

PHOTOMETRIC TEST REPORT

MINIMA PRO ROUND 25 IP65 -
MATT WHITE - 4000739

astro

MINIMA PRO ROUND 25 IP65 - MATT

astro

LIGHT EFFICIENCY:

103 Lumen/Watt

LIGHT QUALITY:

CRI: 96.3

COLOR TEMPERATURE:

2687 K

OUTPUT: 1210 lm

PEAK: 3844 cd

POWER: 11.8 W

PF: 0.95



Tracking number: [n/a](#)

Product name:

Minima Pro Round 25 IP65 - Matt White - 4000739

Item number:

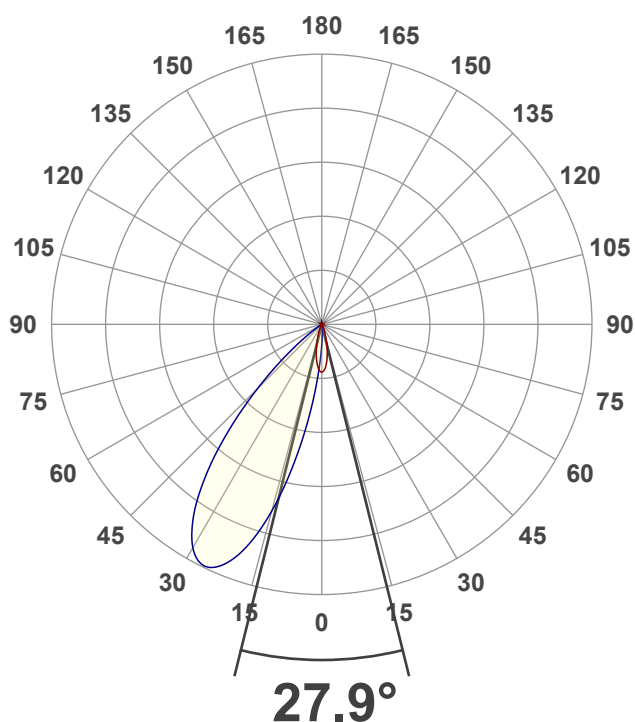
MRW-MW-HE27G1-30G1-X-D1

Date and time:

20/01/2025 15:31:15

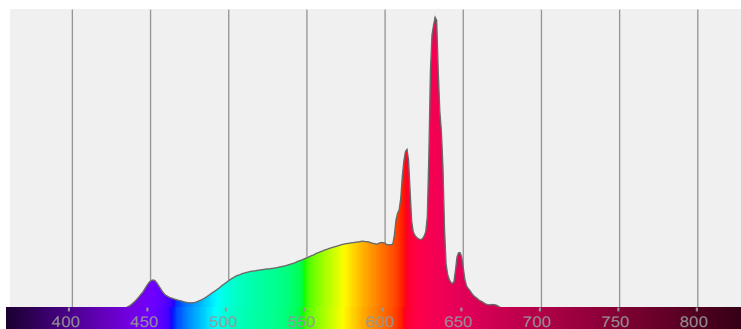
Description:

IP65 LED Downlight

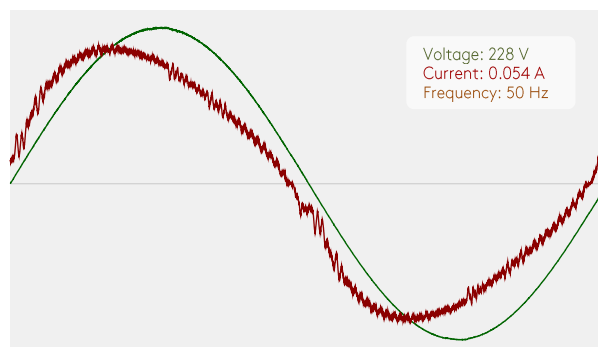


CIE 1931
x: 0.462
y: 0.413

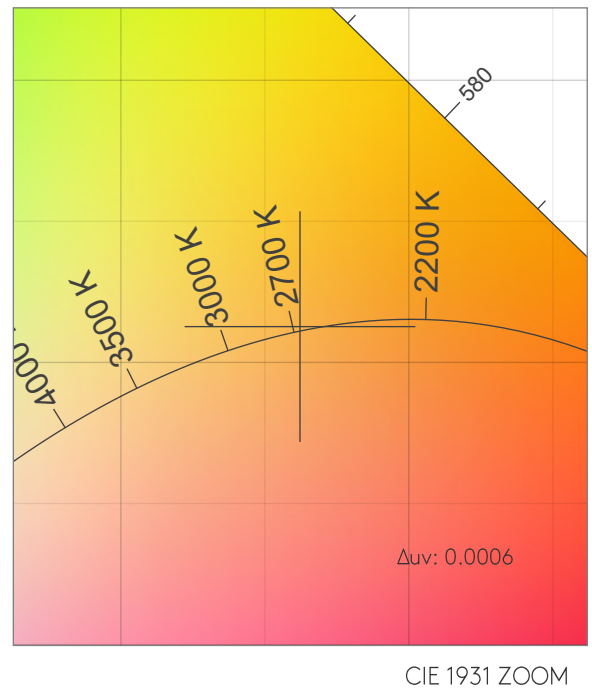
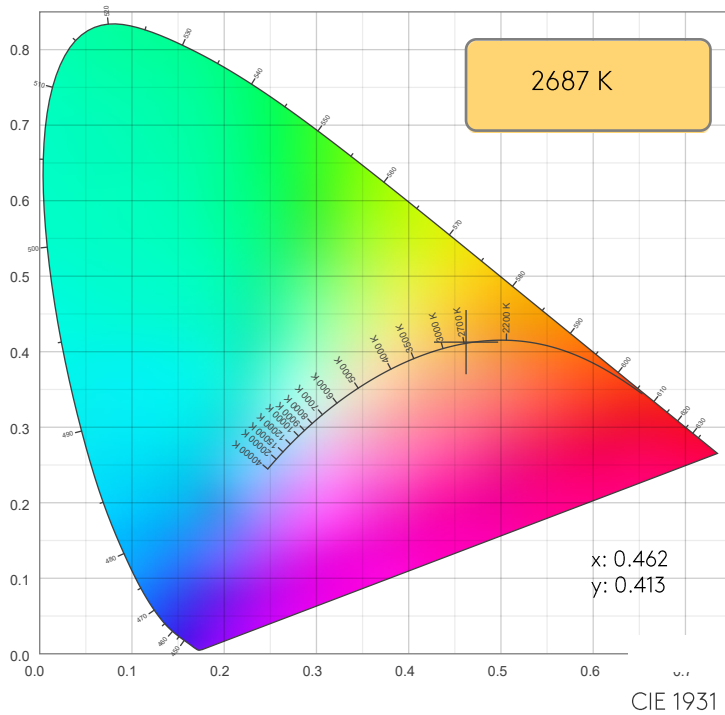
SPECTRA



POWER

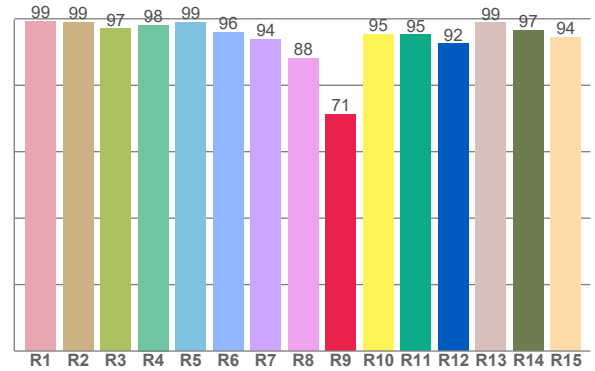
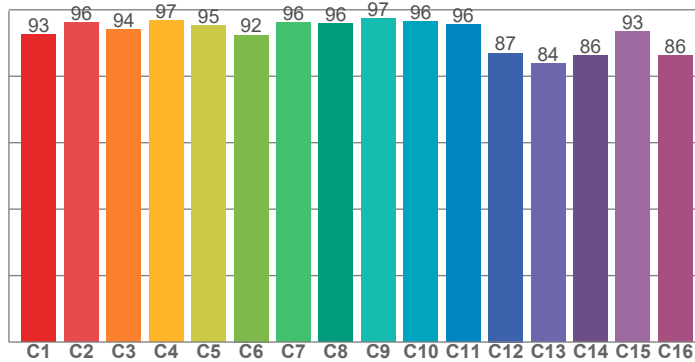


COLOR DETAILS



TM30: 93.4

CRI: 96.3 (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
99.2	98.8	97.0	98.1	99.0	96.0	93.8	88.1	71.3	95.3	95.2	92.4	98.8	96.6	94.3

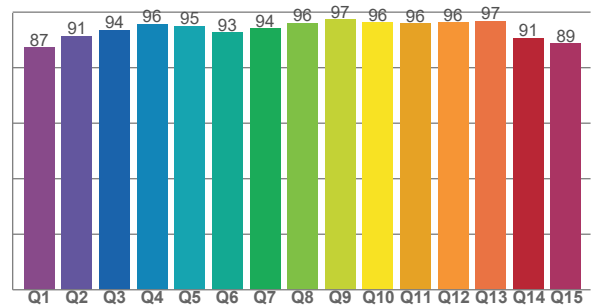
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.6	96.0	94.0	96.8	95.4	92.4	96.2	95.8	97.4	96.4	95.5	87.0	83.8	86.2	93.4	86.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.2	91.4	93.5	95.8	95.0	92.7	94.2	96.1	97.3	96.3	95.9	96.3	96.8	90.7	88.7

CQS: 92.8



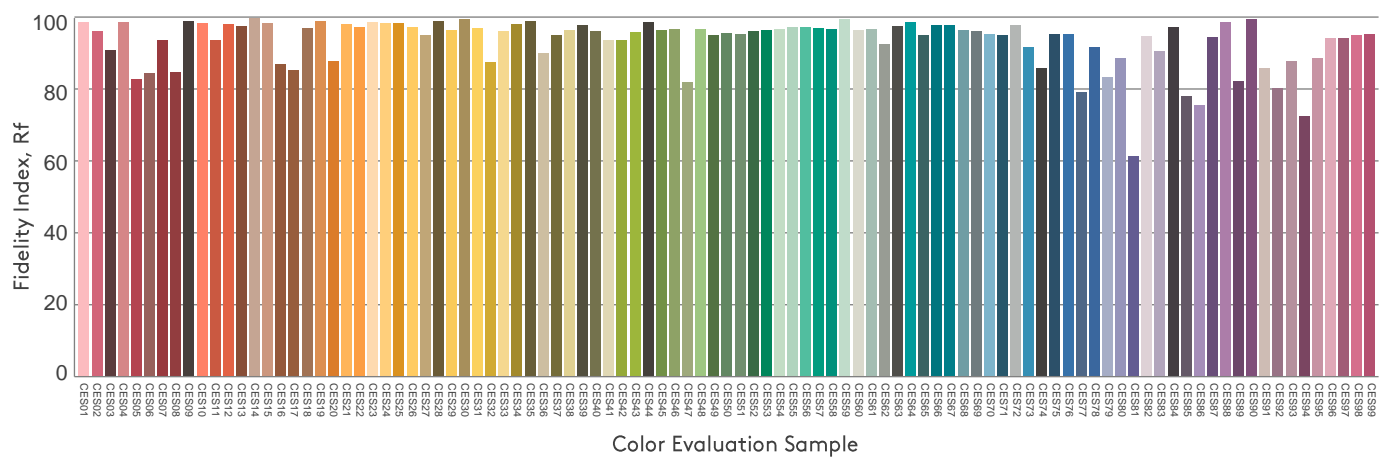
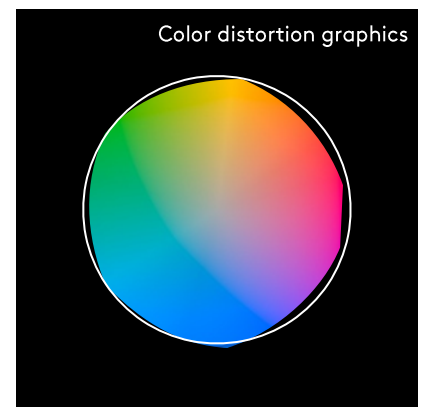
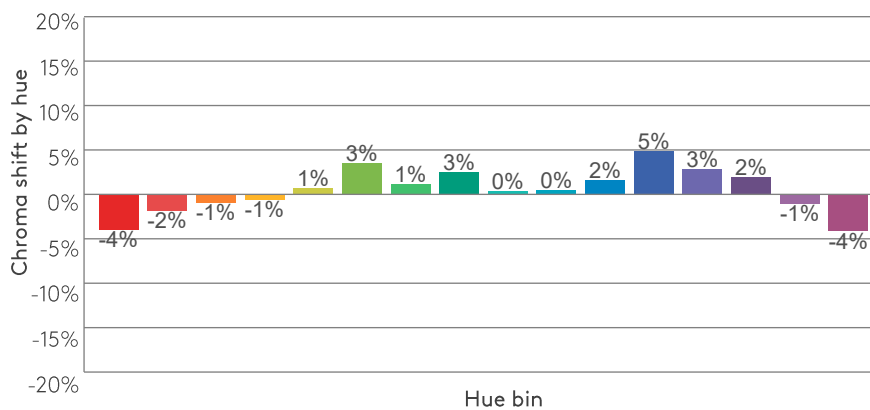
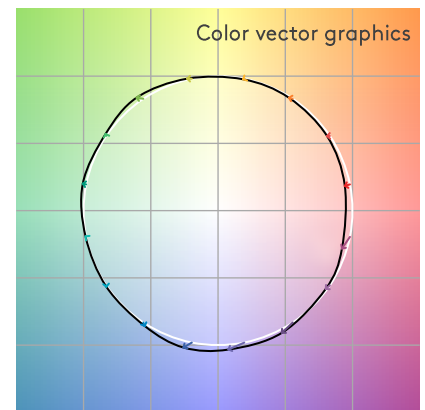
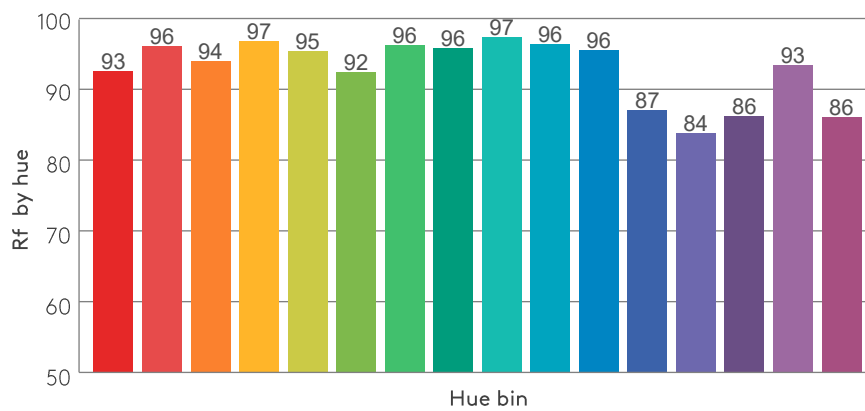
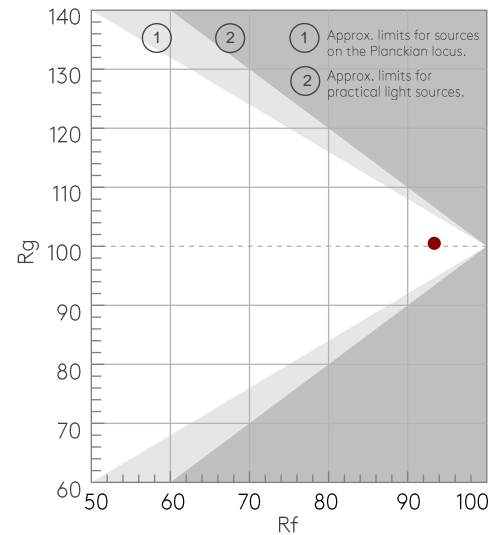
COLOR PARAMETERS

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
2687 K	96.3	71.3	93.4	100.5	92.8	0.462	0.413	0.263	0.352	0.0006

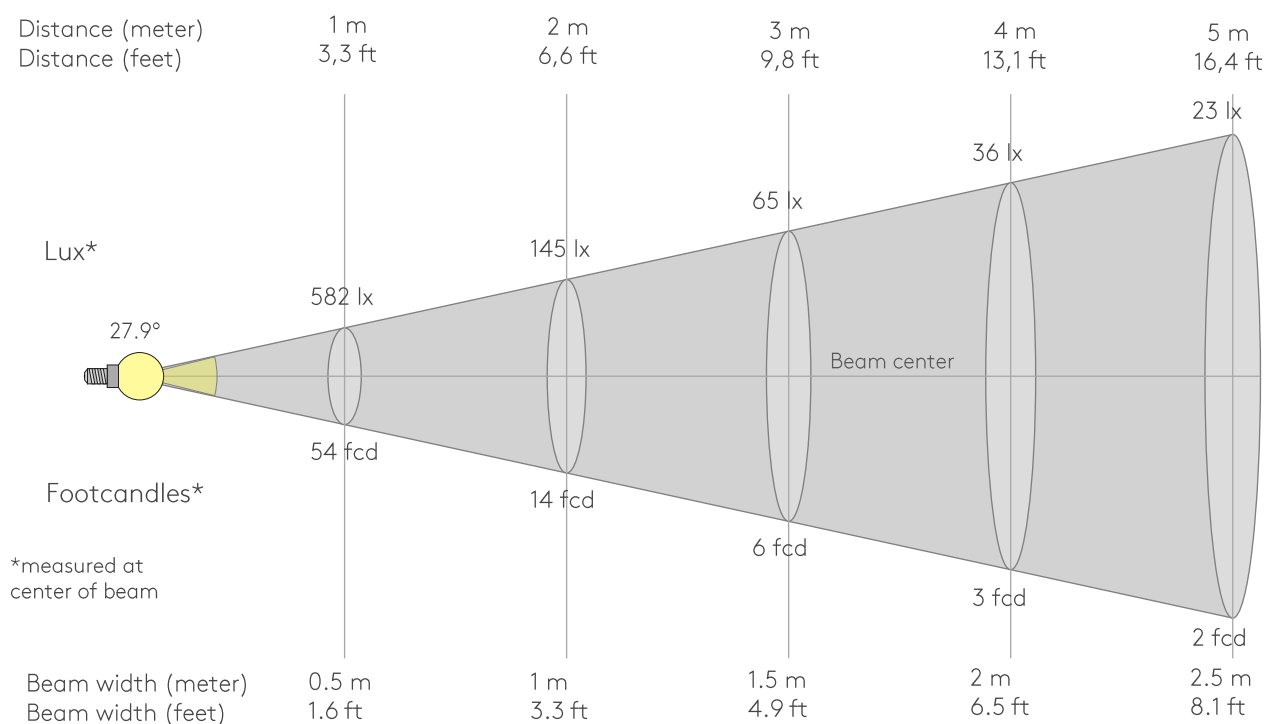
Rf 93.4
Fidelity index Rf

Rg 100.5
Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	93	-4%	0%
2	96	-2%	1%
3	94	-1%	3%
4	97	-1%	1%
5	95	1%	3%
6	92	3%	4%
7	96	1%	-1%
8	96	3%	0%
9	97	0%	0%
10	96	0%	1%
11	96	2%	2%
12	87	5%	-5%
13	84	3%	-13%
14	86	2%	-11%
15	93	-1%	-4%
16	86	-4%	-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
582lx	145lx	65lx	36lx	23lx	16lx	12lx	9lx	7lx	6lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx
54.1fcd	13.5fcd	6fcd	3.4fcd	2.2fcd	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°
582	671	638	587	523	450	374	300	230	170	123	87	61	42	31	23	18	14	12	10
100%	115%	110%	101%	90%	77%	64%	51%	39%	29%	21%	15%	10%	7%	5%	4%	3%	2%	2%	2%

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°
582	178	107	66	42	28	21	15	13	11	10	8	7	7	6	6	6	5	5	5
100%	31%	18%	11%	7%	5%	4%	3%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%

Intensities in 180° c-plane

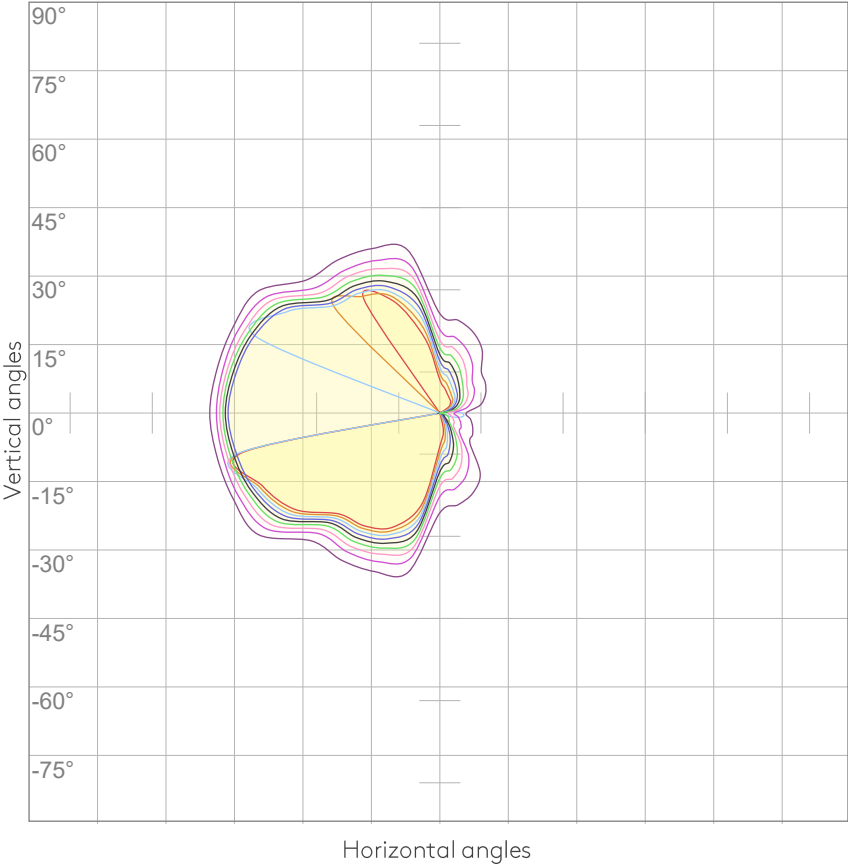
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
582	673	641	590	525	452	376	300	231	173	124	87	61	44	32	24	19	15	13	11
100%	116%	110%	101%	90%	78%	65%	52%	40%	30%	21%	15%	11%	8%	5%	4%	3%	3%	2%	2%

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°
582	465	702	1008	1363	1757	2170	2575	2945	3265	3517	3696	3807	3843	3802	3690	3509	3272	2976	2636
100%	80%	121%	173%	234%	302%	373%	442%	506%	561%	604%	635%	654%	660%	653%	634%	603%	562%	511%	453%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
27.9°	47.8°	60.7°	99.5%	93.6%

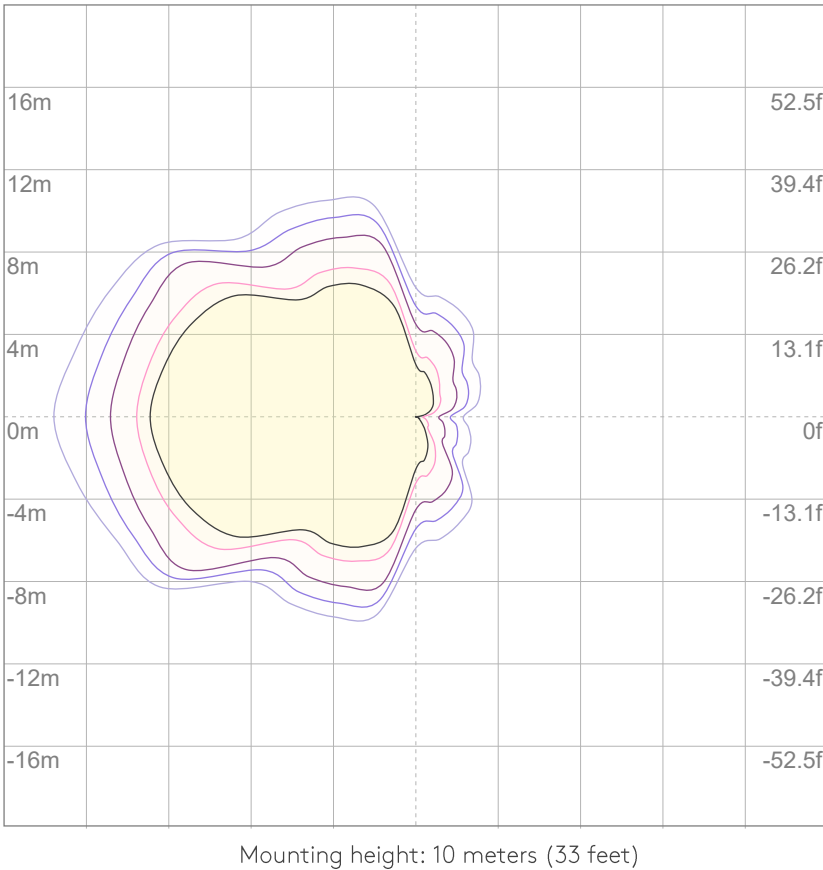
ISO CANDELA DIAGRAM



10%	58 cd
20%	116 cd
30%	175 cd
40%	233 cd
50%	291 cd
60%	349 cd
70%	407 cd
80%	466 cd
90%	524 cd

Conditions:
Number of c-planes: 8
Candela at center: 582 cd

ISO LUX DIAGRAM



3%	0.175 lx
5%	0.291 lx
10%	0.582 lx
30%	1.75 lx
50%	{LUX_10M50} lx

Conditions:
Number of c-planes: 8
Lux at center: 5.82 lx

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

GLARE EVALUATION ACCORDING TO UGR

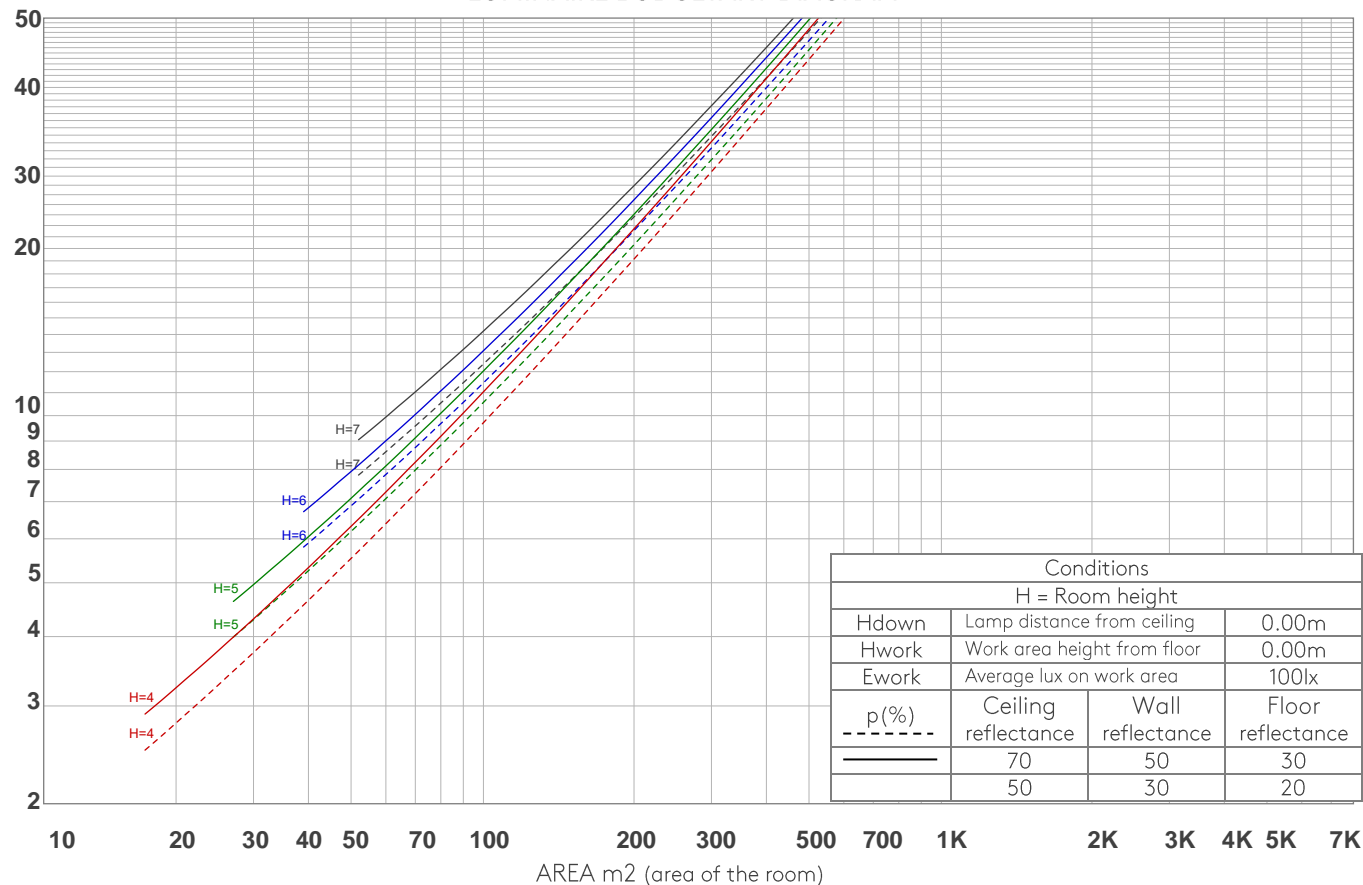
UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

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	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	90	88	86	85
3	101	94	88	84	98	92	87	83	89	85	82	87	83	80	85	82	79	77
4	95	86	80	76	93	85	80	75	83	78	74	81	77	73	79	75	72	71
5	89	80	73	69	87	79	73	68	77	72	68	75	71	67	74	70	67	65
6	84	74	68	63	82	73	67	63	72	66	62	70	65	62	69	65	61	60
7	79	69	62	58	78	68	62	57	67	61	57	65	60	57	64	60	56	55
8	75	64	57	53	73	63	57	53	62	57	53	61	56	52	60	56	52	51
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	52	48	47
10	67	56	50	45	66	55	49	45	55	49	45	54	49	45	53	48	45	43

LAMPS (number of lamps)

LUMINAIRE BUDGETARY DIAGRAM



ZONAL LUMEN SUMMARY

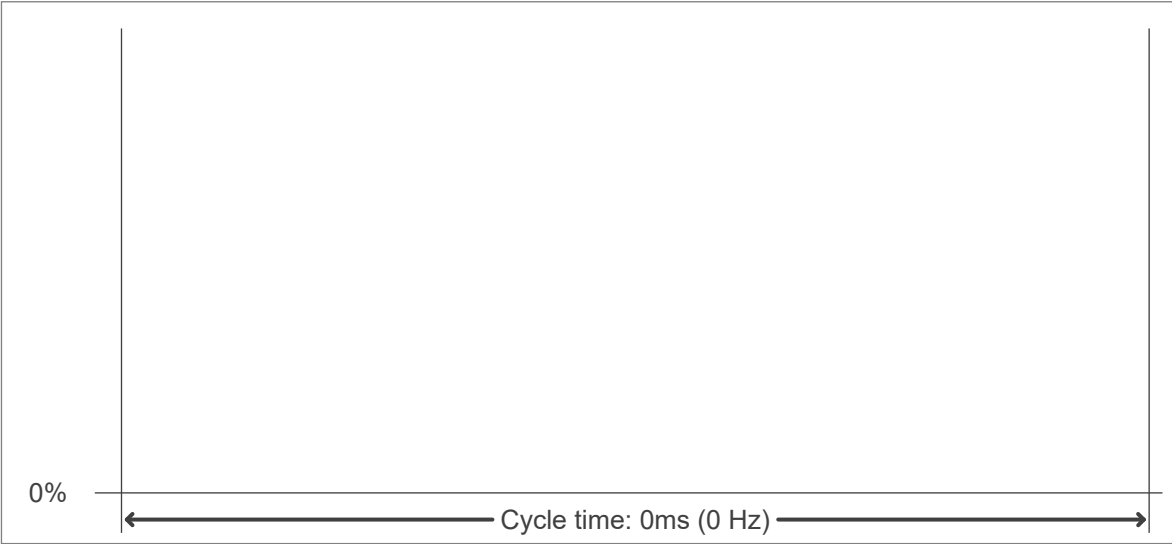
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
65.5 lm	253 lm	394 lm	327 lm	144 lm	21.1 lm	2.61 lm	0.961 lm	0.321 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.178 lm	0.182 lm	0.197 lm	0.297 lm	0.418 lm	0.475 lm	0.400 lm	0.231 lm	0.081 lm

FLICKER

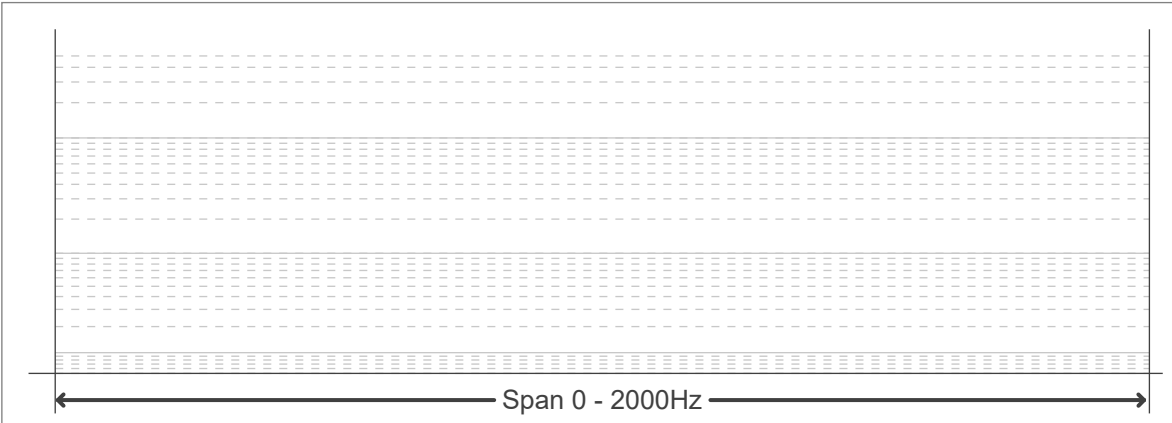
FLICKER CURVE (COMPLETE SAMPLED)



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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