

PHOTOMETRIC TEST REPORT

TRIMLESS PRO ROUND FIXED
IP65 - MATT WHITE - 4002403

astro

TRIMLESS PRO ROUND FIXED IP65 - MATT

astro

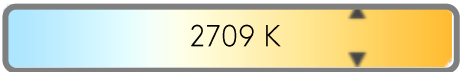
LIGHT EFFICIENCY:



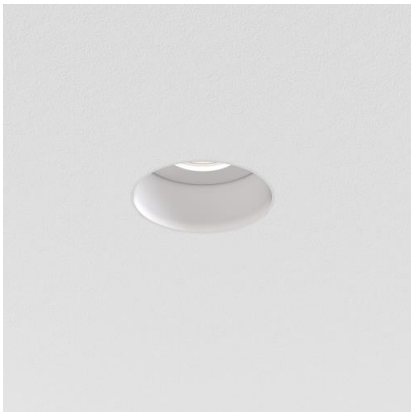
LIGHT QUALITY:



COLOR TEMPERATURE:



OUTPUT: 803 lm
PEAK: 4263 cd
POWER: 11.8 W
PF: 0.95



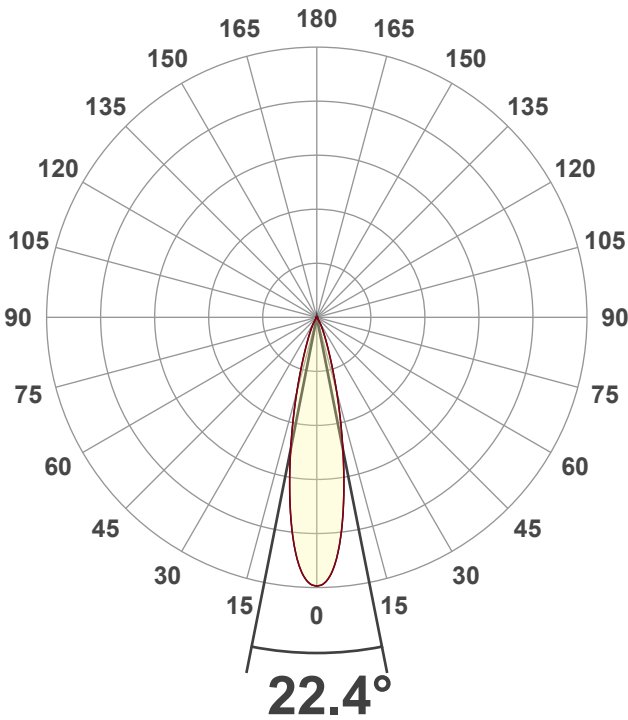
Tracking number: [n/a](#)

Product name:
Trimless Pro Round Fixed IP65 - Matt
White - 4002403

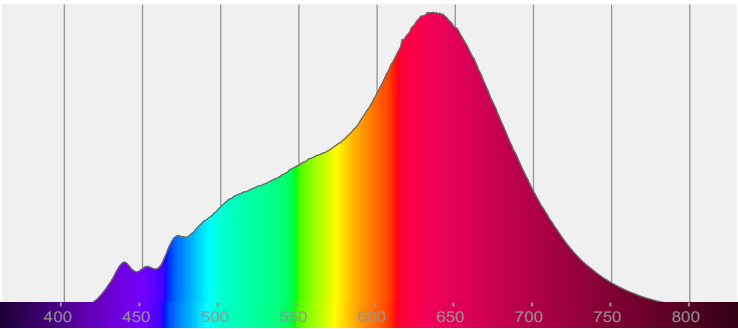
Item number:
TRF-MW-HQ27G1-15G1-X-D1

Date and time:
23/01/2025 16:08:43

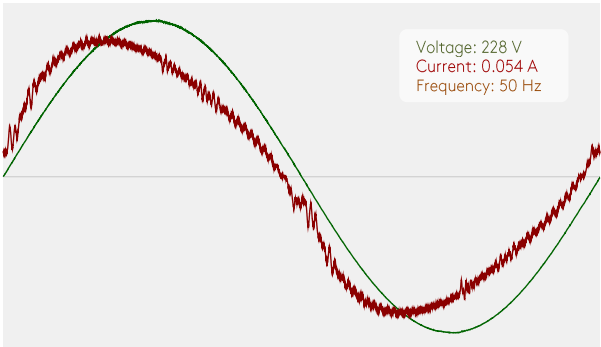
Description:
IP65 LED Downlight



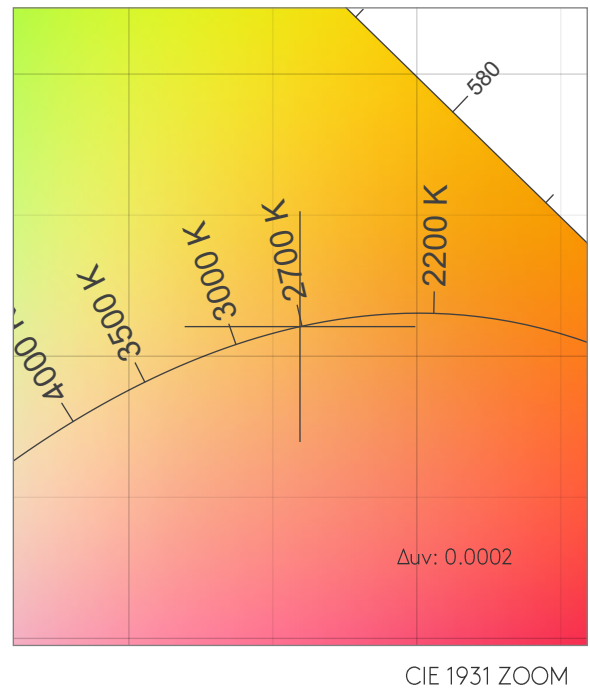
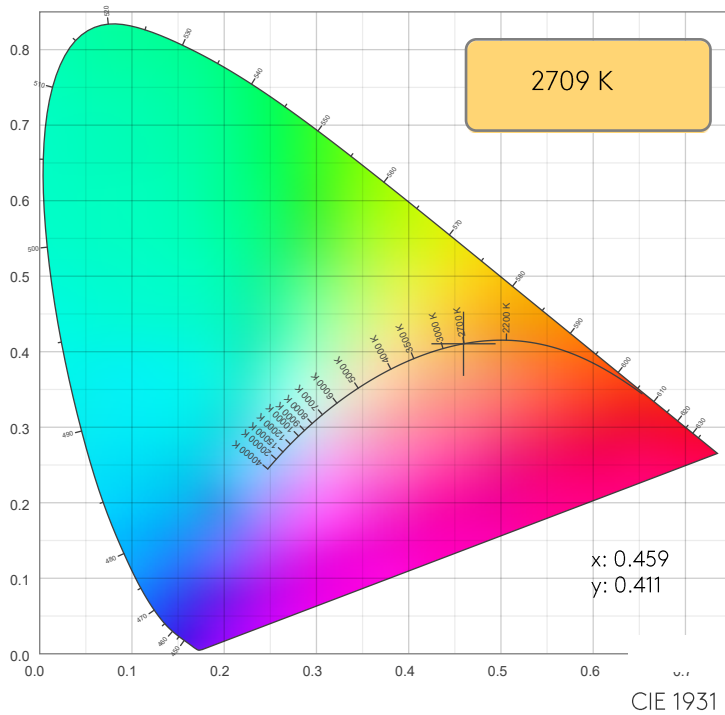
SPECTRA



POWER

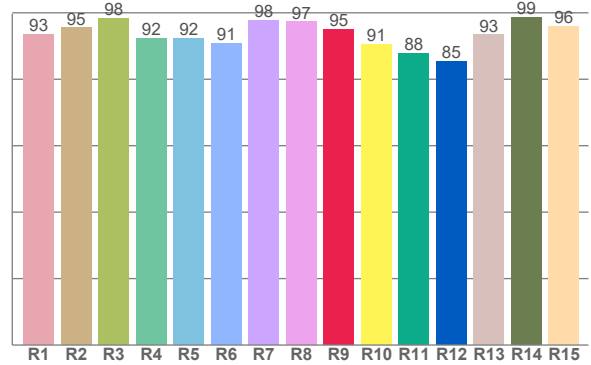
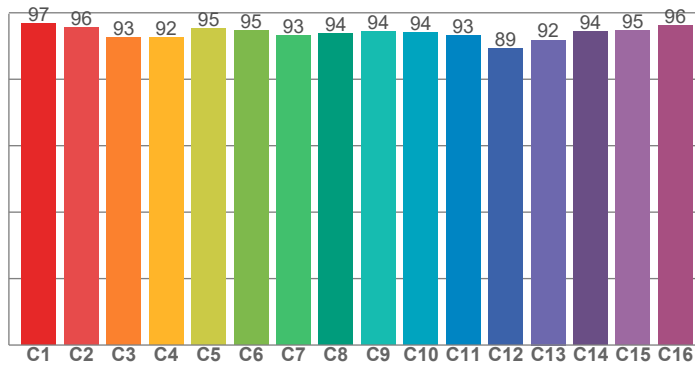


COLOR DETAILS



TM30: 94.1

CRI: 94.7 (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
93.4	95.5	98.3	92.4	92.3	90.8	97.8	97.3	94.9	90.6	87.8	85.4	93.3	98.6	96.0

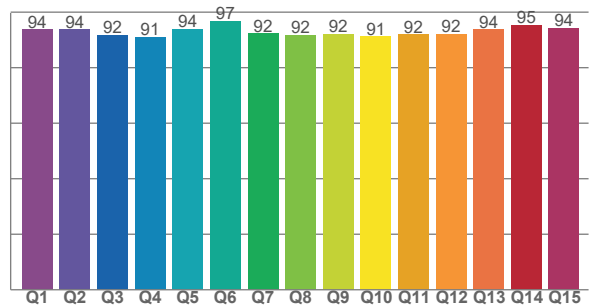
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
96.7	95.7	92.7	92.5	95.3	94.6	93.3	93.9	94.3	94.0	93.2	89.2	91.8	94.4	94.8	96.3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
93.7	93.7	91.7	91.0	94.0	96.7	92.3	91.7	92.2	91.3	92.0	92.1	93.8	95.4	94.4

CQS: 92.8



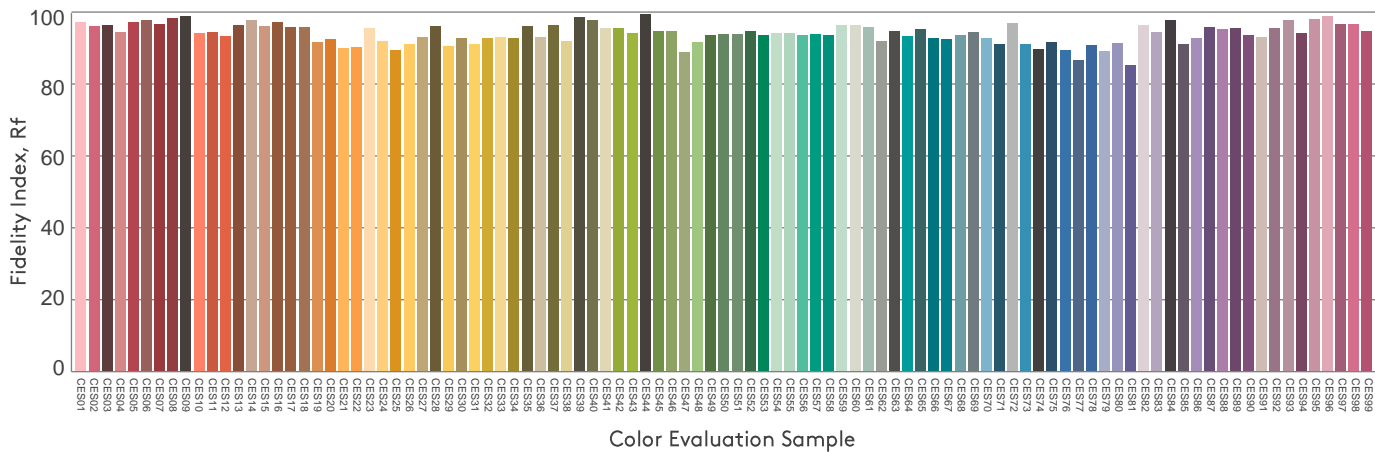
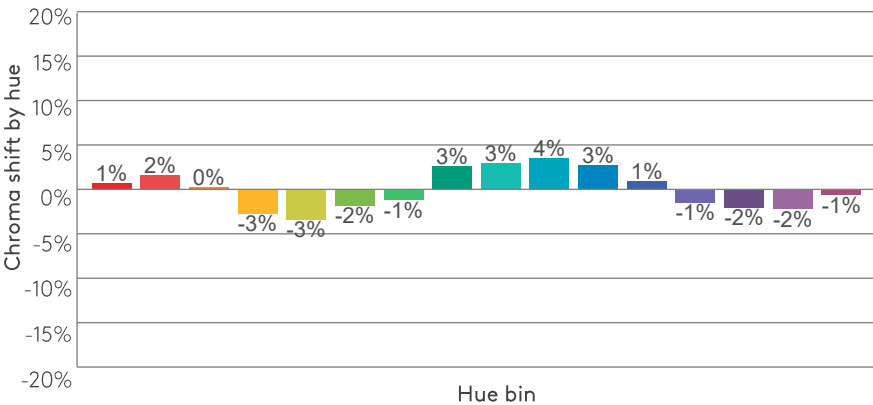
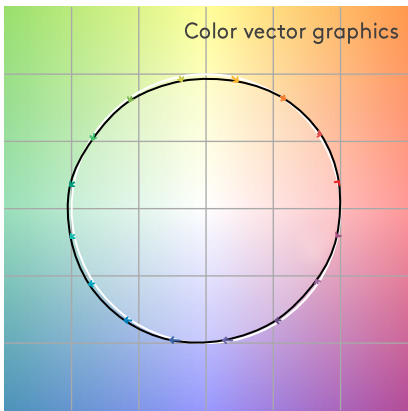
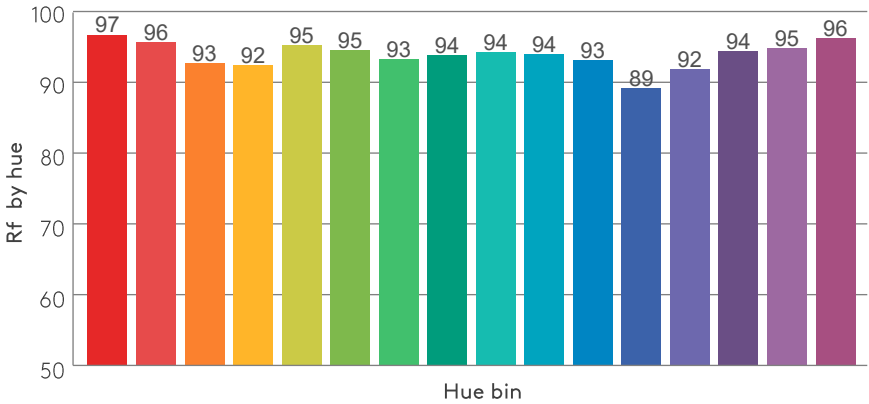
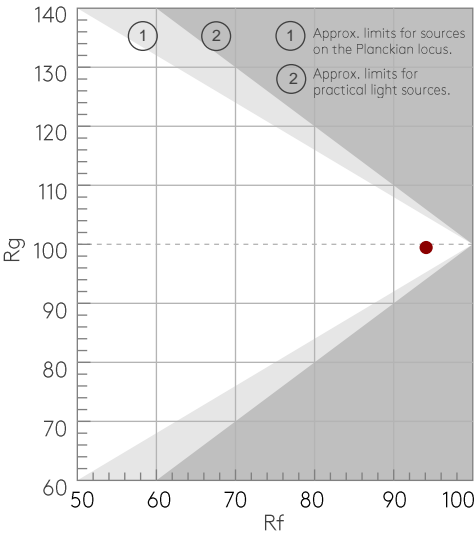
COLOR PARAMETERS

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
2709 K	94.7	94.9	94.1	99.5	92.8	0.459	0.411	0.262	0.351	0.0002

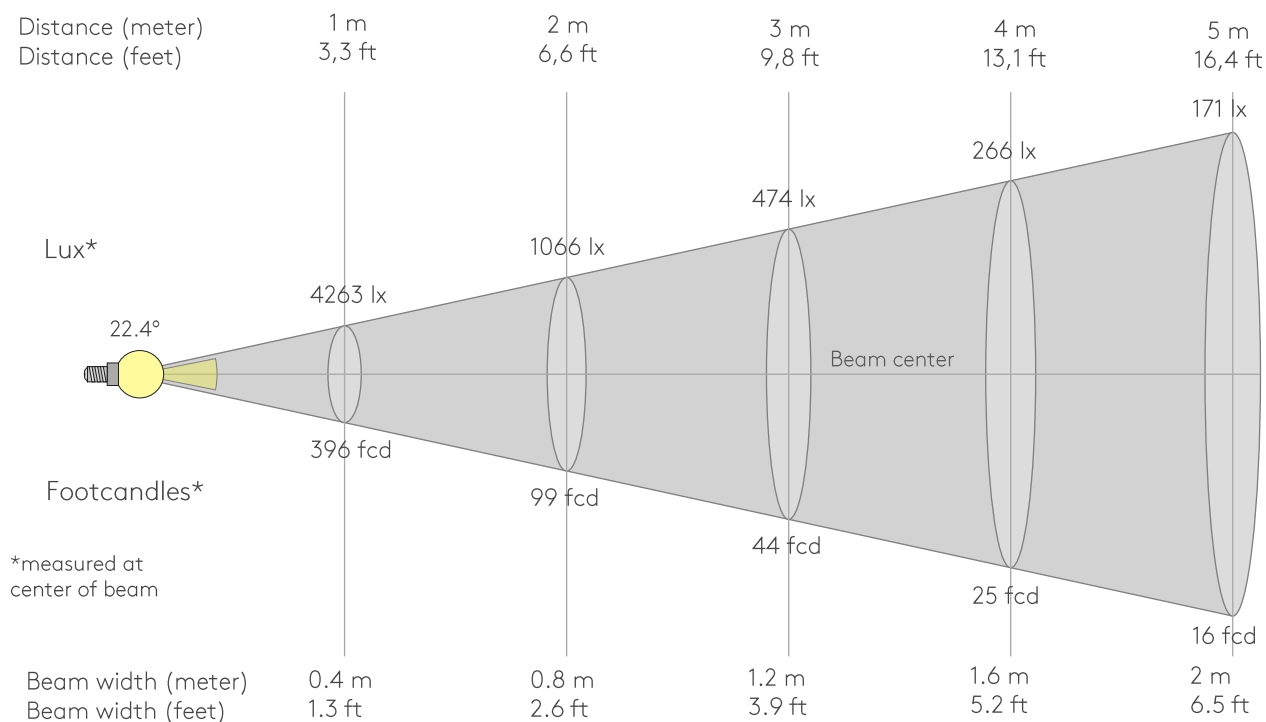
Rf 94.1
Fidelity index Rf

Rg 99.5
Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	97	1%	1%
2	96	2%	-2%
3	93	0%	-4%
4	92	-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%	-7%
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
4263lx	1066lx	474lx	266lx	171lx	118lx	87lx	67lx	53lx	43lx	35lx	30lx	25lx	22lx	19lx	17lx	15lx	13lx	12lx	11lx
396.1fcd	99fcd	44fcd	24.8fcd	15.8fcd	11fcd	8.1fcd	6.2fcd	4.9fcd	4fcd	3.3fcd	2.8fcd	2.3fcd	2fcd	1.8fcd	1.5fcd	1.4fcd	1.2fcd	1.1fcd	1fcd

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°
4263	4194	3959	3555	3033	2464	1917	1431	1024	718	508	365	264	191	136	91	57	34	24	14
100%	98%	93%	83%	71%	58%	45%	34%	24%	17%	12%	9%	6%	4%	3%	2%	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°
4263	4194	3959	3555	3033	2464	1917	1431	1024	718	508	365	264	191	136	91	57	34	24	14
100%	98%	93%	83%	71%	58%	45%	34%	24%	17%	12%	9%	6%	4%	3%	2%	1%	1%	1%	0%

Intensities in 180° c-plane

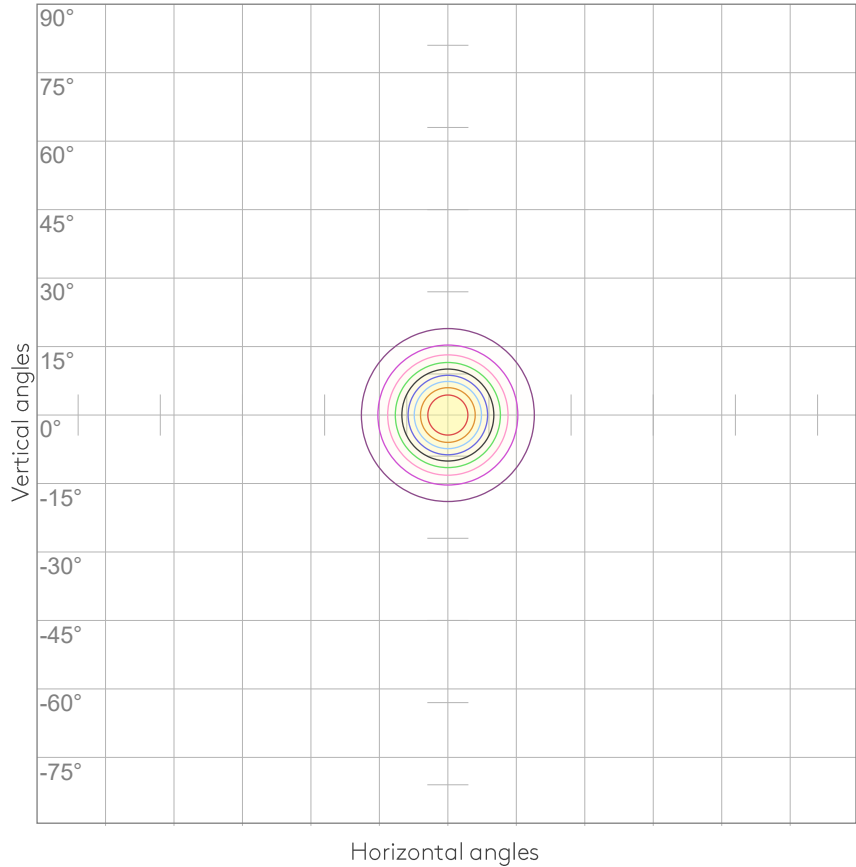
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4263	4194	3959	3555	3033	2464	1917	1431	1024	718	508	365	264	191	136	91	57	34	24	14
100%	98%	93%	83%	71%	58%	45%	34%	24%	17%	12%	9%	6%	4%	3%	2%	1%	1%	1%	0%

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°
4263	4194	3959	3555	3033	2464	1917	1431	1024	718	508	365	264	191	136	91	57	34	24	14
100%	98%	93%	83%	71%	58%	45%	34%	24%	17%	12%	9%	6%	4%	3%	2%	1%	1%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22.4°	42.1°	58.5°	99.2%	98.5%

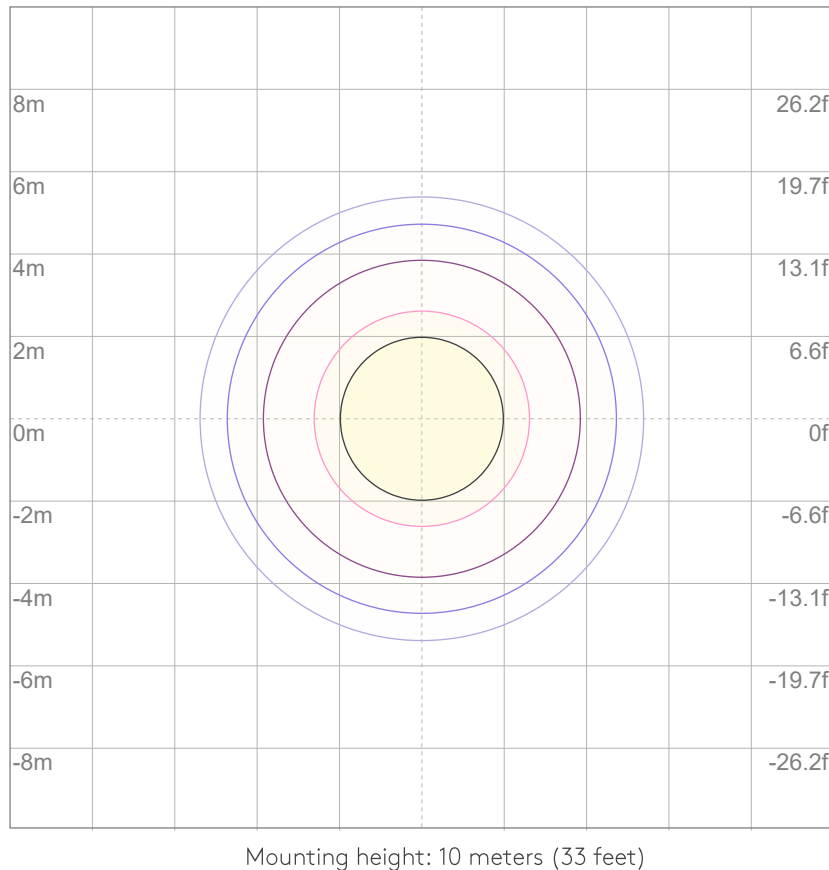
ISO CANDELA DIAGRAM



10%	426 cd
20%	853 cd
30%	1279 cd
40%	1705 cd
50%	2132 cd
60%	2558 cd
70%	2984 cd
80%	3411 cd
90%	3837 cd

Conditions:
Number of c-planes: 8
Candela at center: 4263 cd

ISO LUX DIAGRAM



3%	1.28 lx
5%	2.13 lx
10%	4.26 lx
30%	12.8 lx
50%	{LUX_10M50} lx

Conditions:
Number of c-planes: 8
Lux at center: 42.6 lx

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

UGR

GLARE EVALUATION ACCORDING TO UGR

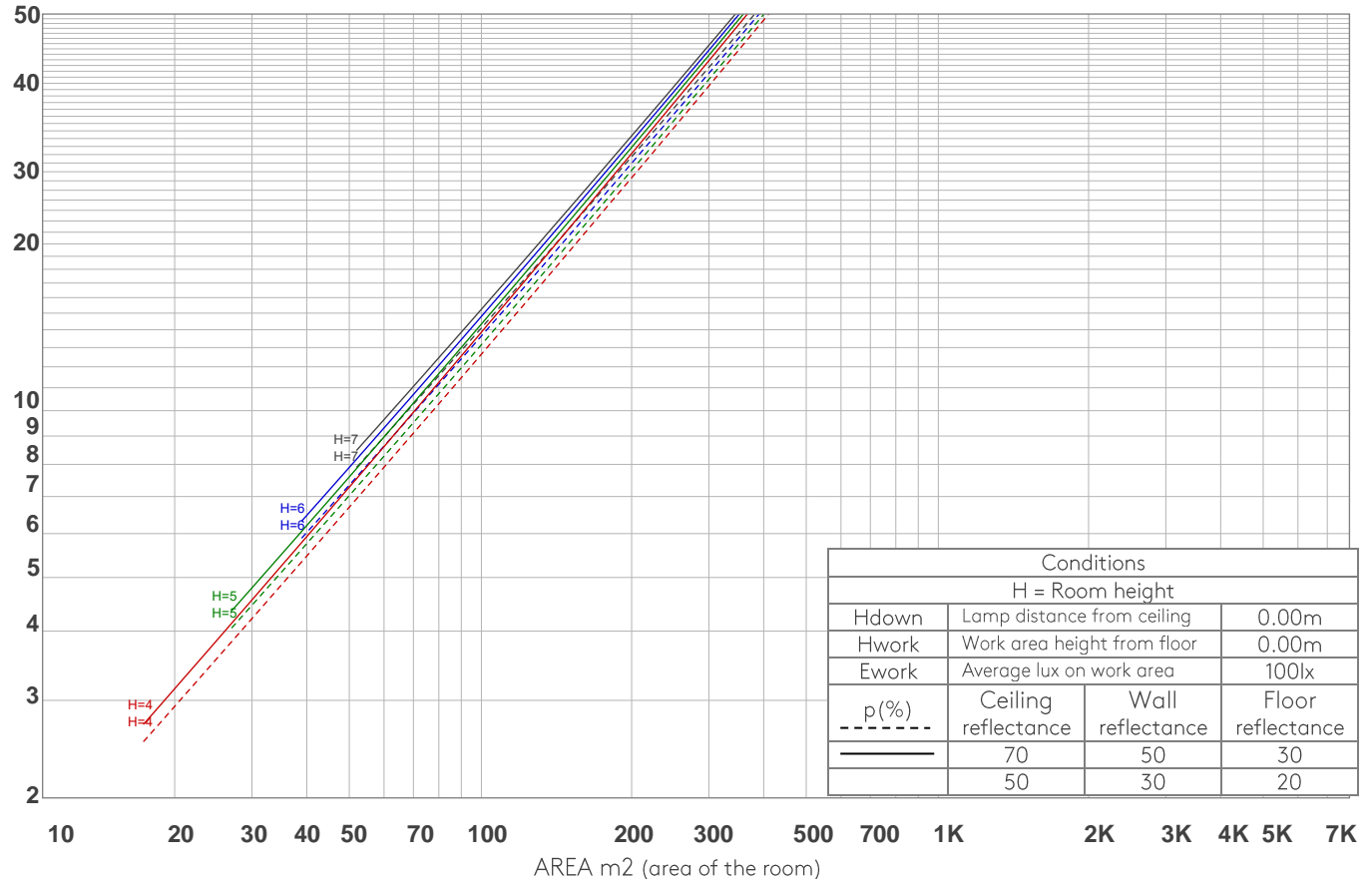
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	9.6	10.0	9.6	10.1	10.3	9.6	10.0	9.6	10.1	10.3
	3H	10.0	10.6	10.4	10.7	10.9	10.0	10.6	10.4	10.7	10.9
	4H	10.4	11.0	10.8	11.2	11.4	10.4	11.0	10.8	11.2	11.4
	6H	11.0	11.4	11.3	11.7	12.1	11.0	11.4	11.3	11.7	12.1
	8H	11.2	11.6	11.5	11.9	12.3	11.2	11.6	11.5	11.9	12.3
	12H	11.3	11.7	11.7	12.1	12.5	11.3	11.7	11.7	12.1	12.5
4H	2H	9.5	10.0	9.9	10.3	10.5	9.5	10.0	9.9	10.3	10.5
	3H	10.4	10.8	10.8	11.2	11.6	10.4	10.8	10.8	11.2	11.6
	4H	11.0	11.4	11.4	11.8	12.3	11.0	11.4	11.4	11.8	12.3
	6H	11.7	12.1	12.2	12.4	12.8	11.7	12.1	12.2	12.4	12.8
	8H	11.9	12.3	12.4	12.7	13.0	11.9	12.3	12.4	12.7	13.0
	12H	12.1	12.4	12.6	12.8	13.3	12.1	12.4	12.6	12.8	13.3
8H	4H	11.2	11.6	11.7	12.0	12.3	11.2	11.6	11.7	12.0	12.3
	6H	12.1	12.4	12.6	12.8	13.3	12.1	12.4	12.6	12.8	13.3
	8H	12.5	12.7	13.0	13.2	13.9	12.5	12.7	13.0	13.2	13.9
	12H	12.8	13.0	13.4	13.5	14.1	12.8	13.0	13.4	13.5	14.1
12H	4H	11.2	11.5	11.7	12.0	12.4	11.2	11.5	11.7	12.0	12.4
	6H	12.2	12.4	12.7	12.9	13.6	12.2	12.4	12.7	12.9	13.6
	8H	12.6	12.8	13.2	13.3	13.9	12.6	12.8	13.2	13.3	13.9
Variation of the observer position for the luminaire distance S											
S = 1.0H		2.3 / -0.8					2.3 / -0.8				
S = 1.5H		4.2 / -0.9					4.2 / -0.9				
S = 2.0H		5.8 / -1.0					5.8 / -1.0				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 803 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	100	97	95	97	95	93	95	93	92	91
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	89	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	79	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°
317 lm	340 lm	110 lm	21.5 lm	4.85 lm	3.10 lm	2.37 lm	1.81 lm	0.652 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.095 lm	0.091 lm	0.096 lm	0.103 lm	0.176 lm	0.338 lm	0.479 lm	0.379 lm	0.081 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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