

# PHOTOMETRIC TEST REPORT

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TRIMLESS PRO ROUND  
ADJUSTABLE - MATT WHITE -  
4002467

astro

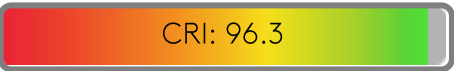
TRIMLESS PRO ROUND ADJUSTABLE -

astro

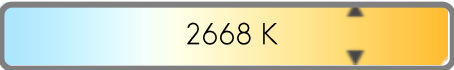
LIGHT EFFICIENCY:



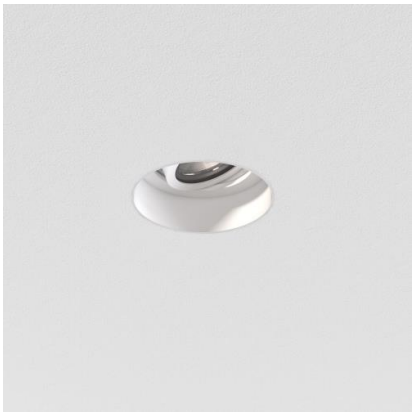
LIGHT QUALITY:



COLOR TEMPERATURE:



OUTPUT: 1173 lm  
PEAK: 4076 cd  
POWER: 11.7 W  
PF: 0.95



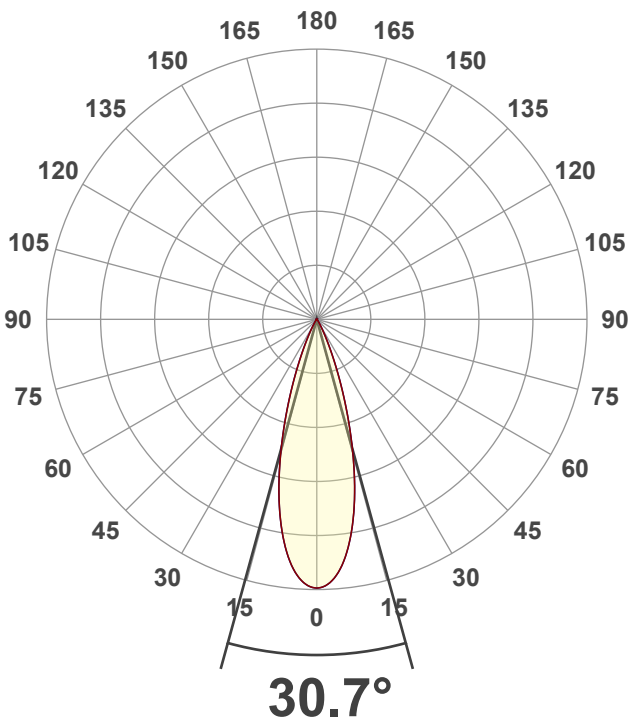
Tracking number: [n/a](#)

Product name:  
Trimless Pro Round Adjustable - Matt  
White - 4002467

Item number:  
TRA-MW-HE27G1-30G1-X-D1

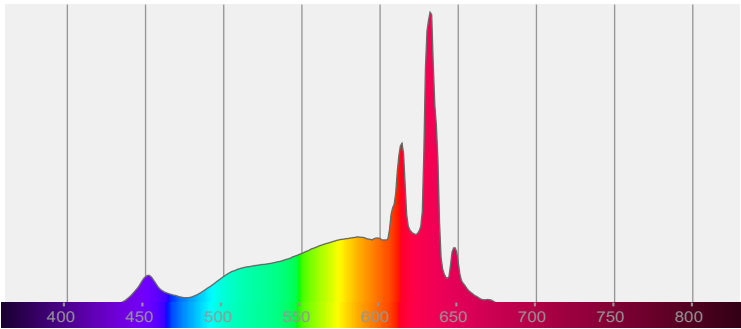
Date and time:  
23/01/2025 10:08:31

Description:  
IP20 LED Downlight

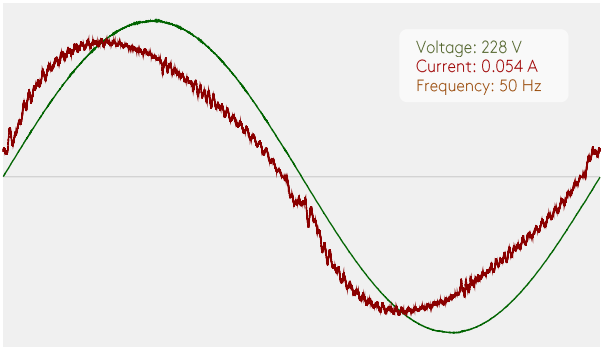


CIE 1931  
x: 0.463  
y: 0.412

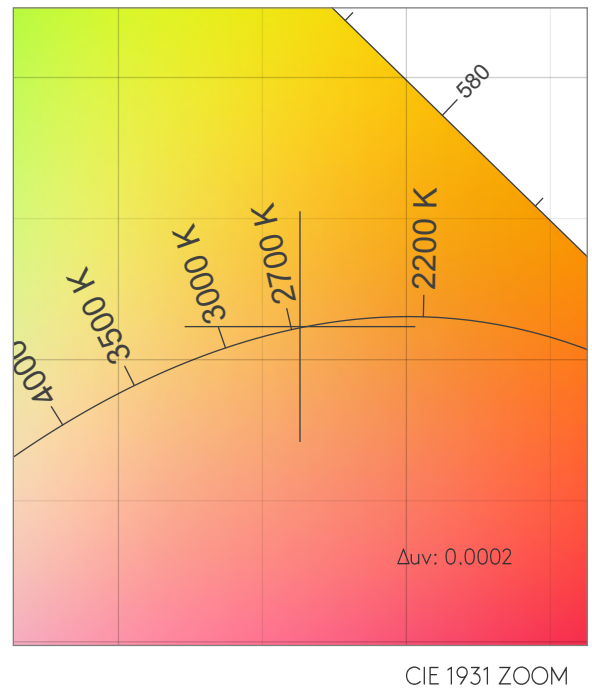
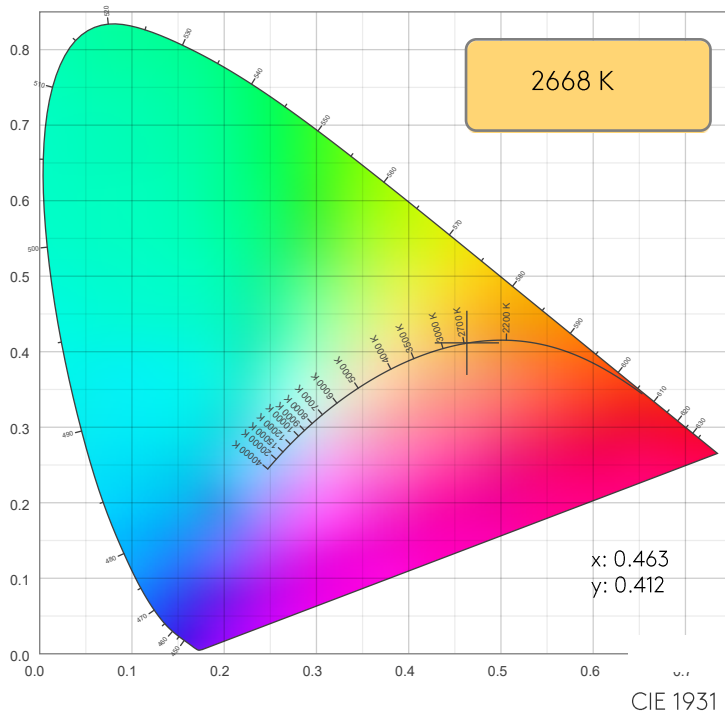
SPECTRA



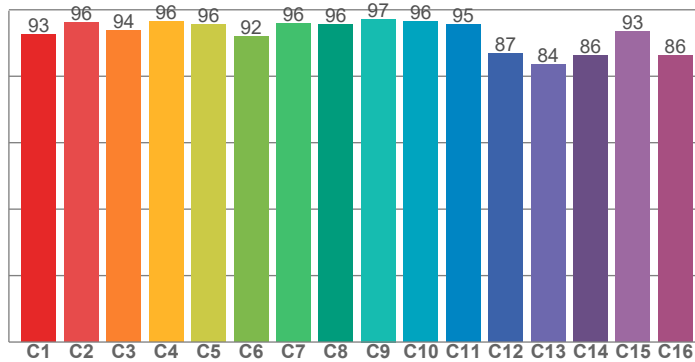
POWER



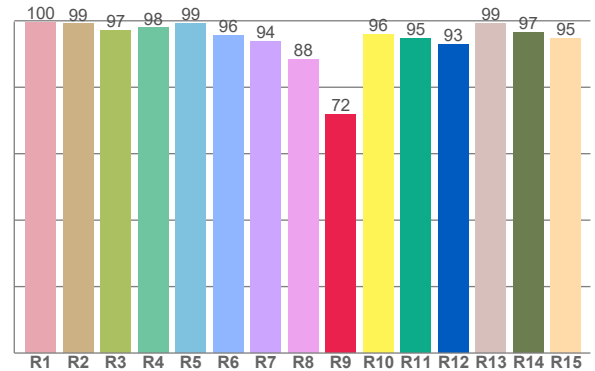
## COLOR DETAILS



TM30: 93.3



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
99.6	99.1	97.0	97.9	99.3	95.5	93.7	88.3	71.8	95.8	94.7	92.8	99.2	96.5	94.8

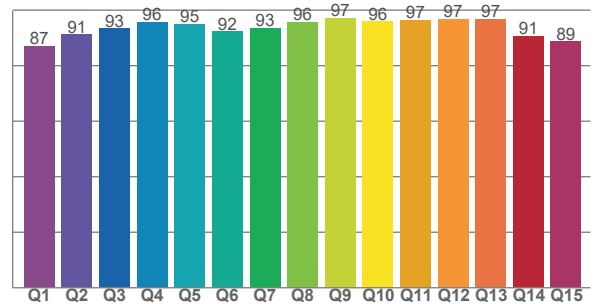
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.7	96.1	93.8	96.5	95.6	92.1	95.9	95.6	97.2	96.4	95.5	86.8	83.7	86.1	93.4	86.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.1	91.3	93.3	95.7	95.0	92.3	93.5	95.7	97.2	96.0	96.5	96.7	96.8	90.7	88.7

CQS: 92.7



## 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
2668 K	96.3	71.8	93.3	100.8	92.7	0.463	0.412	0.264	0.352	0.0002

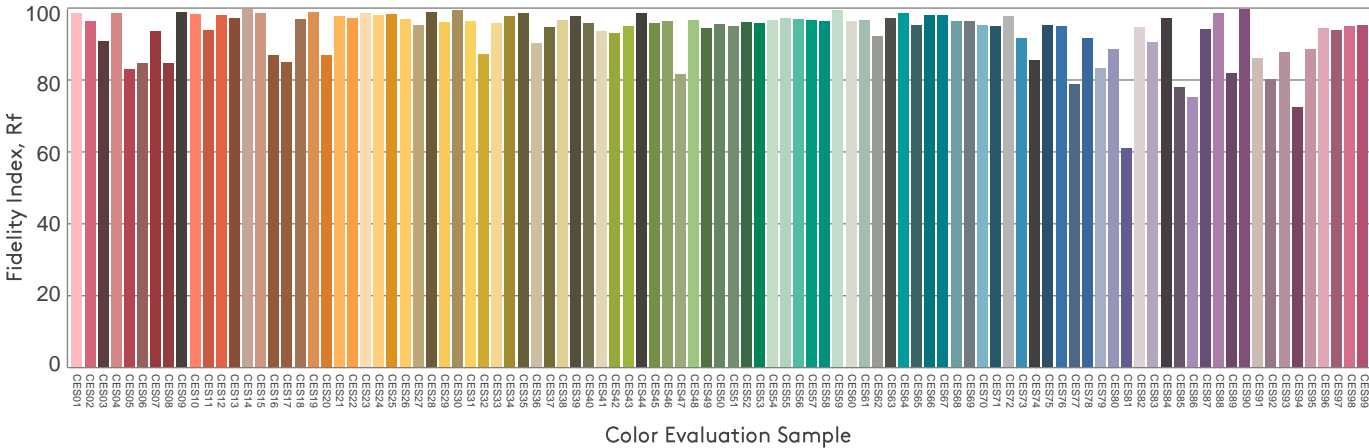
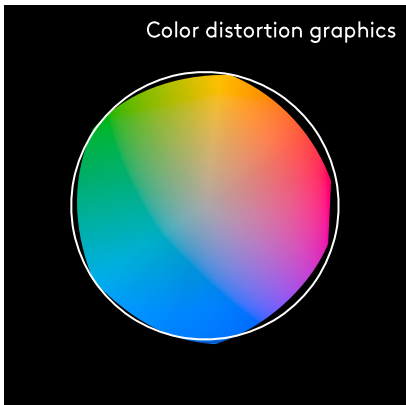
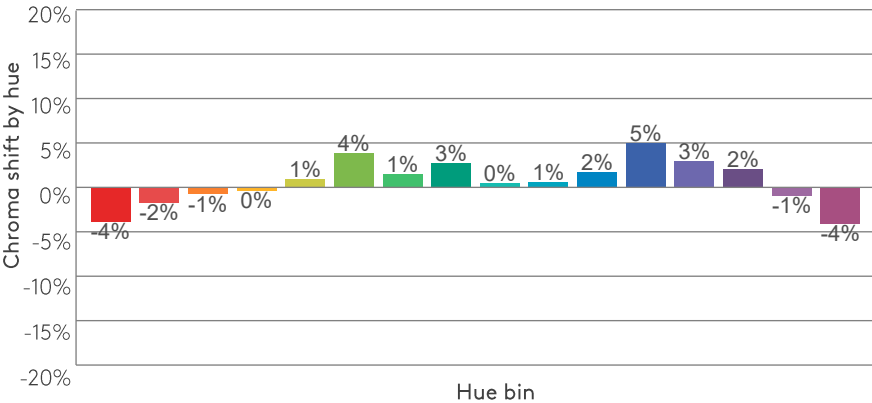
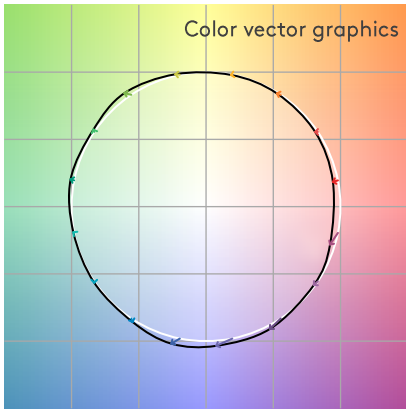
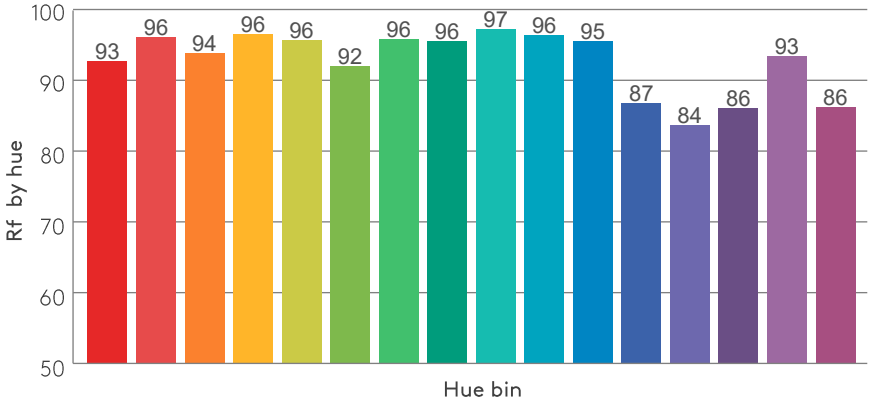
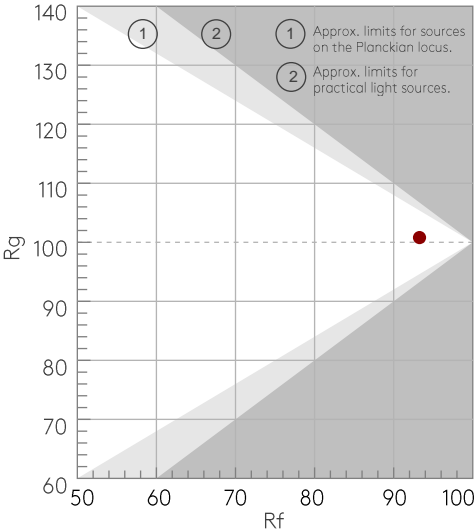
Rf 93.3

Fidelity index Rf

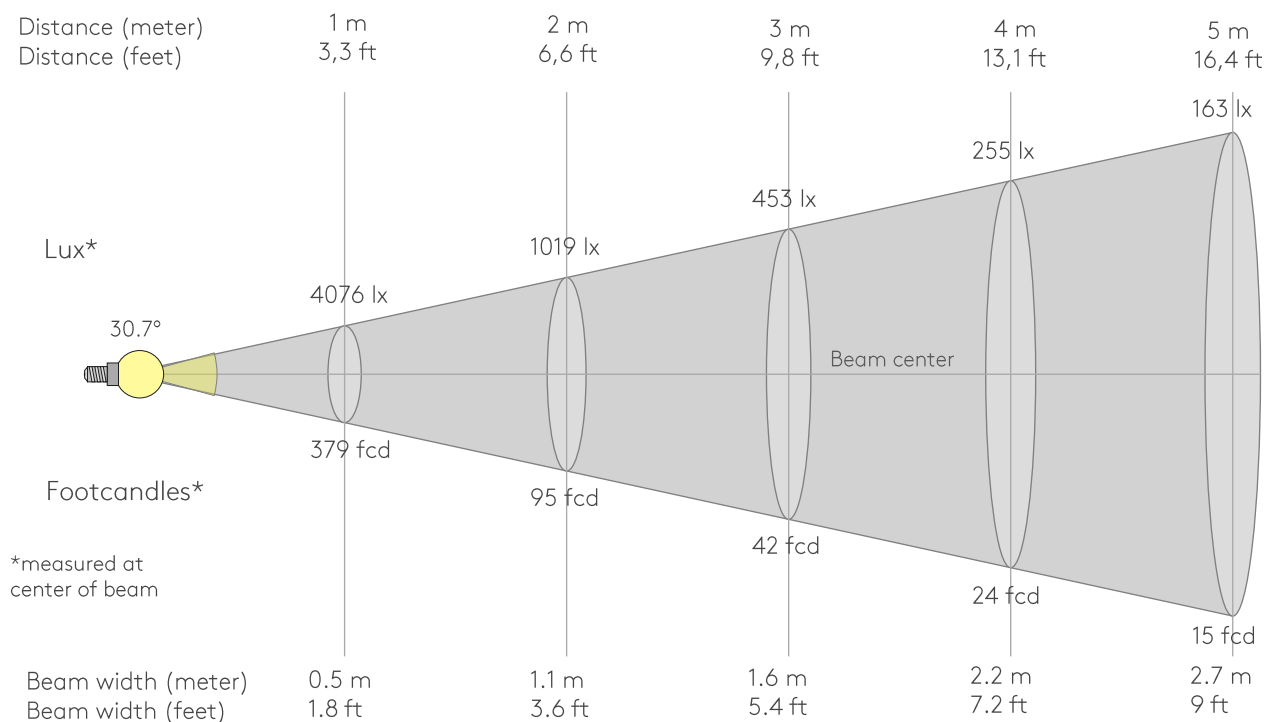
Rg 100.8

Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	93	-4%	0%
2	96	-2%	1%
3	94	-1%	3%
4	96	0%	1%
5	96	1%	3%
6	92	4%	4%
7	96	1%	-1%
8	96	3%	0%
9	97	0%	-1%
10	96	1%	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
4076lx	1019lx	453lx	255lx	163lx	113lx	83lx	64lx	50lx	41lx	34lx	28lx	24lx	21lx	18lx	16lx	14lx	13lx	11lx	10lx
378.7fcd	94.7fcd	42.1fcd	23.7fcd	15.1fcd	10.5fcd	7.7fcd	5.9fcd	4.7fcd	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°
4076	4038	3924	3733	3467	3137	2756	2336	1902	1483	1102	777	521	333	205	127	83	58	41	29
100%	99%	96%	92%	85%	77%	68%	57%	47%	36%	27%	19%	13%	8%	5%	3%	2%	1%	1%	1%

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°
4076	4038	3924	3733	3467	3137	2756	2336	1902	1483	1102	777	521	333	205	127	83	58	41	29
100%	99%	96%	92%	85%	77%	68%	57%	47%	36%	27%	19%	13%	8%	5%	3%	2%	1%	1%	1%

Intensities in 180° c-plane

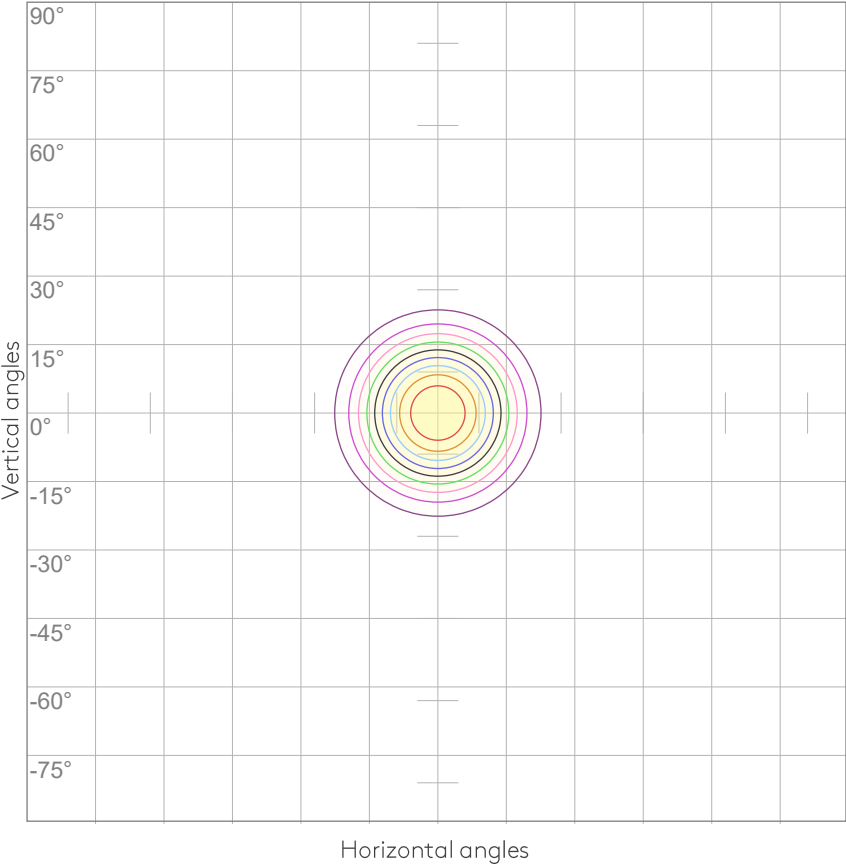
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4076	4038	3924	3733	3467	3137	2756	2336	1902	1483	1102	777	521	333	205	127	83	58	41	29
100%	99%	96%	92%	85%	77%	68%	57%	47%	36%	27%	19%	13%	8%	5%	3%	2%	1%	1%	1%

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°
4076	4038	3924	3733	3467	3137	2756	2336	1902	1483	1102	777	521	333	205	127	83	58	41	29
100%	99%	96%	92%	85%	77%	68%	57%	47%	36%	27%	19%	13%	8%	5%	3%	2%	1%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
30.7°	50.2°	62°	99.6%	99.1%

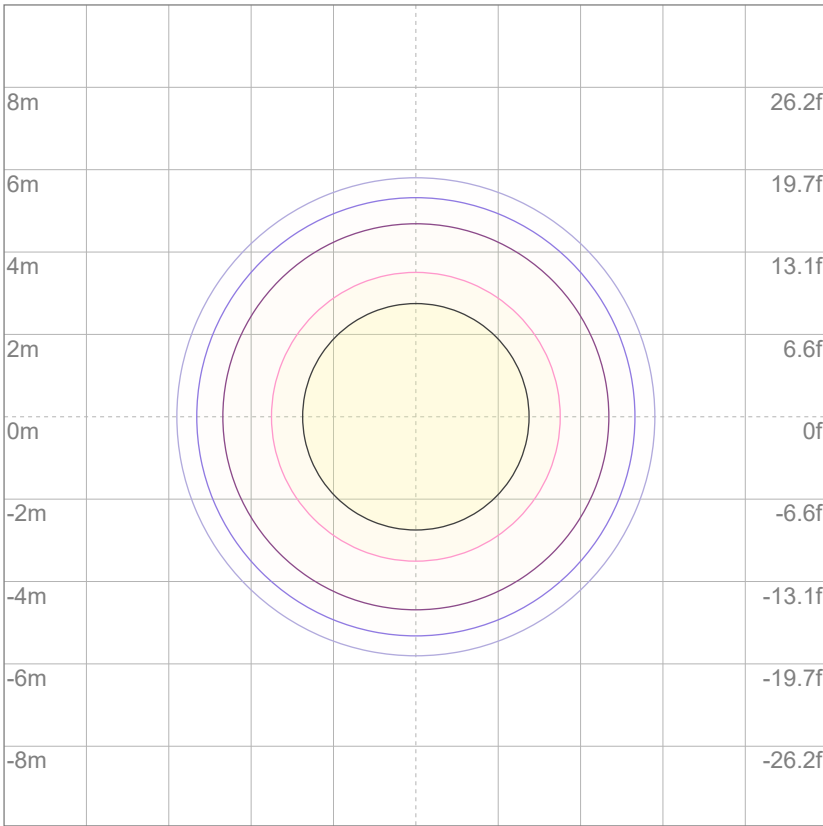
ISO CANDELA DIAGRAM



10%	408 cd
20%	815 cd
30%	1223 cd
40%	1630 cd
50%	2038 cd
60%	2446 cd
70%	2853 cd
80%	3261 cd
90%	3669 cd

Conditions:  
Number of c-planes: 8  
Candela at center: 4076 cd

ISO LUX DIAGRAM



3%	1.22 lx
5%	2.04 lx
10%	4.08 lx
30%	12.2 lx
50%	{LUX_10M50} lx

Conditions:  
Number of c-planes: 8  
Lux at center: 40.8 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	10.9	11.3	10.9	11.5	11.6	10.9	11.3	10.9	11.5	11.6
	3H	10.6	11.2	10.9	11.3	11.5	10.6	11.2	10.9	11.3	11.5
	4H	10.5	11.1	10.9	11.3	11.6	10.5	11.1	10.9	11.3	11.6
	6H	10.6	11.0	10.9	11.3	11.7	10.6	11.0	10.9	11.3	11.7
	8H	10.5	11.0	10.9	11.3	11.7	10.5	11.0	10.9	11.3	11.7
	12H	10.5	10.9	10.9	11.3	11.7	10.5	10.9	10.9	11.3	11.7
4H	2H	10.5	11.1	10.9	11.3	11.5	10.5	11.1	10.9	11.3	11.5
	3H	10.5	10.9	10.8	11.2	11.7	10.5	10.9	10.8	11.2	11.7
	4H	10.4	10.8	10.8	11.2	11.7	10.4	10.8	10.8	11.2	11.7
	6H	10.4	10.8	10.9	11.1	11.5	10.4	10.8	10.9	11.1	11.5
	8H	10.3	10.8	10.9	11.1	11.5	10.3	10.8	10.9	11.1	11.5
	12H	10.3	10.6	10.8	11.0	11.5	10.3	10.6	10.8	11.0	11.5
8H	4H	10.3	10.7	10.8	11.0	11.4	10.3	10.7	10.8	11.0	11.4
	6H	10.3	10.6	10.8	11.0	11.5	10.3	10.6	10.8	11.0	11.5
	8H	10.4	10.5	10.9	11.1	11.7	10.4	10.5	10.9	11.1	11.7
	12H	10.3	10.5	10.9	11.0	11.6	10.3	10.5	10.9	11.0	11.6
12H	4H	10.2	10.5	10.7	10.9	11.4	10.2	10.5	10.7	10.9	11.4
	6H	10.3	10.5	10.8	11.0	11.6	10.3	10.5	10.8	11.0	11.6
	8H	10.3	10.5	10.9	11.0	11.6	10.3	10.5	10.9	11.0	11.6
Variation of the observer position for the luminaire distance S											
S = 1.0H		5.0 / -5.2					5.0 / -5.2				
S = 1.5H		7.6 / -6.4					7.6 / -6.4				
S = 2.0H		9.5 / -7.0					9.5 / -7.0				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1173 lm total luminous flux											

# TRIMLESS PRO ROUND ADJUSTABLE - LIGHT PLANNING

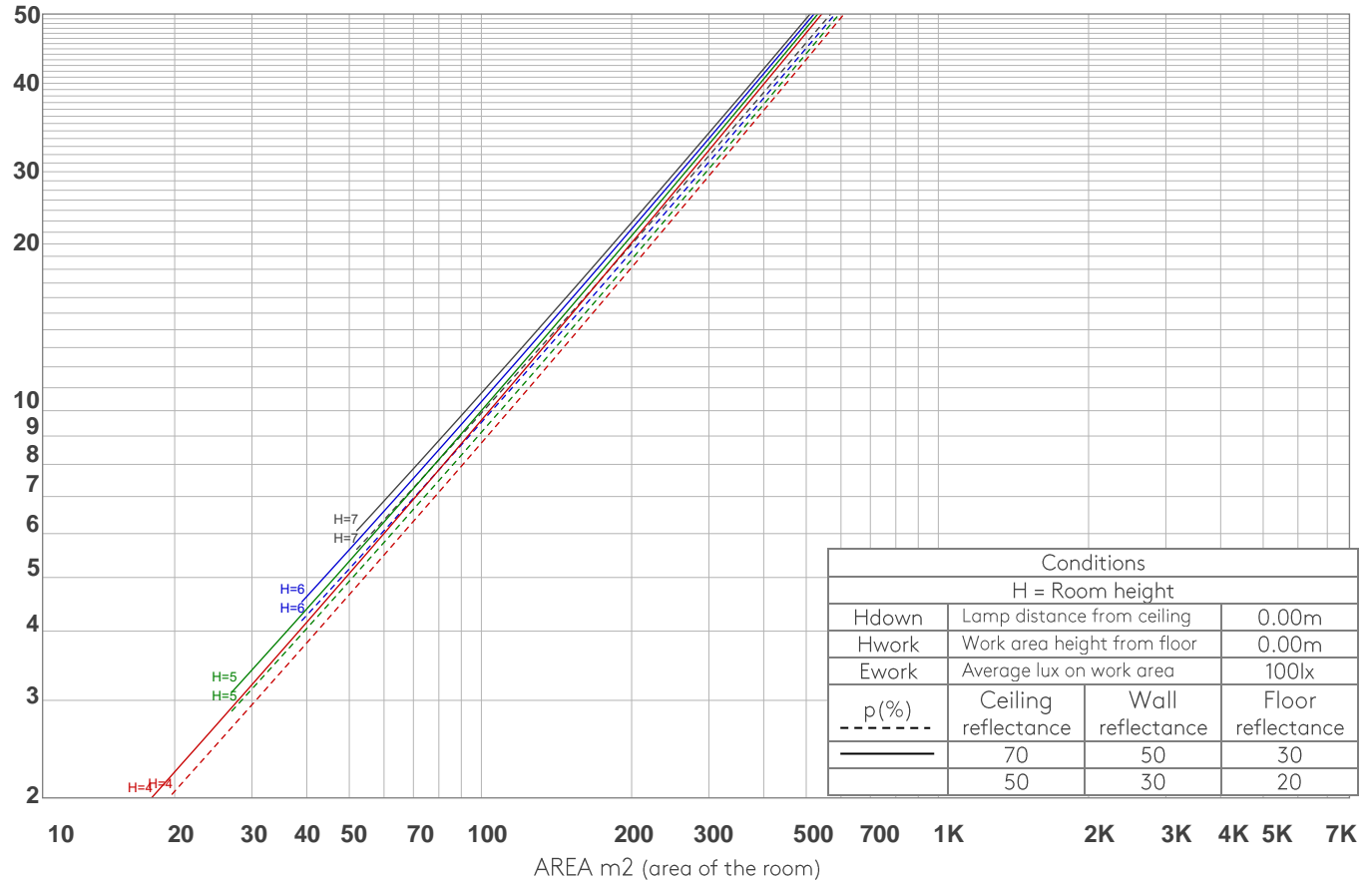
astro

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

LAMPS (number of lamps)

## LUMINAIRE BUDGETARY DIAGRAM



## ZONAL LUMEN SUMMARY

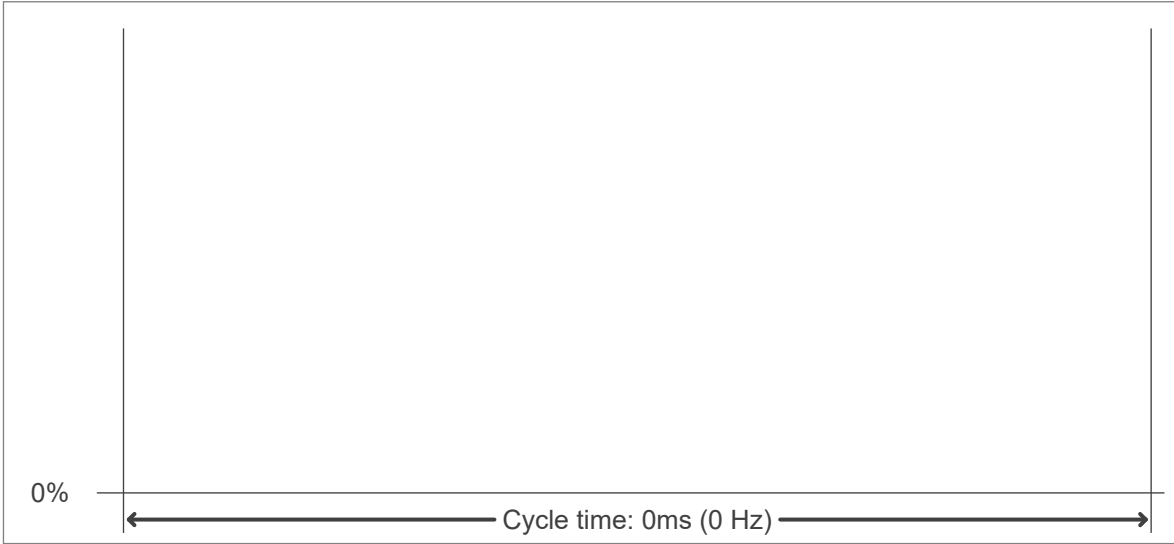
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
344 lm	568 lm	210 lm	34.1 lm	8.98 lm	2.98 lm	1.05 lm	0.588 lm	0.276 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.133 lm	0.138 lm	0.135 lm	0.164 lm	0.292 lm	0.505 lm	0.658 lm	0.463 lm	0.114 lm

FLICKER

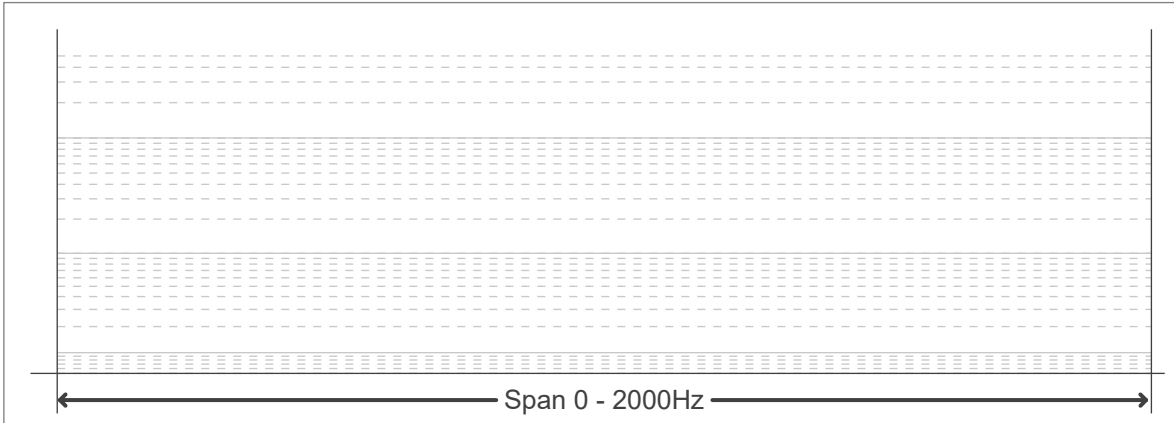
FLICKER CURVE (COMPLETE SAMPLED)



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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