

# PHOTOMETRIC TEST REPORT

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CAN 75 TRACK MATT WHITE &  
GLARE GUARD

astro

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### LIGHT EFFICIENCY:

43 Lumen/Watt

### LIGHT QUALITY:

CRI: 93.9

### COLOR TEMPERATURE:

3054 K

OUTPUT: 637 lm

PEAK: 2652 cd

POWER: 14.8 W

PF: 0.95



Tracking number: [n/a](#)

Product name:

Can 75 Track Matt White & Glare Guard

Item number:

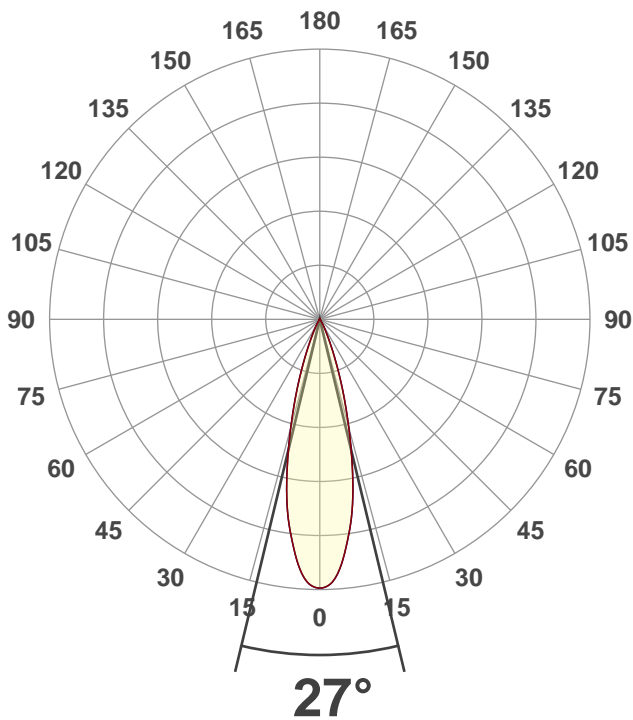
1396030

Date and time:

22/04/2021 11:19:43

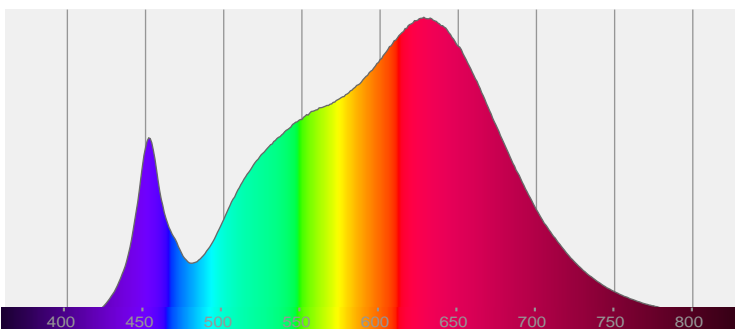
Description:

IP20 LED Track Spotlight with Glare Guard

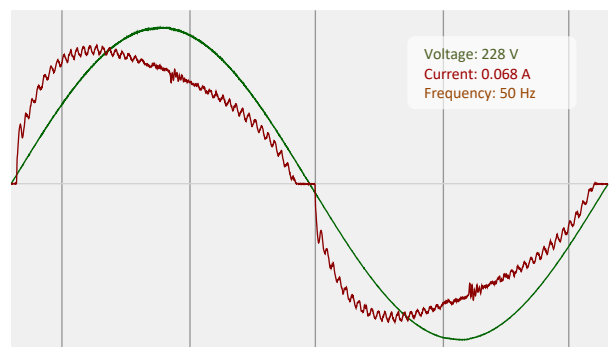


CIE 1931  
x: 0.432  
y: 0.399

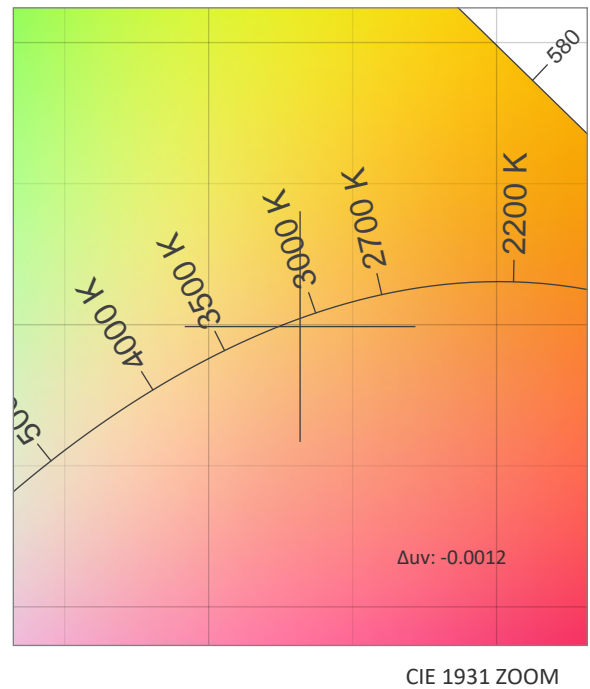
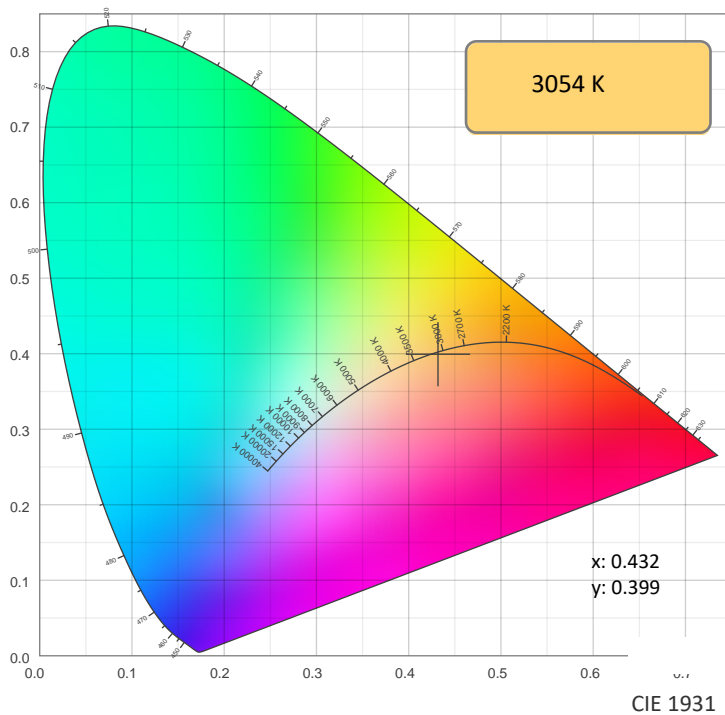
### SPECTRA



### POWER

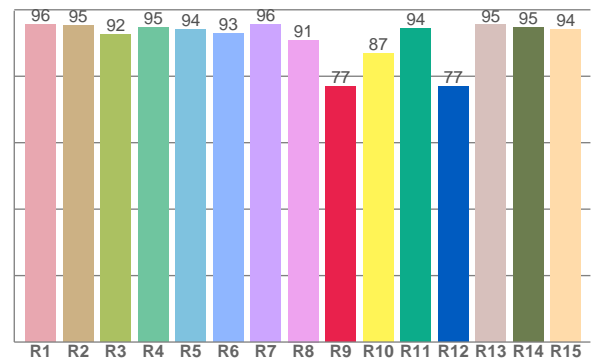
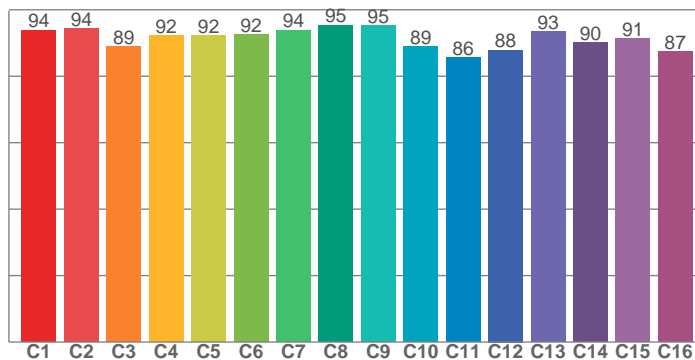


## COLOR DETAILS



TM30: 91.5

CRI: 93.9 (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
95.6	95.4	92.5	94.7	94.1	92.8	95.5	90.9	77.0	86.9	94.3	76.9	95.4	94.8	94.1

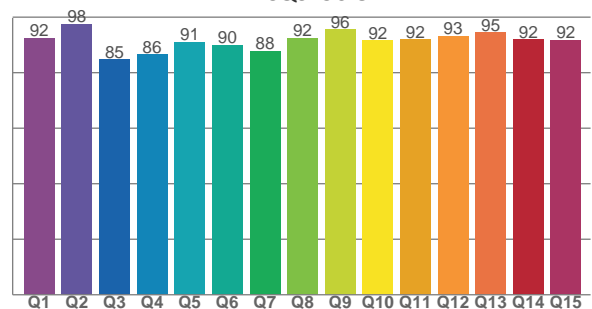
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
93.9	94.5	89.0	92.2	92.2	92.5	93.9	95.4	95.1	88.9	85.7	87.9	93.5	90.1	91.4	87.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
92.5	97.5	84.7	86.5	91.0	90.0	87.8	92.5	95.5	91.5	91.9	93.2	94.5	92.0	91.8

CQS: 90.8



## 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	$\Delta uv$
3054 K	93.9	77.0	91.5	102.3	90.8	0.432	0.399	0.249	0.346	-0.0012

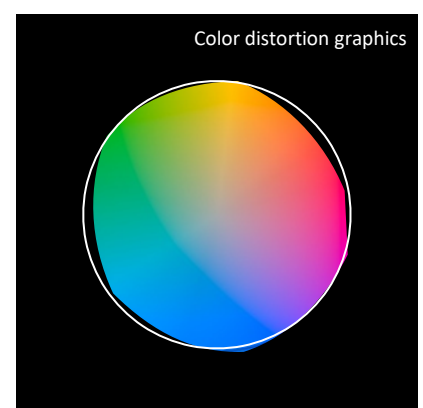
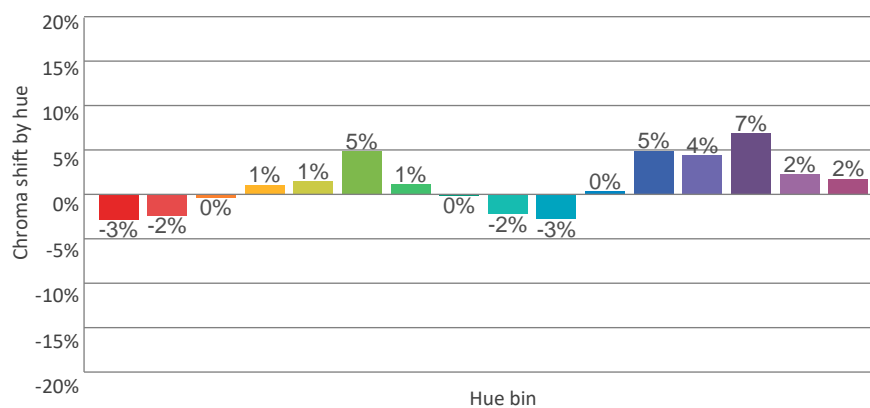
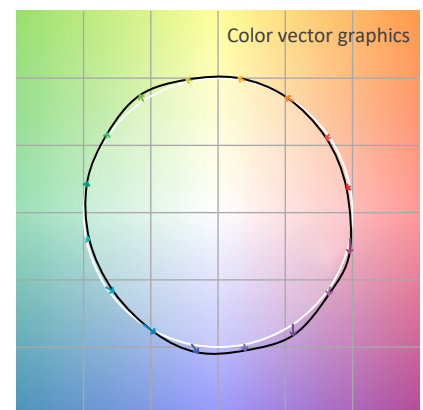
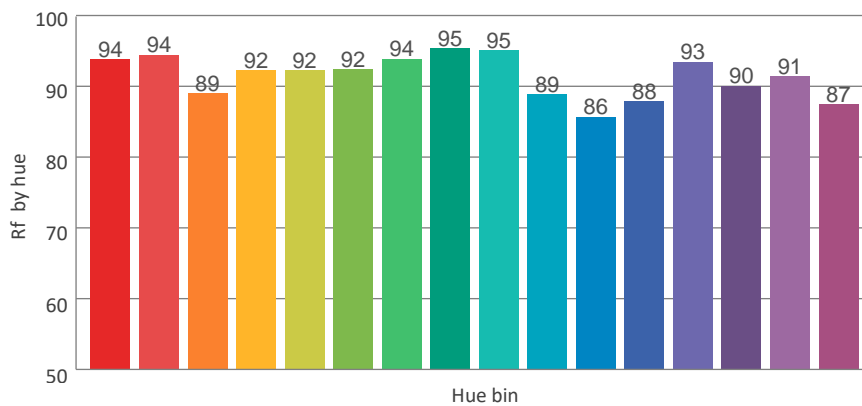
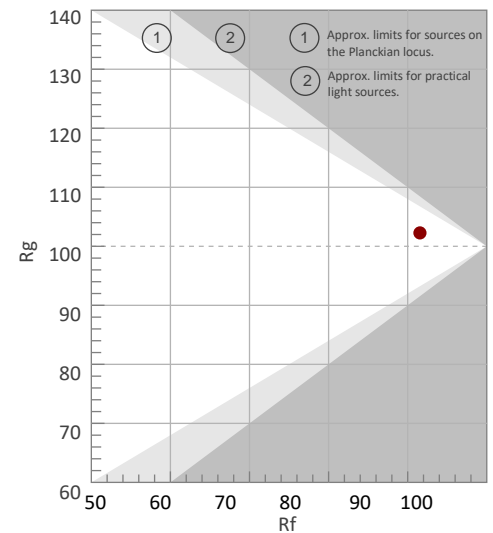
Rf 91.5

Fidelity index Rf

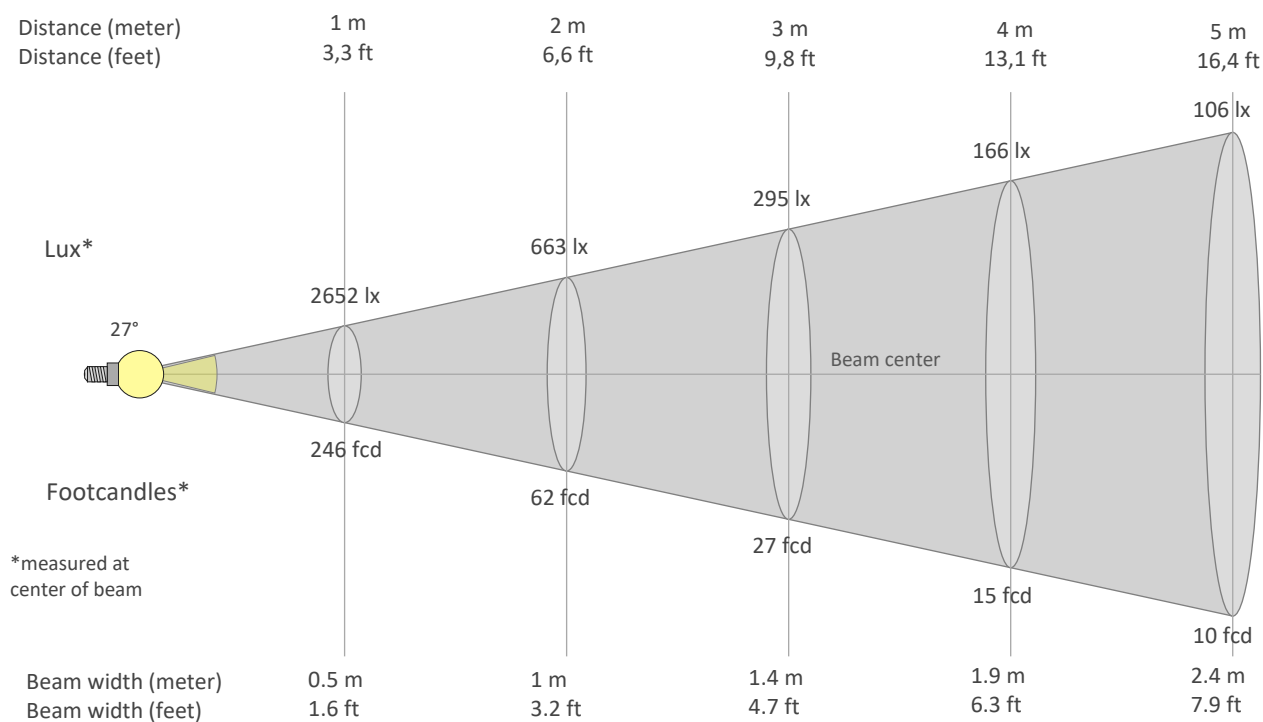
Rg 102.3

Gammut index Rg

Hue Bin	Graphic shifts (%)		
	R <sub>f</sub>	Chroma	Hue
1	94	-3%	-1%
2	94	-2%	2%
3	89	0%	6%
4	92	1%	5%
5	92	1%	4%
6	92	5%	0%
7	94	1%	-3%
8	95	0%	-3%
9	95	-2%	1%
10	89	-3%	6%
11	86	0%	11%
12	88	5%	5%
13	93	4%	0%
14	90	7%	-4%
15	91	2%	-5%
16	87	2%	-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
2652lx	663lx	295lx	166lx	106lx	74lx	54lx	41lx	33lx	27lx	22lx	18lx	16lx	14lx	12lx	10lx	9lx	8lx	7lx	7lx
246.4fcd	61.6fcd	27.4fcd	15.4fcd	9.9fcd	6.8fcd	5fcd	3.9fcd	3fcd	2.5fcd	2fcd	1.7fcd	1.5fcd	1.3fcd	1.1fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd

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°
2652	2623	2516	2328	2106	1858	1559	1253	970	725	514	349	229	149	98	66	45	30	21	14
100%	99%	95%	88%	79%	70%	59%	47%	37%	27%	19%	13%	9%	6%	4%	2%	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°
2652	2623	2516	2328	2106	1858	1559	1253	970	725	514	349	229	149	98	66	45	30	21	14
100%	99%	95%	88%	79%	70%	59%	47%	37%	27%	19%	13%	9%	6%	4%	2%	2%	1%	1%	1%

Intensities in 180° c-plane

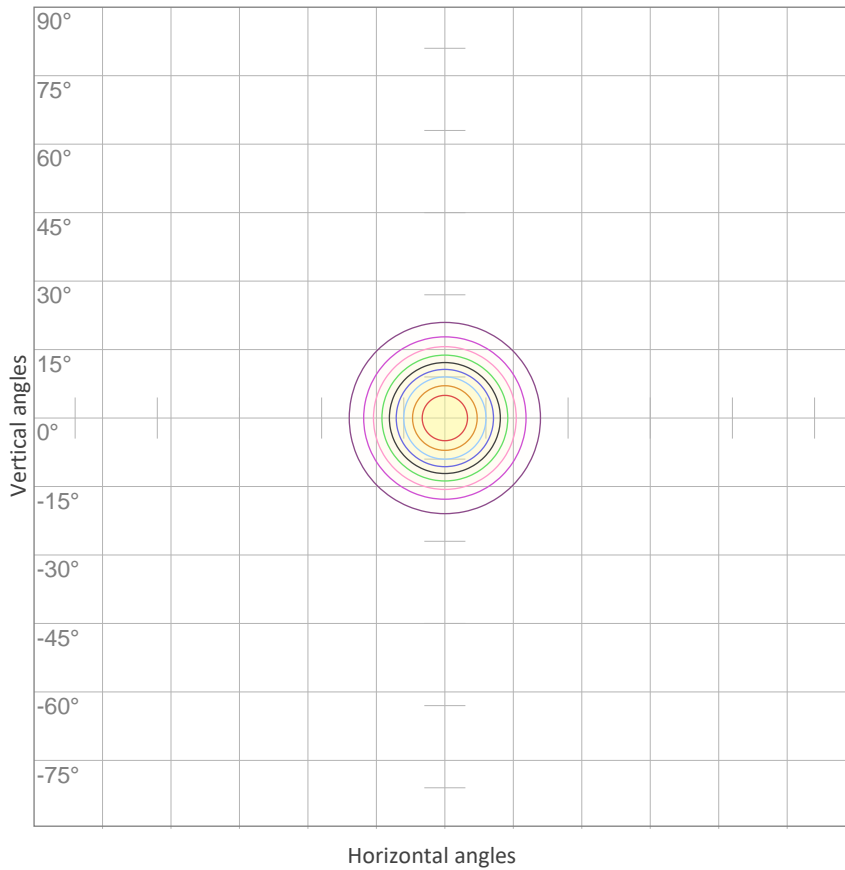
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
2652	2623	2516	2328	2106	1858	1559	1253	970	725	514	349	229	149	98	66	45	30	21	14
100%	99%	95%	88%	79%	70%	59%	47%	37%	27%	19%	13%	9%	6%	4%	2%	2%	1%	1%	1%

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°
2652	2623	2516	2328	2106	1858	1559	1253	970	725	514	349	229	149	98	66	45	30	21	14
100%	99%	95%	88%	79%	70%	59%	47%	37%	27%	19%	13%	9%	6%	4%	2%	2%	1%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
27°	46.6°	60°	99.1%	98.8%

ISO CANDELA DIAGRAM



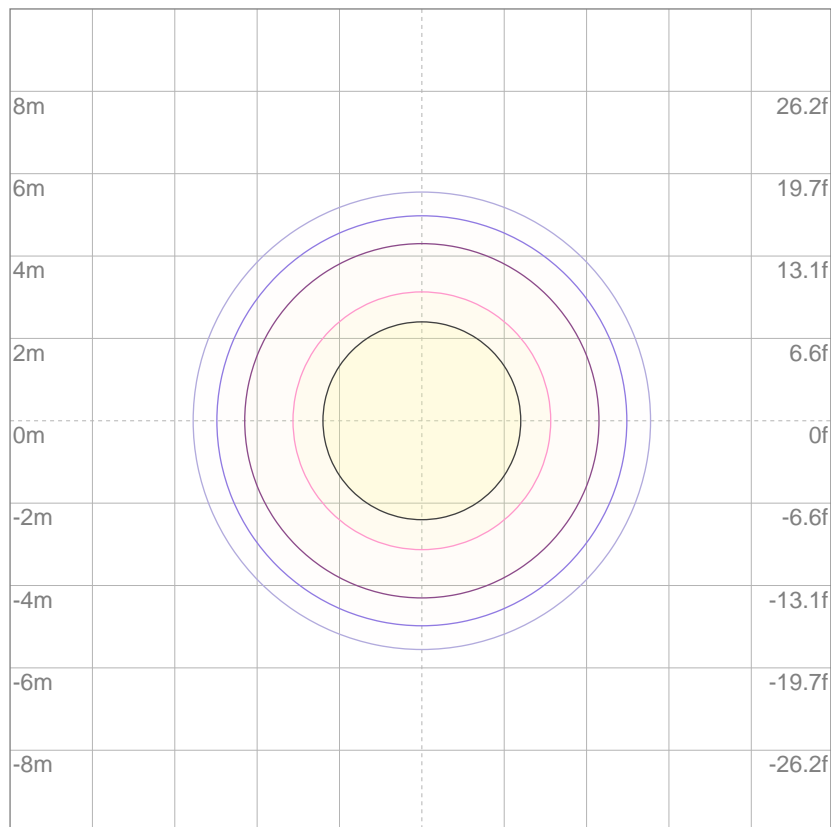
10%	265 cd
20%	530 cd
30%	796 cd
40%	1061 cd
50%	1326 cd
60%	1591 cd
70%	1857 cd
80%	2122 cd
90%	2387 cd

Conditions:

Number of c-planes: 8

Candela at center: 2652 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0.796 lx
5%	1.33 lx
10%	2.65 lx
30%	7.96 lx
50%	{LUX_10M50} lx

Conditions:

Number of c-planes: 8

Lux at center: 26.5 lx

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

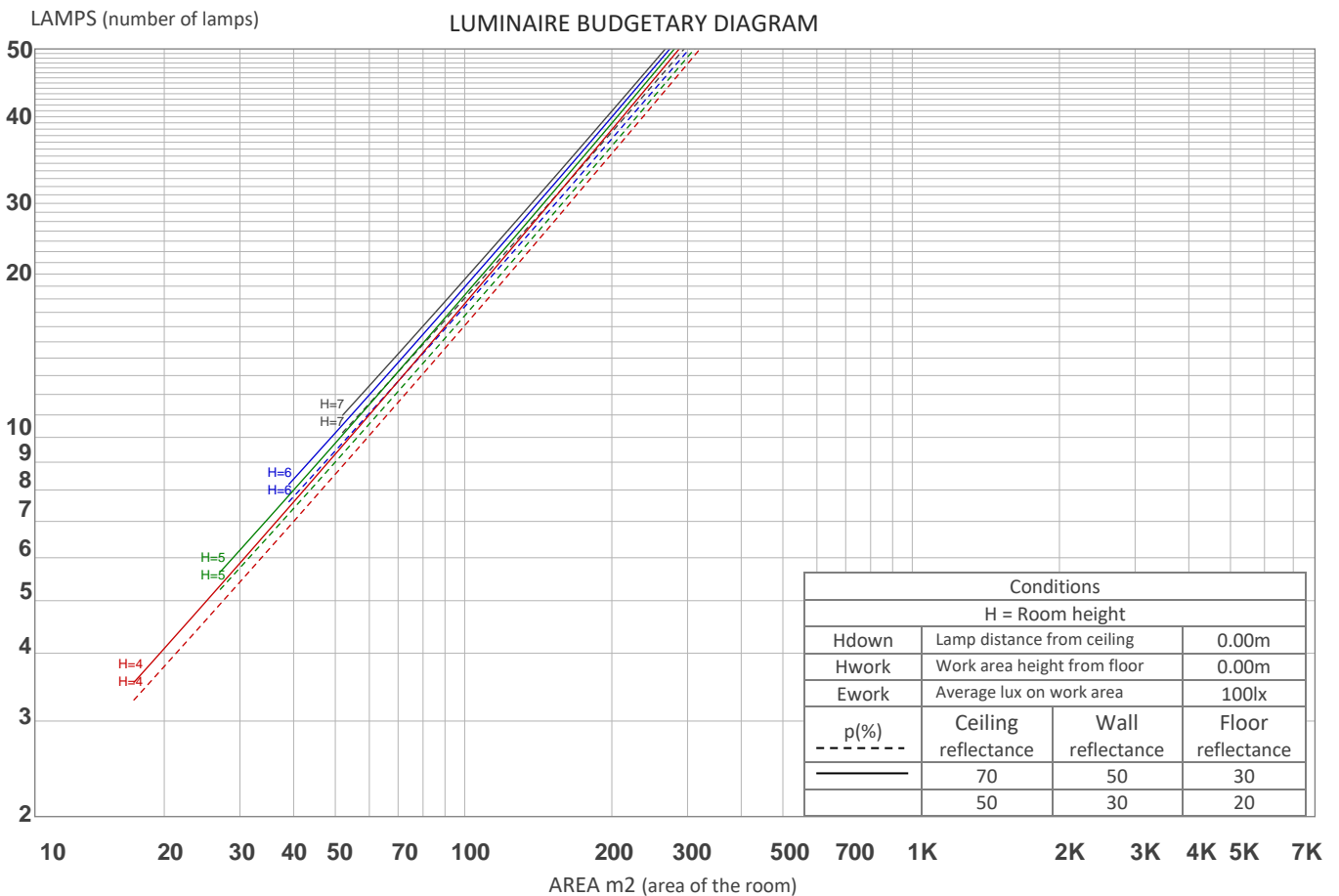
## UGR

## 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	5.6	5.9	5.6	6.1	6.3	5.6	5.9	5.6	6.1	6.3
	3H	5.3	5.9	5.7	6.0	6.2	5.3	5.9	5.7	6.0	6.2
	4H	5.2	5.8	5.6	6.0	6.3	5.2	5.8	5.6	6.0	6.3
	6H	5.3	5.7	5.6	6.0	6.4	5.3	5.7	5.6	6.0	6.4
	8H	5.2	5.7	5.6	6.0	6.4	5.2	5.7	5.6	6.0	6.4
	12H	5.2	5.6	5.5	6.0	6.4	5.2	5.6	5.5	6.0	6.4
4H	2H	5.2	5.7	5.6	6.0	6.2	5.2	5.7	5.6	6.0	6.2
	3H	5.2	5.6	5.5	5.9	6.4	5.2	5.6	5.5	5.9	6.4
	4H	5.1	5.4	5.5	5.9	6.4	5.1	5.4	5.5	5.9	6.4
	6H	5.0	5.5	5.5	5.8	6.2	5.0	5.5	5.5	5.8	6.2
	8H	5.0	5.4	5.5	5.7	6.1	5.0	5.4	5.5	5.7	6.1
	12H	4.9	5.2	5.4	5.7	6.1	4.9	5.2	5.4	5.7	6.1
8H	4H	4.9	5.3	5.5	5.7	6.1	4.9	5.3	5.5	5.7	6.1
	6H	4.9	5.2	5.4	5.7	6.2	4.9	5.2	5.4	5.7	6.2
	8H	5.0	5.2	5.5	5.7	6.3	5.0	5.2	5.5	5.7	6.3
	12H	4.9	5.1	5.5	5.6	6.2	4.9	5.1	5.5	5.6	6.2
12H	4H	4.9	5.2	5.4	5.6	6.1	4.9	5.2	5.4	5.6	6.1
	6H	4.9	5.1	5.5	5.7	6.3	4.9	5.1	5.5	5.7	6.3
	8H	4.9	5.1	5.5	5.6	6.2	4.9	5.1	5.5	5.6	6.2
Variation of the observer position for the luminaire distance S											
S = 1.0H		5.8 / -7.4					5.8 / -7.4				
S = 1.5H		8.6 / -7.8					8.6 / -7.8				
S = 2.0H		10.5 / -8.0					10.5 / -8.0				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 637 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	99
1	115	113	111	109	112	111	109	107	106	105	104	103	102	101	99	98	98	96
2	111	107	104	102	109	106	103	101	103	100	98	100	98	96	97	95	94	93
3	108	103	99	96	106	101	98	96	99	96	94	97	94	93	94	93	91	90
4	104	99	95	92	103	98	94	91	96	93	90	94	91	89	92	90	88	87
5	101	95	91	88	100	94	91	88	93	89	87	91	88	86	90	87	85	84
6	98	92	88	85	97	91	87	84	90	86	84	89	86	83	87	85	83	82
7	95	89	85	82	94	88	84	82	87	84	81	86	83	81	85	82	80	79
8	93	86	82	79	92	86	82	79	85	81	79	84	81	78	83	80	78	77
9	90	84	80	77	89	83	79	77	82	79	76	82	78	76	81	78	76	75
10	88	81	77	75	87	81	77	75	80	77	74	80	76	74	79	76	74	73



## ZONAL LUMEN SUMMARY

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
213 lm	301 lm	95.3 lm	17.5 lm	3.45 lm	1.12 lm	0.818 lm	0.620 lm	0.336 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.188 lm	0.158 lm	0.228 lm	0.377 lm	0.592 lm	0.741 lm	0.742 lm	0.512 lm	0.137 lm

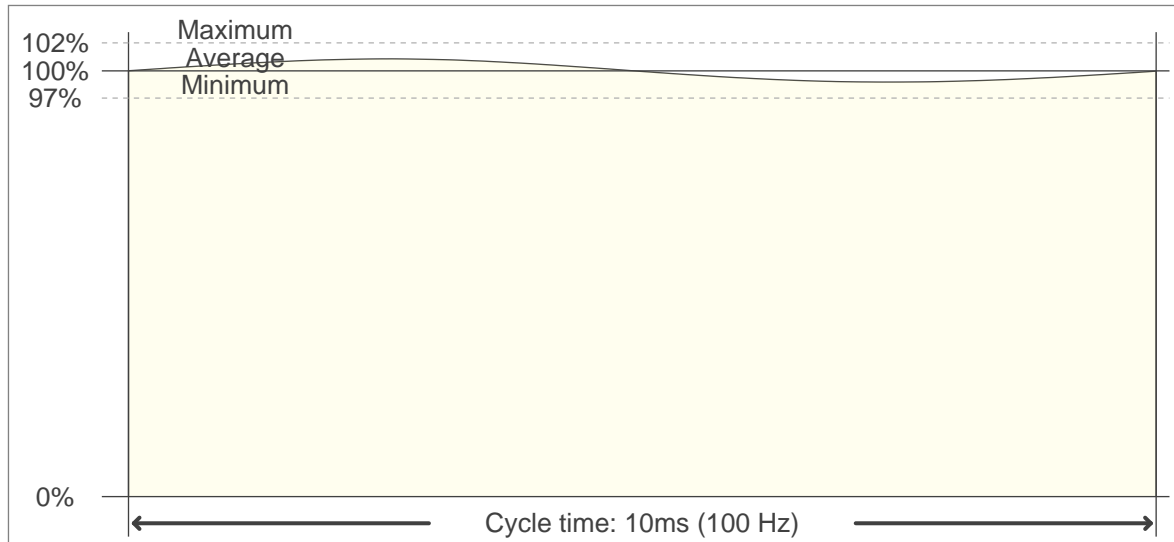


## FLICKER

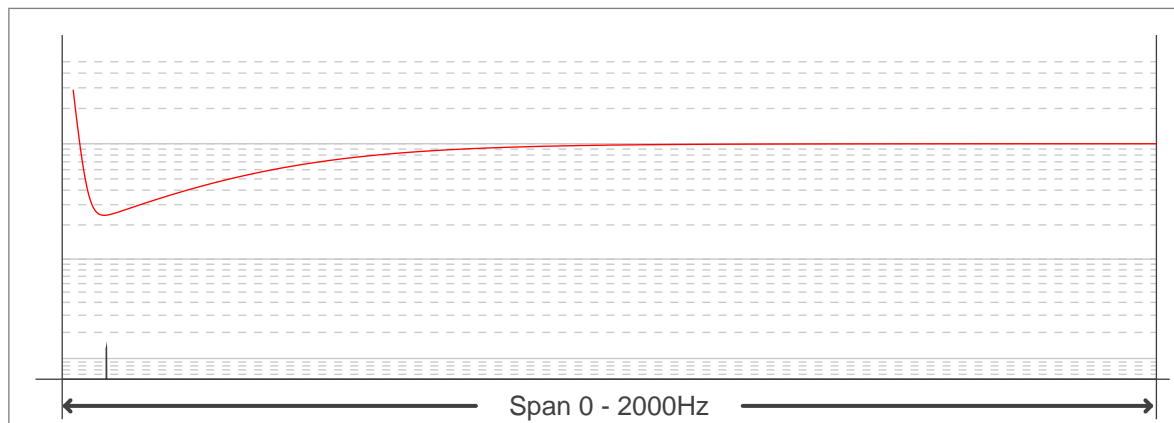
FLICKER CURVE (COMPLETE SAMPLED FLICKER)



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:	2.75 %
SVM: (Visual flicker)	0.11

## FLICKER CONDITIONS:

Sample rate:	20000 samples/second
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