

PHOTOMETRIC TEST REPORT

LINEAR 600 FIXED 48V TRACK
DALI - MATT BLACK

astro

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LIGHT EFFICIENCY:



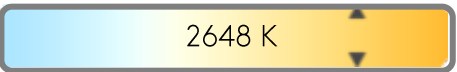
OUTPUT: 906 lm

LIGHT QUALITY:



PEAK: 296 cd

COLOR TEMPERATURE:



POWER: 20.5 W

PF: 0.88



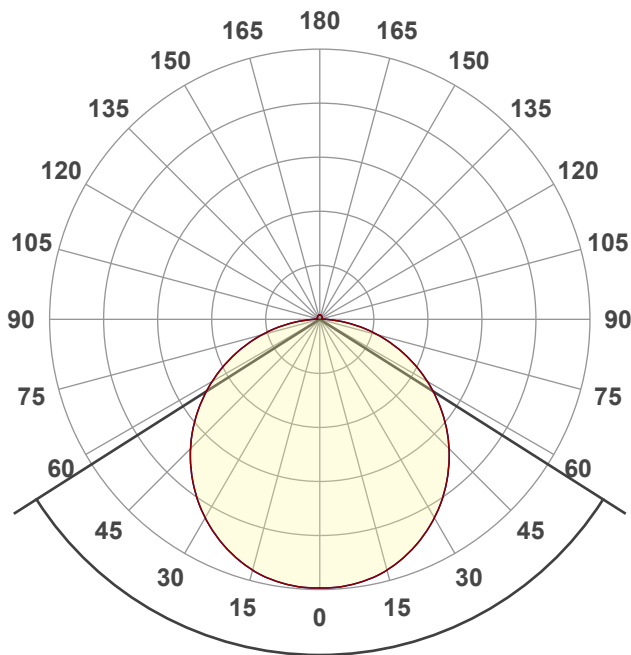
Tracking number: [n/a](#)

Product name:
Linear 600 Fixed 48V Track DALI - Matt
Black

Item number:
1521005

Date and time:
23/12/2025 12:55:56

Description:
IP20 48V Track Light
Tested with Stucchi 9500/P-100E-B-SP-N
Driver Box

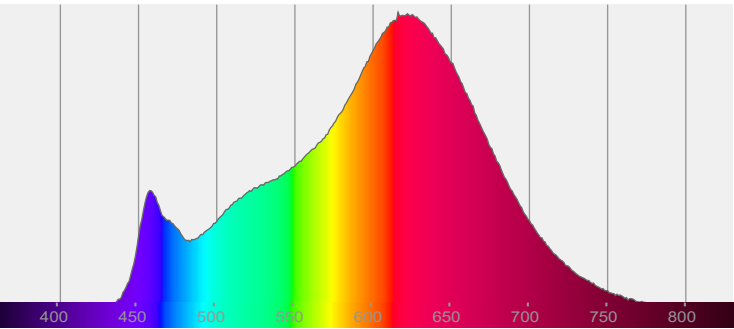


115.1°

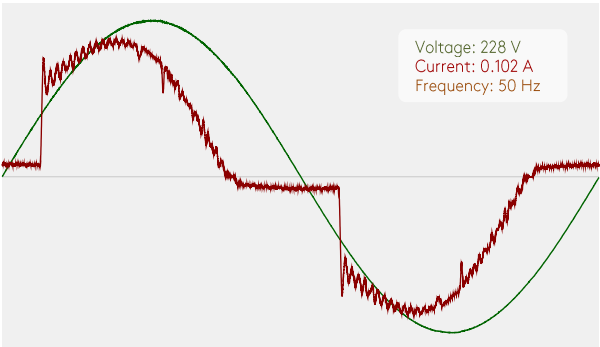


CIE 1931
x: 0.459
y: 0.402

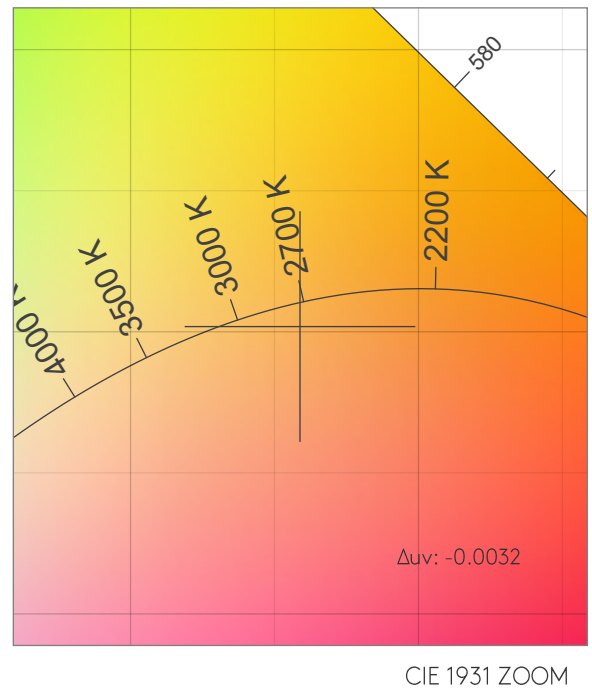
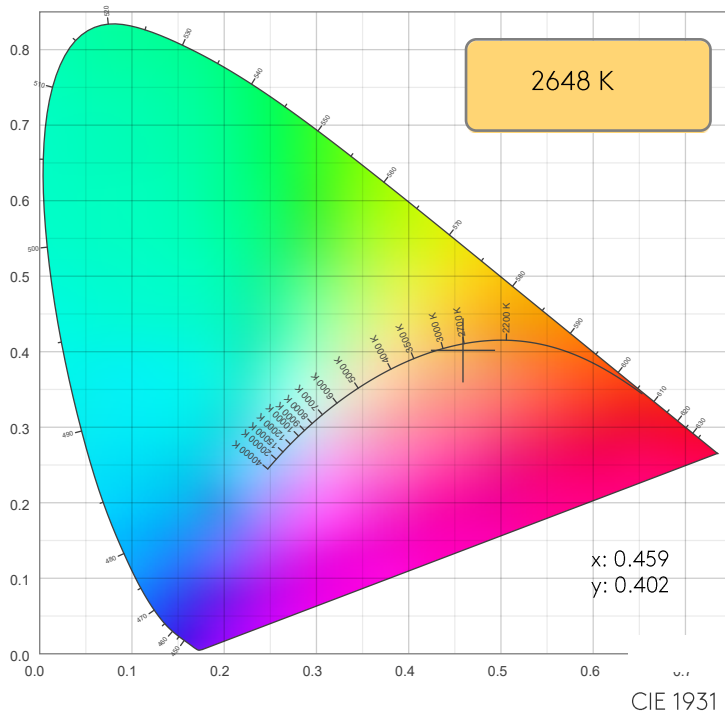
SPECTRA



POWER

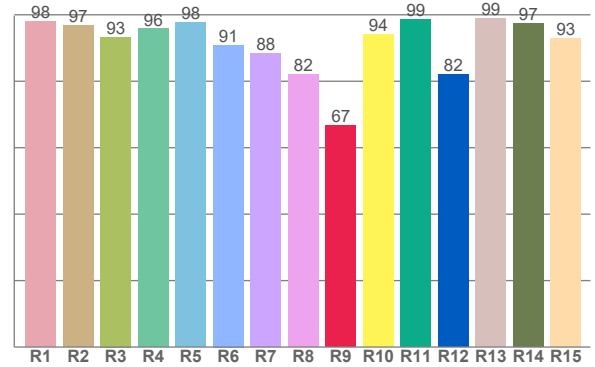
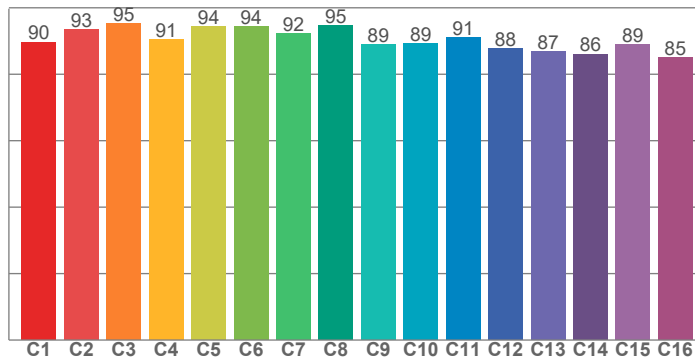


COLOR DETAILS



TM30: 90.6

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
98.0	96.8	93.3	95.7	97.8	90.9	88.3	82.1	66.6	94.0	98.7	82.1	99.0	97.4	93.0

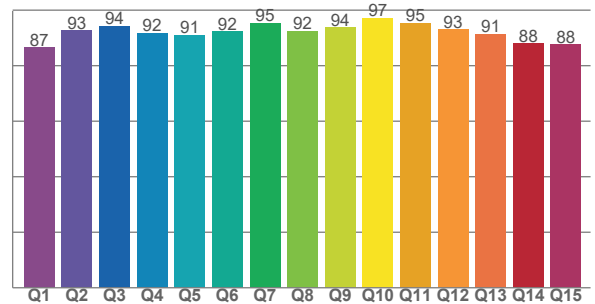
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89.7	93.4	95.3	90.5	94.4	94.3	92.3	94.6	89.0	89.2	91.1	87.7	86.7	86.1	88.9	85.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
86.5	92.6	94.3	91.7	91.0	92.3	95.3	92.5	93.8	97.2	95.4	93.1	91.3	88.0	87.6

CQS: 91.4



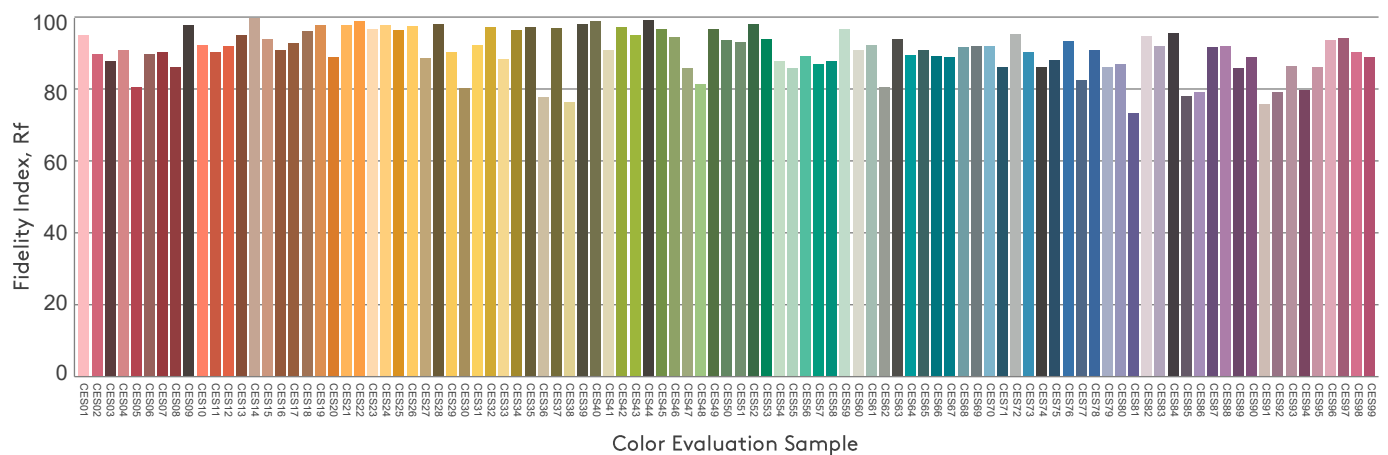
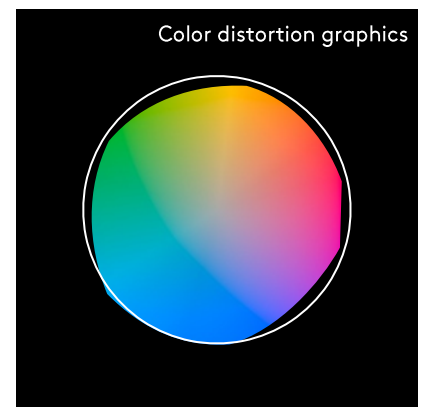
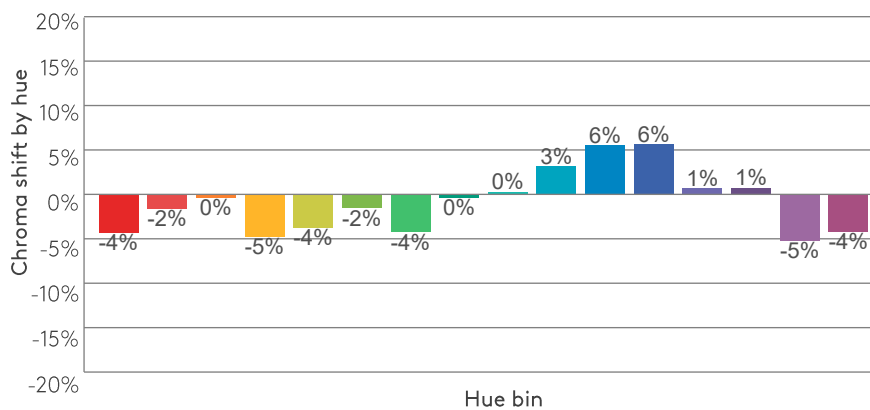
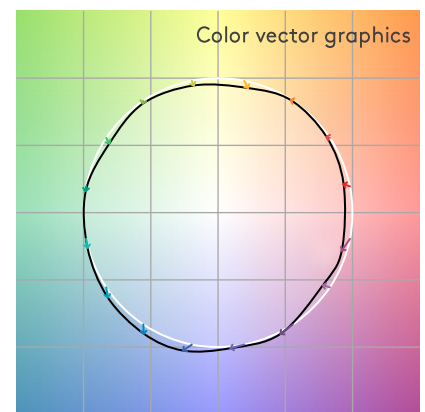
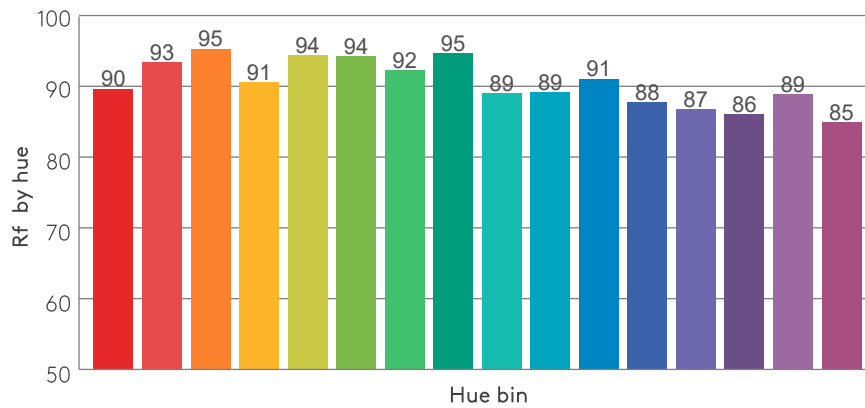
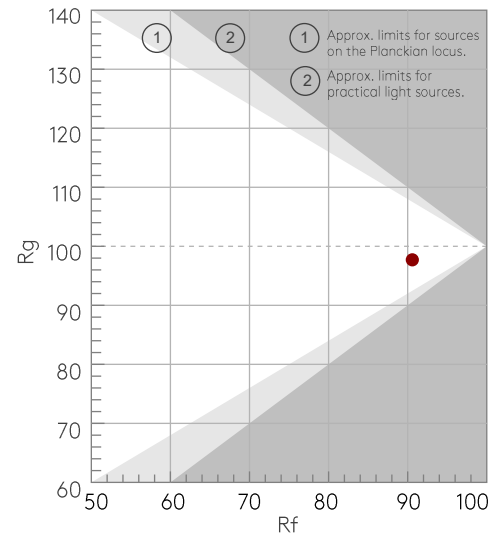
COLOR PARAMETERS

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
2648 K	92.9	66.6	90.6	97.7	91.4	0.459	0.402	0.266	0.349	-0.0032

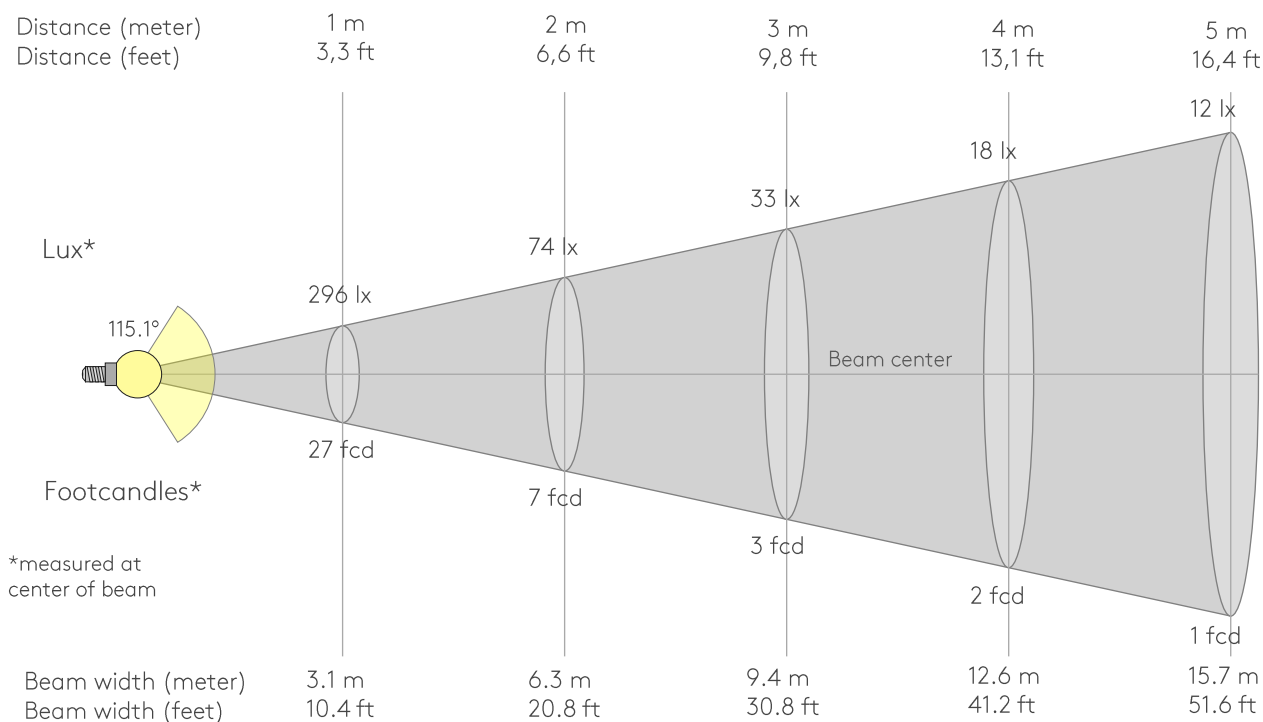
Rf 90.6
Fidelity index Rf

Rg 97.7
Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	90	-4%	3%
2	93	-2%	2%
3	95	0%	2%
4	91	-5%	-4%
5	94	-4%	-1%
6	94	-2%	1%
7	92	-4%	2%
8	95	0%	3%
9	89	0%	7%
10	89	3%	7%
11	91	6%	4%
12	88	6%	-5%
13	87	1%	-11%
14	86	1%	-11%
15	89	-5%	-2%
16	85	-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
296lx	74lx	33lx	18lx	12lx	8lx	6lx	5lx	4lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx
27.5fcd	6.9fcd	3.1fcd	1.7fcd	1.1fcd	0.8fcd	0.6fcd	0.4fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
296	295	292	286	277	265	252	237	220	201	181	159	137	113	90	66	43	22	8	3
100%	100%	99%	97%	94%	90%	85%	80%	74%	68%	61%	54%	46%	38%	30%	22%	15%	7%	3%	1%

Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
296	295	292	286	277	265	252	237	220	201	181	159	137	113	90	66	43	22	8	3
100%	100%	99%	97%	94%	90%	85%	80%	74%	68%	61%	54%	46%	38%	30%	22%	15%	7%	3%	1%

Intensities in 180° c-plane

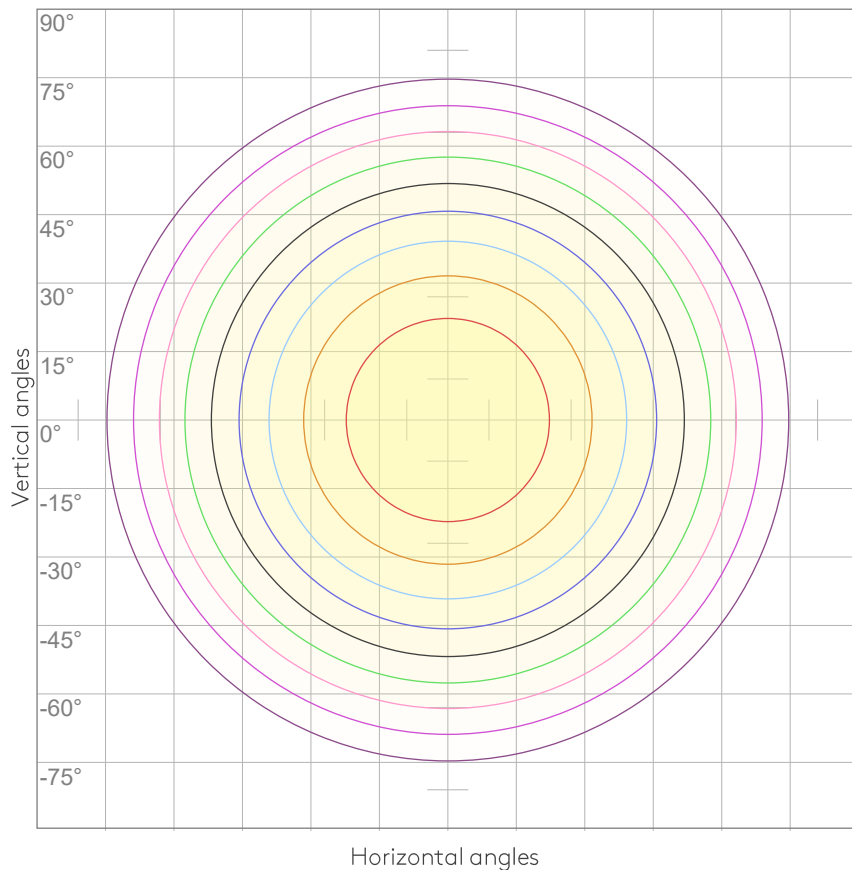
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
296	295	292	286	277	265	252	237	220	201	181	159	137	113	90	66	43	22	8	3
100%	100%	99%	97%	94%	90%	85%	80%	74%	68%	61%	54%	46%	38%	30%	22%	15%	7%	3%	1%

Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
296	295	292	286	277	265	252	237	220	201	181	159	137	113	90	66	43	22	8	3
100%	100%	99%	97%	94%	90%	85%	80%	74%	68%	61%	54%	46%	38%	30%	22%	15%	7%	3%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
115,1°	166°	180,5°	74.8%	50.5%

ISO CANDELA DIAGRAM



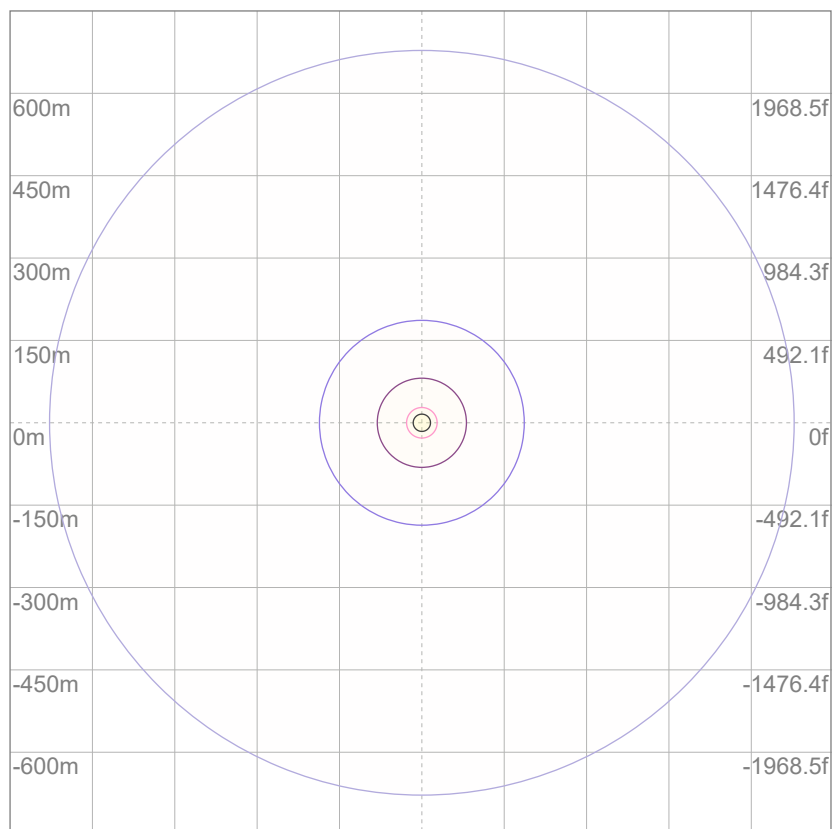
10%	30 cd
20%	59 cd
30%	89 cd
40%	118 cd
50%	148 cd
60%	177 cd
70%	207 cd
80%	237 cd
90%	266 cd

Conditions:

Number of c-planes: 8

Candela at center: 296 cd

ISO LUX DIAGRAM



3%	88.7m lx
5%	0.148 lx
10%	0.296 lx
30%	0.887 lx
50%	1.48 lx

Conditions:

Number of c-planes: 8

Lux at center: 2.96 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	23.1	24.3	23.4	24.7	24.9	23.1	24.3	23.4	24.7	24.9
	3H	24.7	26.0	25.1	26.3	26.5	24.7	26.0	25.1	26.3	26.5
	4H	25.4	26.6	25.9	27.0	27.3	25.4	26.6	25.9	27.0	27.3
	6H	26.1	27.2	26.5	27.5	27.9	26.1	27.2	26.5	27.5	27.9
	8H	26.3	27.4	26.7	27.7	28.2	26.3	27.4	26.7	27.7	28.2
	12H	26.5	27.5	26.9	27.9	28.4	26.5	27.5	26.9	27.9	28.4
4H	2H	23.7	24.9	24.2	25.3	25.6	23.7	24.9	24.2	25.3	25.6
	3H	25.7	26.7	26.1	27.1	27.5	25.7	26.7	26.1	27.1	27.5
	4H	26.5	27.4	26.9	27.8	28.4	26.5	27.4	26.9	27.8	28.4
	6H	27.2	28.1	27.7	28.5	28.9	27.2	28.1	27.7	28.5	28.9
	8H	27.5	28.3	28.0	28.7	29.1	27.5	28.3	28.0	28.7	29.1
	12H	27.7	28.4	28.2	28.9	29.4	27.7	28.4	28.2	28.9	29.4
8H	4H	26.8	27.6	27.4	28.0	28.5	26.8	27.6	27.4	28.0	28.5
	6H	27.7	28.4	28.3	28.9	29.4	27.7	28.4	28.3	28.9	29.4
	8H	28.1	28.7	28.7	29.2	29.9	28.1	28.7	28.7	29.2	29.9
	12H	28.5	28.9	29.1	29.5	30.1	28.5	28.9	29.1	29.5	30.1
12H	4H	26.8	27.5	27.4	28.0	28.5	26.8	27.5	27.4	28.0	28.5
	6H	27.8	28.4	28.4	28.9	29.6	27.8	28.4	28.4	28.9	29.6
	8H	28.3	28.7	28.9	29.3	29.9	28.3	28.7	28.9	29.3	29.9
Variation of the observer position for the luminaire distance S											
S = 1.0H		0.1 / -0.1					0.1 / -0.1				
S = 1.5H		0.1 / -0.2					0.1 / -0.2				
S = 2.0H		0.3 / -0.4					0.3 / -0.4				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 906 lm total luminous flux											

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LIGHT PLANNING

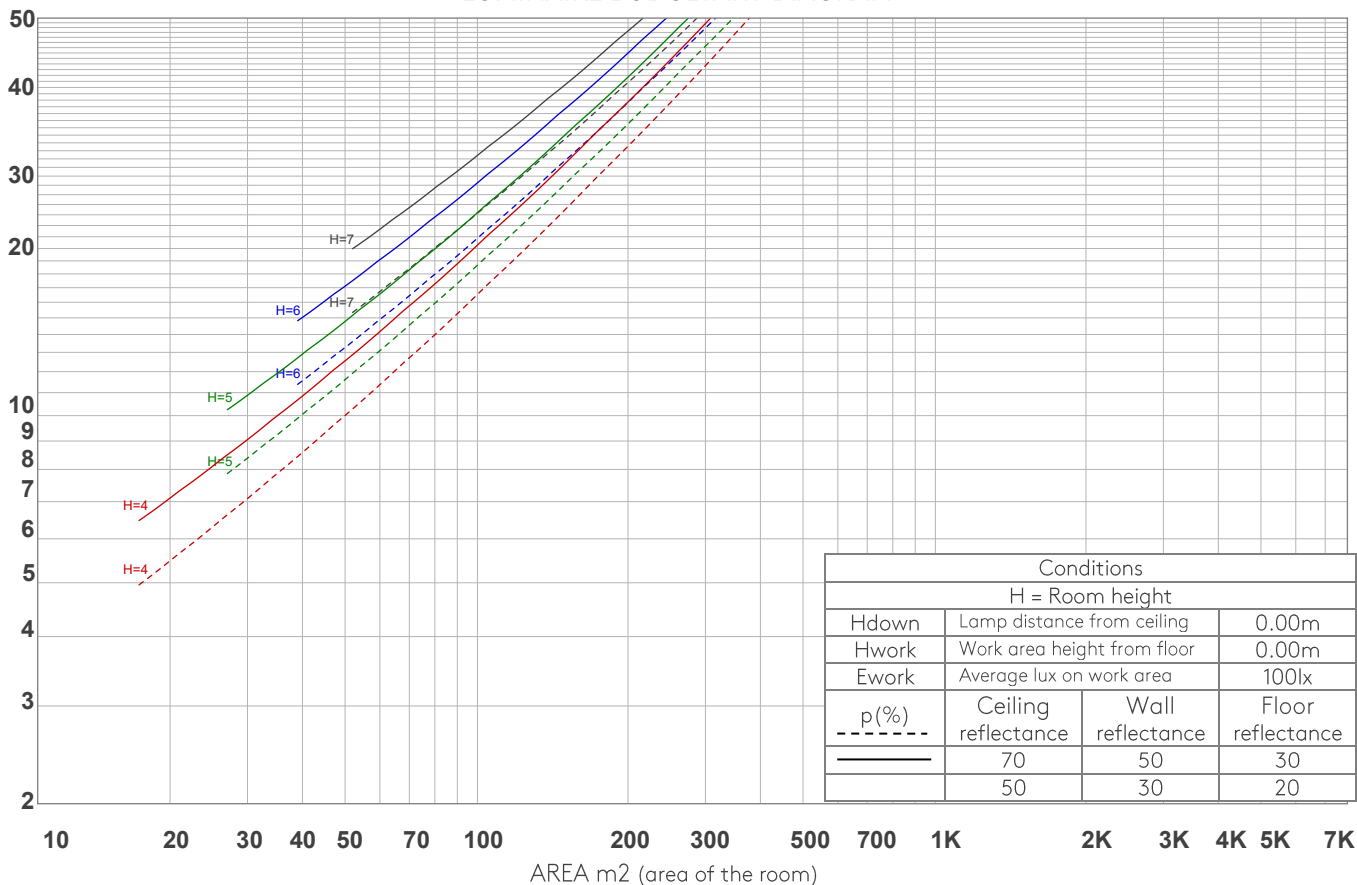
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COEFFICIENTS OF UTILIZATION

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	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	108	103	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83	80
2	98	89	82	76	95	87	80	75	83	77	73	79	75	71	76	72	69	66
3	89	78	70	63	86	76	68	62	73	66	61	70	64	59	67	62	58	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	59	54	50	47
5	75	61	52	45	72	60	52	45	58	50	44	55	49	44	53	48	43	41
6	69	55	46	40	67	54	46	39	52	44	39	50	43	38	48	42	38	36
7	64	50	41	35	62	49	41	35	47	40	34	46	39	34	44	38	33	31
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	40	34	30	28
9	55	42	33	28	54	41	33	28	40	33	27	38	32	27	37	31	27	25
10	52	39	31	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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°
28.1 lm	80.7 lm	122 lm	148 lm	155 lm	143 lm	112 lm	69.9 lm	24.2 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
4.06 lm	3.21 lm	2.99 lm	2.86 lm	2.74 lm	2.47 lm	1.96 lm	1.28 lm	0.445 lm

Flicker /TLA details

FLICKER

Flicker Meter Type Viso Systems LabFlicker
Frequency of input power 50 Hz
Flicker/TLA sample rate 20000 samples/s

Measurement time
PstLM 180 sec
All other indices 1,2 sec

Flicker indices according to Illuminating Engineering Society (IES)

Flicker frequency 1000 Hz
Percent Flicker 0.27 %
Flicker index 0

Flicker indices according to California Energy Commission (CEC) 2016b

JA8/10 40 Hz 0.02 %
JA8/10 90 Hz 0.02 %
JA8/10 200 Hz 0.03 %
JA8/10 400 Hz 0.03 %
JA8/10 1000 Hz 0.26 %

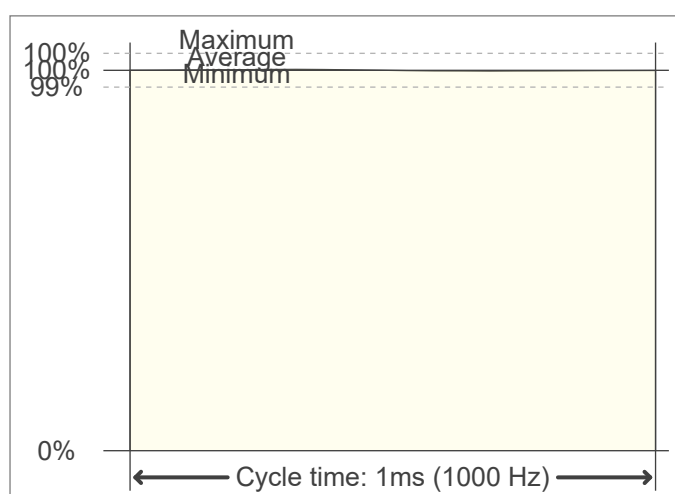
TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC 61000-4-15)

PstLM value ($F < 80$ Hz) 0.01
SVM value ($80 < F < 2000$ Hz) 0

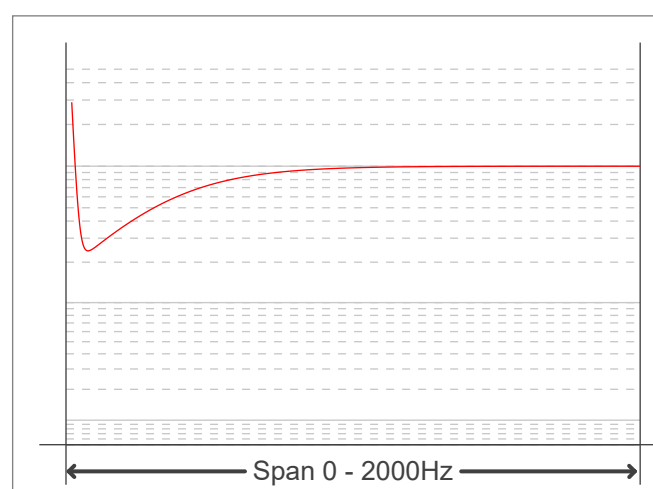
Flicker indices according to Lighting Research Center (2015)

Perception metric, Assist Mp 0

Flicker frame (frame of one flicker period in time domain)



Flicker FFT (flicker curve in frequency domain)



IEEE 1789 Frequency/modulation plot

