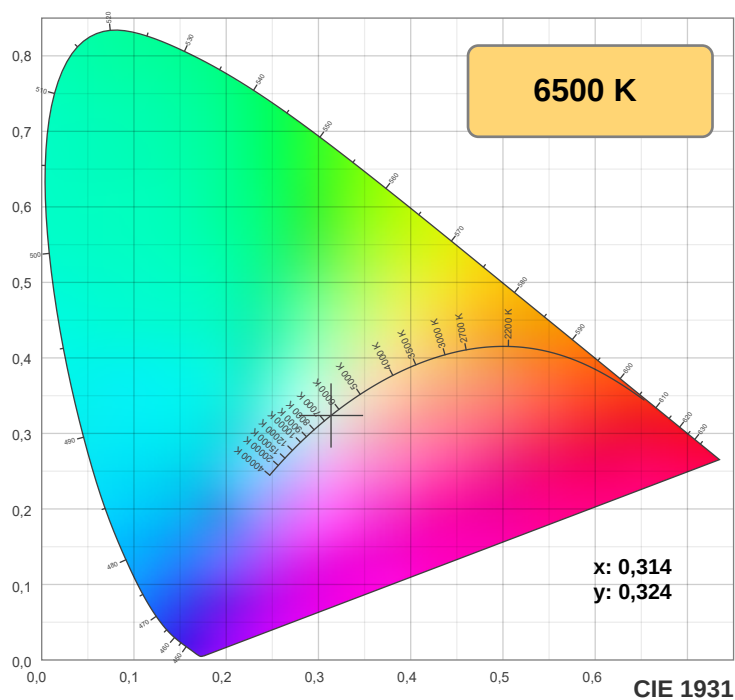
CIE 1931
x: 0,314
y: 0,324

Spectra

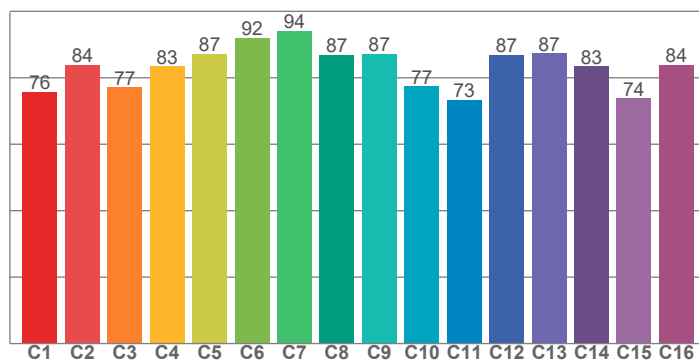


Power

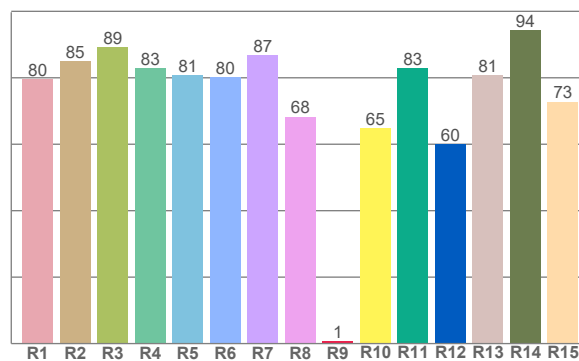




TM-30: 83,0



CRI: 81,6 (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
79,5	84,9	89,3	82,9	80,8	80,2	86,9	68,3	0,8	64,9	82,8	60,1	80,7	94,3	72,8

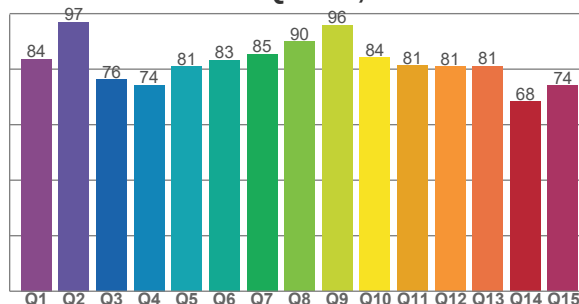
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75,8	83,9	77,2	83,4	87,2	92,0	94,2	86,9	87,2	77,4	73,4	86,9	87,4	83,4	73,7	83,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83,6	97,0	76,3	74,2	81,0	83,3	85,5	90,0	95,8	84,3	81,4	80,9	81,1	68,3	74,2

CQS: 80,9



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
6500 K	81,6	0,8	83,0	96,2	80,9	0,314	0,324	0,200	0,310	0,0020

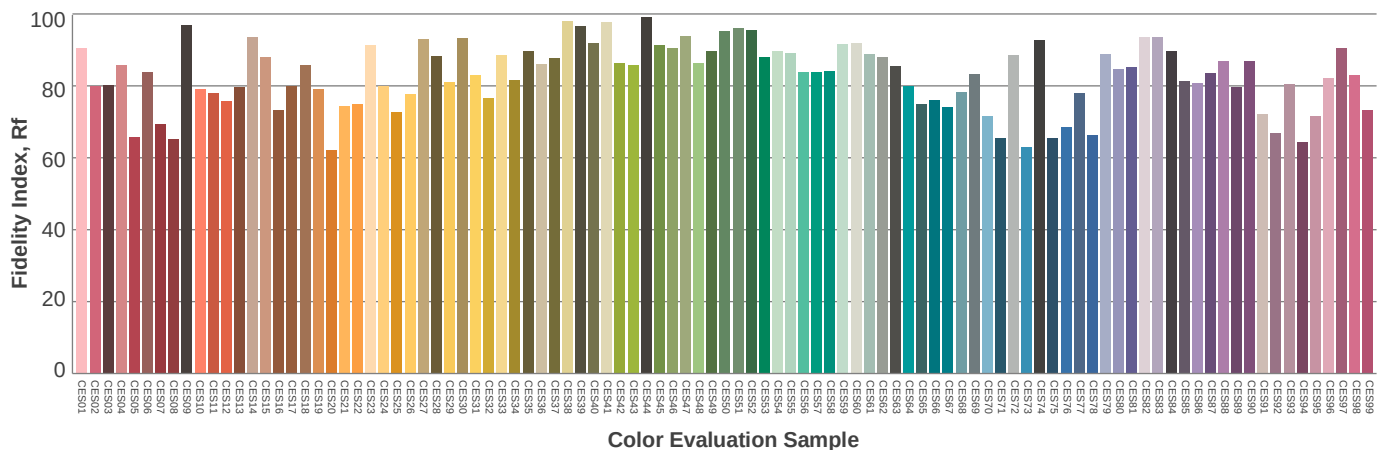
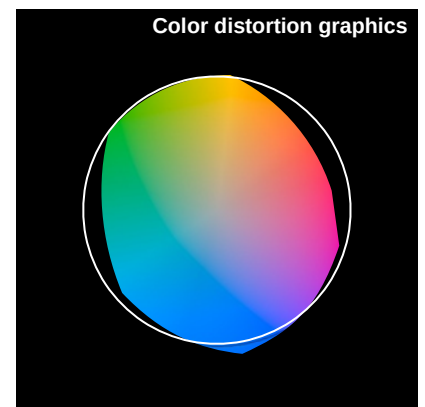
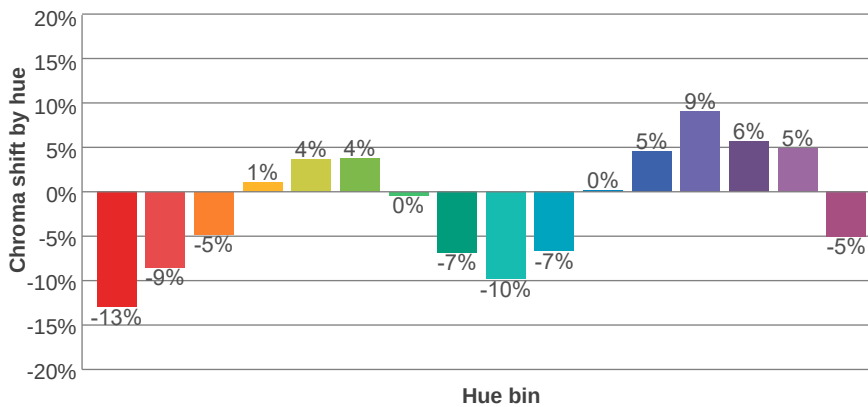
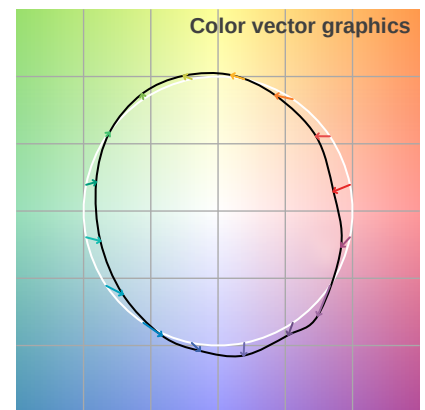
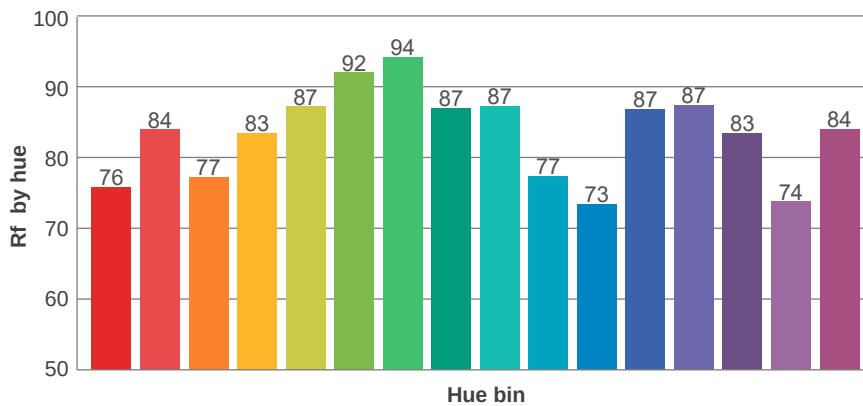
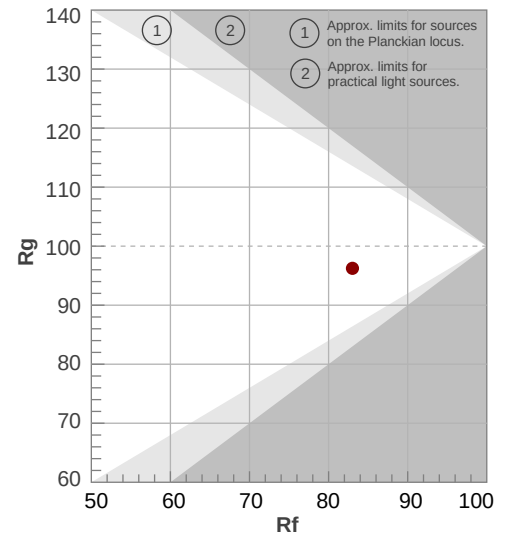
Rf 83,0

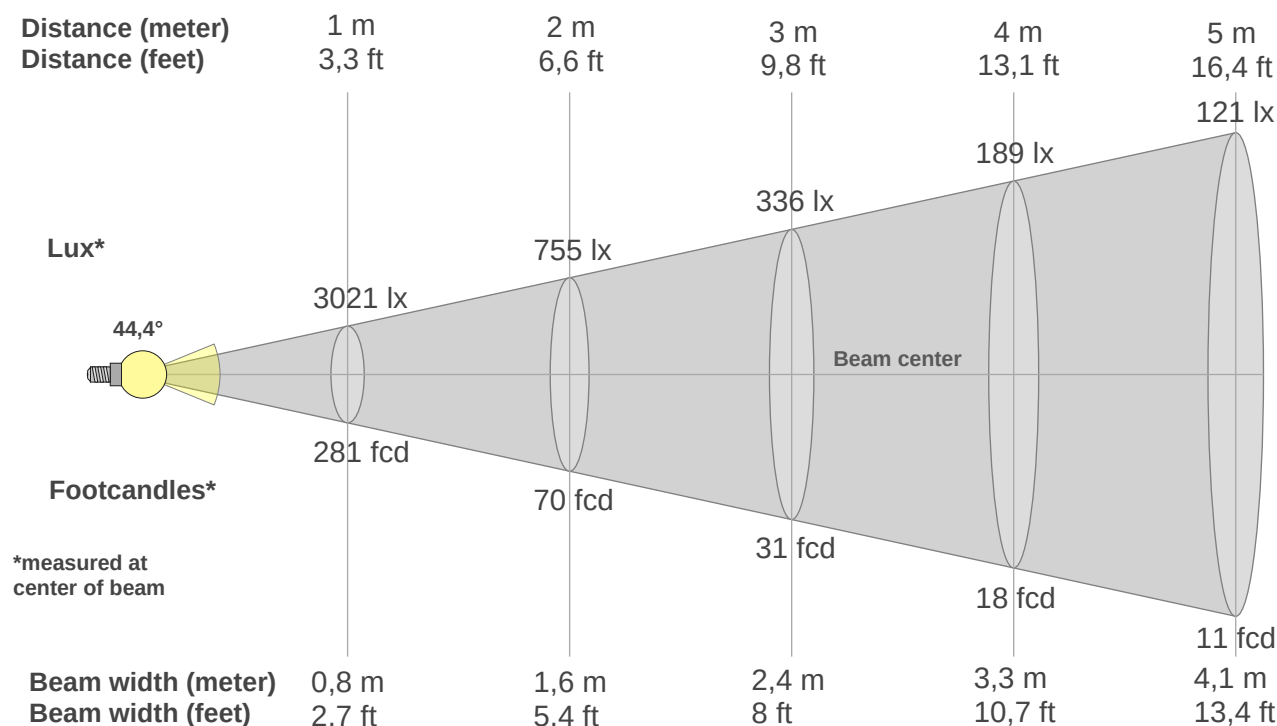
Fidelity index Rf

Rg 96,2

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	76	-13%	-3%
2	84	-9%	6%
3	77	-5%	12%
4	83	1%	10%
5	87	4%	5%
6	92	4%	-1%
7	94	0%	-4%
8	87	-7%	-3%
9	87	-10%	5%
10	77	-7%	12%
11	73	0%	17%
12	87	5%	7%
13	87	9%	-2%
14	83	6%	-8%
15	74	5%	-23%
16	84	-5%	-8%




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
3021lx	755lx	336lx	189lx	121lx	84lx	62lx	47lx	37lx	30lx	25lx	21lx	18lx	15lx	13lx	12lx	10lx	9lx	8lx	8lx
280,7fc	70,2fcd	31,2fcd	17,5fcd	11,2fcd	7,8fcd	5,7fcd	4,4fcd	3,5fcd	2,8fcd	2,3fcd	1,9fcd	1,7fcd	1,4fcd	1,2fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	0,7fcd

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3021	3001	2971	2928	2834	2739	2599	2439	2263	2027	1791	1535	1271	1020	819	618	473	351	258	210
100%	99%	98%	97%	94%	91%	86%	81%	75%	67%	59%	51%	42%	34%	27%	20%	16%	12%	9%	7%

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3021	3001	2971	2928	2834	2739	2599	2439	2263	2027	1791	1535	1271	1020	819	618	473	351	258	210
100%	99%	98%	97%	94%	91%	86%	81%	75%	67%	59%	51%	42%	34%	27%	20%	16%	12%	9%	7%

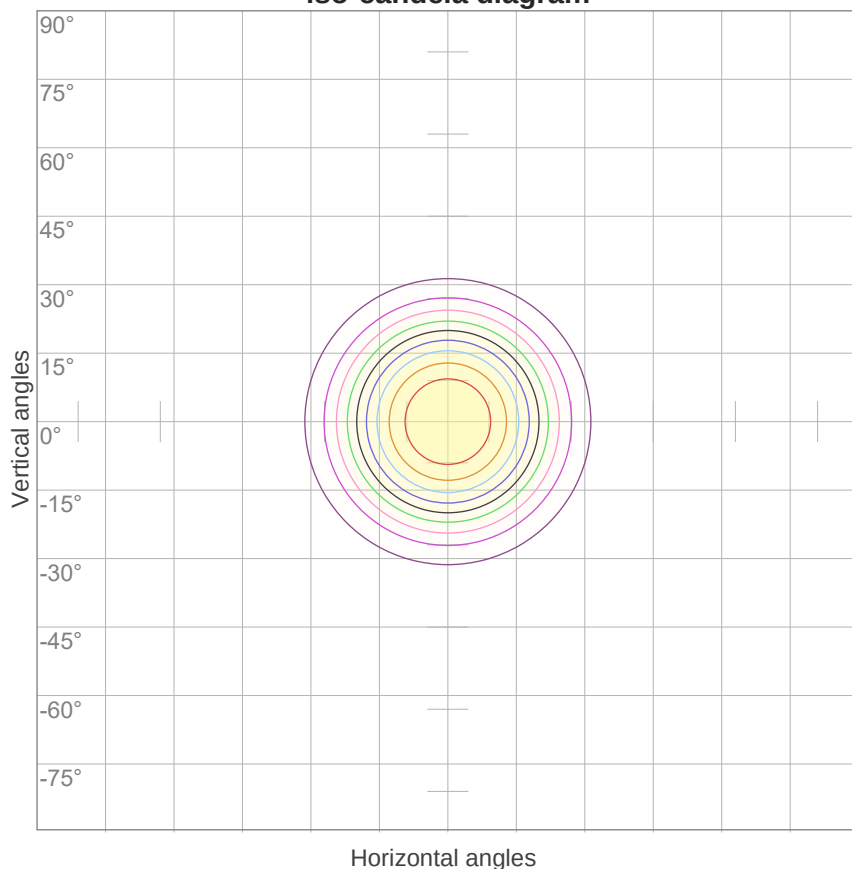
Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3021	3001	2971	2928	2834	2739	2599	2439	2263	2027	1791	1535	1271	1020	819	618	473	351	258	210
100%	99%	98%	97%	94%	91%	86%	81%	75%	67%	59%	51%	42%	34%	27%	20%	16%	12%	9%	7%

Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
3021	3001	2971	2928	2834	2739	2599	2439	2263	2027	1791	1535	1271	1020	819	618	473	351	258	210
100%	99%	98%	97%	94%	91%	86%	81%	75%	67%	59%	51%	42%	34%	27%	20%	16%	12%	9%	7%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
44,4°	69,6°	89,9°	98,3%	95,3%

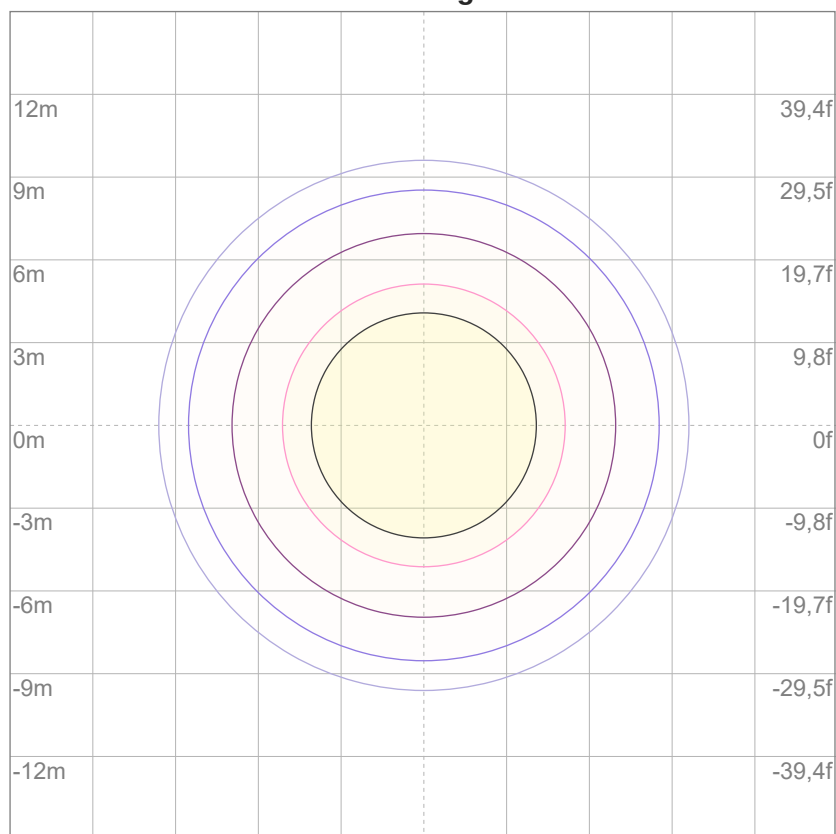
iso-candela diagram


10%	302 cd
20%	604 cd
30%	906 cd
40%	1209 cd
50%	1511 cd
60%	1813 cd
70%	2115 cd
80%	2417 cd
90%	2719 cd

Conditions:

Number of c-planes: 12

Candela at center: 3021 cd

iso-lux diagram


3%	0,906 lx
5%	1,51 lx
10%	3,02 lx
30%	9,06 lx
50%	15,1 lx

Conditions:

Number of c-planes: 12

Lux at center: 30,2 lx

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

Glare evaluation according to UGR

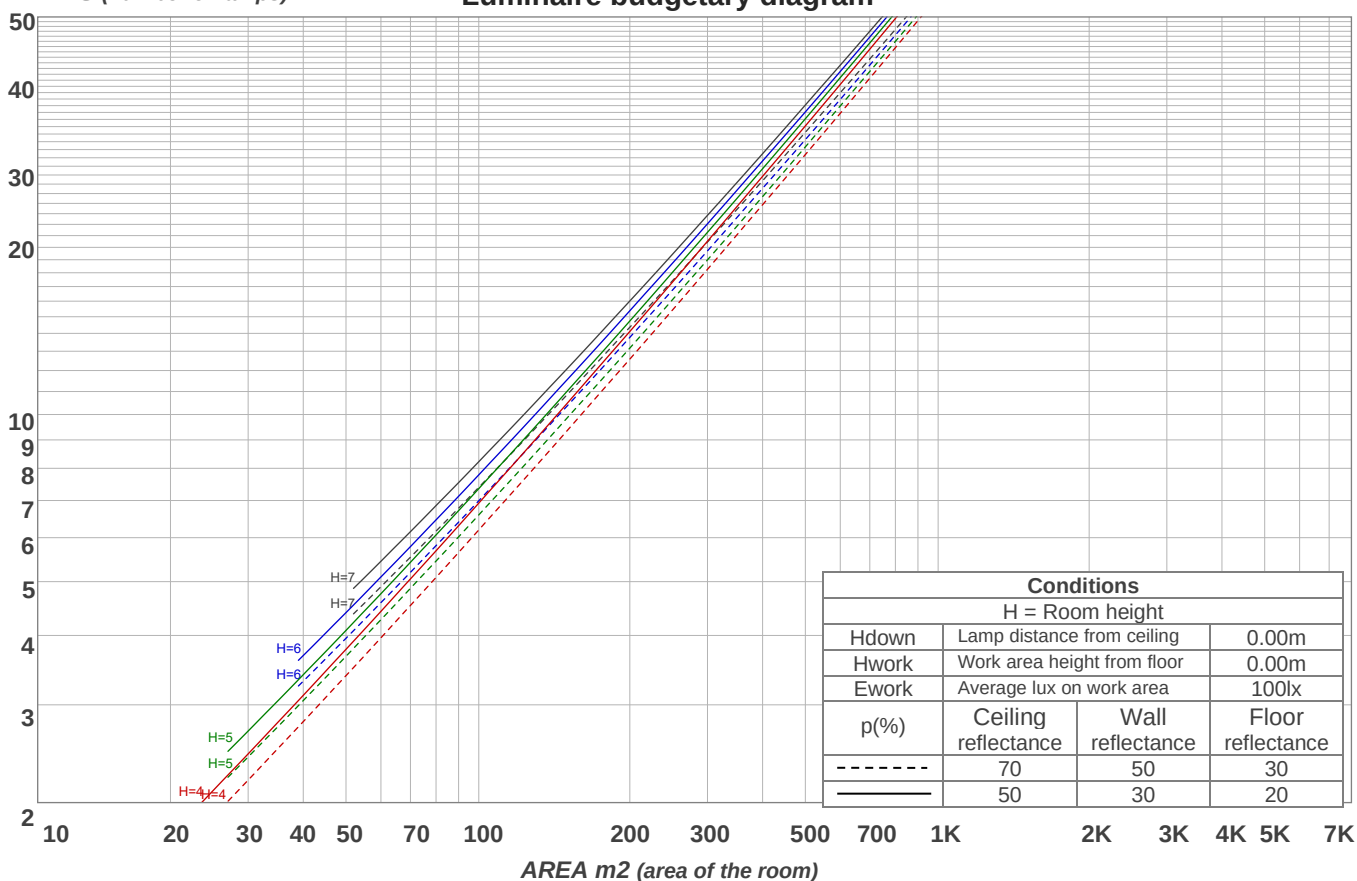
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	19,2	19,8	19,3	20,0	20,2	19,2	19,8	19,3	20,0	20,2
	3H	19,0	19,7	19,4	19,9	20,1	19,0	19,7	19,4	19,9	20,1
	4H	19,0	19,6	19,4	19,9	20,1	19,0	19,6	19,4	19,9	20,1
	6H	19,0	19,5	19,3	19,8	20,2	19,0	19,5	19,3	19,8	20,2
	8H	18,9	19,5	19,3	19,8	20,2	18,9	19,5	19,3	19,8	20,2
	12H	18,9	19,4	19,2	19,8	20,2	18,9	19,4	19,2	19,8	20,2
4H	2H	18,9	19,6	19,3	19,8	20,1	18,9	19,6	19,3	19,8	20,1
	3H	19,0	19,5	19,3	19,9	20,3	19,0	19,5	19,3	19,9	20,3
	4H	18,9	19,4	19,3	19,8	20,3	18,9	19,4	19,3	19,8	20,3
	6H	18,8	19,4	19,3	19,7	20,1	18,8	19,4	19,3	19,7	20,1
	8H	18,8	19,3	19,3	19,6	20,0	18,8	19,3	19,3	19,6	20,0
	12H	18,7	19,1	19,2	19,5	20,0	18,7	19,1	19,2	19,5	20,0
8H	4H	18,8	19,3	19,3	19,6	20,0	18,8	19,3	19,3	19,6	20,0
	6H	18,7	19,1	19,3	19,5	20,1	18,7	19,1	19,3	19,5	20,1
	8H	18,8	19,0	19,3	19,5	20,2	18,8	19,0	19,3	19,5	20,2
	12H	18,7	18,9	19,3	19,4	20,0	18,7	18,9	19,3	19,4	20,0
12H	4H	18,7	19,1	19,2	19,5	20,0	18,7	19,1	19,2	19,5	20,0
	6H	18,7	19,0	19,3	19,5	20,2	18,7	19,0	19,3	19,5	20,2
	8H	18,7	18,9	19,3	19,4	20,0	18,7	18,9	19,3	19,4	20,0
Variation of the observer position for the luminaire distance S											
S = 1.0H		4,4 / -4,5					4,4 / -4,5				
S = 1.5H		6,9 / -5,9					6,9 / -5,9				
S = 2.0H		8,8 / -7,1					8,8 / -7,1				
CIE 117-1995. Corrected glare indices referring to 1764 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	101	101	101	99
1	114	111	109	107	111	109	107	105	105	103	102	101	100	98	97	96	95	94
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88
3	104	98	93	90	102	96	92	89	94	90	87	91	88	86	89	87	84	83
4	99	92	87	83	97	91	86	83	89	85	82	87	83	81	85	82	80	78
5	95	87	82	78	93	86	81	77	84	80	77	83	79	76	81	78	75	74
6	91	83	77	73	89	82	77	73	80	76	72	79	75	72	77	74	71	70
7	87	78	73	69	85	78	73	69	76	72	68	75	71	68	74	70	68	66
8	83	75	69	65	82	74	69	65	73	68	65	72	68	65	71	67	64	63
9	80	71	66	62	79	71	65	62	70	65	62	69	65	62	68	64	61	60
10	77	68	63	59	76	67	62	59	67	62	59	66	62	59	65	61	58	57

LAMPS (number of lamps)

Luminaire budgetary diagram



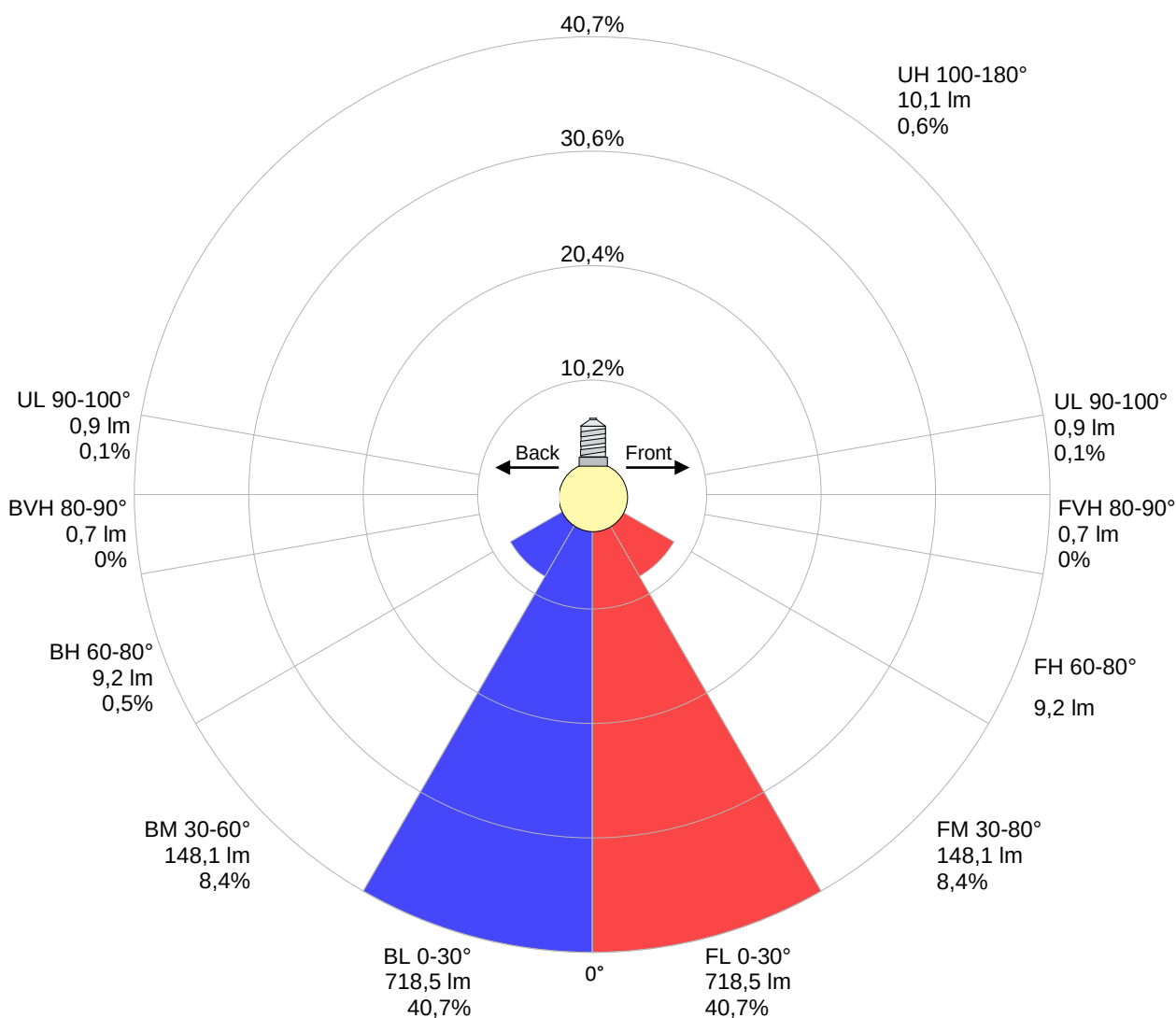
Zonal Lumen Summary

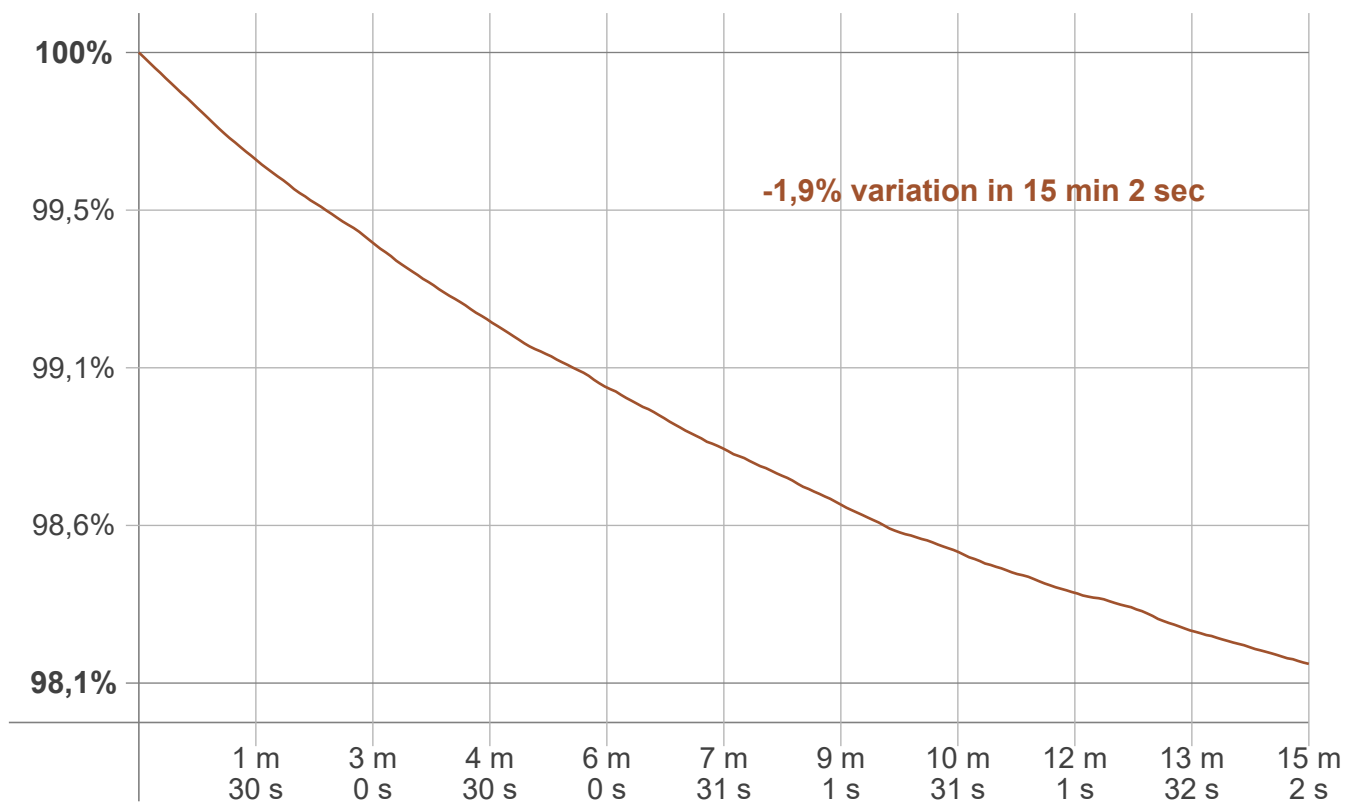
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
{LUM0-10}	642 lm	522 lm	204 lm	61,9 lm	28,2 lm	13,6 lm	4,71 lm	1,32 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,926 lm	0,886 lm	1,03 lm	1,34 lm	1,68 lm	1,94 lm	1,73 lm	1,14 lm	0,404 lm

LCS table

BUG rating:	B2 U1 G0	
Forward light	Lumens	Lumens %
Low(0-30):	718,5	40,7%
Medium(30-60):	148,1	8,4%
High(60-80):	9,2	0,5%
Very high(80-90):	0,7	0%
Back light		
Low(0-30):	718,5	40,7%
Medium(30-60):	148,1	8,4%
High(60-80):	9,2	0,5%
Very high(80-90):	0,7	0%
Uplight		
Low(90-100):	0,9	0,1%
High(100-180):	10,1	0,6%

LCS graph



Warmup curve

Warmup result

Warmup time:	Lamp stabilized in 15 min 2 sec
Warmup variation	-1,9%

Warmup conditions

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

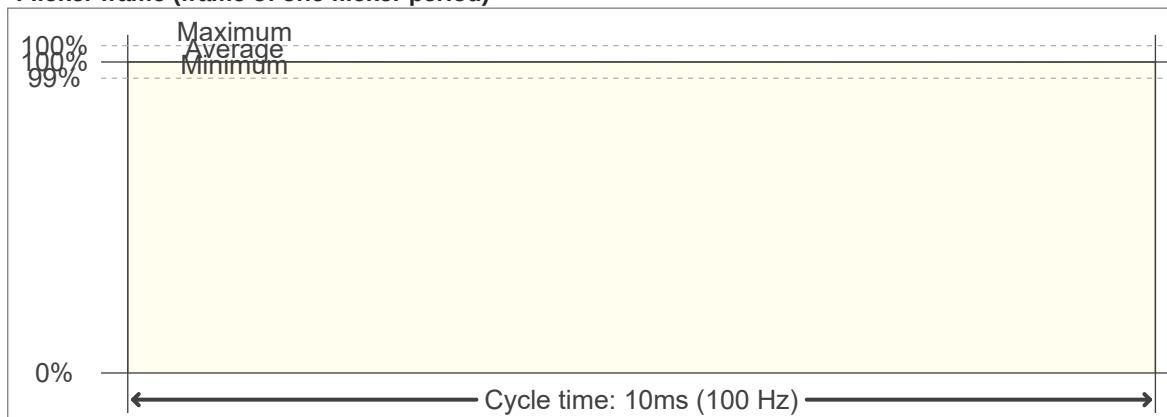
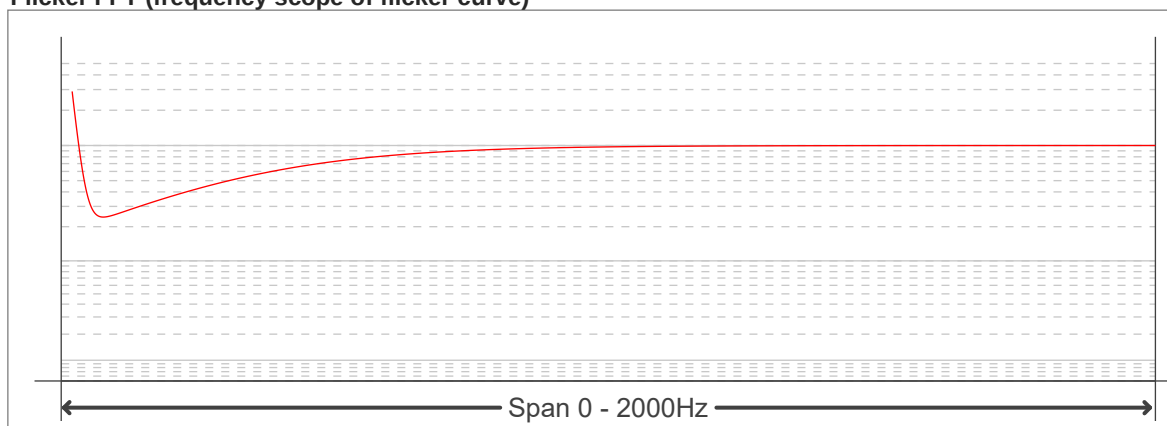
Color temperature change

CCT start	CCT change	CCT end
6447 K	+53 K	6500 K

Output change

Output start	Output change	Output end
1797 lm	-33 lm	1764 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 Hz	
Flicker index:	0	JA8/10 40Hz	0,02 %
Flicker percentage:	0,13 %	JA8/10 90Hz	0,03 %
SVM: (Visual flicker)	0	JA8/10 200Hz	0,09 %
PstLM	0,02	JA8/10 400Hz	0,11 %
Mp	0,01	JA8/10 1000Hz	0,12 %

Flicker conditions:

Sample rate:	20000 samples/second
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