

PHOTOMETRIC TEST REPORT

TRIMLESS PRO ROUND FIXED
IP65 - MATT WHITE - 4002323

astro

TRIMLESS PRO ROUND FIXED IP65 - MATT

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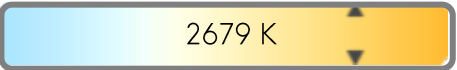
LIGHT EFFICIENCY:



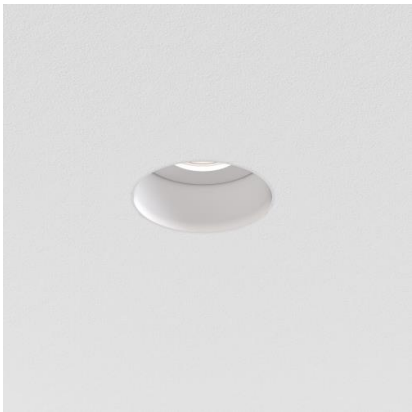
LIGHT QUALITY:



COLOR TEMPERATURE:

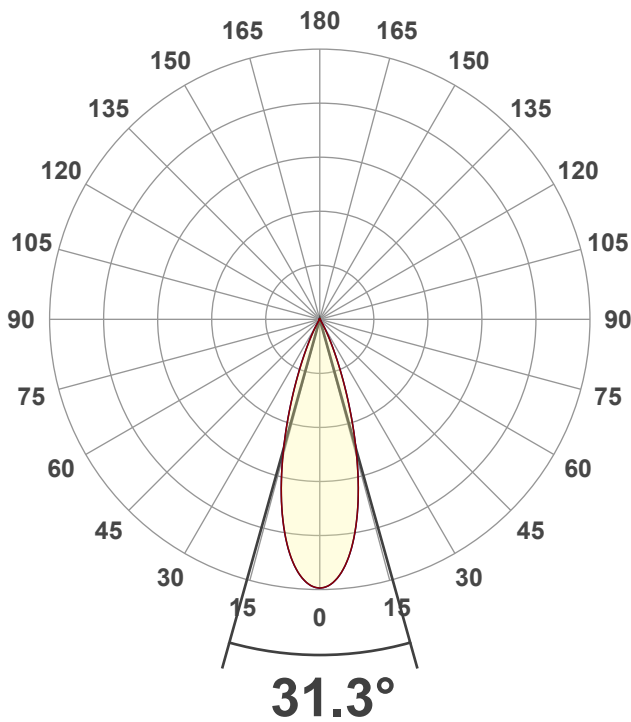


OUTPUT: 1175 lm
PEAK: 4042 cd
POWER: 11.7 W
PF: 0.95



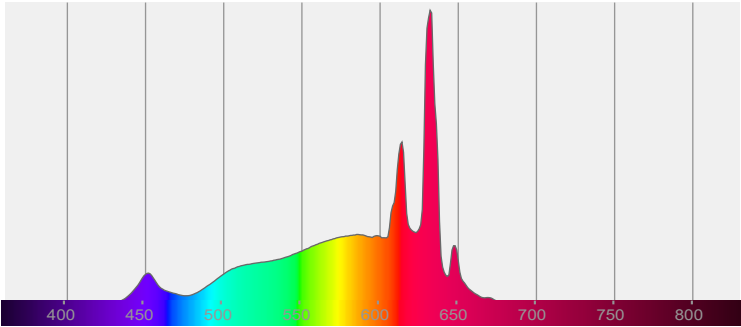
Tracking number: [n/a](#)

Product name:
Trimless Pro Round Fixed IP65 - Matt
White - 4002323
Item number:
TRF-MW-HE27G1-30G1-X-D1
Date and time:
23/01/2025 14:13:59
Description:
IP65 LED Downlight

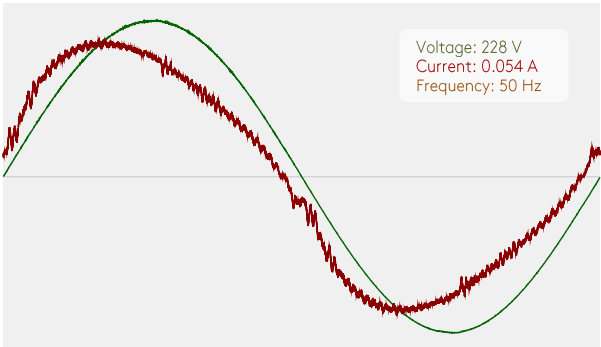


CIE 1931
x: 0.463
y: 0.412

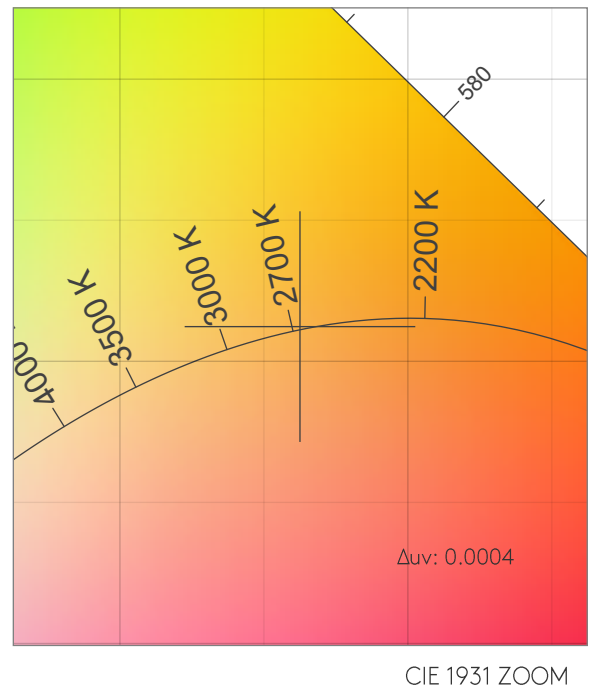
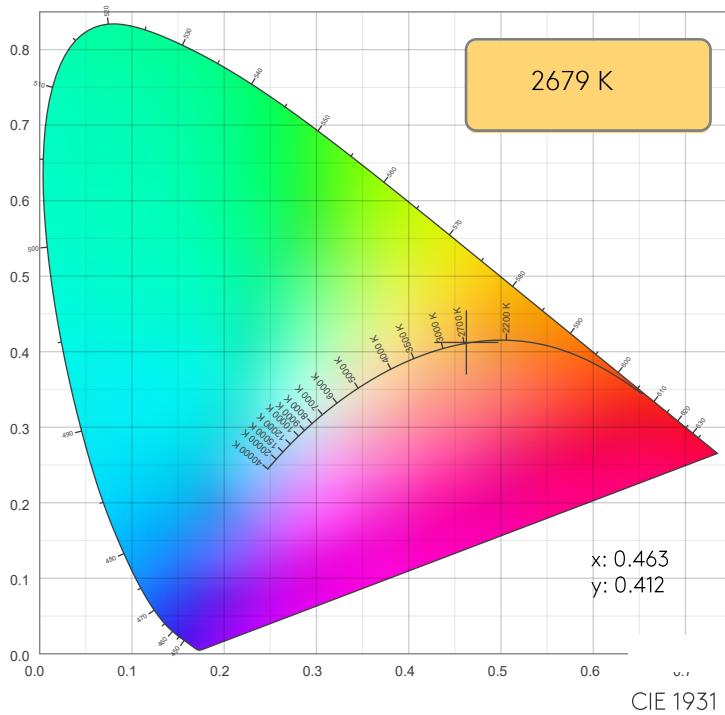
SPECTRA



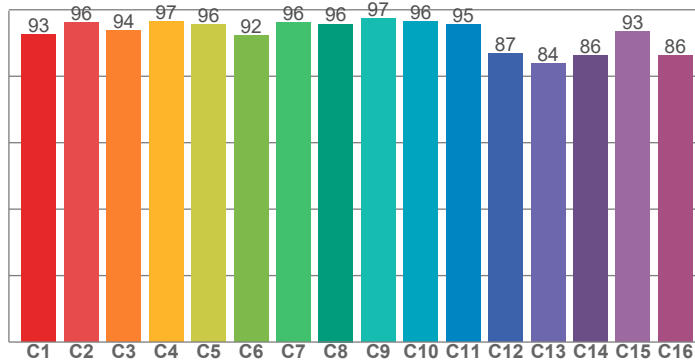
POWER



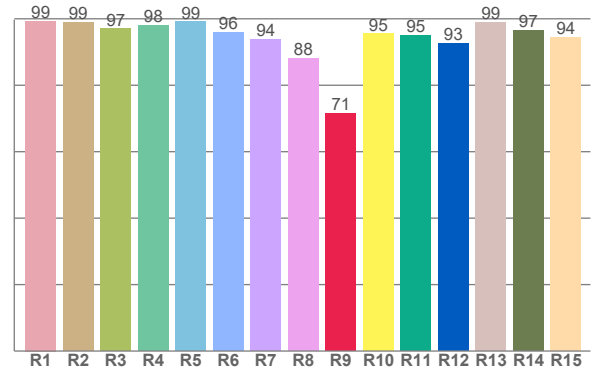
COLOR DETAILS



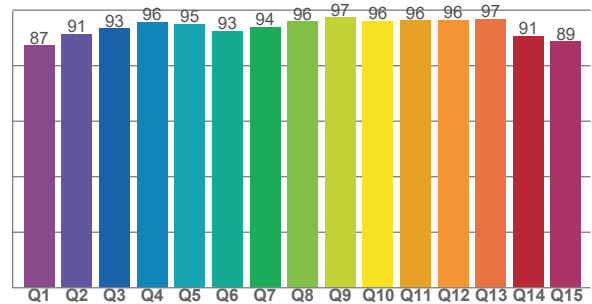
TM30: 93.3



CRI: 96.3 (R1-R8)



CQS: 92.8



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
99.3	98.9	97.0	98.0	99.1	95.8	93.8	88.2	71.5	95.4	95.0	92.5	98.9	96.5	94.5

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	93.9	96.6	95.7	92.3	96.0	95.7	97.3	96.4	95.5	86.9	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	93.4	95.7	95.0	92.6	93.8	95.9	97.3	96.1	96.2	96.5	96.8	90.7	88.7

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
2679 K	96.3	71.5	93.3	100.6	92.8	0.463	0.412	0.263	0.352	0.0004

TRIMLESS PRO ROUND FIXED IP65 - MATT

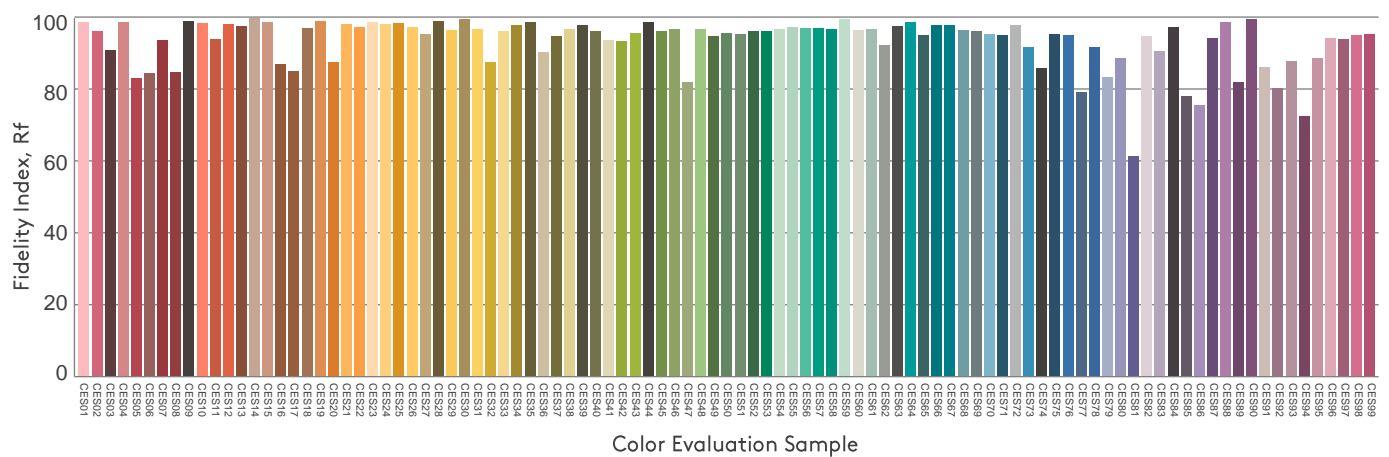
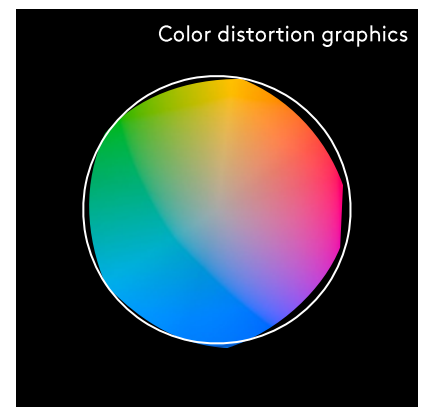
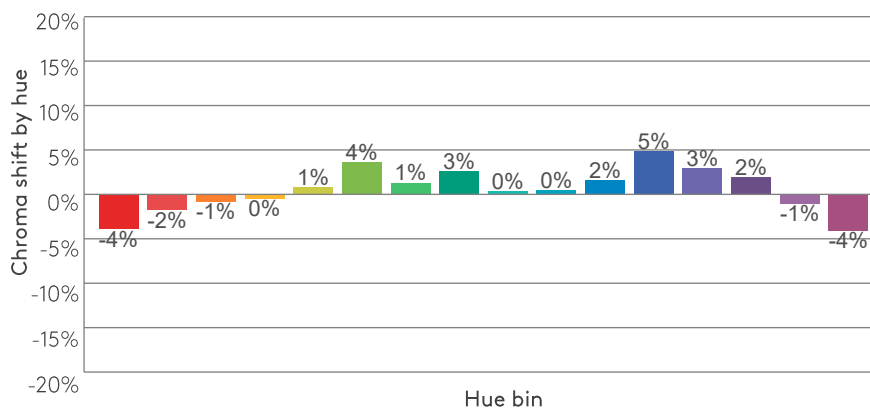
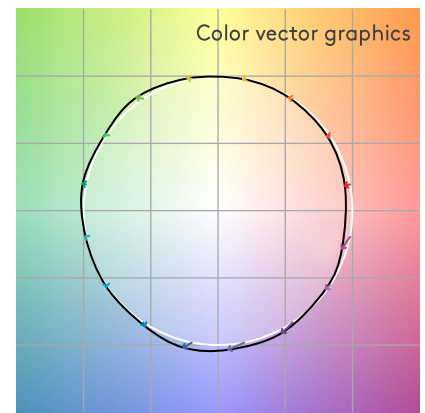
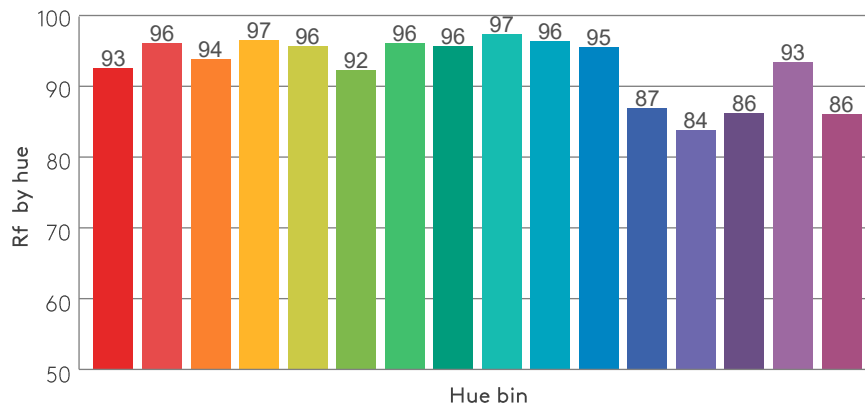
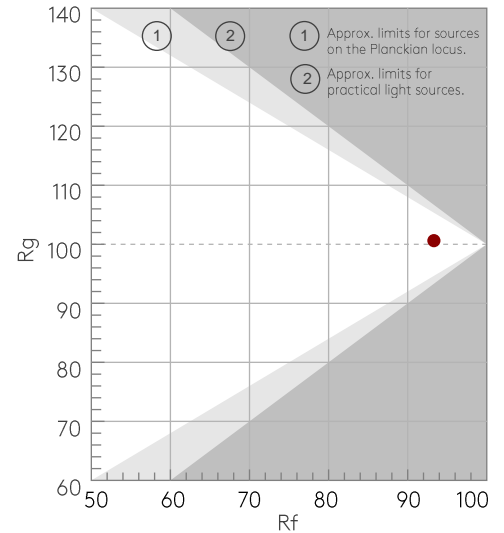
TM30 DETAILS

astro

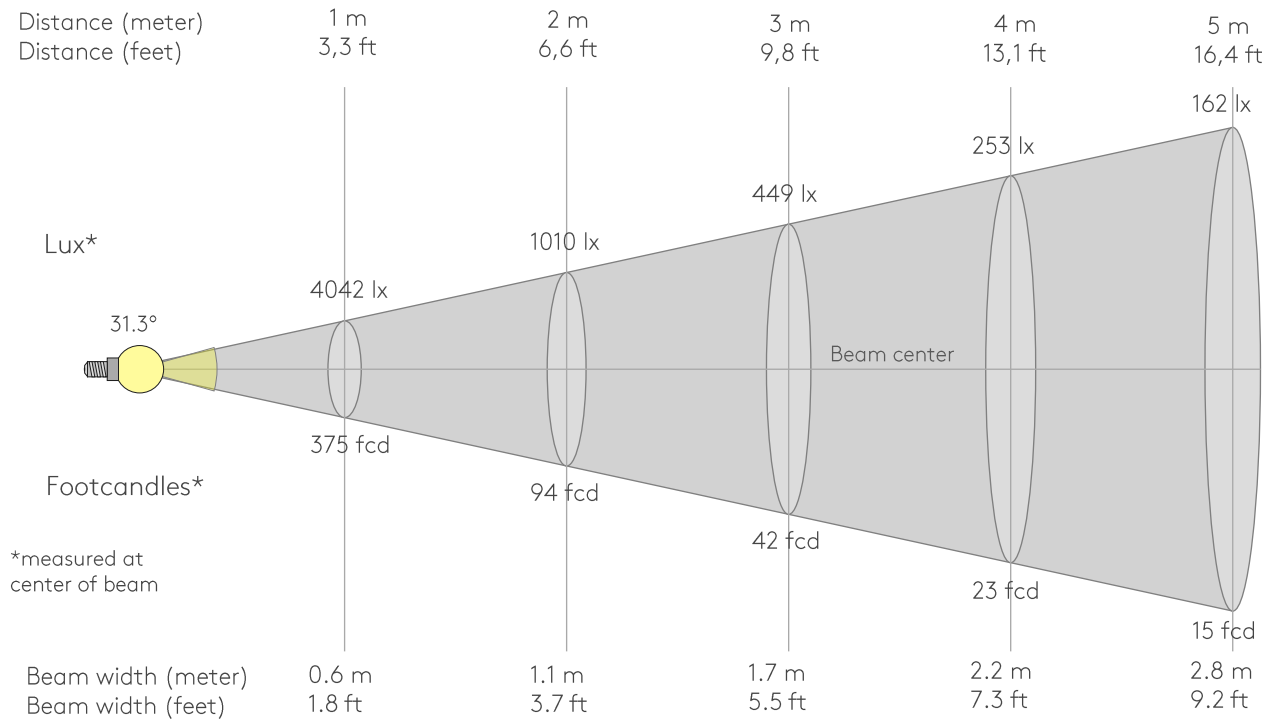
Rf 93.3
Fidelity index Rf

Rg 100.6
Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	93	-4%	0%
2	96	-2%	1%
3	94	-1%	3%
4	97	0%	1%
5	96	1%	3%
6	92	4%	4%
7	96	1%	-1%
8	96	3%	0%
9	97	0%	0%
10	96	0%	1%
11	95	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
4042lx	1010lx	449lx	253lx	162lx	112lx	82lx	63lx	50lx	40lx	33lx	28lx	24lx	21lx	18lx	16lx	14lx	12lx	11lx	10lx
375.5fcd	93.9fcd	41.7fcd	23.5fcd	15fcd	10.4fcd	7.7fcd	5.9fcd	4.6fcd	3.8fcd	3.1fcd	2.6fcd	2.2fcd	1.9fcd	1.7fcd	1.5fcd	1.3fcd	1.2fcd	1fcd	0.9fcd

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°
4042	4003	3892	3709	3457	3141	2774	2366	1941	1525	1142	812	545	348	209	113	58	30	20	15
100%	99%	96%	92%	86%	78%	69%	59%	48%	38%	28%	20%	13%	9%	5%	3%	1%	1%	1%	0%

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°
4042	4003	3892	3709	3457	3141	2774	2366	1941	1525	1142	812	545	348	209	113	58	30	20	15
100%	99%	96%	92%	86%	78%	69%	59%	48%	38%	28%	20%	13%	9%	5%	3%	1%	1%	1%	0%

Intensities in 180° c-plane

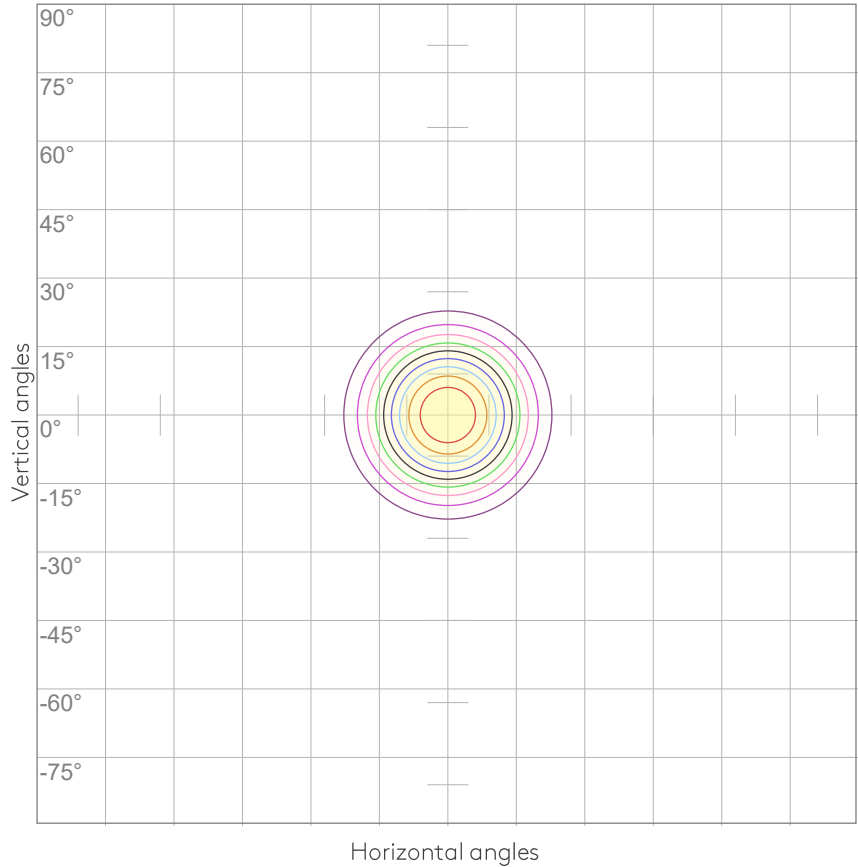
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4042	4003	3892	3709	3457	3141	2774	2366	1941	1525	1142	812	545	348	209	113	58	30	20	15
100%	99%	96%	92%	86%	78%	69%	59%	48%	38%	28%	20%	13%	9%	5%	3%	1%	1%	1%	0%

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°
4042	4003	3892	3709	3457	3141	2774	2366	1941	1525	1142	812	545	348	209	113	58	30	20	15
100%	99%	96%	92%	86%	78%	69%	59%	48%	38%	28%	20%	13%	9%	5%	3%	1%	1%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
31.3°	50.7°	60.6°	99.4%	99.0%

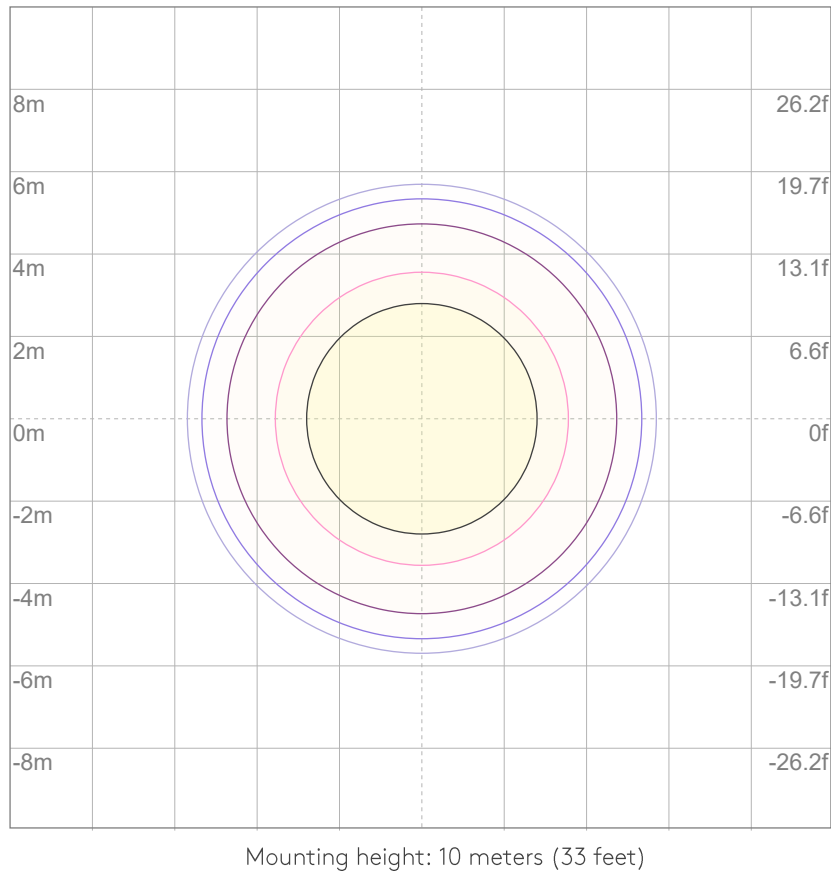
ISO CANDELA DIAGRAM



10%	404 cd
20%	808 cd
30%	1212 cd
40%	1617 cd
50%	2021 cd
60%	2425 cd
70%	2829 cd
80%	3233 cd
90%	3637 cd

Conditions:
Number of c-planes: 8
Candela at center: 4042 cd

ISO LUX DIAGRAM



3%	1.21 lx
5%	2.02 lx
10%	4.04 lx
30%	12.1 lx
50%	{LUX_10M50} lx

Conditions:
Number of c-planes: 8
Lux at center: 40.4 lx

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

UGR

GLARE EVALUATION ACCORDING TO UGR

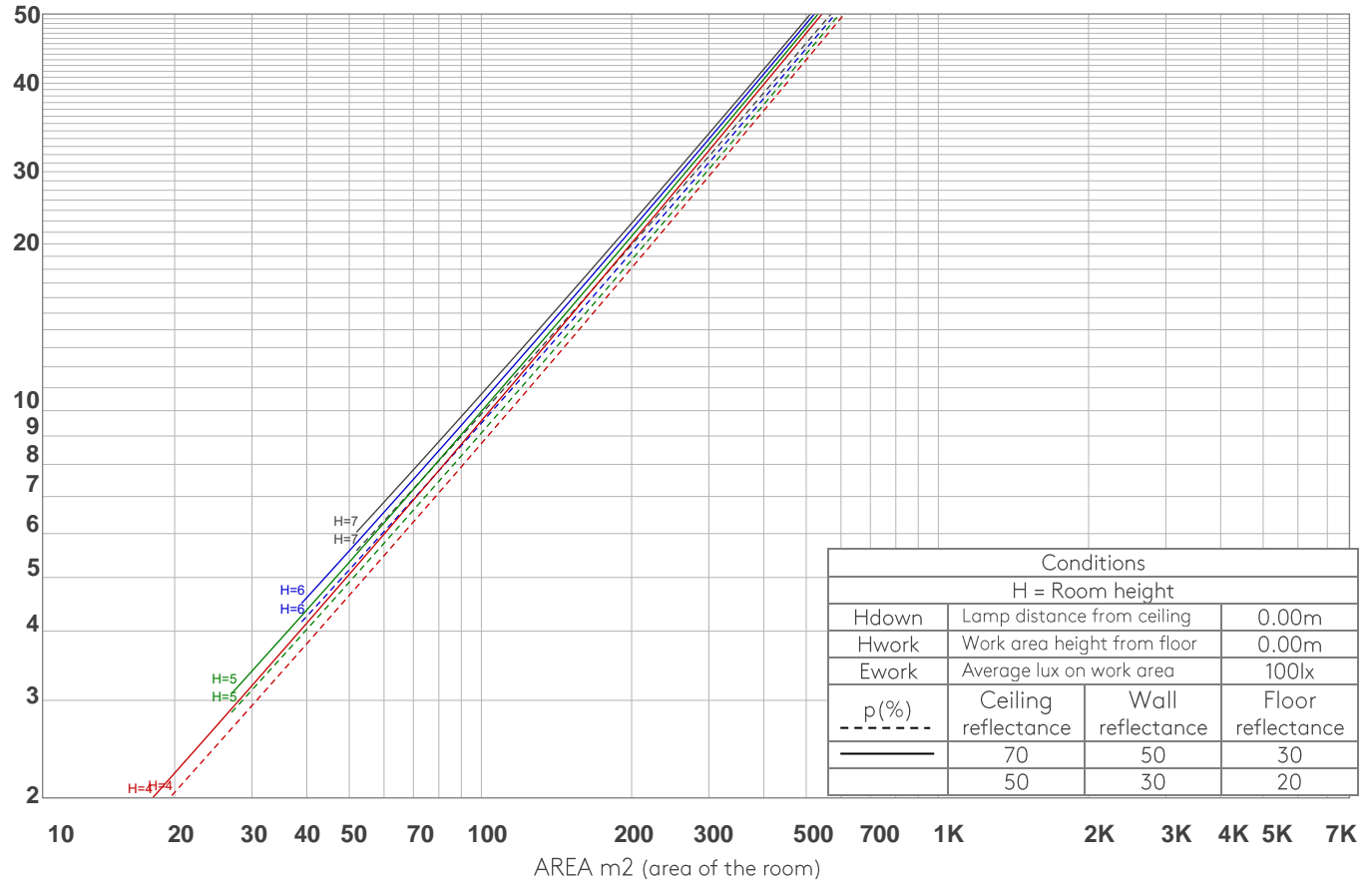
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	7.8	8.2	7.9	8.4	8.6	7.8	8.2	7.9	8.4	8.6
	3H	8.1	8.7	8.5	8.9	9.0	8.1	8.7	8.5	8.9	9.0
	4H	8.5	9.0	8.8	9.2	9.5	8.5	9.0	8.8	9.2	9.5
	6H	9.0	9.4	9.2	9.7	10.1	9.0	9.4	9.2	9.7	10.1
	8H	9.1	9.6	9.5	9.9	10.3	9.1	9.6	9.5	9.9	10.3
	12H	9.3	9.7	9.7	10.1	10.5	9.3	9.7	9.7	10.1	10.5
4H	2H	7.7	8.2	8.0	8.4	8.7	7.7	8.2	8.0	8.4	8.7
	3H	8.4	8.8	8.8	9.2	9.6	8.4	8.8	8.8	9.2	9.6
	4H	8.9	9.3	9.3	9.7	10.2	8.9	9.3	9.3	9.7	10.2
	6H	9.5	10.0	10.0	10.3	10.6	9.5	10.0	10.0	10.3	10.6
	8H	9.8	10.2	10.3	10.5	10.9	9.8	10.2	10.3	10.5	10.9
	12H	10.0	10.4	10.5	10.8	11.2	10.0	10.4	10.5	10.8	11.2
8H	4H	9.1	9.5	9.6	9.9	10.2	9.1	9.5	9.6	9.9	10.2
	6H	9.9	10.2	10.4	10.6	11.2	9.9	10.2	10.4	10.6	11.2
	8H	10.4	10.6	10.9	11.1	11.7	10.4	10.6	10.9	11.1	11.7
	12H	10.7	10.9	11.3	11.4	12.0	10.7	10.9	11.3	11.4	12.0
12H	4H	9.1	9.4	9.6	9.8	10.3	9.1	9.4	9.6	9.8	10.3
	6H	10.0	10.2	10.6	10.8	11.4	10.0	10.2	10.6	10.8	11.4
	8H	10.5	10.7	11.1	11.2	11.8	10.5	10.7	11.1	11.2	11.8
Variation of the observer position for the luminaire distance S											
S = 1.0H		2.5 / -0.9					2.5 / -0.9				
S = 1.5H		4.5 / -1.0					4.5 / -1.0				
S = 2.0H		6.2 / -1.2					6.2 / -1.2				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1175 lm total luminous flux											

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	115	113	111	109	112	110	109	107	106	105	104	103	102	101	99	99	98	96
2	111	107	104	102	109	105	103	100	102	100	98	99	98	96	97	95	94	93
3	107	102	99	96	105	101	98	95	99	96	94	96	94	92	94	92	91	89
4	104	98	94	91	102	97	93	91	95	92	90	93	91	89	92	89	88	86
5	101	94	90	87	99	94	90	87	92	89	86	90	88	85	89	87	85	83
6	97	91	87	84	96	90	86	83	89	85	83	88	85	82	87	84	82	81
7	95	88	84	81	93	87	83	80	86	83	80	85	82	80	84	81	79	78
8	92	85	81	78	91	85	81	78	84	80	77	83	79	77	82	79	77	76
9	89	82	78	75	88	82	78	75	81	77	75	80	77	75	80	77	74	74
10	87	80	76	73	86	79	76	73	79	75	73	78	75	73	77	75	72	71

LAMPS (number of lamps)

LUMINAIRE BUDGETARY DIAGRAM



ZONAL LUMEN SUMMARY

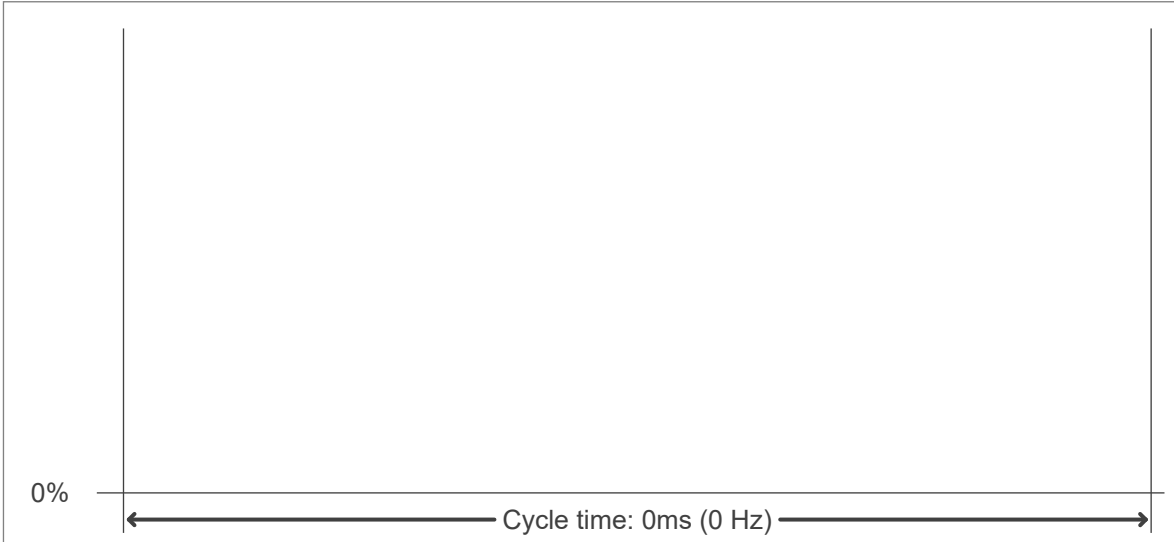
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
342 lm	578 lm	218 lm	21.4 lm	5.25 lm	2.58 lm	1.98 lm	1.53 lm	0.706 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.260 lm	0.283 lm	0.260 lm	0.244 lm	0.346 lm	0.581 lm	0.745 lm	0.520 lm	0.133 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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