Light efficiency:

46 Lumen/Watt

Light quality:

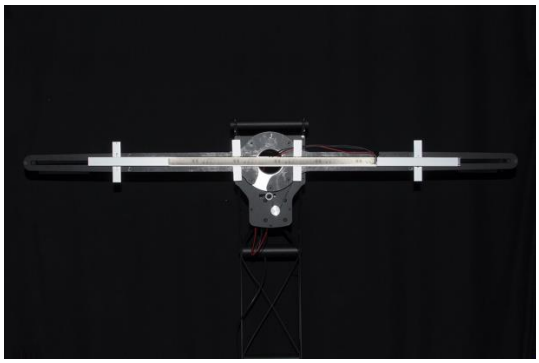
CRI: 0,0

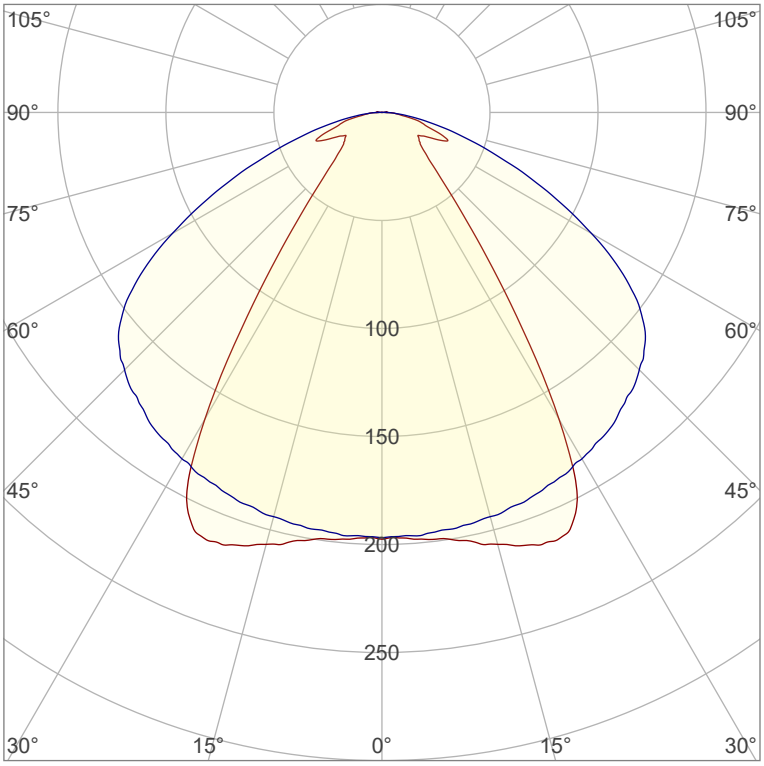
Color temperature:

0 K

Output: 440 lm
Peak: 214 cd

Power: 9,6 W
PF: 1,0





Product name:
Defiant-3_510mm_XXR_Lens-60°-Frosted

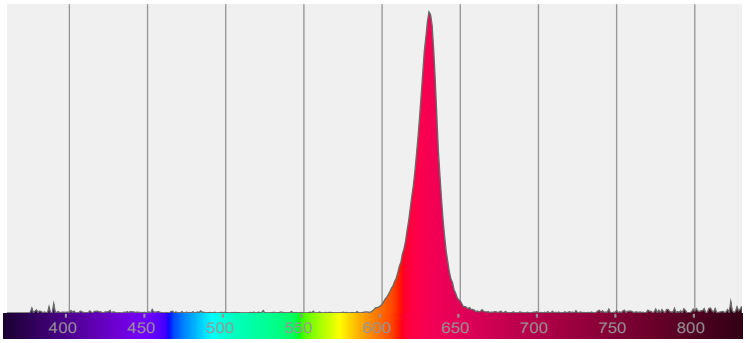
Item number:
NP/L3C/22C/0510/XXR/L6F

Date and time:
07.07.2020 15:52:45

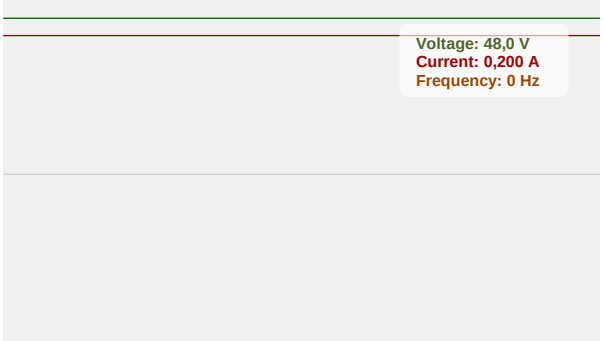
Description:
Toleranzen:
Lumen +/-4%
Candela +/-2,5%
Colour Temp +/-35 K
CRI +/-0,7
Angular Resolution 1 Grad Step
Last Calibration 20.05.2020
Pruefer:
Peter Ulrich
Pruefort:
Lichtlabor
Gaustrasse 13
55411 Bingen am Rhein

CIE 1931
x: 0,685
y: 0,301

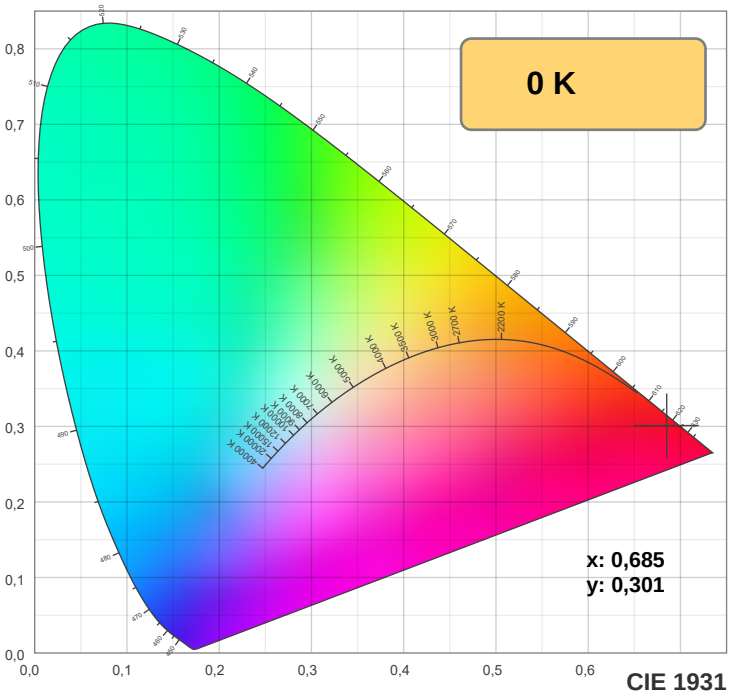
Spectra



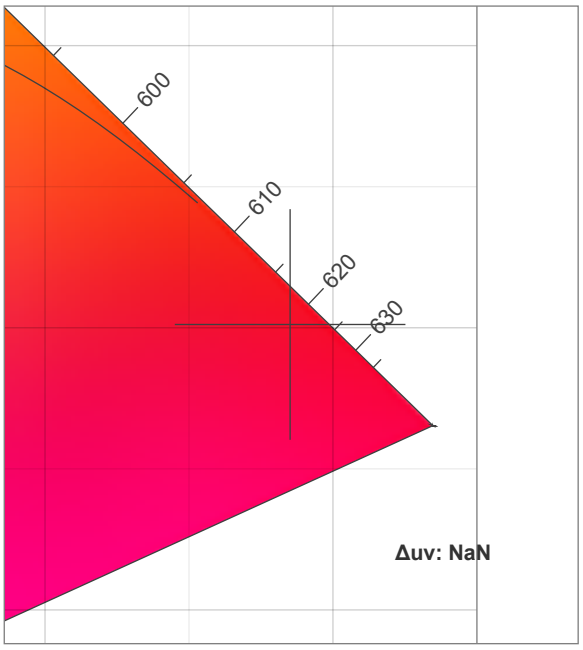
Power



Color details

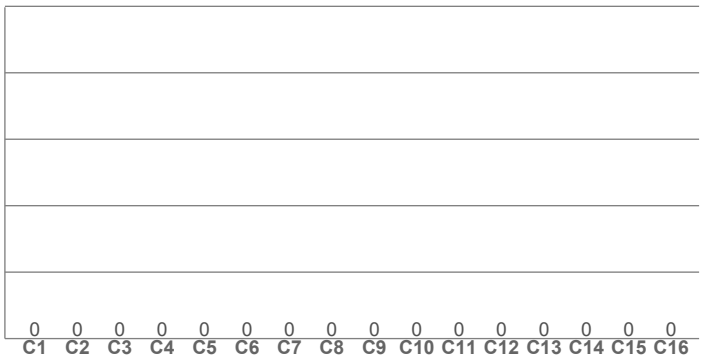


CIE 1931

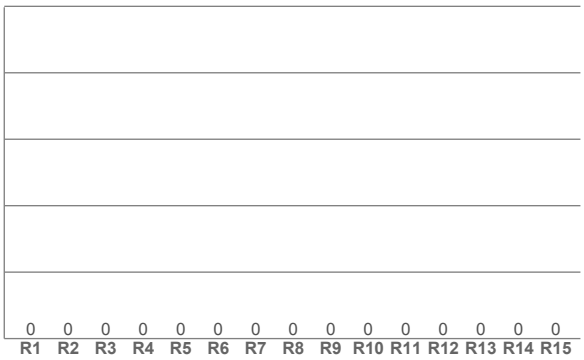


CIE 1931 ZOOM

TM30: 0,0



CRI: 0,0 (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
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

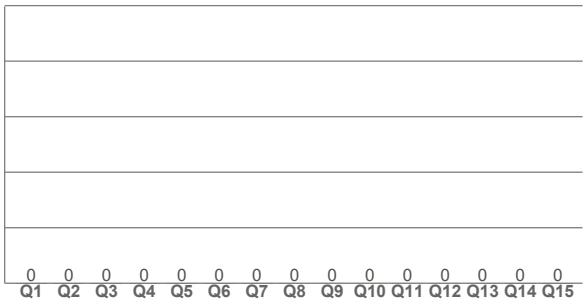
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

CQS: 0,0



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
0 K	0,0	0,0	0,0	0,0	0,0	0,685	0,301	0,523	0,345	NaN

TM30 details

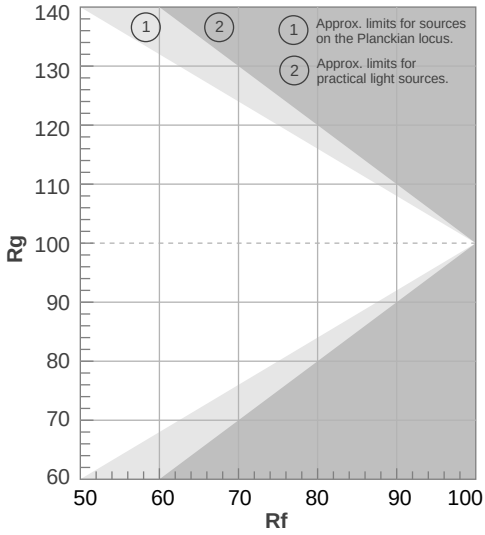
Rf 0,0

Fidelity index Rf

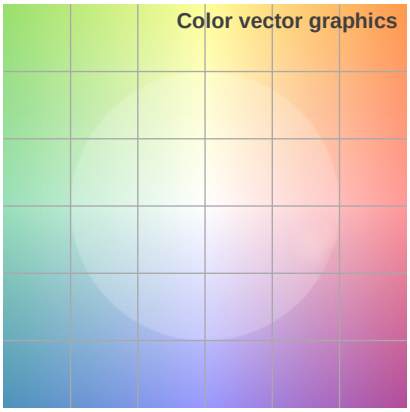
Rg 0,0

Gammut index Rg

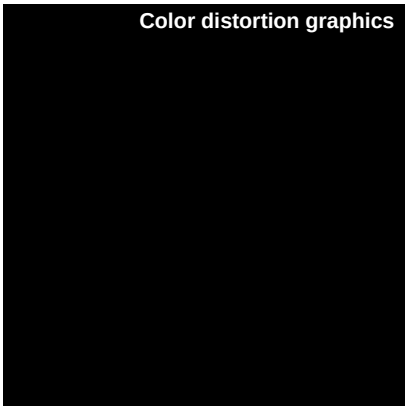
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	0	0%	0%
2	0	0%	0%
3	0	0%	0%
4	0	0%	0%
5	0	0%	0%
6	0	0%	0%
7	0	0%	0%
8	0	0%	0%
9	0	0%	0%
10	0	0%	0%
11	0	0%	0%
12	0	0%	0%
13	0	0%	0%
14	0	0%	0%
15	0	0%	0%
16	0	0%	0%

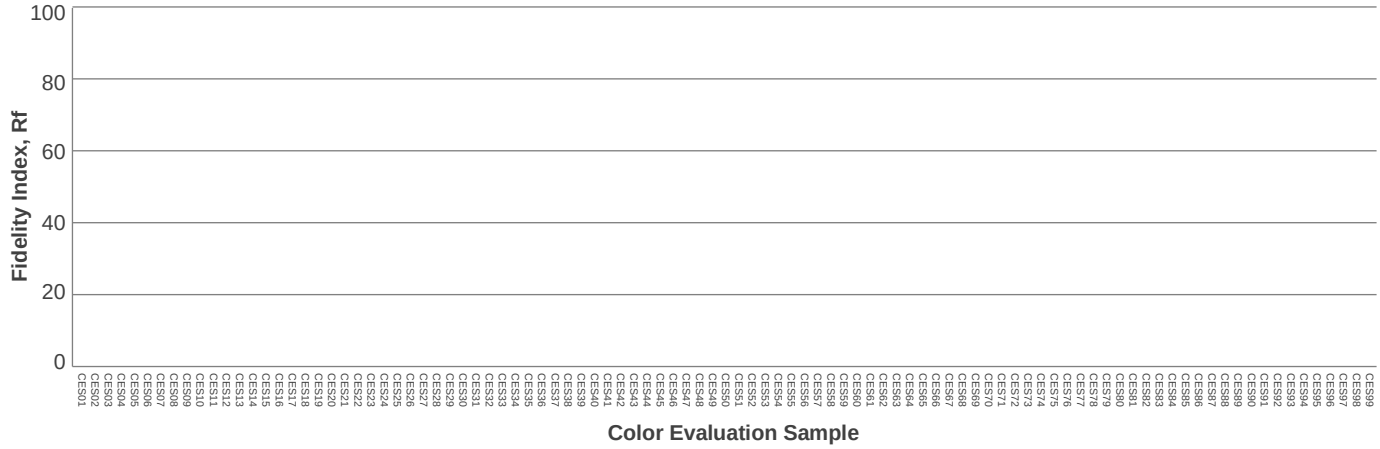




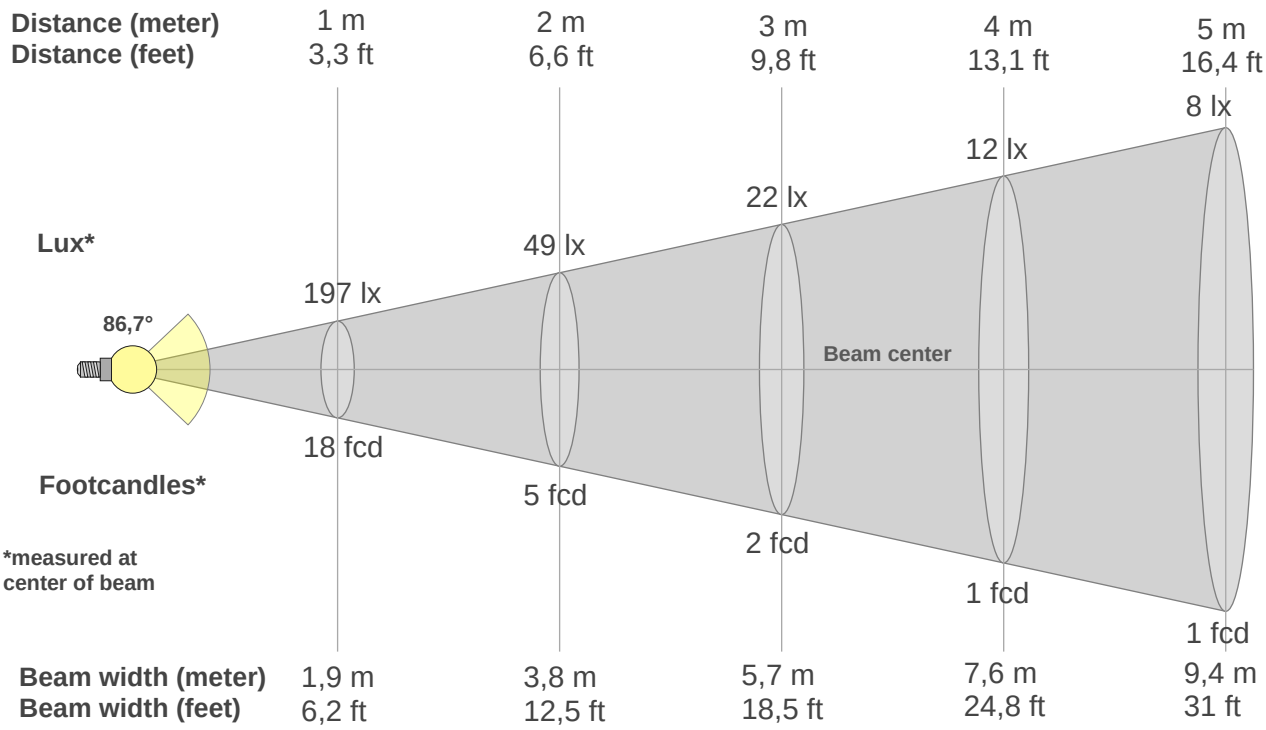








Beam details



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
197lx	49lx	22lx	12lx	8lx	5lx	4lx	3lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx
18,3fcd	4,6fcd	2fcd	1,1fcd	0,7fcd	0,5fcd	0,4fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0fcd

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°
197	198	201	207	213	209	164	93	50	31	23	21	22	31	28	19	12	6	2	0
100%	101%	102%	105%	108%	106%	83%	48%	26%	16%	12%	11%	11%	16%	14%	10%	6%	3%	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°
197	197	195	194	192	189	185	181	175	168	159	140	112	82	54	33	18	7	2	0
100%	100%	99%	99%	98%	96%	94%	92%	89%	86%	81%	71%	57%	42%	28%	17%	9%	4%	1%	0%

Intensities in 180° c-plane

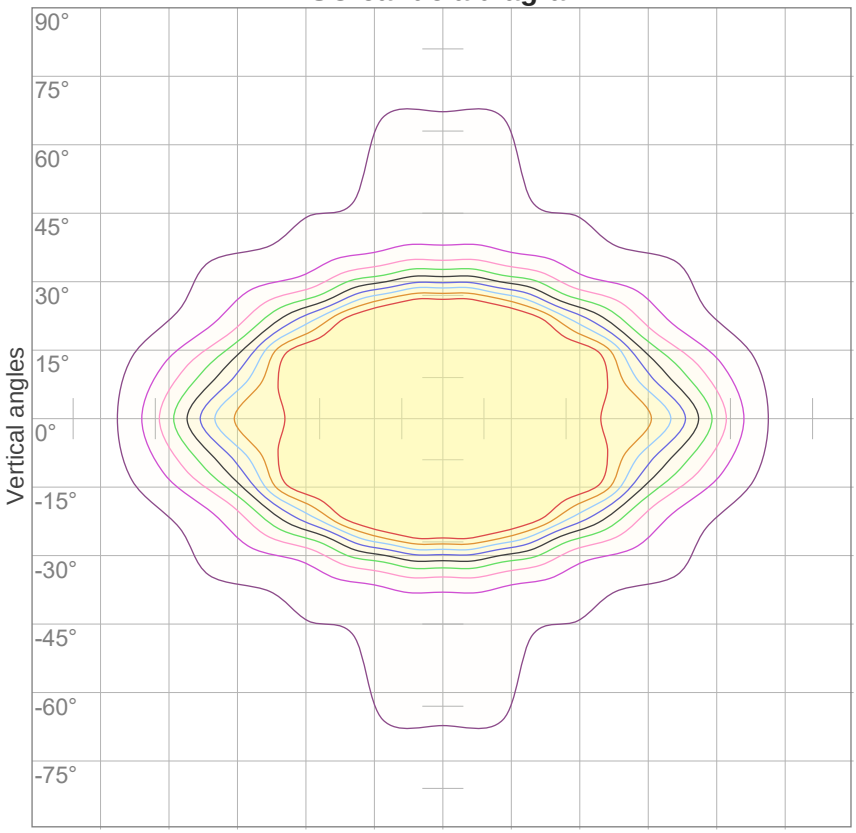
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
197	198	201	207	213	209	164	93	50	31	23	21	22	31	28	19	12	6	2	0
100%	101%	102%	105%	108%	106%	83%	48%	26%	16%	12%	11%	11%	16%	14%	10%	6%	3%	1%	0%

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°
197	197	195	194	192	189	185	181	175	168	159	140	112	82	54	33	18	7	2	0
100%	100%	99%	99%	98%	96%	94%	92%	89%	86%	81%	71%	57%	42%	28%	17%	9%	4%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
86,7°	**146,9°**	**175,8°**	**84,7%**	**68,3%**

ISO candela diagram



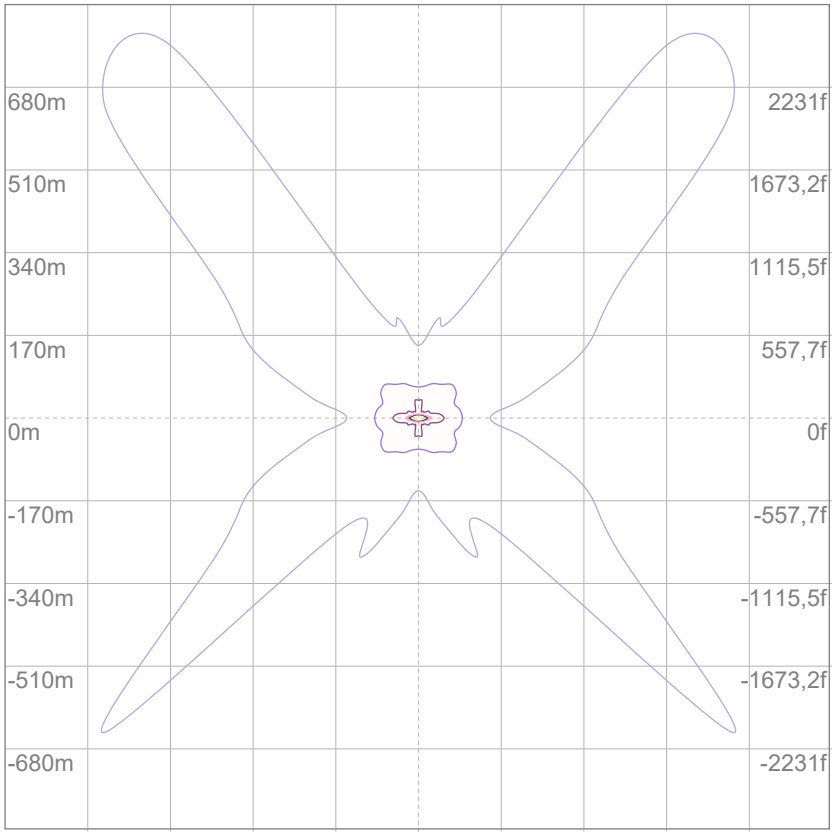
10%	20 cd
20%	39 cd
30%	59 cd
40%	79 cd
50%	98 cd
60%	118 cd
70%	138 cd
80%	157 cd
90%	177 cd

Conditions:

Number of c-planes: 16

Candela at center: 197 cd

ISO lux diagram



Mounting height: 10 meters (33 feet)

3%	59,0m lx
5%	98,3m lx
10%	0,197 lx
30%	0,590 lx
50%	0,983 lx

Conditions:

Number of c-planes: 16

Lux at center: 1,97 lx

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

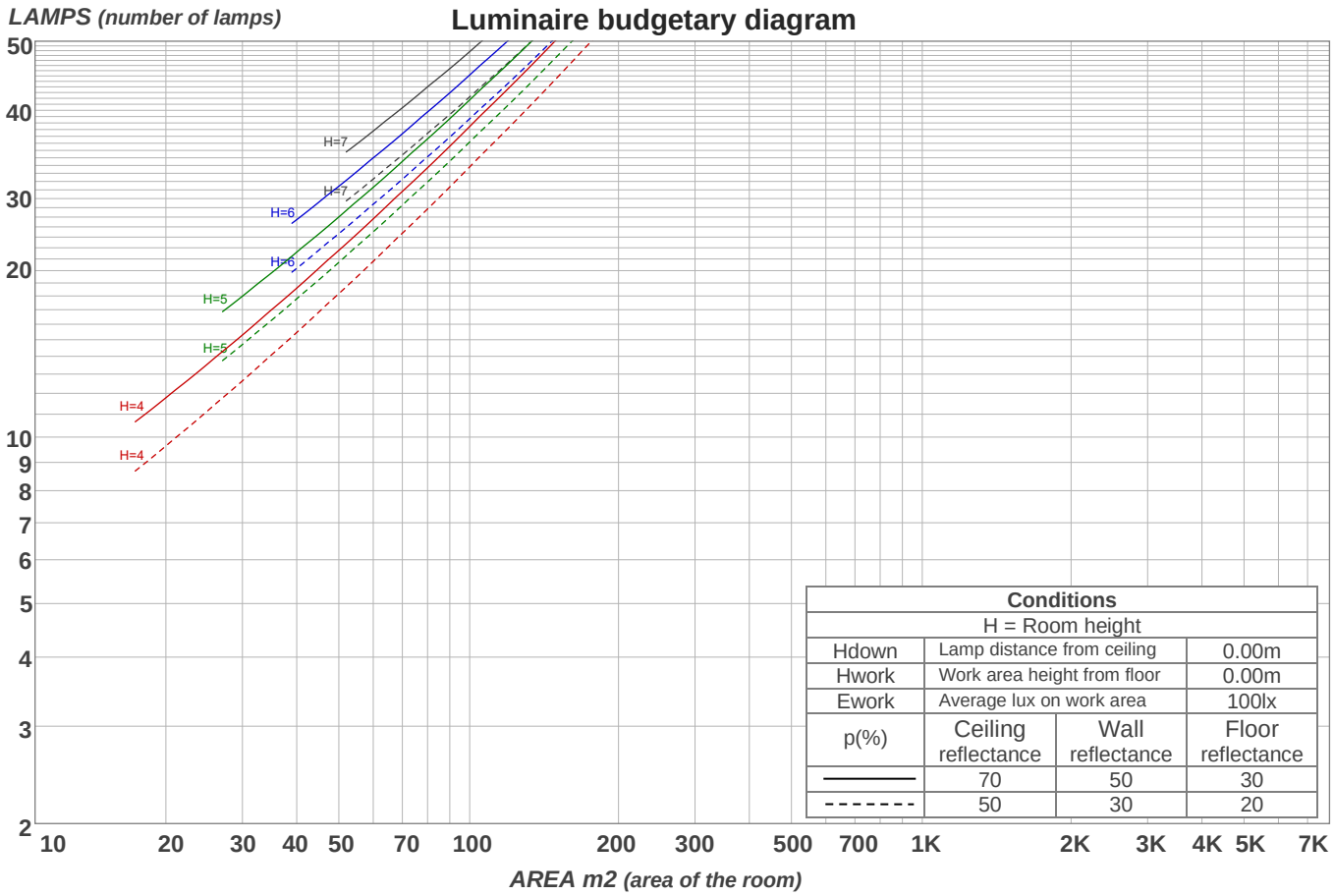
Glare Evaluation According to UGR

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	13,5	14,6	13,7	14,9	15,1	21,6	22,7	21,8	23,0	23,2
	3H	15,9	17,0	16,3	17,2	17,4	22,7	23,8	23,1	24,1	24,3
	4H	16,6	17,7	17,0	17,9	18,2	23,2	24,2	23,6	24,5	24,7
	6H	17,2	18,1	17,5	18,4	18,7	23,5	24,5	23,9	24,8	25,1
	8H	17,3	18,2	17,6	18,5	18,9	23,6	24,5	24,0	24,8	25,2
	12H	17,3	18,2	17,7	18,5	19,0	23,7	24,6	24,0	24,9	25,3
4H	2H	14,1	15,2	14,5	15,4	15,7	21,4	22,4	21,8	22,7	22,9
	3H	16,8	17,7	17,2	18,0	18,5	22,7	23,5	23,0	23,9	24,3
	4H	17,6	18,4	18,1	18,8	19,4	23,1	23,9	23,5	24,3	24,9
	6H	18,2	19,0	18,7	19,4	19,7	23,5	24,3	24,0	24,7	25,0
	8H	18,4	19,1	18,9	19,5	19,8	23,7	24,4	24,2	24,7	25,1
	12H	18,5	19,1	19,0	19,5	19,9	23,8	24,4	24,3	24,8	25,3
8H	4H	18,0	18,7	18,5	19,1	19,5	23,1	23,8	23,6	24,2	24,5
	6H	18,8	19,3	19,3	19,8	20,3	23,6	24,1	24,1	24,6	25,1
	8H	19,0	19,5	19,5	20,0	20,6	23,8	24,3	24,3	24,8	25,4
	12H	19,2	19,6	19,8	20,1	20,7	24,0	24,4	24,6	24,9	25,5
12H	4H	18,0	18,6	18,5	19,0	19,5	23,1	23,6	23,5	24,1	24,5
	6H	18,9	19,4	19,4	19,9	20,5	23,6	24,1	24,1	24,6	25,2
	8H	19,2	19,6	19,7	20,1	20,7	23,8	24,2	24,4	24,7	25,3
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,5 / -0,3					0,5 / -0,8				
S = 1.5H		1,2 / -0,7					1,5 / -2,0				
S = 2.0H		2,0 / -0,8					2,7 / -3,0				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 440 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	110	110	110	105	105	105	101	101	101	99
1	110	105	102	98	107	103	100	96	99	96	93	94	92	90	91	89	87	85
2	101	94	88	83	98	92	86	82	88	84	80	85	81	78	82	78	76	74
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	66	64
4	87	76	68	62	84	74	67	62	72	66	61	69	64	60	67	63	59	57
5	80	69	61	55	78	68	60	54	65	59	54	63	58	53	62	56	52	50
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	51	47	45
7	70	58	50	44	68	57	49	44	55	48	43	54	47	43	52	47	43	41
8	65	53	45	40	64	52	45	40	51	44	39	50	43	39	48	43	39	37
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	39	35	34
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	33	31

Luminaire budgetary diagram

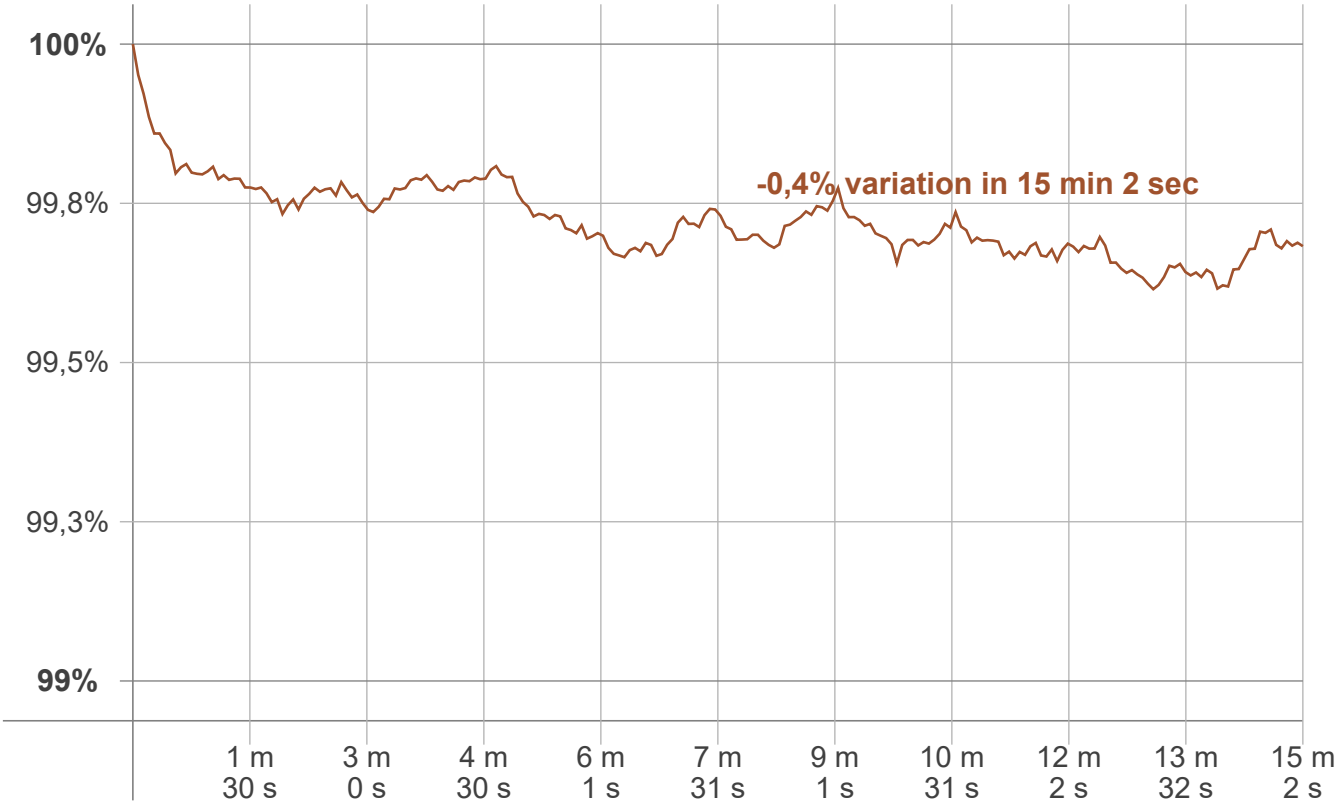


Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
18,8 lm	56,9 lm	92,8 lm	95,0 lm	66,3 lm	42,8 lm	31,3 lm	21,2 lm	8,70 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
2,05 lm	0,922 lm	0,774 lm	0,700 lm	0,604 lm	0,490 lm	0,361 lm	0,221 lm	0,074 lm

Warmup curve



Warmup result

Warmup time:	**Lamp stabilized in 15 min 2 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
0 K	0 K	0 K

Output change

Output start	Output change	Output end
442 lm	-2 lm	440 lm