

# PHOTOMETRIC TEST REPORT

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MINIMA PRO ROUND 25 IP65 -  
MATT WHITE - 4000755

astro

# MINIMA PRO ROUND 25 IP65 - MATT

astro

## LIGHT EFFICIENCY:

100 Lumen/Watt

## LIGHT QUALITY:

CRI: 96.3

## COLOR TEMPERATURE:

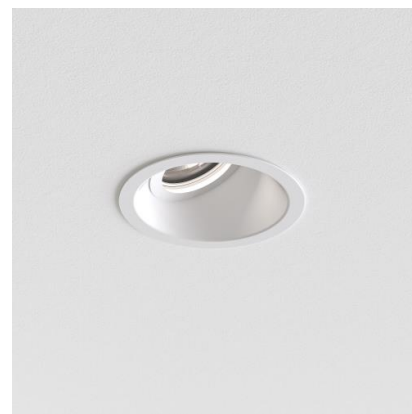
2701 K

OUTPUT: 1180 lm

PEAK: 2037 cd

POWER: 11.8 W

PF: 0.95



Tracking number: [n/a](#)

Product name:

Minima Pro Round 25 IP65 - Matt White - 4000755

Item number:

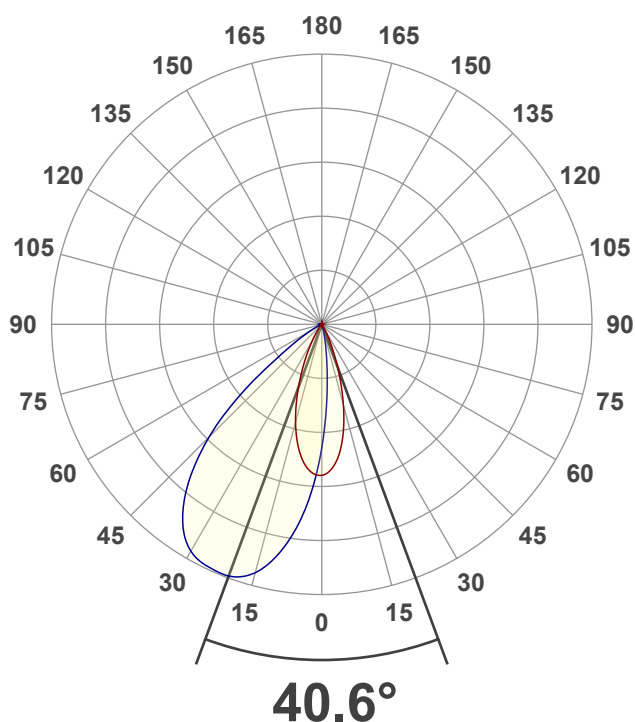
MRW-MW-HE27G1-50G1-X-D1

Date and time:

20/01/2025 15:37:59

Description:

IP65 LED Downlight

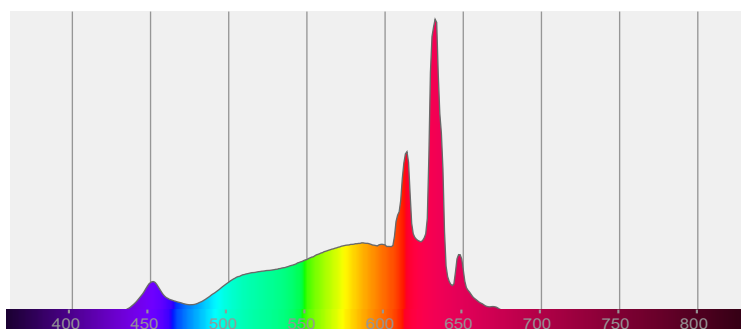


40.6°

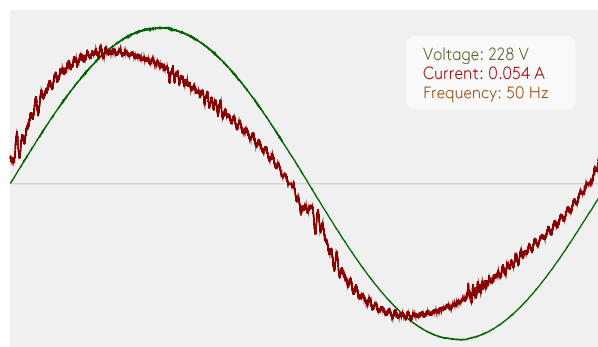


CIE 1931  
x: 0.461  
y: 0.413

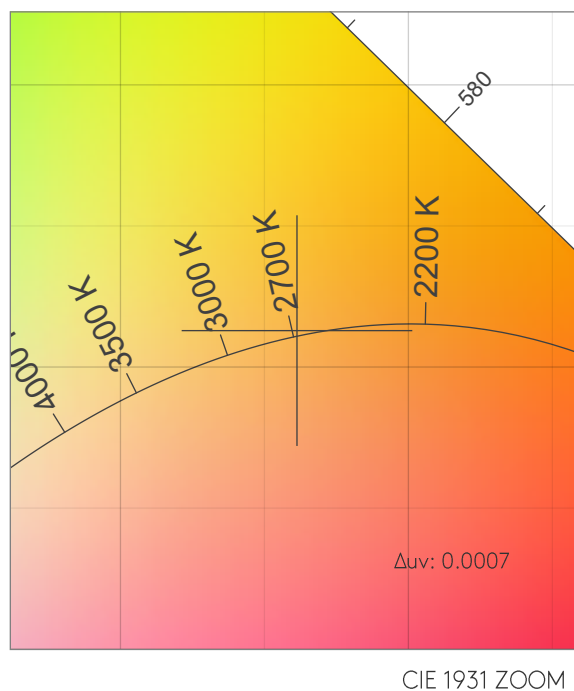
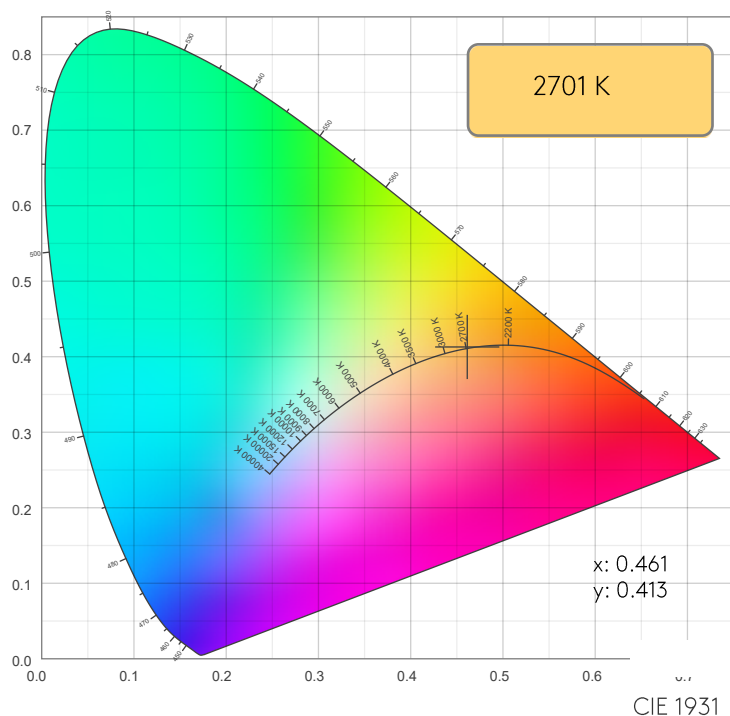
## SPECTRA



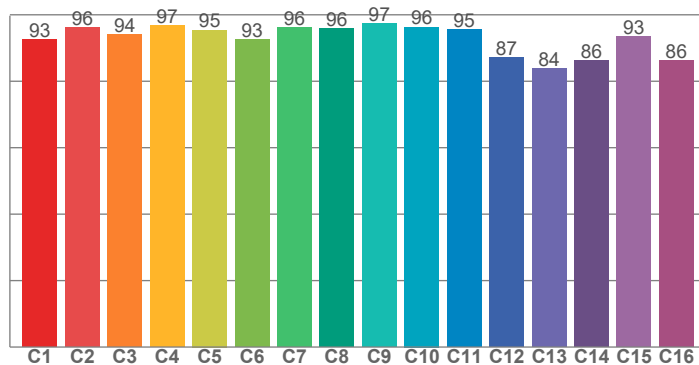
## POWER



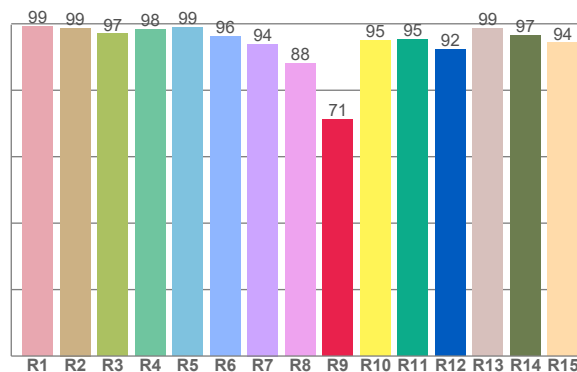
## COLOR DETAILS



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
99.1	98.7	96.9	98.2	98.9	96.2	93.9	88.2	71.3	95.1	95.3	92.2	98.7	96.6	94.3

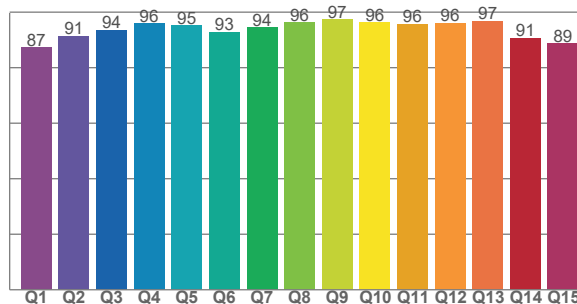
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.6	96.1	94.1	96.9	95.4	92.6	96.3	95.9	97.5	96.3	95.5	87.1	84.0	86.3	93.4	86.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.3	91.5	93.6	95.8	95.1	92.9	94.4	96.4	97.4	96.3	95.7	96.1	96.7	90.7	88.8

CQS: 92.9



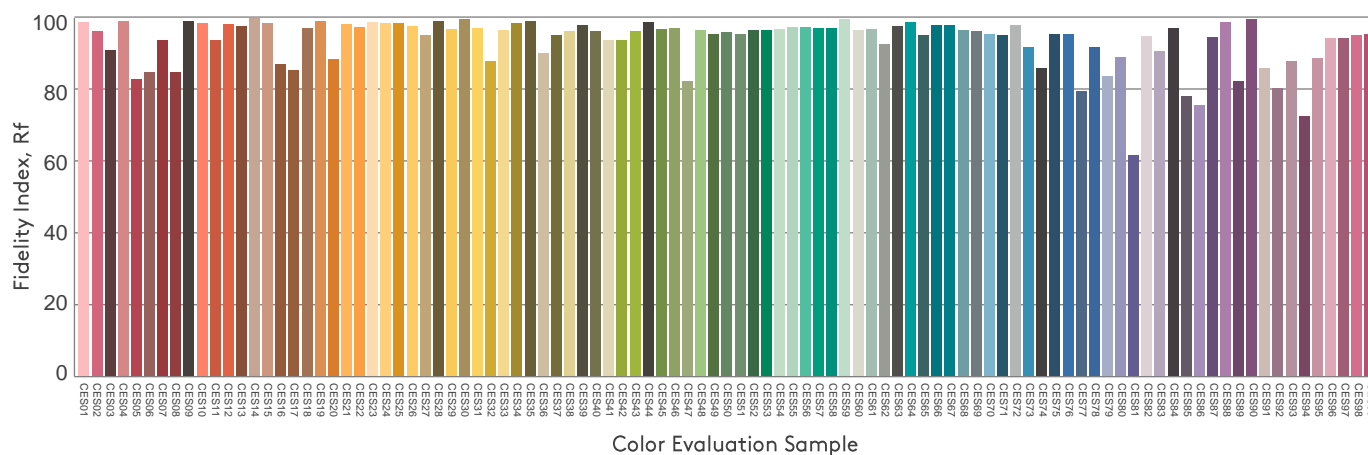
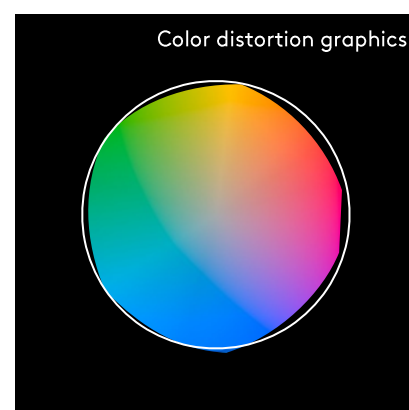
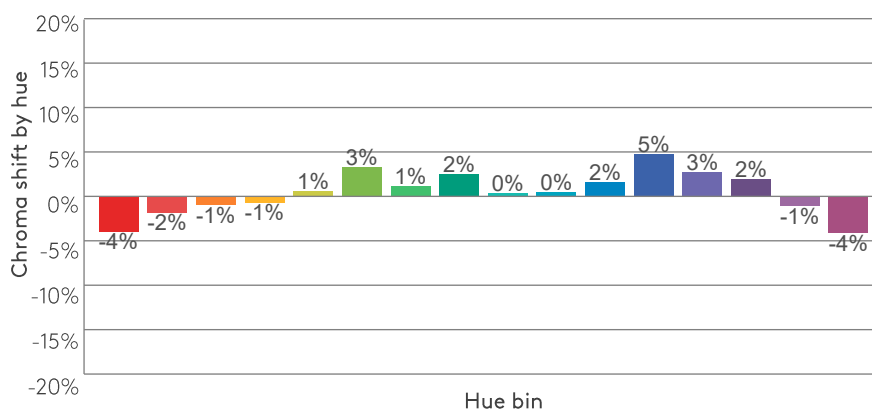
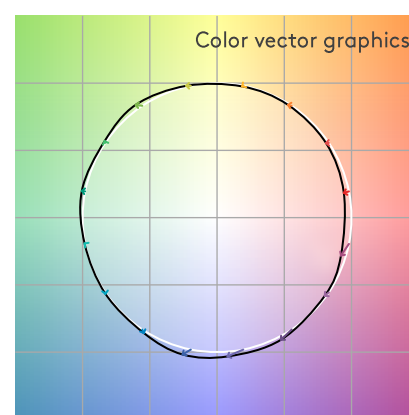
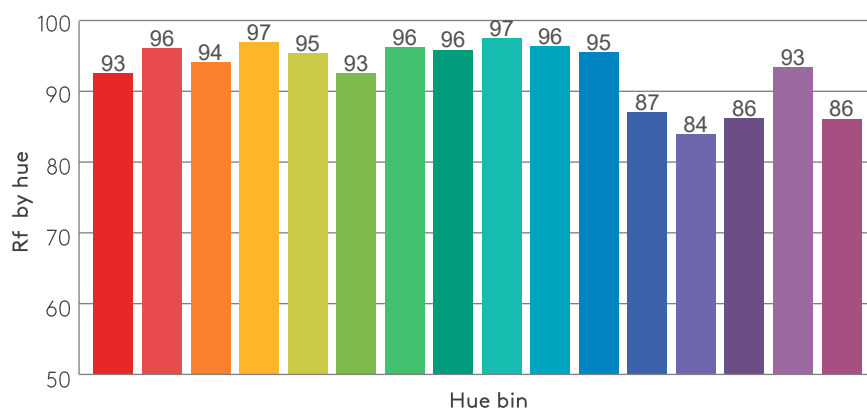
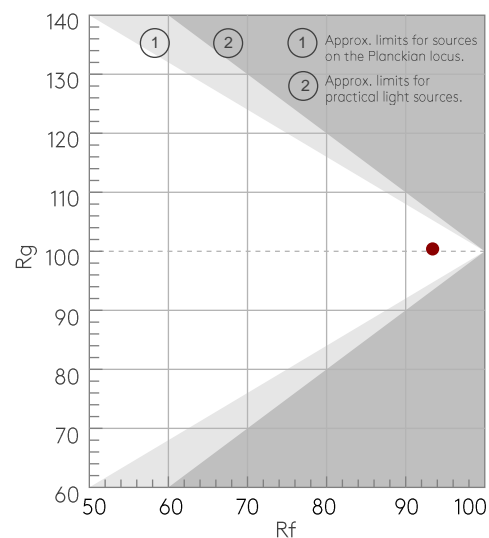
## COLOR PARAMETERS

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	$\Delta uv$
2701 K	96.3	71.3	93.4	100.4	92.9	0.461	0.413	0.262	0.352	0.0007

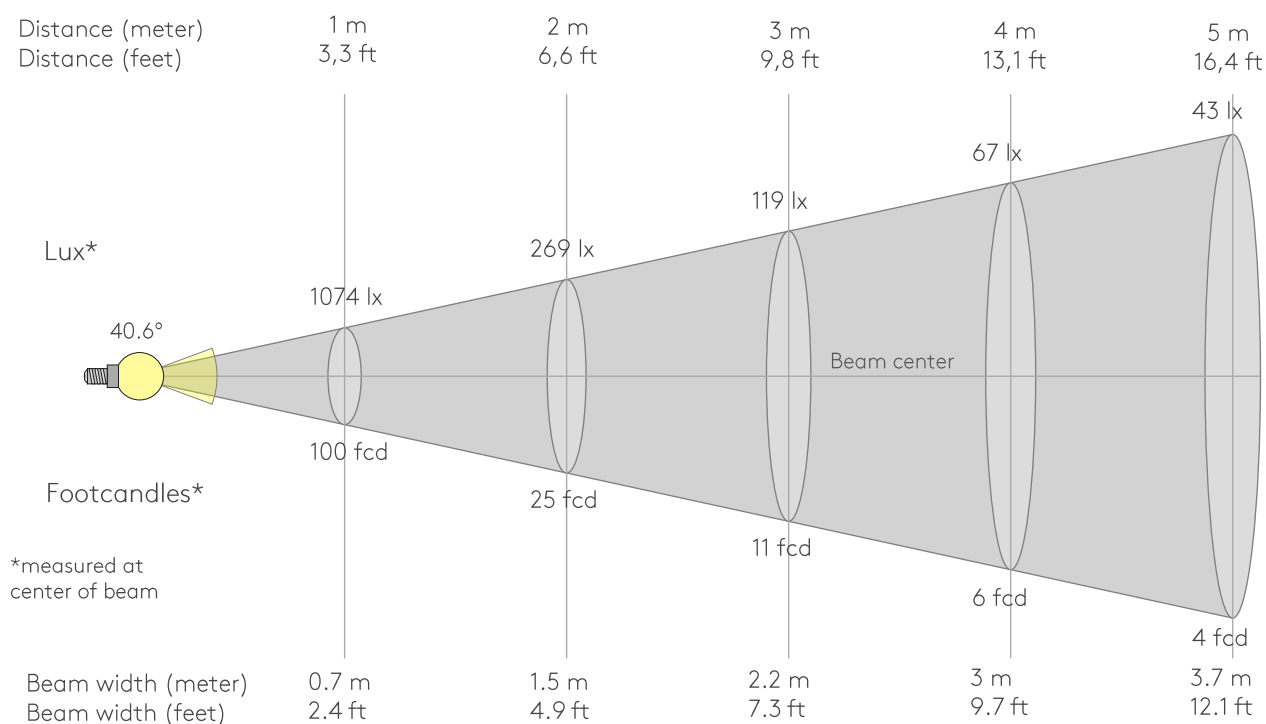
Rf 93.4  
Fidelity index Rf

Rg 100.4  
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	93	3%	4%
7	96	1%	-1%
8	96	2%	0%
9	97	0%	0%
10	96	0%	1%
11	95	2%	2%
12	87	5%	-5%
13	84	3%	-12%
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
1074lx	269lx	119lx	67lx	43lx	30lx	22lx	17lx	13lx	11lx	9lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx	3lx
99.8fcd	24.9fcd	11.1fcd	6.2fcd	4fcd	2.8fcd	2fcd	1.6fcd	1.2fcd	1fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd	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°
1074	1129	1096	1046	978	894	797	689	576	464	360	267	192	132	85	49	27	16	12	10
100%	105%	102%	97%	91%	83%	74%	64%	54%	43%	34%	25%	18%	12%	8%	5%	3%	2%	1%	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°
1074	742	560	400	271	174	104	56	28	17	13	11	9	8	7	7	6	6	6	5
100%	69%	52%	37%	25%	16%	10%	5%	3%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%

Intensities in 180° c-plane

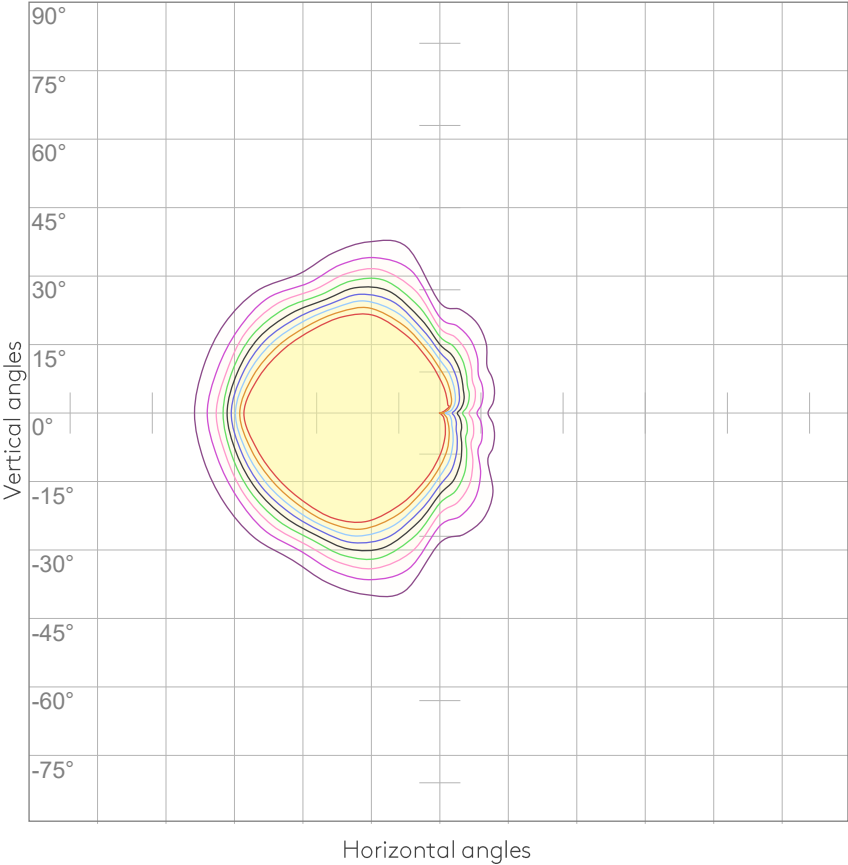
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1074	1142	1124	1091	1041	977	901	814	721	623	525	429	343	267	199	143	101	67	40	24
100%	106%	105%	102%	97%	91%	84%	76%	67%	58%	49%	40%	32%	25%	19%	13%	9%	6%	4%	2%

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°
1074	1130	1311	1474	1614	1734	1835	1916	1974	2012	2032	2037	2033	2027	2012	1984	1939	1876	1793	1693
100%	105%	122%	137%	150%	161%	171%	178%	184%	187%	189%	190%	189%	189%	187%	185%	181%	175%	167%	158%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
40.6°	62.1°	72.8°	99.2%	89.5%

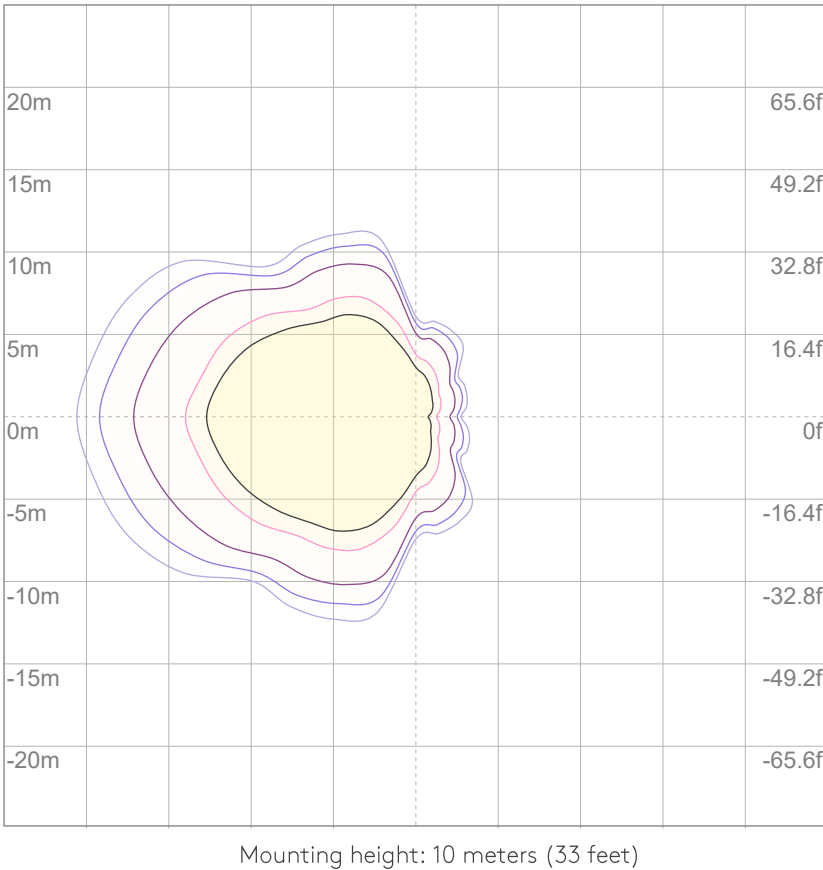
ISO CANDELA DIAGRAM



10%	107 cd
20%	215 cd
30%	322 cd
40%	430 cd
50%	537 cd
60%	644 cd
70%	752 cd
80%	859 cd
90%	967 cd

Conditions:  
Number of c-planes: 8  
Candela at center: 1074 cd

ISO LUX DIAGRAM



3%	0.322 lx
5%	0.537 lx
10%	1.07 lx
30%	3.22 lx
50%	{LUX_10M50} lx

Conditions:  
Number of c-planes: 8  
Lux at center: 10.7 lx

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

## GLARE EVALUATION ACCORDING TO UGR

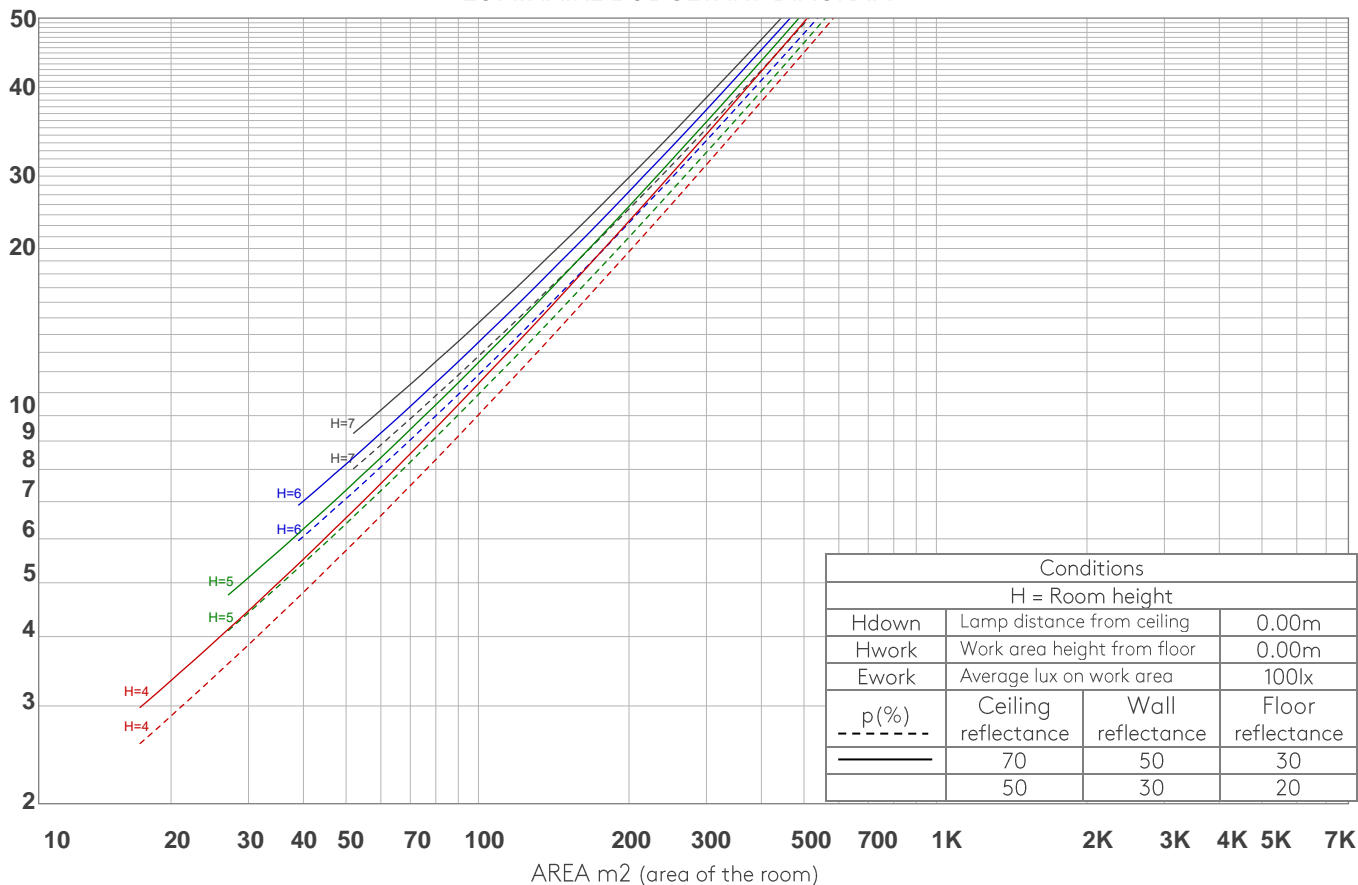
UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

## 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	103	102	100	100	98	97	96	95	94	92
2	106	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78	77
4	94	86	80	75	92	85	79	74	82	77	74	80	76	73	78	75	72	70
5	89	79	73	68	87	78	72	68	76	71	67	75	70	66	73	69	66	64
6	84	74	67	62	82	73	66	62	71	66	61	70	65	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	61	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	51	48	46
10	67	56	49	45	65	55	49	45	55	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°
96.7 lm	244 lm	315 lm	295 lm	174 lm	45.4 lm	5.83 lm	1.09 lm	0.373 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.174 lm	0.195 lm	0.244 lm	0.361 lm	0.449 lm	0.503 lm	0.416 lm	0.268 lm	0.086 lm

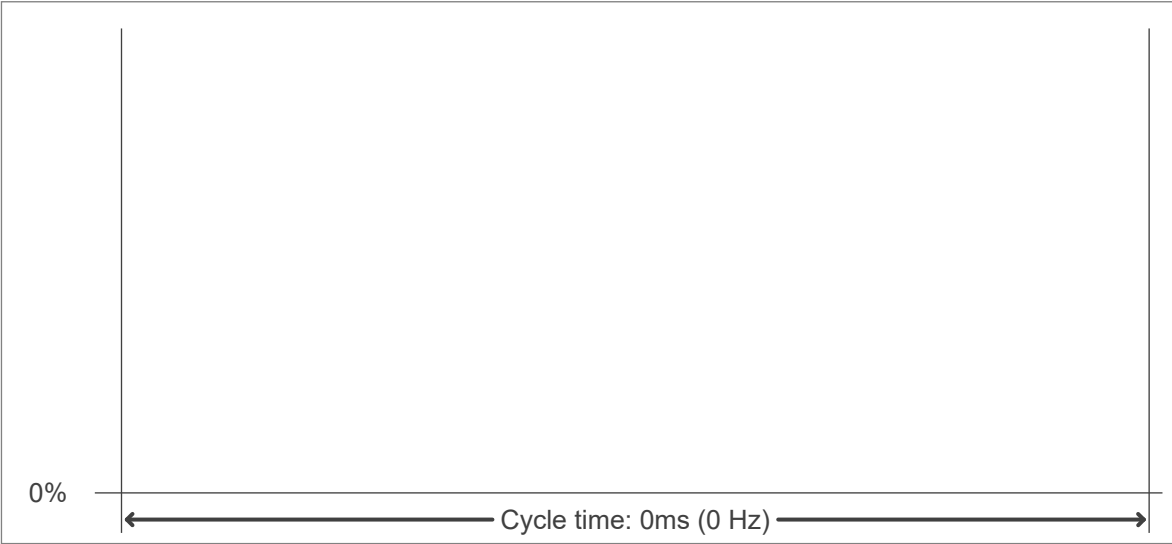


FLICKER

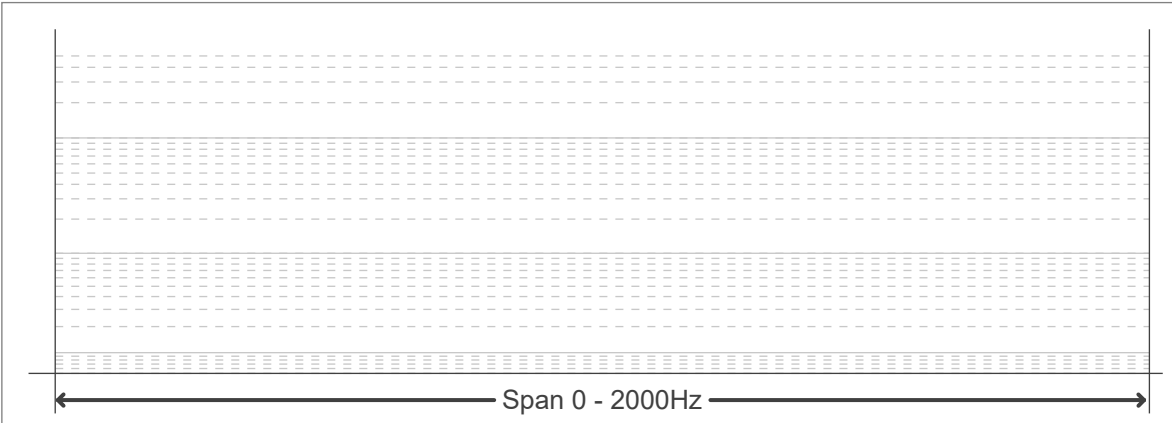
FLICKER CURVE (COMPLETE SAMPLED)



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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