

PHOTOMETRIC TEST REPORT

MINIMA PRO ROUND 25 IP65 -
MATT WHITE - 4000819

astro

MINIMA PRO ROUND 25 IP65 - MATT

astro

LIGHT EFFICIENCY:

66 Lumen/Watt

LIGHT QUALITY:

CRI: 94.7

COLOR TEMPERATURE:

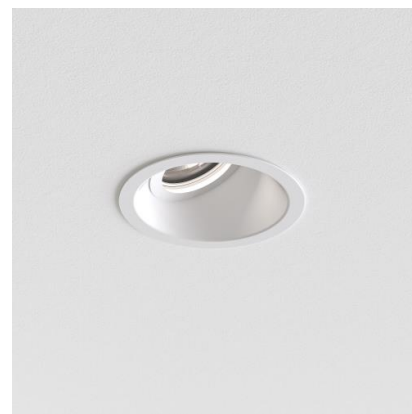
2727 K

OUTPUT: 781 lm

PEAK: 3808 cd

POWER: 11.9 W

PF: 0.95



Tracking number: [n/a](#)

Product name:

Minima Pro Round 25 IP65 - Matt White - 4000819

Item number:

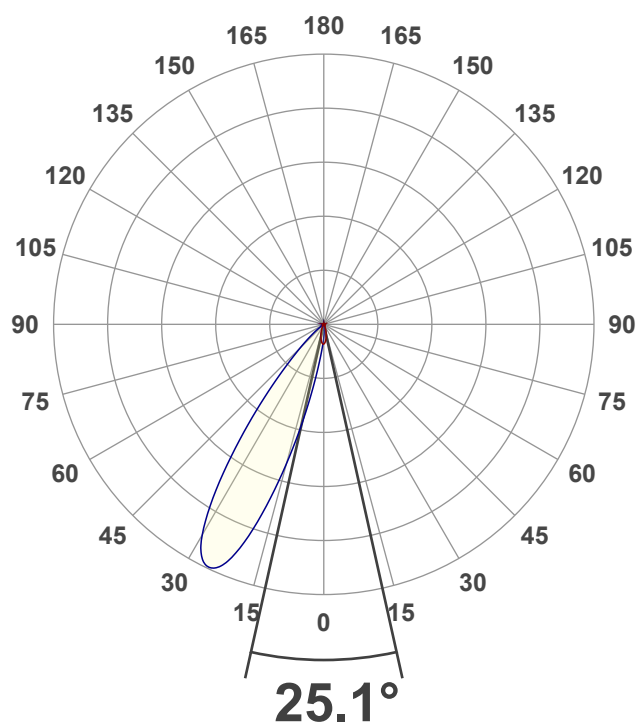
MRW-MW-HQ27G1-15G1-X-D1

Date and time:

20/01/2025 16:34:07

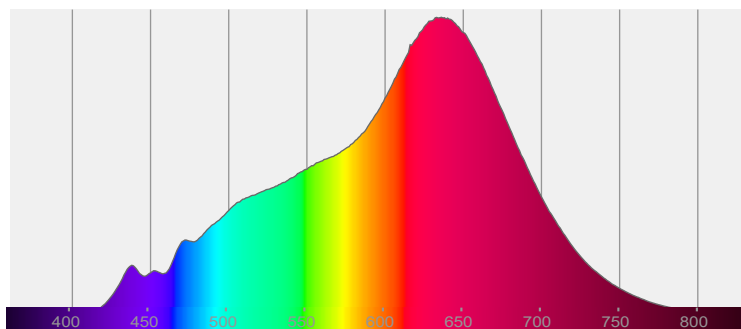
Description:

IP65 LED Downlight

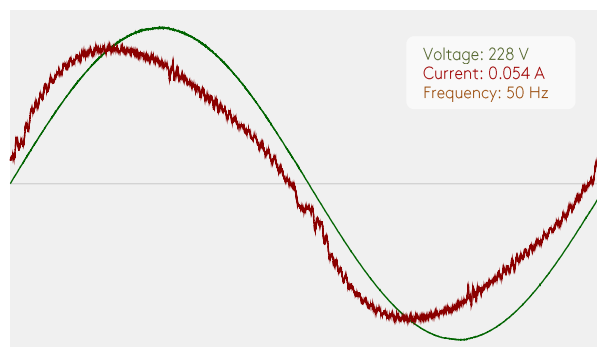


CIE 1931
x: 0.458
y: 0.410

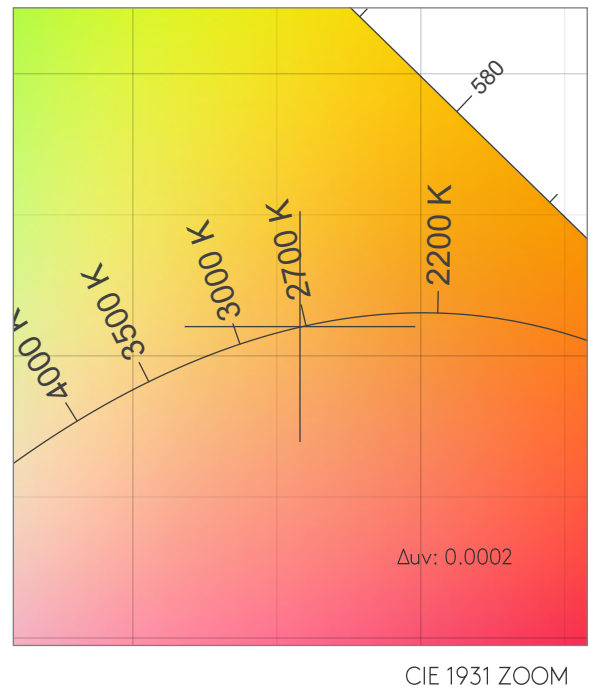
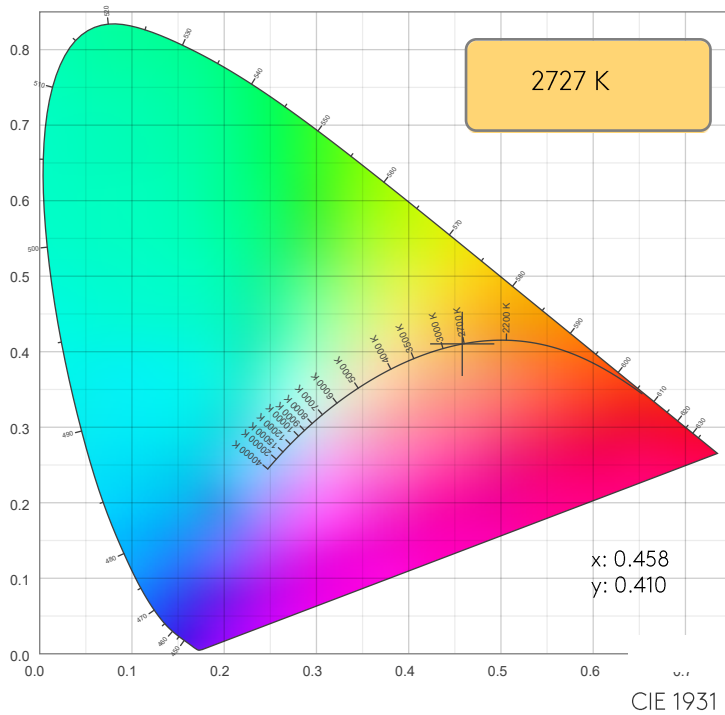
SPECTRA



POWER

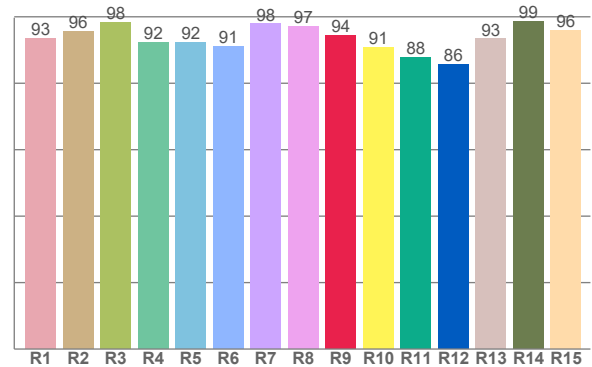
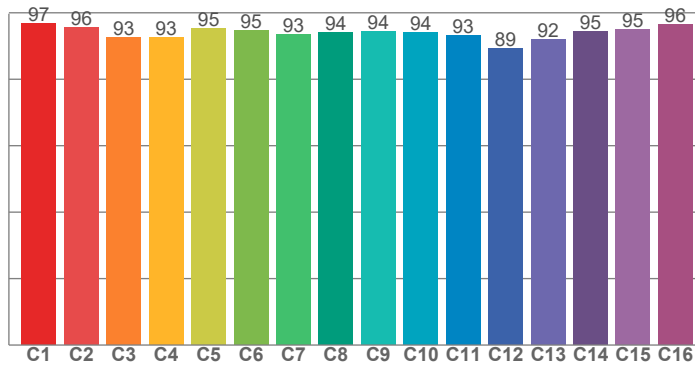


COLOR DETAILS



TM30: 94.2

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
93.4	95.5	98.4	92.3	92.3	91.0	97.9	97.1	94.5	90.7	87.8	85.7	93.4	98.6	95.9

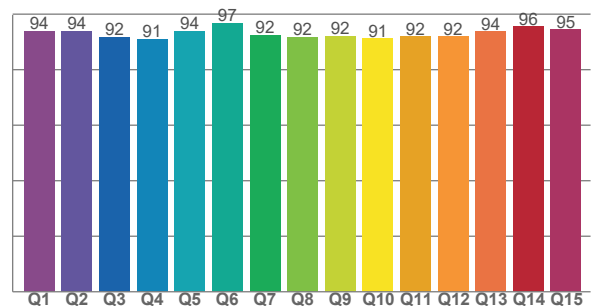
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96.8	95.6	92.7	92.6	95.3	94.6	93.4	94.0	94.4	94.0	93.3	89.3	92.0	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	93.9	91.8	91.1	93.9	96.8	92.5	91.8	92.2	91.3	92.0	92.0	93.7	95.5	94.5

CQS: 92.9



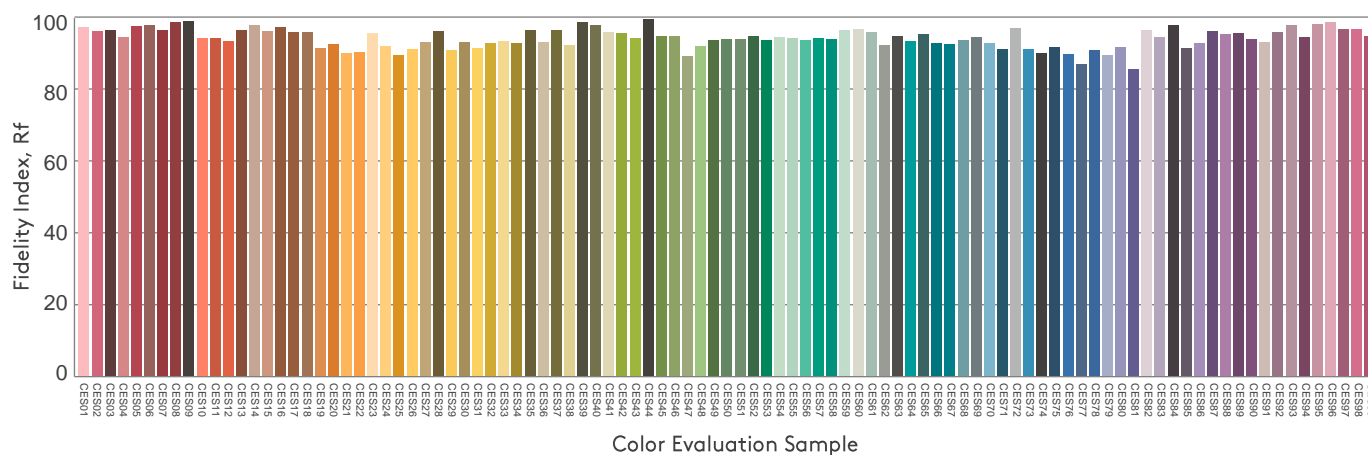
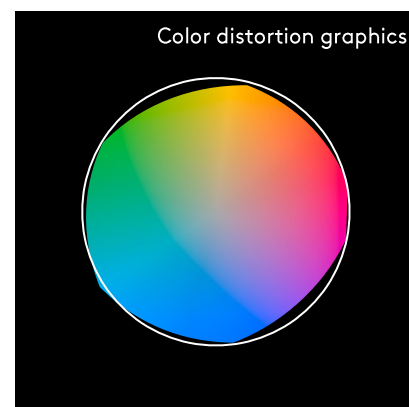
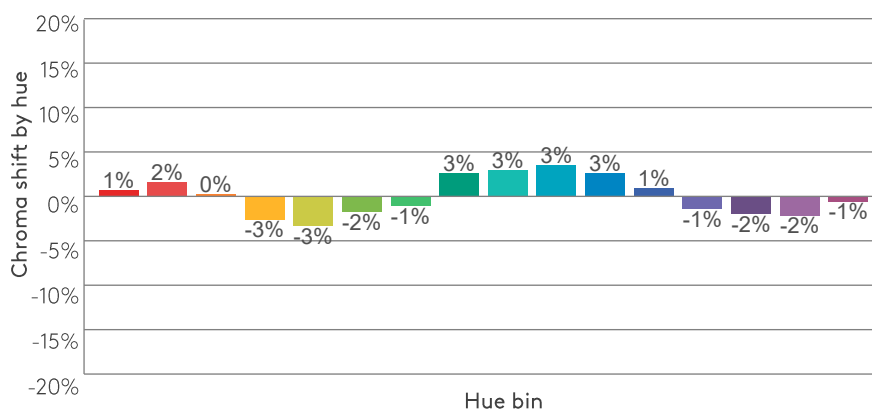
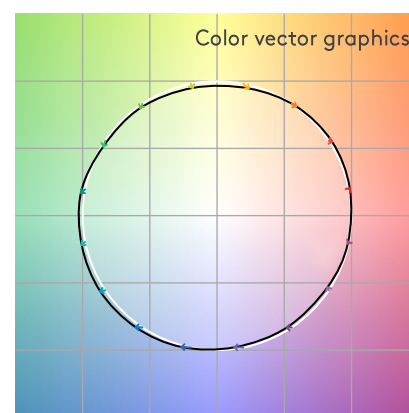
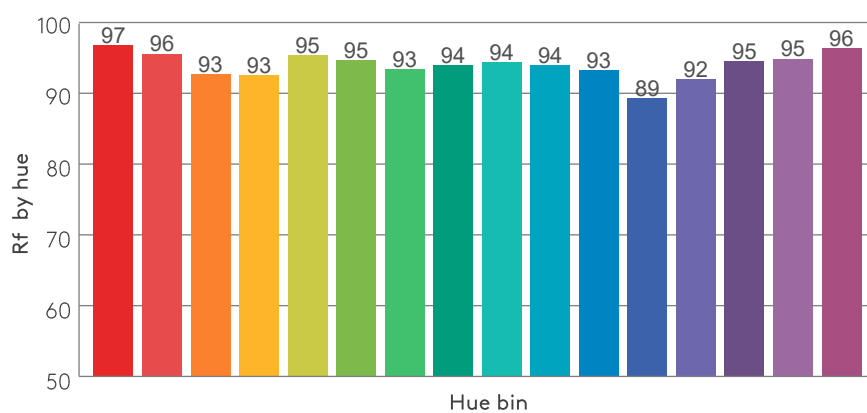
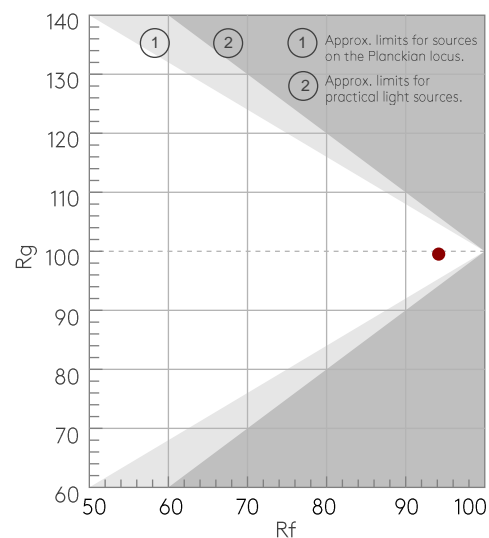
COLOR PARAMETERS

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
2727 K	94.7	94.5	94.2	99.5	92.9	0.458	0.410	0.261	0.351	0.0002

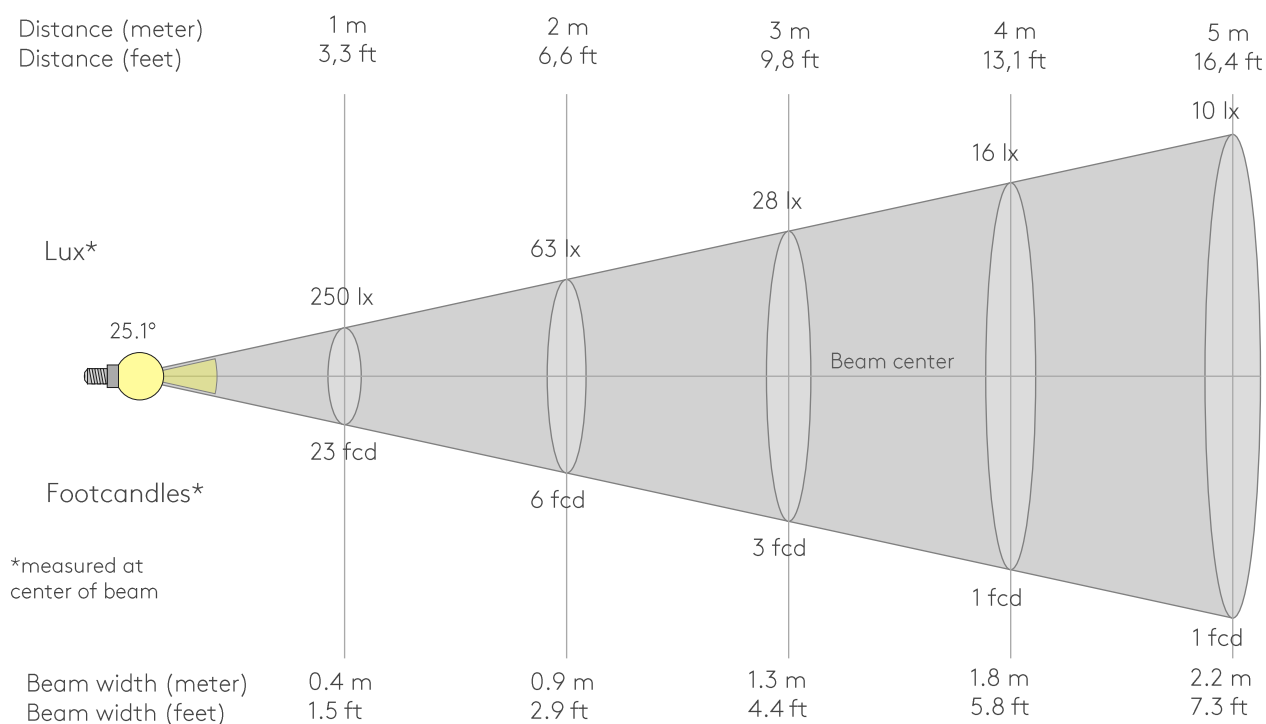
Rf 94.2
Fidelity index Rf

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	3%	-1%
11	93	3%	-4%
12	89	1%	-7%
13	92	-1%	-6%
14	95	-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
250lx	63lx	28lx	16lx	10lx	7lx	5lx	4lx	3lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx
23.2fcd	5.8fcd	2.6fcd	1.5fcd	0.9fcd	0.6fcd	0.5fcd	0.4fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	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°
250	271	256	237	214	189	163	139	115	94	76	61	49	38	30	23	18	14	12	10
100%	108%	103%	95%	86%	76%	65%	55%	46%	38%	30%	24%	19%	15%	12%	9%	7%	6%	5%	4%

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°
250	136	98	71	52	37	26	19	15	12	10	9	7	7	7	6	6	6	6	6
100%	54%	39%	28%	21%	15%	10%	8%	6%	5%	4%	3%	3%	3%	3%	3%	2%	2%	2%	2%

Intensities in 180° c-plane

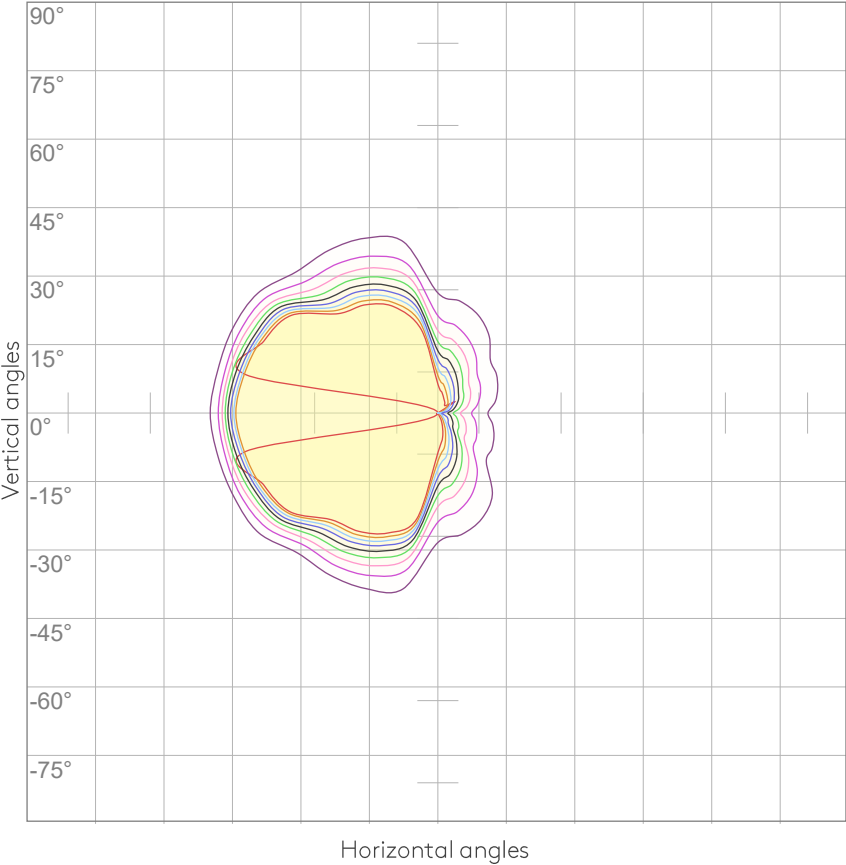
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
250	280	274	261	243	221	196	171	146	122	101	82	66	54	42	31	24	18	14	12
100%	112%	109%	104%	97%	88%	78%	68%	58%	49%	40%	33%	27%	21%	17%	13%	9%	7%	6%	5%

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°
250	254	348	482	684	972	1351	1800	2300	2814	3277	3613	3779	3802	3697	3445	3046	2557	2041	1564
100%	101%	139%	193%	273%	389%	540%	720%	920%	1125%	1311%	1445%	1512%	1521%	1479%	1378%	1218%	1023%	816%	626%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
25.1°	50.5°	69.2°	99.3%	95.6%

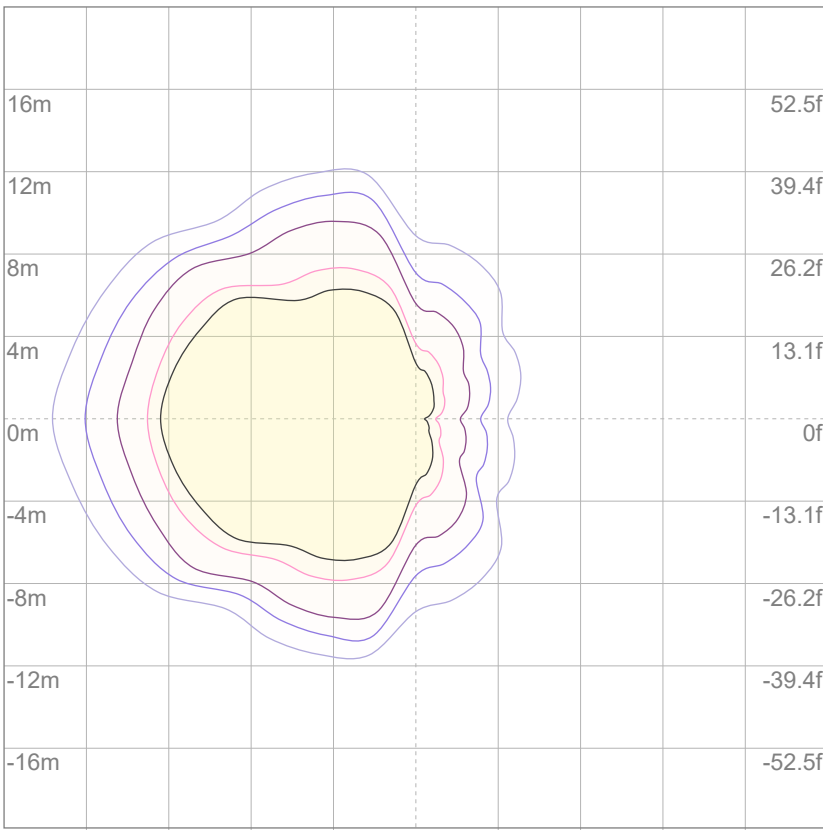
ISO CANDELA DIAGRAM



- 10% 25 cd
- 20% 50 cd
- 30% 75 cd
- 40% 100 cd
- 50% 125 cd
- 60% 150 cd
- 70% 175 cd
- 80% 200 cd
- 90% 225 cd

Conditions:
Number of c-planes: 8
Candela at center: 250 cd

ISO LUX DIAGRAM



- 3% 75.0m lx
- 5% 0.125 lx
- 10% 0.250 lx
- 30% 0.750 lx
- 50% {LUX_10M50} lx

Conditions:
Number of c-planes: 8
Lux at center: 2.50 lx

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

Mounting height: 10 meters (33 feet)

GLARE EVALUATION ACCORDING TO UGR

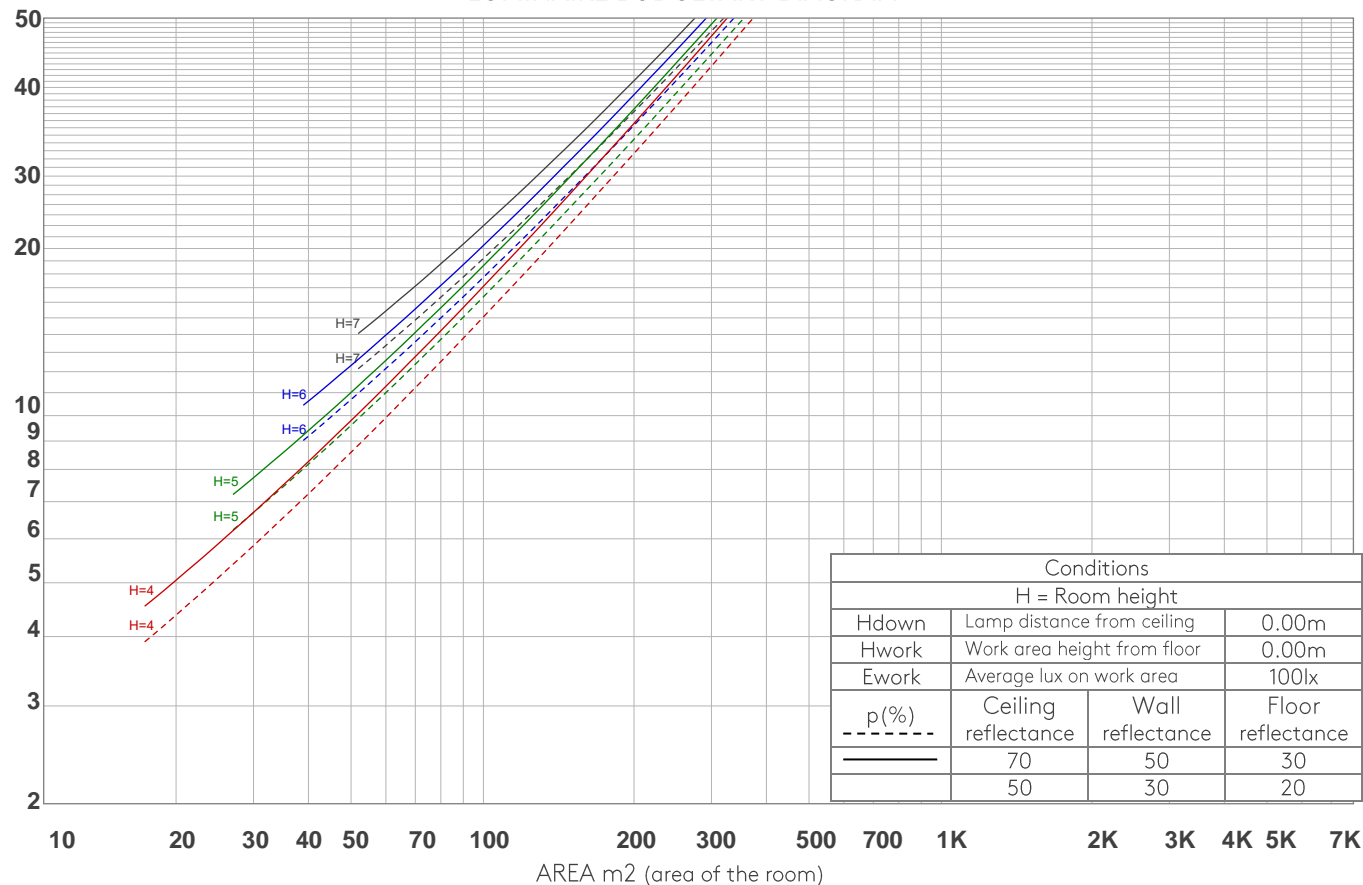
UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

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	91	88	86	85
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78
4	95	87	81	76	93	85	80	75	83	78	75	81	77	74	79	76	73	71
5	89	80	74	69	88	79	73	69	77	72	68	76	71	67	74	70	67	65
6	84	74	68	63	83	74	67	63	72	66	62	70	66	62	69	65	61	60
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57	55
8	75	64	58	53	73	64	57	53	62	57	53	61	56	52	60	56	52	51
9	71	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

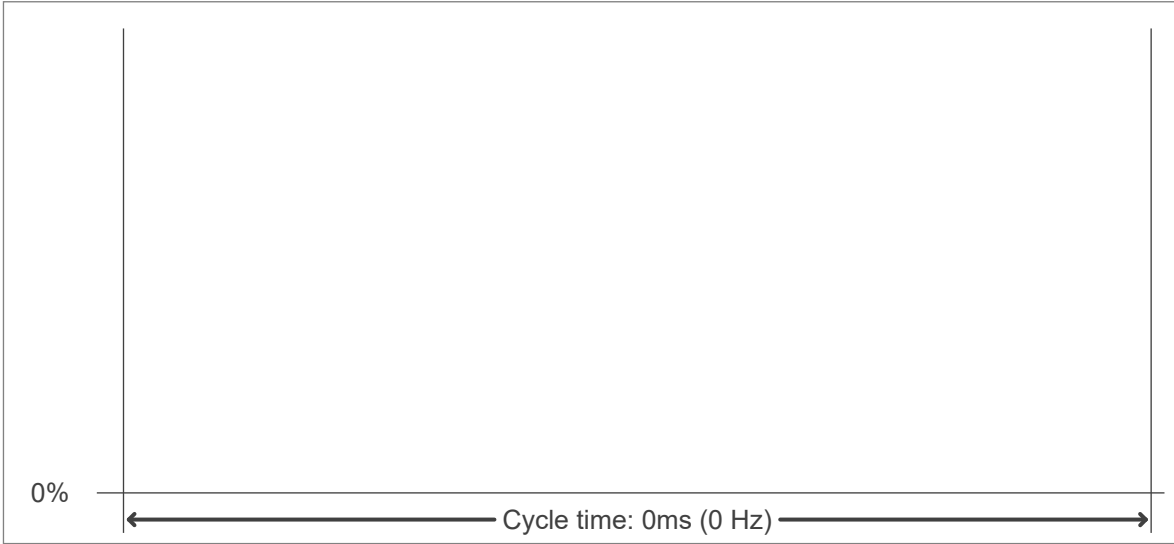
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
29.7 lm	155 lm	297 lm	220 lm	64.8 lm	9.14 lm	2.32 lm	1.08 lm	0.292 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.094 lm	0.099 lm	0.127 lm	0.170 lm	0.271 lm	0.319 lm	0.268 lm	0.172 lm	0.063 lm

FLICKER

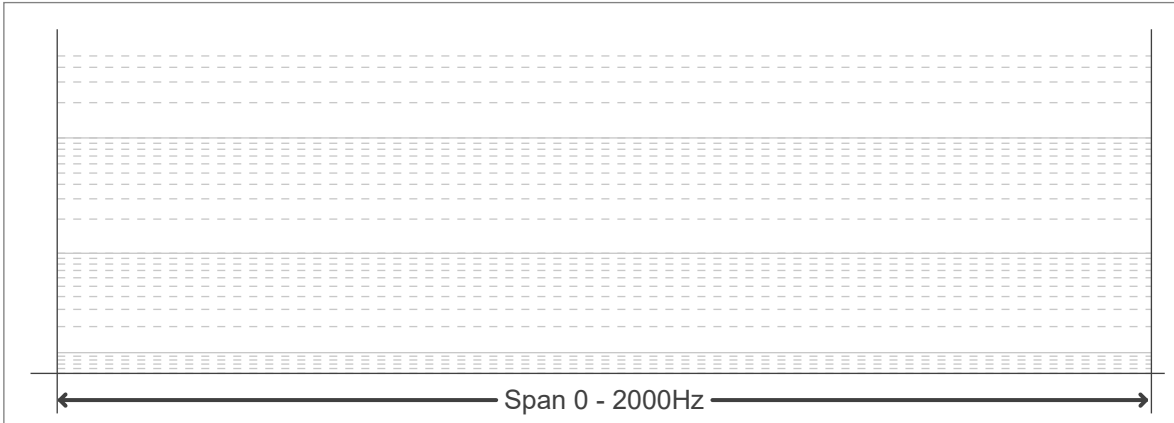
FLICKER CURVE (COMPLETE SAMPLED)



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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