

PHOTOMETRIC TEST REPORT

MINIMA PRO ROUND 25 IP65 -
MATT WHITE - 4000771

astro

MINIMA PRO ROUND 25 IP65 - MATT

astro

LIGHT EFFICIENCY:

96 Lumen/Watt

LIGHT QUALITY:

CRI: 95.6

COLOR TEMPERATURE:

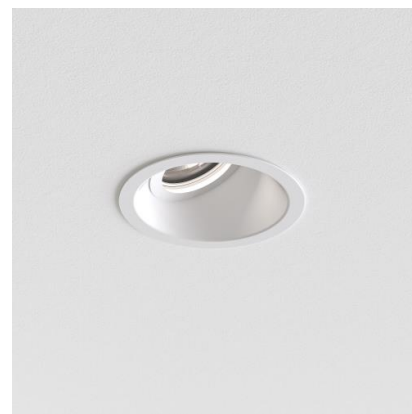
3028 K

OUTPUT: 1148 lm

PEAK: 5550 cd

POWER: 11.9 W

PF: 0.95



Tracking number: [n/a](#)

Product name:

Minima Pro Round 25 IP65 - Matt White - 4000771

Item number:

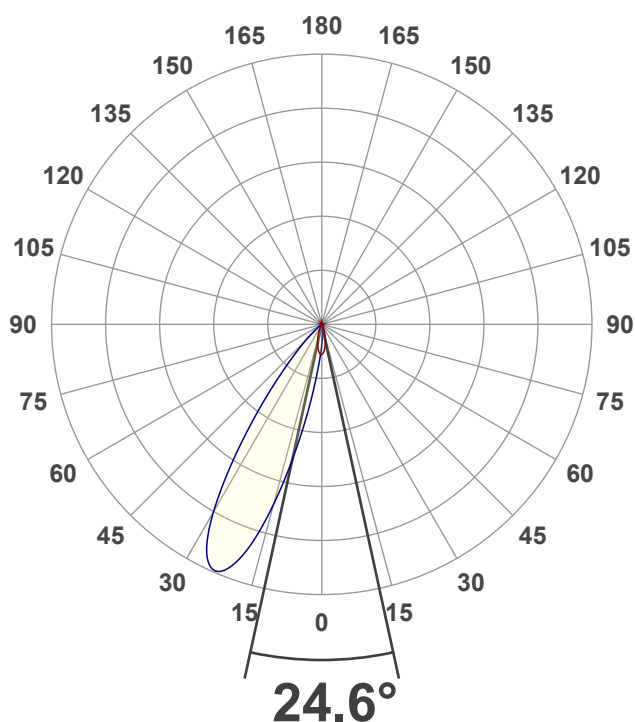
MRW-MW-HE30G1-15G1-X-D1

Date and time:

20/01/2025 15:57:48

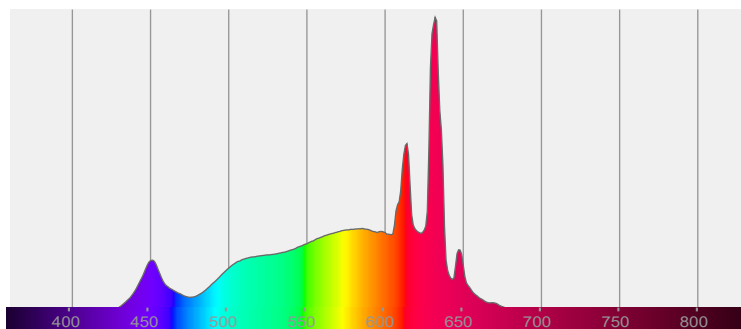
Description:

IP65 LED Downlight

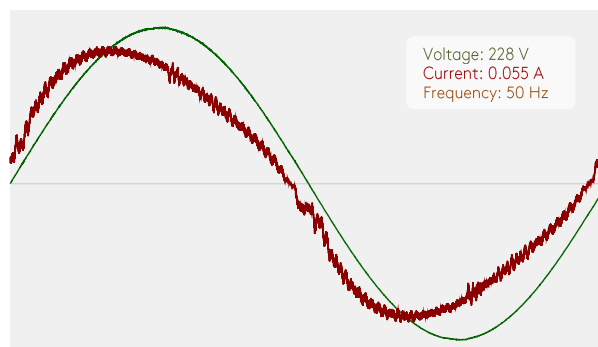


CIE 1931
x: 0.437
y: 0.408

SPECTRA

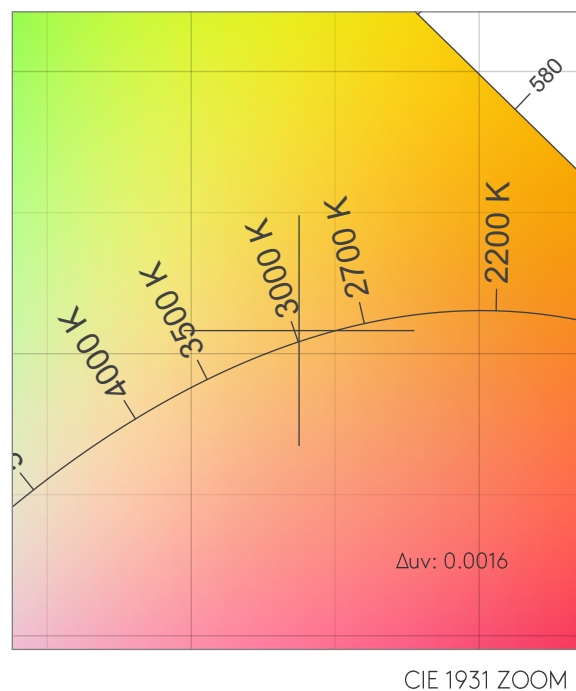
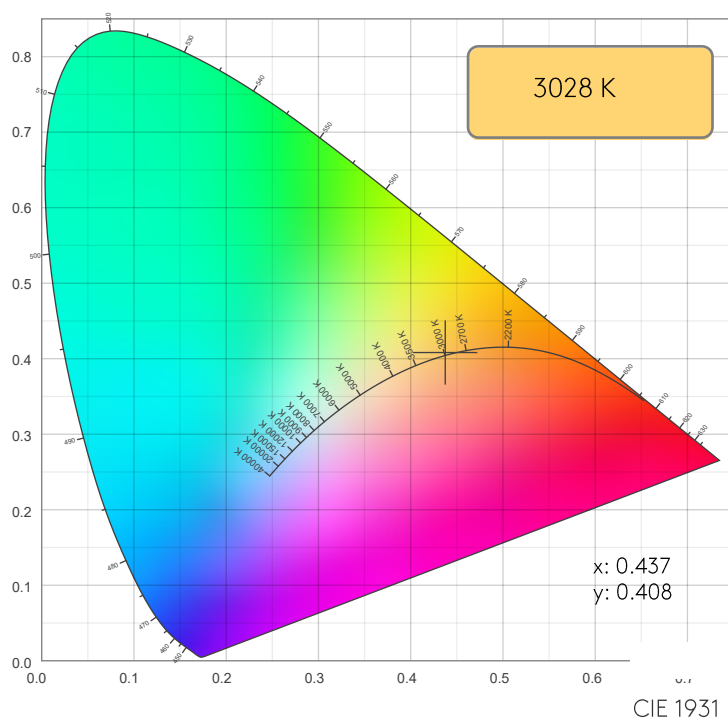


POWER

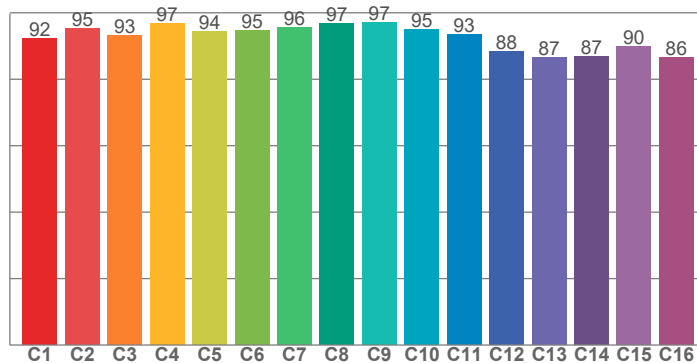


Voltage: 228 V
Current: 0.055 A
Frequency: 50 Hz

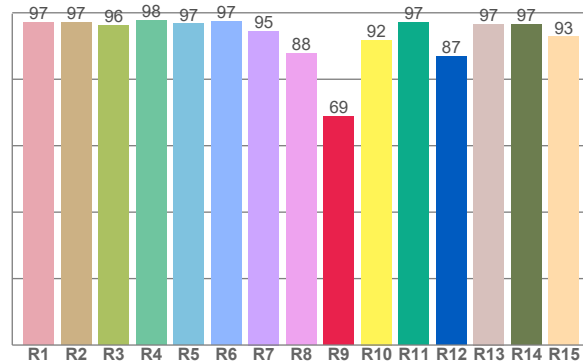
COLOR DETAILS



TM30: 93.1



CRI: 95.6 (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
97.1	97.1	96.2	97.7	96.7	97.5	94.5	87.7	68.8	91.8	97.2	86.8	96.6	96.6	92.7

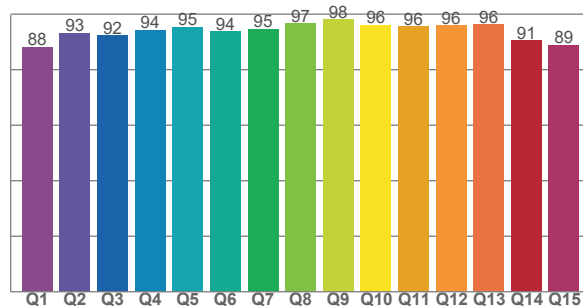
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.3	95.3	93.1	96.7	94.5	94.6	95.7	96.9	97.1	94.8	93.4	88.4	86.6	86.8	90.0	86.4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.1	93.3	92.3	94.3	95.3	93.8	94.7	96.6	98.1	96.2	95.6	95.9	96.4	90.6	88.9

CQS: 93.2



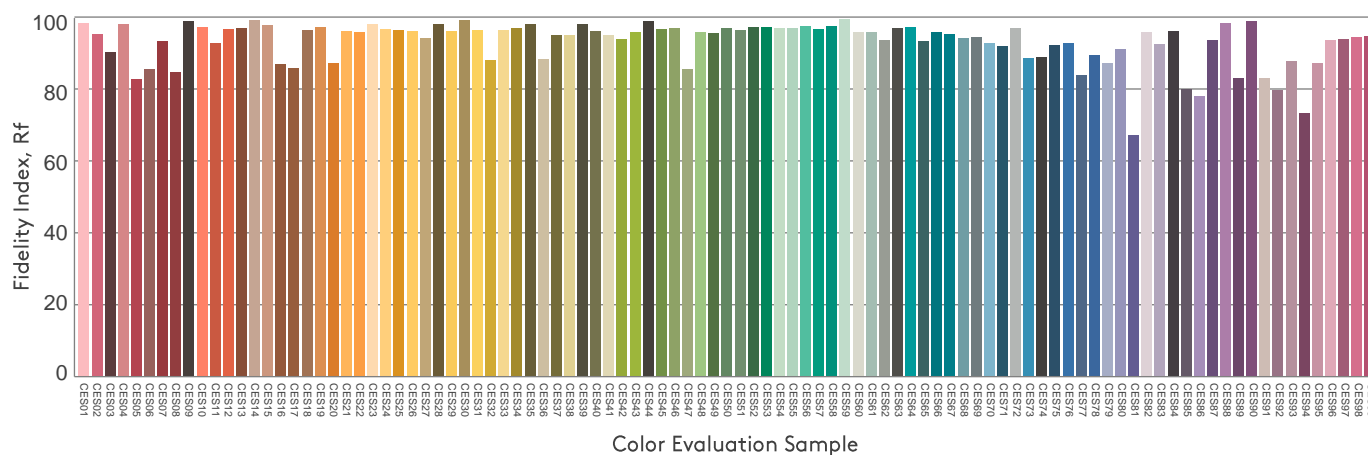
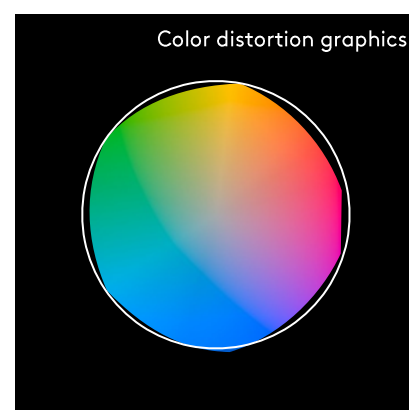
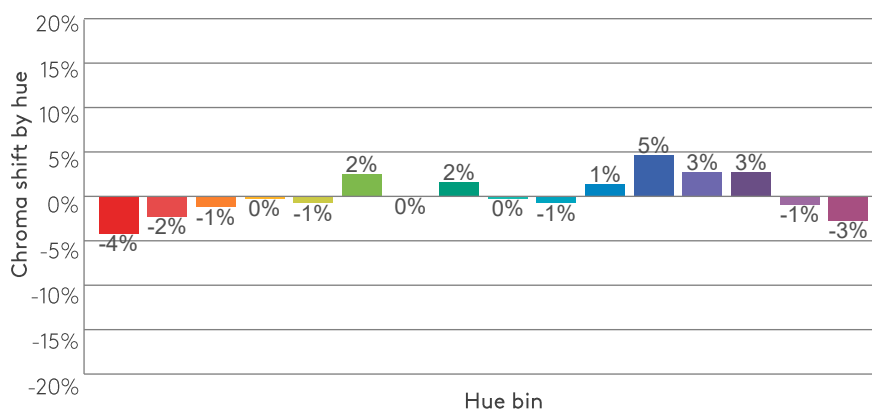
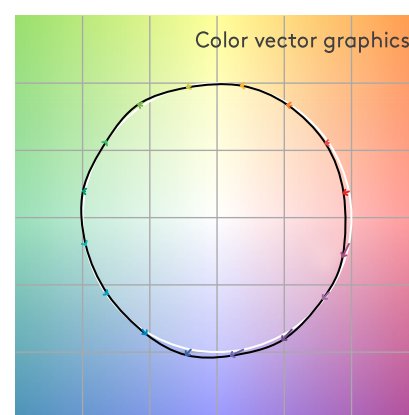
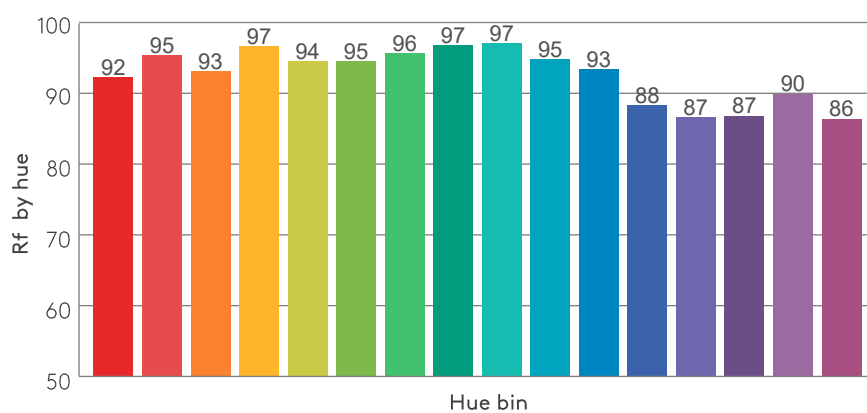
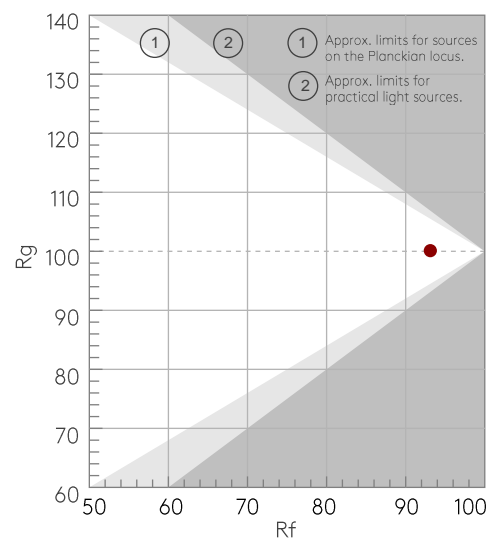
COLOR PARAMETERS

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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3028 K	95.6	68.8	93.1	100.1	93.2	0.437	0.408	0.249	0.349	0.0016

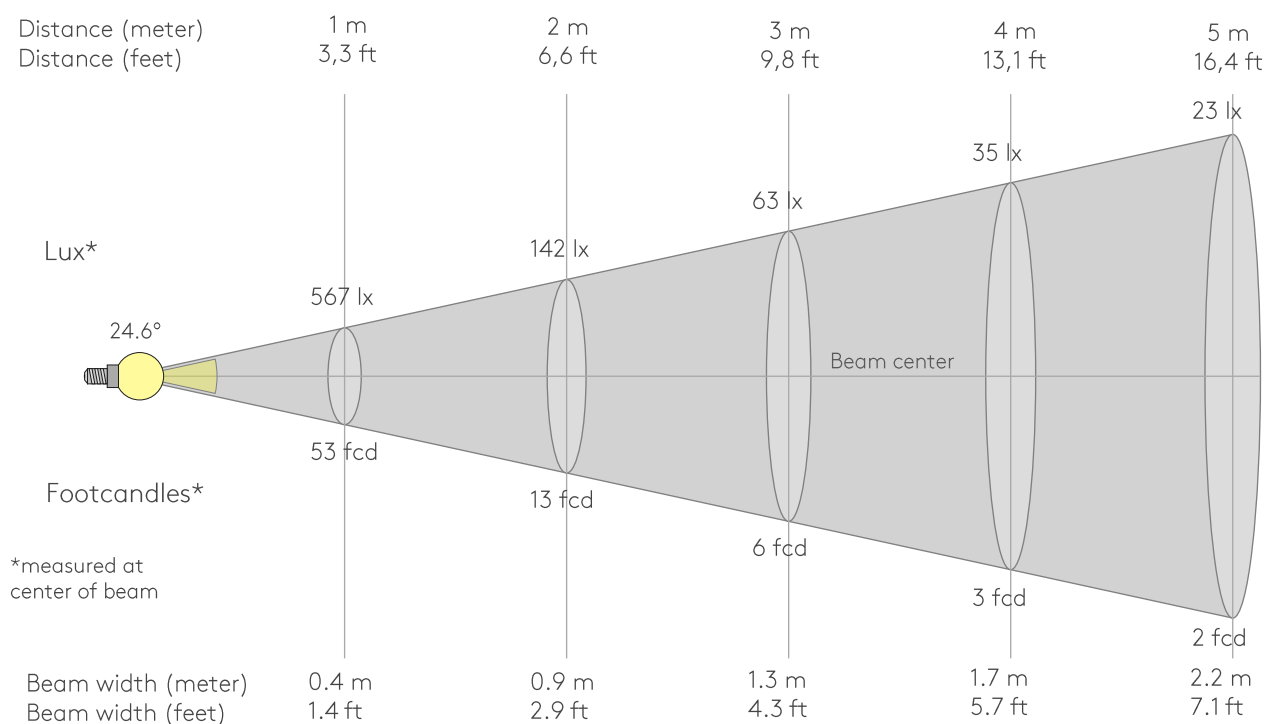
Rf 93.1
Fidelity index Rf

Rg 100.1
Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	-1%
2	95	-2%	1%
3	93	-1%	3%
4	97	0%	2%
5	94	-1%	3%
6	95	2%	2%
7	96	0%	-1%
8	97	2%	0%
9	97	0%	1%
10	95	-1%	2%
11	93	1%	4%
12	88	5%	-3%
13	87	3%	-10%
14	87	3%	-10%
15	90	-1%	-7%
16	86	-3%	-10%



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
567lx	142lx	63lx	35lx	23lx	16lx	12lx	9lx	7lx	6lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx
52.7fcd	13.2fcd	5.9fcd	3.3fcd	2.1fcd	1.5fcd	1.1fcd	0.8fcd	0.7fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd	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°
567	605	571	525	470	411	351	294	242	195	155	122	96	74	56	41	30	23	19	15
100%	107%	101%	93%	83%	72%	62%	52%	43%	34%	27%	21%	17%	13%	10%	7%	5%	4%	3%	3%

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°
567	310	225	162	118	86	59	40	29	22	18	15	13	11	10	10	9	8	8	8
100%	55%	40%	29%	21%	15%	10%	7%	5%	4%	3%	3%	2%	2%	2%	2%	2%	1%	1%	1%

Intensities in 180° c-plane

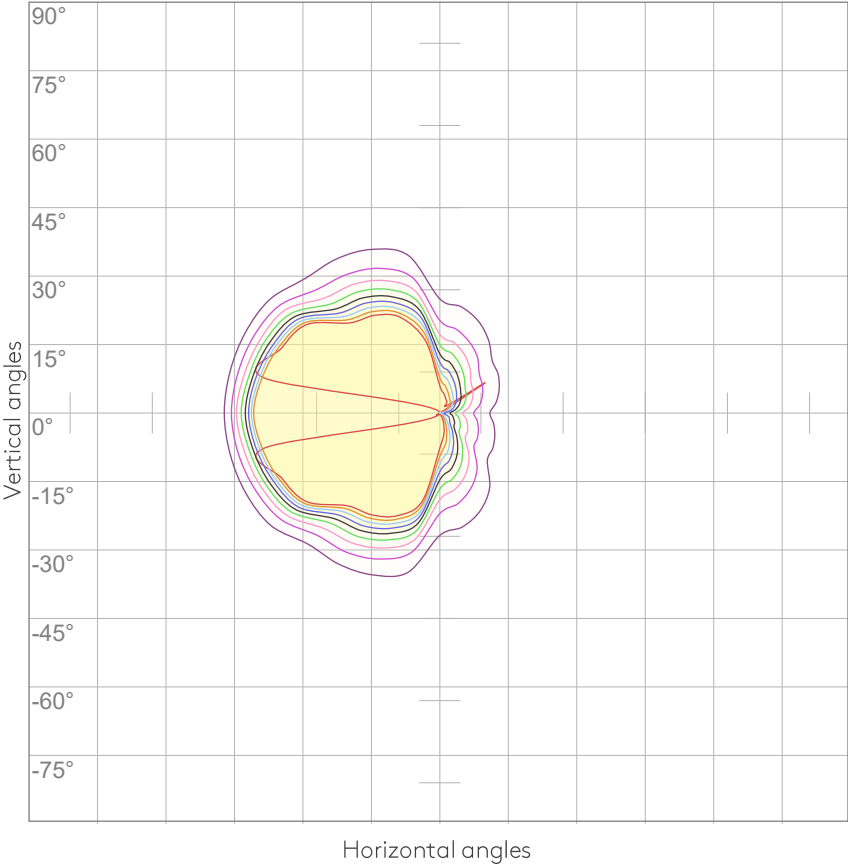
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
567	622	604	570	523	468	409	349	291	239	192	153	121	95	74	55	41	30	23	19
100%	110%	106%	100%	92%	83%	72%	61%	51%	42%	34%	27%	21%	17%	13%	10%	7%	5%	4%	3%

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°
567	586	806	1119	1560	2118	2767	3486	4203	4819	5250	5491	5536	5385	5031	4472	3768	3025	2327	1720
100%	103%	142%	197%	275%	373%	488%	615%	741%	850%	926%	968%	976%	949%	887%	789%	664%	533%	410%	303%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
24.6°	49.4°	66.5°	99.3%	96.7%

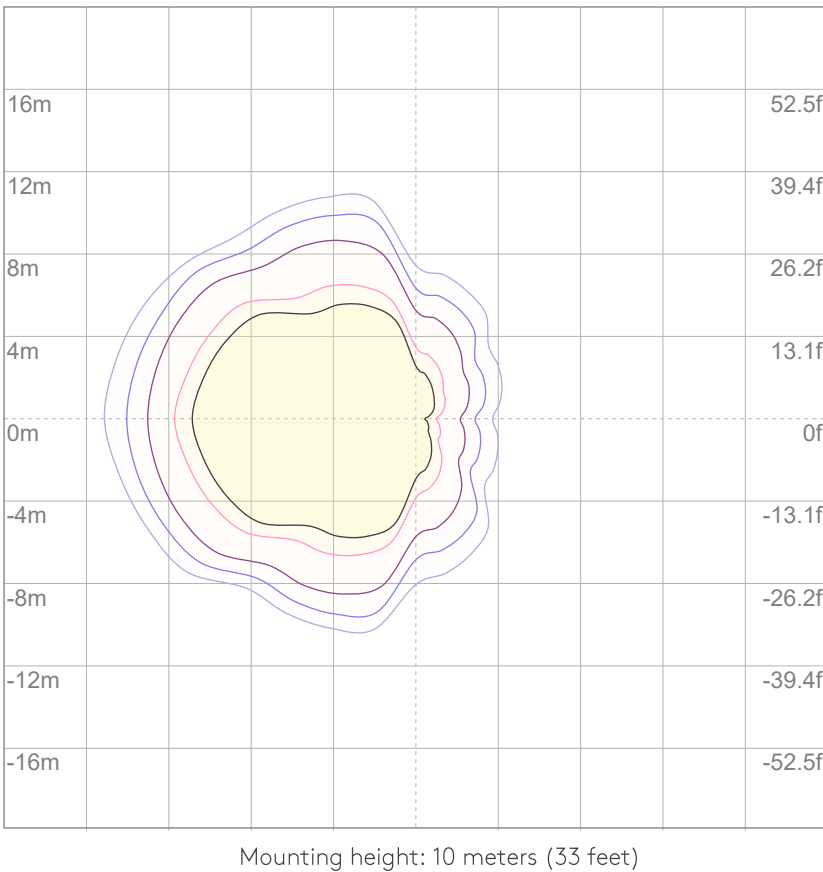
ISO CANDELA DIAGRAM



10%	57 cd
20%	113 cd
30%	170 cd
40%	227 cd
50%	284 cd
60%	340 cd
70%	397 cd
80%	454 cd
90%	510 cd

Conditions:
Number of c-planes: 8
Candela at center: 567 cd

ISO LUX DIAGRAM



3%	0.170 lx
5%	0.284 lx
10%	0.567 lx
30%	1.70 lx
50%	{LUX_10M50} lx

Conditions:
Number of c-planes: 8
Lux at center: 5.67 lx

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

GLARE EVALUATION ACCORDING TO UGR

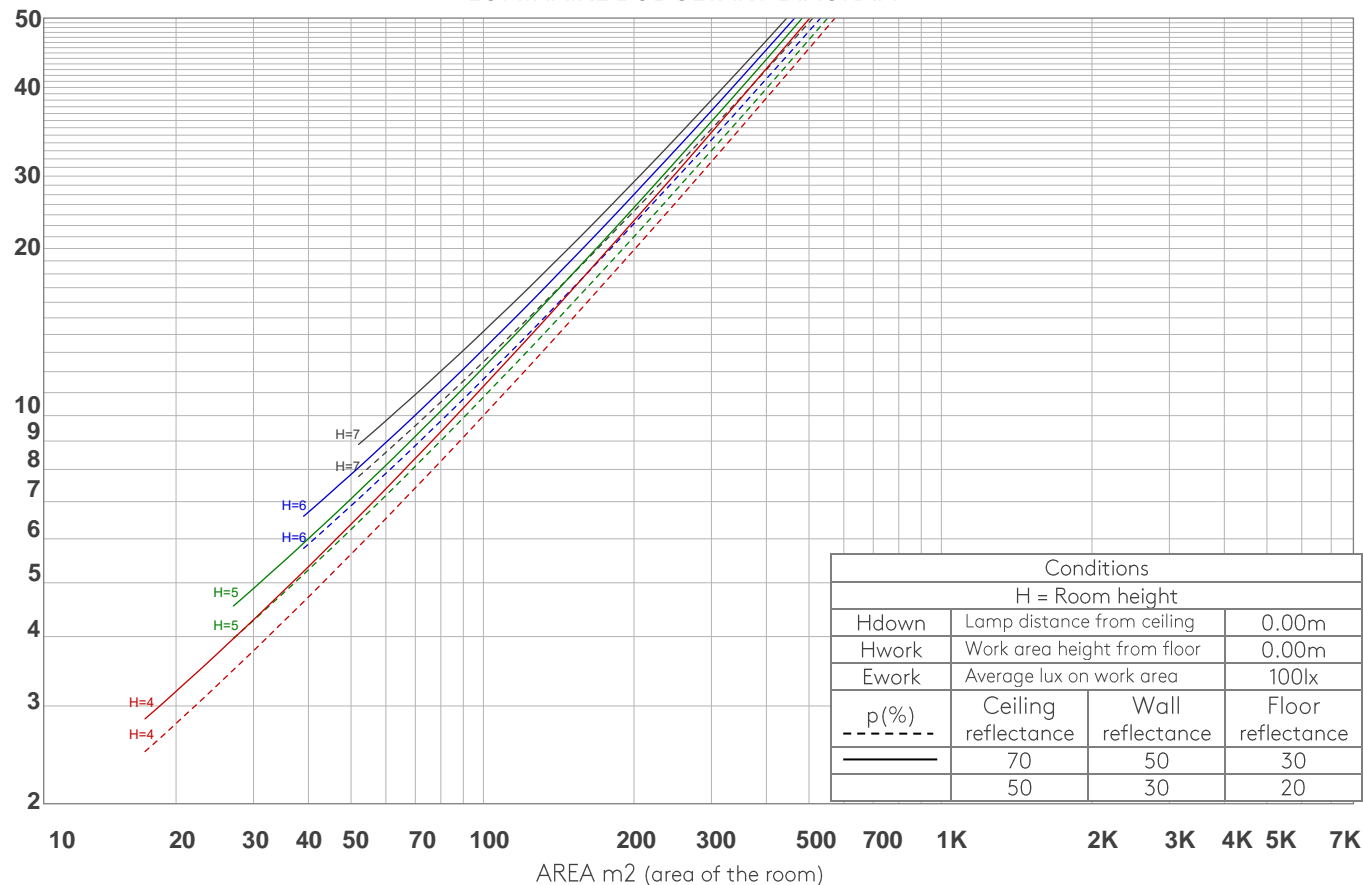
UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

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	106	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	95	105	101	97	94	97	94	91	94	92	90	91	89	88	86
3	102	95	90	86	100	94	89	85	91	87	84	88	85	82	86	83	81	79
4	96	88	83	78	94	87	82	78	85	80	77	83	79	76	81	78	75	73
5	91	82	76	72	89	81	76	71	80	75	71	78	73	70	76	72	69	68
6	86	77	71	66	85	76	70	66	74	69	65	73	68	65	72	68	64	63
7	82	72	66	61	80	71	65	61	70	64	61	69	64	60	67	63	60	58
8	77	67	61	57	76	67	61	57	66	60	56	64	60	56	63	59	56	54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47

LAMPS (number of lamps)

LUMINAIRE BUDGETARY DIAGRAM



ZONAL LUMEN SUMMARY

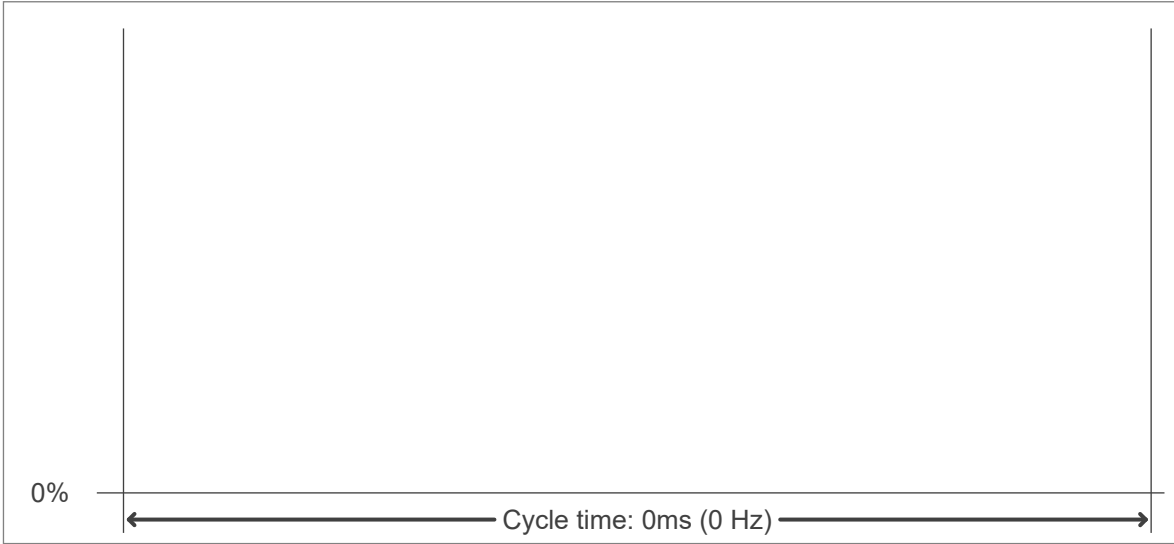
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
65.5 lm	288 lm	439 lm	269 lm	69.3 lm	9.51 lm	3.21 lm	1.52 lm	0.468 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.176 lm	0.173 lm	0.217 lm	0.315 lm	0.401 lm	0.483 lm	0.449 lm	0.300 lm	0.099 lm

FLICKER

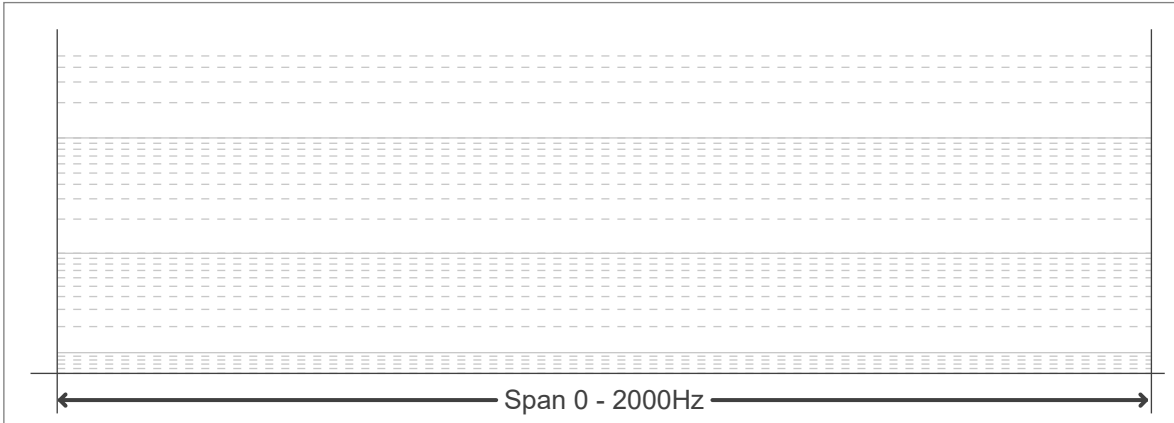
FLICKER CURVE (COMPLETE SAMPLED)



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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