PHOTOMETRIC TEST REPORT

CAN 50 TRACK MATT WHITE &
GLARE GUARD

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CAN 50 TRACK MATT WHITE & GLARE GUARD

LIGHT EFFICIENCY:

47 Lumen/Watt

LIGHT QUALITY:

CRI: 92.0

COLOR TEMPERATURE:

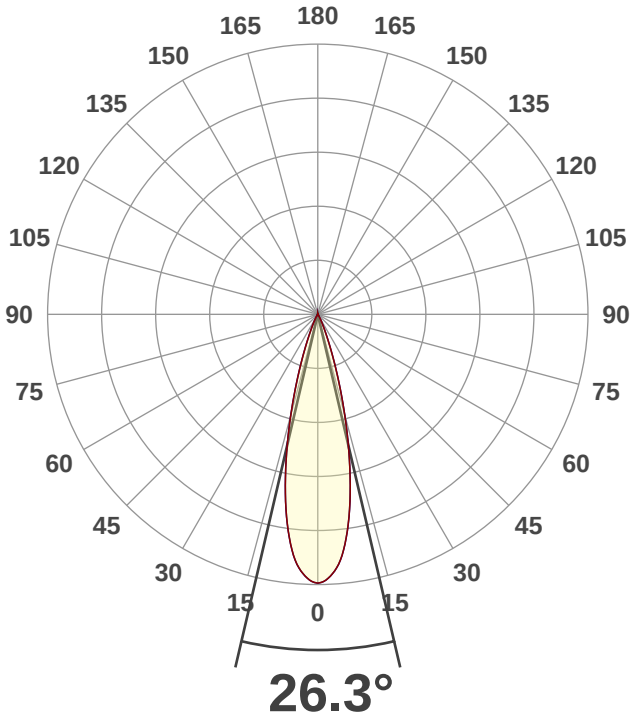
3059 K

OUTPUT: 385 lm

PEAK: 1776 cd

POWER: 8.2 W

PF: 0.95



CIE 1931
x: 0.432
y: 0.400

Tracking number: n/a

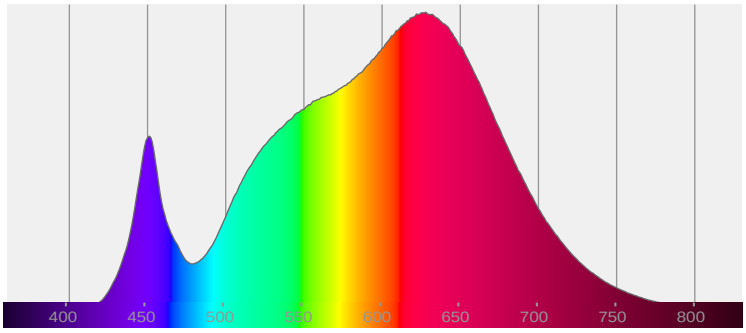
Product name:
Can 50 Track Matt White & Glare Guard

Item number:
1396026

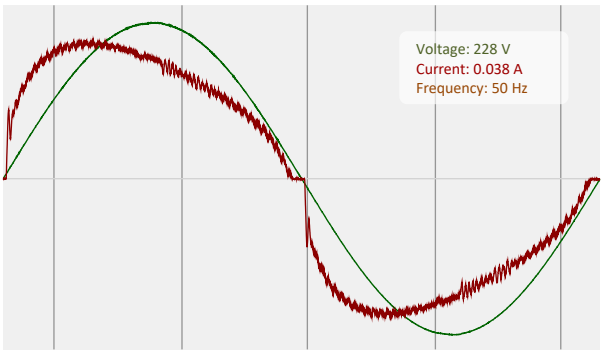
Date and time:
08/04/2021 11:03:17

Description:
IP20 LED Track Spotlight with Glare Guard

SPECTRA



POWER



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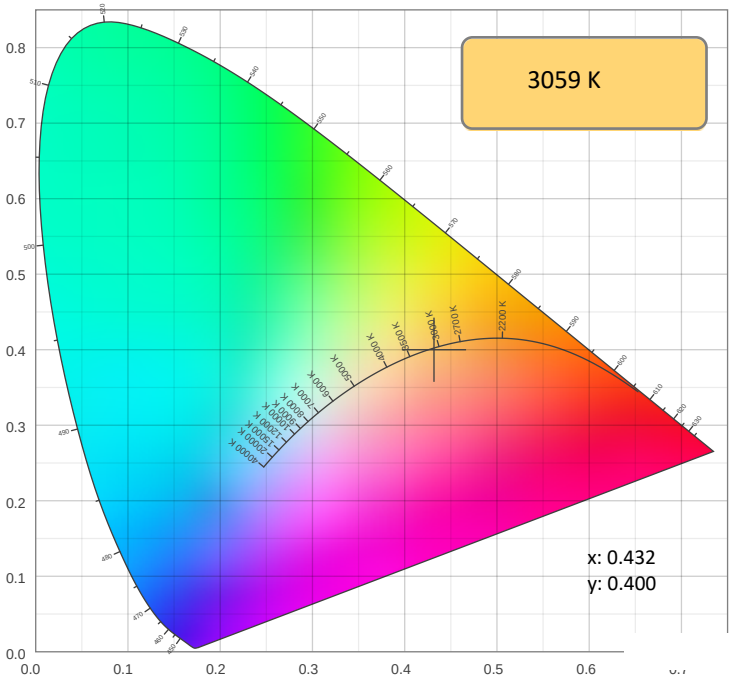
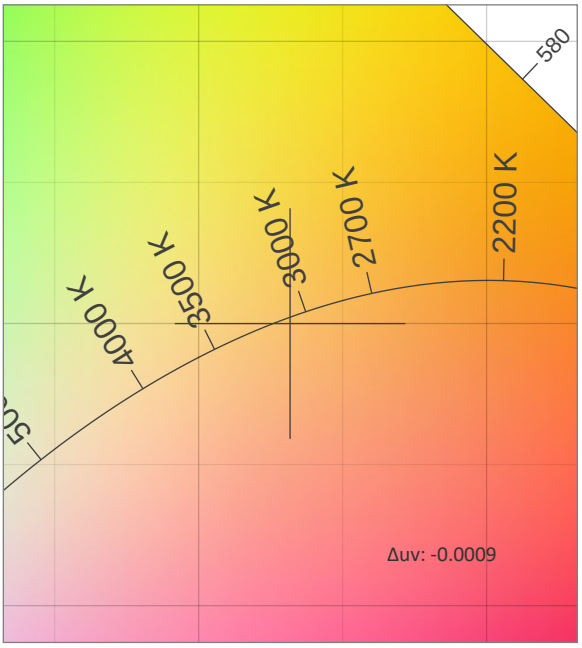
COLOR DETAILS

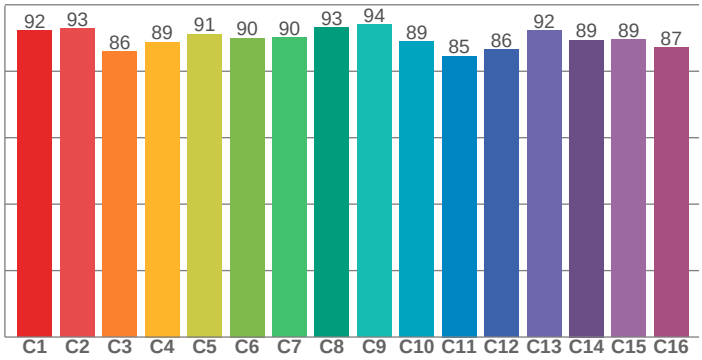


CIE 1931

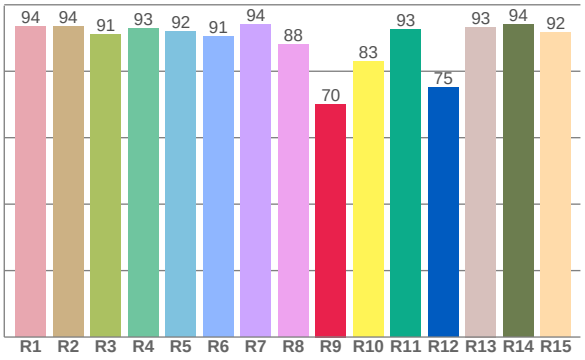


CIE 1931 ZOOM

TM30: 89.9



CRI: 92.0 (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
93.5	93.6	91.1	92.9	91.9	90.6	94.0	88.1	70.2	82.9	92.7	75.2	93.3	94.0	91.6

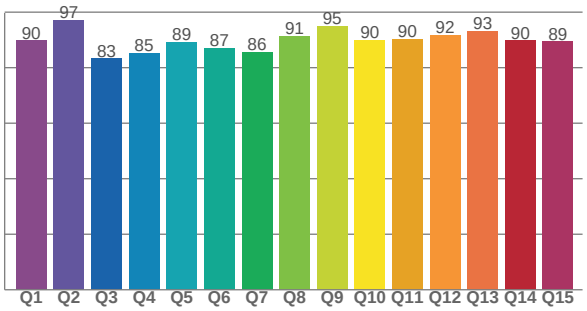
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.4	92.8	86.0	88.8	91.2	90.0	90.2	93.0	94.1	88.8	84.6	86.5	92.2	89.4	89.5	87.2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89.7	97.2	83.3	85.4	89.1	87.1	85.6	91.4	95.1	89.9	90.4	91.8	93.2	89.7	89.4

CQS: 89.2



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
3059 K	92.0	70.2	89.9	102.7	89.2	0.432	0.400	0.249	0.346	-0.0009

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TM30 DETAILS

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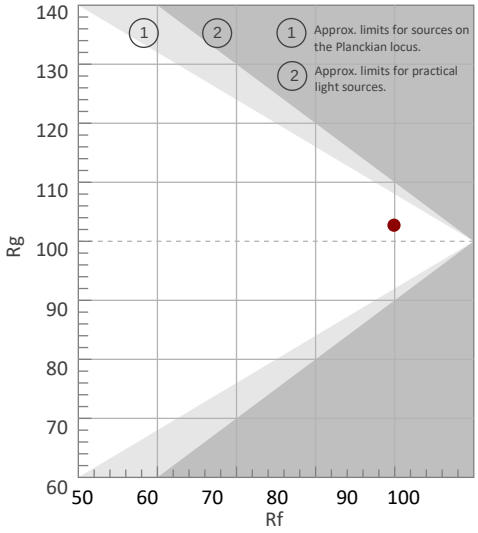
Rf 89.9

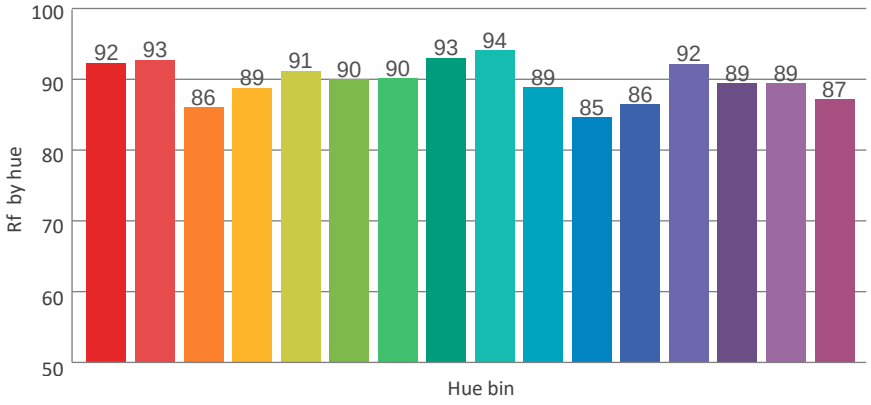
Fidelity index Rf

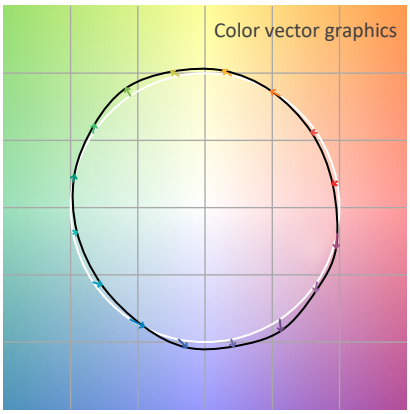
Rg 102.7

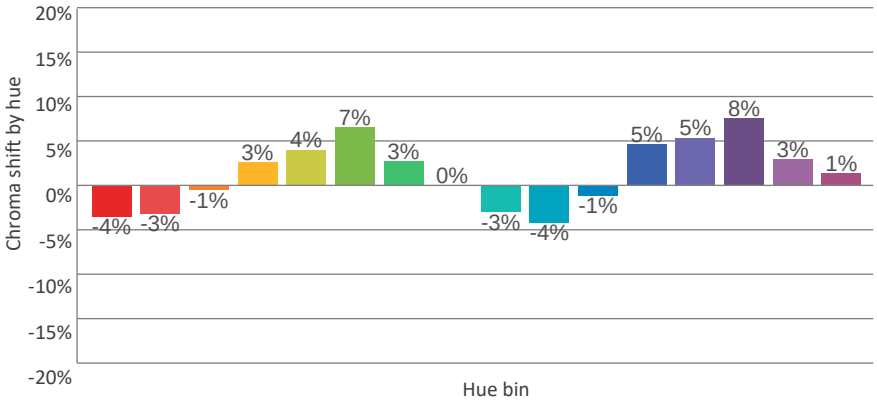
Gammut index Rg

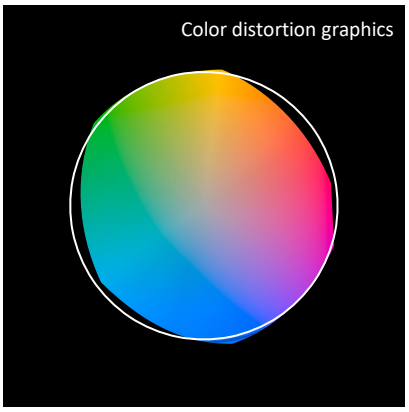
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	92	-4%	-2%
2	93	-3%	3%
3	86	-1%	7%
4	89	3%	7%
5	91	4%	5%
6	90	7%	0%
7	90	3%	-6%
8	93	0%	-5%
9	94	-3%	-1%
10	89	-4%	5%
11	85	-1%	11%
12	86	5%	7%
13	92	5%	1%
14	89	8%	-4%
15	89	3%	-6%
16	87	1%	-10%

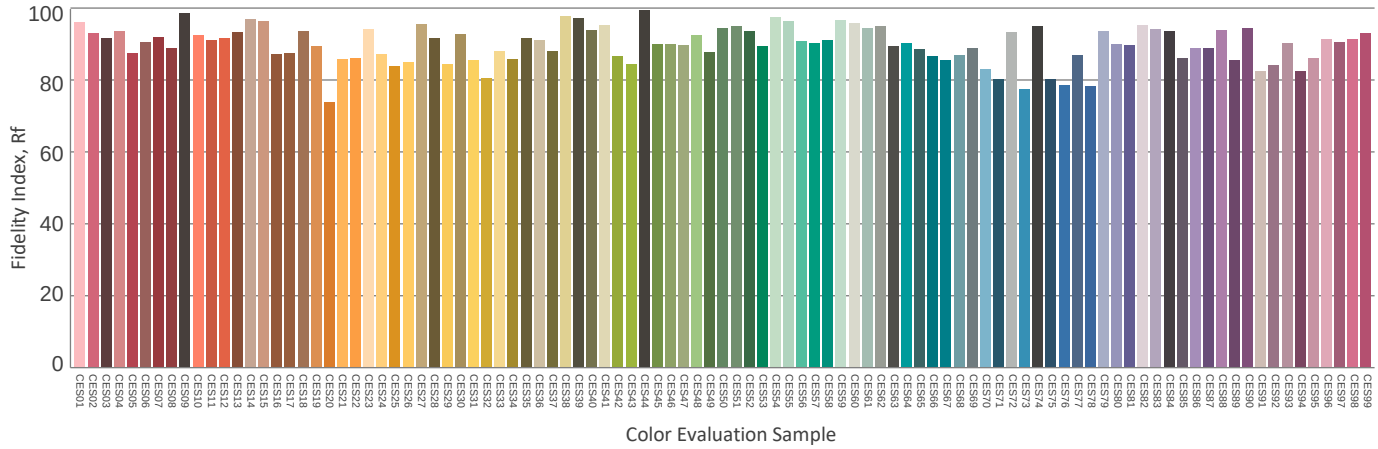












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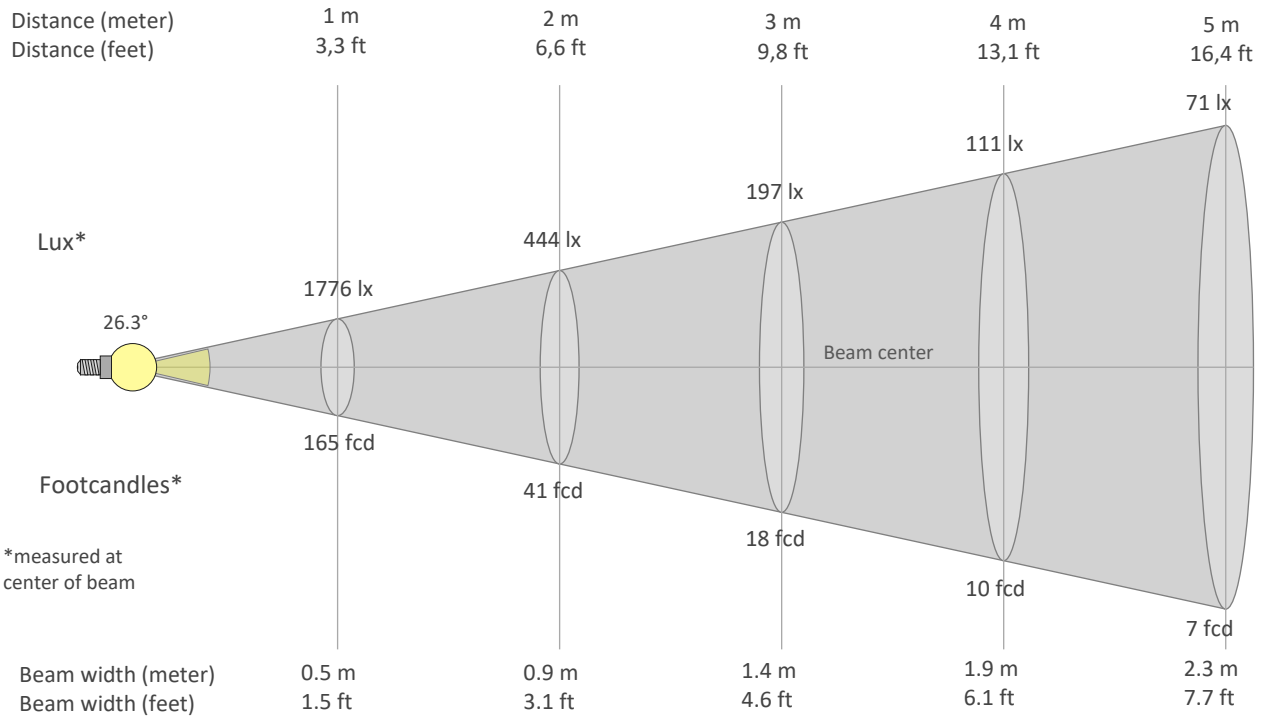
BEAM DETAILS



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
1776lx	444lx	197lx	111lx	71lx	49lx	36lx	28lx	22lx	18lx	15lx	12lx	11lx	9lx	8lx	7lx	6lx	5lx	5lx	4lx
165fcd	41.3fcd	18.3fcd	10.3fcd	6.6fcd	4.6fcd	3.4fcd	2.6fcd	2fcd	1.7fcd	1.4fcd	1.1fcd	1fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd	0.5fcd	0.5fcd	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°
1776	1752	1690	1584	1424	1230	1013	795	588	409	269	169	105	66	41	26	16	10	7	5
100%	99%	95%	89%	80%	69%	57%	45%	33%	23%	15%	9%	6%	4%	2%	1%	1%	1%	0%	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°
1776	1752	1690	1584	1424	1230	1013	795	588	409	269	169	105	66	41	26	16	10	7	5
100%	99%	95%	89%	80%	69%	57%	45%	33%	23%	15%	9%	6%	4%	2%	1%	1%	1%	0%	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°
1776	1752	1690	1584	1424	1230	1013	795	588	409	269	169	105	66	41	26	16	10	7	5
100%	99%	95%	89%	80%	69%	57%	45%	33%	23%	15%	9%	6%	4%	2%	1%	1%	1%	0%	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°
1776	1752	1690	1584	1424	1230	1013	795	588	409	269	169	105	66	41	26	16	10	7	5
100%	99%	95%	89%	80%	69%	57%	45%	33%	23%	15%	9%	6%	4%	2%	1%	1%	1%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
26.3°	43.6°	55.4°	99.2%	98.9%

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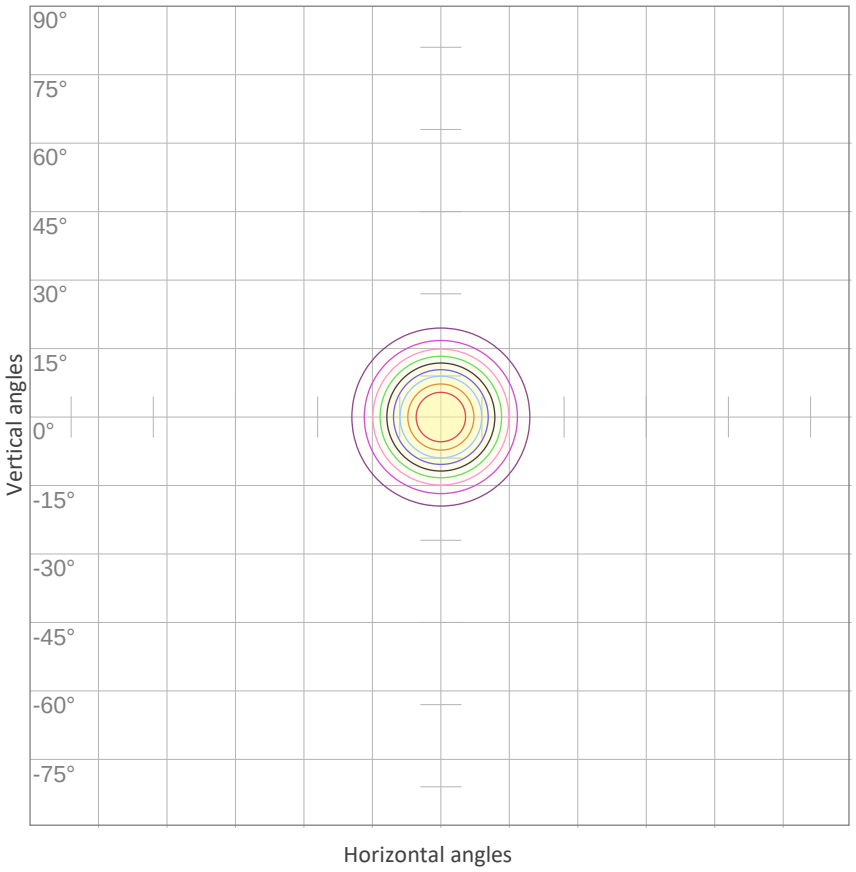
ISO DIAGRAMS

ISO CANDELA DIAGRAM



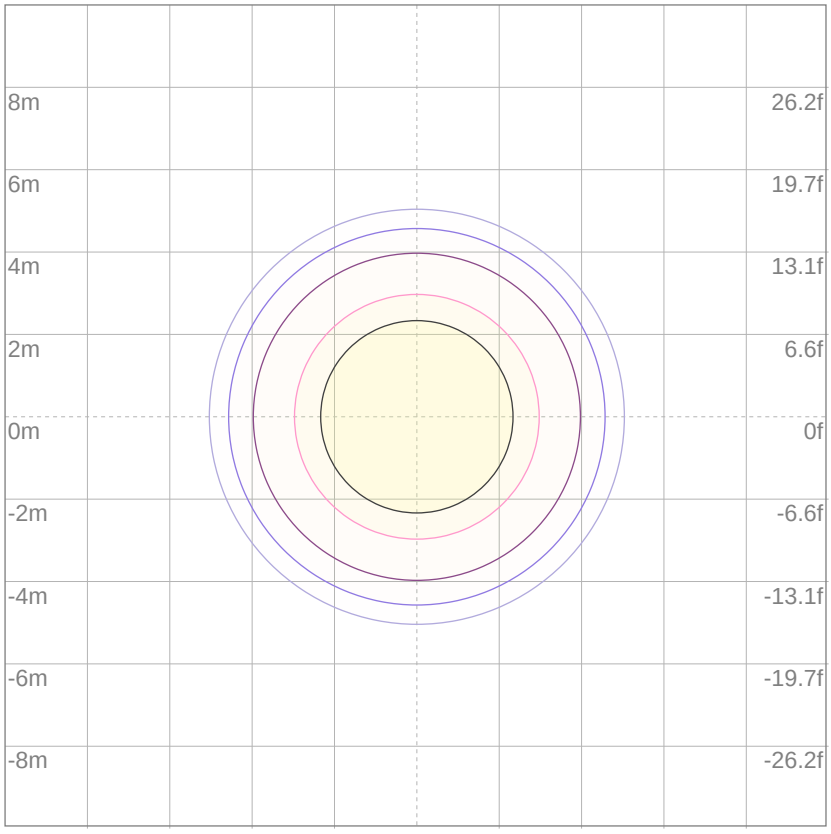
10%	178 cd
20%	355 cd
30%	533 cd
40%	710 cd
50%	888 cd
60%	1066 cd
70%	1243 cd
80%	1421 cd
90%	1598 cd

Conditions:

Number of c-planes: 8

Candela at center: 1776 cd

ISO LUX DIAGRAM



Mounting height: 10 meters (33 feet)

3%	0.533 lx
5%	0.888 lx
10%	1.78 lx
30%	5.33 lx
50%	{LUX_10M50} lx

Conditions:

Number of c-planes: 8

Lux at center: 17.8 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	-0.2	0.2	-0.1	0.4	0.6	-0.2	0.2	-0.1	0.4	0.6
	3H	-0.4	0.2	0.0	0.4	0.5	-0.4	0.2	0.0	0.4	0.5
	4H	-0.4	0.1	0.0	0.4	0.6	-0.4	0.1	0.0	0.4	0.6
	6H	-0.3	0.1	0.0	0.4	0.7	-0.3	0.1	0.0	0.4	0.7
	8H	-0.4	0.0	-0.1	0.4	0.7	-0.4	0.0	-0.1	0.4	0.7
	12H	-0.4	0.0	-0.1	0.3	0.7	-0.4	0.0	-0.1	0.3	0.7
4H	2H	-0.5	0.0	-0.1	0.2	0.5	-0.5	0.0	-0.1	0.2	0.5
	3H	-0.4	0.0	-0.1	0.3	0.8	-0.4	0.0	-0.1	0.3	0.8
	4H	-0.5	-0.1	-0.1	0.3	0.8	-0.5	-0.1	-0.1	0.3	0.8
	6H	-0.5	-0.1	0.0	0.3	0.6	-0.5	-0.1	0.0	0.3	0.6
	8H	-0.5	-0.1	0.0	0.2	0.6	-0.5	-0.1	0.0	0.2	0.6
	12H	-0.6	-0.3	-0.1	0.1	0.6	-0.6	-0.3	-0.1	0.1	0.6
8H	4H	-0.6	-0.2	-0.1	0.2	0.5	-0.6	-0.2	-0.1	0.2	0.5
	6H	-0.5	-0.3	0.0	0.2	0.7	-0.5	-0.3	0.0	0.2	0.7
	8H	-0.5	-0.3	0.0	0.2	0.8	-0.5	-0.3	0.0	0.2	0.8
	12H	-0.6	-0.4	0.0	0.1	0.7	-0.6	-0.4	0.0	0.1	0.7
12H	4H	-0.6	-0.3	-0.1	0.1	0.5	-0.6	-0.3	-0.1	0.1	0.5
	6H	-0.5	-0.4	0.0	0.2	0.8	-0.5	-0.4	0.0	0.2	0.8
	8H	-0.6	-0.4	0.0	0.1	0.7	-0.6	-0.4	0.0	0.1	0.7

Variation of the observer position for the luminaire distance S		
S = 1.0H	5.5 / -5.2	5.5 / -5.2
S = 1.5H	8.2 / -5.6	8.2 / -5.6
S = 2.0H	10.1 / -6.2	10.1 / -6.2
Standard table	n/a	n/a
Correction summand	n/a	n/a

Corrected glare indices referring to 385 lm total luminous flux

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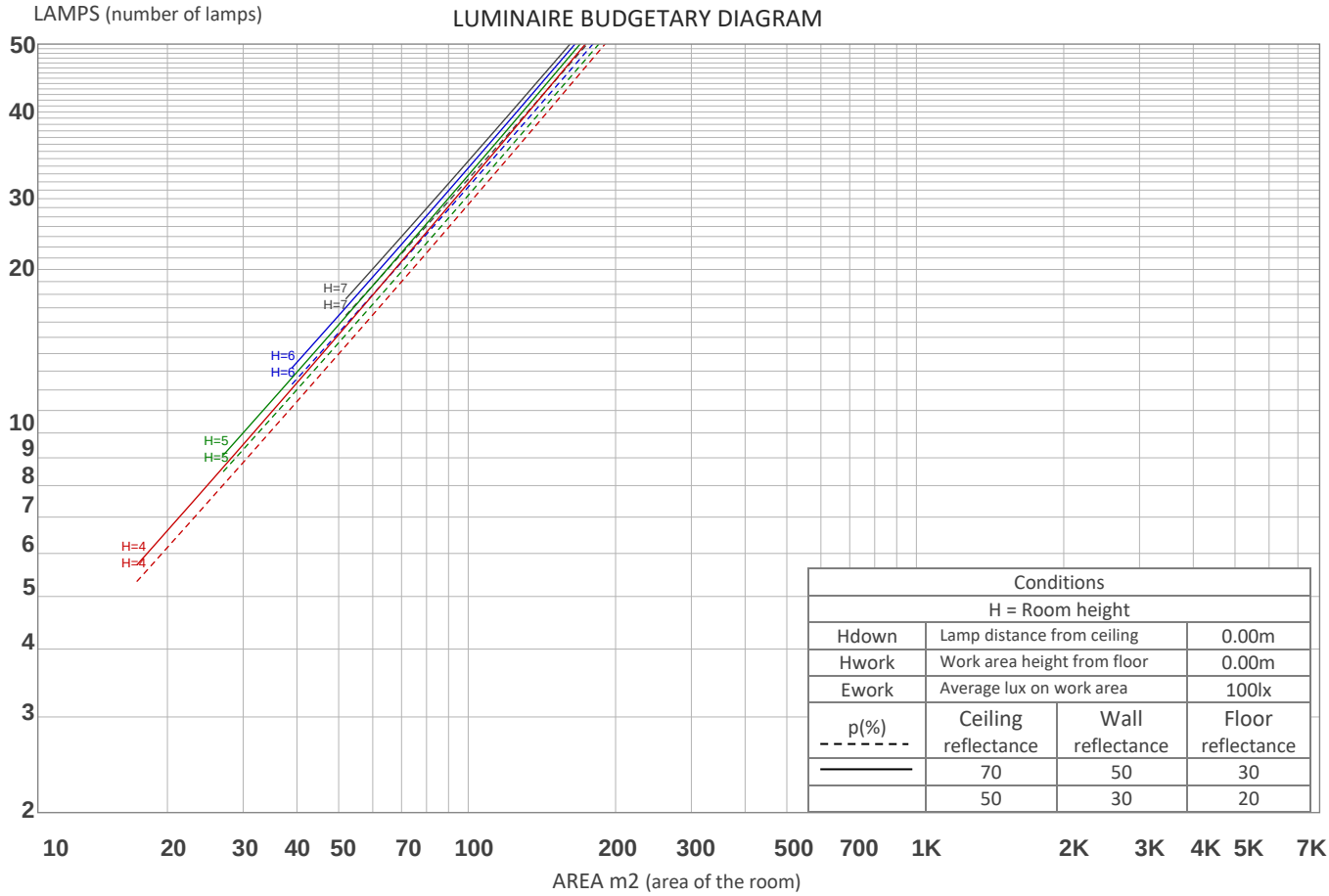
LIGHT PLANNING

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	113	111	109	108	107	105	104	103	102	101	100	99	98	96
2	111	108	105	103	109	106	104	101	103	101	99	100	98	97	97	96	95	94
3	108	104	100	97	106	102	99	97	100	97	95	97	95	94	95	94	92	91
4	105	100	96	93	103	99	95	93	97	94	92	95	92	90	93	91	89	88
5	102	96	93	90	101	96	92	89	94	91	88	92	90	88	91	89	87	86
6	99	93	89	87	98	93	89	86	91	88	86	90	87	85	89	86	85	84
7	97	91	87	84	96	90	86	84	89	86	83	88	85	83	87	84	82	81
8	94	88	84	81	93	88	84	81	87	83	81	86	83	81	85	82	80	79
9	92	86	82	79	91	85	82	79	84	81	79	84	81	79	83	80	78	77
10	90	83	80	77	89	83	80	77	82	79	77	82	79	77	81	78	76	76

LUMINAIRE BUDGETARY DIAGRAM



ZONAL LUMEN SUMMARY

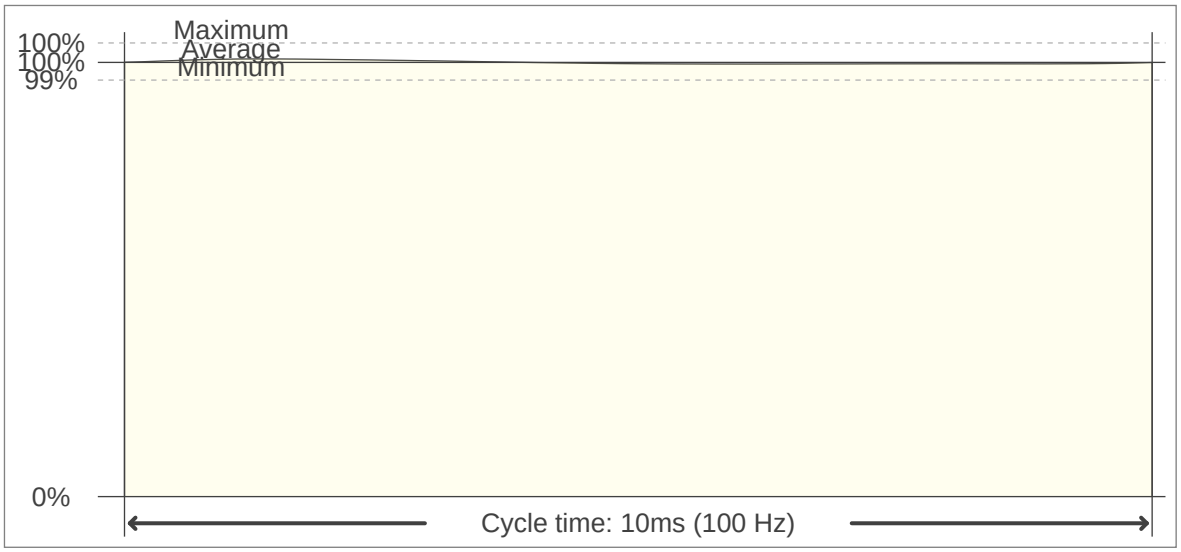
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
144 lm	186 lm	44.7 lm	6.19 lm	1.41 lm	0.677 lm	0.510 lm	0.316 lm	0.128 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.089 lm	0.093 lm	0.121 lm	0.202 lm	0.342 lm	0.432 lm	0.416 lm	0.270 lm	0.073 lm

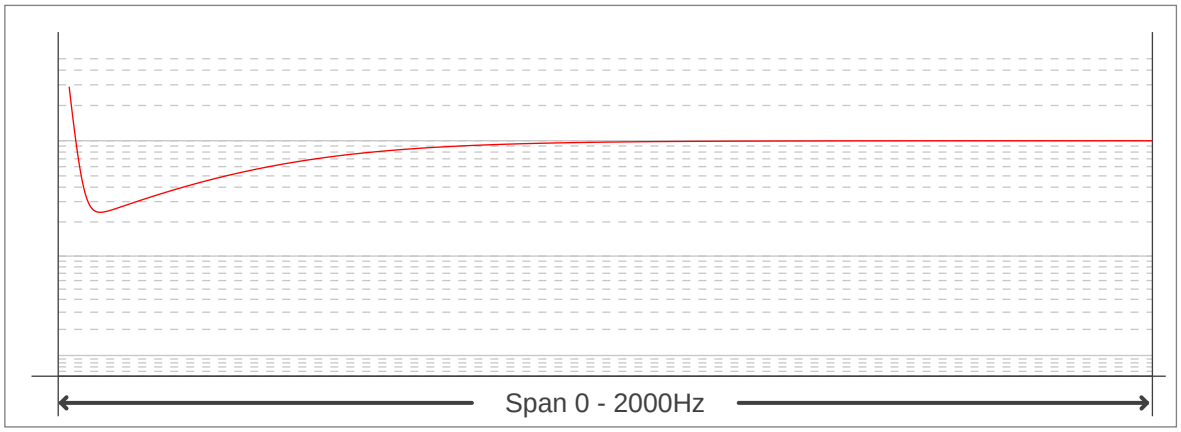
FLICKER

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
Flicker percentage:	0.62 %
SVM: (Visual flicker)	0.02

FLICKER CONDITIONS:

Sample rate:	20000 samples/second