

Light efficiency:

46 Lumen/Watt

Light quality:

CRI: 97.5

Color temperature:

3022 K

Output: 950 lm

Peak: 3170 cd

Power: 20.6 W

PF: 0.98



Beam angle

35.6°

Product name:

GRF-X197-WF-RD SR

Item number:

GRF-X197-WF-RD

Date and time:

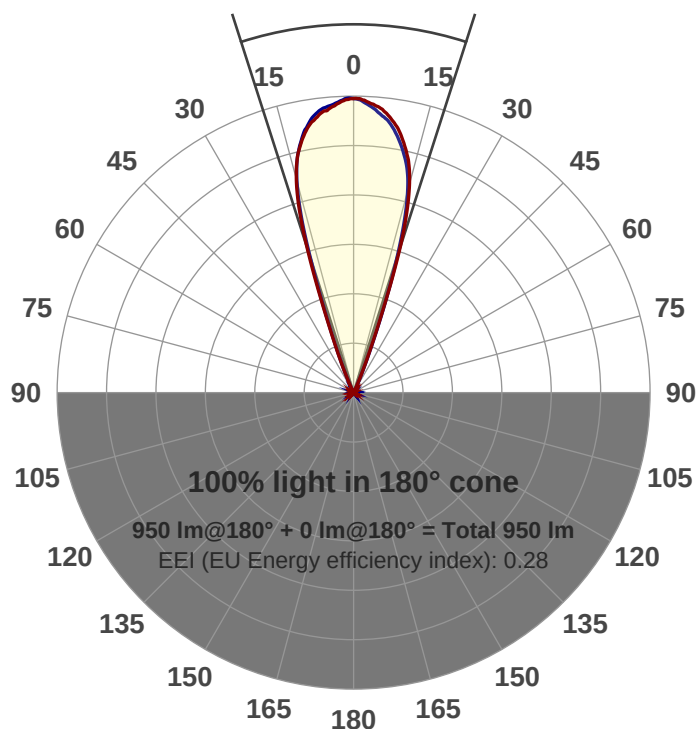
6/19/2017 12:17:40 PM

Description:

700mA SR

LUM: 950

PPF: 18.7

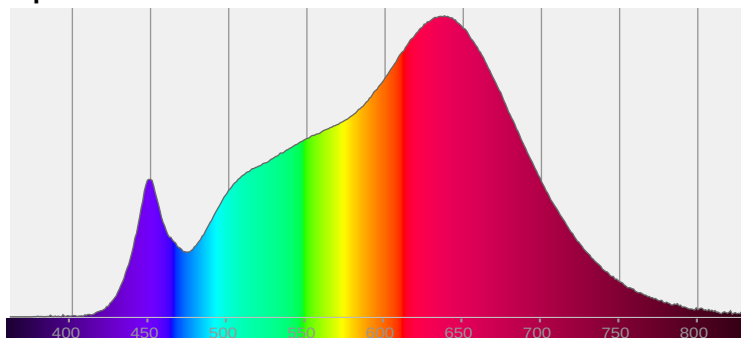


CIE 1931

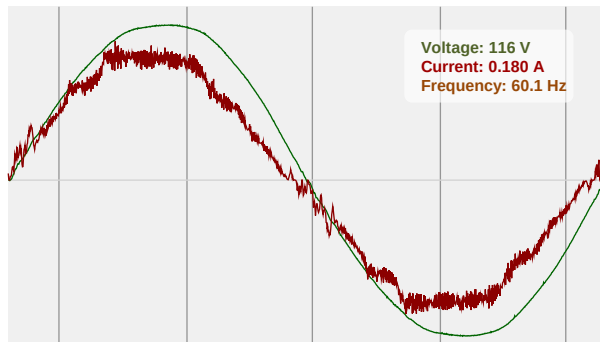
x: 0.434

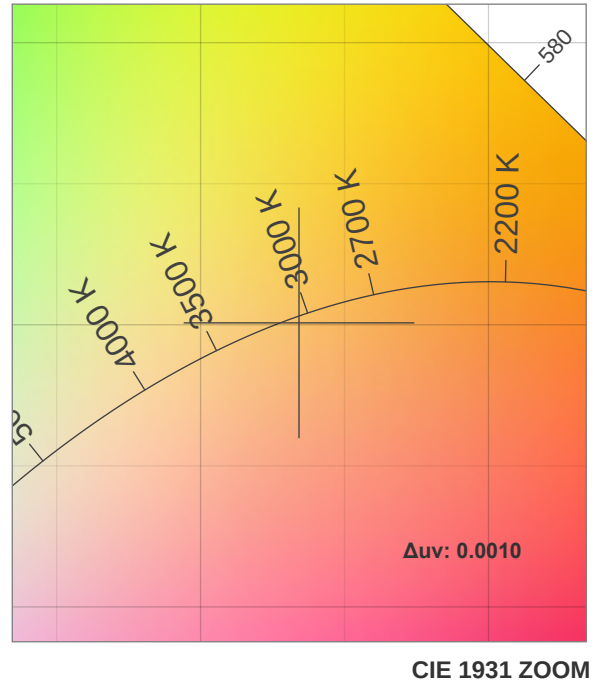
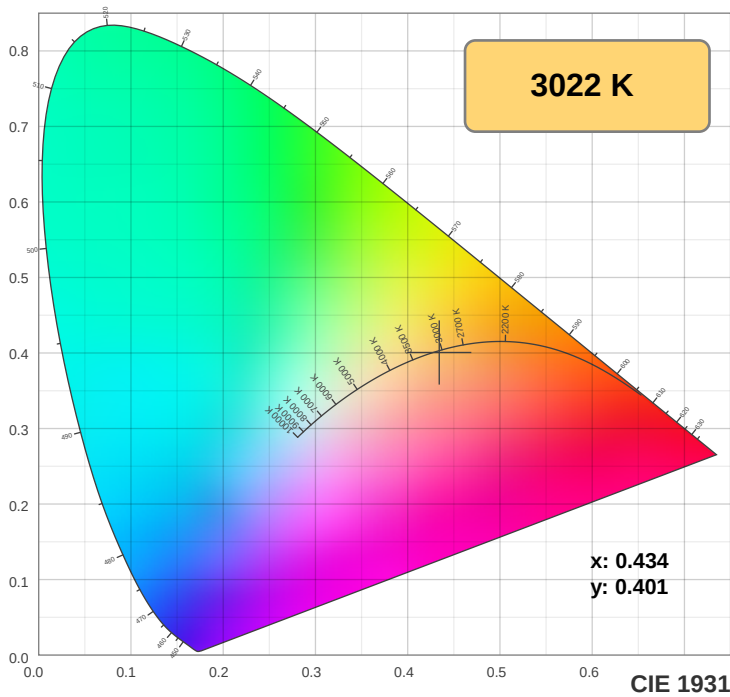
y: 0.401

Spectra

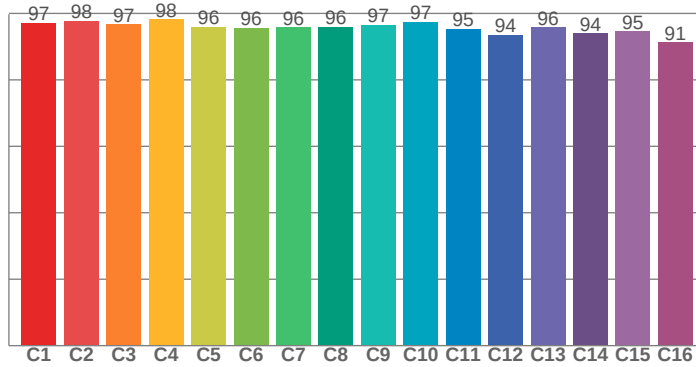


Power

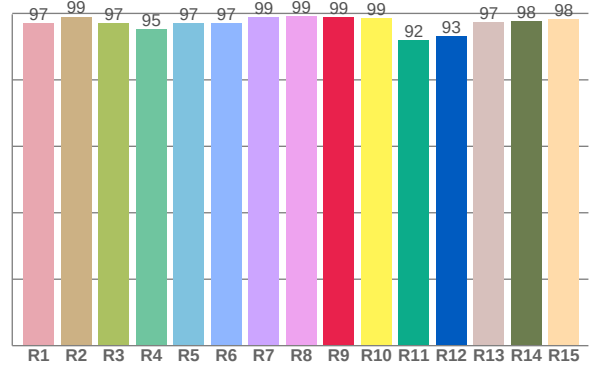




TM30: 96.0



CRI: 97.5 (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
97.0	99.0	97.1	95.2	97.0	97.0	98.9	99.1	98.9	98.6	91.9	93.2	97.2	97.5	98.2

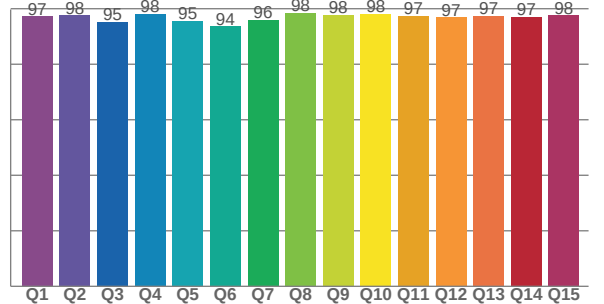
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
97.2	97.8	96.7	98.1	95.9	95.7	95.8	95.9	96.6	97.5	95.4	93.5	95.7	94.0	94.6	91.2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
97.2	97.6	95.1	98.0	95.5	93.6	95.8	98.4	97.8	98.0	97.4	96.9	97.3	97.0	97.5

CQS: 96.4



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
3022 K	97.5	98.9	96.0	102.5	96.4	0.434	0.401	0.250	0.346	0.0010

TM30 details

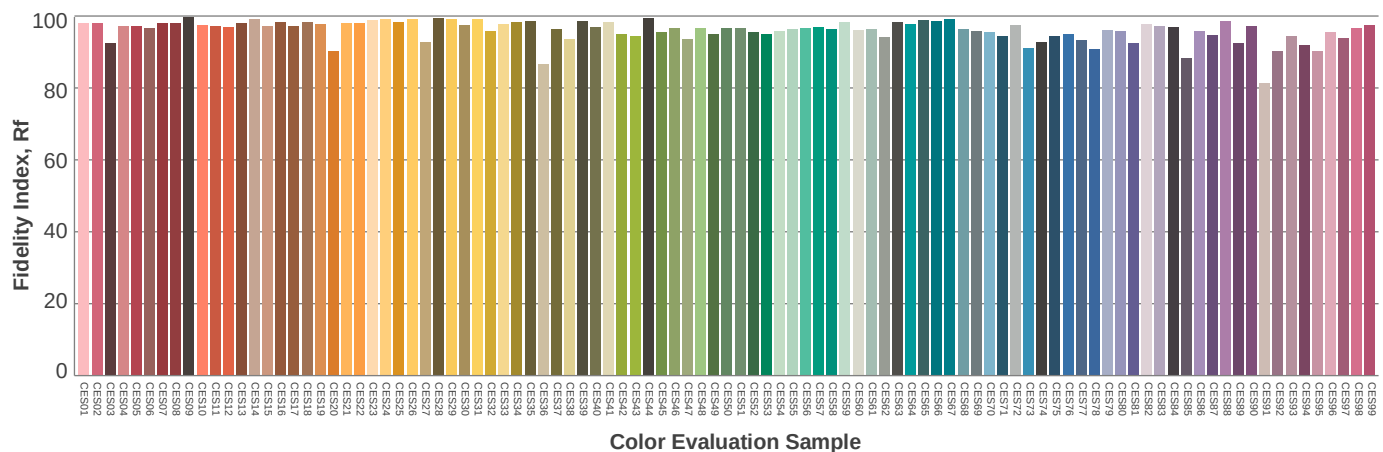
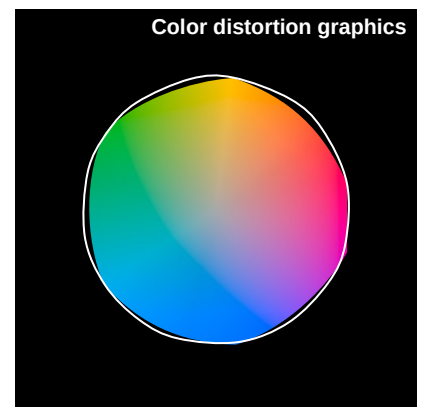
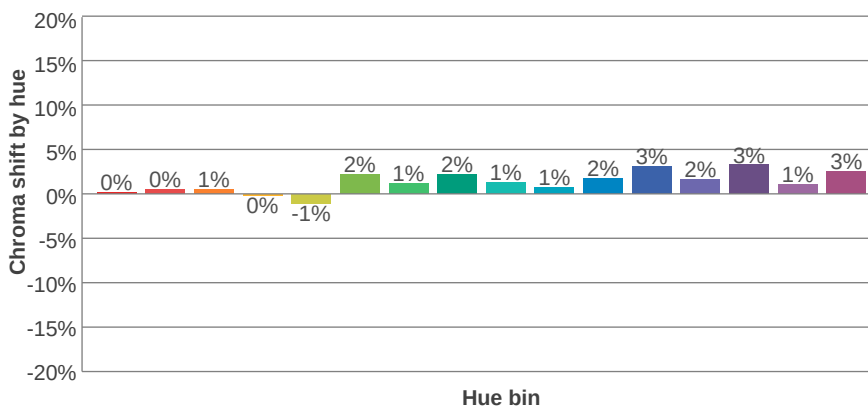
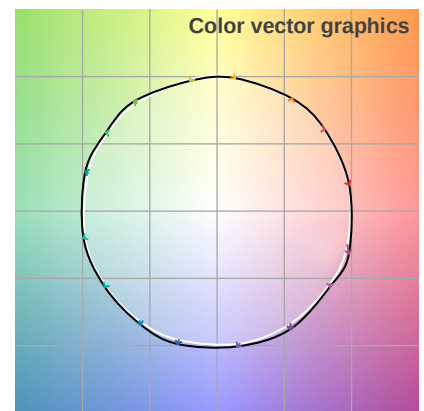
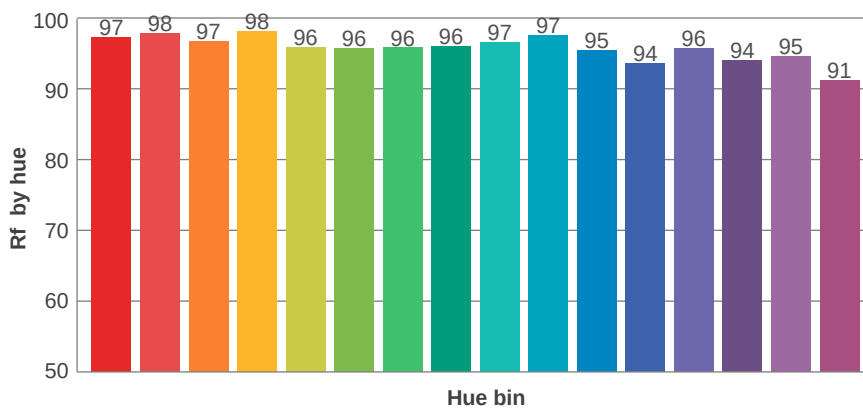
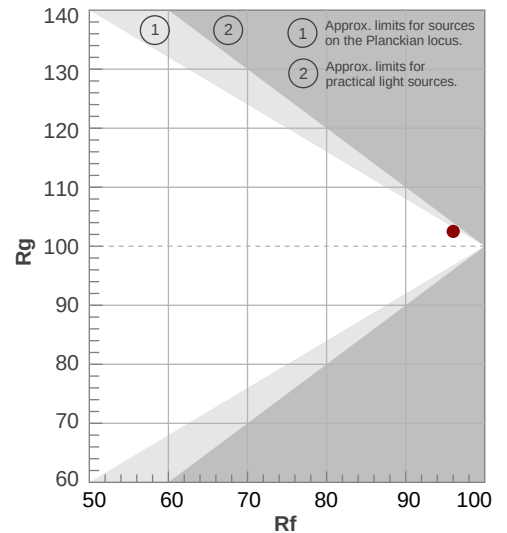
Rf 96.0

Fidelity index Rf

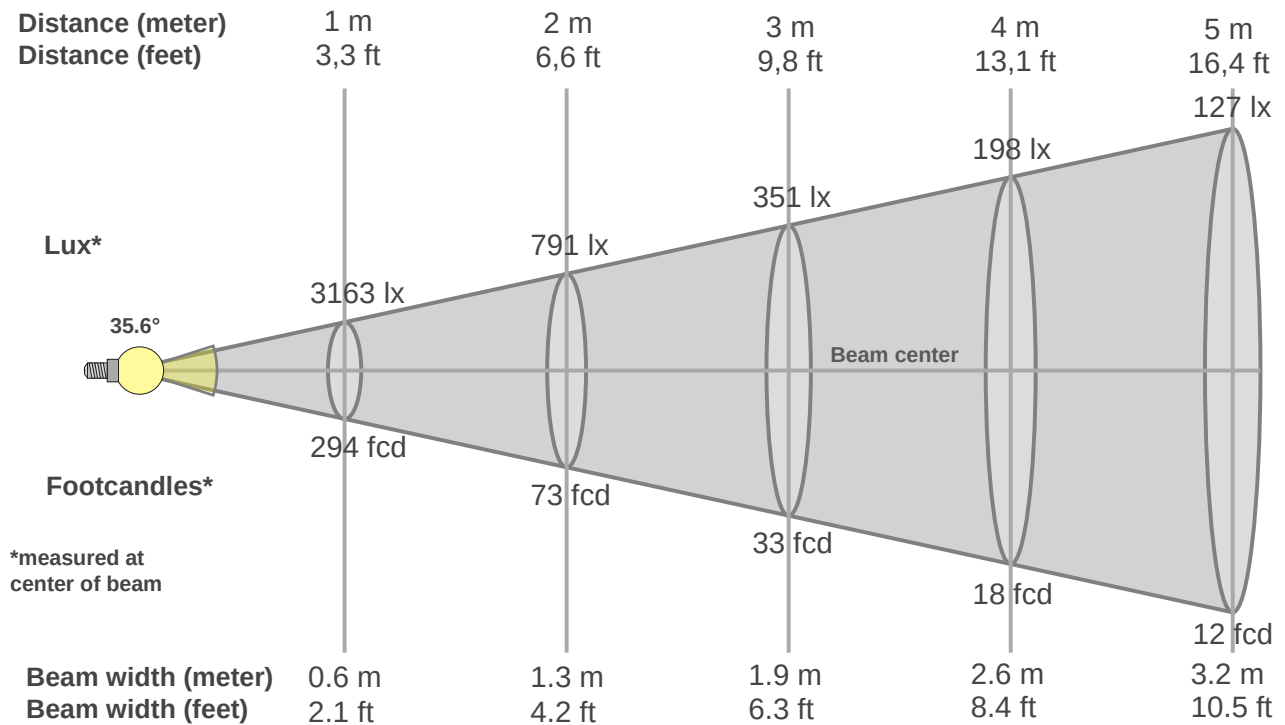
Rg 102.5

Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	0%	-1%
2	98	0%	-1%
3	97	1%	0%
4	98	0%	0%
5	96	-1%	1%
6	96	2%	1%
7	96	1%	1%
8	96	2%	0%
9	97	1%	0%
10	97	1%	0%
11	95	2%	2%
12	94	3%	0%
13	96	2%	-2%
14	94	3%	-3%
15	95	1%	-2%
16	91	3%	-6%



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
3163lx	791lx	351lx	198lx	127lx	88lx	65lx	49lx	39lx	32lx	26lx	22lx	19lx	16lx	14lx	12lx	11lx	10lx	9lx	8lx
293.8fcd	73.5fcd	32.6fcd	18.4fcd	11.8fcd	8.2fcd	6fcd	4.6fcd	3.6fcd	2.9fcd	2.4fcd	2fcd	1.7fcd	1.5fcd	1.3fcd	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°
3163	3141	3089	3046	2973	2881	2734	2533	2182	1560	818	403	164	30	11	8	7	5	5	4
100%	99%	98%	96%	94%	91%	86%	80%	69%	49%	26%	13%	5%	1%	0%	0%	0%	0%	0%	0%

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°
3163	3154	3109	3079	3015	2901	2745	2523	2128	1432	759	377	142	22	9	6	6	5	4	4
100%	100%	98%	97%	95%	92%	87%	80%	67%	45%	24%	12%	4%	1%	0%	0%	0%	0%	0%	0%

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°
3163	3149	3107	3053	2962	2848	2686	2477	2125	1559	794	350	124	19	10	8	6	5	5	4
100%	100%	98%	97%	94%	90%	85%	78%	67%	49%	25%	11%	4%	1%	0%	0%	0%	0%	0%	0%

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°
3163	3127	3067	2990	2906	2775	2613	2404	2039	1467	826	375	141	22	10	7	6	5	5	4
100%	99%	97%	95%	92%	88%	83%	76%	64%	46%	26%	12%	4%	1%	0%	0%	0%	0%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
35.6°	44.8°	49.6°	1.0%	1.0%

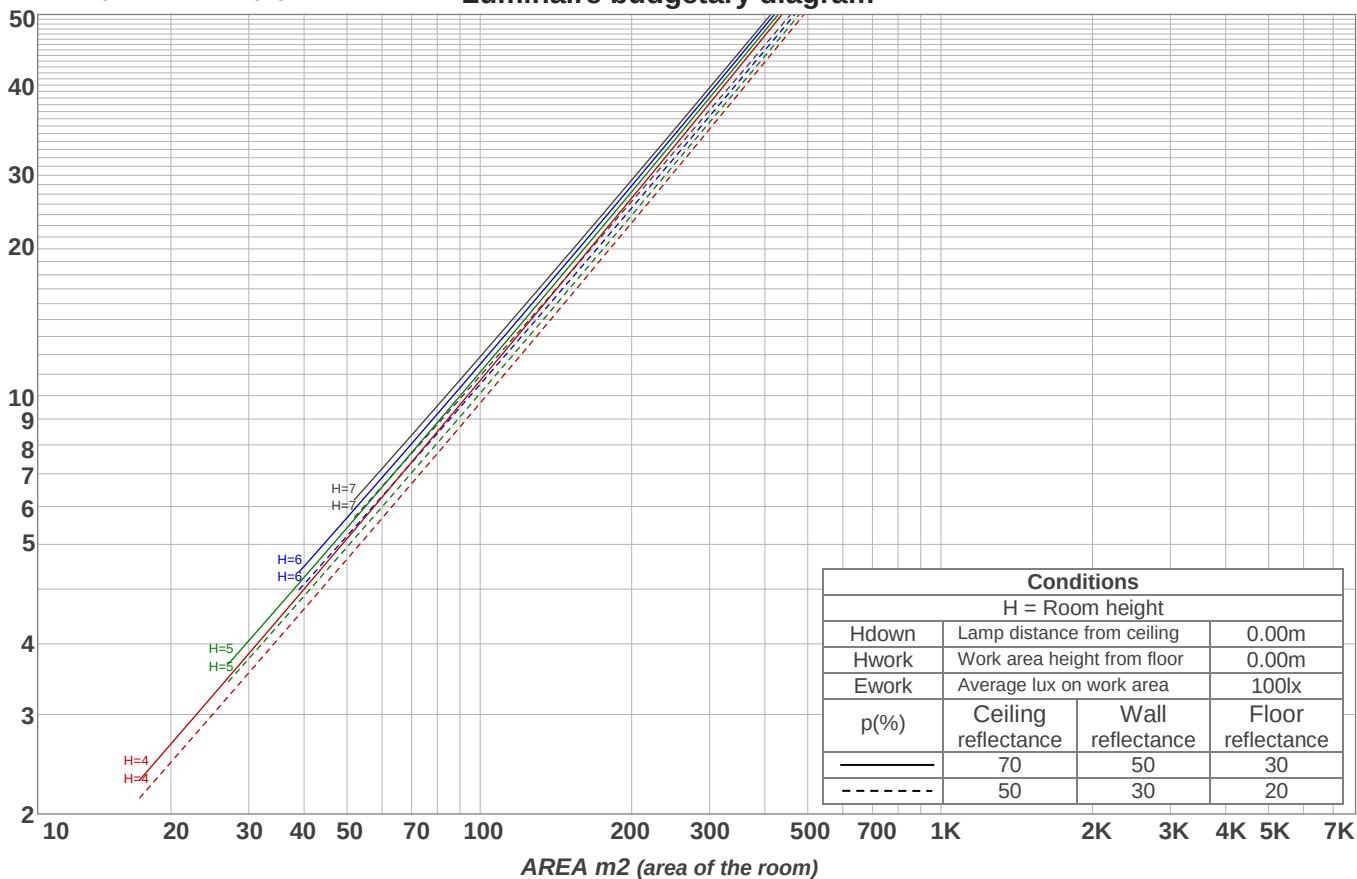
Light planning

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	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	97	96	95	93
3	108	103	100	97	106	102	99	96	99	97	95	97	95	93	95	93	92	90
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88
5	102	96	92	89	100	95	91	89	94	90	88	92	89	87	91	88	86	85
6	99	93	89	86	98	92	88	86	91	88	85	90	87	85	88	86	84	83
7	96	90	86	83	95	89	86	83	88	85	82	87	84	82	86	84	82	81
8	94	87	83	81	93	87	83	80	86	83	80	85	82	80	84	82	80	79
9	91	85	81	78	91	84	81	78	84	80	78	83	80	78	82	80	77	77
10	89	83	79	76	88	82	79	76	82	78	76	81	78	76	80	78	76	75

LAMPS (number of lamps)

Luminaire budgetary diagram



Zonal Lumen Summary

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