

PHOTOMETRIC TEST REPORT

TRIMLESS PRO ROUND FIXED
IP65 - MATT WHITE - 4002307

astro

TRIMLESS PRO ROUND FIXED IP65 - MATT

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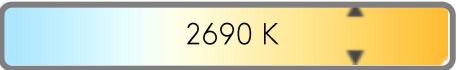
LIGHT EFFICIENCY:



LIGHT QUALITY:



COLOR TEMPERATURE:



OUTPUT: 1137 lm
PEAK: 5932 cd
POWER: 11.9 W
PF: 0.95



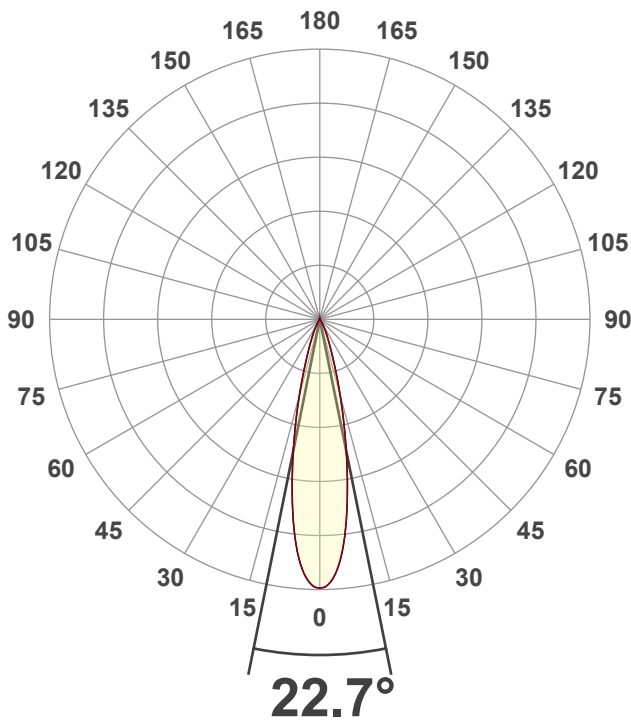
Tracking number: [n/a](#)

Product name:
Trimless Pro Round Fixed IP65 - Matt
White - 4002307

Item number:
TRF-MW-HE27G1-15G1-X-D1

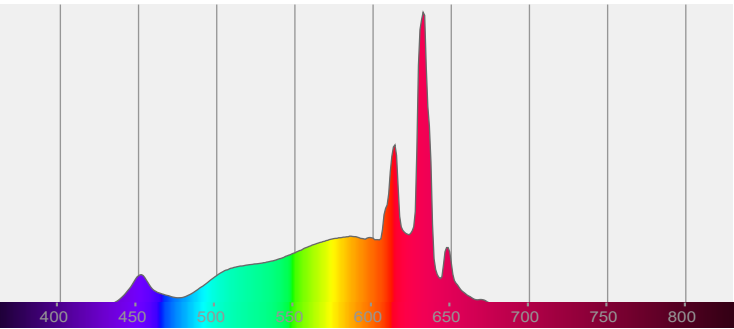
Date and time:
23/01/2025 12:58:25

Description:
IP65 LED Downlight

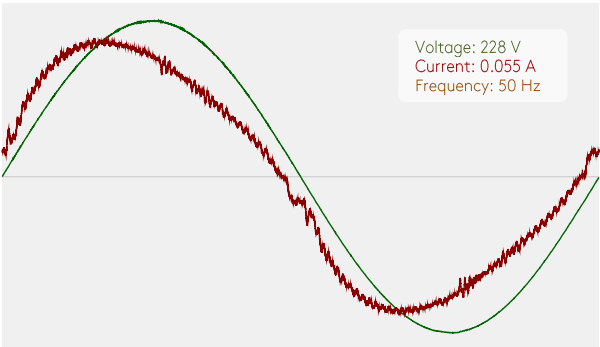


CIE 1931
x: 0.462
y: 0.413

SPECTRA

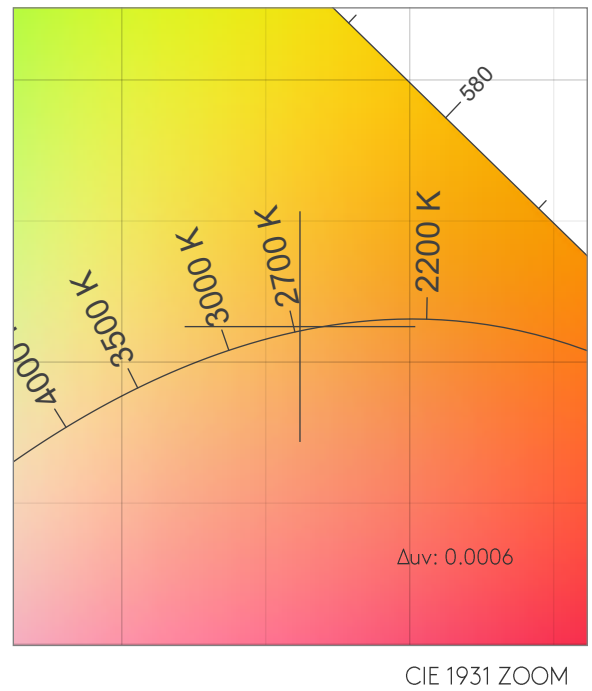
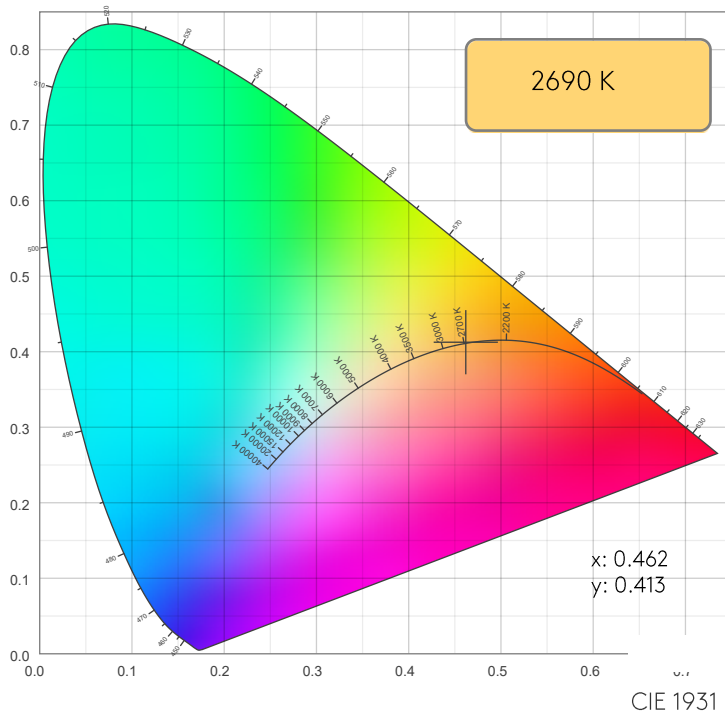


POWER



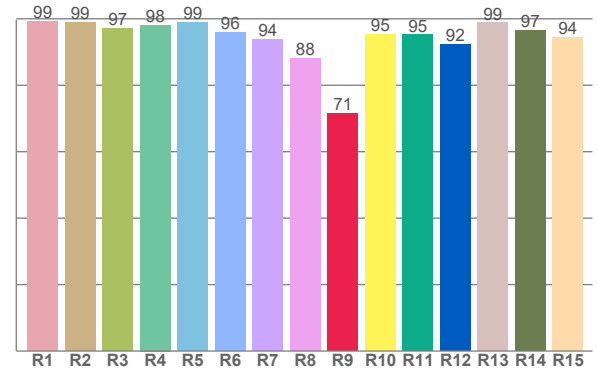
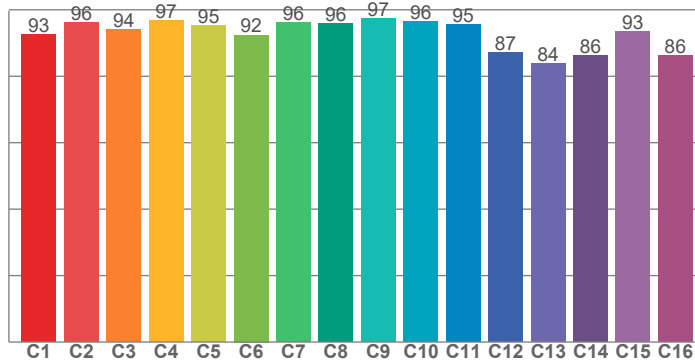
Voltage: 228 V
Current: 0.055 A
Frequency: 50 Hz

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
99.2	98.8	97.0	98.1	99.0	96.0	93.8	88.2	71.4	95.3	95.2	92.4	98.8	96.6	94.4

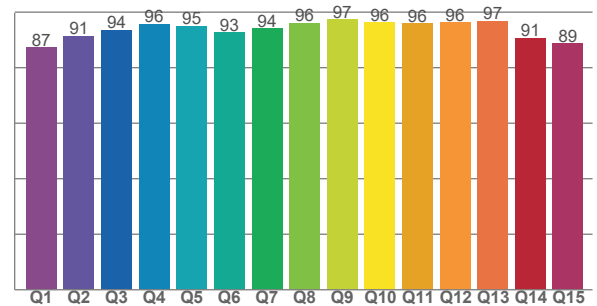
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.6	96.1	94.0	96.8	95.4	92.4	96.2	95.8	97.4	96.3	95.5	87.0	83.9	86.2	93.4	86.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.3	91.4	93.5	95.8	95.0	92.7	94.1	96.1	97.3	96.3	96.0	96.3	96.8	90.7	88.8

CQS: 92.8



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
2690 K	96.3	71.4	93.4	100.5	92.8	0.462	0.413	0.263	0.352	0.0006

TRIMLESS PRO ROUND FIXED IP65 - MATT

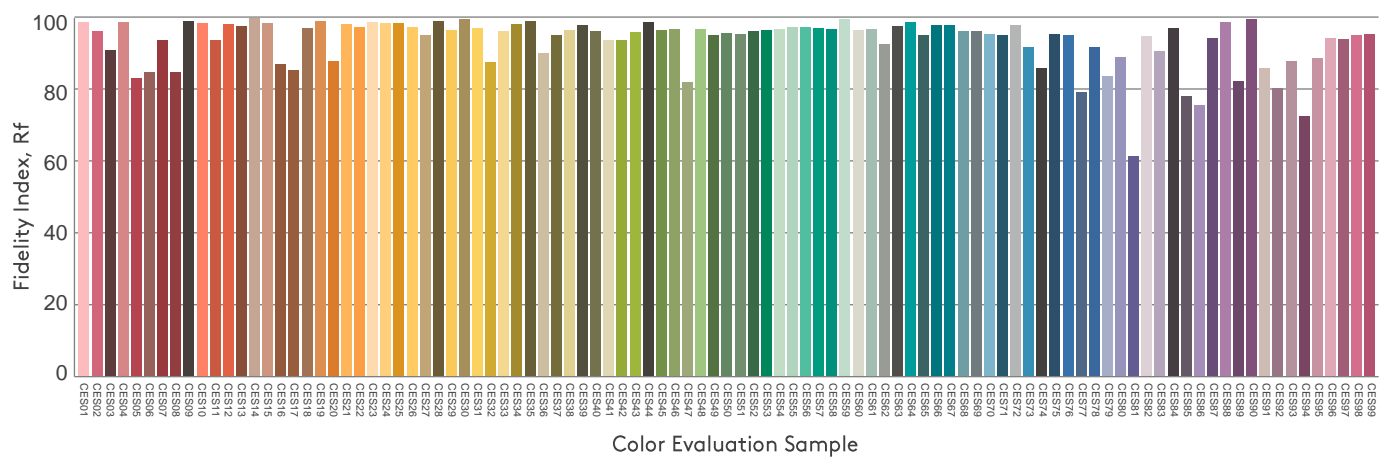
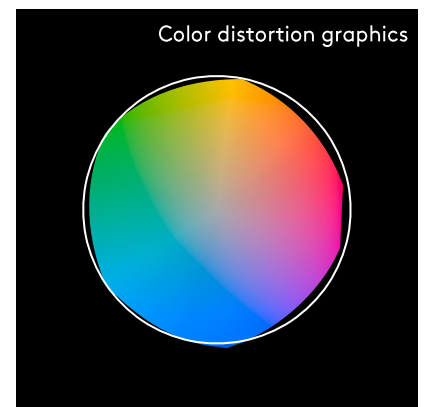
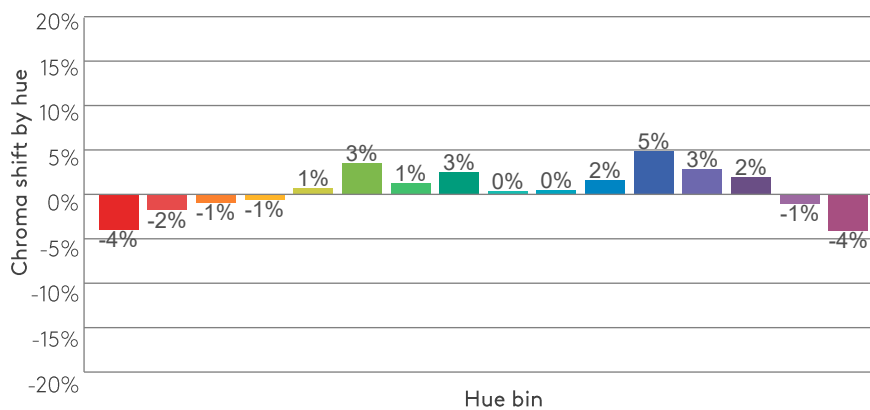
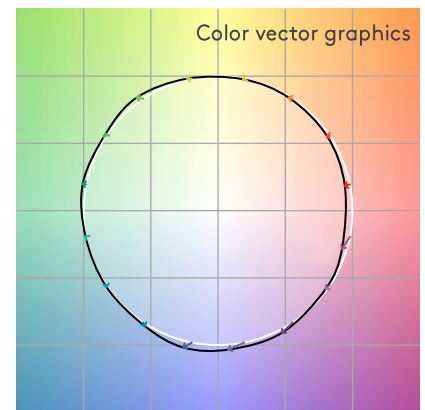
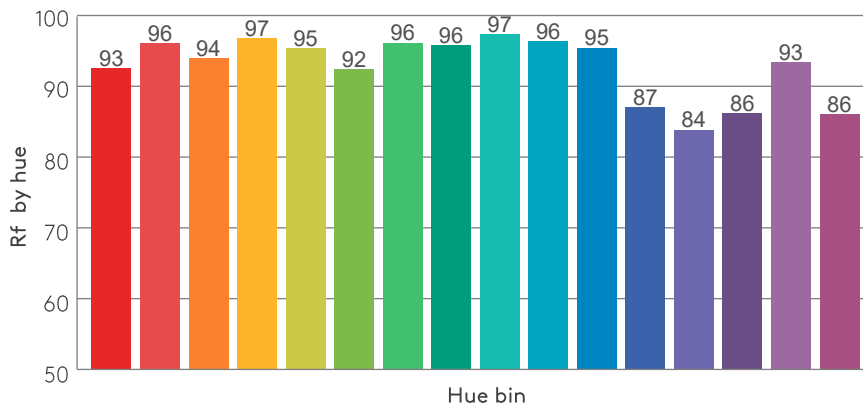
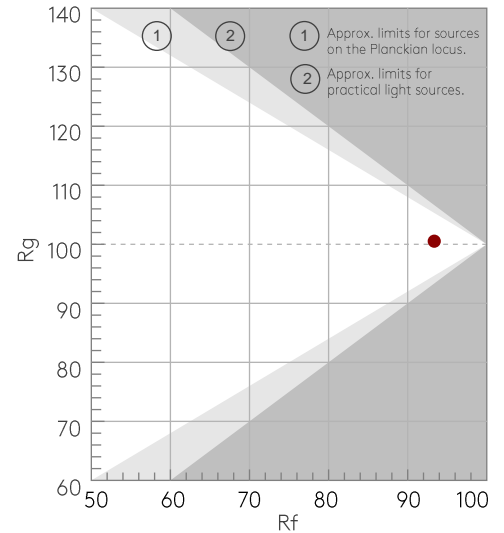
TM30 DETAILS

astro

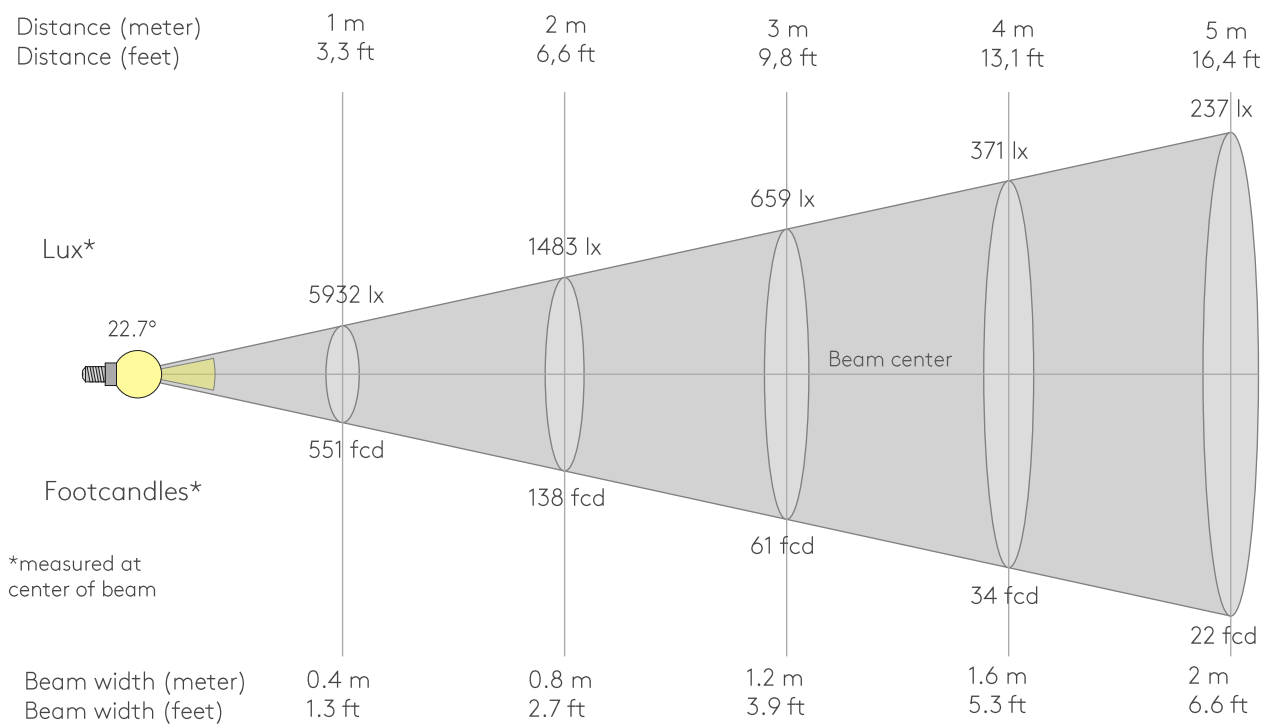
Rf 93.4
Fidelity index Rf

Rg 100.5
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	92	3%	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%	-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
5932lx	1483lx	659lx	371lx	237lx	165lx	121lx	93lx	73lx	59lx	49lx	41lx	35lx	30lx	26lx	23lx	21lx	18lx	16lx	15lx
551.1fcd	137.8fcd	61.2fcd	34.4fcd	22fcd	15.3fcd	11.2fcd	8.6fcd	6.8fcd	5.5fcd	4.6fcd	3.8fcd	3.3fcd	2.8fcd	2.4fcd	2.2fcd	1.9fcd	1.7fcd	1.5fcd	1.4fcd

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°
5932	5842	5534	5005	4289	3497	2730	2045	1467	1024	725	522	377	272	195	130	77	43	26	18
100%	98%	93%	84%	72%	59%	46%	34%	25%	17%	12%	9%	6%	5%	3%	2%	1%	1%	0%	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°
5932	5842	5534	5005	4289	3497	2730	2045	1467	1024	725	522	377	272	195	130	77	43	26	18
100%	98%	93%	84%	72%	59%	46%	34%	25%	17%	12%	9%	6%	5%	3%	2%	1%	1%	0%	0%

Intensities in 180° c-plane

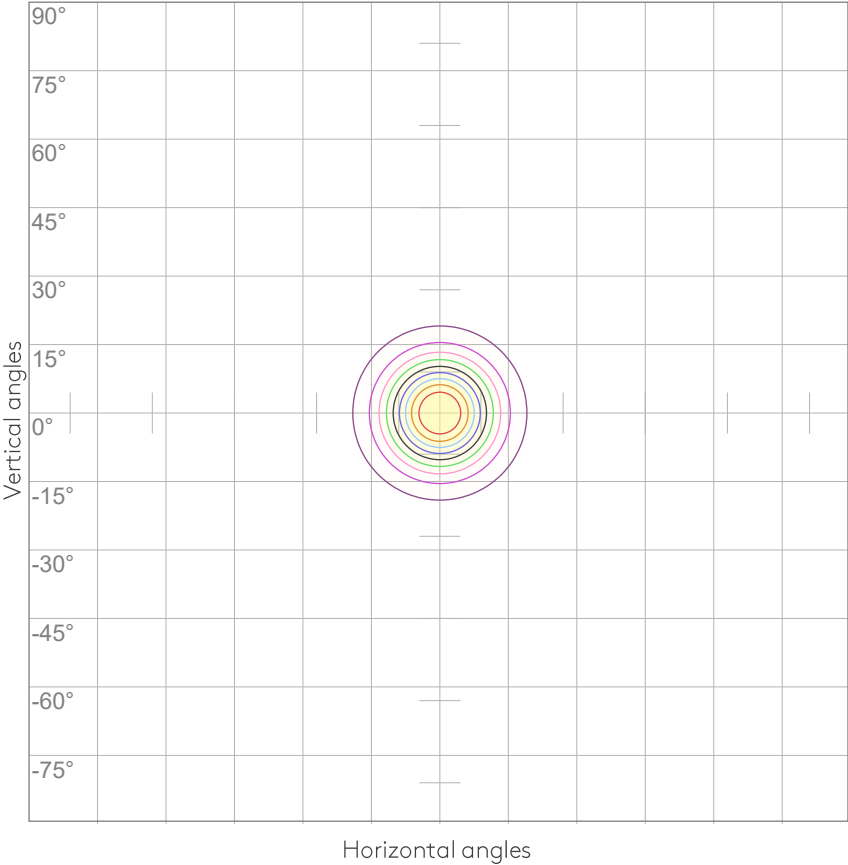
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
5932	5842	5534	5005	4289	3497	2730	2045	1467	1024	725	522	377	272	195	130	77	43	26	18
100%	98%	93%	84%	72%	59%	46%	34%	25%	17%	12%	9%	6%	5%	3%	2%	1%	1%	0%	0%

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°
5932	5842	5534	5005	4289	3497	2730	2045	1467	1024	725	522	377	272	195	130	77	43	26	18
100%	98%	93%	84%	72%	59%	46%	34%	25%	17%	12%	9%	6%	5%	3%	2%	1%	1%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22.7°	42.5°	58.8°	99.1%	98.4%

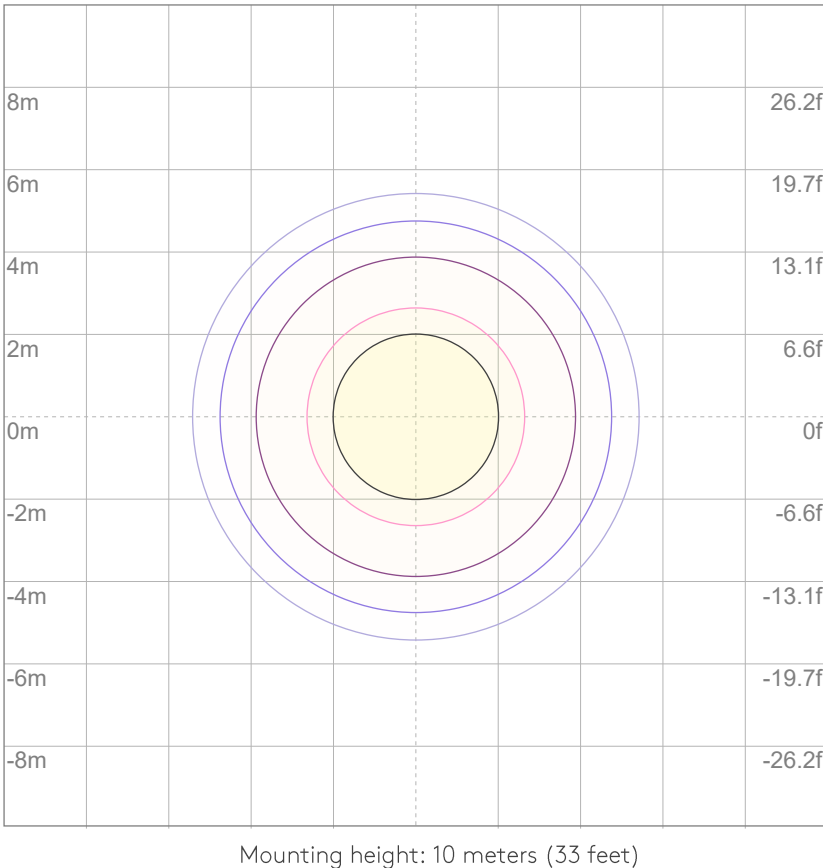
ISO CANDELA DIAGRAM



10%	593 cd
20%	1186 cd
30%	1780 cd
40%	2373 cd
50%	2966 cd
60%	3559 cd
70%	4152 cd
80%	4746 cd
90%	5339 cd

Conditions:
Number of c-planes: 8
Candela at center: 5932 cd

ISO LUX DIAGRAM



3%	1.78 lx
5%	2.97 lx
10%	5.93 lx
30%	17.8 lx
50%	{LUX_10M50} lx

Conditions:
Number of c-planes: 8
Lux at center: 59.3 lx

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

UGR

GLARE EVALUATION ACCORDING TO UGR

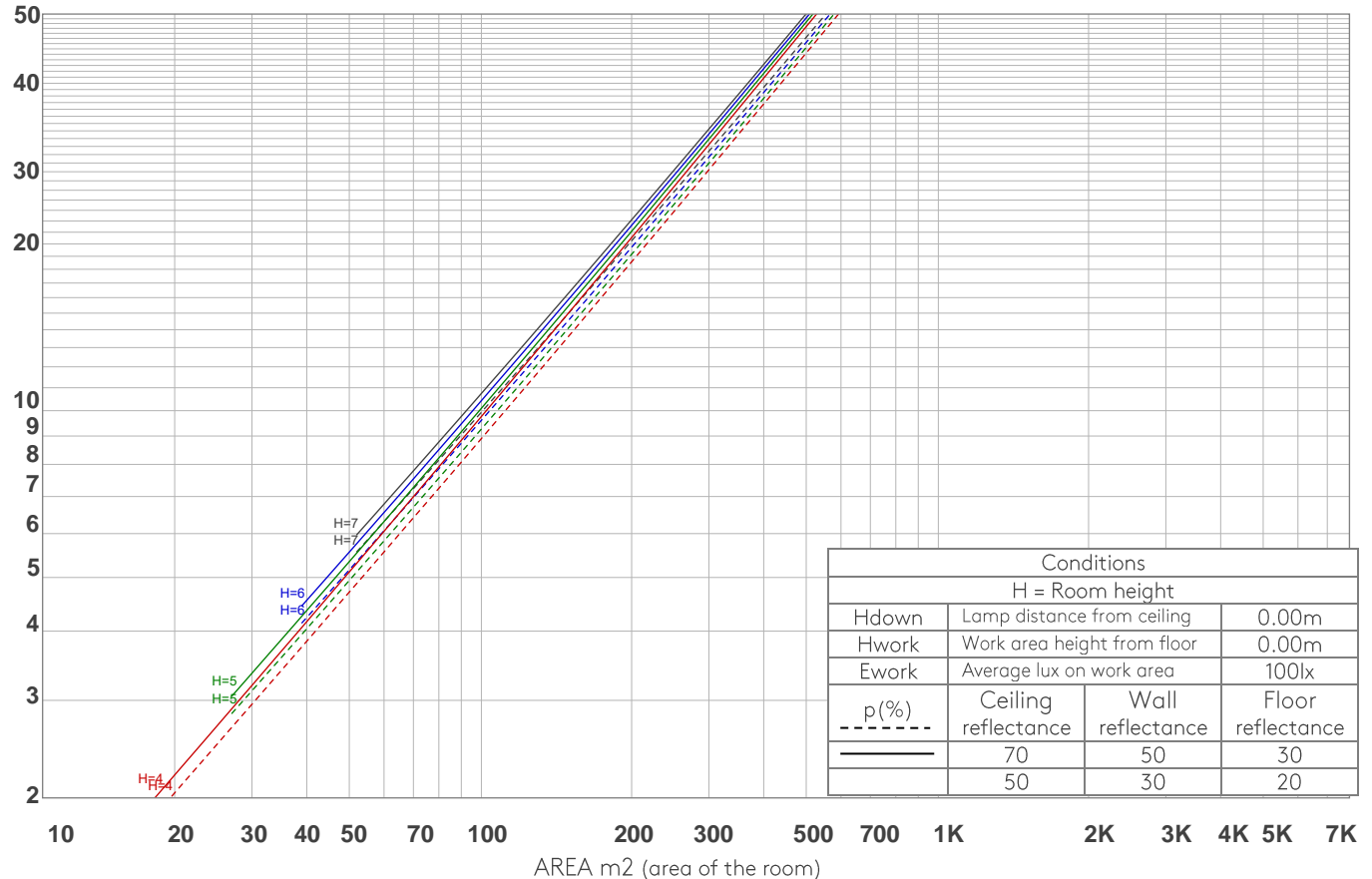
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	10.4	10.8	10.5	11.0	11.2	10.4	10.8	10.5	11.0	11.2
	3H	10.9	11.5	11.3	11.7	11.9	10.9	11.5	11.3	11.7	11.9
	4H	11.5	12.0	11.9	12.2	12.5	11.5	12.0	11.9	12.2	12.5
	6H	12.1	12.5	12.4	12.8	13.2	12.1	12.5	12.4	12.8	13.2
	8H	12.3	12.7	12.6	13.0	13.4	12.3	12.7	12.6	13.0	13.4
	12H	12.4	12.8	12.8	13.2	13.6	12.4	12.8	12.8	13.2	13.6
4H	2H	10.4	10.9	10.8	11.2	11.4	10.4	10.9	10.8	11.2	11.4
	3H	11.4	11.9	11.8	12.2	12.6	11.4	11.9	11.8	12.2	12.6
	4H	12.1	12.5	12.5	12.9	13.4	12.1	12.5	12.5	12.9	13.4
	6H	12.8	13.3	13.3	13.6	14.0	12.8	13.3	13.3	13.6	14.0
	8H	13.1	13.5	13.6	13.9	14.2	13.1	13.5	13.6	13.9	14.2
	12H	13.3	13.6	13.8	14.0	14.5	13.3	13.6	13.8	14.0	14.5
8H	4H	12.4	12.8	12.9	13.1	13.5	12.4	12.8	12.9	13.1	13.5
	6H	13.3	13.6	13.8	14.0	14.6	13.3	13.6	13.8	14.0	14.6
	8H	13.7	13.9	14.3	14.5	15.1	13.7	13.9	14.3	14.5	15.1
	12H	14.0	14.2	14.6	14.7	15.3	14.0	14.2	14.6	14.7	15.3
12H	4H	12.4	12.7	12.9	13.1	13.6	12.4	12.7	12.9	13.1	13.6
	6H	13.4	13.6	14.0	14.2	14.8	13.4	13.6	14.0	14.2	14.8
	8H	13.8	14.0	14.4	14.5	15.1	13.8	14.0	14.4	14.5	15.1
Variation of the observer position for the luminaire distance S											
S = 1.0H		2.1 / -0.6					2.1 / -0.6				
S = 1.5H		3.9 / -0.7					3.9 / -0.7				
S = 2.0H		5.4 / -0.9					5.4 / -0.9				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1137 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	113	111	109	108	107	105	104	103	102	101	100	99	98	96
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	97	96	95	93
3	108	103	100	97	106	102	99	96	99	97	95	97	95	93	95	93	92	90
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88
5	102	96	92	89	100	95	91	89	94	90	88	92	89	87	91	88	86	85
6	99	93	89	86	98	92	88	86	91	88	85	90	87	85	88	86	84	83
7	96	90	86	83	95	90	86	83	88	85	83	87	84	82	86	84	82	81
8	94	88	84	81	93	87	83	81	86	83	80	85	82	80	84	82	80	79
9	92	85	81	79	91	85	81	78	84	81	78	83	80	78	83	80	78	77
10	89	83	79	77	89	83	79	77	82	79	76	81	78	76	81	78	76	75

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°
445 lm	486 lm	157 lm	27.7 lm	6.76 lm	4.59 lm	3.51 lm	2.63 lm	1.01 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.236 lm	0.255 lm	0.244 lm	0.258 lm	0.311 lm	0.502 lm	0.670 lm	0.535 lm	0.125 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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