

PHOTOMETRIC TEST REPORT

MINIMA PRO ROUND 25 IP65 -
MATT WHITE - 4000835

astro

MINIMA PRO ROUND 25 IP65 - MATT

astro

LIGHT EFFICIENCY:

69 Lumen/Watt

LIGHT QUALITY:

CRI: 94.7

COLOR TEMPERATURE:

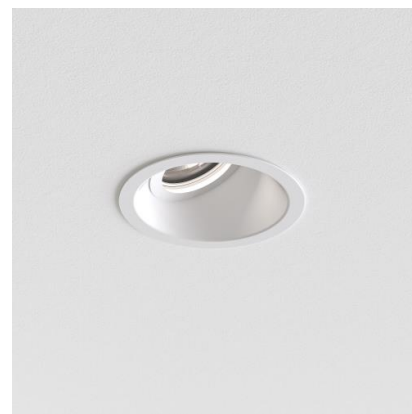
2718 K

OUTPUT: 810 lm

PEAK: 2639 cd

POWER: 11.7 W

PF: 0.95



Tracking number: [n/a](#)

Product name:

Minima Pro Round 25 IP65 - Matt White - 4000835

Item number:

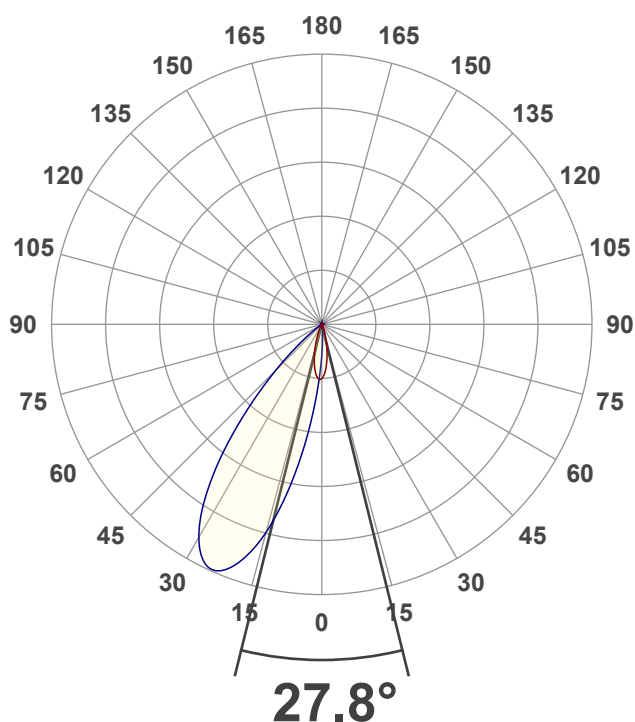
MRW-MW-HQ27G1-30G1-X-D1

Date and time:

20/01/2025 16:40:37

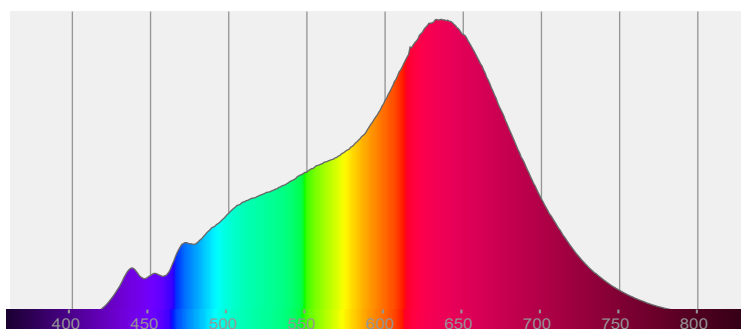
Description:

IP65 LED Downlight

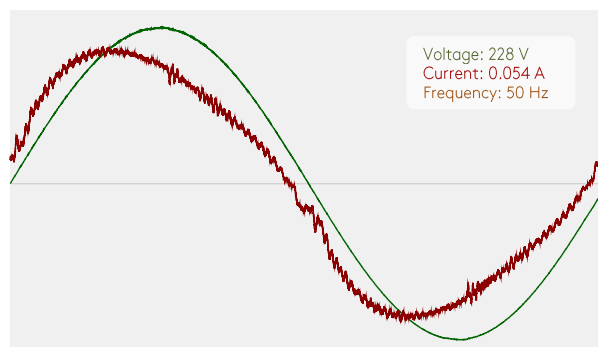


CIE 1931
x: 0.459
y: 0.410

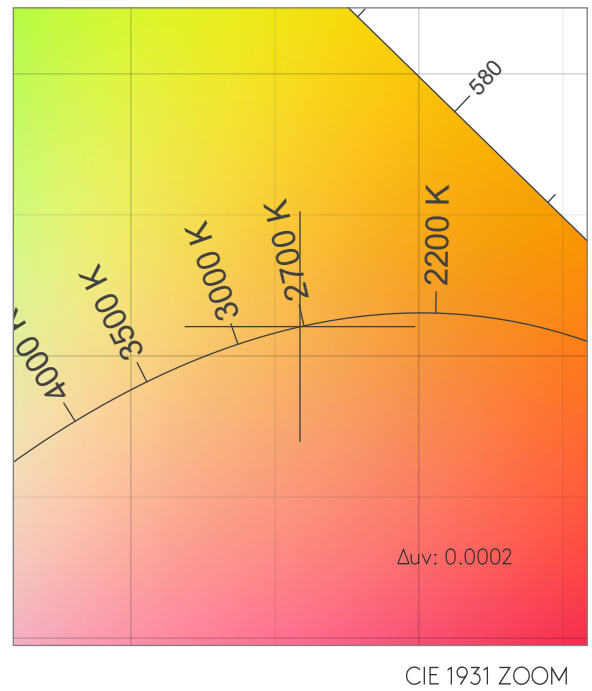
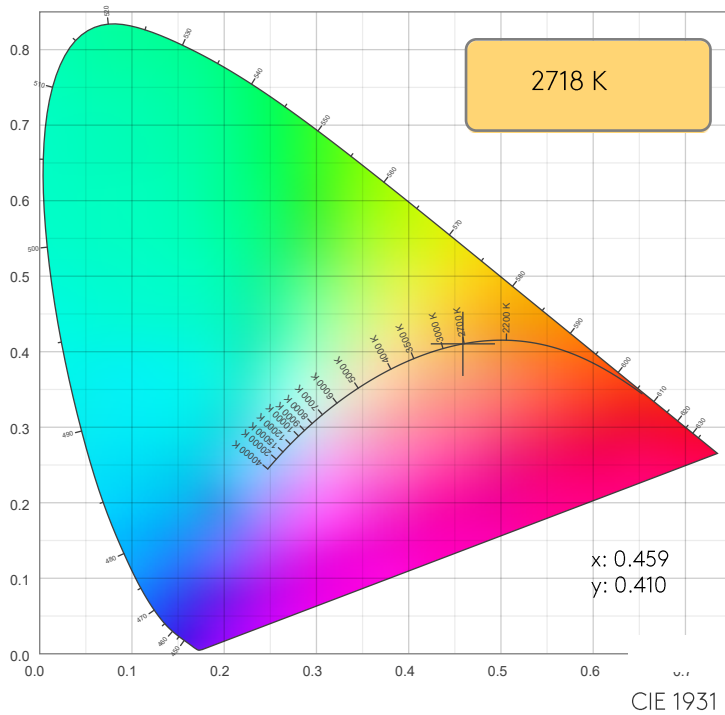
SPECTRA



POWER

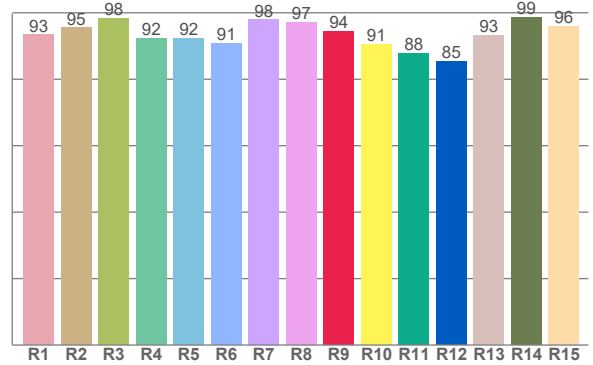
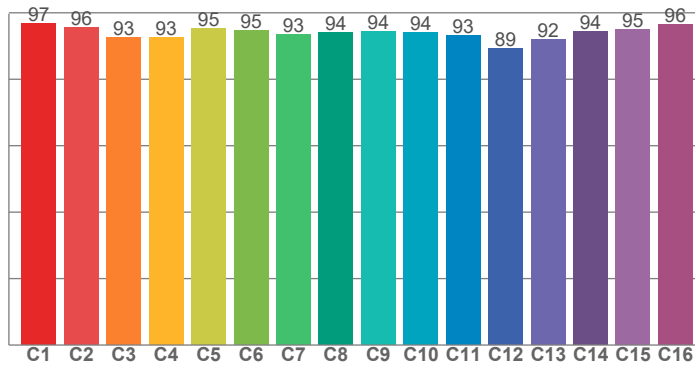


COLOR DETAILS



TM30: 94.1

CRI: 94.7 (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
93.3	95.5	98.3	92.2	92.3	90.9	97.9	97.1	94.4	90.6	87.7	85.5	93.3	98.6	95.8

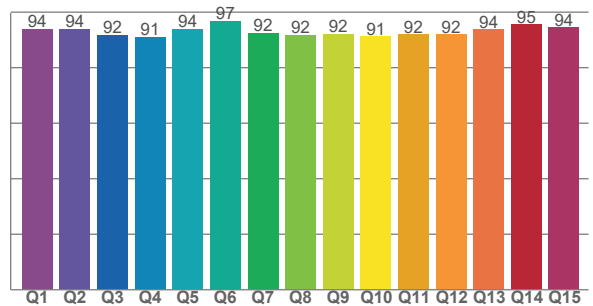
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96.8	95.6	92.6	92.6	95.3	94.6	93.4	93.9	94.4	94.0	93.2	89.2	91.9	94.5	94.9	96.4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93.9	93.8	91.7	91.0	93.9	96.8	92.4	91.8	92.2	91.3	91.9	92.0	93.7	95.5	94.5

CQS: 92.8



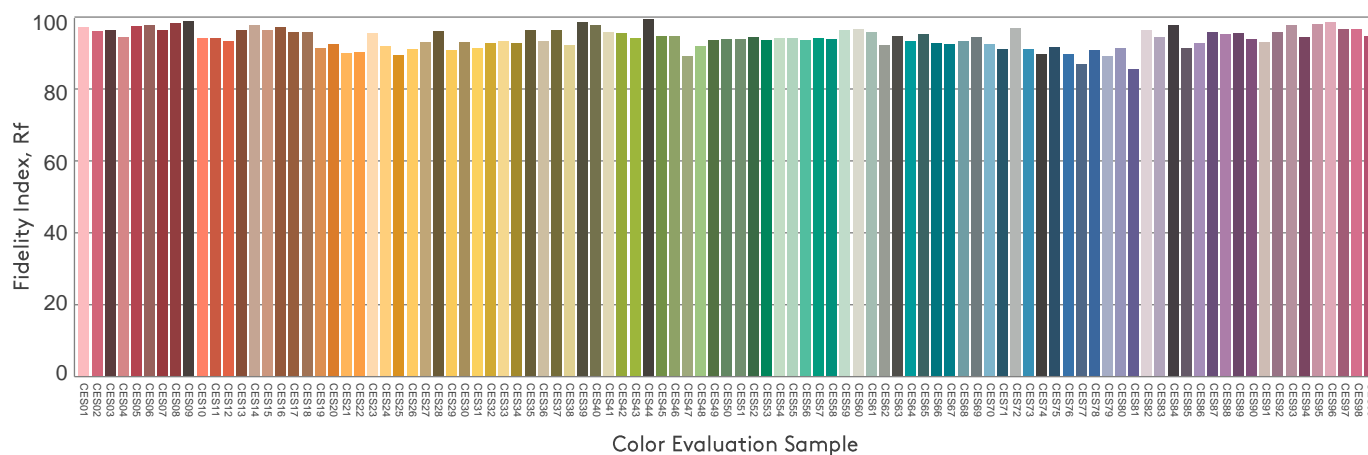
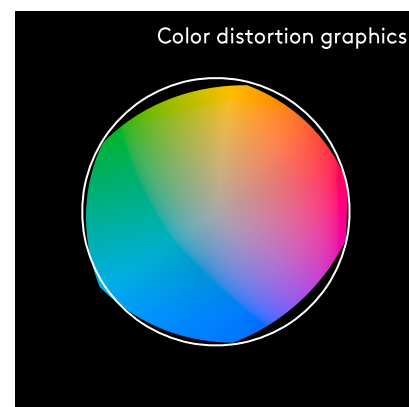
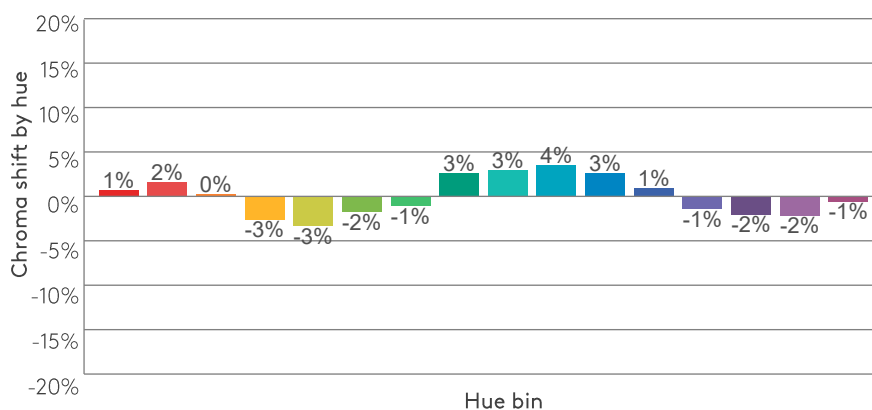
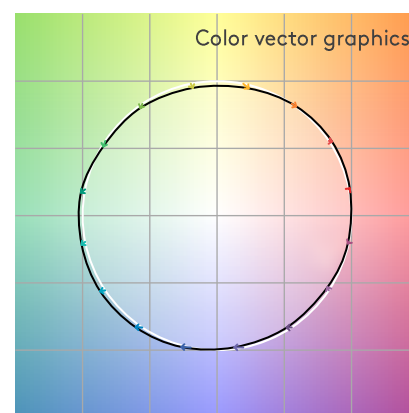
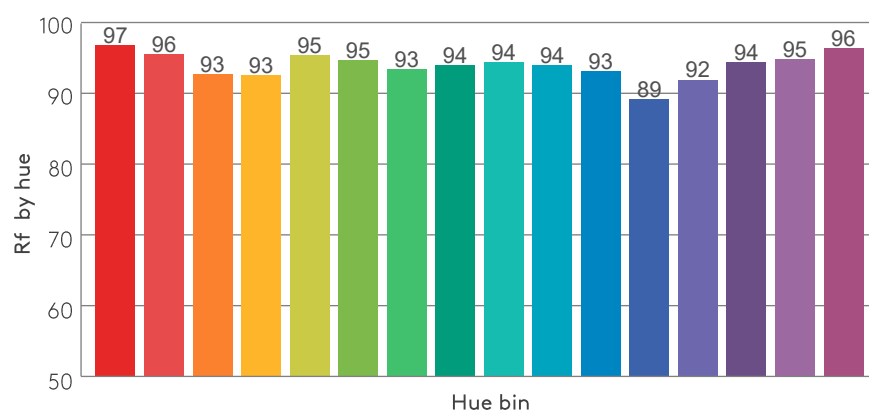
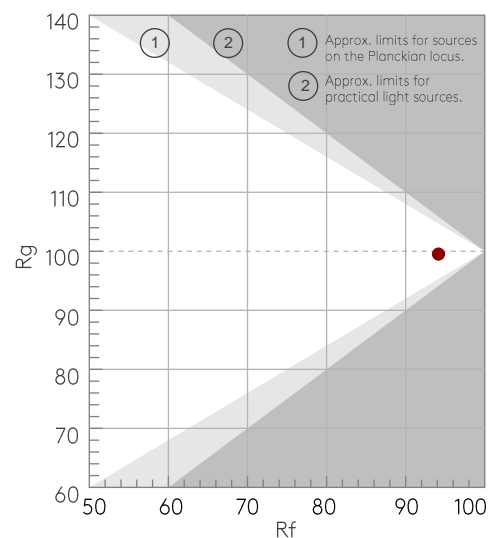
COLOR PARAMETERS

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
2718 K	94.7	94.4	94.1	99.5	92.8	0.459	0.410	0.262	0.351	0.0002

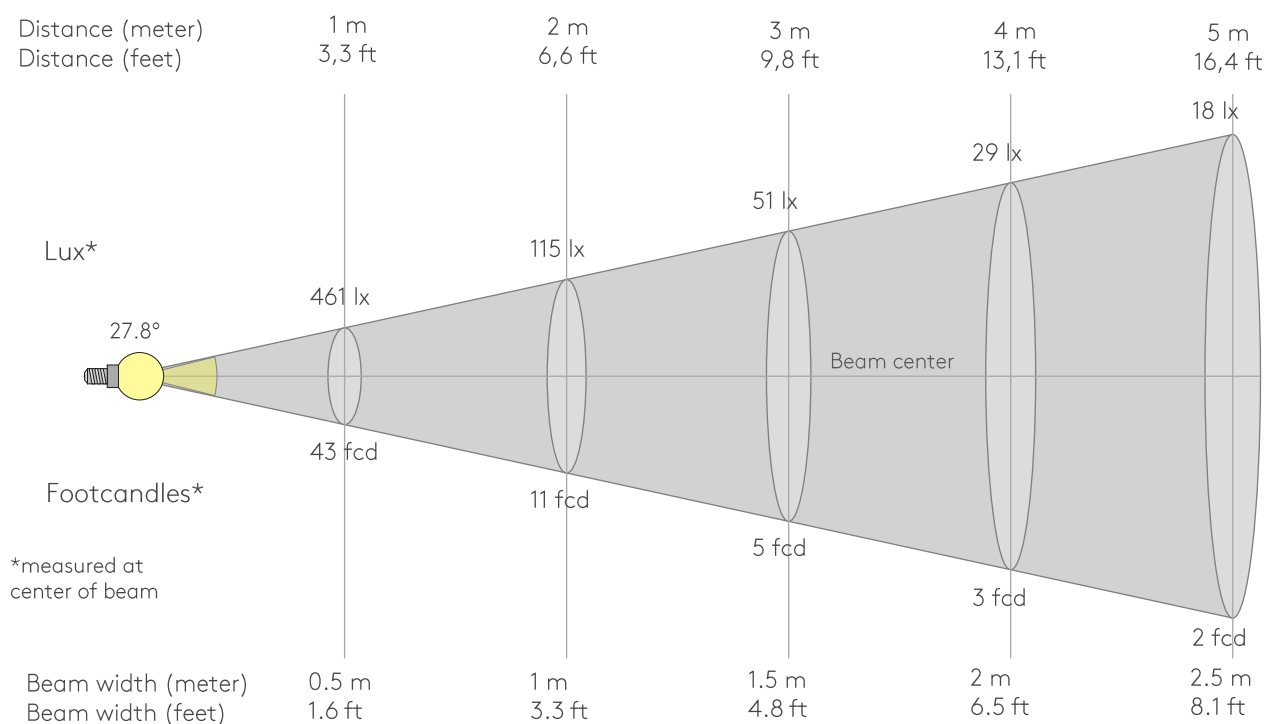
Rf 94.1
Fidelity index Rf

Rg 99.5
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	97	1%	1%
2	96	2%	-2%
3	93	0%	-4%
4	93	-3%	-4%
5	95	-3%	-1%
6	95	-2%	3%
7	93	-1%	4%
8	94	3%	3%
9	94	3%	2%
10	94	4%	-2%
11	93	3%	-4%
12	89	1%	-7%
13	92	-1%	-6%
14	94	-2%	-3%
15	95	-2%	1%
16	96	-1%	-1%



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
461lx	115lx	51lx	29lx	18lx	13lx	9lx	7lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx
42.8fcd	10.7fcd	4.8fcd	2.7fcd	1.7fcd	1.2fcd	0.9fcd	0.7fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.1fcd	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°
461	507	467	416	358	298	239	184	135	96	66	45	31	22	17	13	11	9	8	7
100%	110%	101%	90%	78%	65%	52%	40%	29%	21%	14%	10%	7%	5%	4%	3%	2%	2%	2%	1%

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°
461	190	113	66	40	26	18	13	10	9	8	6	6	5	5	4	4	4	3	3
100%	41%	25%	14%	9%	6%	4%	3%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%

Intensities in 180° c-plane

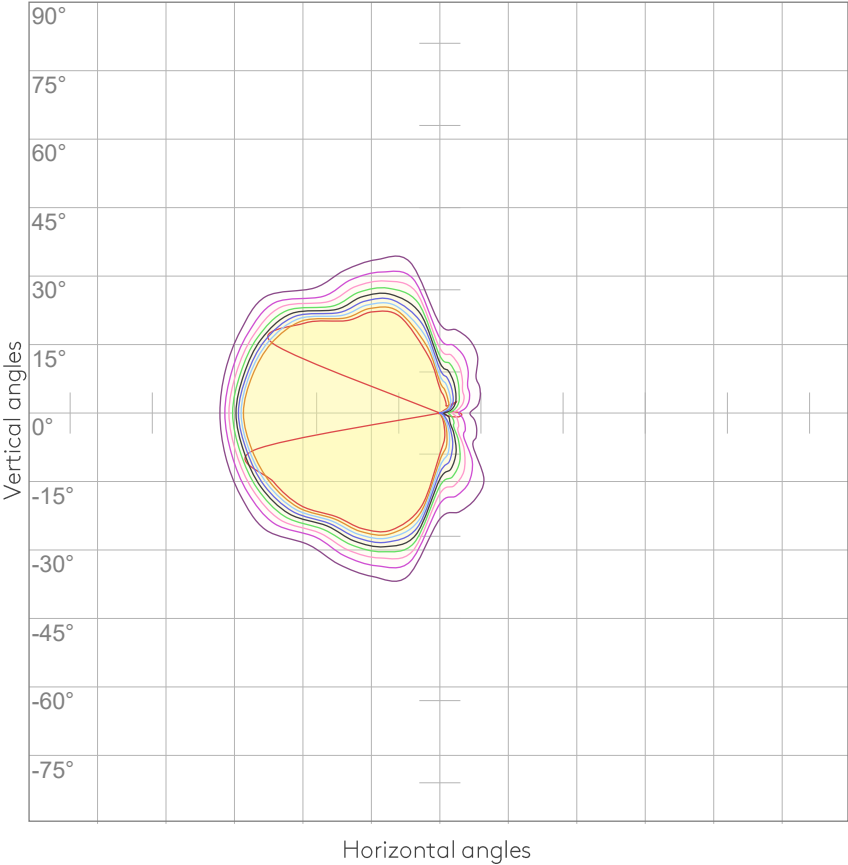
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
461	541	531	505	464	411	353	293	234	179	132	94	65	46	32	24	18	13	11	9
100%	117%	115%	110%	101%	89%	77%	64%	51%	39%	29%	20%	14%	10%	7%	5%	4%	3%	2%	2%

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°
461	464	672	914	1186	1466	1744	1999	2218	2391	2522	2607	2639	2615	2538	2415	2250	2041	1799	1535
100%	101%	146%	198%	257%	318%	378%	434%	481%	519%	547%	565%	572%	567%	550%	524%	488%	443%	390%	333%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
27.8°	47.6°	60.3°	99.4%	95.4%

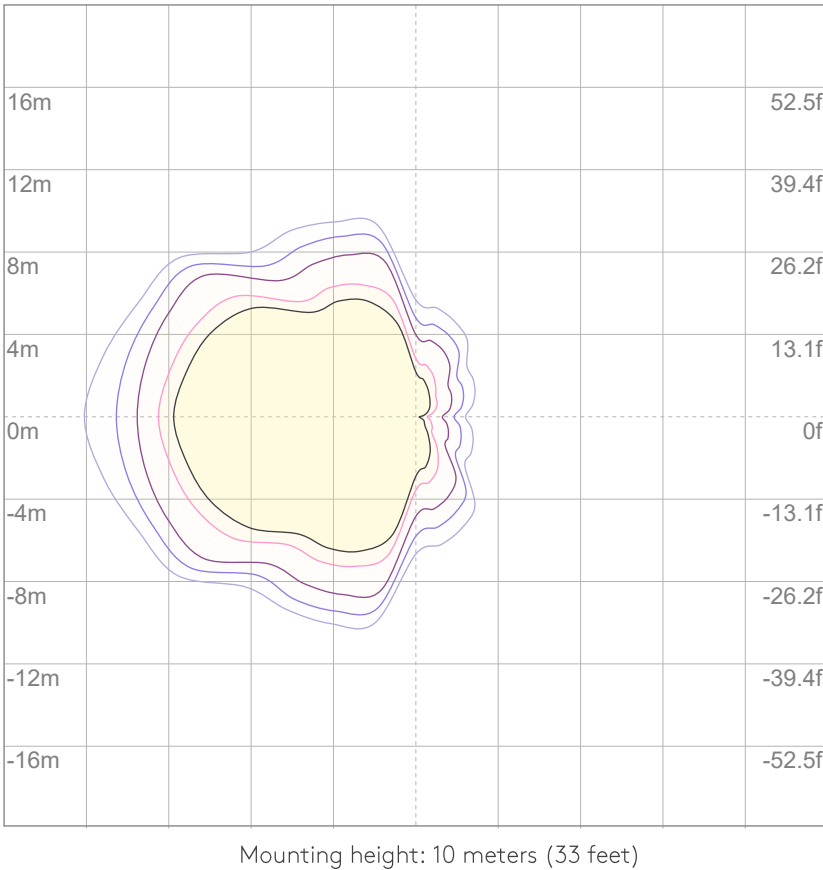
ISO CANDELA DIAGRAM



10%	46 cd
20%	92 cd
30%	138 cd
40%	184 cd
50%	231 cd
60%	277 cd
70%	323 cd
80%	369 cd
90%	415 cd

Conditions:
Number of c-planes: 8
Candela at center: 461 cd

ISO LUX DIAGRAM



3%	0.138 lx
5%	0.231 lx
10%	0.461 lx
30%	1.38 lx
50%	{LUX_10M50} lx

Conditions:
Number of c-planes: 8
Lux at center: 4.61 lx

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

GLARE EVALUATION ACCORDING TO UGR

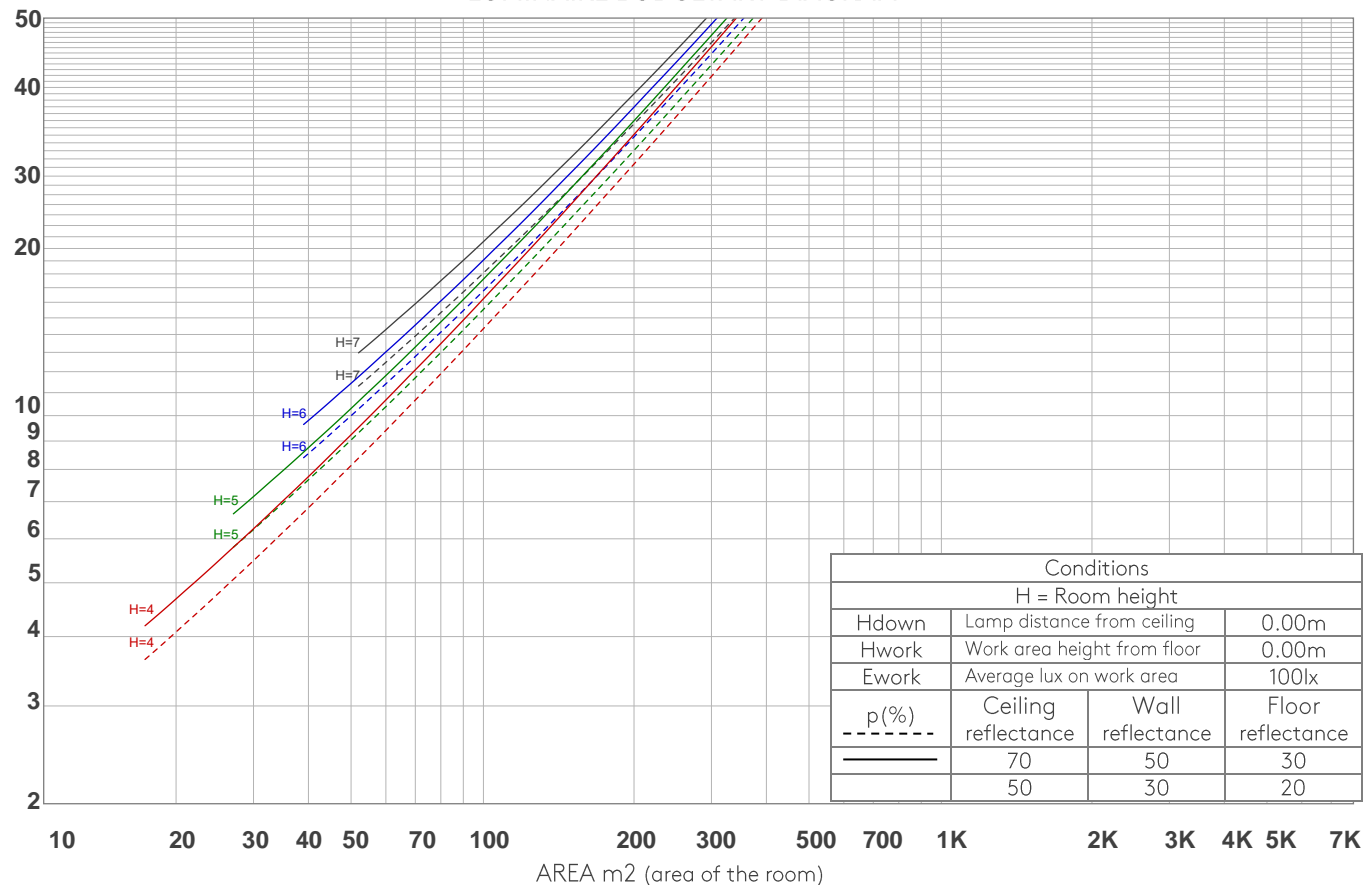
UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	94	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	85	83	80	79
4	96	88	82	77	94	86	81	77	84	79	76	82	78	75	80	77	74	72
5	90	81	75	70	89	80	75	70	78	73	69	77	72	69	75	71	68	67
6	85	76	69	65	84	75	69	64	73	68	64	72	67	64	70	66	63	62
7	80	71	64	60	79	70	64	59	69	63	59	67	62	59	66	62	58	57
8	76	66	60	55	75	65	59	55	64	59	55	63	58	54	62	58	54	53
9	72	62	55	51	71	61	55	51	60	55	51	59	54	51	58	54	50	49
10	68	58	52	48	67	57	52	47	57	51	47	56	51	47	55	50	47	46

LAMPS (number of lamps)

LUMINAIRE BUDGETARY DIAGRAM



ZONAL LUMEN SUMMARY

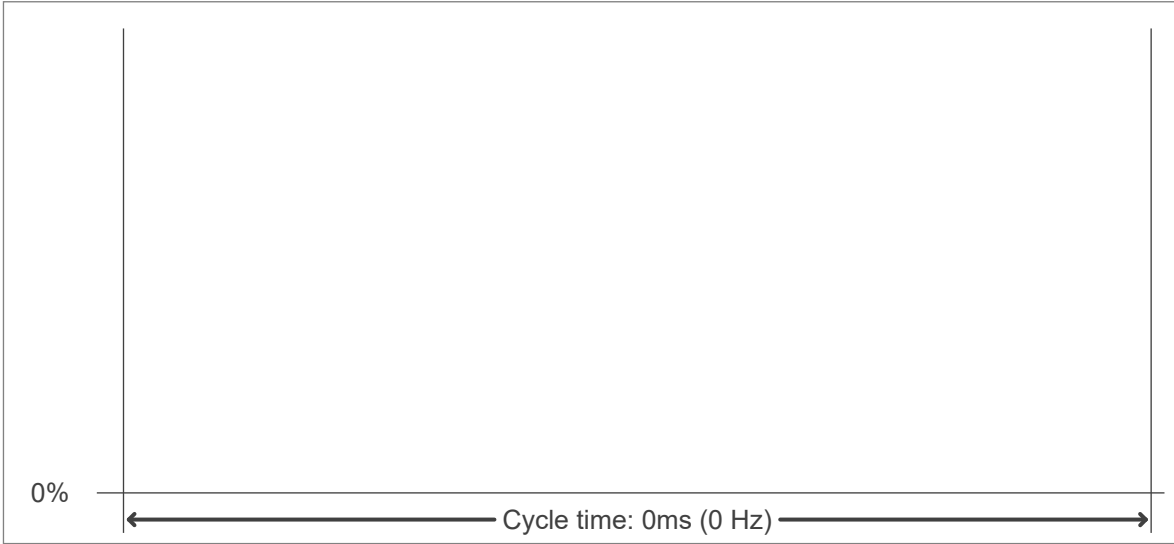
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
51.2 lm	188 lm	275 lm	208 lm	75.2 lm	8.89 lm	1.73 lm	0.717 lm	0.226 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.117 lm	0.121 lm	0.166 lm	0.237 lm	0.319 lm	0.389 lm	0.328 lm	0.215 lm	0.075 lm

FLICKER

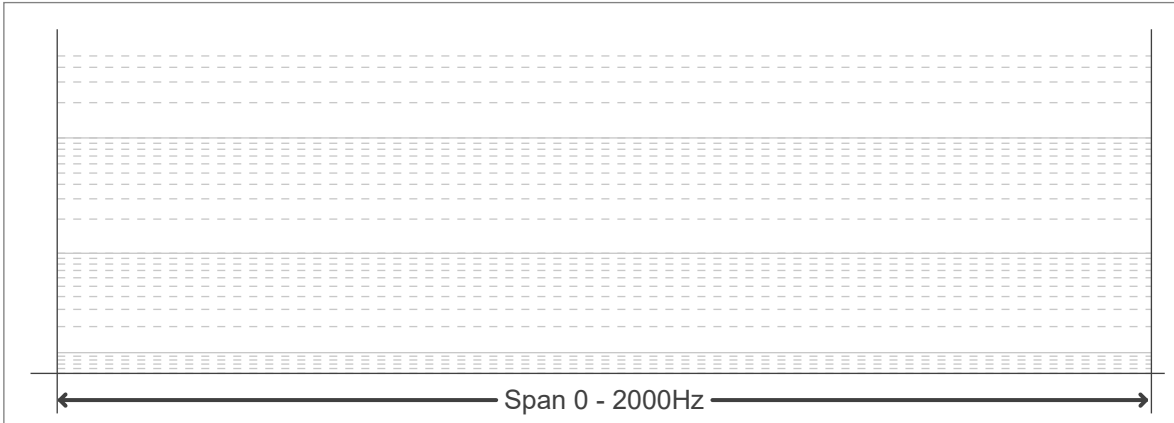
FLICKER CURVE (COMPLETE SAMPLED)



FLICKER FRAME (FRAME OF ONE FLICKER



FLICKER FFT (FREQUENCY SCOPE OF FLICKER



FLICKER RESULTS:

Flicker frequency:	n/a Hz
Flicker index:	n/a
Flicker percentage:	n/a %
SVM: (Visual flicker)	n/a

FLICKER CONDITIONS:

Sample rate:	n/a samples/second
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