Light efficiency:

63 Lumen/Watt

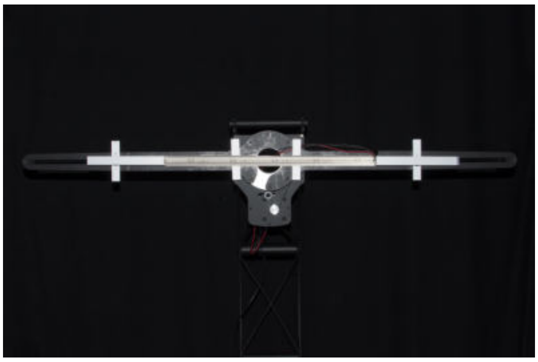
Light quality:

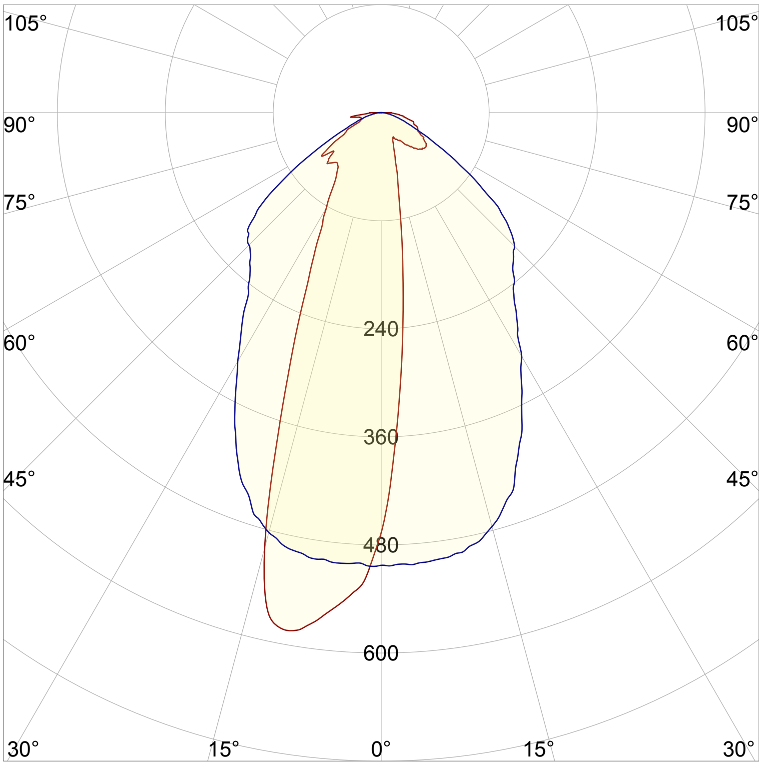
CRI: 35,9

Color temperature:

12123 K

Output:	**546 lm**
Peak:	**626 cd**
Power:	**8,6 W**
PF:	**1,0**





Product name:
Defiant-0508-RGB-LAF-2

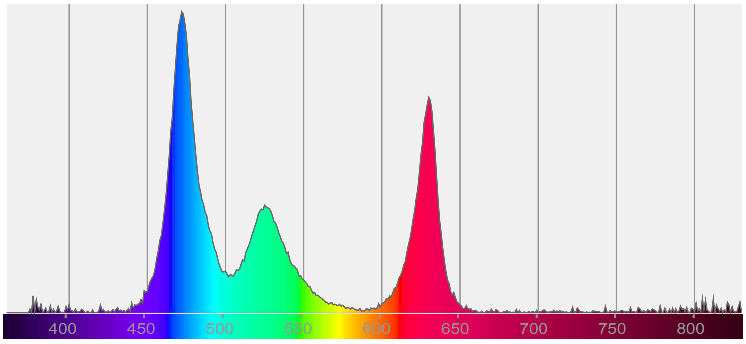
Item number:
FLNP/L22A0508/RGB/LAF-2

Date and time:
10.07.2020 09:49:19

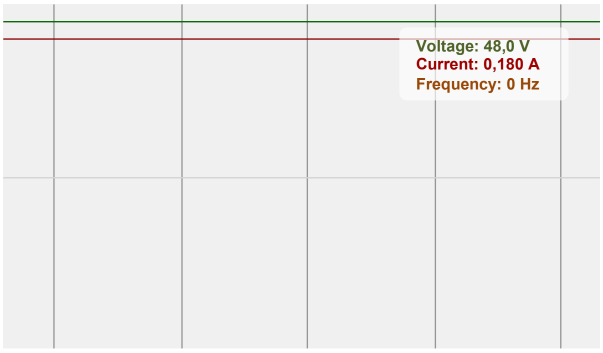
Description:
Rank: R2G2B4/RC2GA2BA5/A
Toleranzen:
Lumen +/-4%
Candela +/-2,5%
Colour Temp +/-35 K
CRI +/-0,7
Angular Resolution 1 Grad Step
Last Calibration 20.05.2020
Pruefer:
Peter Ulrich
Pruefort:
Lichtlabor
Gaustrasse 13
55411 Bingen am Rhein

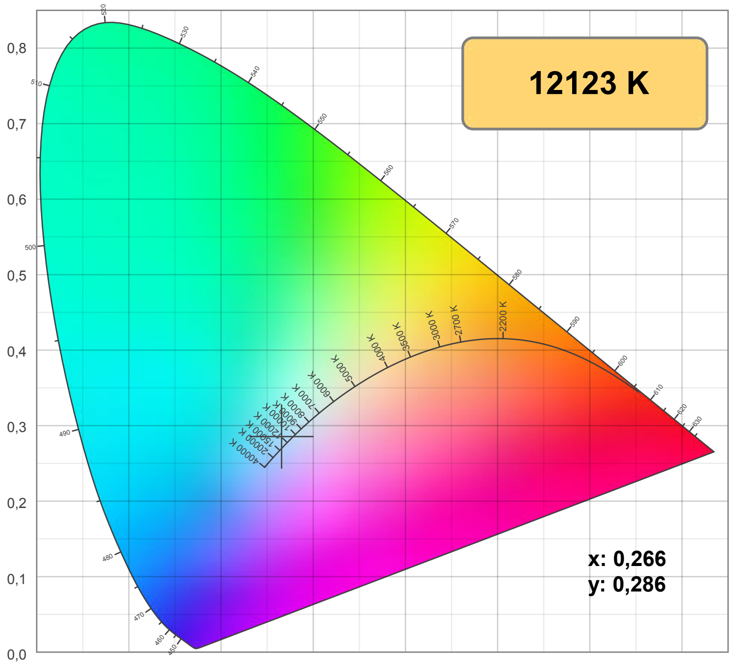
CIE 1931
x: 0,266
y: 0,286

Spectra

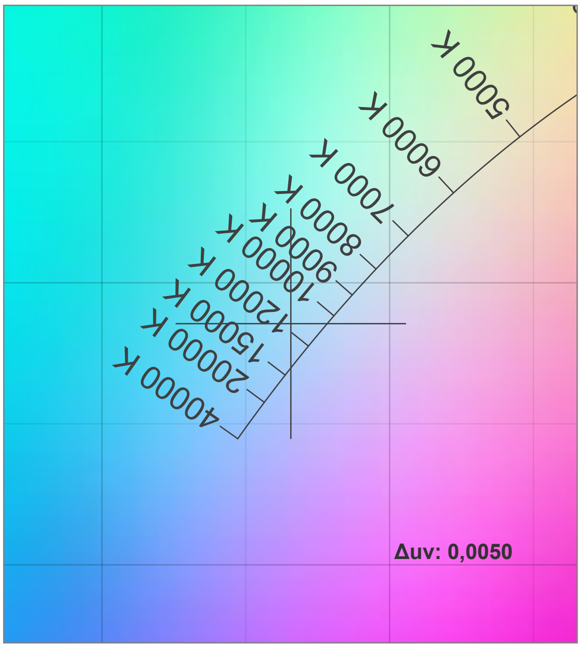


Power



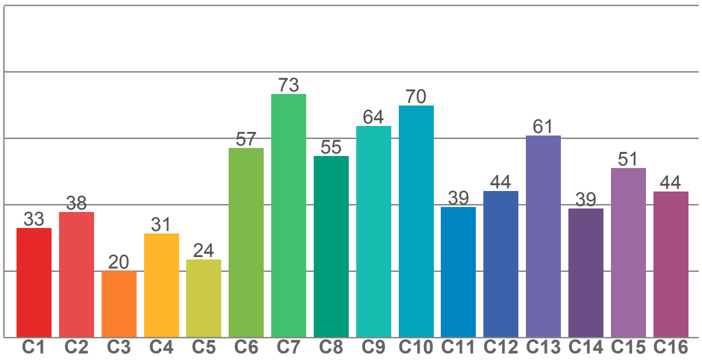


CIE 1931

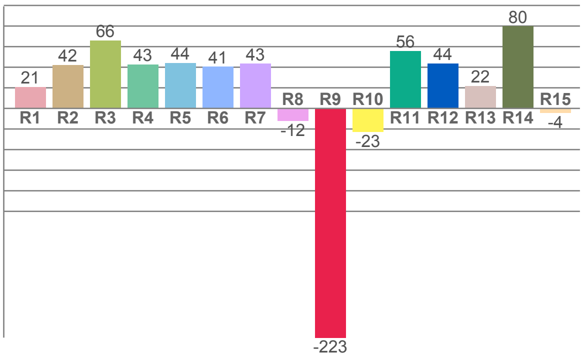


CIE 1931 ZOOM

TM30: 45,0



CRI: 35,9 (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
20,7	42,2	66,0	42,6	44,1	40,5	43,4	-12,2	-222,6	-23,0	55,7	43,7	21,7	79,8	-4,4

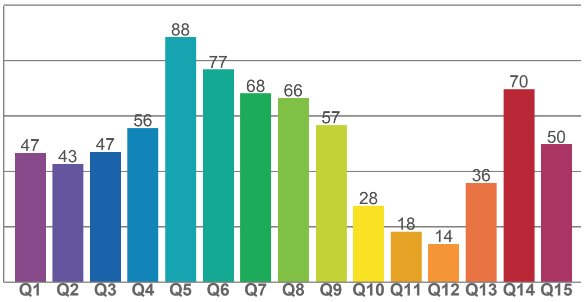
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
33,0	37,7	20,0	31,3	23,5	57,1	73,2	54,7	63,6	69,9	39,3	44,1	60,8	38,8	51,1	44,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
46,5	42,7	47,0	55,6	88,4	76,8	68,1	66,4	56,7	27,6	18,2	13,7	35,7	69,6	49,7

CQS: 46,2



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 diviation from black body
CCT	**CRI**	**CRI R9**	**TM30 Rf**	**TM30 Rg**	**CQS**	**x**	**y**	**u**	**v**	**Δuv**
12123 K	**35,9**	**-222,6**	**45,0**	**87,8**	**46,2**	**0,266**	**0,286**	**0,180**	**0,291**	**0,0050**

Top-Innovator 2019

TM30 details

FLASHAAR

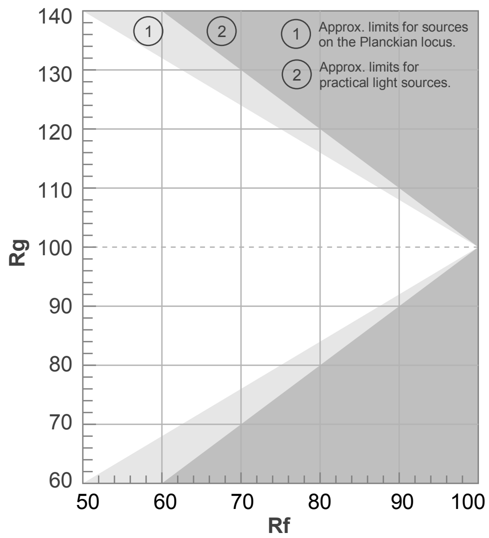
Rf 45,0

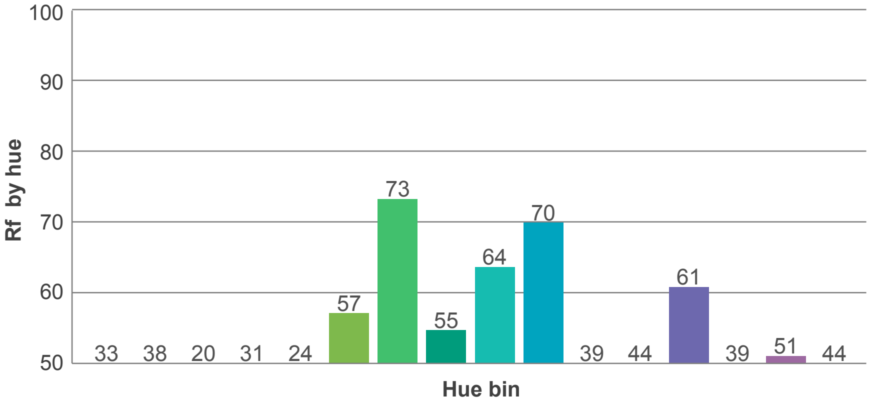
Fidelity index Rf

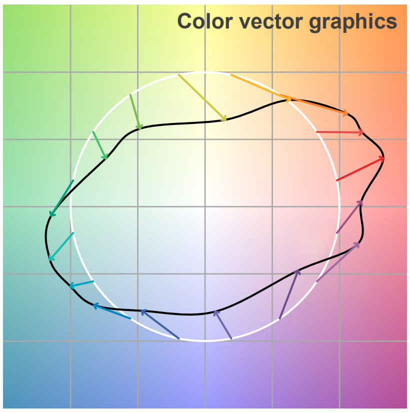
Rg 87,8

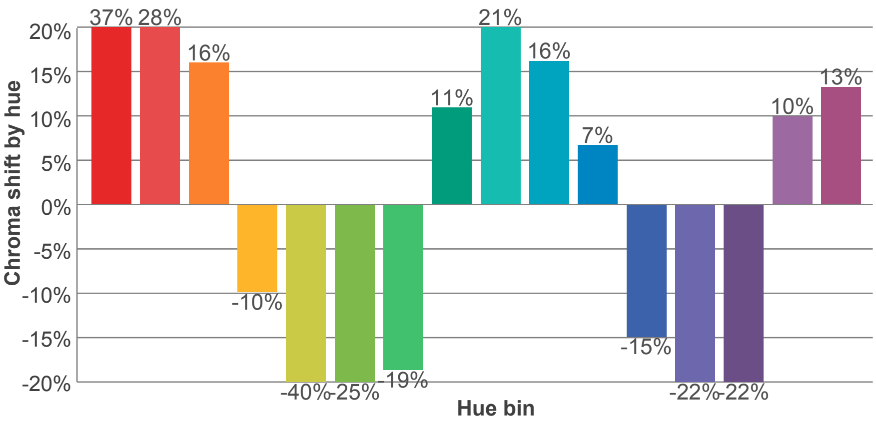
Gammut index Rg

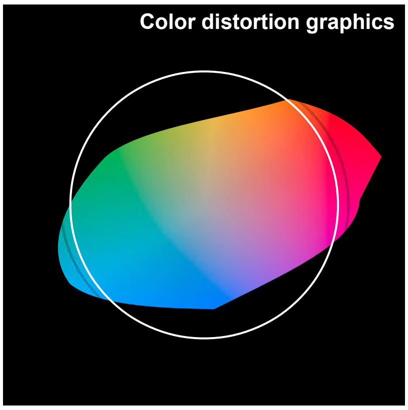
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	33	37%	10%
2	38	28%	-19%
3	20	16%	-49%
4	31	-10%	-47%
5	24	-40%	-27%
6	57	-25%	8%
7	73	-19%	11%
8	55	11%	29%
9	64	21%	16%
10	70	16%	-6%
11	39	7%	-28%
12	44	-15%	-31%
13	61	-22%	-8%
14	39	-22%	31%
15	51	10%	41%
16	44	13%	26%

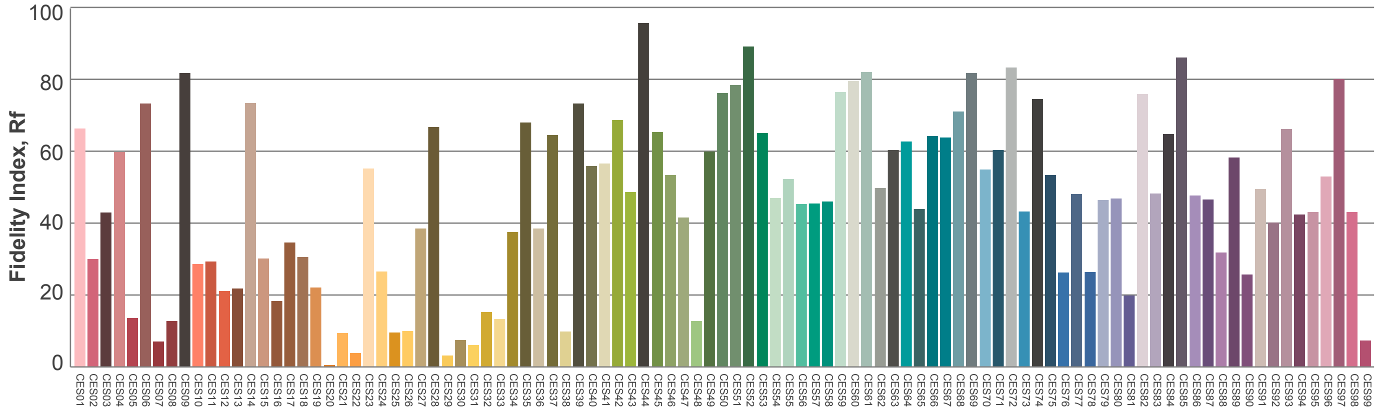




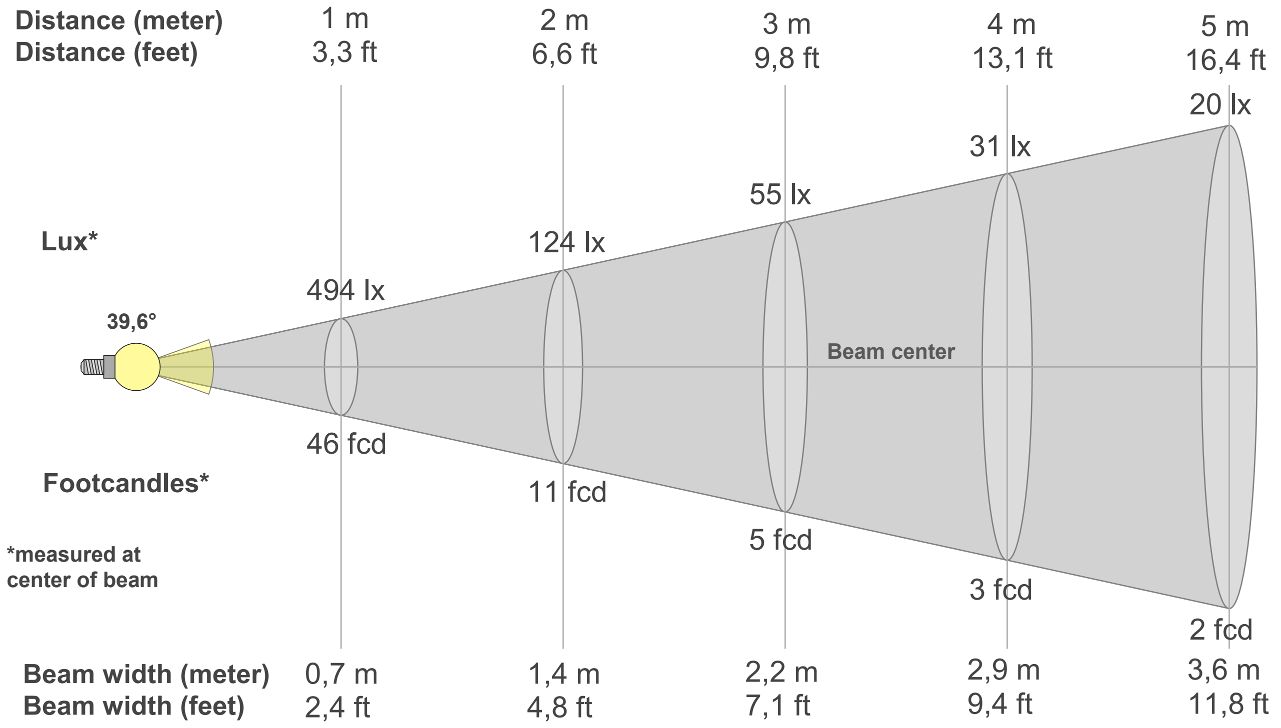








Beam details



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
494lx	124lx	55lx	31lx	20lx	14lx	10lx	8lx	6lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx
45,9fcd	11,5fcd	5,1fcd	2,9fcd	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°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
494	386	304	232	173	127	95	76	59	48	40	35	32	31	33	34	36	37	41	45
100%	78%	61%	47%	35%	26%	19%	15%	12%	10%	8%	7%	6%	6%	7%	7%	7%	7%	8%	9%

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°
494	502	503	501	499	496	490	482	469	452	433	407	384	356	331	312	287	269	251	240
100%	102%	102%	101%	101%	100%	99%	97%	95%	91%	88%	82%	78%	72%	67%	63%	58%	54%	51%	49%

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°
494	518	540	557	574	583	578	536	457	367	295	239	195	164	139	122	106	92	84	78
100%	105%	109%	113%	116%	118%	117%	109%	92%	74%	60%	48%	39%	33%	28%	25%	21%	19%	17%	16%

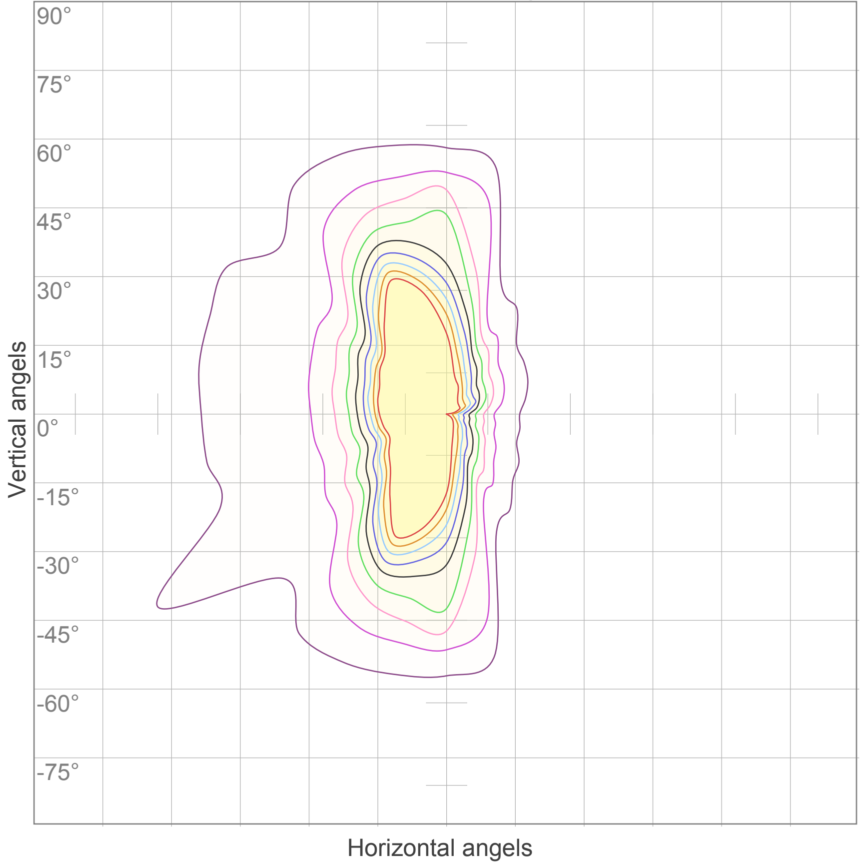
Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
494	503	502	502	501	498	495	486	476	463	443	423	397	371	343	319	295	275	252	239
100%	102%	101%	102%	101%	101%	100%	98%	96%	94%	90%	86%	80%	75%	69%	64%	60%	56%	51%	48%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
39,6°	94°	171,2°	84,1%	66,3%

ISO Diagrams

ISO candela diagram



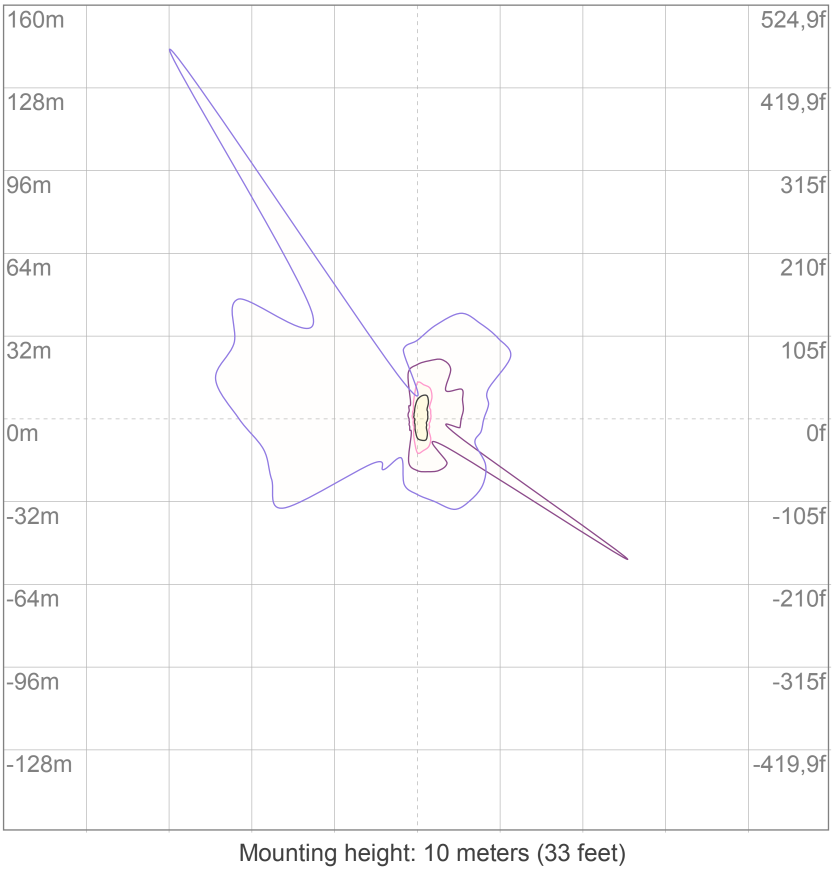
—	10%	49 cd
—	20%	99 cd
—	30%	148 cd
—	40%	198 cd
—	50%	247 cd
—	60%	297 cd
—	70%	346 cd
—	80%	395 cd
—	90%	445 cd

Conditions:

Number of c-planes: 16

Candela at center: 494 cd

ISO lux diagram



—	3%	0,148 lx
—	5%	0,247 lx
—	10%	0,494 lx
—	30%	1,48 lx
—	50%	2,47 lx

Conditions:

Number of c-planes: 16

Lux at center: 4,94 lx

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

UGR

Glare Evaluation According to UGR

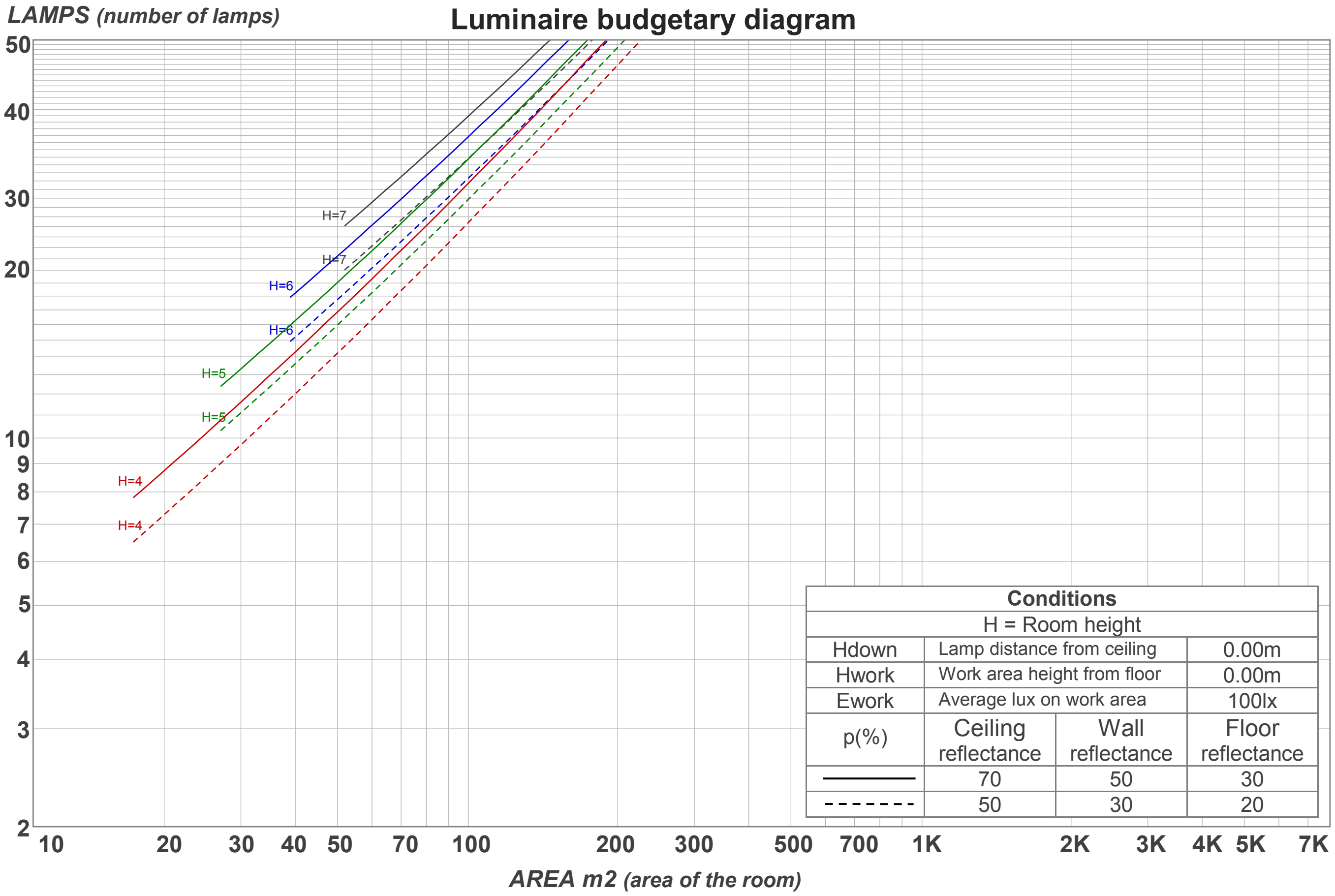
p Ceiling	70	70	50	50	30	70	70	50	50	30
p Walls	50	30	50	30	30	50	30	50	30	30
p Floor	20	20	20	20	20	20	20	20	20	20
Room size X Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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
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 546 lm total luminous flux										

UGR data could not be calculated due to missing/wrong symmetry. Goto Edit->Photometric->Corrections and select Correct asymmetry.

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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	85
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74
3	94	85	77	72	92	83	76	71	80	74	70	78	73	69	75	71	67	65
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58
5	82	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	53
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50	48
7	72	60	52	46	70	59	52	46	57	51	46	56	50	46	55	50	45	44
8	68	56	48	43	66	55	48	43	54	47	42	52	47	42	51	46	42	40
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	49	42	37	59	48	41	37	47	41	37	46	41	36	45	40	36	35

Luminaire budgetary diagram



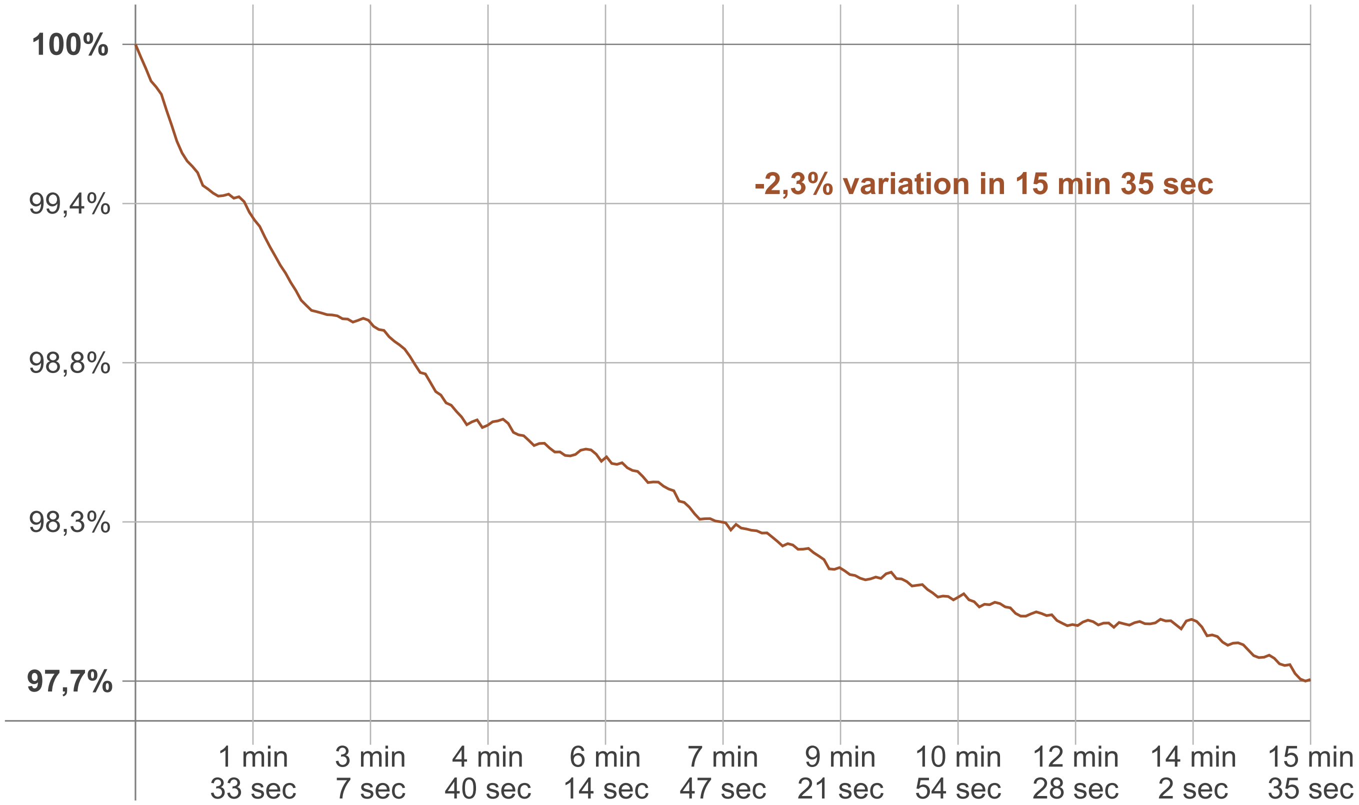
Conditions			
H = Room height			
Hdown	Lamp distance from ceiling		0.00m
Hwork	Work area height from floor		0.00m
Ework	Average lux on work area		100lx
p(%)	Ceiling reflectance	Wall reflectance	Floor reflectance
———	70	50	30
-------	50	30	20

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
42,7 lm	98,3 lm	101 lm	83,9 lm	72,2 lm	61,2 lm	40,7 lm	27,1 lm	19,2 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,045 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:	**15 min 35 sec**
Warmup variation	**-2,3%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
11829 K	**+294 K**	**12123 K**

Output change

Output start	Output change	Output end
557 lm	**-11 lm**	**546 lm**