

PHOTOMETRIC TEST REPORT

LINEAR 300 FIXED 48V TRACK
DALI - MATT BLACK

astro

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LIGHT EFFICIENCY:

40 Lumen/Watt

LIGHT QUALITY:

CRI: 93.5

COLOR TEMPERATURE:

2618 K

OUTPUT: 466 lm

PEAK: 155 cd

POWER: 11.8 W

PF: 0.72



Tracking number: [n/a](#)

Product name:

Linear 300 Fixed 48V Track DALI - Matt Black

Item number:

1521003

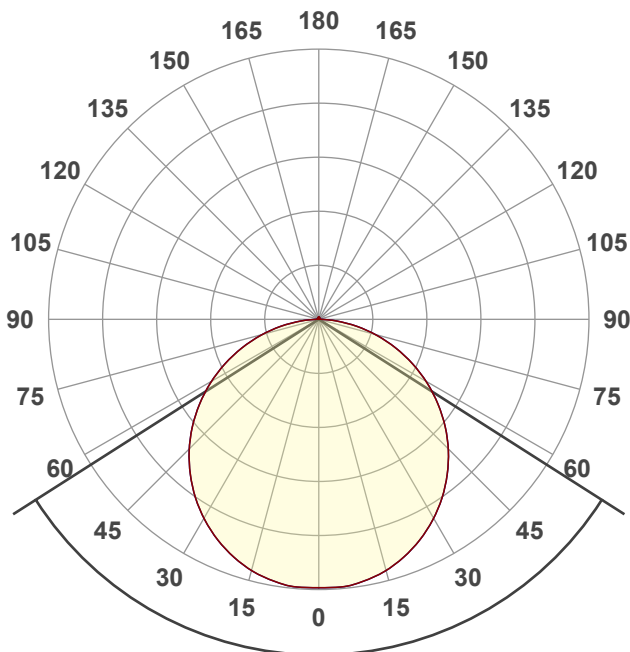
Date and time:

23/12/2025 12:17:11

Description:

IP20 48V Track Light

Tested with Stucchi 9500/P-100E-B-SP-N Driver Box

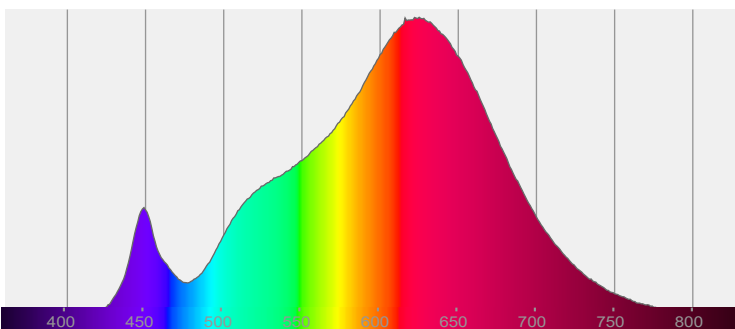


114.9°

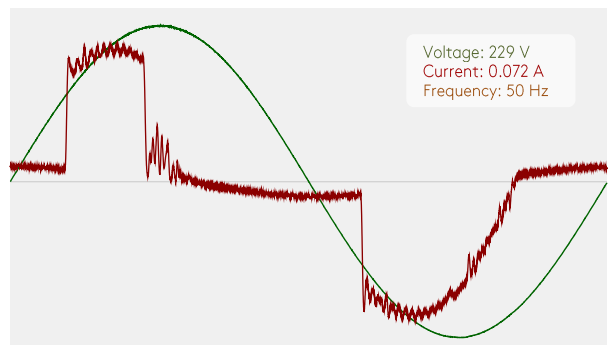


CIE 1931
x: 0.464
y: 0.408

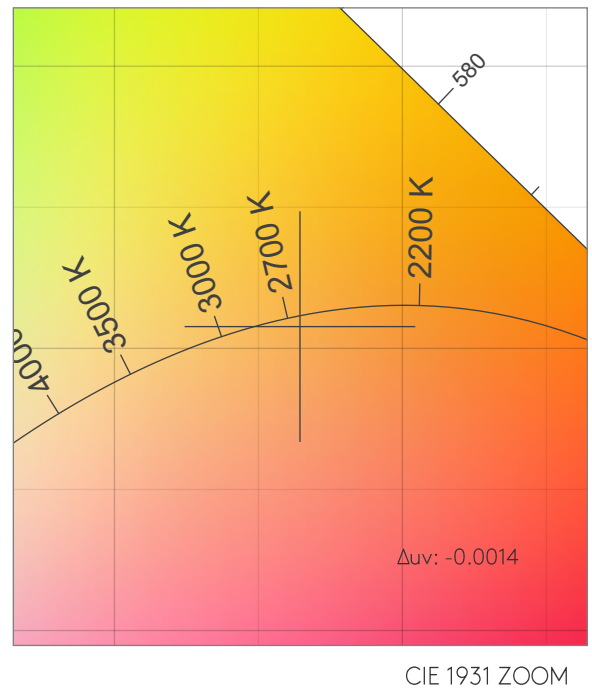
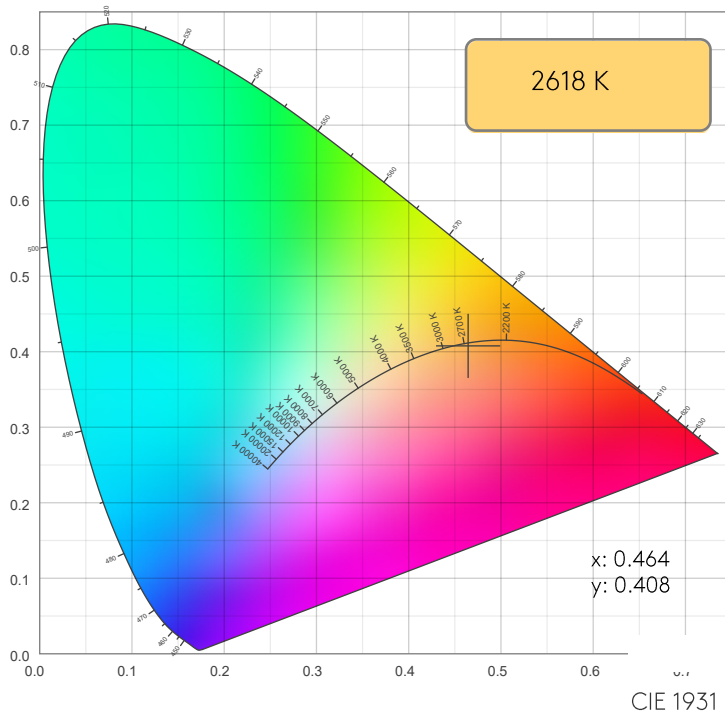
SPECTRA



POWER

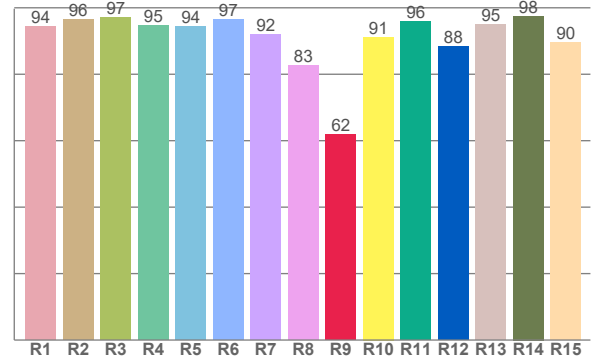
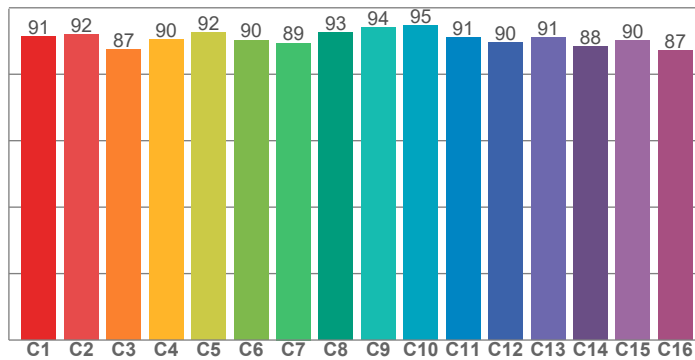


COLOR DETAILS



TM30: 90.9

CRI: 93.5 (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
94.4	96.4	97.2	94.6	94.3	96.5	91.8	82.6	61.9	91.2	95.8	88.3	95.1	97.5	89.6

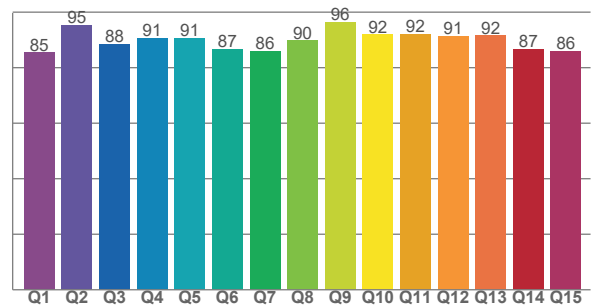
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.3	92.0	87.4	90.5	92.4	90.3	89.4	92.6	94.1	94.7	91.0	89.6	91.0	88.2	90.0	87.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85.4	95.3	88.4	90.8	90.6	86.8	86.0	89.8	96.3	92.0	92.2	91.5	91.5	86.7	86.0

CQS: 89.3



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
2618 K	93.5	61.9	90.9	102.8	89.3	0.464	0.408	0.267	0.351	-0.0014

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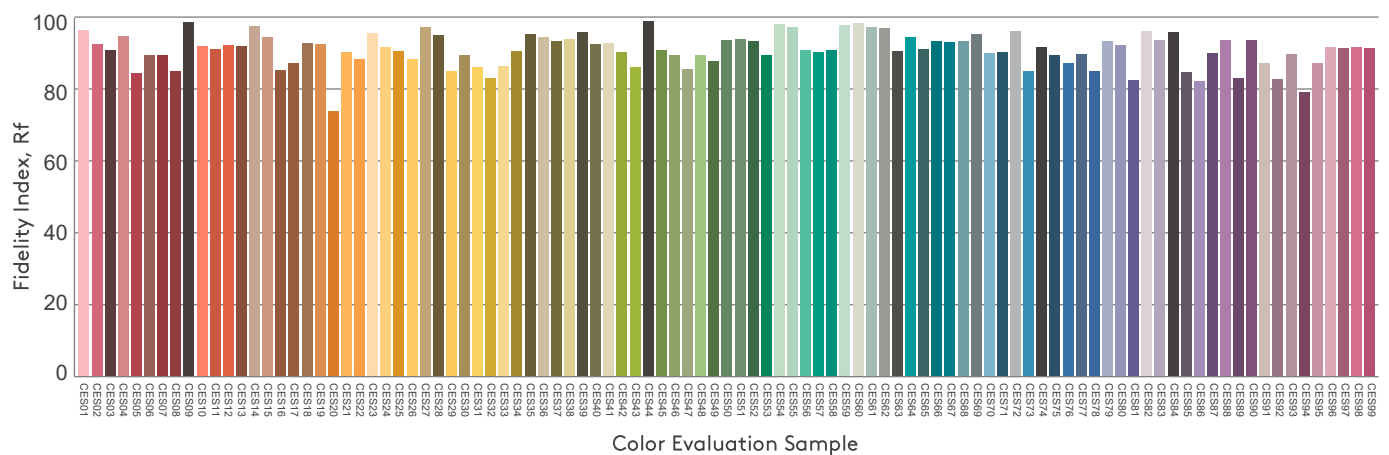
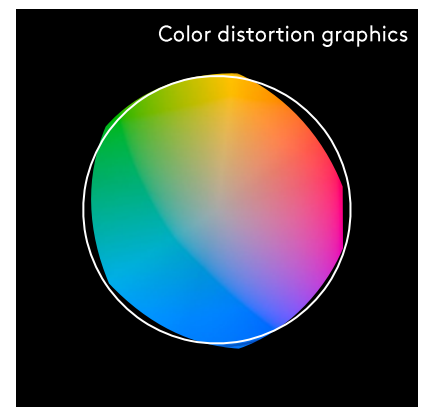
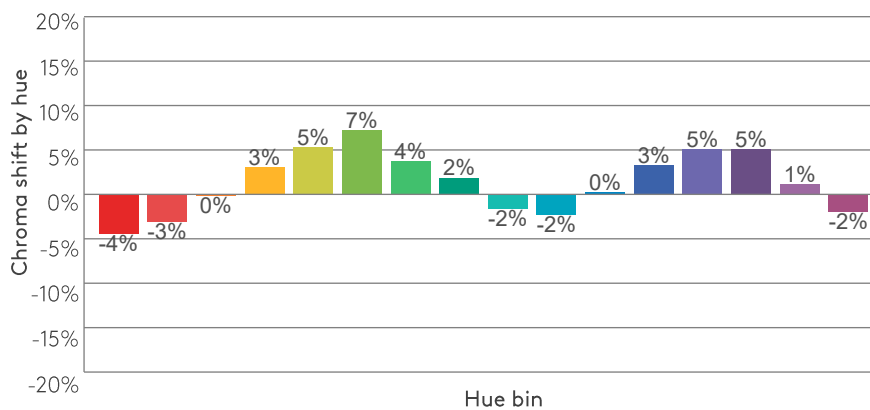
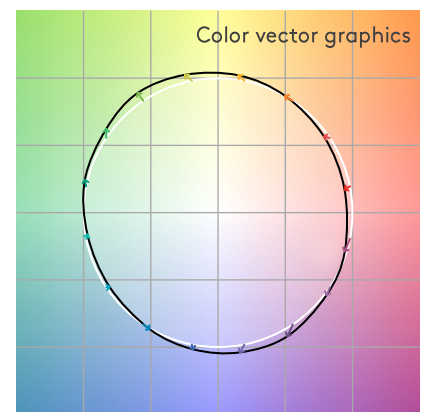
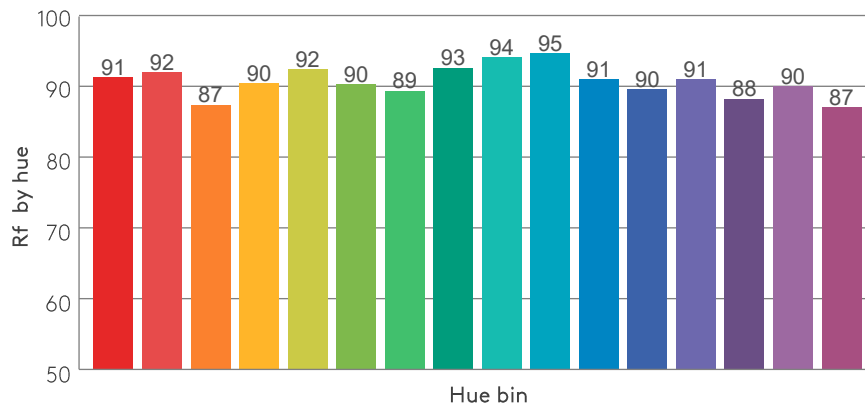
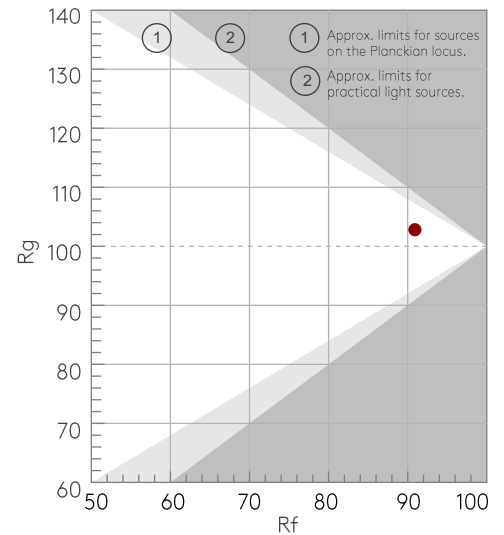
TM30 DETAILS

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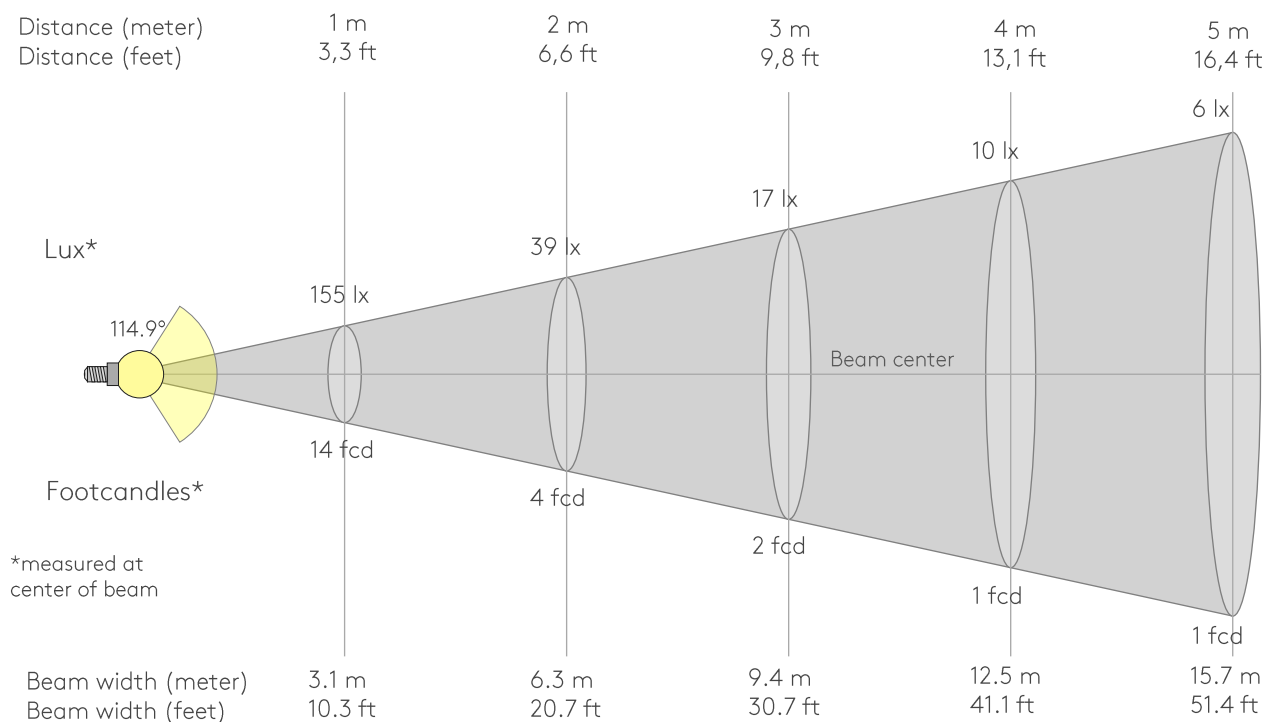
Rf 90.9
Fidelity index Rf

Rg 102.8
Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	91	-4%	-1%
2	92	-3%	3%
3	87	0%	7%
4	90	3%	5%
5	92	5%	4%
6	90	7%	0%
7	89	4%	-5%
8	93	2%	-5%
9	94	-2%	-3%
10	95	-2%	1%
11	91	0%	6%
12	90	3%	2%
13	91	5%	-4%
14	88	5%	-8%
15	90	1%	-6%
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
155lx	39lx	17lx	10lx	6lx	4lx	3lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx
14.4fcd	3.6fcd	1.6fcd	0.9fcd	0.6fcd	0.4fcd	0.3fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd

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°
155	155	153	150	145	139	133	125	115	106	95	83	71	59	46	34	21	10	2	1
100%	100%	99%	97%	94%	90%	85%	80%	75%	68%	61%	54%	46%	38%	30%	22%	14%	6%	1%	0%

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°
155	155	153	150	145	139	133	125	115	106	95	83	71	59	46	34	21	10	2	1
100%	100%	99%	97%	94%	90%	85%	80%	75%	68%	61%	54%	46%	38%	30%	22%	14%	6%	1%	0%

Intensities in 180° c-plane

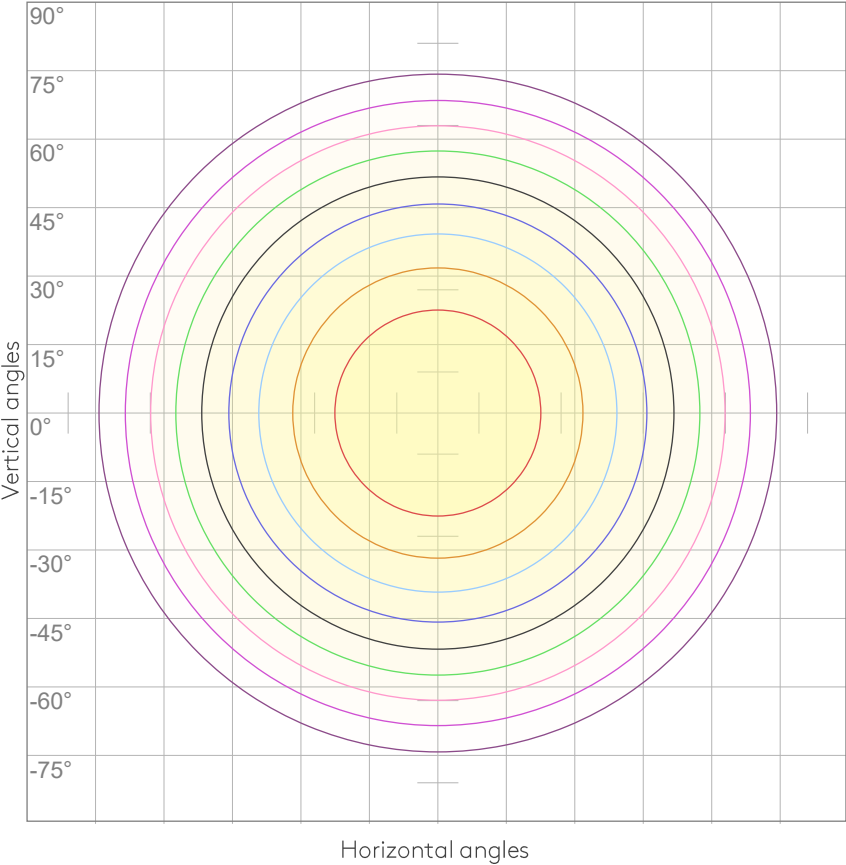
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
155	155	153	150	145	139	133	125	115	106	95	83	71	59	46	34	21	10	2	1
100%	100%	99%	97%	94%	90%	85%	80%	75%	68%	61%	54%	46%	38%	30%	22%	14%	6%	1%	0%

Intensities in 270° c-plane

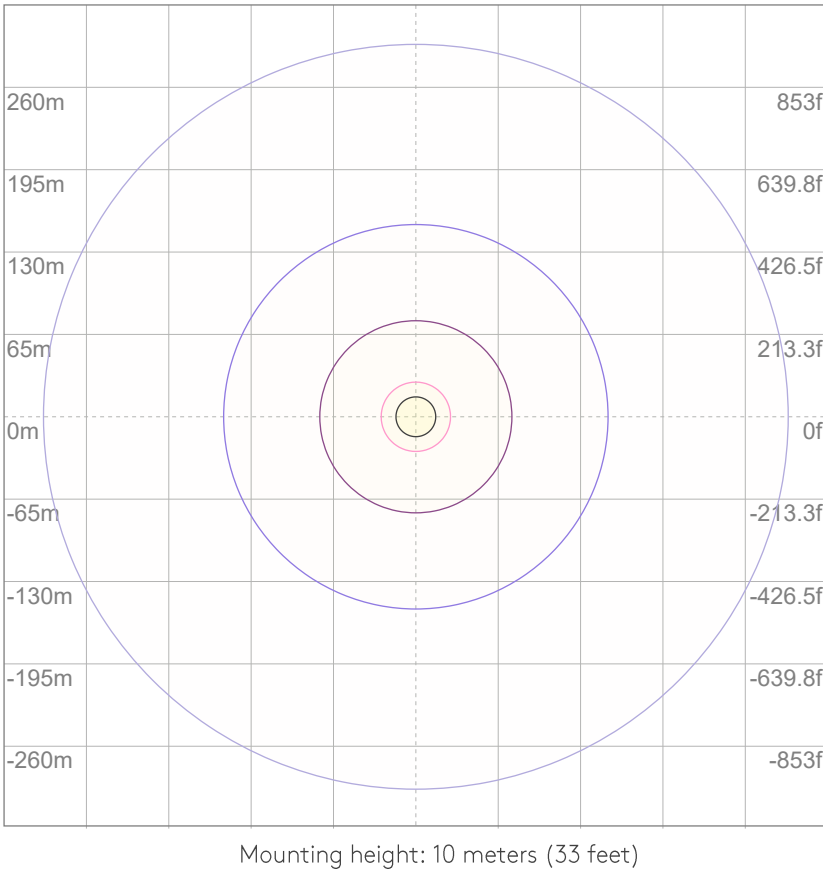
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
155	155	153	150	145	139	133	125	115	106	95	83	71	59	46	34	21	10	2	1
100%	100%	99%	97%	94%	90%	85%	80%	75%	68%	61%	54%	46%	38%	30%	22%	14%	6%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
114.9°	165°	177°	76.2%	51.5%

ISO CANDELA DIAGRAM



ISO LUX DIAGRAM



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	23.2	24.4	23.4	24.7	25.0	23.2	24.4	23.4	24.7	25.0
	3H	24.7	26.0	25.2	26.3	26.6	24.7	26.0	25.2	26.3	26.6
	4H	25.5	26.7	25.9	27.0	27.3	25.5	26.7	25.9	27.0	27.3
	6H	26.1	27.2	26.4	27.5	27.9	26.1	27.2	26.4	27.5	27.9
	8H	26.3	27.3	26.6	27.6	28.1	26.3	27.3	26.6	27.6	28.1
	12H	26.4	27.4	26.8	27.8	28.2	26.4	27.4	26.8	27.8	28.2
4H	2H	23.8	25.0	24.2	25.3	25.6	23.8	25.0	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	28.4	28.8	27.2	28.1	27.7	28.4	28.8
	8H	27.4	28.2	27.9	28.6	29.0	27.4	28.2	27.9	28.6	29.0
	12H	27.6	28.3	28.1	28.7	29.2	27.6	28.3	28.1	28.7	29.2
8H	4H	26.8	27.6	27.3	28.0	28.4	26.8	27.6	27.3	28.0	28.4
	6H	27.7	28.3	28.2	28.8	29.3	27.7	28.3	28.2	28.8	29.3
	8H	28.0	28.6	28.6	29.1	29.8	28.0	28.6	28.6	29.1	29.8
	12H	28.3	28.8	28.9	29.3	29.9	28.3	28.8	28.9	29.3	29.9
12H	4H	26.8	27.5	27.3	28.0	28.5	26.8	27.5	27.3	28.0	28.5
	6H	27.8	28.3	28.3	28.9	29.5	27.8	28.3	28.3	28.9	29.5
	8H	28.2	28.6	28.8	29.2	29.8	28.2	28.6	28.8	29.2	29.8
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 466 lm total luminous flux											

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LIGHT PLANNING

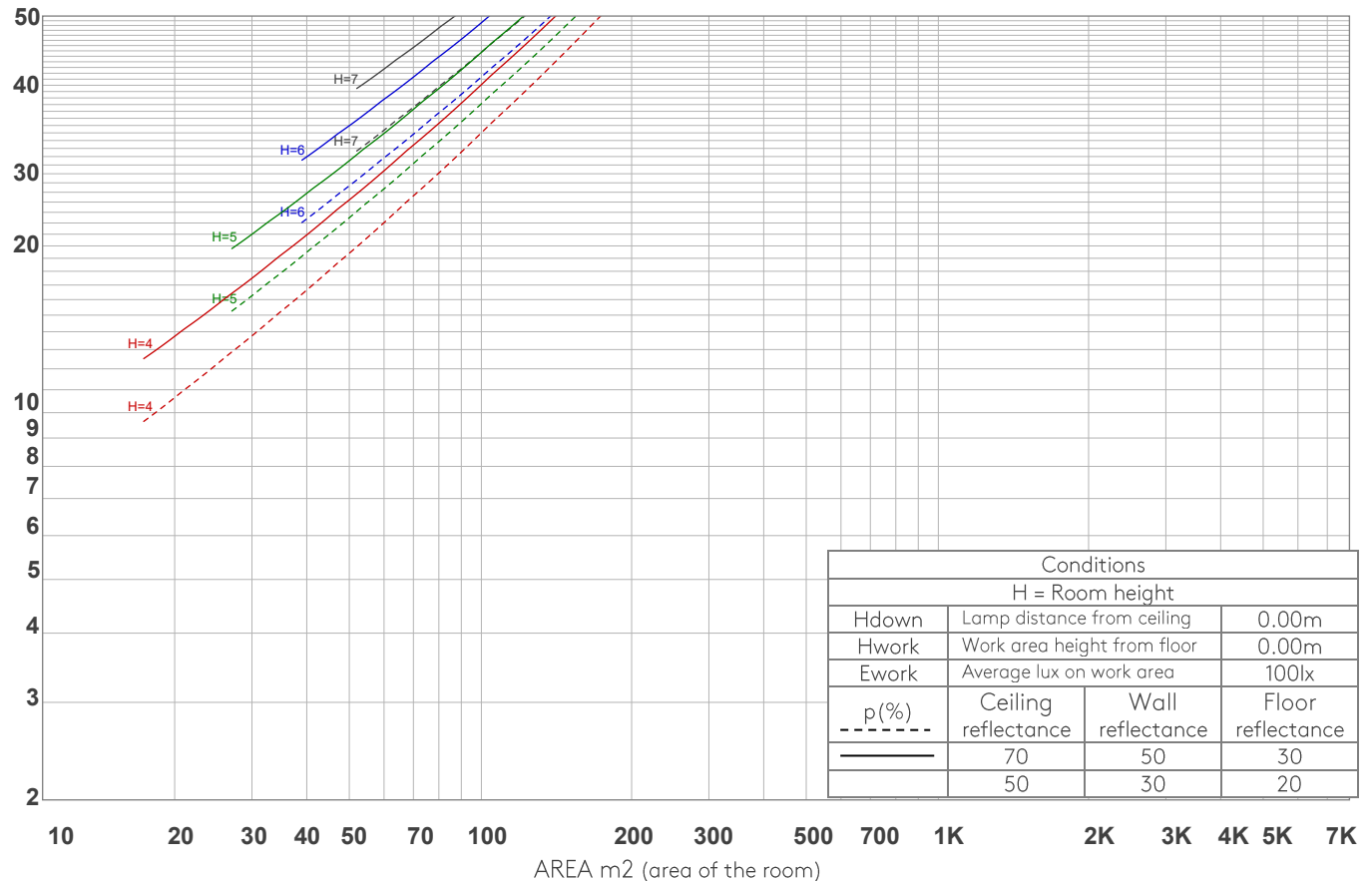
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COEFFICIENTS OF UTILIZATION

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	119	119	119	119	116	116	116	116	110	110	110	106	106	106	101	101	101	99
1	108	103	99	95	105	101	97	93	96	93	90	92	89	87	88	86	84	82
2	98	89	82	77	95	87	81	76	84	78	74	80	76	72	77	73	70	68
3	89	78	70	63	87	77	69	63	73	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	56	51	60	55	50	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	54	48	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	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°
14.7 lm	42.3 lm	64.2 lm	77.8 lm	81.4 lm	74.5 lm	58.3 lm	35.6 lm	11.5 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.915 lm	0.643 lm	0.726 lm	0.763 lm	0.742 lm	0.673 lm	0.537 lm	0.345 lm	0.119 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	0.65 %
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	0.04 %
JA8/10 1000 Hz	0.66 %

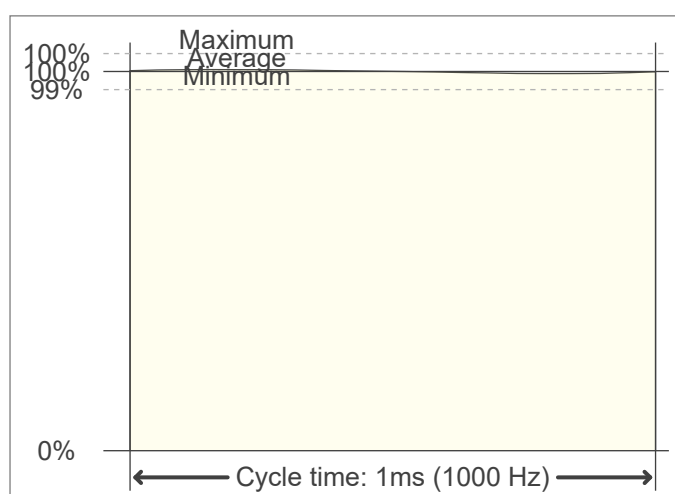
TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC 61000-4-15)

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

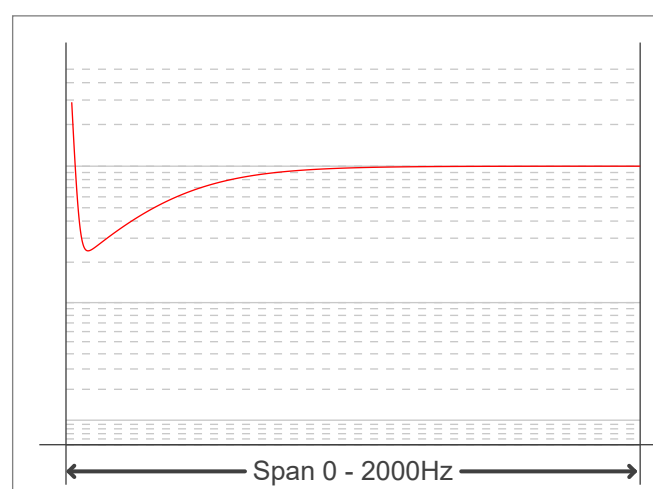
Flicker indices according to Lighting Research Center (2015)

Perception metric, Assist Mp 0.01

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



Flicker FFT (flicker curve in frequency domain)



IEEE 1789 Frequency/modulation plot

