

PHOTOMETRIC TEST REPORT

ELBA CEILING BASE 410 UL 1-10V

astro

LIGHT EFFICIENCY:

98 Lumen/Watt

LIGHT QUALITY:

CRI: 93.1

COLOR TEMPERATURE:

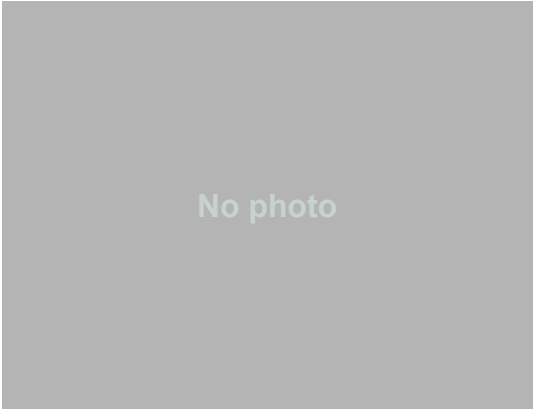
2707 K

OUTPUT: 2258 lm

PEAK: 701 cd

POWER: 23.1 W

PF: 0.99



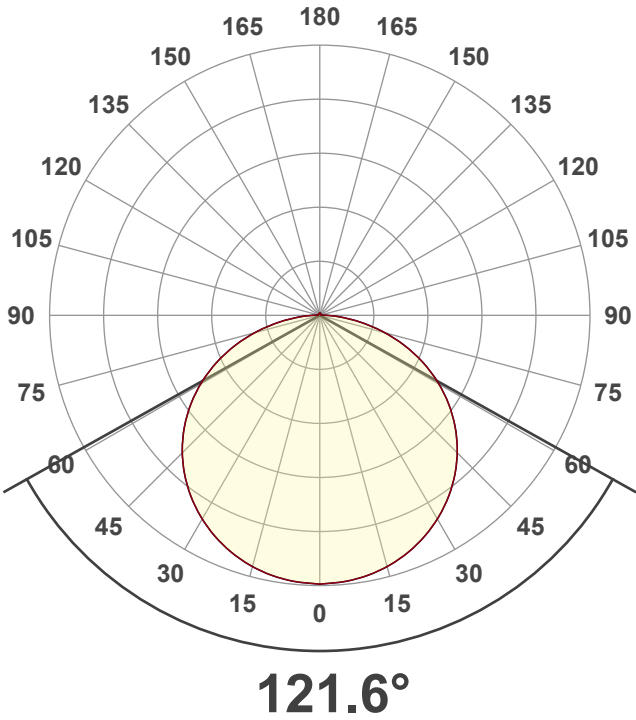
Tracking number: [n/a](#)

Product name:
Elba Ceiling Base 410 UL 1-10v

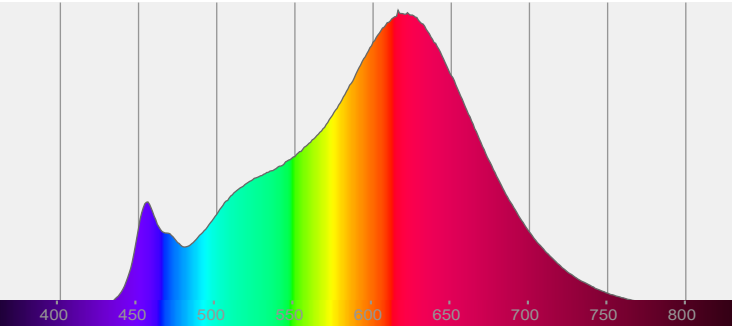
Item number:
1462020

Date and time:
16/12/2025 12:13:46

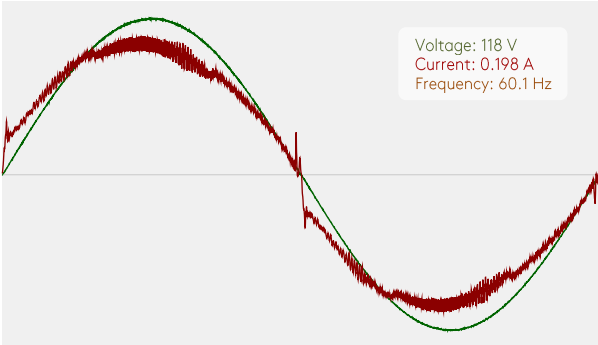
Description:



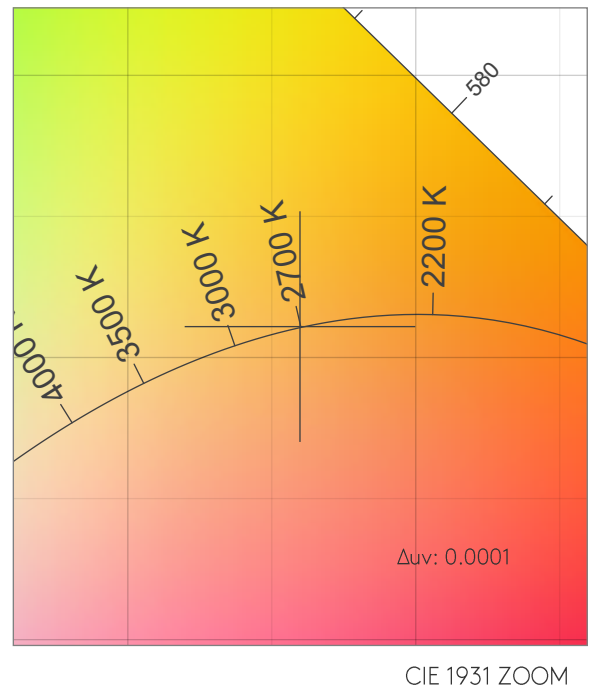
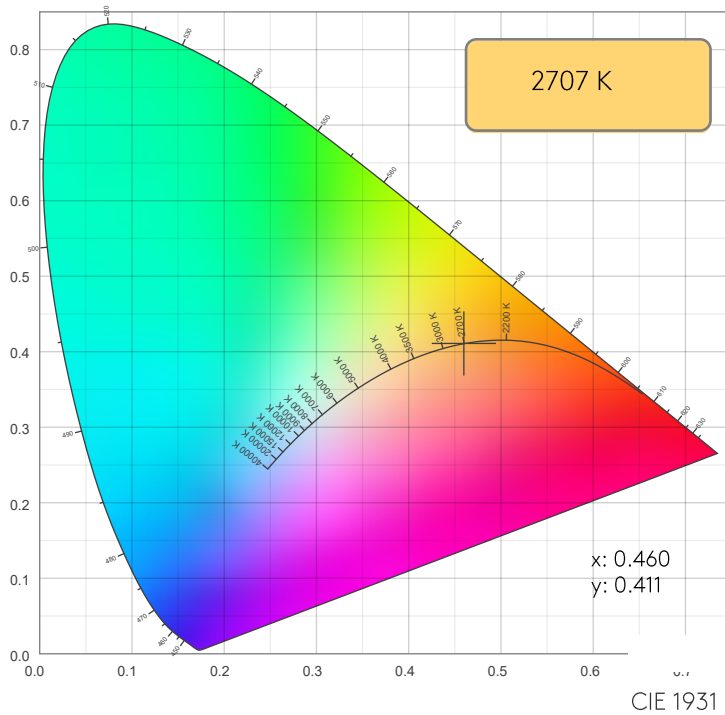
SPECTRA



POWER

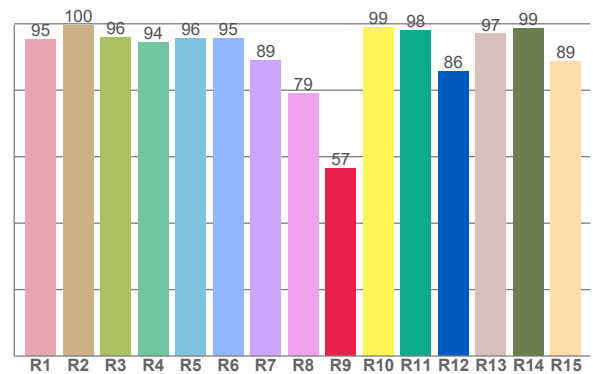
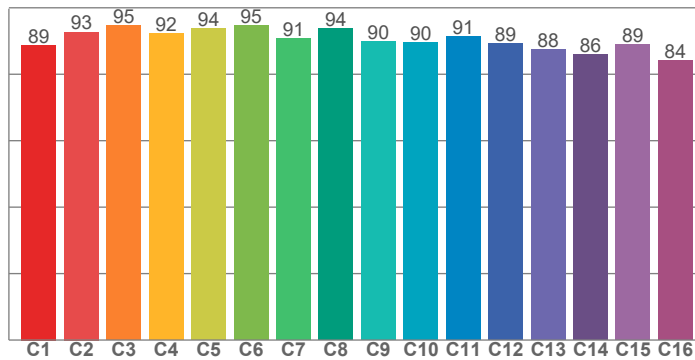


COLOR DETAILS



TM30: 90.6

CRI: 93.1 (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
95.2	99.6	96.0	94.4	95.7	95.5	89.0	79.0	56.5	99.0	98.0	85.7	96.9	98.6	88.7

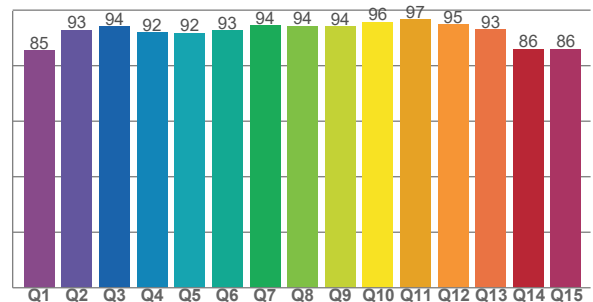
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
88.8	92.7	94.8	92.1	93.9	94.7	90.8	93.9	90.0	89.6	91.5	89.2	87.5	85.8	89.0	84.2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85.5	92.9	94.2	92.0	91.8	92.7	94.4	94.2	94.0	95.8	96.7	94.9	93.1	86.0	86.0

CQS: 91.3



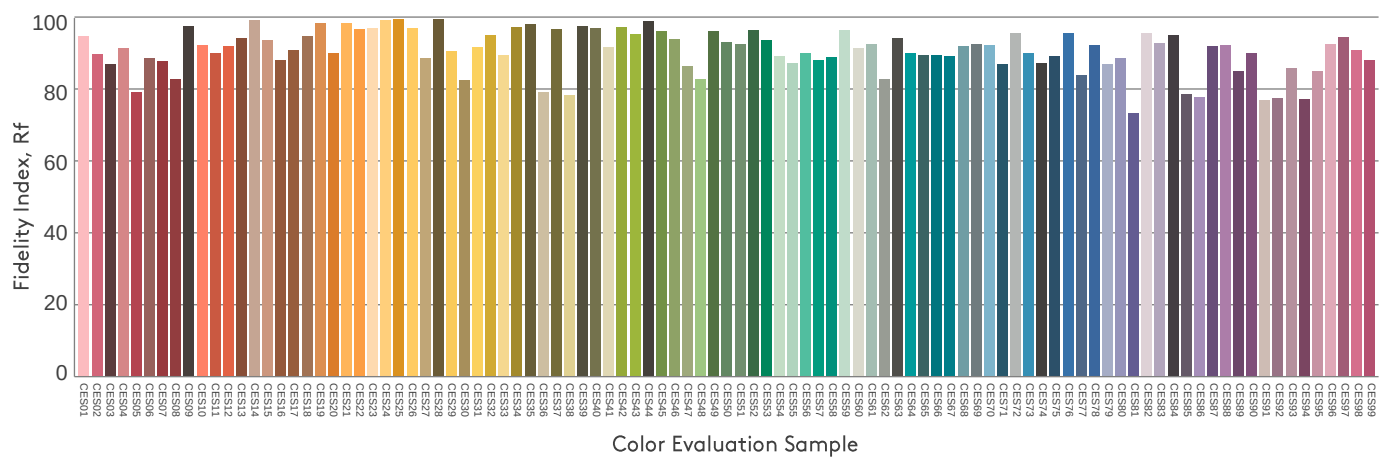
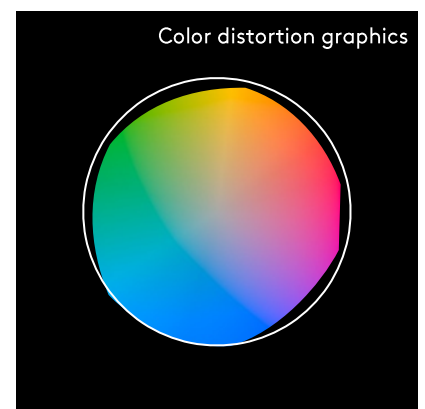
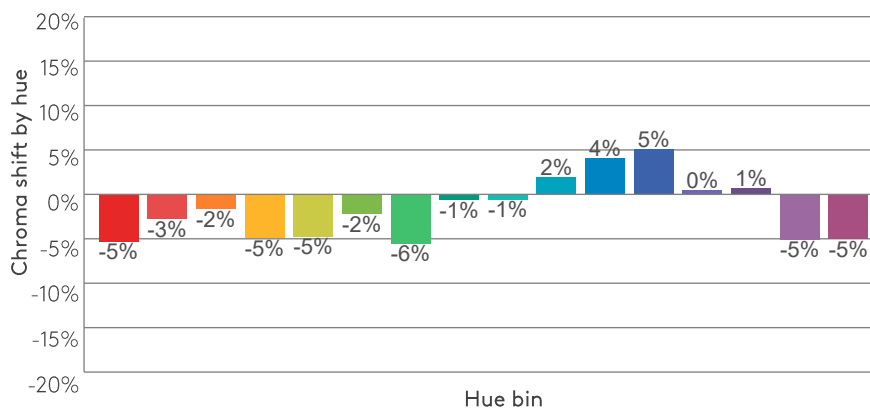
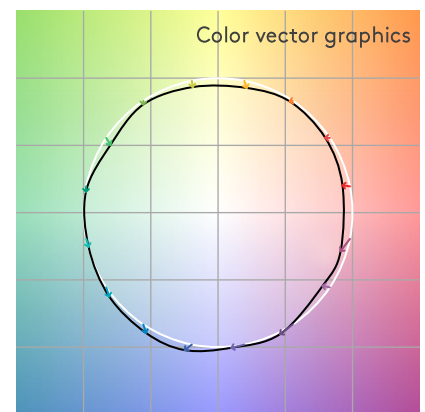
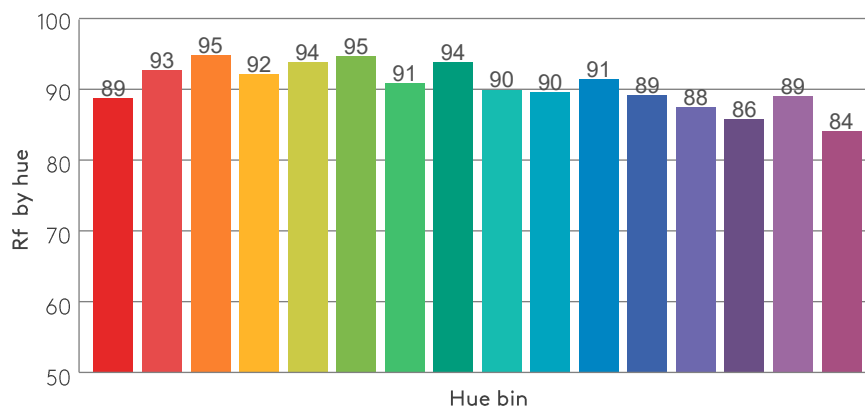
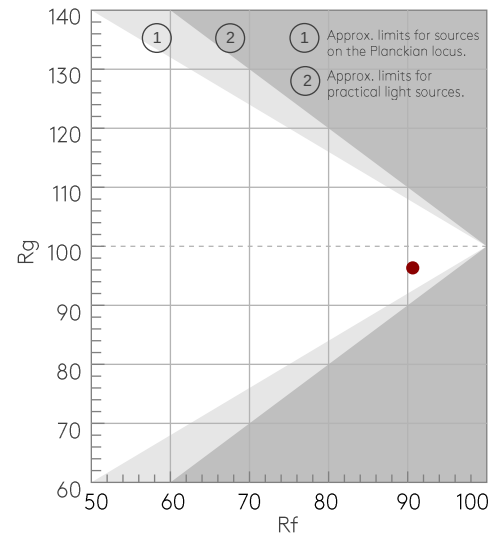
COLOR PARAMETERS

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
2707 K	93.1	56.5	90.6	96.3	91.3	0.460	0.411	0.262	0.352	0.0001

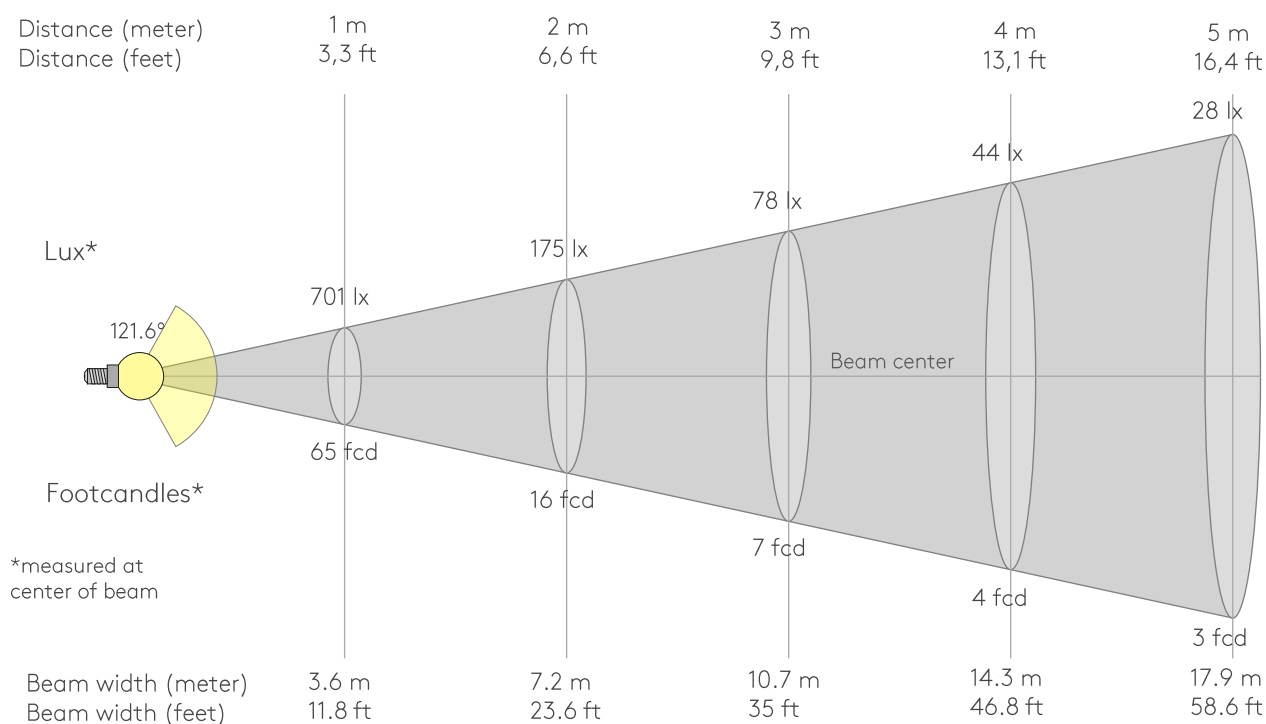
Rf 90.6
Fidelity index Rf

Rg 96.3
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	2%
2	93	-3%	2%
3	95	-2%	2%
4	92	-5%	-3%
5	94	-5%	0%
6	95	-2%	2%
7	91	-6%	3%
8	94	-1%	4%
9	90	-1%	6%
10	90	2%	7%
11	91	4%	5%
12	89	5%	-4%
13	88	0%	-10%
14	86	1%	-12%
15	89	-5%	-2%
16	84	-5%	-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
701lx	175lx	78lx	44lx	28lx	19lx	14lx	11lx	9lx	7lx	6lx	5lx	4lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx
65.1fcd	16.3fcd	7.2fcd	4.1fcd	2.6fcd	1.8fcd	1.3fcd	1fcd	0.8fcd	0.7fcd	0.5fcd	0.5fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd

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°
701	698	691	679	662	640	614	583	547	507	463	413	359	301	240	176	114	58	20	5
100%	100%	99%	97%	94%	91%	88%	83%	78%	72%	66%	59%	51%	43%	34%	25%	16%	8%	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°
701	698	691	679	662	640	614	583	547	507	463	413	359	301	240	176	114	58	20	5
100%	100%	99%	97%	94%	91%	88%	83%	78%	72%	66%	59%	51%	43%	34%	25%	16%	8%	3%	1%

Intensities in 180° c-plane

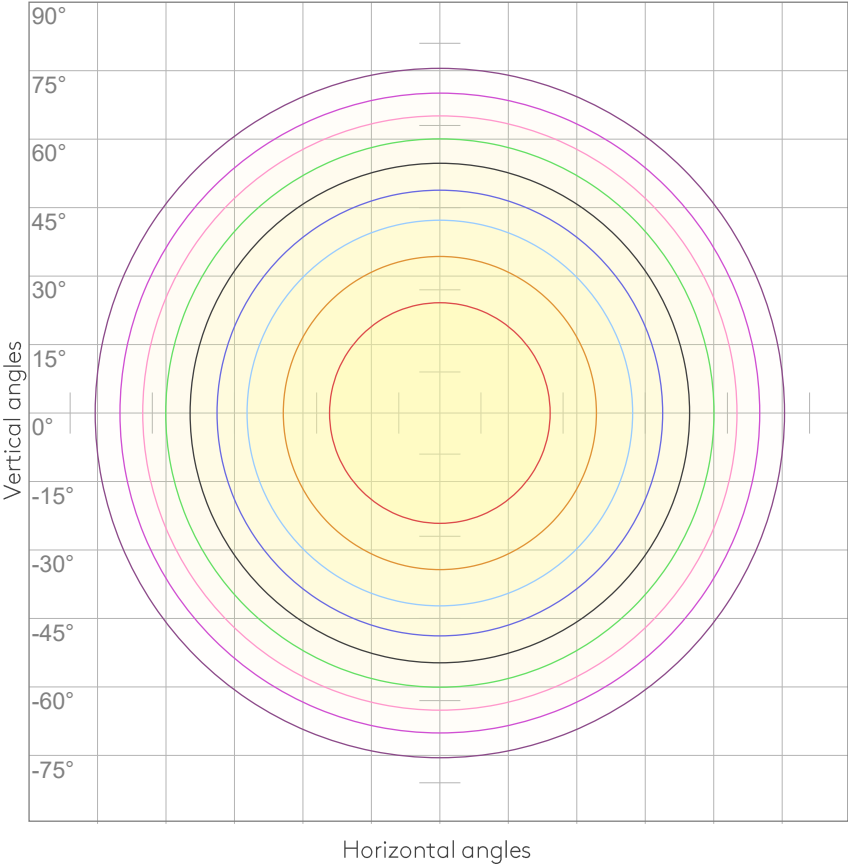
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
701	698	691	679	662	640	614	583	547	507	463	413	359	301	240	176	114	58	20	5
100%	100%	99%	97%	94%	91%	88%	83%	78%	72%	66%	59%	51%	43%	34%	25%	16%	8%	3%	1%

Intensities in 270° c-plane

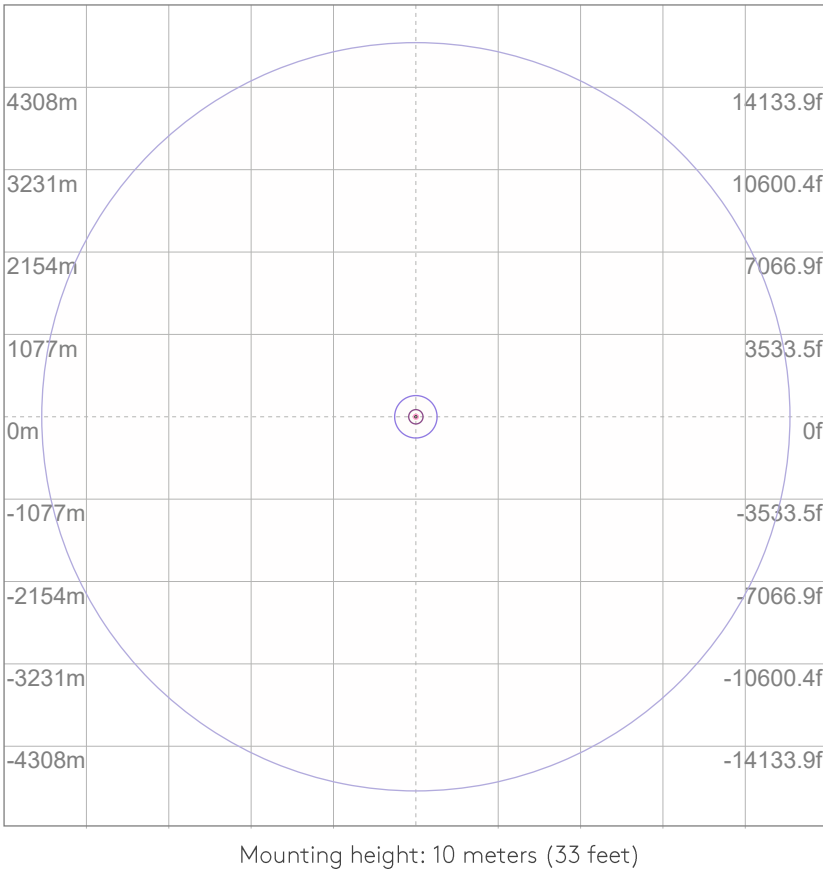
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
701	698	691	679	662	640	614	583	547	507	463	413	359	301	240	176	114	58	20	5
100%	100%	99%	97%	94%	91%	88%	83%	78%	72%	66%	59%	51%	43%	34%	25%	16%	8%	3%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
121.6°	167.8°	180.7°	74.3%	49.3%

ISO CANDELA DIAGRAM



ISO LUX DIAGRAM



UGR

GLARE EVALUATION ACCORDING TO UGR

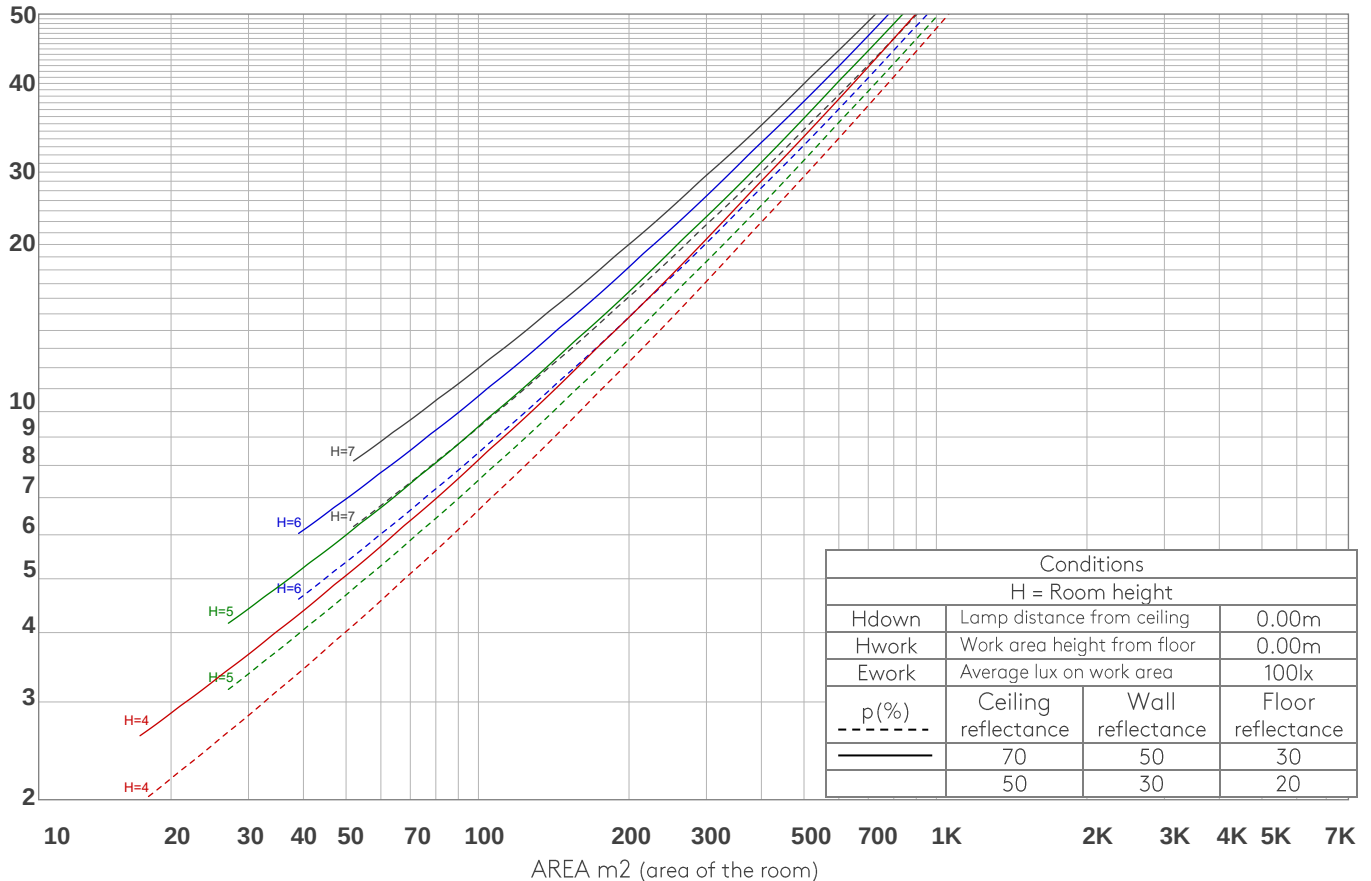
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	20.6	21.8	20.9	22.2	22.4	20.6	21.8	20.9	22.2	22.4
	3H	22.3	23.6	22.7	23.9	24.1	22.3	23.6	22.7	23.9	24.1
	4H	23.1	24.3	23.5	24.6	24.9	23.1	24.3	23.5	24.6	24.9
	6H	23.7	24.8	24.1	25.1	25.5	23.7	24.8	24.1	25.1	25.5
	8H	23.9	25.0	24.3	25.3	25.8	23.9	25.0	24.3	25.3	25.8
	12H	24.1	25.1	24.5	25.5	26.0	24.1	25.1	24.5	25.5	26.0
4H	2H	21.3	22.5	21.7	22.8	23.1	21.3	22.5	21.7	22.8	23.1
	3H	23.3	24.3	23.7	24.7	25.2	23.3	24.3	23.7	24.7	25.2
	4H	24.1	25.1	24.6	25.5	26.1	24.1	25.1	24.6	25.5	26.1
	6H	24.8	25.8	25.4	26.1	26.5	24.8	25.8	25.4	26.1	26.5
	8H	25.1	26.0	25.7	26.4	26.8	25.1	26.0	25.7	26.4	26.8
	12H	25.4	26.1	25.9	26.5	27.0	25.4	26.1	25.9	26.5	27.0
8H	4H	24.5	25.3	25.0	25.7	26.1	24.5	25.3	25.0	25.7	26.1
	6H	25.4	26.0	25.9	26.5	27.1	25.4	26.0	25.9	26.5	27.1
	8H	25.8	26.4	26.3	26.9	27.6	25.8	26.4	26.3	26.9	27.6
	12H	26.1	26.6	26.7	27.1	27.8	26.1	26.6	26.7	27.1	27.8
12H	4H	24.5	25.2	25.0	25.6	26.1	24.5	25.2	25.0	25.6	26.1
	6H	25.5	26.1	26.0	26.6	27.3	25.5	26.1	26.0	26.6	27.3
	8H	25.9	26.4	26.5	26.9	27.6	25.9	26.4	26.5	26.9	27.6
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 / -0.1					0.1 / -0.1				
S = 2.0H		0.3 / -0.3					0.3 / -0.3				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 2258 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	110	110	110	105	105	105	101	101	101	99
1	108	102	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83	81
2	97	89	81	75	95	87	80	74	83	77	72	79	75	70	76	72	69	66
3	88	77	69	62	86	76	68	61	72	66	60	69	64	59	67	62	58	55
4	81	68	59	52	78	67	58	52	64	57	51	61	55	50	59	54	49	47
5	74	61	51	44	72	59	51	44	57	49	44	55	48	43	53	47	42	40
6	68	54	45	39	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	30	24	36	29	24	35	29	24	34	28	24	22

LAMPS (number of lamps)

LUMINAIRE BUDGETARY DIAGRAM

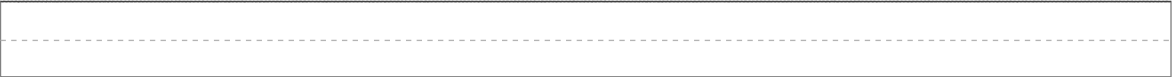


ZONAL LUMEN SUMMARY

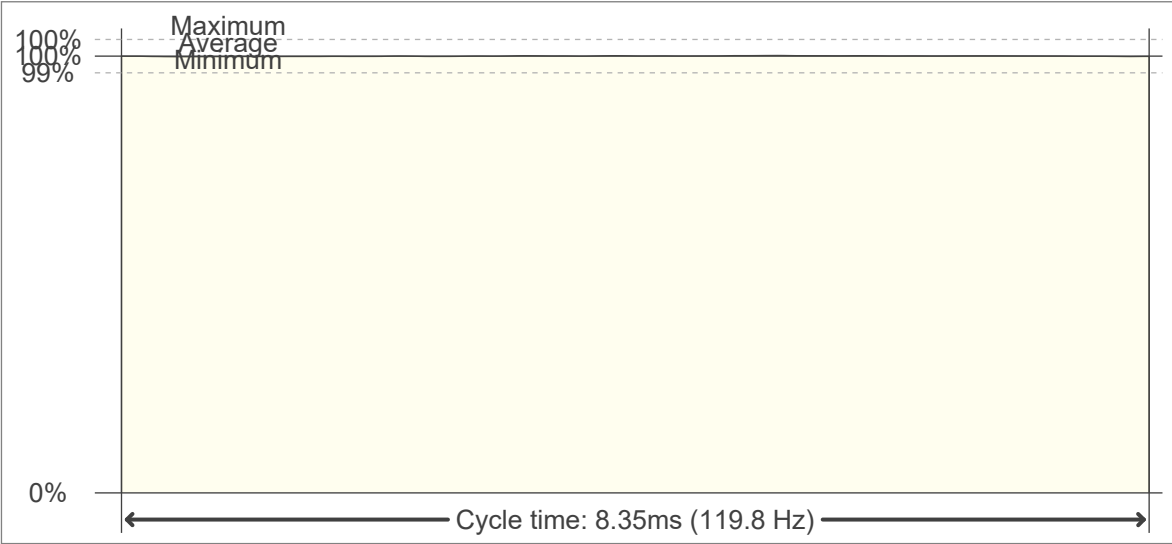
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
66.4 lm	192 lm	295 lm	365 lm	391 lm	369 lm	298 lm	186 lm	67.3 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
8.13 lm	3.27 lm	3.62 lm	3.70 lm	3.45 lm	3.03 lm	2.35 lm	1.50 lm	0.518 lm

FLICKER

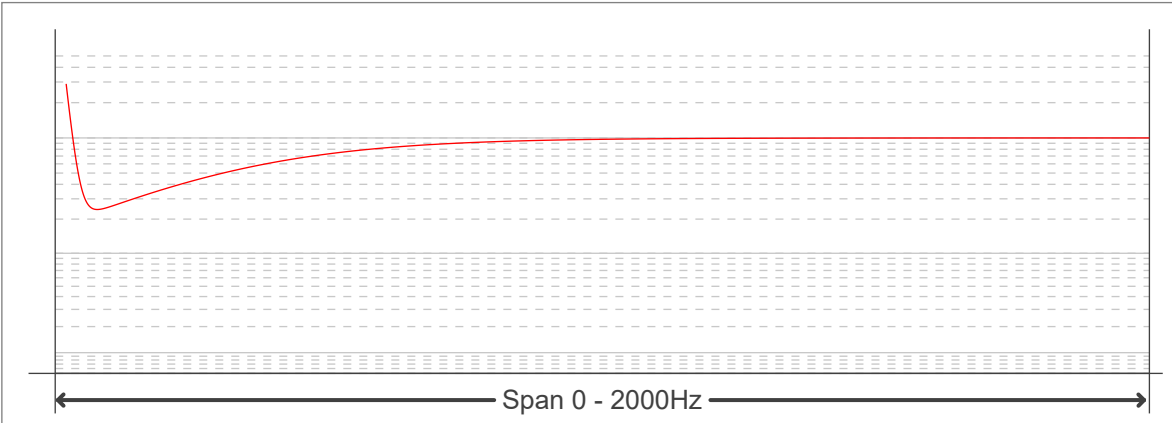
FLICKER CURVE (COMPLETE SAMPLED)



FLICKER FRAME (FRAME OF ONE FLICKER)



FLICKER FFT (FREQUENCY SCOPE OF FLICKER)



FLICKER RESULTS:

Flicker frequency:	119.76 Hz
Flicker index:	0
Flicker percentage:	0.24 %
SVM: (Visual flicker)	0

FLICKER CONDITIONS:

Sample rate:	20000 samples/second
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