

PHOTOMETRIC TEST REPORT

TRIMLESS PRO ROUND FIXED
IP65 - MATT WHITE - 4002435

astro

TRIMLESS PRO ROUND FIXED IP65 - MATT

astro

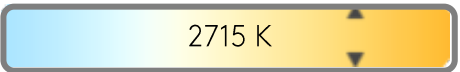
LIGHT EFFICIENCY:



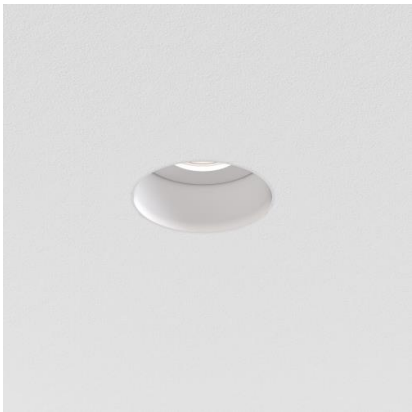
LIGHT QUALITY:



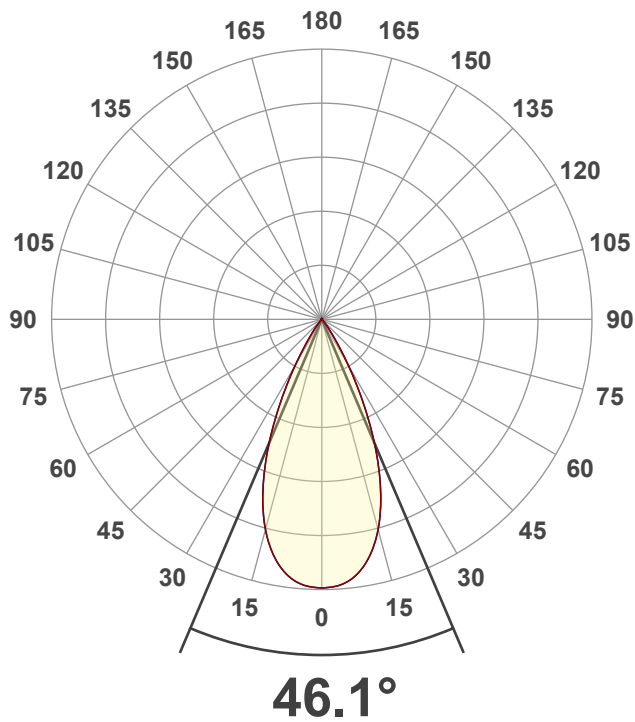
COLOR TEMPERATURE:



OUTPUT: 854 lm
PEAK: 1542 cd
POWER: 11.7 W
PF: 0.95

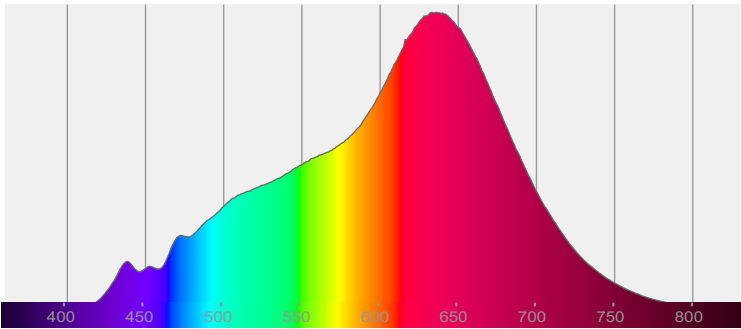


Tracking number: [n/a](#)
Product name:
Trimless Pro Round Fixed IP65 - Matt
White - 4002435
Item number:
TRF-MW-HQ27G1-50G1-X-D1
Date and time:
23/01/2025 16:28:35
Description:
IP65 LED Downlight

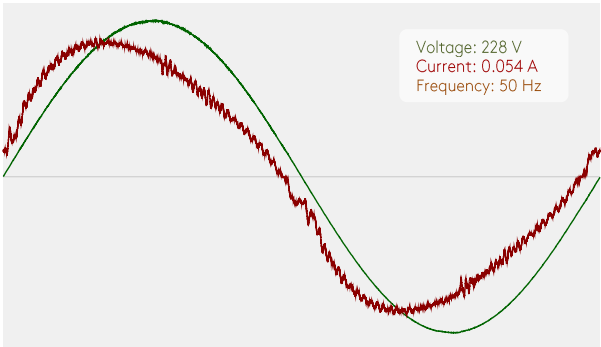


CIE 1931
x: 0.459
y: 0.410

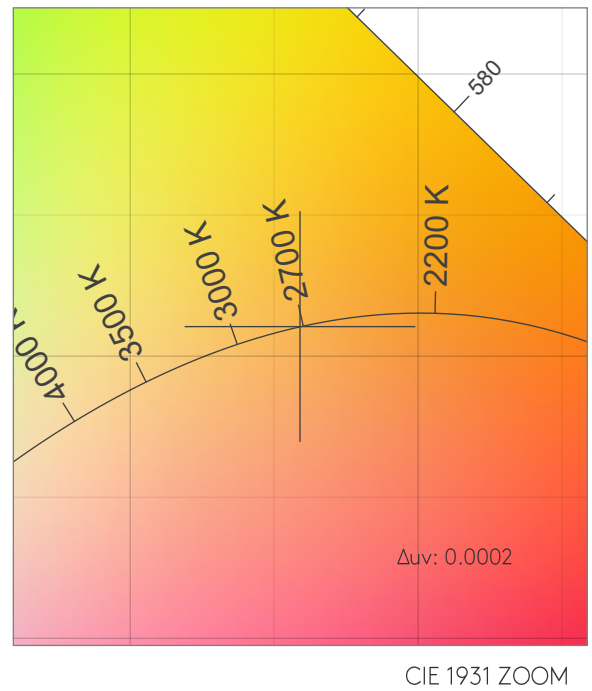
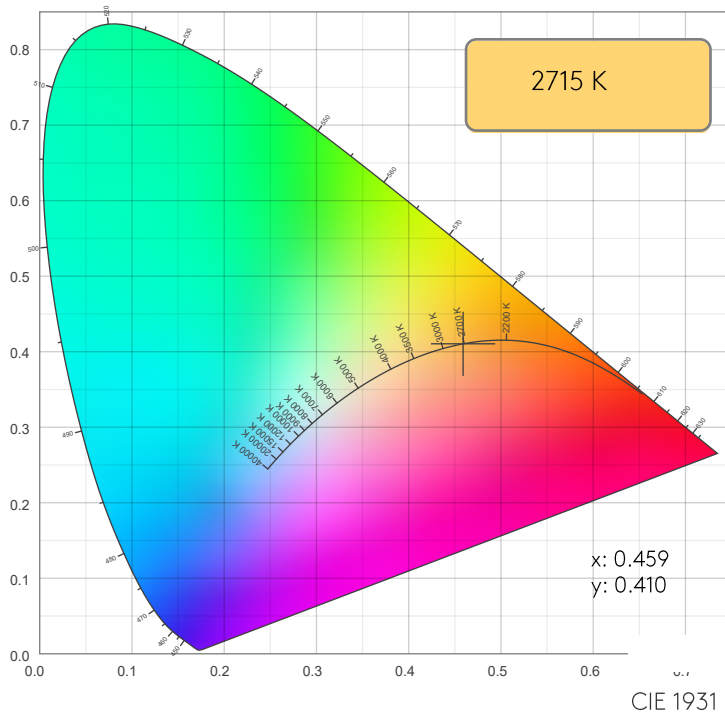
SPECTRA



POWER

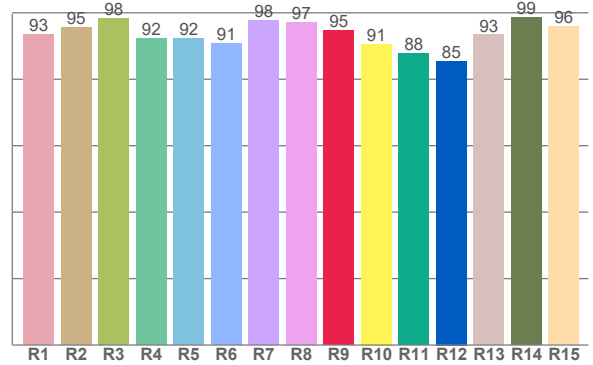
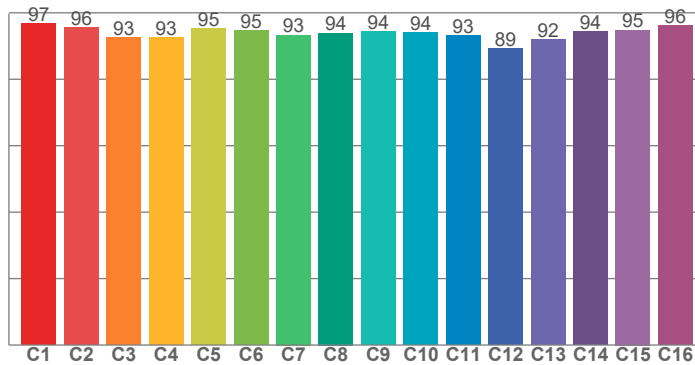


COLOR DETAILS



TM30: 94.1

CRI: 94.7 (R1-R8)



CQS: 92.8

CRI R values, only R1-R8 are used to calculate final CRI value

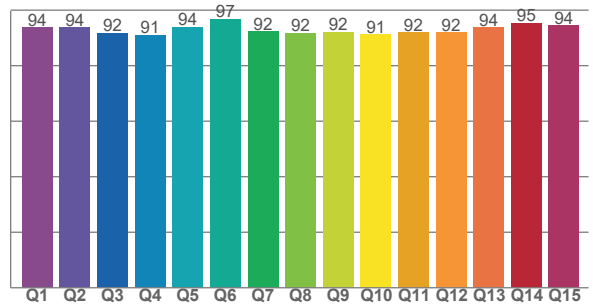
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93.4	95.5	98.3	92.3	92.3	90.9	97.8	97.2	94.7	90.6	87.8	85.5	93.3	98.6	95.9

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
96.7	95.6	92.7	92.5	95.3	94.6	93.3	93.9	94.3	94.0	93.2	89.2	91.9	94.4	94.8	96.3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93.8	93.8	91.7	91.0	93.9	96.8	92.4	91.7	92.2	91.3	92.0	92.0	93.7	95.5	94.4



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
2715 K	94.7	94.7	94.1	99.5	92.8	0.459	0.410	0.262	0.351	0.0002

TRIMLESS PRO ROUND FIXED IP65 - MATT

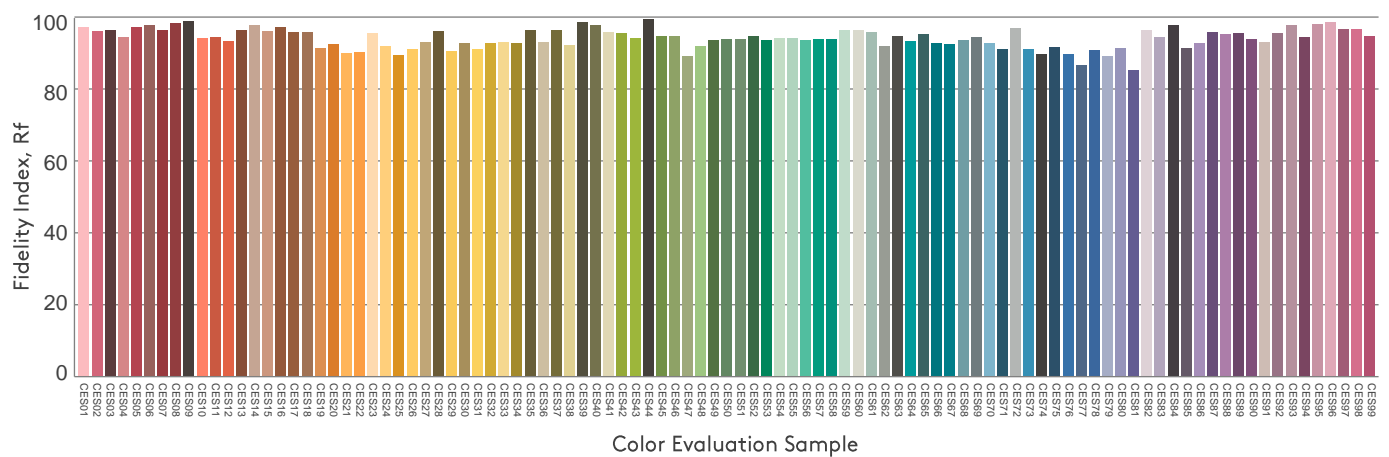
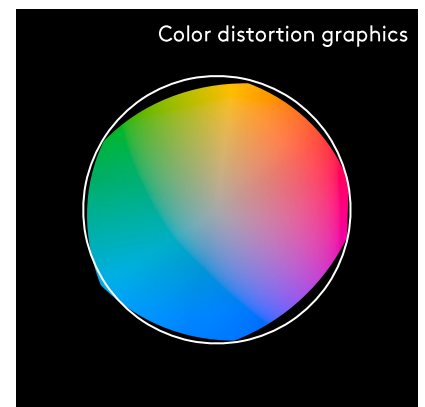
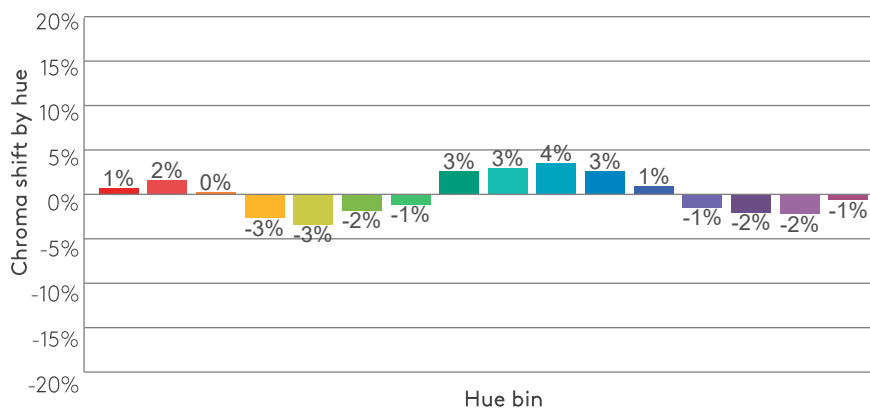
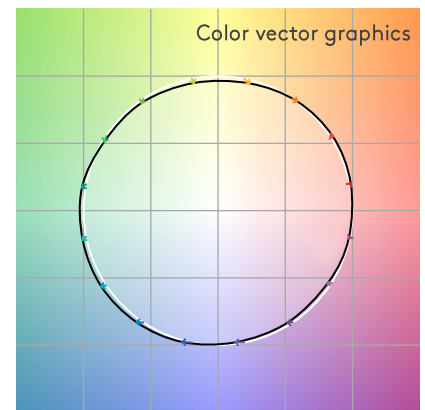
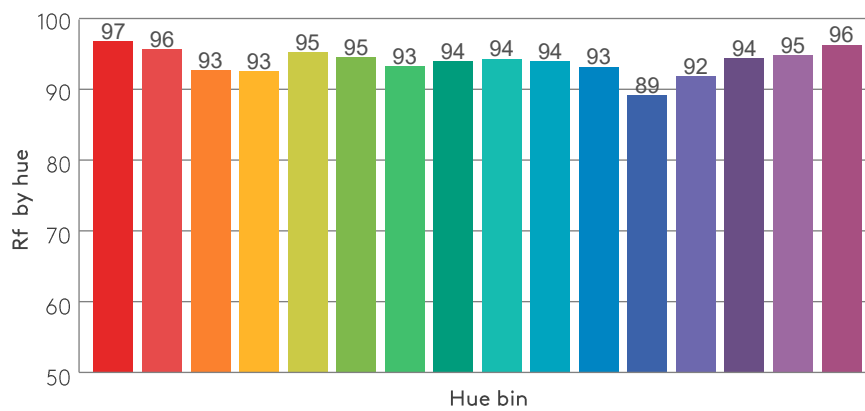
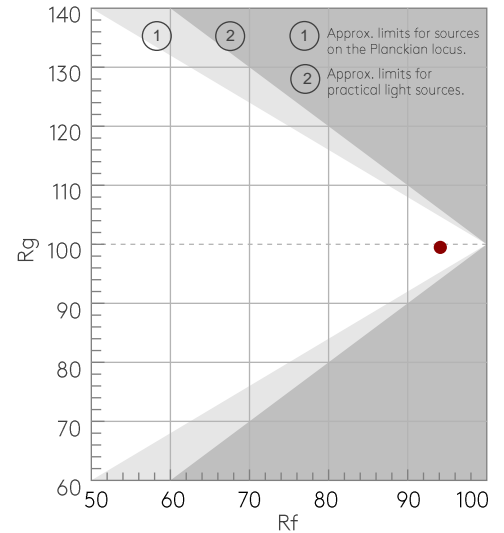
TM30 DETAILS

astro

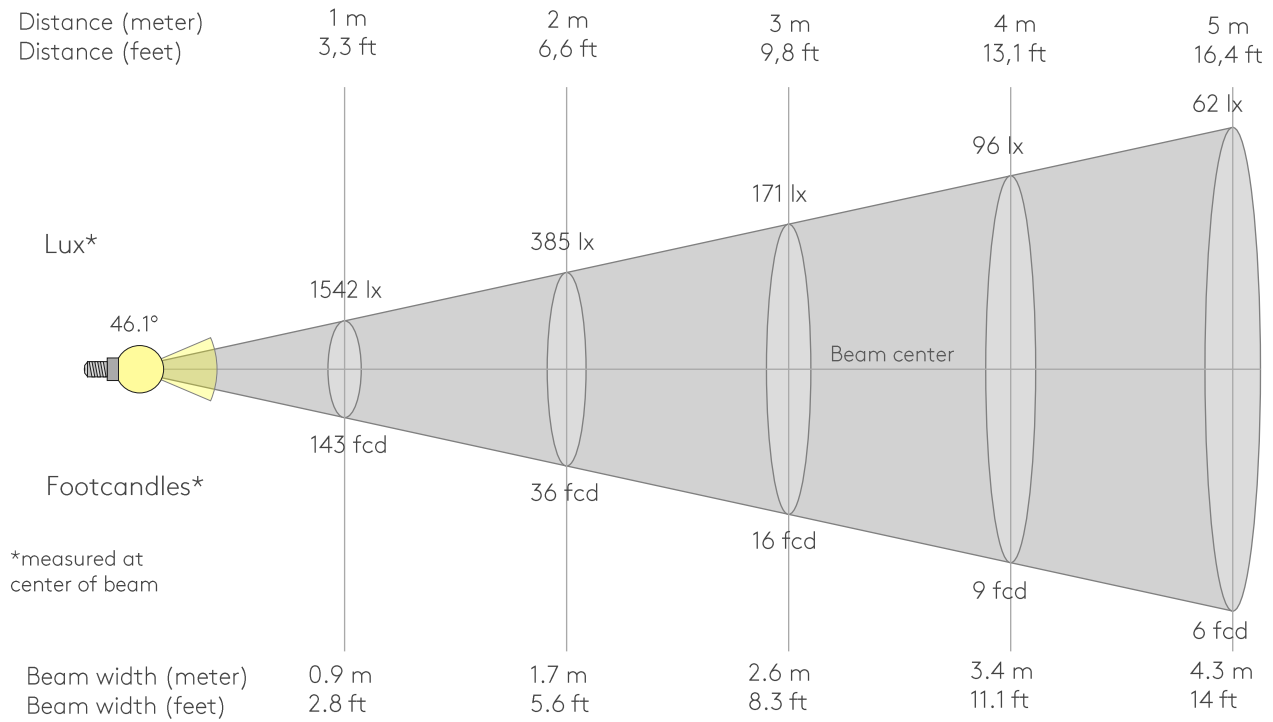
Rf 94.1
Fidelity index Rf

Rg 99.5
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%	-5%
5	95	-3%	-1%
6	95	-2%	3%
7	93	-1%	4%
8	94	3%	3%
9	94	3%	2%
10	94	4%	-1%
11	93	3%	-4%
12	89	1%	-7%
13	92	-1%	-6%
14	94	-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
1542lx	385lx	171lx	96lx	62lx	43lx	31lx	24lx	19lx	15lx	13lx	11lx	9lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx
143.2fcd	35.8fcd	15.9fcd	9fcd	5.7fcd	4fcd	2.9fcd	2.2fcd	1.8fcd	1.4fcd	1.2fcd	1fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.4fcd

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°
1542	1538	1528	1508	1474	1428	1367	1292	1202	1096	975	844	705	563	427	304	201	126	78	46
100%	100%	99%	98%	96%	93%	89%	84%	78%	71%	63%	55%	46%	36%	28%	20%	13%	8%	5%	3%

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°
1542	1538	1528	1508	1474	1428	1367	1292	1202	1096	975	844	705	563	427	304	201	126	78	46
100%	100%	99%	98%	96%	93%	89%	84%	78%	71%	63%	55%	46%	36%	28%	20%	13%	8%	5%	3%

Intensities in 180° c-plane

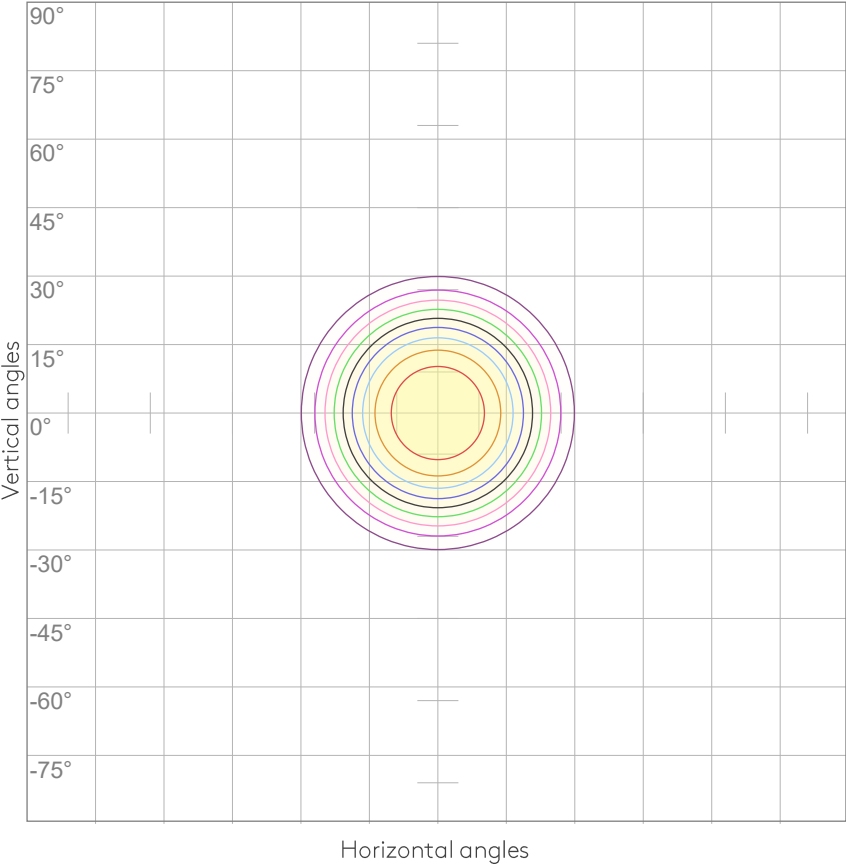
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1542	1538	1528	1508	1474	1428	1367	1292	1202	1096	975	844	705	563	427	304	201	126	78	46
100%	100%	99%	98%	96%	93%	89%	84%	78%	71%	63%	55%	46%	36%	28%	20%	13%	8%	5%	3%

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°
1542	1538	1528	1508	1474	1428	1367	1292	1202	1096	975	844	705	563	427	304	201	126	78	46
100%	100%	99%	98%	96%	93%	89%	84%	78%	71%	63%	55%	46%	36%	28%	20%	13%	8%	5%	3%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
46.1°	66.5°	77.4°	99.5%	99.1%

ISO CANDELA DIAGRAM



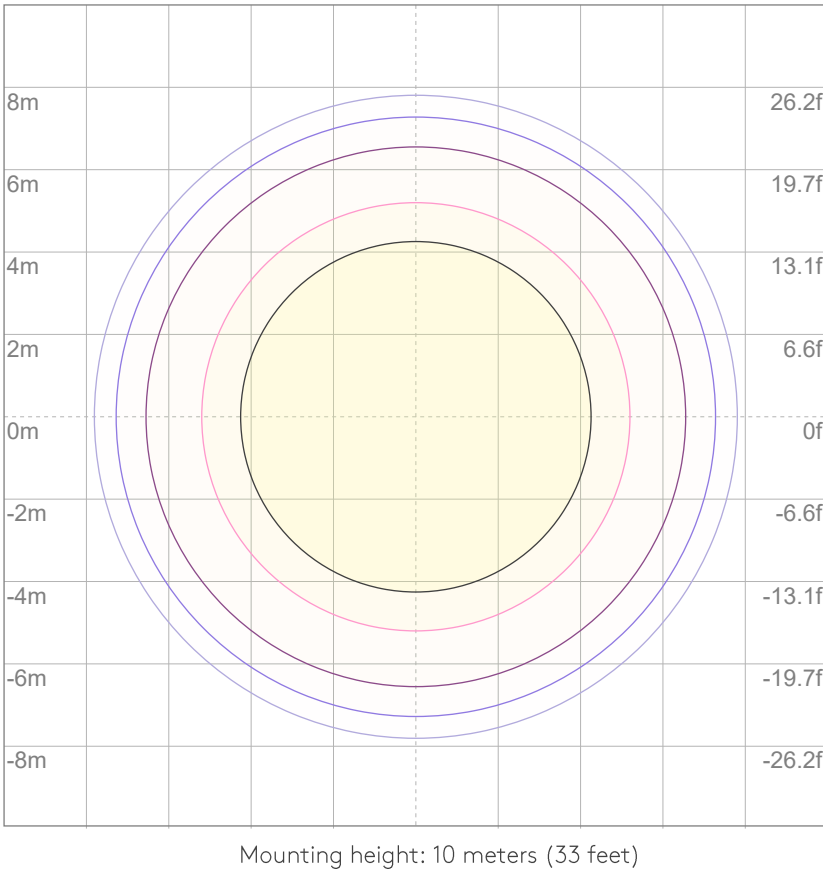
10%	154 cd
20%	308 cd
30%	463 cd
40%	617 cd
50%	771 cd
60%	925 cd
70%	1079 cd
80%	1233 cd
90%	1388 cd

Conditions:

Number of c-planes: 8

Candela at center: 1542 cd

ISO LUX DIAGRAM



3%	0.463 lx
5%	0.771 lx
10%	1.54 lx
30%	4.63 lx
50%	{LUX_10M50} lx

Conditions:

Number of c-planes: 8

Lux at center: 15.4 lx

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

UGR

GLARE EVALUATION ACCORDING TO UGR

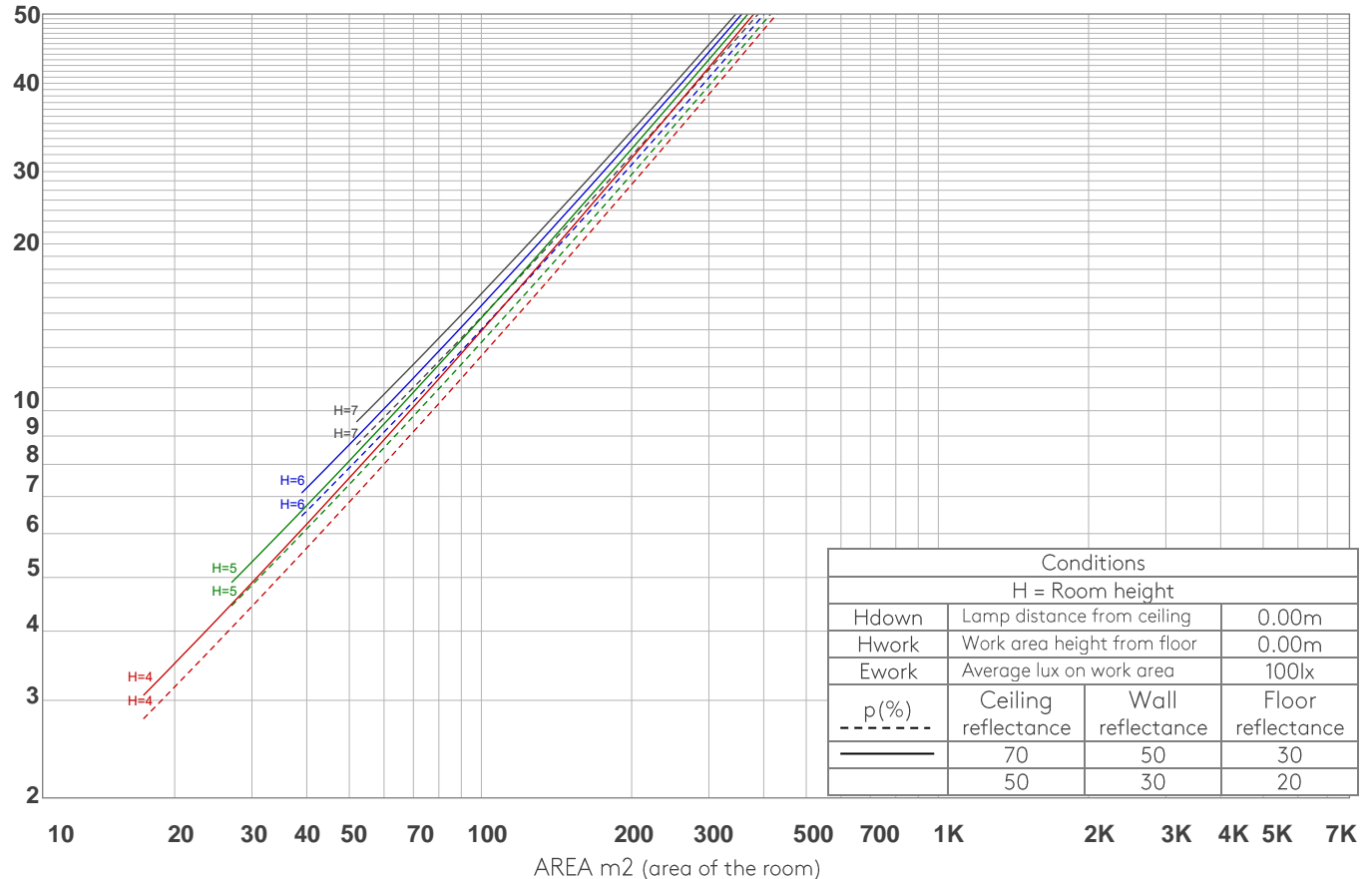
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	16.6	17.1	16.7	17.4	17.5	16.6	17.1	16.7	17.4	17.5
	3H	16.3	17.0	16.7	17.2	17.4	16.3	17.0	16.7	17.2	17.4
	4H	16.3	16.9	16.7	17.2	17.4	16.3	16.9	16.7	17.2	17.4
	6H	16.3	16.9	16.6	17.2	17.5	16.3	16.9	16.6	17.2	17.5
	8H	16.3	16.8	16.6	17.1	17.5	16.3	16.8	16.6	17.1	17.5
	12H	16.2	16.7	16.6	17.1	17.5	16.2	16.7	16.6	17.1	17.5
4H	2H	16.3	16.9	16.6	17.1	17.4	16.3	16.9	16.6	17.1	17.4
	3H	16.2	16.7	16.5	17.0	17.5	16.2	16.7	16.5	17.0	17.5
	4H	16.1	16.6	16.5	17.0	17.5	16.1	16.6	16.5	17.0	17.5
	6H	16.1	16.6	16.6	16.9	17.3	16.1	16.6	16.6	16.9	17.3
	8H	16.0	16.5	16.6	16.8	17.2	16.0	16.5	16.6	16.8	17.2
	12H	16.0	16.4	16.5	16.8	17.2	16.0	16.4	16.5	16.8	17.2
8H	4H	16.0	16.4	16.5	16.8	17.1	16.0	16.4	16.5	16.8	17.1
	6H	16.0	16.3	16.5	16.8	17.3	16.0	16.3	16.5	16.8	17.3
	8H	16.0	16.3	16.5	16.8	17.4	16.0	16.3	16.5	16.8	17.4
	12H	16.0	16.2	16.6	16.7	17.3	16.0	16.2	16.6	16.7	17.3
12H	4H	15.9	16.3	16.4	16.7	17.1	15.9	16.3	16.4	16.7	17.1
	6H	16.0	16.2	16.5	16.8	17.4	16.0	16.2	16.5	16.8	17.4
	8H	16.0	16.2	16.6	16.7	17.3	16.0	16.2	16.6	16.7	17.3
Variation of the observer position for the luminaire distance S											
S = 1.0H		6.2 / -8.0					6.2 / -8.0				
S = 1.5H		9.0 / -8.2					9.0 / -8.2				
S = 2.0H		11.0 / -8.3					11.0 / -8.3				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 854 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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	98	97	97	95
2	110	105	102	99	107	104	100	98	100	98	96	97	95	94	95	93	92	90
3	105	100	95	92	103	98	94	91	96	92	90	93	91	88	91	89	87	86
4	101	94	90	86	99	93	89	86	91	87	85	89	86	84	87	85	83	81
5	97	90	85	81	95	89	84	81	87	83	80	85	82	79	84	81	79	77
6	93	85	80	77	92	85	80	76	83	79	76	82	78	75	81	77	75	74
7	89	81	76	73	88	81	76	73	80	75	72	78	75	72	77	74	71	70
8	86	78	73	69	85	77	72	69	76	72	69	75	71	68	74	71	68	67
9	83	74	69	66	82	74	69	66	73	69	66	72	68	65	71	68	65	64
10	79	71	66	63	79	71	66	63	70	66	63	69	65	63	69	65	62	61

LAMPS (number of lamps)

LUMINAIRE BUDGETARY DIAGRAM



ZONAL LUMEN SUMMARY

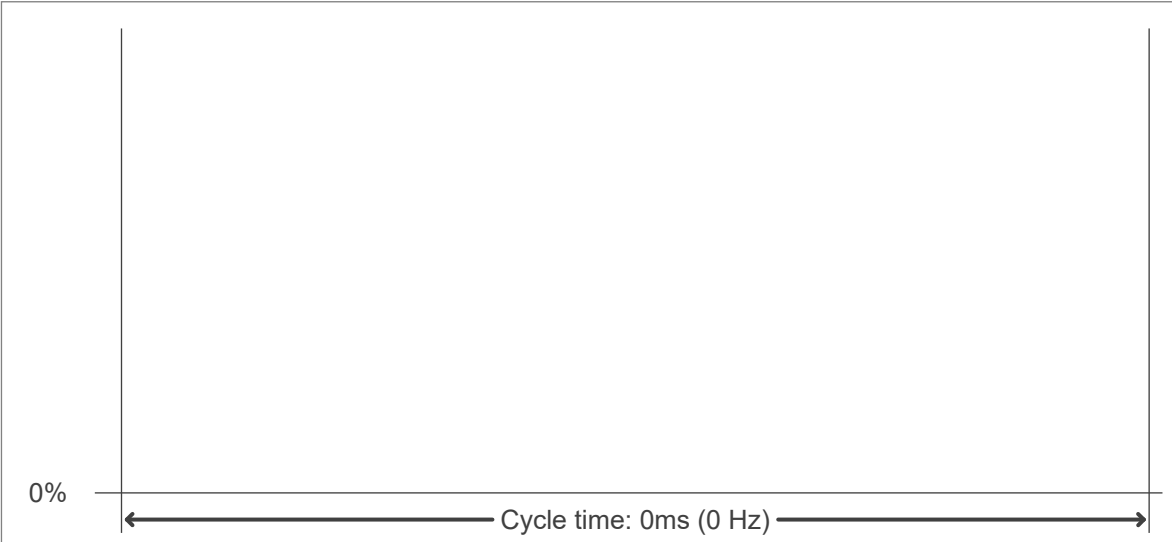
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
142 lm	342 lm	284 lm	73.6 lm	6.42 lm	1.92 lm	1.35 lm	1.03 lm	0.377 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.036 lm	0.034 lm	0.039 lm	0.075 lm	0.179 lm	0.331 lm	0.373 lm	0.255 lm	0.076 lm

FLICKER

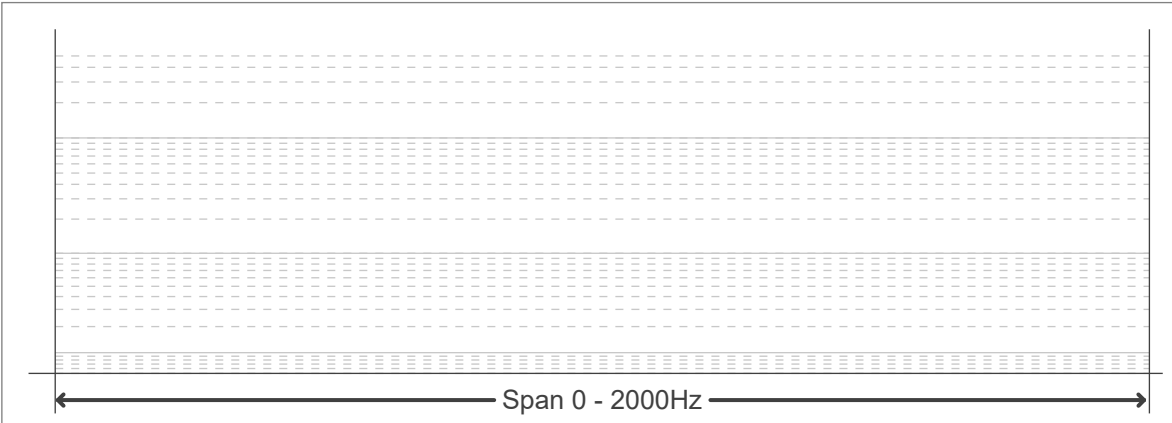
FLICKER CURVE (COMPLETE SAMPLED)



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
--------------	--------------------