

PHOTOMETRIC TEST REPORT

MINIMA PRO ROUND 25 IP65 -
MATT WHITE - 4000851

astro

MINIMA PRO ROUND 25 IP65 - MATT

astro

LIGHT EFFICIENCY:

69 Lumen/Watt

LIGHT QUALITY:

CRI: 94.8

COLOR TEMPERATURE:

2728 K

OUTPUT: 807 lm

PEAK: 1398 cd

POWER: 11.8 W

PF: 0.95



Tracking number: [n/a](#)

Product name:

Minima Pro Round 25 IP65 - Matt White - 4000851

Item number:

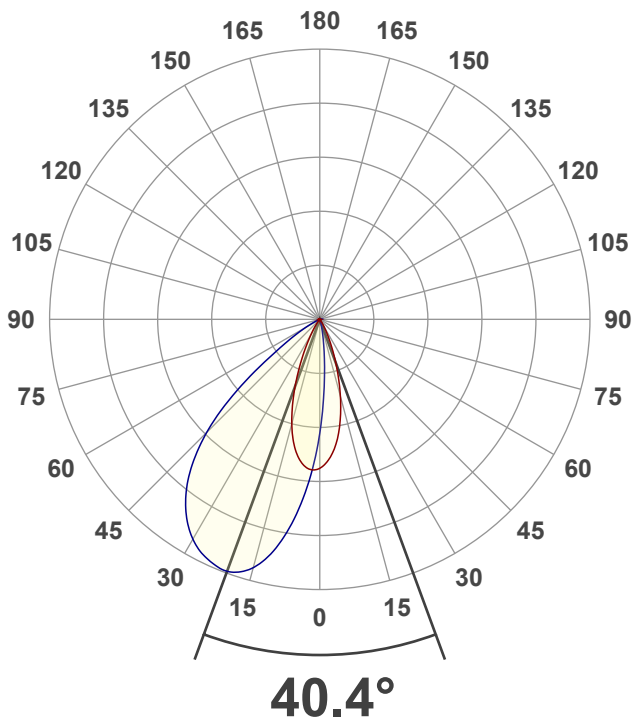
MRW-MW-HQ27G1-50G1-X-D1

Date and time:

20/01/2025 16:46:01

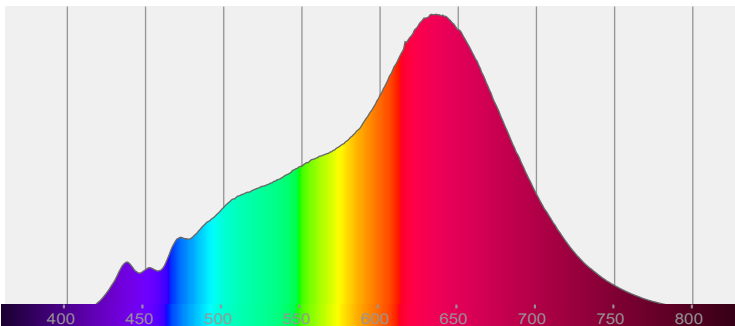
Description:

IP65 LED Downlight

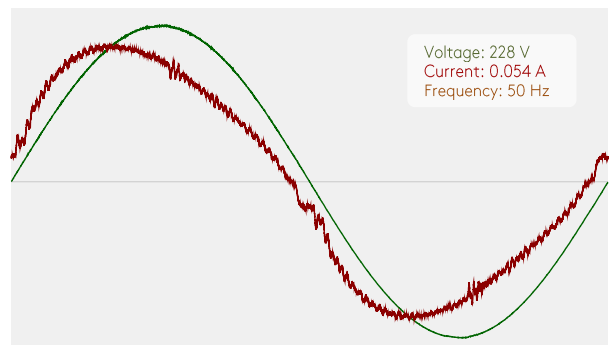


CIE 1931
x: 0.458
y: 0.410

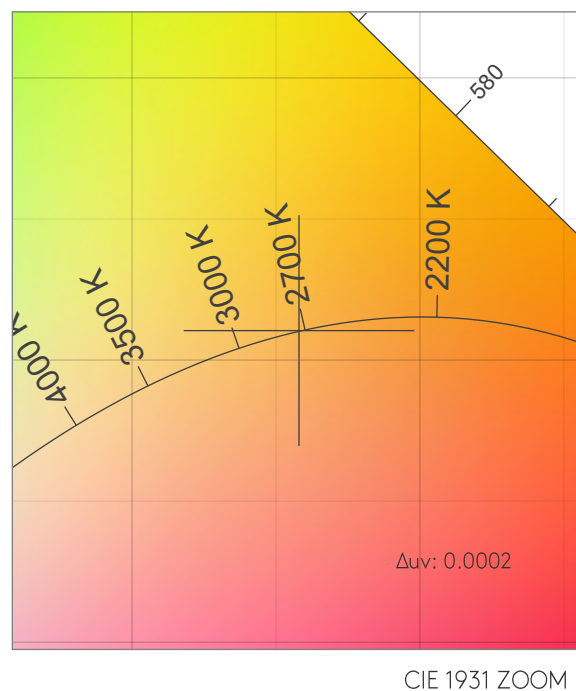
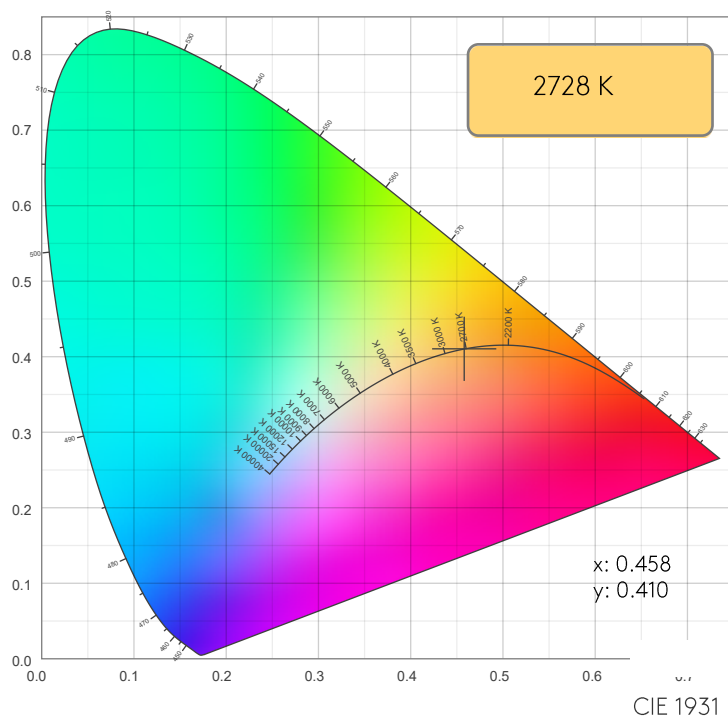
SPECTRA



POWER

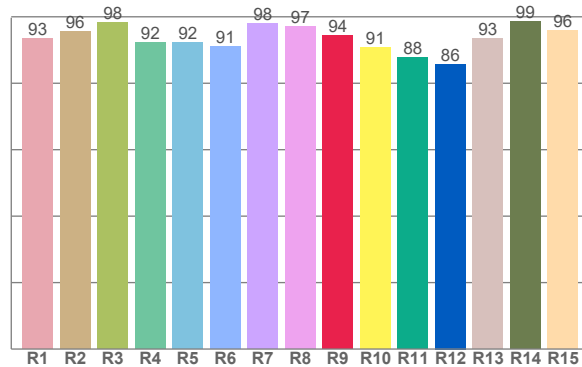
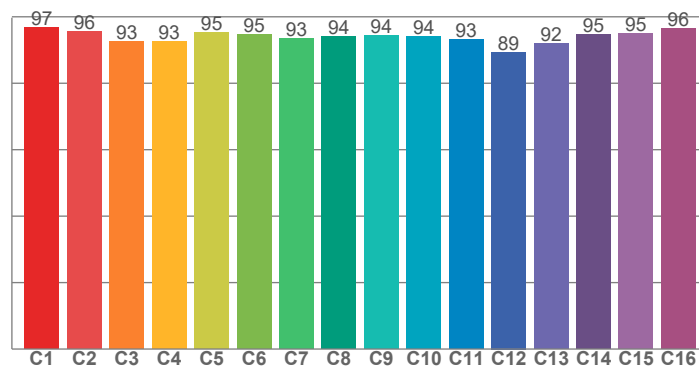


COLOR DETAILS



TM30: 94.2

CRI: 94.8 (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	95.6	98.4	92.3	92.4	91.0	97.9	97.1	94.5	90.8	87.8	85.8	93.4	98.5	95.9

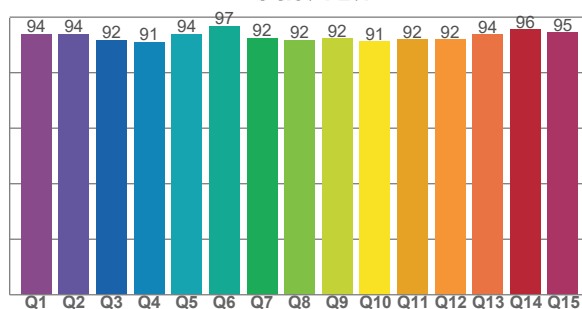
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96.8	95.6	92.7	92.7	95.4	94.7	93.5	94.0	94.4	94.0	93.3	89.4	92.0	94.5	95.0	96.4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94.0	93.9	91.8	91.0	93.9	96.9	92.5	91.8	92.2	91.3	91.9	92.0	93.7	95.6	94.6

CQS: 92.9



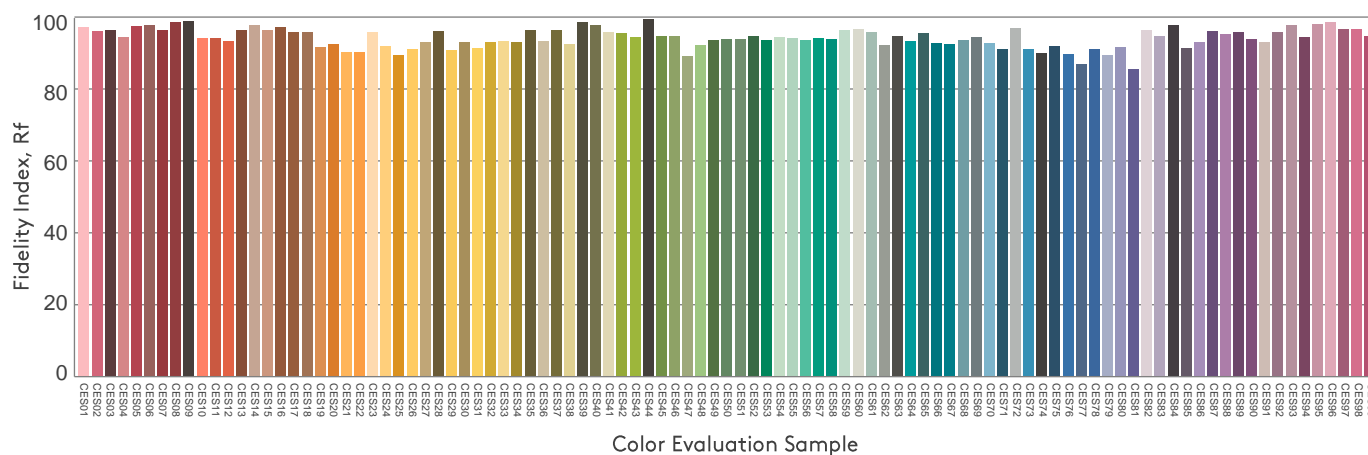
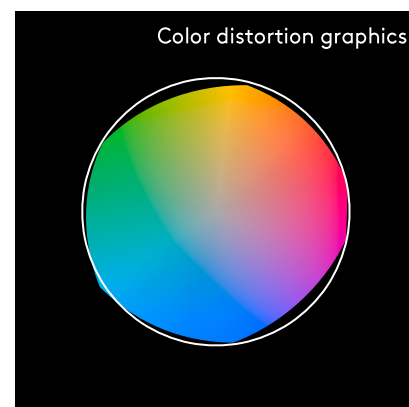
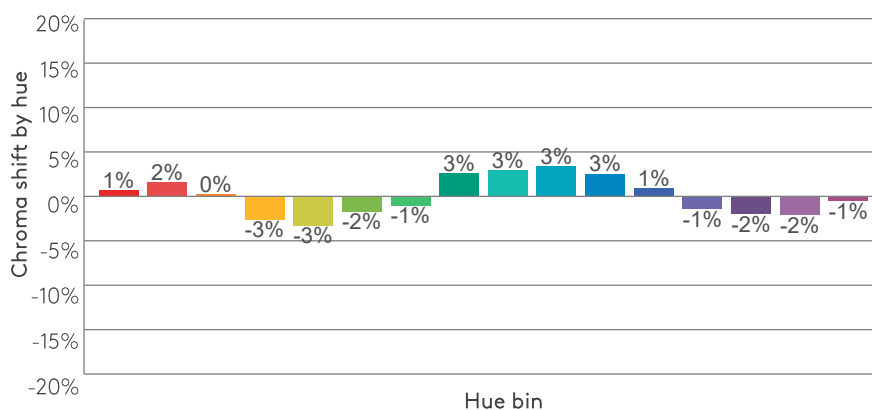
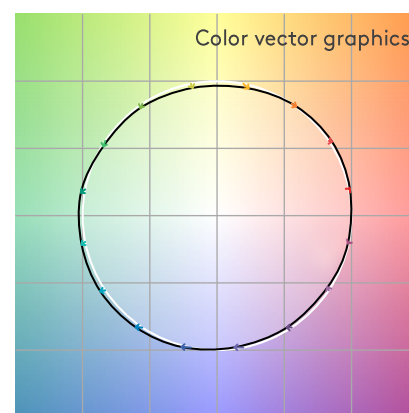
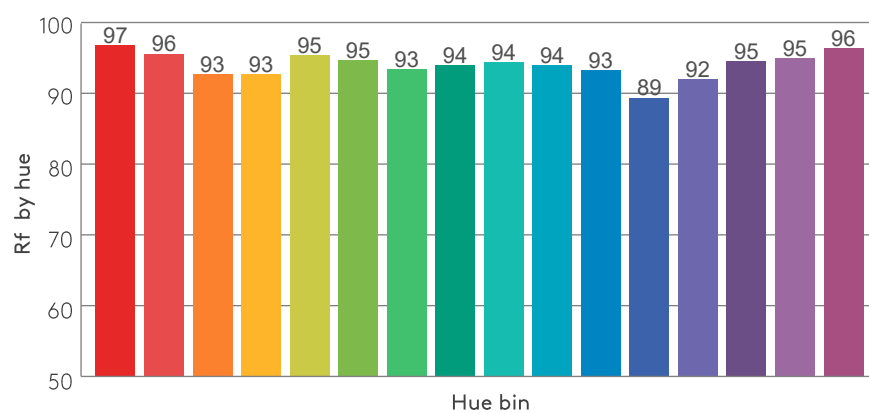
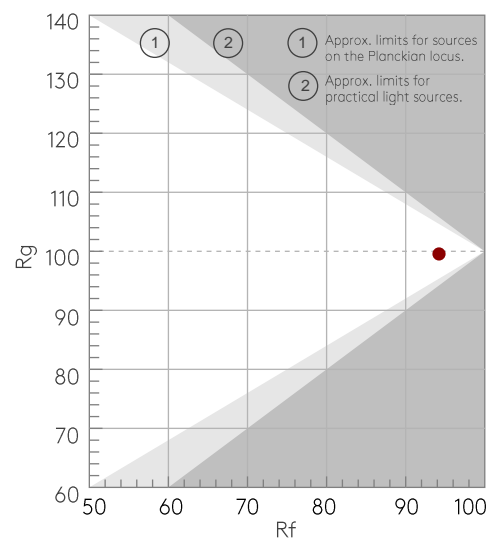
COLOR PARAMETERS

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
2728 K	94.8	94.5	94.2	99.6	92.9	0.458	0.410	0.261	0.351	0.0002

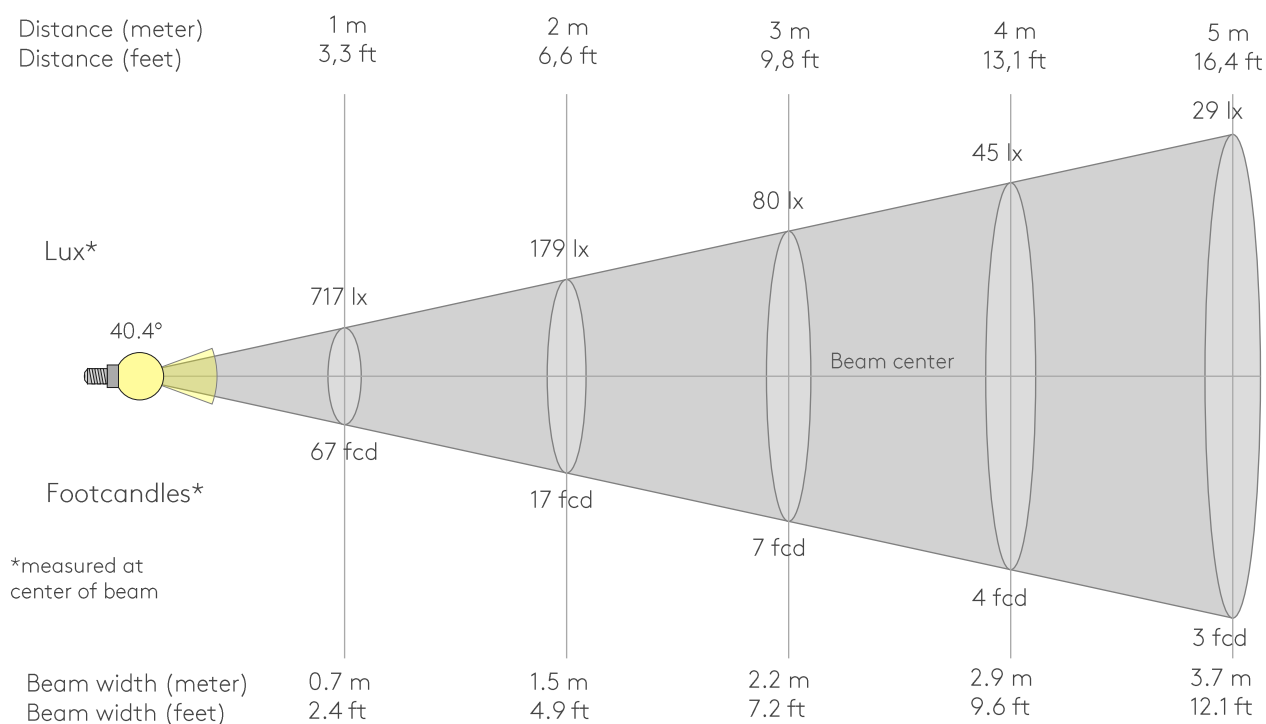
Rf 94.2
Fidelity index Rf

Rg 99.6
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%	-2%
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
717lx	179lx	80lx	45lx	29lx	20lx	15lx	11lx	9lx	7lx	6lx	5lx	4lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx
66.6fcd	16.6fcd	7.4fcd	4.2fcd	2.7fcd	1.8fcd	1.4fcd	1fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd

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°
717	755	725	686	638	581	517	449	380	311	247	191	141	101	70	46	28	17	12	9
100%	105%	101%	96%	89%	81%	72%	63%	53%	43%	34%	27%	20%	14%	10%	6%	4%	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°
717	460	339	238	160	102	62	35	19	12	9	8	6	6	5	5	4	4	4	4
100%	64%	47%	33%	22%	14%	9%	5%	3%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%	0%

Intensities in 180° c-plane

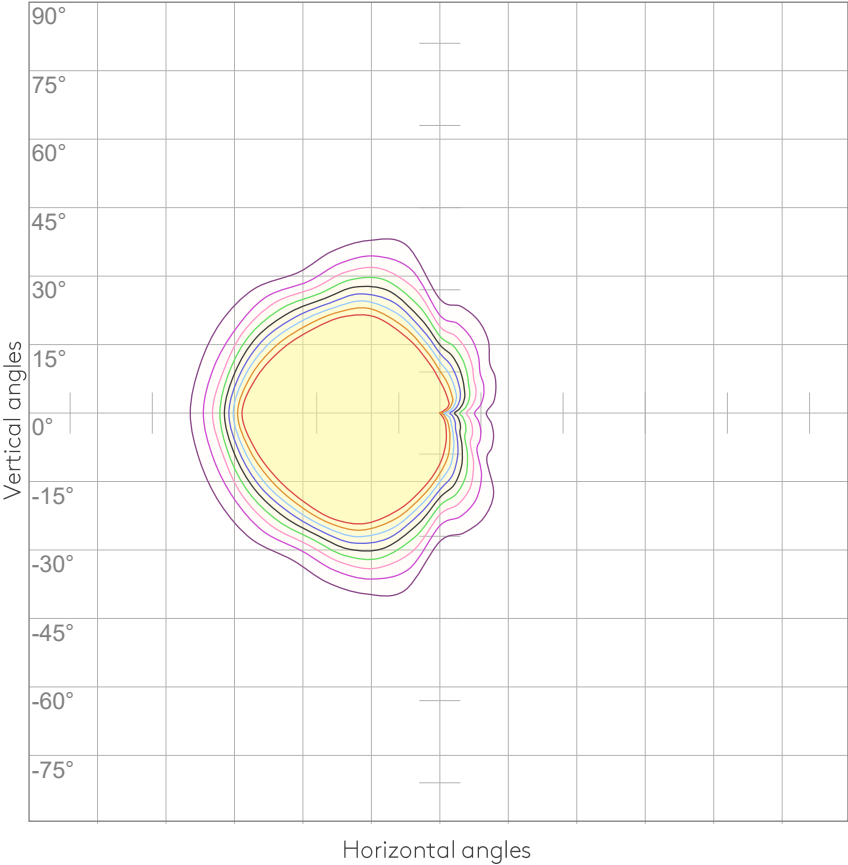
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
717	783	781	766	740	703	654	595	527	455	380	306	239	181	131	92	63	41	26	17
100%	109%	109%	107%	103%	98%	91%	83%	74%	63%	53%	43%	33%	25%	18%	13%	9%	6%	4%	2%

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°
717	727	855	974	1081	1175	1253	1313	1356	1383	1396	1395	1385	1370	1350	1321	1284	1240	1188	1127
100%	102%	119%	136%	151%	164%	175%	183%	189%	193%	195%	195%	193%	191%	188%	184%	179%	173%	166%	157%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
40.4°	62.2°	73.6°	99.1%	88.9%

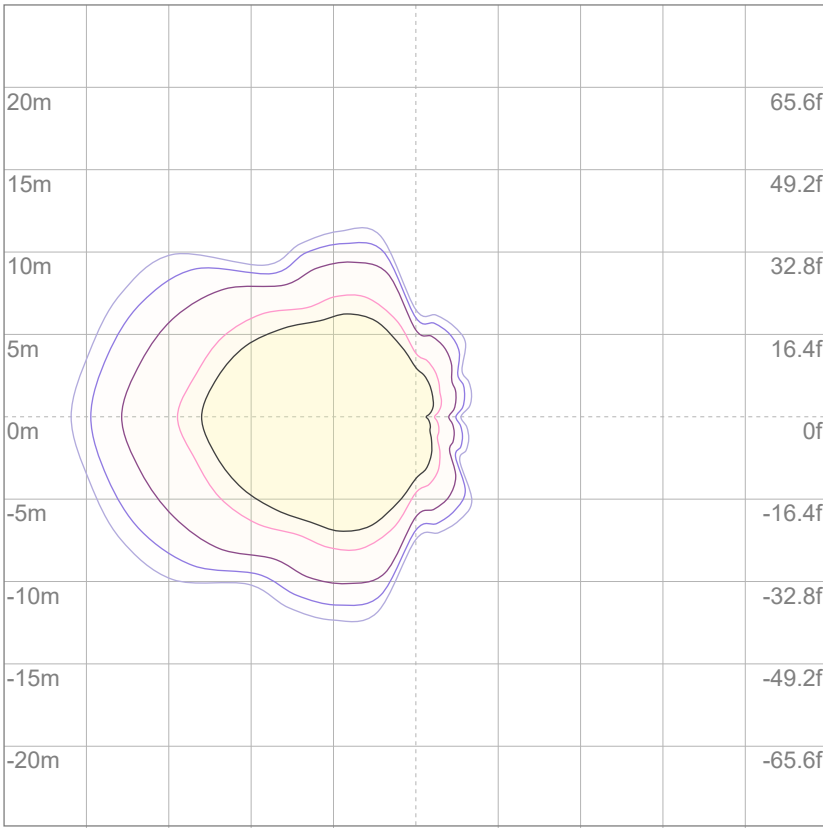
ISO CANDELA DIAGRAM



10%	72 cd
20%	143 cd
30%	215 cd
40%	287 cd
50%	358 cd
60%	430 cd
70%	502 cd
80%	573 cd
90%	645 cd

Conditions:
Number of c-planes: 8
Candela at center: 717 cd

ISO LUX DIAGRAM



3%	0.215 lx
5%	0.358 lx
10%	0.717 lx
30%	2.15 lx
50%	{LUX_10M50} lx

Conditions:
Number of c-planes: 8
Lux at center: 7.17 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

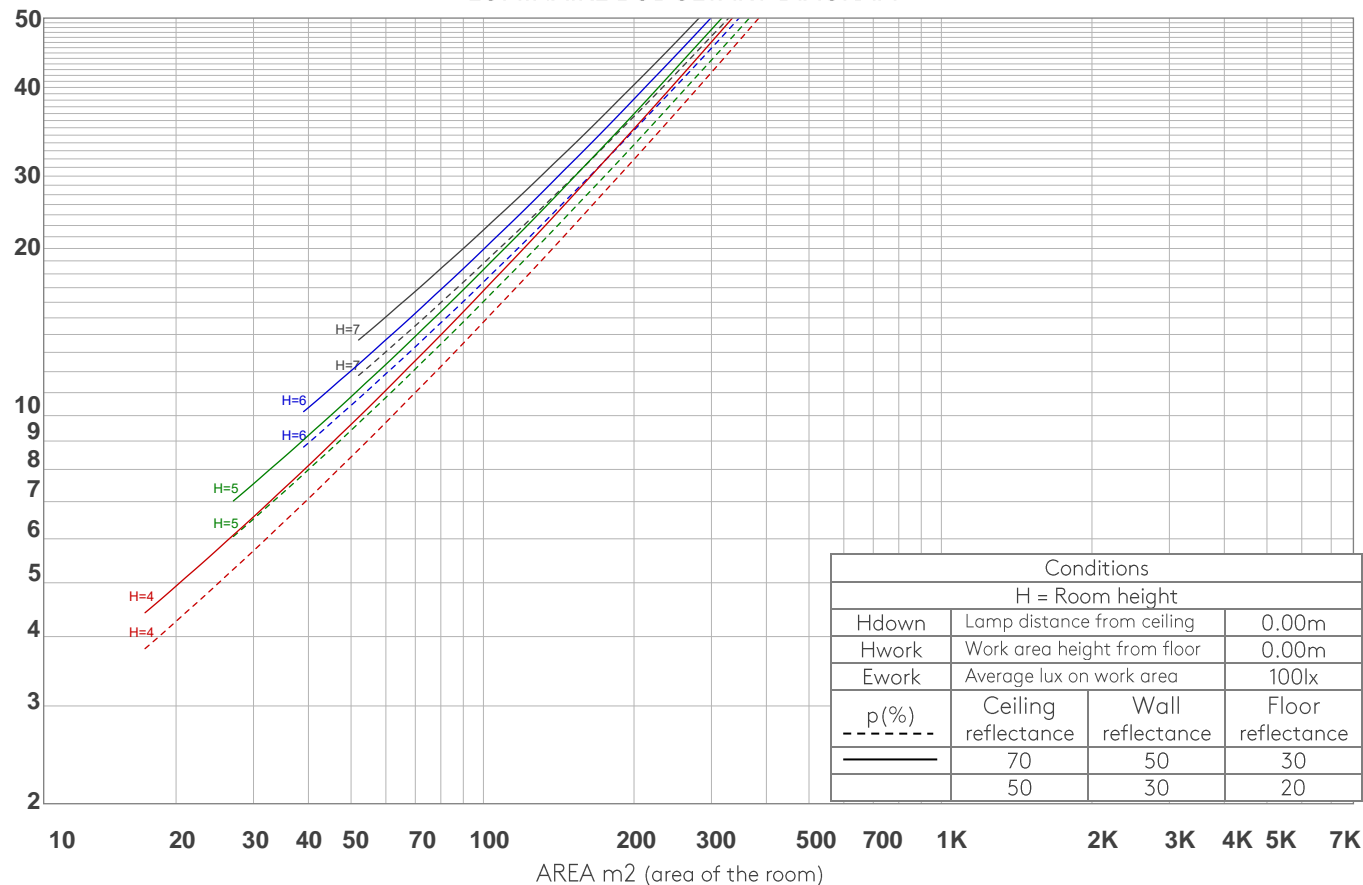
UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

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	103	101	100	100	98	97	96	95	94	92
2	106	101	96	93	104	99	95	92	96	92	90	93	90	88	90	88	86	84
3	100	93	87	83	98	91	86	82	89	84	81	86	83	80	84	81	78	77
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72	70
5	89	79	73	68	87	78	72	67	76	71	67	75	70	66	73	69	66	64
6	83	73	67	62	82	73	66	62	71	65	61	69	65	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	52	73	63	57	52	62	56	52	61	56	52	60	55	51	50
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46
10	66	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43

LAMPS (number of lamps)

LUMINAIRE BUDGETARY DIAGRAM



ZONAL LUMEN SUMMARY

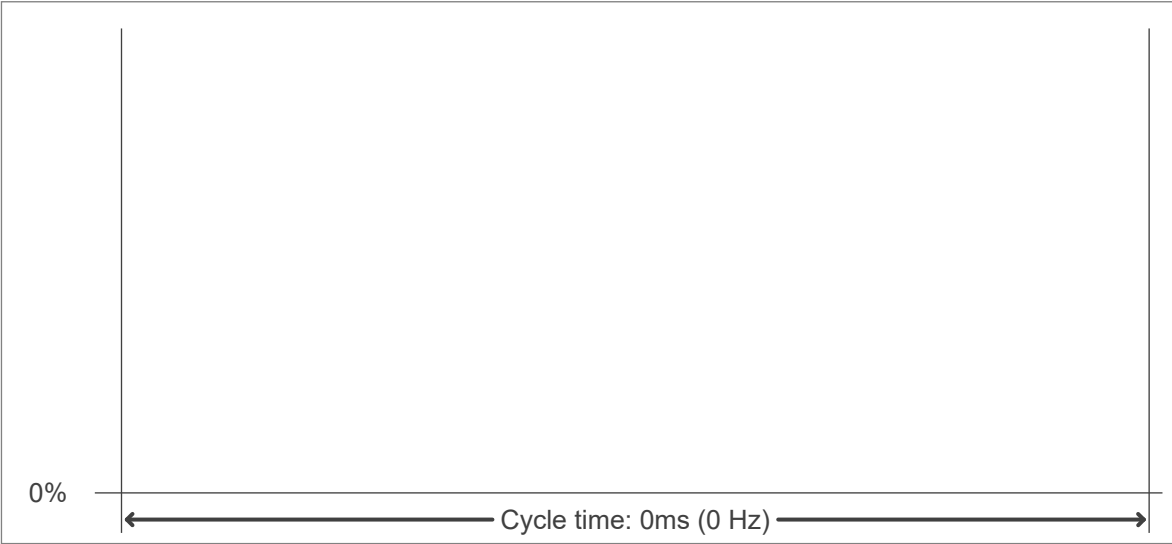
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
65.2 lm	168 lm	215 lm	198 lm	119 lm	34.4 lm	4.56 lm	0.706 lm	0.200 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.060 lm	0.081 lm	0.134 lm	0.205 lm	0.301 lm	0.344 lm	0.291 lm	0.193 lm	0.064 lm

FLICKER

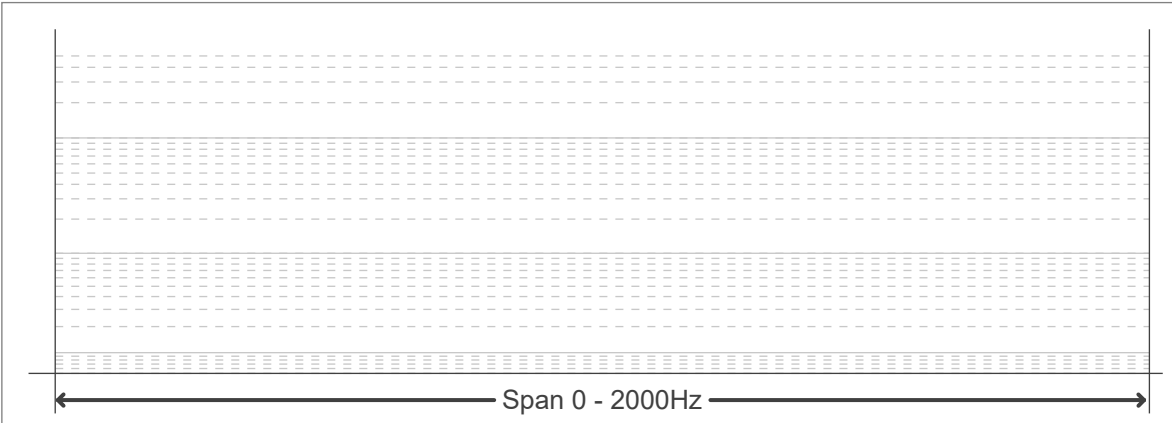
FLICKER CURVE (COMPLETE SAMPLED)



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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