Light efficiency:

51 Lumen/Watt

Light quality:

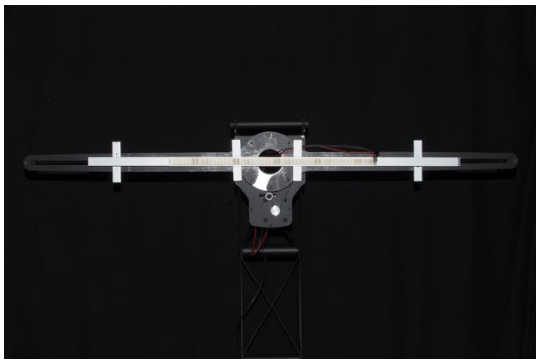
CRI: 0,0

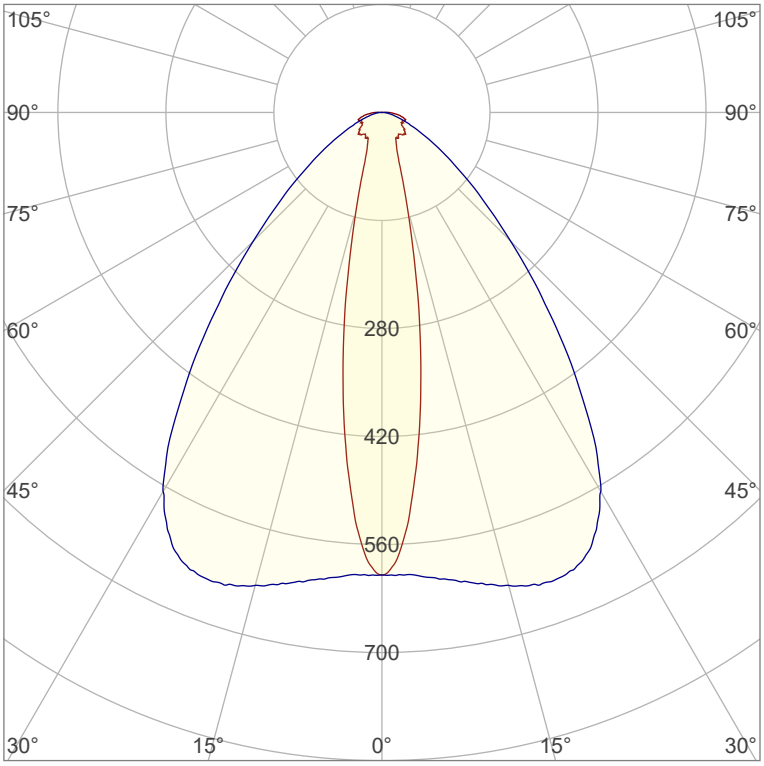
Color temperature:

0 K

Output: 415 lm
Peak: 646 cd

Power: 8,2 W
PF: 1,0





CIE 1931
x: 0,677
y: 0,300

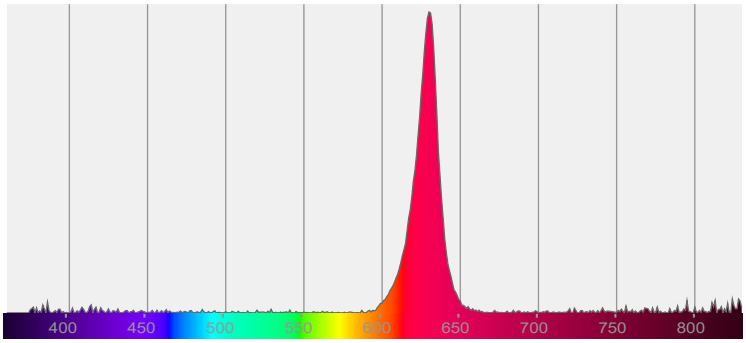
Product name:
Defiant-3_510mm_XXR_Lens-15°-Frosted

Item number:
NP/L3C/22C/0510/XXR/L1F

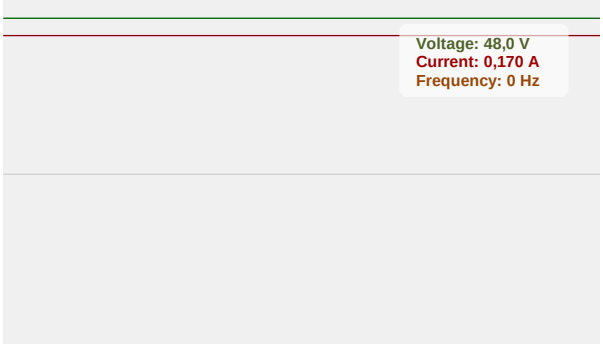
Date and time:
08.07.2020 14:41:34

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

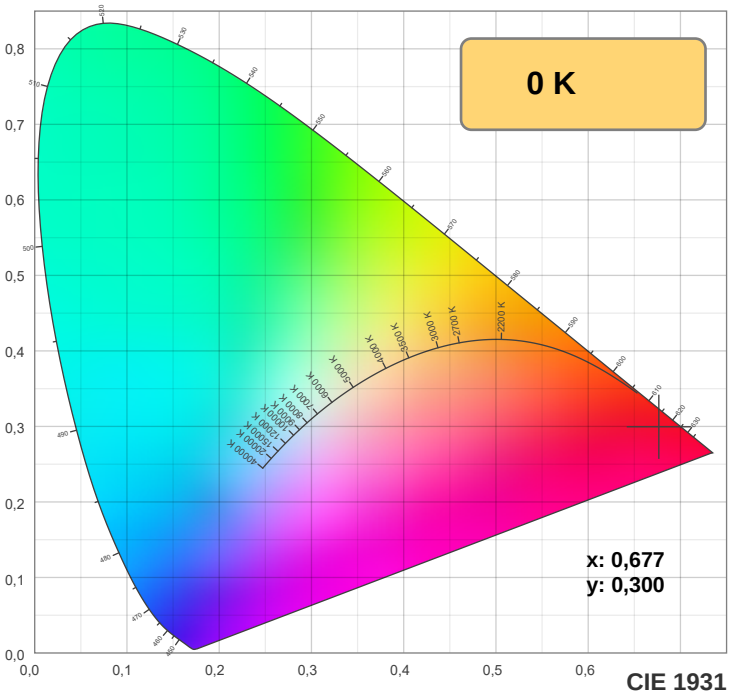
Spectra



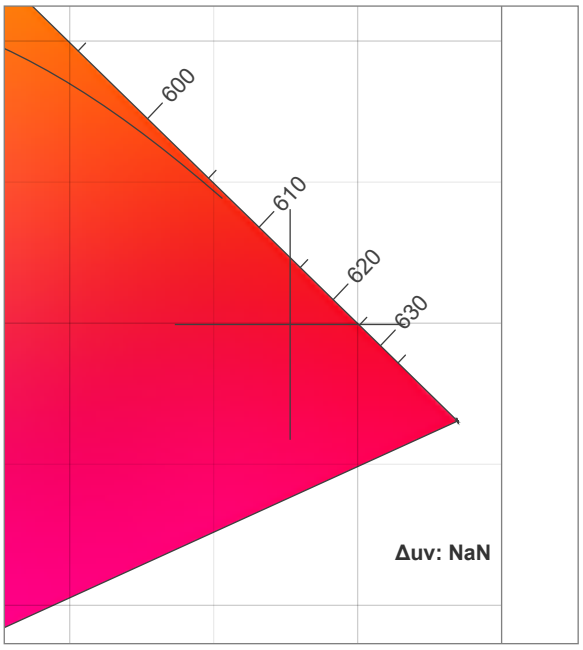
Power



Color details

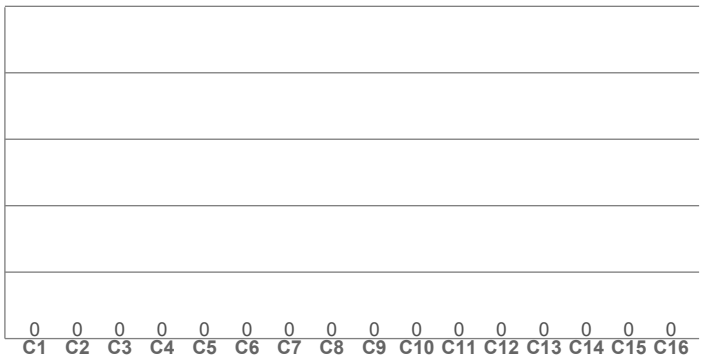


CIE 1931

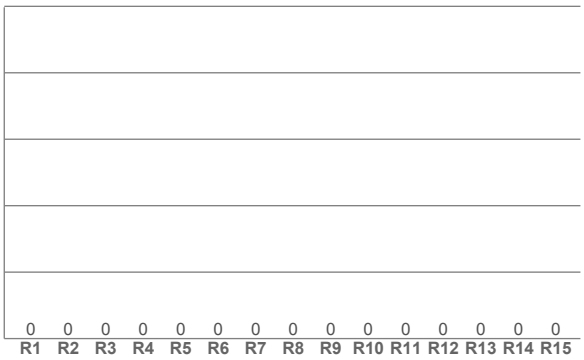


CIE 1931 ZOOM

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

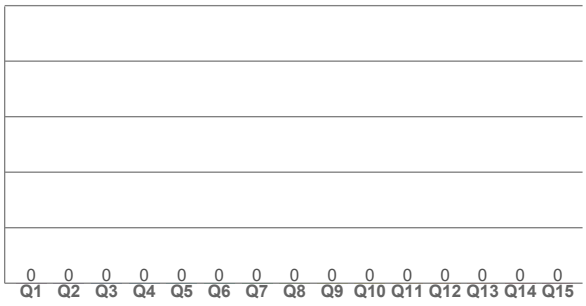
TM30 C values, 16 binned values out of total of 99 C values

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	0,677	0,300	0,516	0,343	NaN

TM30 details

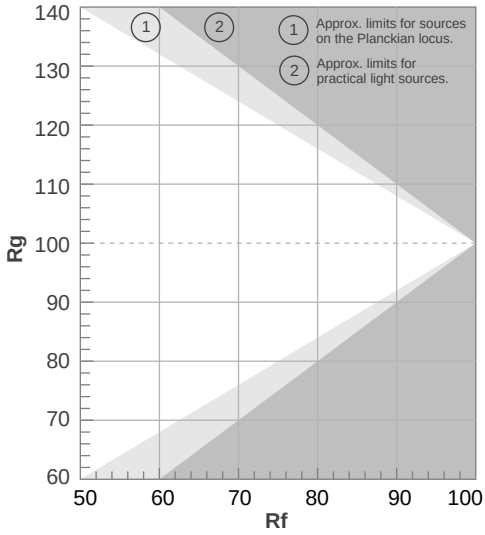
Rf 0,0

Fidelity index Rf

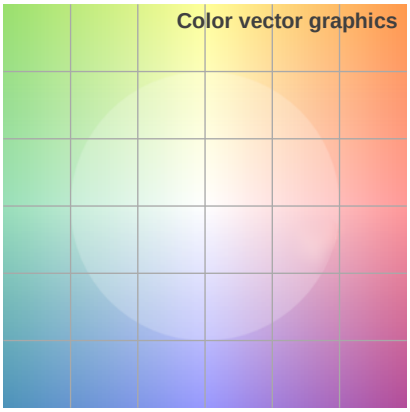
Rg 0,0

Gammut index Rg

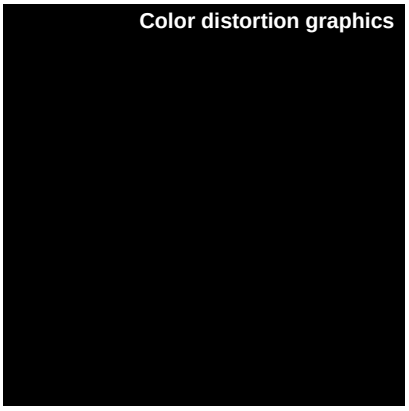
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	0	0%	0%
2	0	0%	0%
3	0	0%	0%
4	0	0%	0%
5	0	0%	0%
6	0	0%	0%
7	0	0%	0%
8	0	0%	0%
9	0	0%	0%
10	0	0%	0%
11	0	0%	0%
12	0	0%	0%
13	0	0%	0%
14	0	0%	0%
15	0	0%	0%
16	0	0%	0%

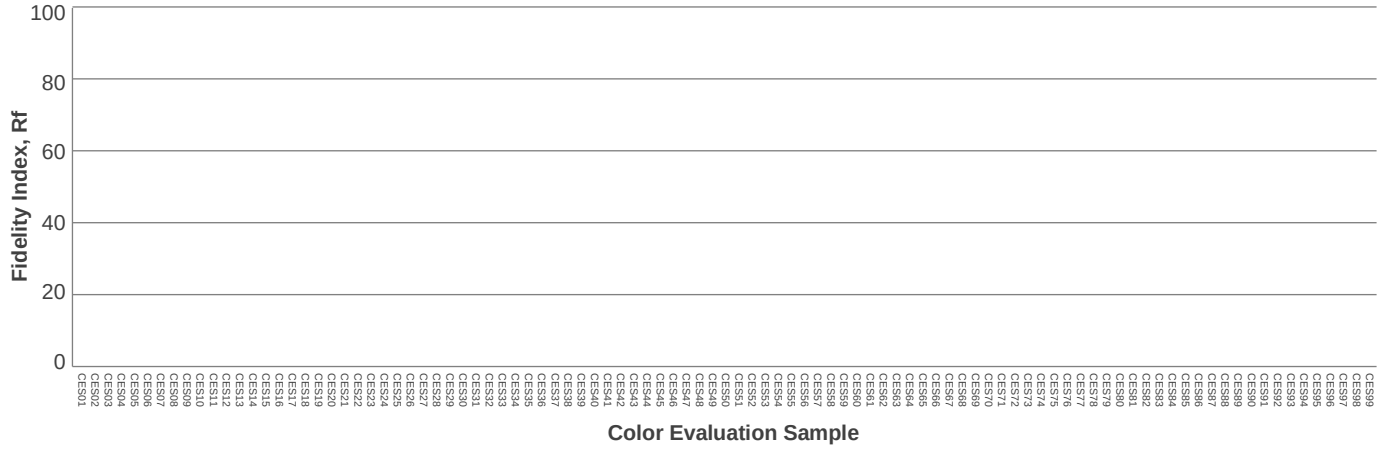




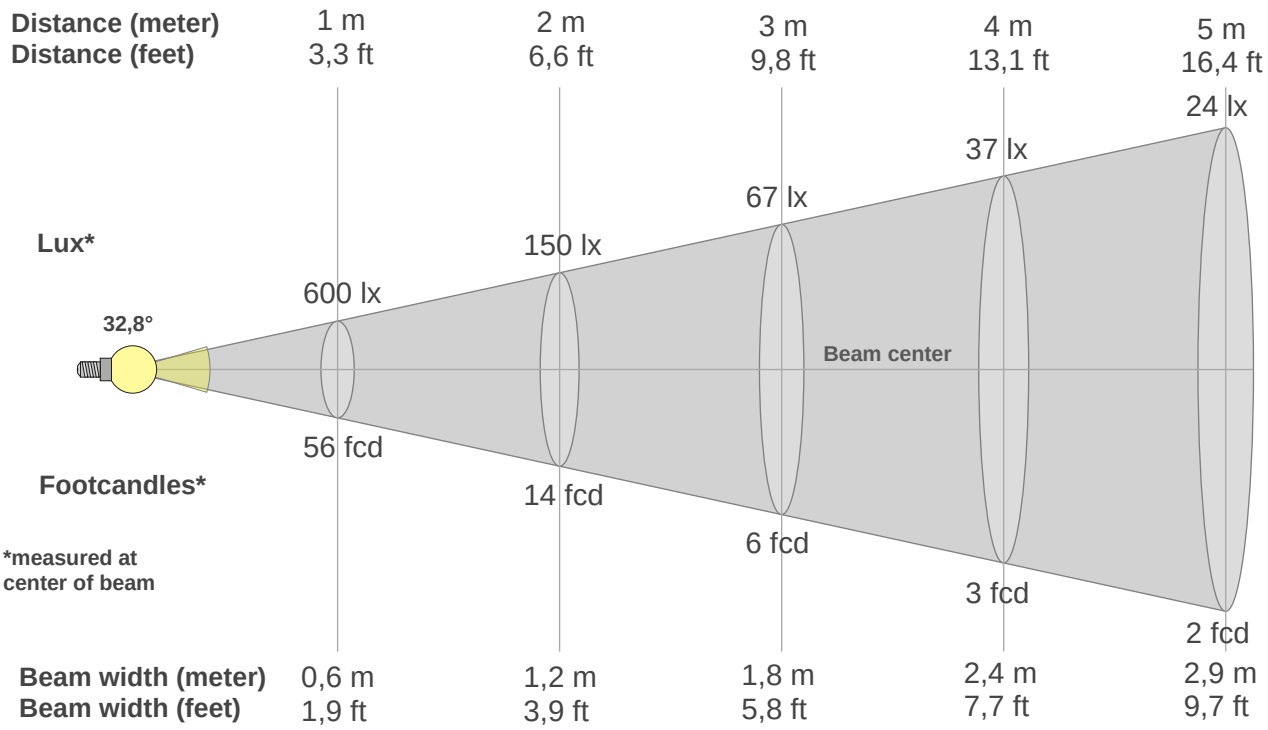








Beam details



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
600lx	150lx	67lx	37lx	24lx	17lx	12lx	9lx	7lx	6lx	5lx	4lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx
55,7fcd	13,9fcd	6,2fcd	3,5fcd	2,2fcd	1,5fcd	1,1fcd	0,9fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd	0,1fcd

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°
600	577	519	443	362	282	208	150	108	79	62	52	46	42	38	37	39	38	36	36
100%	96%	87%	74%	60%	47%	35%	25%	18%	13%	10%	9%	8%	7%	6%	6%	6%	6%	6%	6%

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°
600	600	601	606	611	617	624	632	638	643	646	644	637	621	597	567	527	479	430	383
100%	100%	100%	101%	102%	103%	104%	105%	106%	107%	108%	107%	106%	104%	100%	95%	88%	80%	72%	64%

Intensities in 180° c-plane

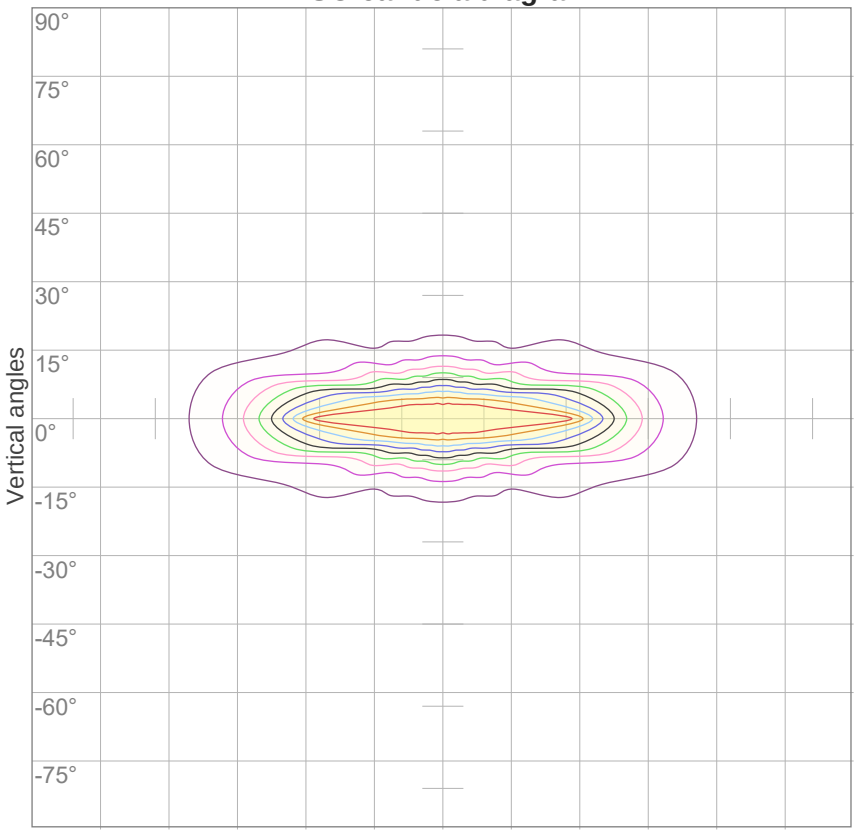
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
600	577	519	443	362	282	208	150	108	79	62	52	46	42	38	37	39	38	36	36
100%	96%	87%	74%	60%	47%	35%	25%	18%	13%	10%	9%	8%	7%	6%	6%	6%	6%	6%	6%

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°
600	600	601	606	611	617	624	632	638	643	646	644	637	621	597	567	527	479	430	383
100%	100%	100%	101%	102%	103%	104%	105%	106%	107%	108%	107%	106%	104%	100%	95%	88%	80%	72%	64%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
32,8°	**63,7°**	**163,1°**	**83,2%**	**68,7%**

ISO candela diagram



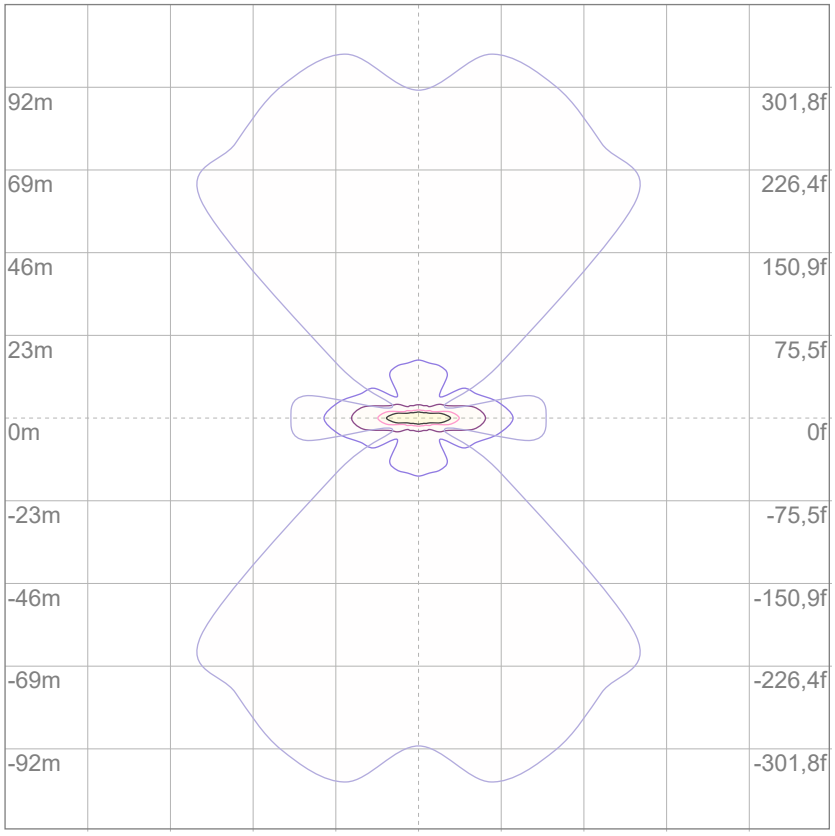
10%	60 cd
20%	120 cd
30%	180 cd
40%	240 cd
50%	300 cd
60%	360 cd
70%	420 cd
80%	480 cd
90%	540 cd

Conditions:

Number of c-planes: 16

Candela at center: 600 cd

ISO lux diagram



3%	0,180 lx
5%	0,300 lx
10%	0,600 lx
30%	1,80 lx
50%	3,00 lx

Conditions:

Number of c-planes: 16

Lux at center: 6,00 lx

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

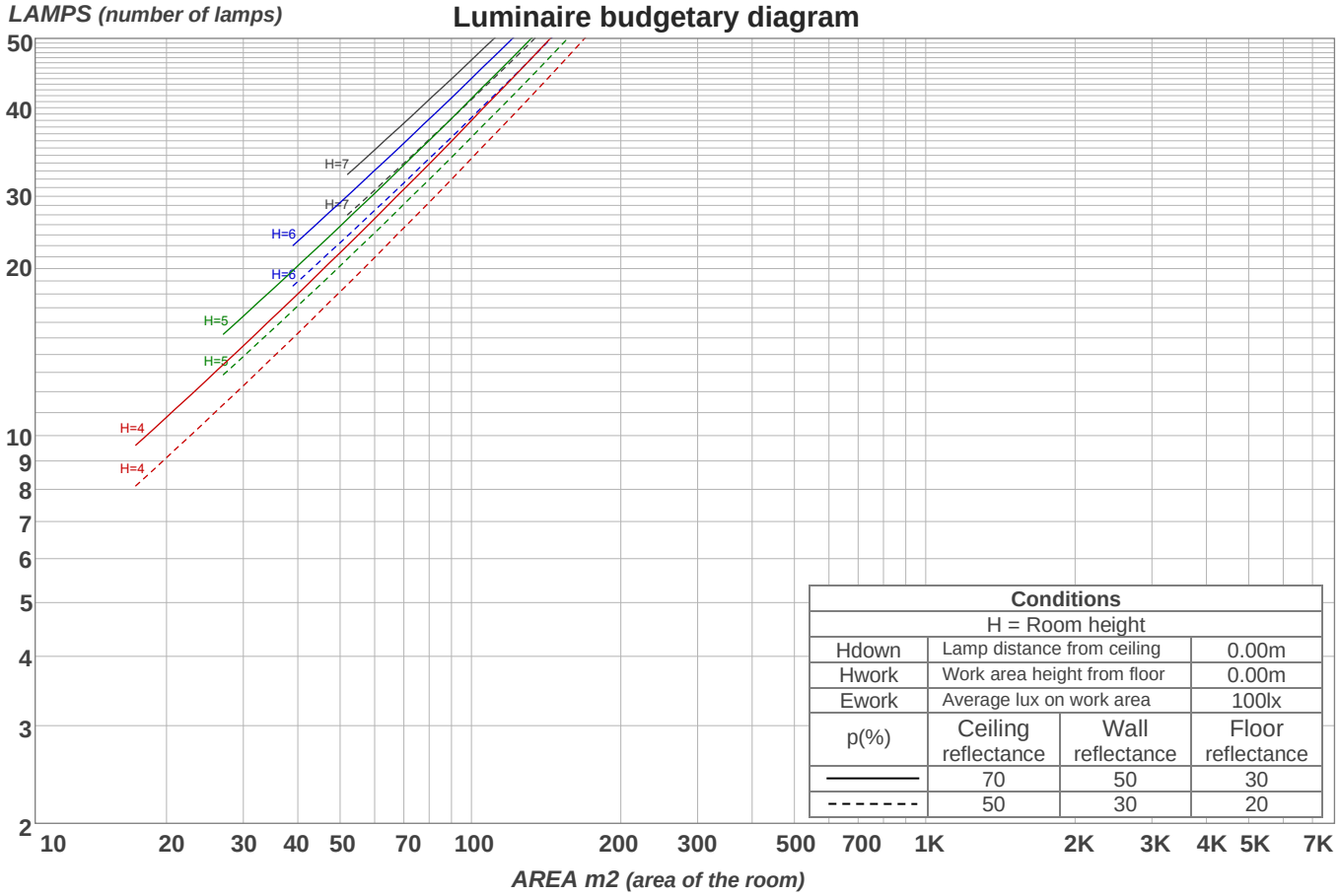
Glare Evaluation According to UGR

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	12,9	13,9	13,1	14,2	14,4	20,1	21,1	20,3	21,4	21,6
	3H	15,3	16,3	15,7	16,6	16,8	20,7	21,7	21,1	22,0	22,2
	4H	16,8	17,8	17,2	18,0	18,3	20,9	21,9	21,3	22,2	22,4
	6H	18,0	18,9	18,3	19,2	19,5	21,2	22,1	21,5	22,3	22,7
	8H	18,4	19,3	18,7	19,6	20,0	21,3	22,1	21,6	22,4	22,8
	12H	18,7	19,5	19,0	19,9	20,3	21,3	22,1	21,7	22,5	22,9
4H	2H	13,5	14,5	13,9	14,8	15,0	19,9	20,9	20,3	21,2	21,4
	3H	16,2	17,1	16,6	17,4	17,9	20,7	21,5	21,0	21,9	22,3
	4H	17,8	18,6	18,3	19,0	19,6	20,9	21,7	21,4	22,1	22,7
	6H	19,2	20,0	19,7	20,3	20,7	21,3	22,0	21,8	22,4	22,7
	8H	19,7	20,4	20,2	20,8	21,2	21,4	22,1	21,9	22,5	22,8
	12H	20,1	20,7	20,6	21,1	21,5	21,5	22,1	22,0	22,5	23,0
8H	4H	18,2	18,9	18,7	19,3	19,7	21,0	21,7	21,5	22,1	22,5
	6H	19,8	20,4	20,3	20,8	21,4	21,5	22,0	22,0	22,5	23,0
	8H	20,5	21,0	21,0	21,5	22,1	21,7	22,2	22,2	22,7	23,4
	12H	21,0	21,4	21,6	21,9	22,5	22,0	22,4	22,5	22,9	23,5
12H	4H	18,3	18,8	18,8	19,3	19,7	21,0	21,6	21,5	22,0	22,5
	6H	20,0	20,4	20,5	21,0	21,6	21,6	22,0	22,1	22,6	23,2
	8H	20,7	21,1	21,3	21,6	22,2	21,9	22,2	22,4	22,7	23,4
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,0 / 0,0					1,3 / -1,2				
S = 1.5H		0,1 / -0,1					2,8 / -1,8				
S = 2.0H		0,3 / -0,2					4,2 / -2,3				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 415 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	98
1	109	105	101	98	107	103	99	96	98	95	93	94	92	90	90	88	87	85
2	102	94	89	84	99	92	87	83	89	84	80	85	82	78	82	79	76	74
3	95	86	79	73	92	84	78	72	81	75	71	78	73	70	75	72	68	66
4	88	78	71	65	86	77	70	65	74	68	64	72	67	63	70	65	62	60
5	83	72	64	59	81	71	64	58	69	63	58	67	61	57	65	60	56	54
6	78	67	59	54	76	66	59	53	64	58	53	62	57	52	61	56	52	50
7	74	62	55	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	55	48	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	63	51	45	40	62	51	44	40	50	44	40	49	43	40	48	43	39	38

Luminaire budgetary diagram

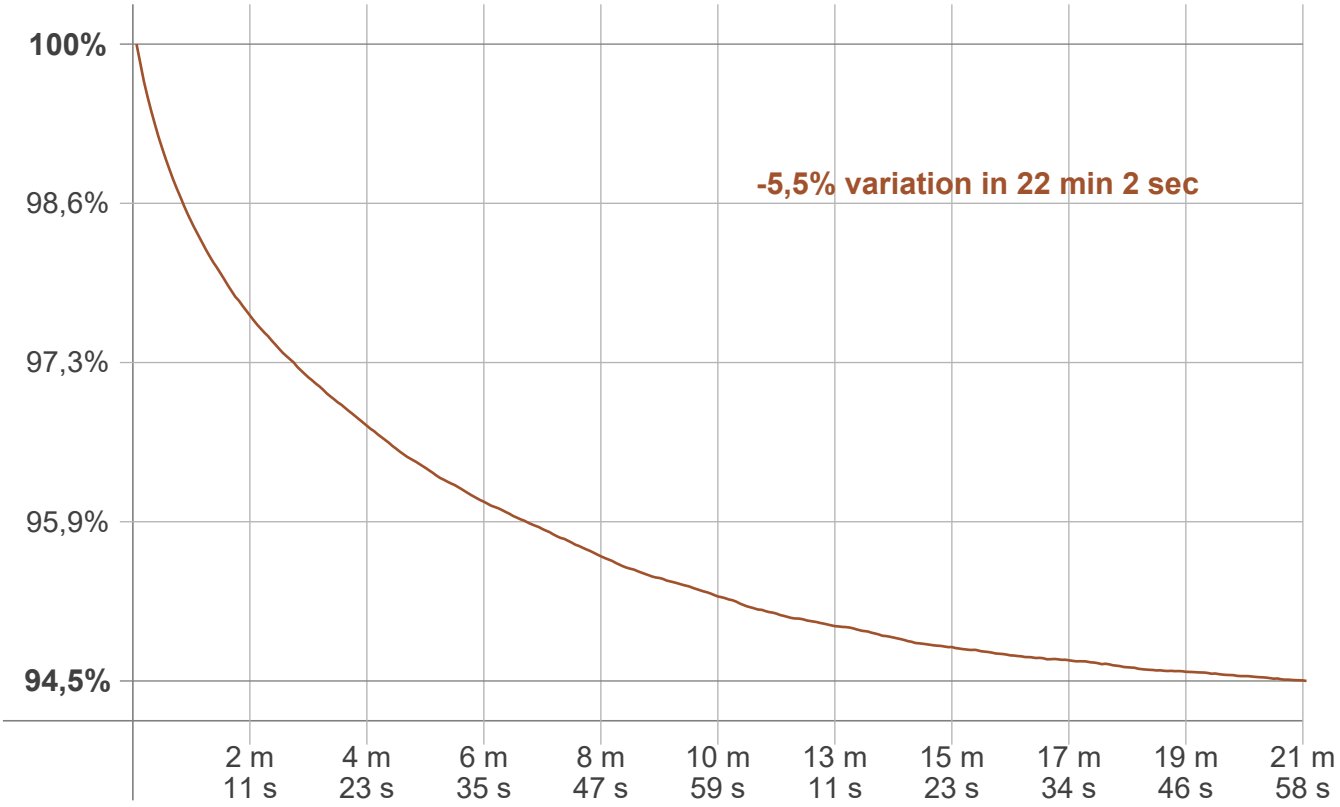


Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
47,0 lm	78,2 lm	71,2 lm	62,4 lm	49,3 lm	37,2 lm	26,3 lm	21,9 lm	14,7 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
2,90 lm	2,75 lm	0,809 lm	0,240 lm	0,096 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm

Warmup curve



Warmup result

Warmup time:	**Lamp stabilized in 22 min 2 sec**
Warmup variation	**-5,7%**

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
445 lm	-30 lm	415 lm