

PHOTOMETRIC TEST REPORT

CAN 100 TRACK MATT WHITE &
GLARE GUARD

astro

LIGHT EFFICIENCY:

61 Lumen/Watt

OUTPUT: 1745 lm

LIGHT QUALITY:

CRI: 92.9

PEAK: 7797 cd

COLOR TEMPERATURE:

3053 K

POWER: 28.7 W

PF: 0.97

Tracking number: [n/a](#)

Product name:

Can 100 Track Matt White & Glare Guard

Item number:

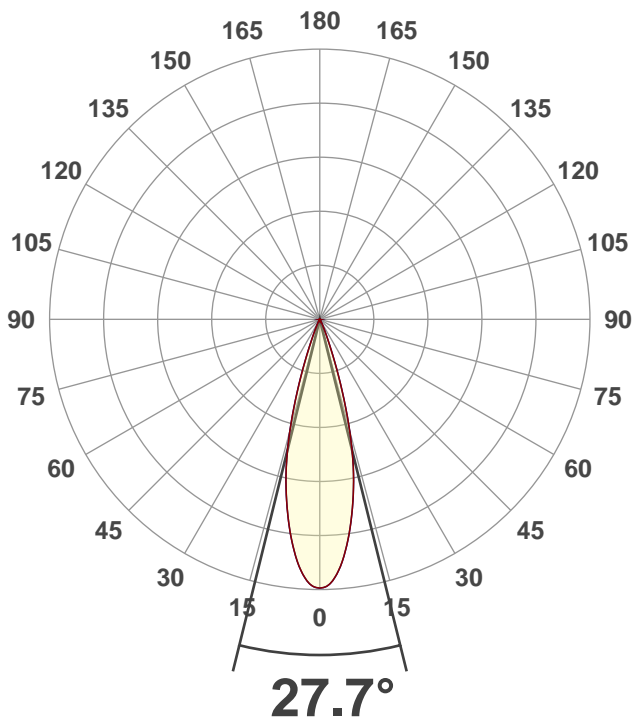
1396034

Date and time:

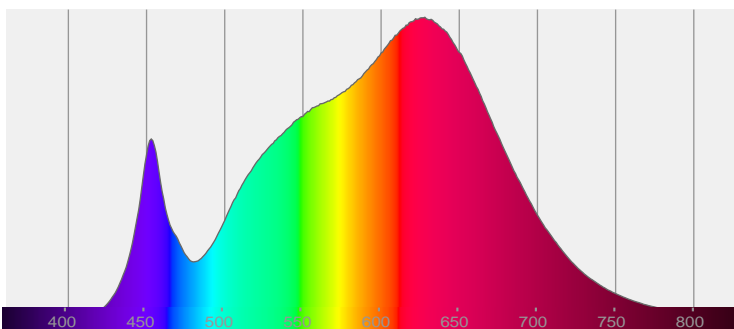
21/04/2021 16:49:14

Description:

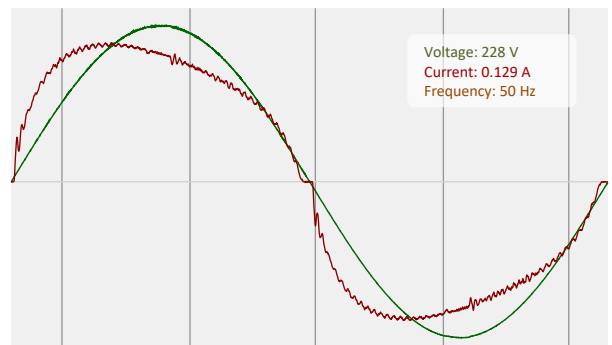
IP20 LED Track Spotlight with Glare Guard

CIE 1931
x: 0.432
y: 0.400

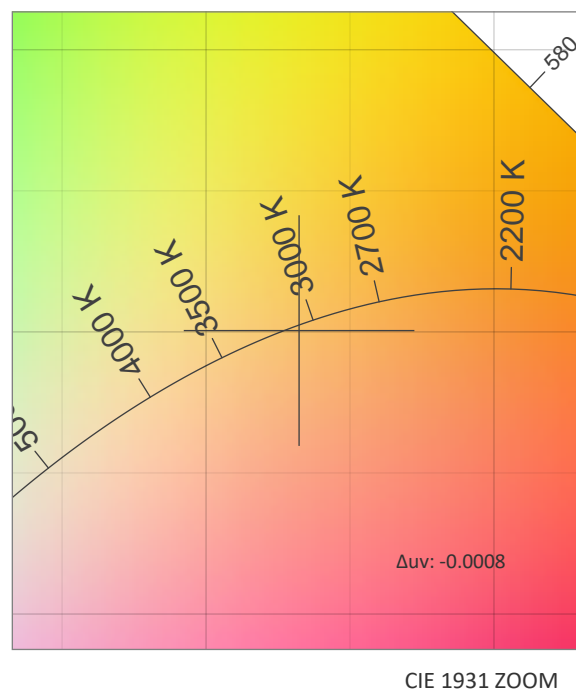
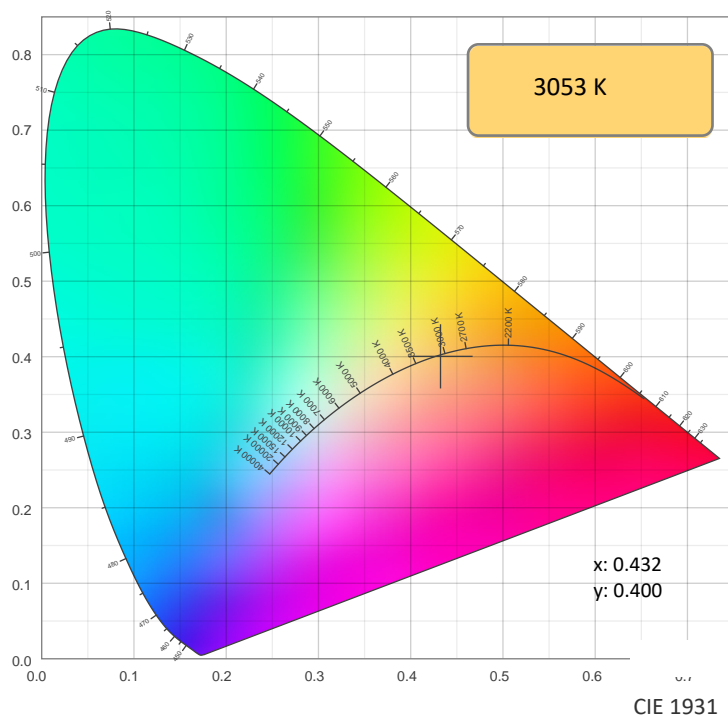
SPECTRA



POWER

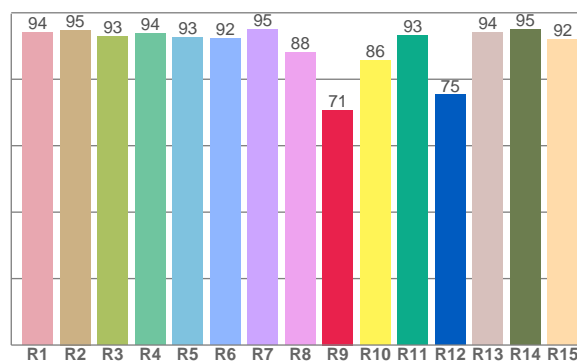
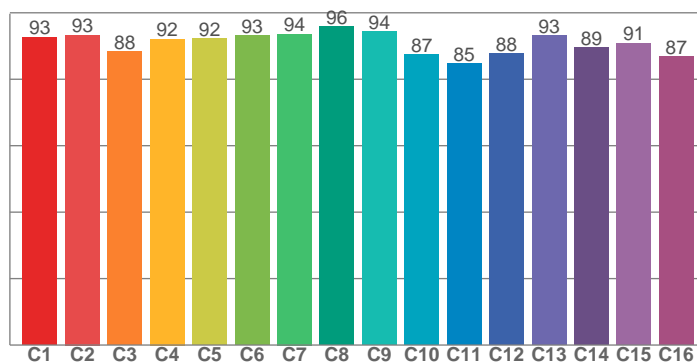


COLOR DETAILS



TM30: 91.0

CRI: 92.9 (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
94.1	94.8	93.0	93.7	92.6	92.2	94.9	88.1	70.7	85.7	93.1	75.3	94.2	95.1	92.1

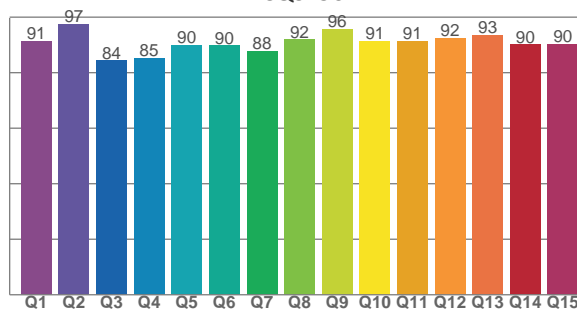
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.7	93.3	88.3	92.1	92.2	93.2	93.6	95.8	94.4	87.3	84.8	87.7	93.2	89.5	90.9	86.8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
91.4	97.4	84.4	85.3	89.9	89.8	87.8	91.9	95.7	91.3	91.3	92.4	93.5	90.1	90.3

CQS: 90.2



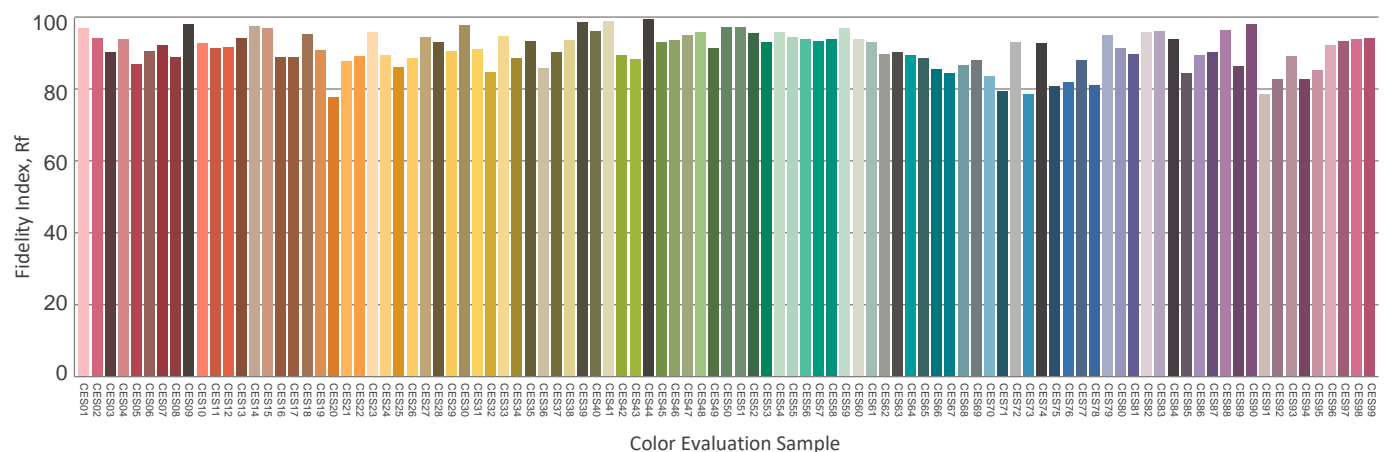
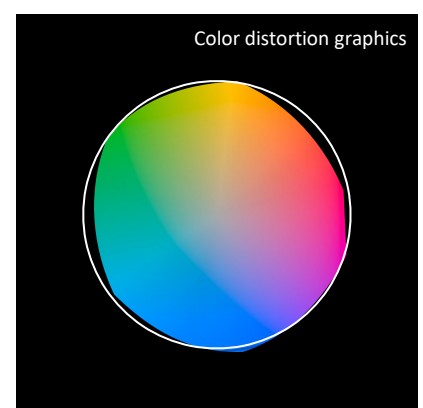
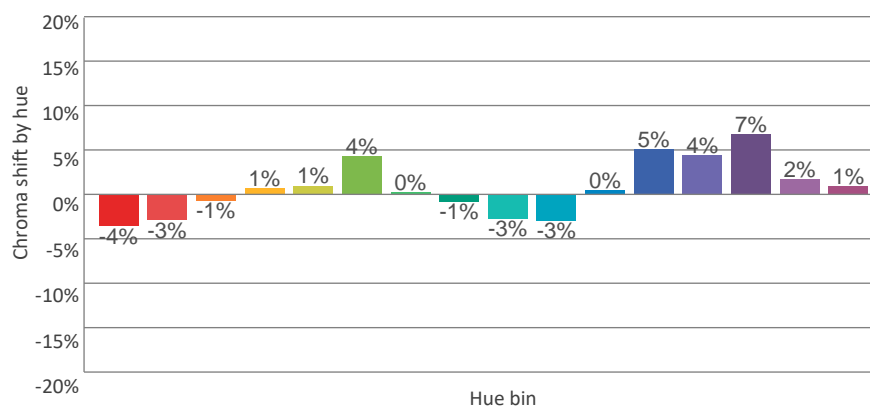
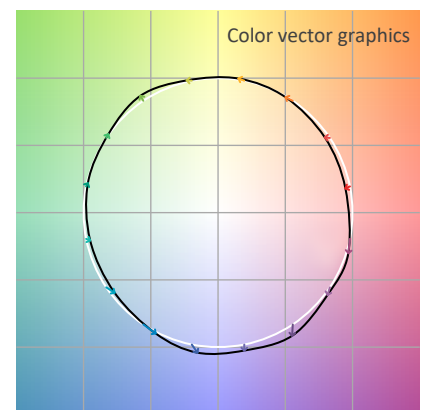
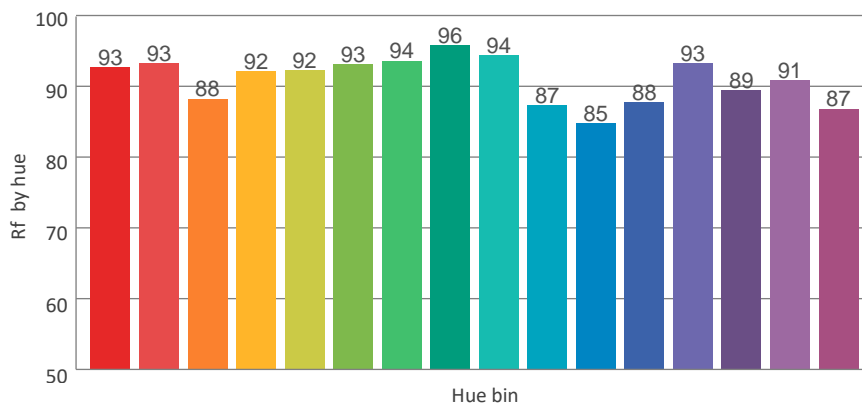
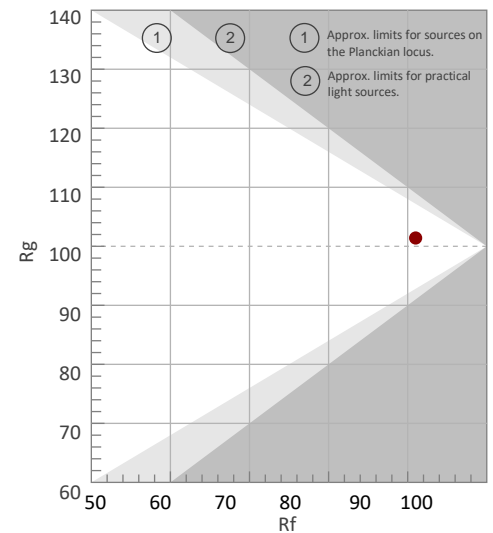
COLOR PARAMETERS

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
3053 K	92.9	70.7	91.0	101.4	90.2	0.432	0.400	0.249	0.346	-0.0008

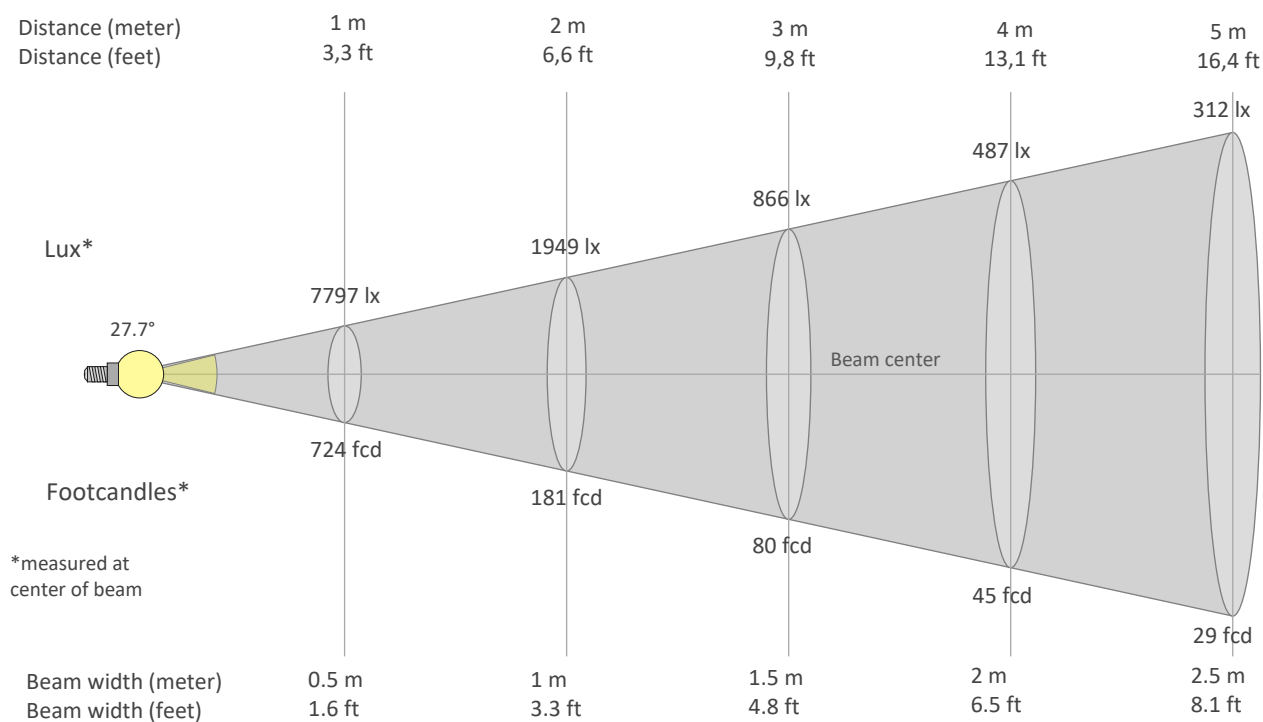
Rf 91.0
Fidelity index Rf

Rg 101.4
Gammut index Rg

Hue Bin	Graphic shifts (%)		
	R _f	Chroma	Hue
1	93	-4%	-1%
2	93	-3%	2%
3	88	-1%	6%
4	92	1%	5%
5	92	1%	4%
6	93	4%	0%
7	94	0%	-3%
8	96	-1%	-3%
9	94	-3%	2%
10	87	-3%	7%
11	85	0%	11%
12	88	5%	5%
13	93	4%	-1%
14	89	7%	-5%
15	91	2%	-6%
16	87	1%	-11%



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
7797lx	1949lx	866lx	487lx	312lx	217lx	159lx	122lx	96lx	78lx	64lx	54lx	46lx	40lx	35lx	30lx	27lx	24lx	22lx	19lx
724.3fcd	181.1fcd	80.5fcd	45.3fcd	29fcd	20.1fcd	14.8fcd	11.3fcd	8.9fcd	7.2fcd	6fcd	5fcd	4.3fcd	3.7fcd	3.2fcd	2.8fcd	2.5fcd	2.2fcd	2fcd	1.8fcd

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°
7797	7699	7370	6853	6209	5486	4715	3836	2844	1874	1078	580	316	183	116	83	64	51	41	36
100%	99%	95%	88%	80%	70%	60%	49%	36%	24%	14%	7%	4%	2%	1%	1%	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°
7797	7699	7370	6853	6209	5486	4715	3836	2844	1874	1078	580	316	183	116	83	64	51	41	36
100%	99%	95%	88%	80%	70%	60%	49%	36%	24%	14%	7%	4%	2%	1%	1%	1%	1%	1%	0%

Intensities in 180° c-plane

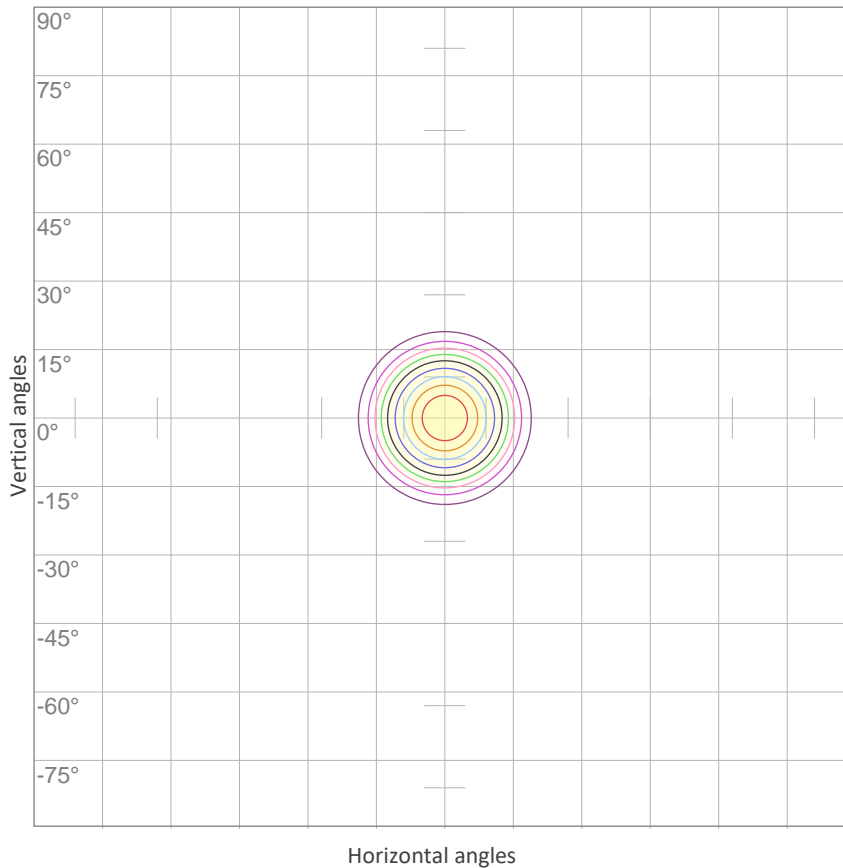
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
7797	7699	7370	6853	6209	5486	4715	3836	2844	1874	1078	580	316	183	116	83	64	51	41	36
100%	99%	95%	88%	80%	70%	60%	49%	36%	24%	14%	7%	4%	2%	1%	1%	1%	1%	1%	0%

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°
7797	7699	7370	6853	6209	5486	4715	3836	2844	1874	1078	580	316	183	116	83	64	51	41	36
100%	99%	95%	88%	80%	70%	60%	49%	36%	24%	14%	7%	4%	2%	1%	1%	1%	1%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
27.7°	42.1°	51.5°	97.8%	96.3%

ISO CANDELA DIAGRAM



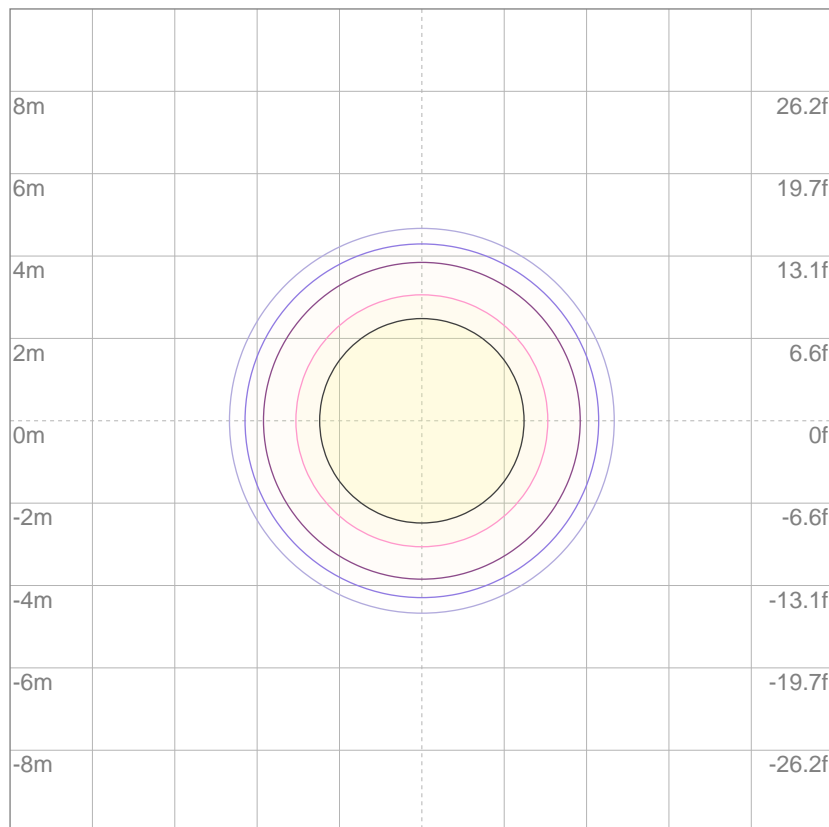
10%	780 cd
20%	1559 cd
30%	2339 cd
40%	3119 cd
50%	3898 cd
60%	4678 cd
70%	5458 cd
80%	6237 cd
90%	7017 cd

Conditions:

Number of c-planes: 8

Candela at center: 7797 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	2.34 lx
5%	3.90 lx
10%	7.80 lx
30%	23.4 lx
50%	{LUX_10M50} lx

Conditions:

Number of c-planes: 8

Lux at center: 78.0 lx

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

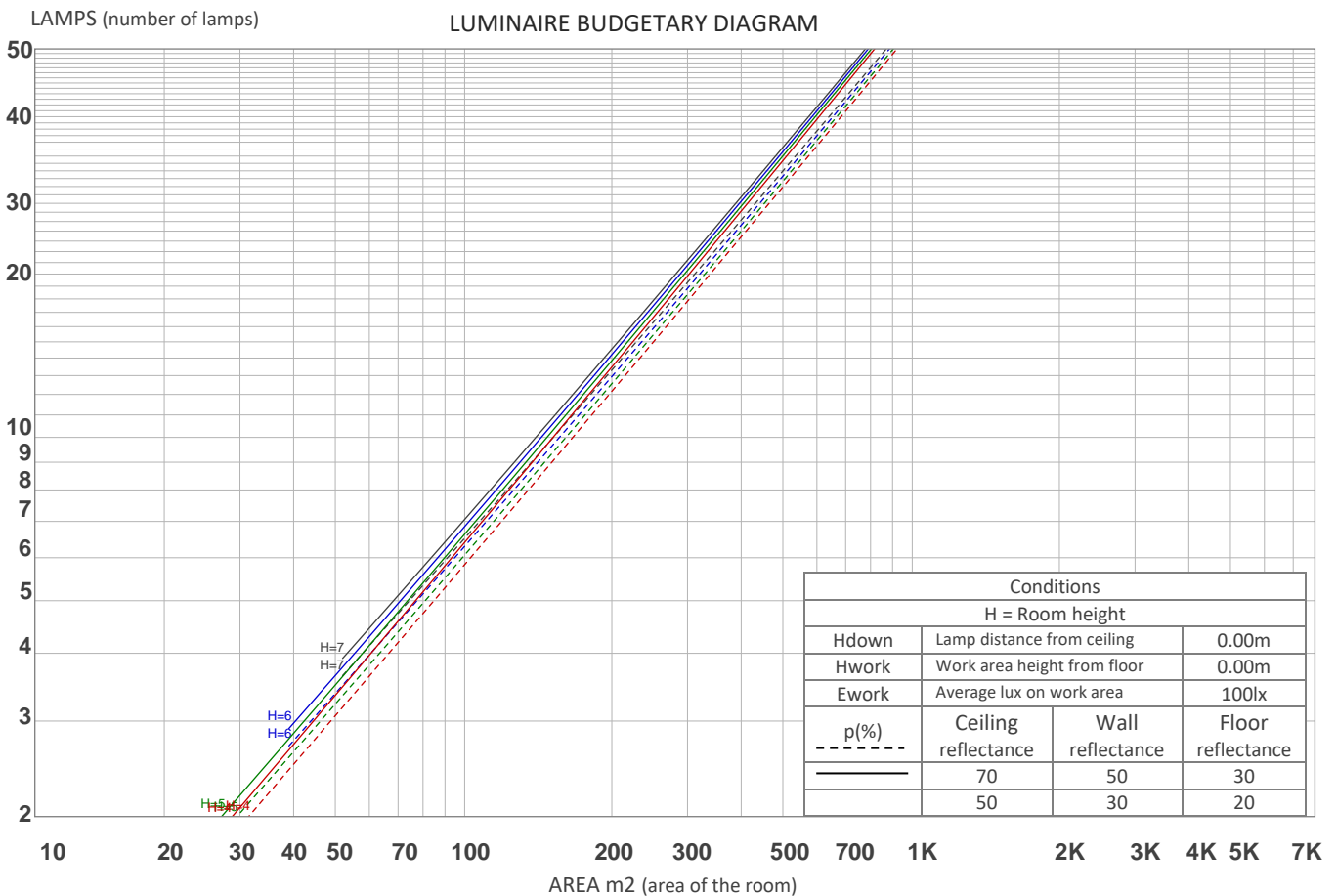
UGR

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	6.6	7.0	6.6	7.2	7.4	6.6	7.0	6.6	7.2	7.4
	3H	7.6	8.2	8.0	8.4	8.5	7.6	8.2	8.0	8.4	8.5
	4H	8.0	8.5	8.3	8.7	9.0	8.0	8.5	8.3	8.7	9.0
	6H	8.2	8.6	8.5	9.0	9.3	8.2	8.6	8.5	9.0	9.3
	8H	8.2	8.6	8.5	9.0	9.4	8.2	8.6	8.5	9.0	9.4
	12H	8.2	8.6	8.5	9.0	9.4	8.2	8.6	8.5	9.0	9.4
4H	2H	6.9	7.5	7.3	7.7	8.0	6.9	7.5	7.3	7.7	8.0
	3H	8.3	8.8	8.7	9.1	9.5	8.3	8.8	8.7	9.1	9.5
	4H	8.7	9.1	9.1	9.5	10.1	8.7	9.1	9.1	9.5	10.1
	6H	8.9	9.4	9.4	9.7	10.1	8.9	9.4	9.4	9.7	10.1
	8H	9.0	9.4	9.5	9.7	10.1	9.0	9.4	9.5	9.7	10.1
	12H	8.9	9.3	9.4	9.7	10.1	8.9	9.3	9.4	9.7	10.1
8H	4H	8.8	9.3	9.3	9.6	10.0	8.8	9.3	9.3	9.6	10.0
	6H	9.2	9.4	9.7	9.9	10.4	9.2	9.4	9.7	9.9	10.4
	8H	9.3	9.5	9.8	10.0	10.6	9.3	9.5	9.8	10.0	10.6
	12H	9.2	9.4	9.8	9.9	10.5	9.2	9.4	9.8	9.9	10.5
12H	4H	8.8	9.1	9.3	9.5	10.0	8.8	9.1	9.3	9.5	10.0
	6H	9.2	9.4	9.7	9.9	10.5	9.2	9.4	9.7	9.9	10.5
	8H	9.2	9.4	9.8	9.9	10.5	9.2	9.4	9.8	9.9	10.5
Variation of the observer position for the luminaire distance S											
S = 1.0H		0.7 / -0.4					0.7 / -0.4				
S = 1.5H		1.7 / -0.6					1.7 / -0.6				
S = 2.0H		2.6 / -1.0					2.6 / -1.0				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1745 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	101	100	99	98	98	96
2	111	107	104	101	109	105	103	100	102	100	98	99	98	96	97	95	94	92
3	107	103	99	96	105	101	98	95	99	96	94	96	94	92	94	92	91	89
4	104	99	95	92	102	98	94	91	95	92	90	94	91	89	92	90	88	87
5	101	95	91	88	100	94	90	88	93	89	87	91	88	86	90	87	85	84
6	98	92	88	85	97	91	87	85	90	87	84	89	86	83	87	85	83	82
7	96	89	85	82	94	89	85	82	87	84	82	86	83	81	85	83	81	80
8	93	87	83	80	92	86	82	80	85	82	79	84	81	79	83	81	79	78
9	91	84	80	78	90	84	80	77	83	80	77	82	79	77	82	79	77	76
10	89	82	78	76	88	82	78	75	81	78	75	80	77	75	80	77	75	74



ZONAL LUMEN SUMMARY

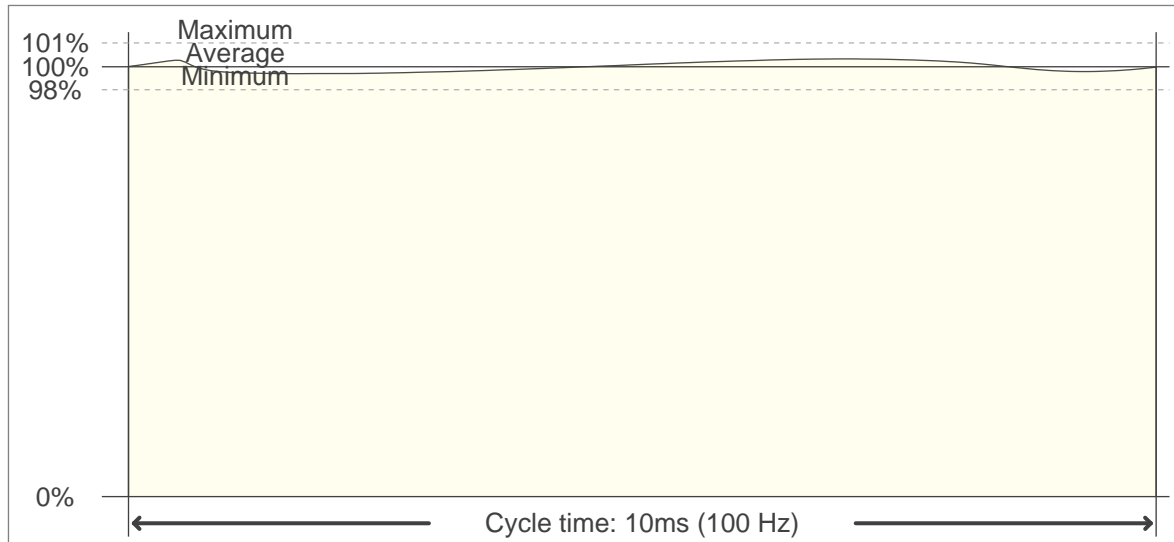
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
627 lm	867 lm	146 lm	30.5 lm	19.2 lm	17.6 lm	16.4 lm	9.92 lm	2.66 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.279 lm	0.259 lm	0.423 lm	0.817 lm	1.40 lm	1.83 lm	1.91 lm	1.36 lm	0.357 lm

FLICKER

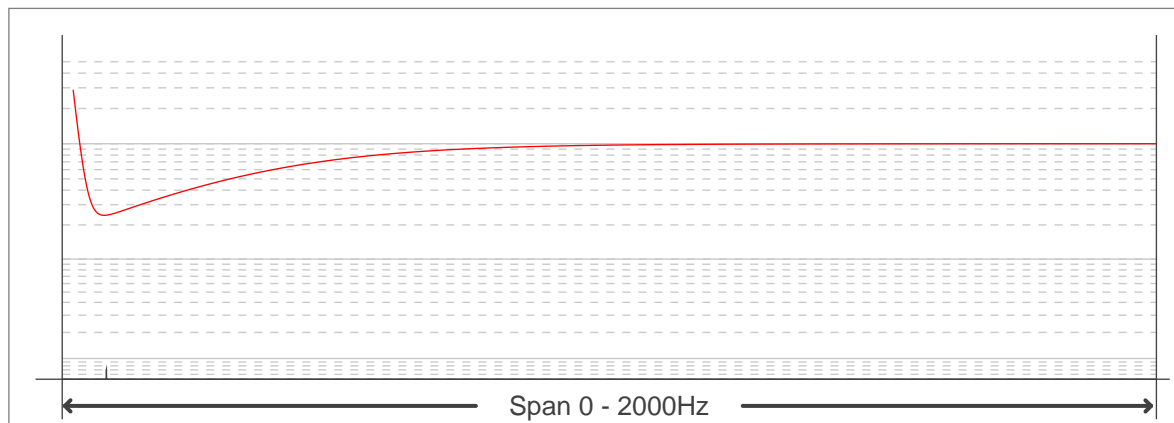
FLICKER CURVE (COMPLETE SAMPLED FLICKER)



FLICKER FRAME (FRAME OF ONE FLICKER PERIOD)



FLICKER FFT (FREQUENCY SCOPE OF FLICKER CURVE)



FLICKER RESULTS:

Flicker frequency:	100 Hz
Flicker index:	0.01
Flicker percentage:	1.75 %
SVM: (Visual flicker)	0.06

FLICKER CONDITIONS:

Sample rate:	20000 samples/second
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