

# PHOTOMETRIC TEST REPORT

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MINIMA PRO ROUND 25 IP65 -  
MATT WHITE - 4000787

astro

MINIMA PRO ROUND 25 IP65 - MATT

astro

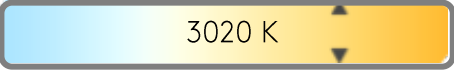
LIGHT EFFICIENCY:



LIGHT QUALITY:



COLOR TEMPERATURE:



OUTPUT: 1212 lm  
PEAK: 3907 cd  
POWER: 11.8 W  
PF: 0.95



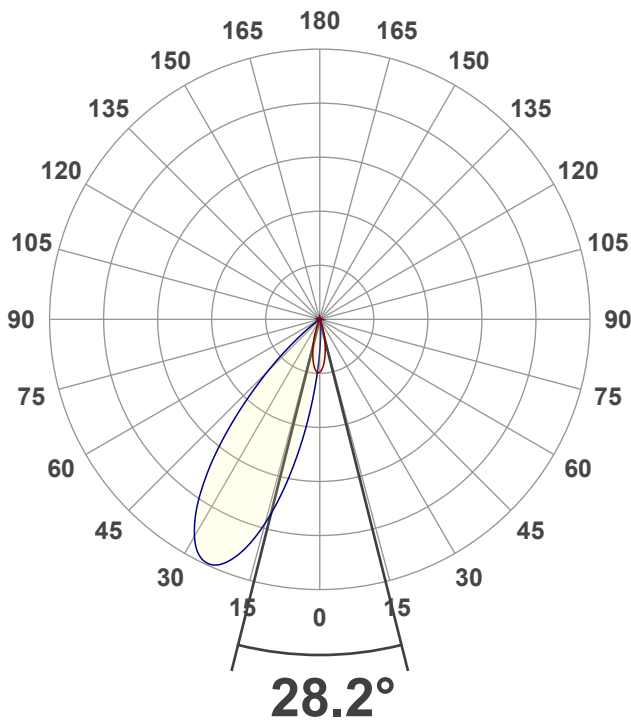
Tracking number: [n/a](#)

Product name:  
Minima Pro Round 25 IP65 - Matt White - 4000787

Item number:  
MRW-MW-HE30G1-30G1-X-D1

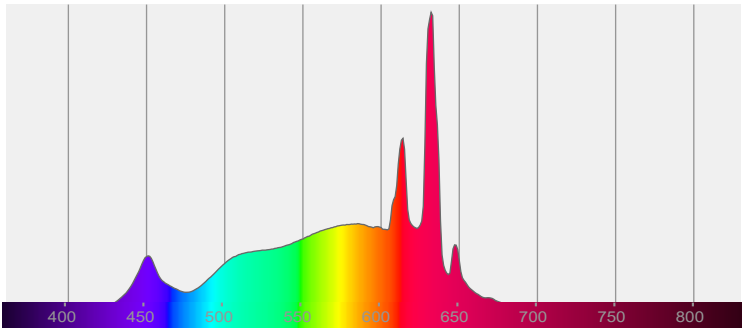
Date and time:  
20/01/2025 16:08:21

Description:  
IP65 LED Downlight

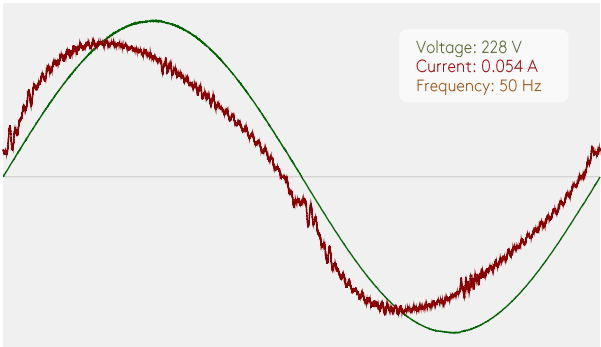


CIE 1931  
x: 0.438  
y: 0.408

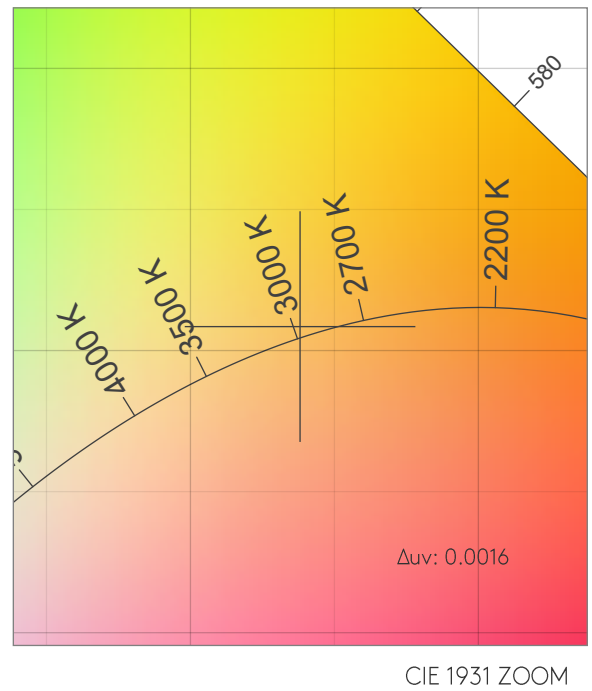
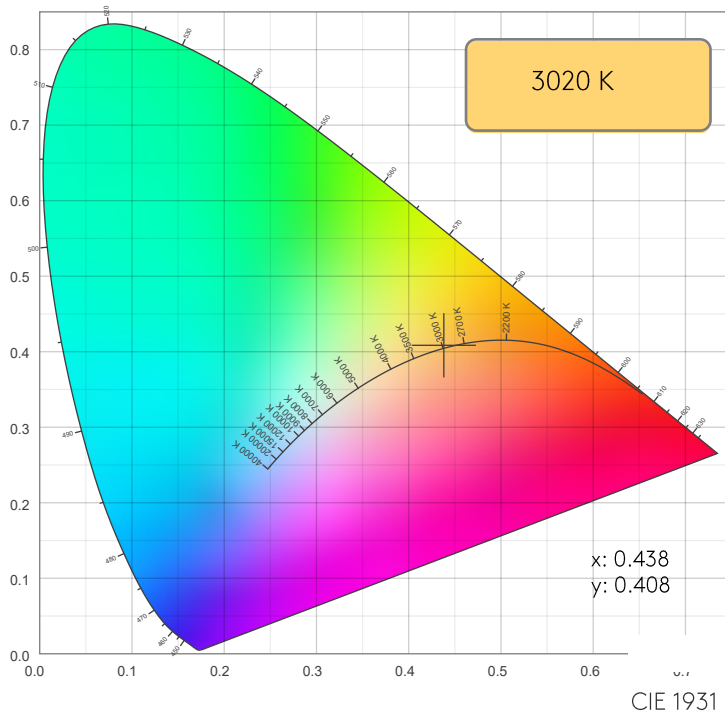
SPECTRA



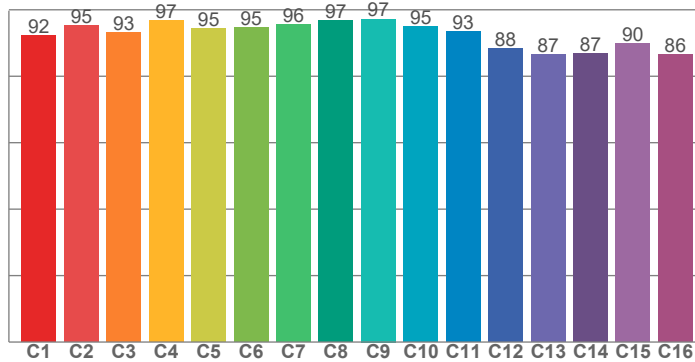
POWER



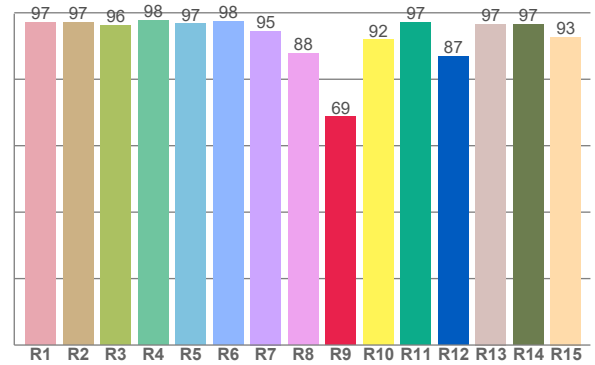
## COLOR DETAILS



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	97.8	96.7	97.5	94.5	87.7	68.7	91.8	97.2	86.9	96.6	96.5	92.7

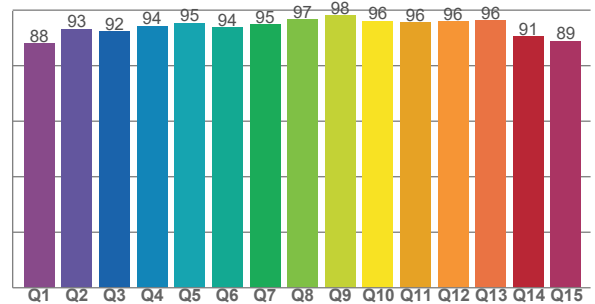
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.3	95.4	93.1	96.8	94.5	94.6	95.7	96.9	97.2	95.0	93.4	88.4	86.5	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	92.4	94.4	95.4	93.8	94.8	96.7	98.0	96.2	95.5	95.9	96.4	90.6	88.9

CQS: 93.2



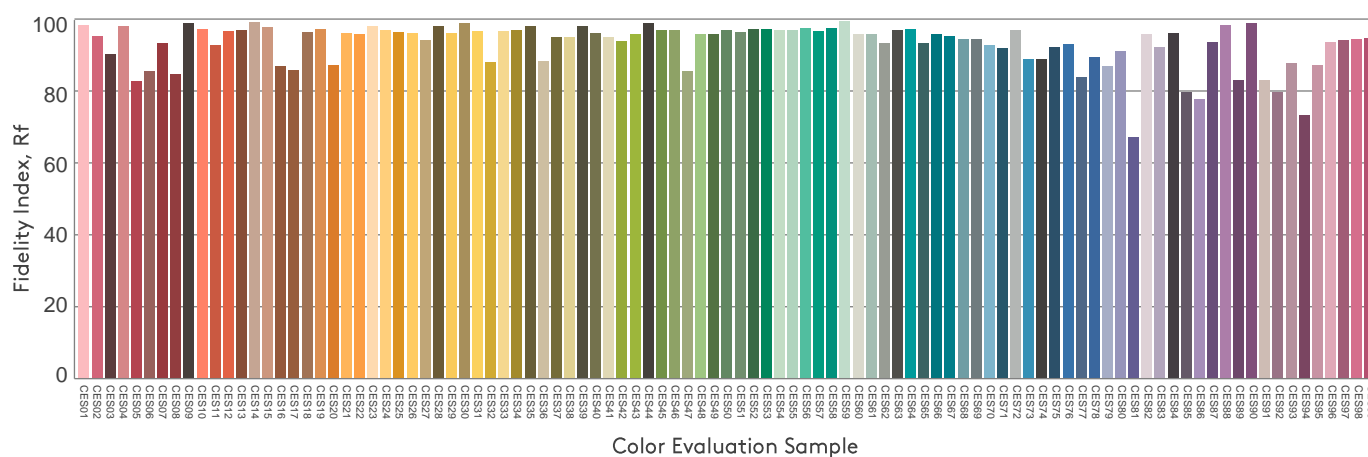
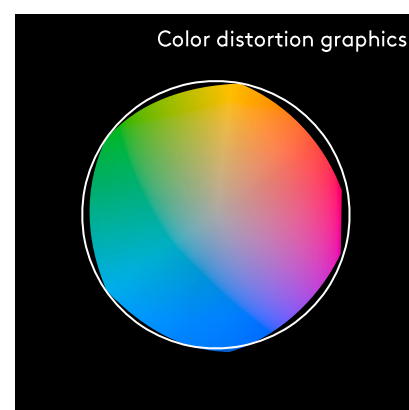
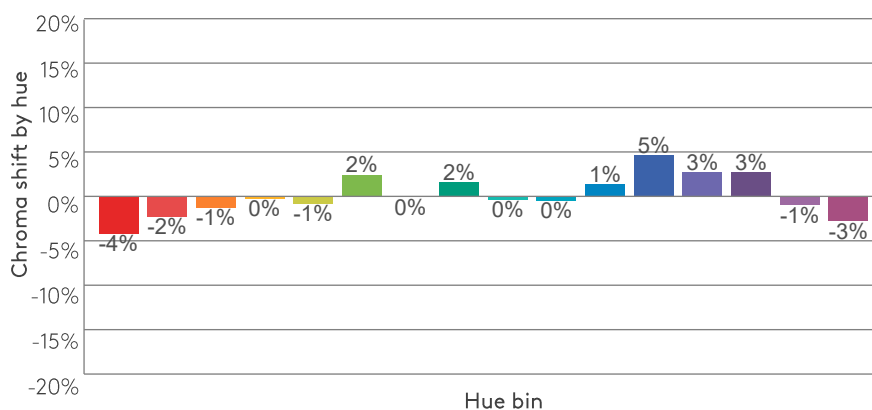
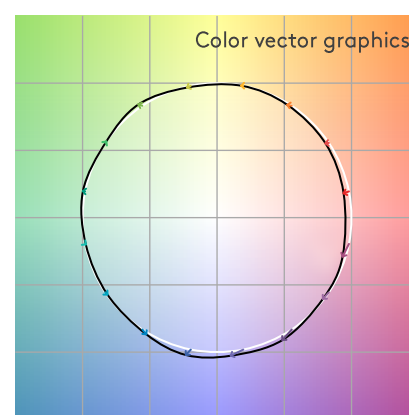
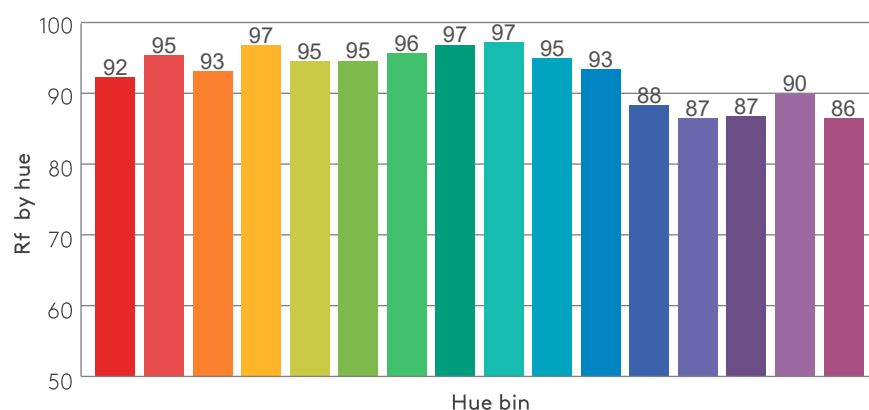
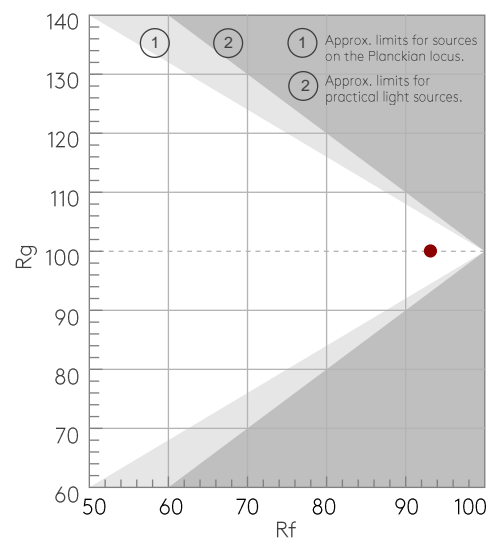
## COLOR PARAMETERS

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
3020 K	95.6	68.7	93.1	100.1	93.2	0.438	0.408	0.249	0.349	0.0016

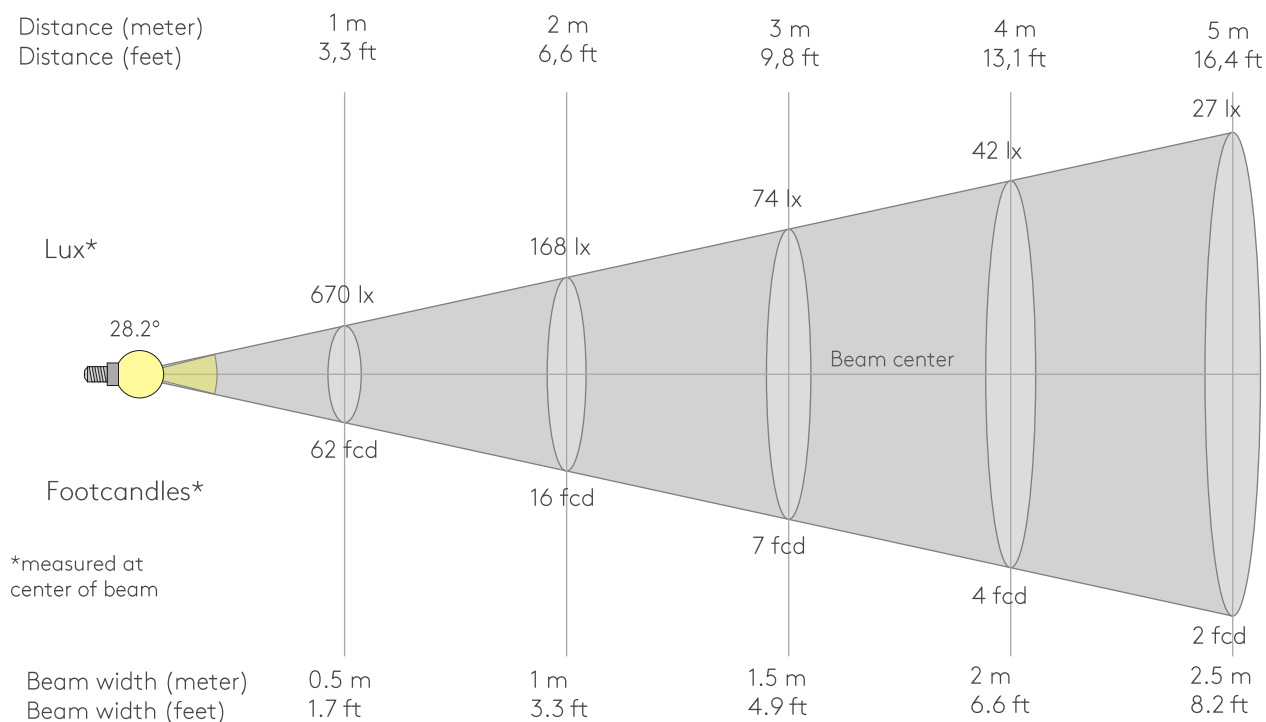
Rf 93.1  
Fidelity index Rf

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%	1%
5	95	-1%	3%
6	95	2%	2%
7	96	0%	-1%
8	97	2%	0%
9	97	0%	0%
10	95	0%	2%
11	93	1%	4%
12	88	5%	-3%
13	87	3%	-10%
14	87	3%	-10%
15	90	-1%	-6%
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
670lx	168lx	74lx	42lx	27lx	19lx	14lx	10lx	8lx	7lx	6lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx	2lx
62.3fcd	15.6fcd	6.9fcd	3.9fcd	2.5fcd	1.7fcd	1.3fcd	1fcd	0.8fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.2fcd	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°
670	738	687	619	539	455	370	291	218	159	114	81	57	40	29	22	17	14	12	10
100%	110%	103%	92%	80%	68%	55%	43%	33%	24%	17%	12%	8%	6%	4%	3%	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°
670	290	174	100	60	38	26	19	15	13	11	9	8	8	7	7	6	6	5	5
100%	43%	26%	15%	9%	6%	4%	3%	2%	2%	2%	1%	1%	1%	1%	1%	1%	1%	1%	1%

Intensities in 180° c-plane

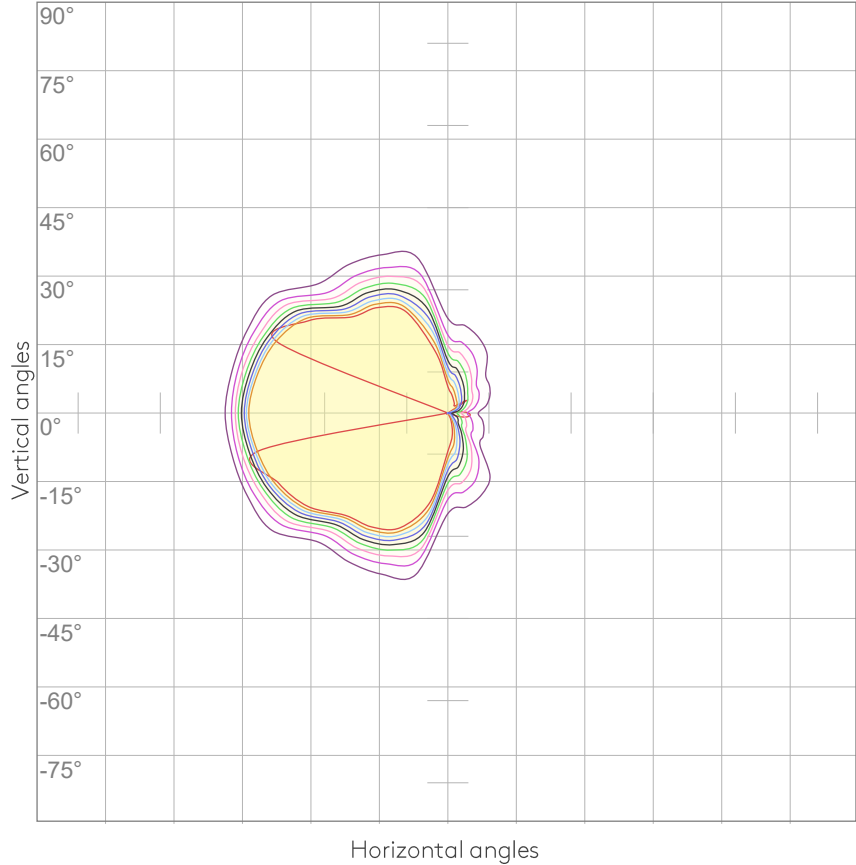
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
670	773	754	713	651	574	488	400	313	233	163	111	75	51	36	26	20	16	13	11
100%	115%	113%	106%	97%	86%	73%	60%	47%	35%	24%	17%	11%	8%	5%	4%	3%	2%	2%	2%

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°
670	689	987	1337	1725	2126	2527	2898	3226	3500	3704	3841	3902	3889	3804	3644	3422	3141	2805	2432
100%	103%	147%	199%	257%	317%	377%	432%	481%	522%	553%	573%	582%	580%	568%	544%	511%	469%	418%	363%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
28.2°	48°	60.4°	99.5%	95.0%

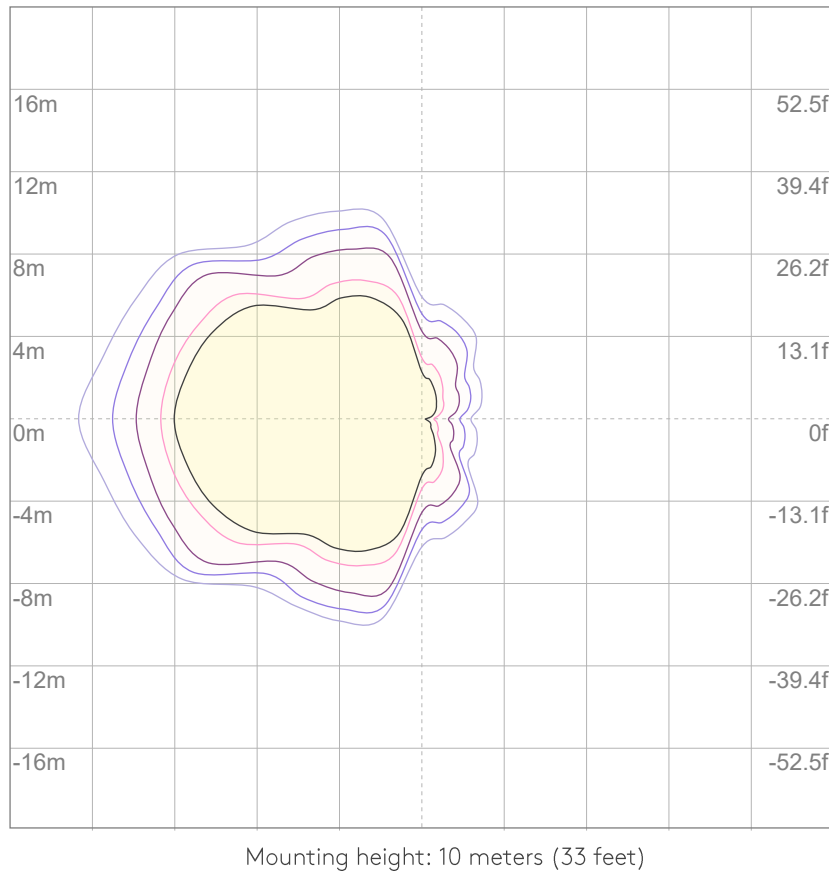
ISO CANDELA DIAGRAM



10%	67 cd
20%	134 cd
30%	201 cd
40%	268 cd
50%	335 cd
60%	402 cd
70%	469 cd
80%	536 cd
90%	603 cd

Conditions:  
Number of c-planes: 8  
Candela at center: 670 cd

ISO LUX DIAGRAM



3%	0.201 lx
5%	0.335 lx
10%	0.670 lx
30%	2.01 lx
50%	{LUX_10M50} lx

Conditions:  
Number of c-planes: 8  
Lux at center: 6.70 lx

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

## GLARE EVALUATION ACCORDING TO UGR

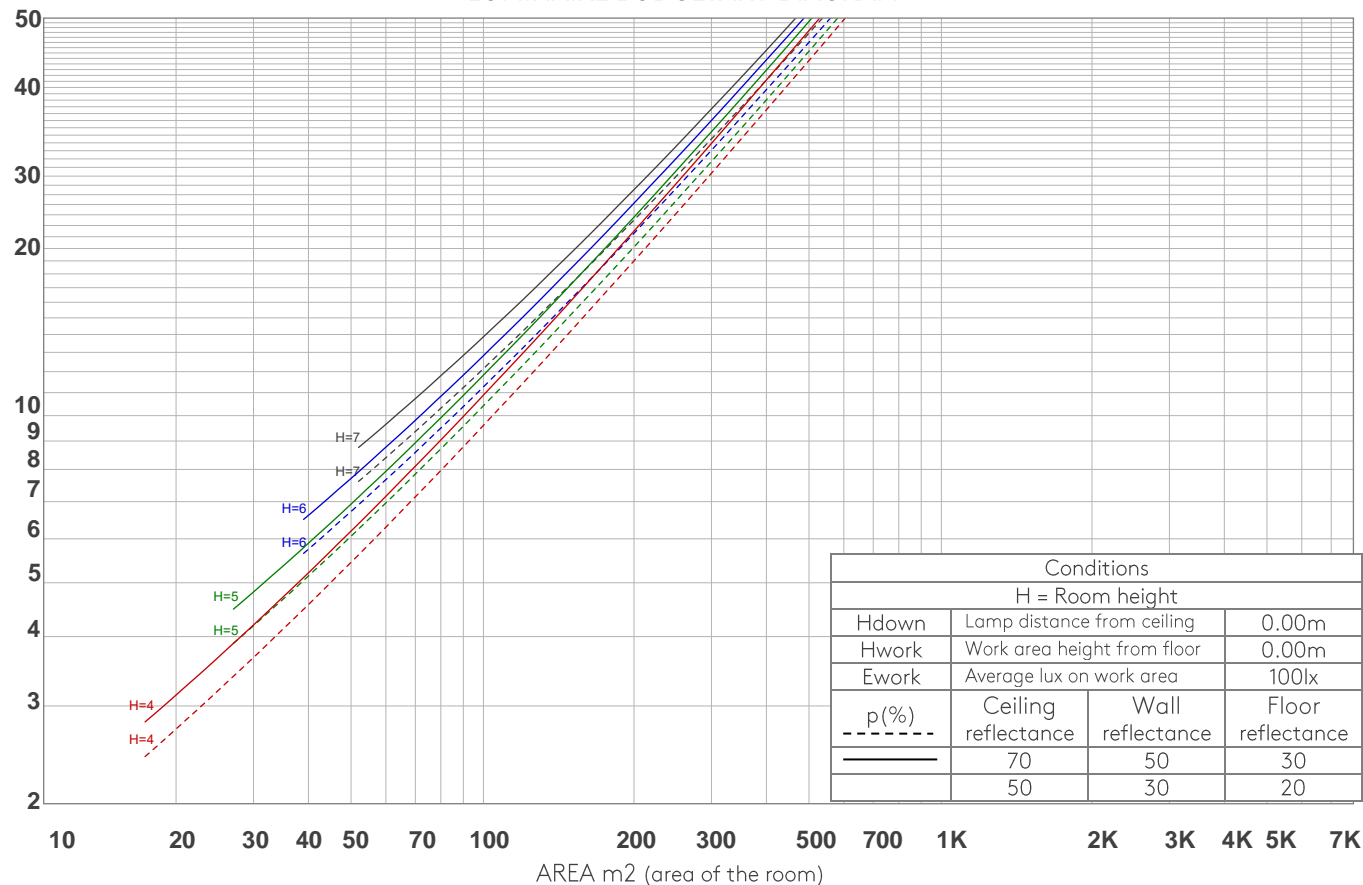
UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

## 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	105	111	108	106	103	104	102	100	100	99	97	97	95	94	93
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85
3	101	94	89	85	99	93	88	84	90	86	82	88	84	81	85	82	80	78
4	95	87	81	77	93	86	80	76	84	79	75	82	78	74	80	76	73	72
5	90	81	75	70	88	80	74	70	78	73	69	76	72	68	75	71	68	66
6	85	75	69	64	83	74	68	64	73	67	63	71	67	63	70	66	62	61
7	80	70	64	59	79	69	63	59	68	62	58	67	62	58	66	61	58	56
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	61	57	54	52
9	72	61	55	50	70	61	55	50	60	54	50	59	54	50	58	53	50	48
10	68	57	51	47	67	57	51	47	56	50	47	55	50	46	54	50	46	45

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°
73.9 lm	271 lm	404 lm	318 lm	123 lm	14.9 lm	2.65 lm	1.02 lm	0.309 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.136 lm	0.165 lm	0.186 lm	0.291 lm	0.433 lm	0.505 lm	0.446 lm	0.277 lm	0.095 lm

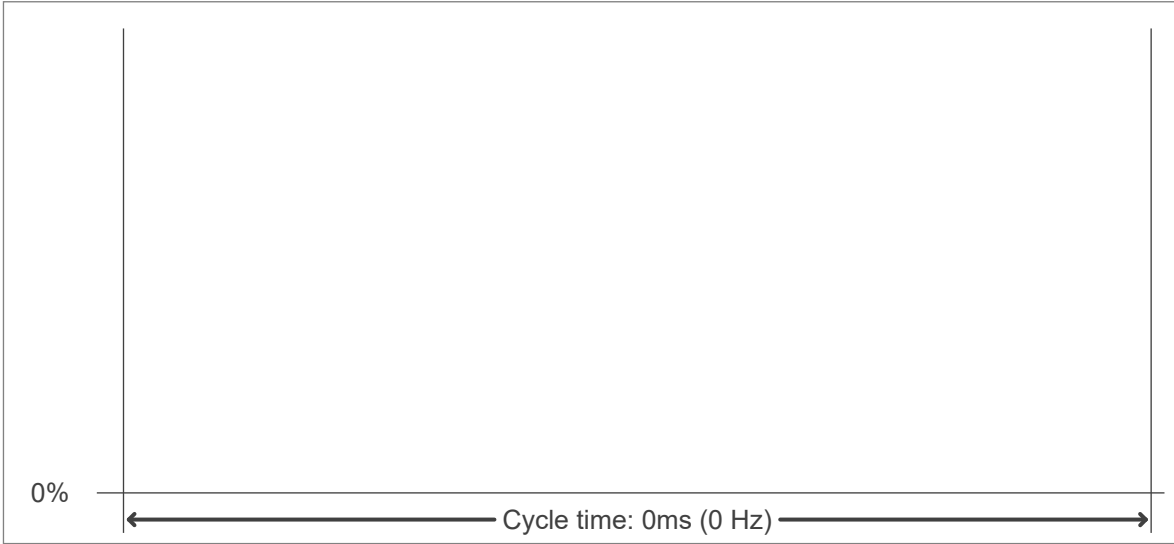


FLICKER

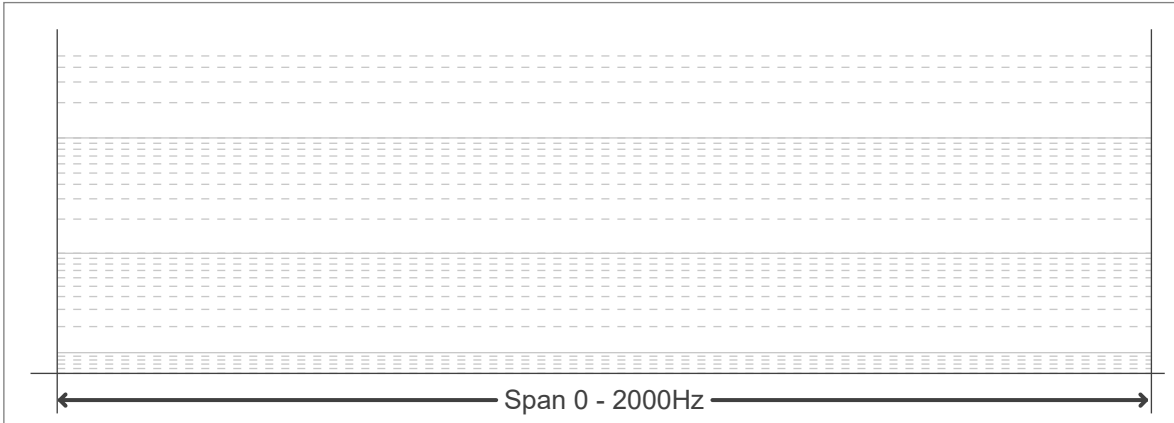
FLICKER CURVE (COMPLETE SAMPLED)



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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