Light efficiency:

43 Lumen/Watt

Light quality:

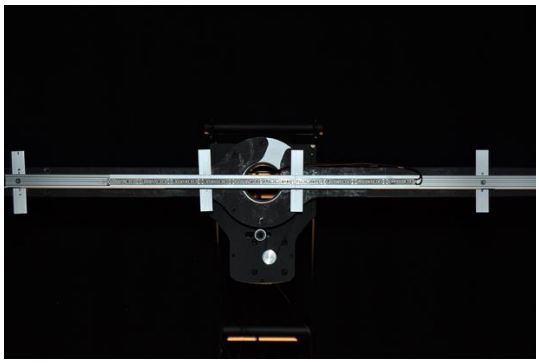
CRI: 44,5

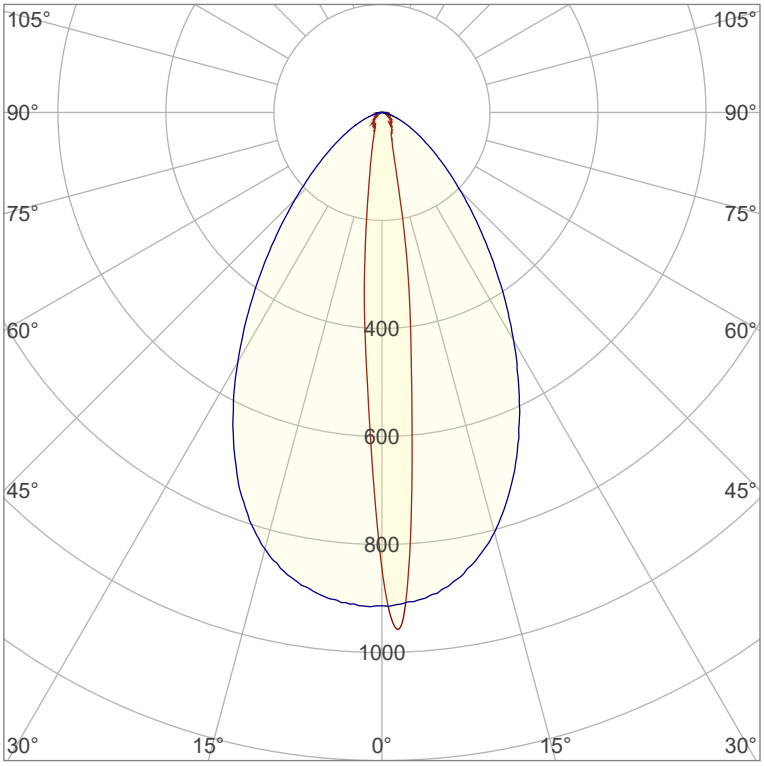
Color temperature:

17060 K

Output: 388 lm
Peak: 957 cd

Power: 9,1 W
PF: 1,0





Product name:
Defiant-3_510mm_RGB_Inlay-Lens-Wallwasher

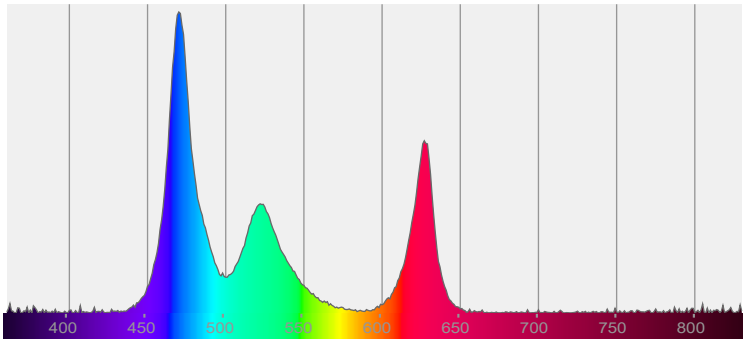
Item number:
NP/L3C/22C/0510/RGB/ILWW

Date and time:
09.09.2025 08:47:38

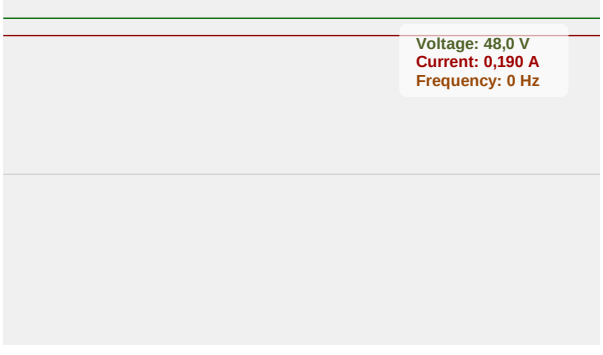
Description:
Tolerances:
Lumen +/-4%
Candela +/-2,5%
Colour Temp +/-35 Kelvin
CRI +/-0,7
Angular Resolution: 1 Degree Step
Last Calibration 13.10.2023
Tester: Peter Ulrich
Test Site: Lichtlabor
Gaustrasse 13
55411 Bingen am Rhein

CIE 1931
x: 0,248
y: 0,275

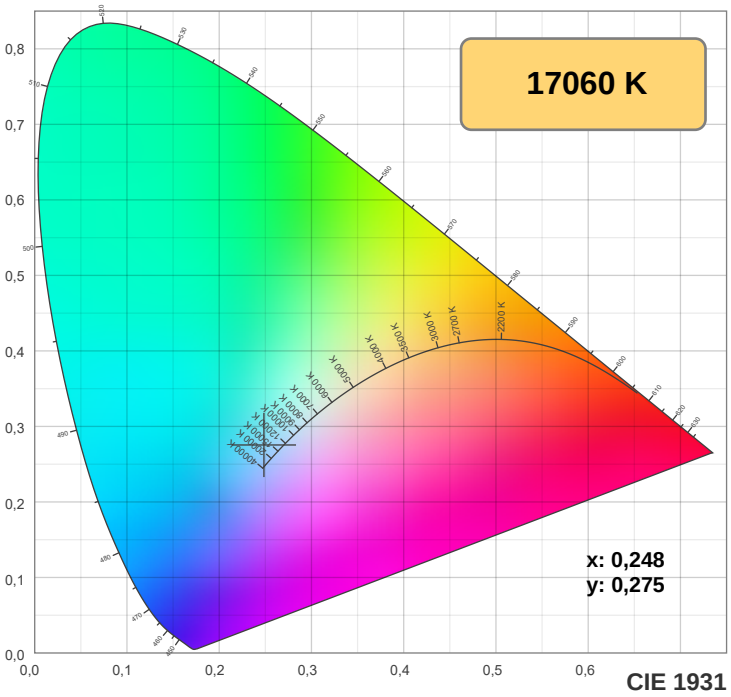
Spectra



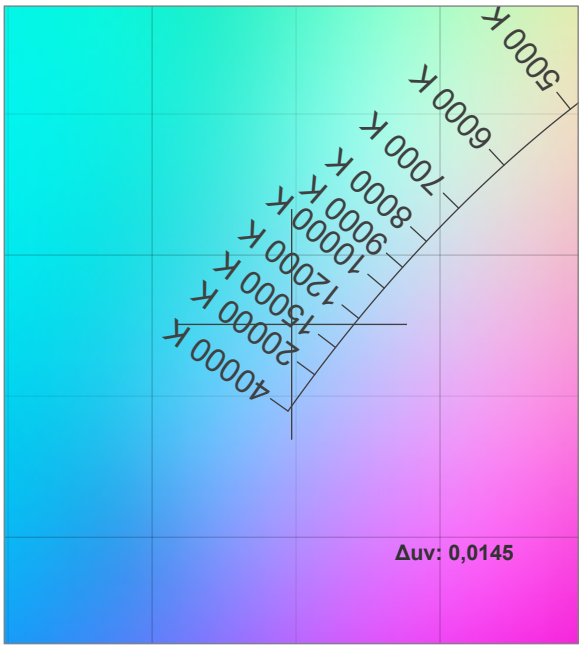
Power



Color details

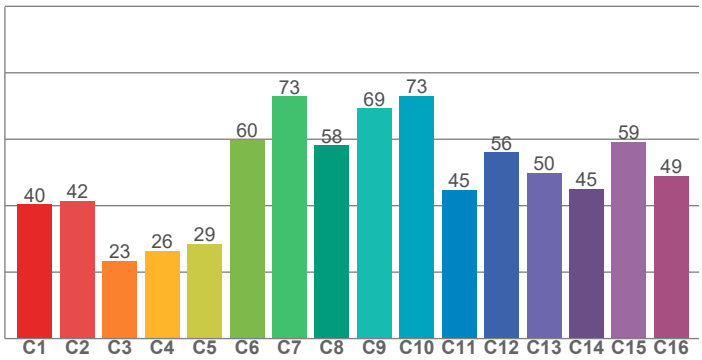


CIE 1931

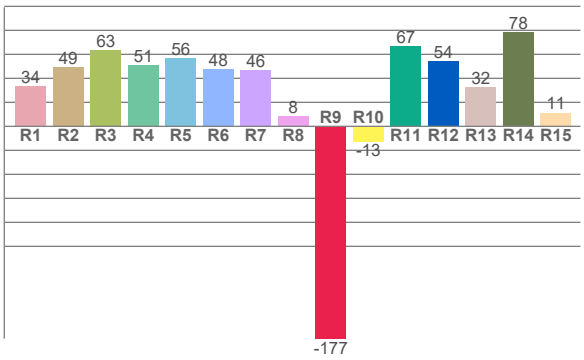


CIE 1931 ZOOM

TM30: 48,2



CRI: 44,5 (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
33,6	48,9	63,4	51,1	56,4	47,5	46,4	8,4	-176,9	-12,6	66,8	54,2	32,4	78,2	11,3

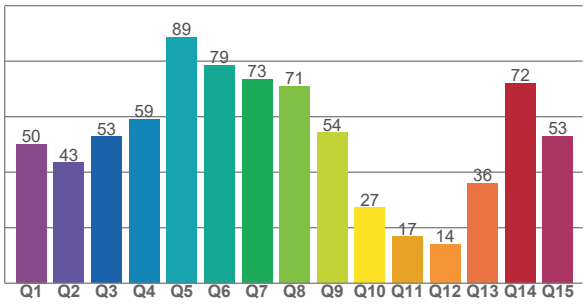
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
40,4	41,5	23,3	26,5	28,5	59,8	72,9	58,1	69,3	73,1	44,7	56,0	50,0	45,0	59,1	49,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
50,1	43,5	52,8	59,1	88,8	78,7	73,5	71,0	54,2	27,2	16,9	14,1	36,2	72,1	53,0

CQS: 47,5



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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
17060 K	44,5	-176,9	48,2	87,6	47,5	0,248	0,275	0,171	0,285	0,0145

TM30 details

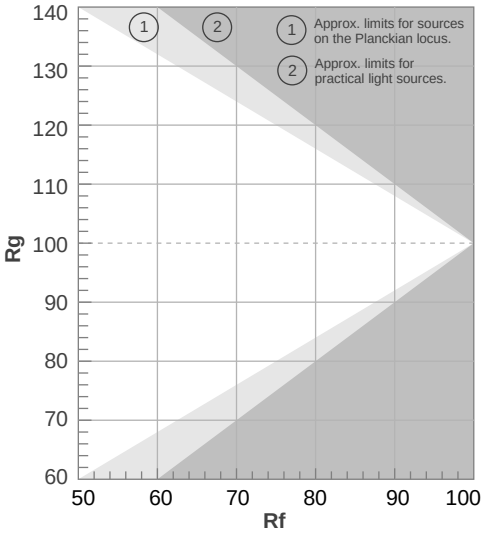
Rf 48,2

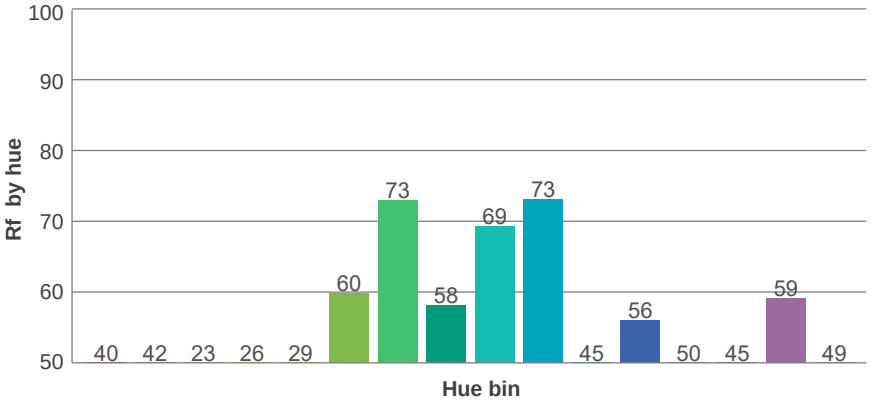
Fidelity index Rf

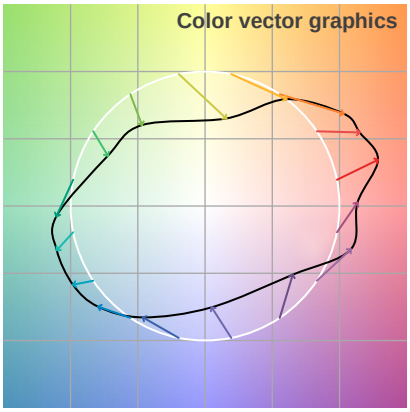
Rg 87,6

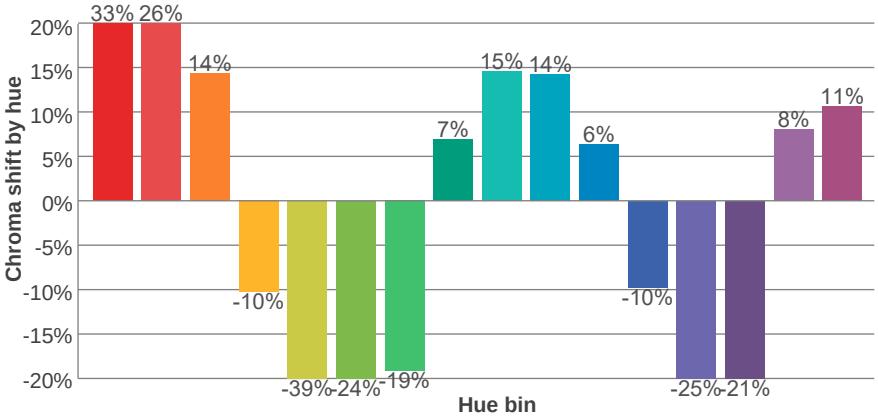
Gammut index Rg

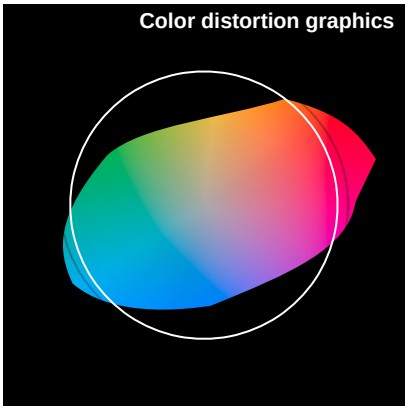
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	40	33%	9%
2	42	26%	-18%
3	23	14%	-47%
4	26	-10%	-44%
5	29	-39%	-28%
6	60	-24%	6%
7	73	-19%	9%
8	58	7%	29%
9	69	15%	11%
10	73	14%	-6%
11	45	6%	-25%
12	56	-10%	-29%
13	50	-25%	-10%
14	45	-21%	26%
15	59	8%	33%
16	49	11%	25%

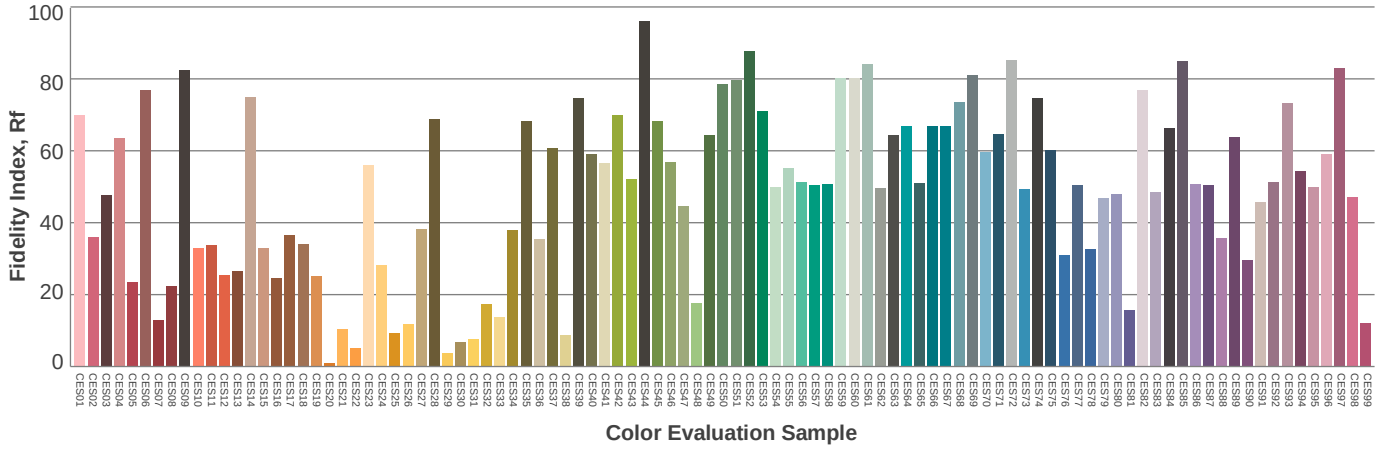




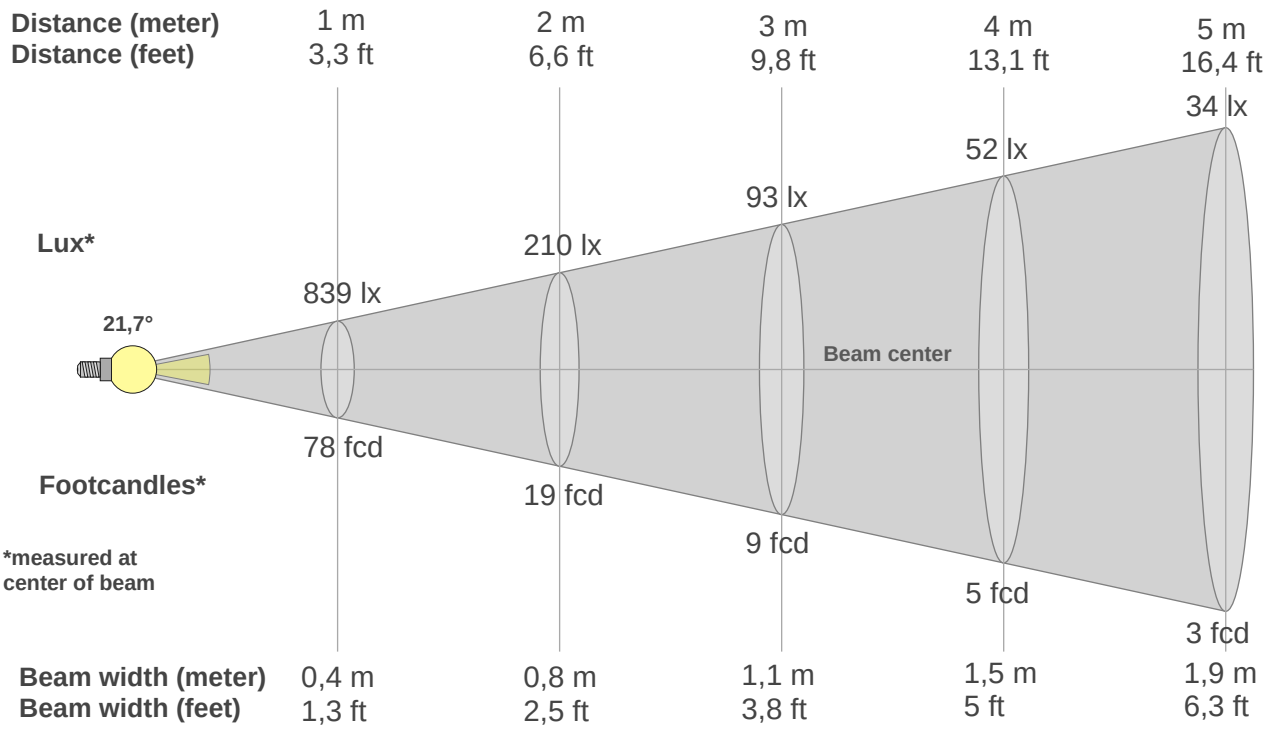








Beam details



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
839lx	210lx	93lx	52lx	34lx	23lx	17lx	13lx	10lx	8lx	7lx	6lx	5lx	4lx	4lx	3lx	3lx	3lx	2lx	2lx
78fcd	19,5fcd	8,7fcd	4,9fcd	3,1fcd	2,2fcd	1,6fcd	1,2fcd	1fcd	0,8fcd	0,6fcd	0,5fcd	0,5fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd

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°
839	952	769	530	374	256	157	105	78	63	52	47	43	41	39	37	32	29	26	26
100%	113%	92%	63%	45%	30%	19%	12%	9%	7%	6%	6%	5%	5%	5%	4%	4%	3%	3%	3%

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°
839	911	906	897	885	868	845	820	788	752	713	671	625	580	533	488	443	400	357	319
100%	109%	108%	107%	105%	103%	101%	98%	94%	90%	85%	80%	74%	69%	63%	58%	53%	48%	43%	38%

Intensities in 180° c-plane

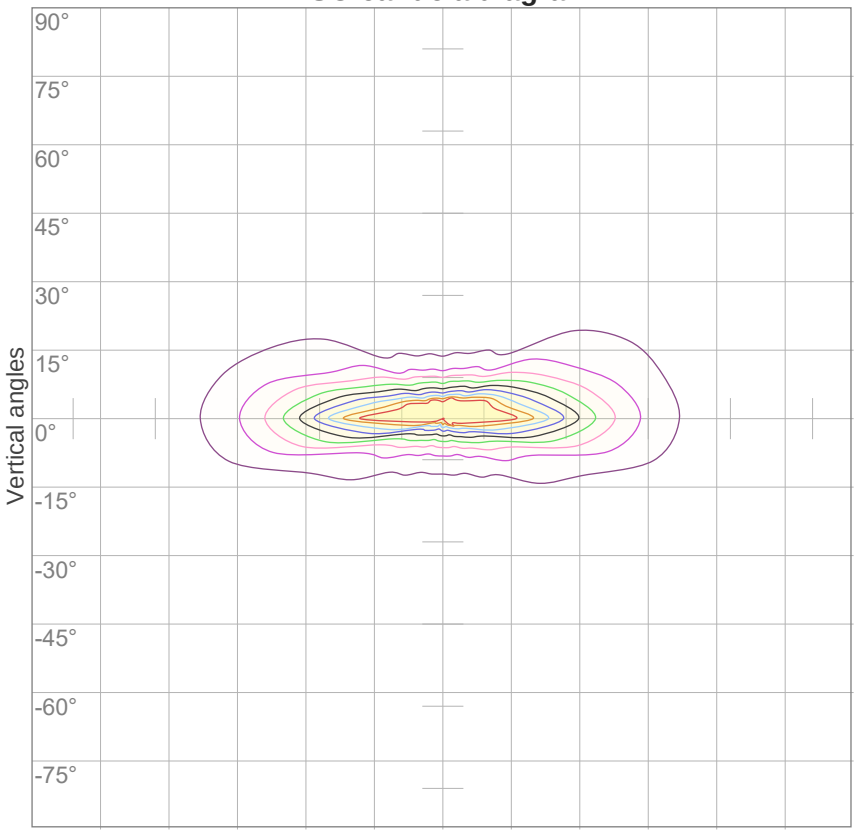
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
839	604	435	310	208	141	104	80	63	50	43	37	33	30	27	27	31	29	24	22
100%	72%	52%	37%	25%	17%	12%	9%	8%	6%	5%	4%	4%	4%	3%	3%	4%	3%	3%	3%

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°
839	915	911	906	896	885	869	849	823	794	758	718	675	629	583	534	486	440	395	352
100%	109%	109%	108%	107%	105%	104%	101%	98%	95%	90%	86%	80%	75%	69%	64%	58%	52%	47%	42%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
21,7°	**53,7°**	**106,7°**	**90,0%**	**76,2%**

ISO candela diagram



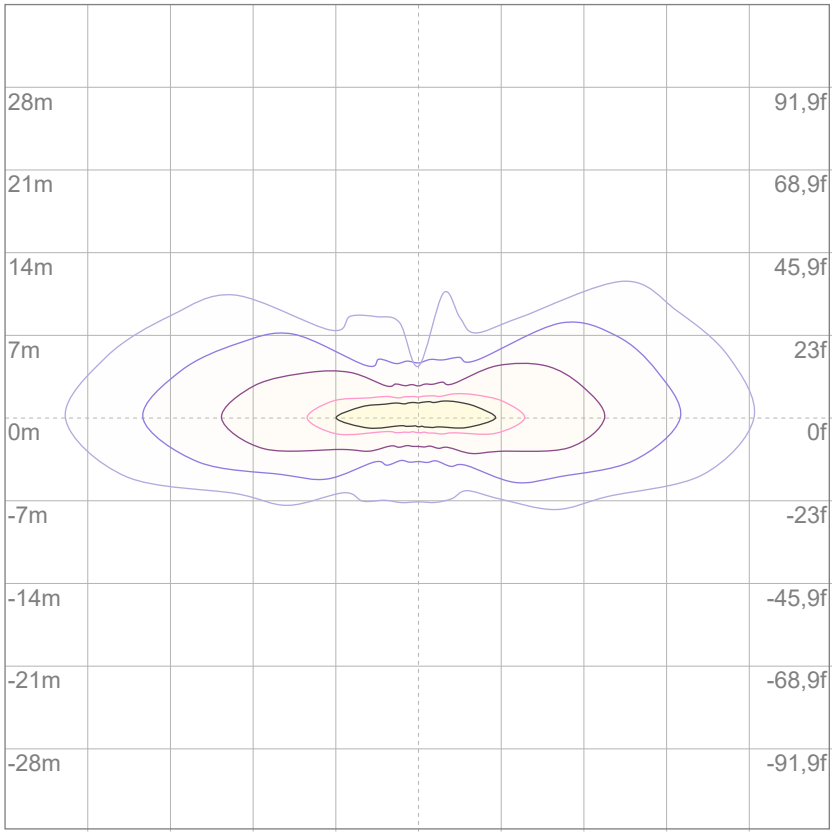
10%	84 cd
20%	168 cd
30%	252 cd
40%	336 cd
50%	420 cd
60%	504 cd
70%	588 cd
80%	672 cd
90%	756 cd

Conditions:

Number of c-planes: 16

Candela at center: 839 cd

ISO lux diagram



Mounting height: 10 meters (33 feet)

3%	0,252 lx
5%	0,420 lx
10%	0,839 lx
30%	2,52 lx
50%	4,20 lx

Conditions:

Number of c-planes: 16

Lux at center: 8,39 lx

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

Glare Evaluation According to UGR

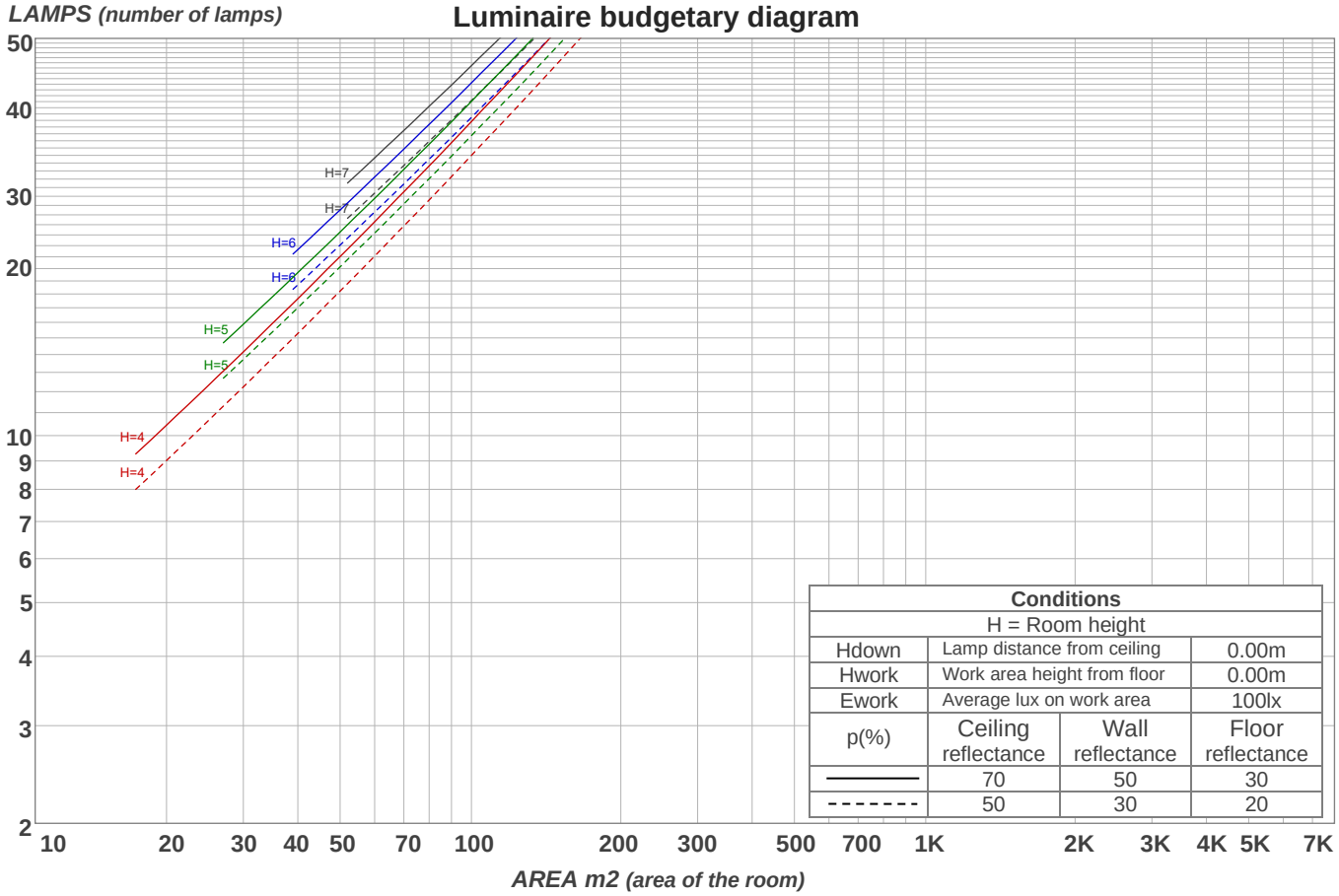
p Ceiling	70	70	50	50	30	70	70	50	50	30
p Walls	50	30	50	30	30	50	30	50	30	30
p Floor	20	20	20	20	20	20	20	20	20	20
Room size X Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Variation of the observer position for the luminaire distance S										
n/a	n/a					n/a				
n/a	n/a					n/a				
n/a	n/a					n/a				
Standard table	n/a					n/a				
Correction summand	n/a					n/a				
Corrected glare indices referring to 388 lm total luminous flux										

UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

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	100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89
2	104	98	93	88	102	96	91	87	93	89	85	89	86	83	87	84	82	80
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66
5	86	76	69	64	84	75	69	64	73	68	63	72	67	63	70	66	62	60
6	81	71	64	59	80	70	64	59	69	63	58	67	62	58	66	61	57	56
7	77	66	59	55	76	66	59	54	64	58	54	63	58	54	62	57	54	52
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	58	54	50	49
9	70	59	52	48	68	58	52	48	57	52	48	56	51	47	55	51	47	46
10	66	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43

Luminaire budgetary diagram

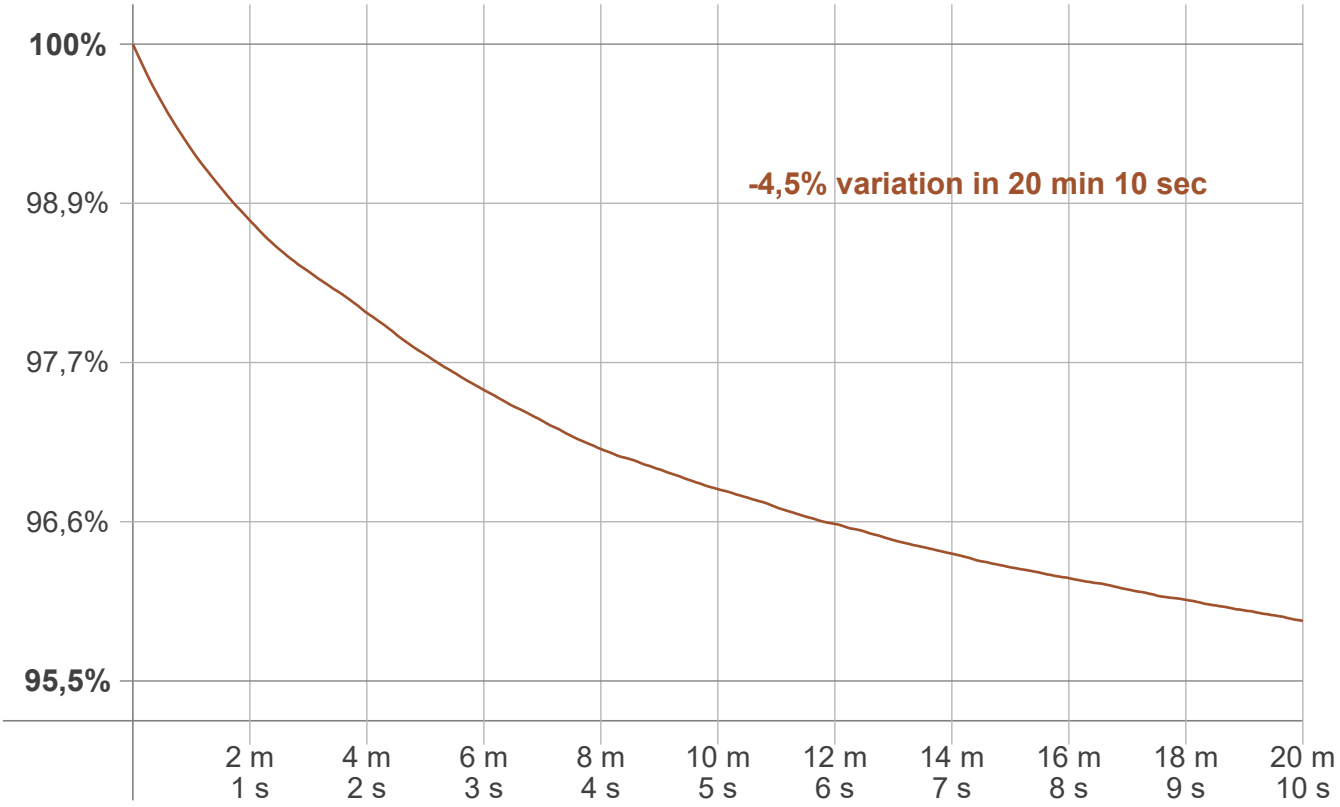


Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
55,6 lm	80,1 lm	73,2 lm	61,4 lm	47,0 lm	32,0 lm	19,1 lm	11,6 lm	8,03 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,021 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm

Warmup curve



Warmup result

Warmup time:	**Lamp stabilized in 20 min 10 sec**
Warmup variation	**-4,5%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
16162 K	+898 K	17060 K

Output change

Output start	Output change	Output end
406 lm	-18 lm	388 lm