

PHOTOMETRIC TEST REPORT

TALLINN SINGLE - WITHOUT
DIFFUSER

astro

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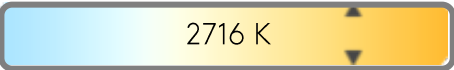
LIGHT EFFICIENCY:



LIGHT QUALITY:



COLOR TEMPERATURE:



OUTPUT: 653 lm
PEAK: 4351 cd
POWER: 10.8 W
PF: 0.94

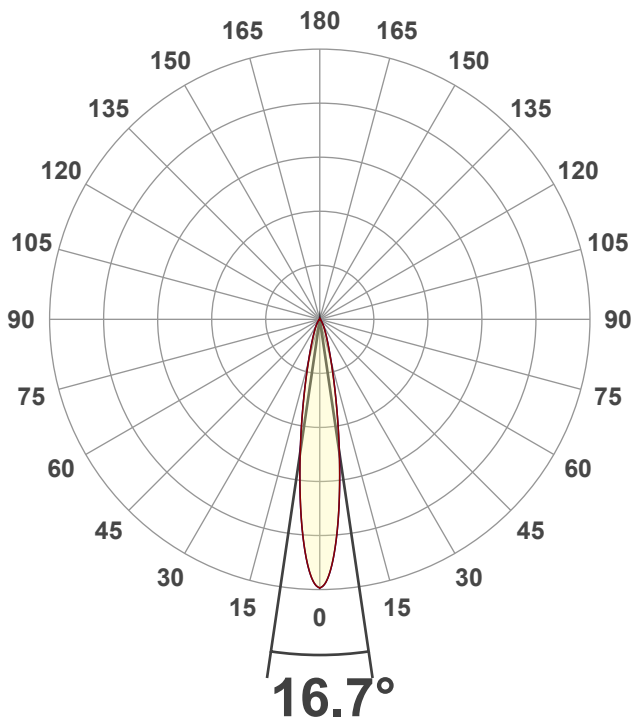


Tracking number: [n/a](#)

Product name:
Tallinn Single - without diffuser
Item number:
1516001

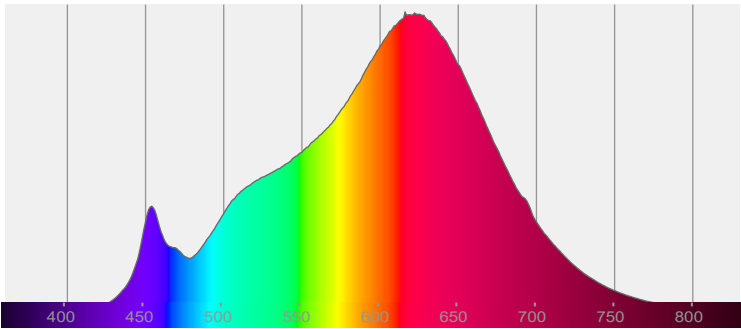
Date and time:
10/12/2025 15:48:39

Description:
Outddor IP65 LED Wall Up / Downlight
Without Diffuser Fitted

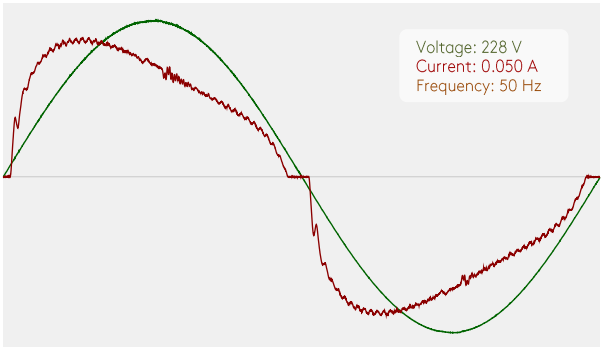


CIE 1931
x: 0.460
y: 0.412

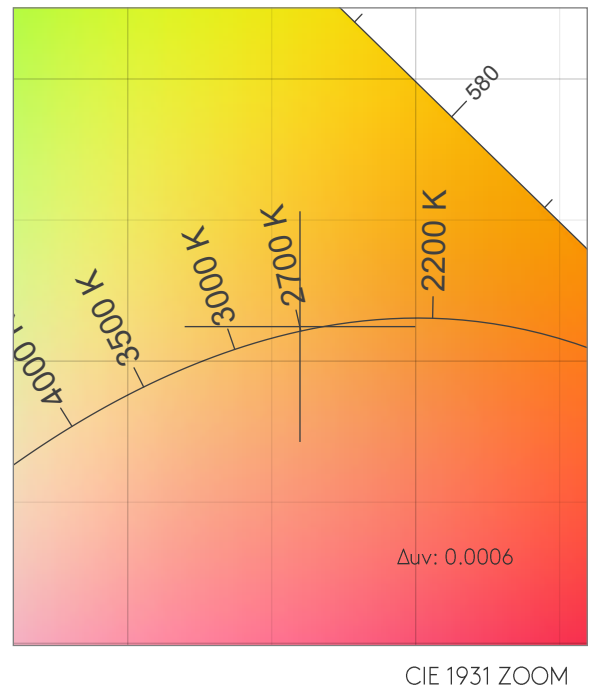
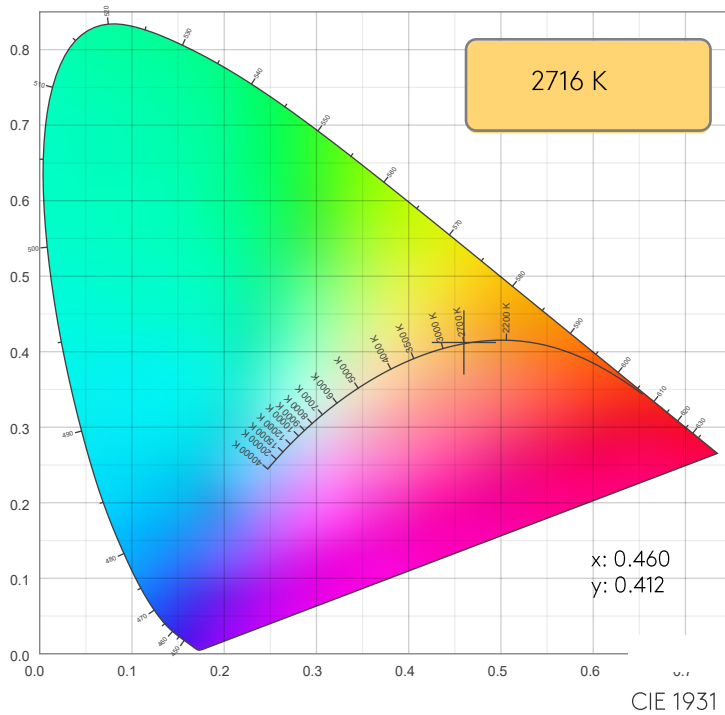
SPECTRA



POWER

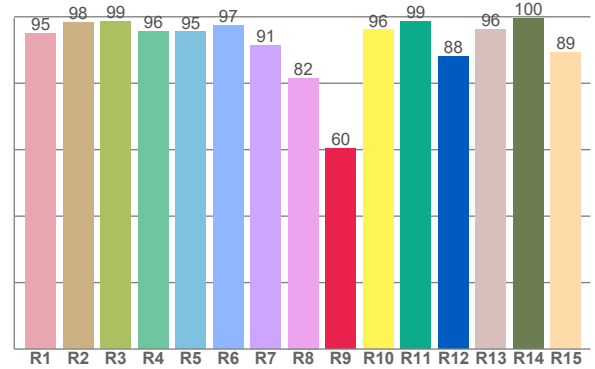
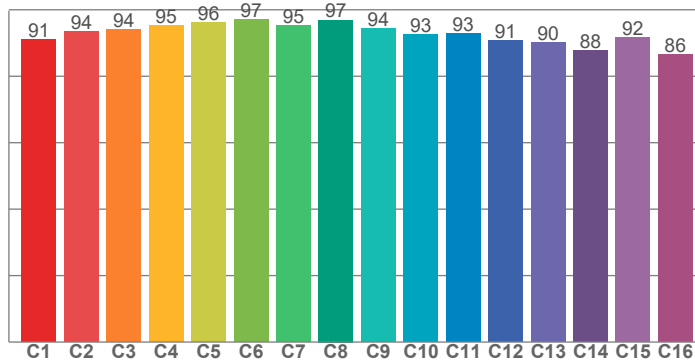


COLOR DETAILS



TM30: 92.9

CRI: 94.2 (R1-R8)



CQS: 92.2

CRI R values, only R1-R8 are used to calculate final CRI value

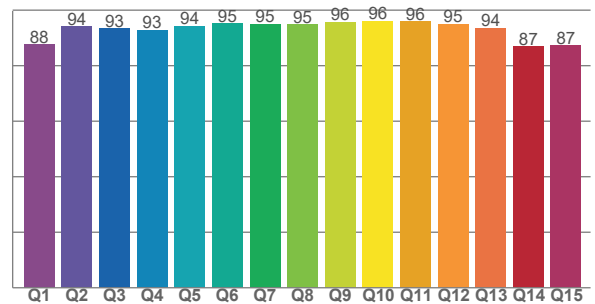
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95.0	98.4	98.5	95.6	95.4	97.5	91.3	81.6	60.3	96.1	98.6	88.2	96.2	99.6	89.3

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
91.0	93.6	94.1	95.3	96.1	97.0	95.2	96.9	94.4	92.7	92.9	90.8	90.1	87.8	91.7	86.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.6	94.1	93.4	92.9	94.3	95.3	95.0	94.8	95.7	96.1	95.9	94.9	93.6	87.0	87.2



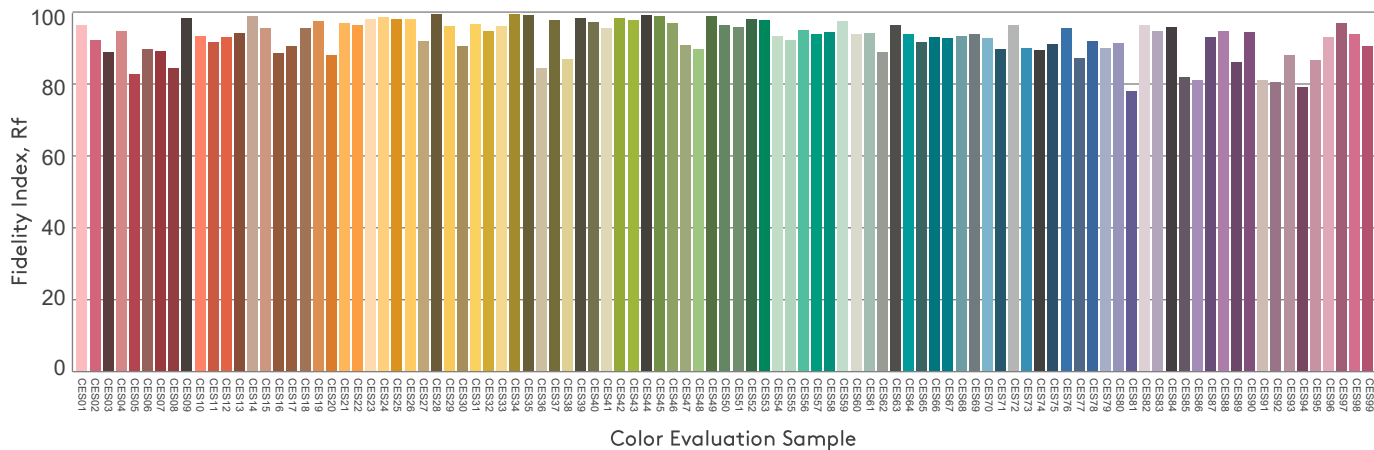
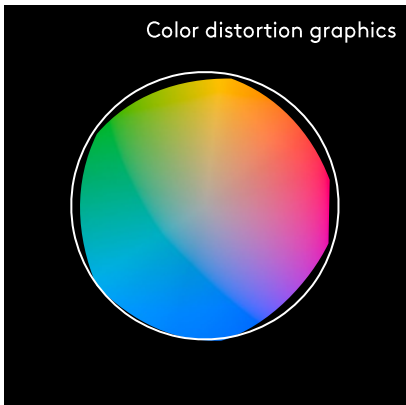
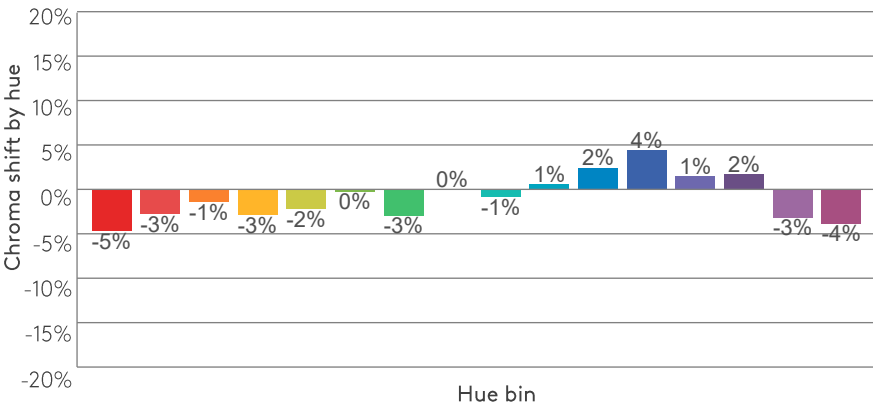
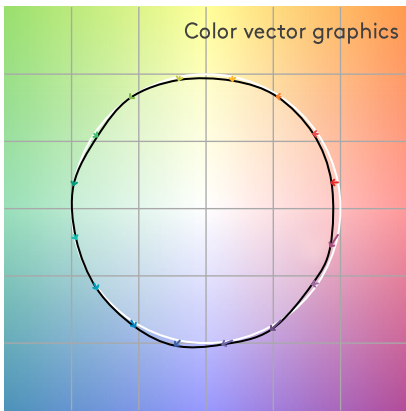
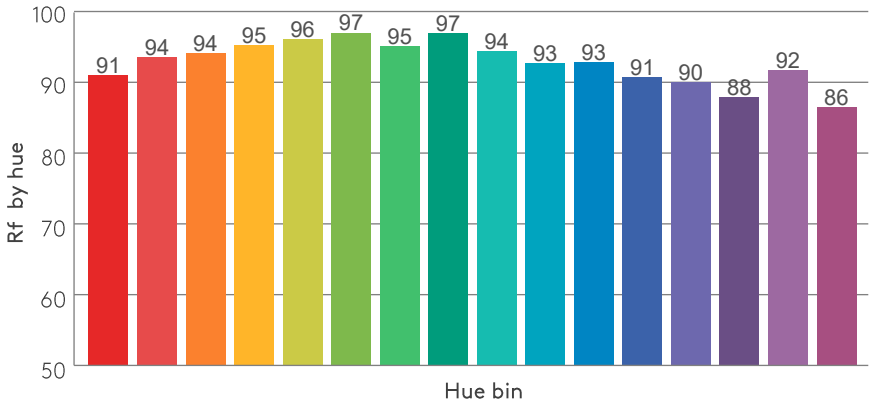
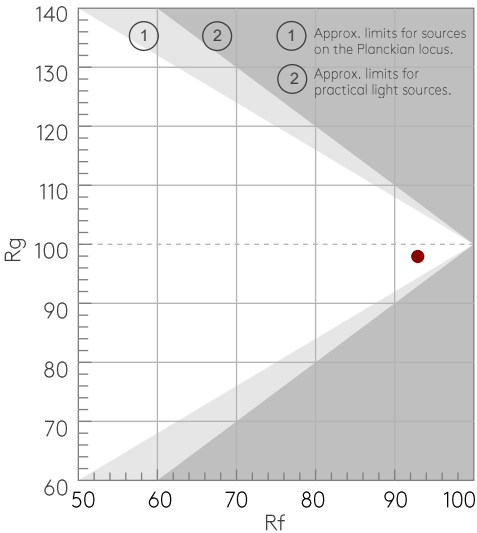
COLOR PARAMETERS

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
2716 K	94.2	60.3	92.9	97.9	92.2	0.460	0.412	0.262	0.352	0.0006

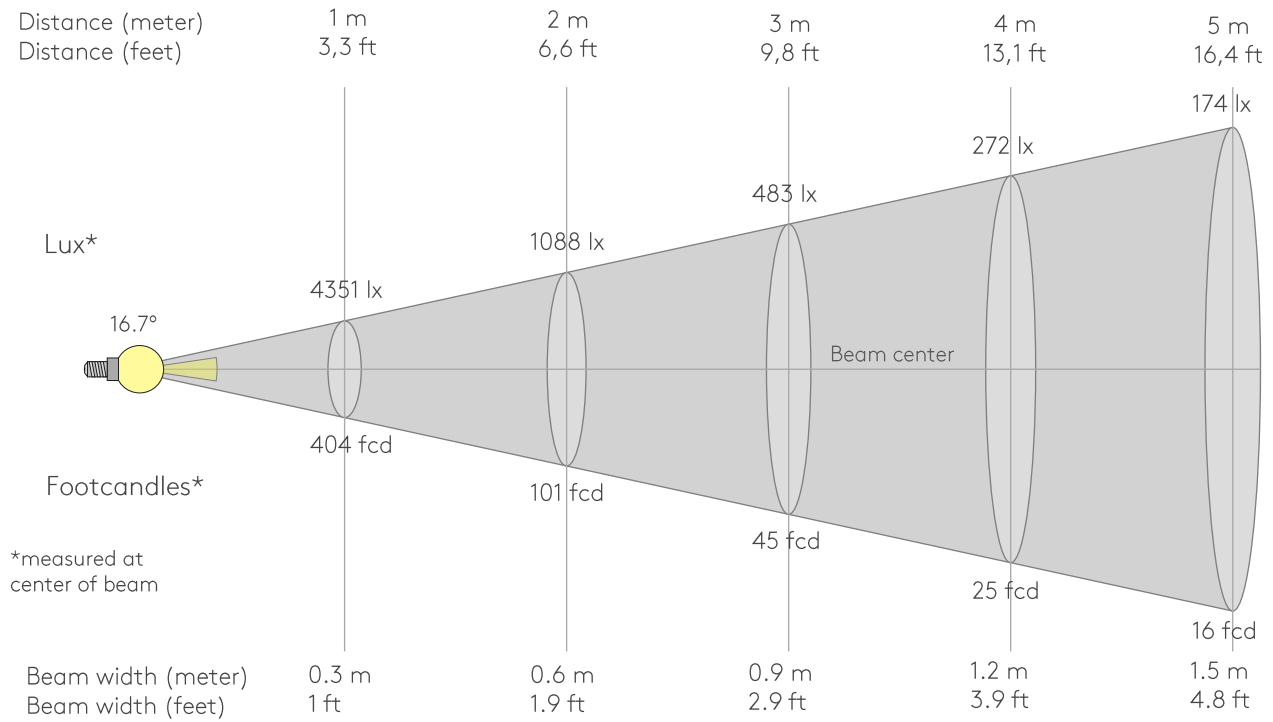
Rf 92.9
Fidelity index Rf

Rg 97.9
Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	1%
2	94	-3%	2%
3	94	-1%	2%
4	95	-3%	-1%
5	96	-2%	1%
6	97	0%	1%
7	95	-3%	0%
8	97	0%	2%
9	94	-1%	3%
10	93	1%	5%
11	93	2%	5%
12	91	4%	-3%
13	90	1%	-8%
14	88	2%	-10%
15	92	-3%	-3%
16	86	-4%	-9%



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
4351lx	1088lx	483lx	272lx	174lx	121lx	89lx	68lx	54lx	44lx	36lx	30lx	26lx	22lx	19lx	17lx	15lx	13lx	12lx	11lx
404.2fcd	101.1fcd	44.9fcd	25.3fcd	16.2fcd	11.2fcd	8.2fcd	6.3fcd	5fcd	4fcd	3.3fcd	2.8fcd	2.4fcd	2.1fcd	1.8fcd	1.6fcd	1.4fcd	1.2fcd	1.1fcd	1fcd

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4351	4295	4155	3937	3660	3342	2996	2642	2297	1975	1680	1417	1191	1001	842	711	604	517	446	388
100%	99%	95%	90%	84%	77%	69%	61%	53%	45%	39%	33%	27%	23%	19%	16%	14%	12%	10%	9%

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4351	4295	4155	3937	3660	3342	2996	2642	2297	1975	1680	1417	1191	1001	842	711	604	517	446	388
100%	99%	95%	90%	84%	77%	69%	61%	53%	45%	39%	33%	27%	23%	19%	16%	14%	12%	10%	9%

Intensities in 180° c-plane

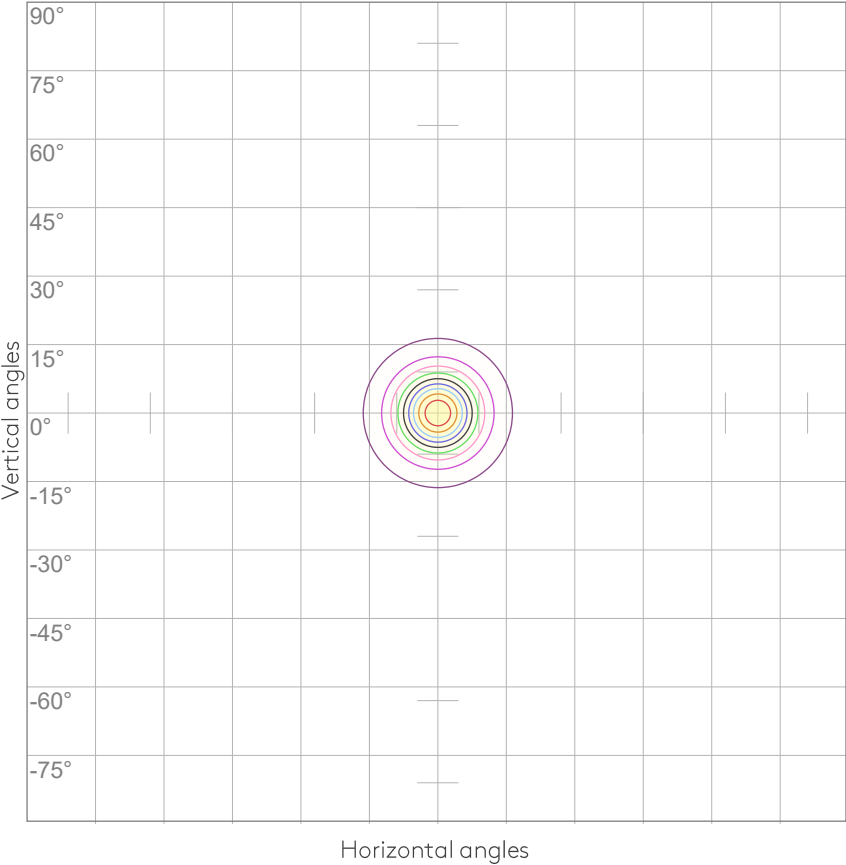
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4351	4295	4155	3937	3660	3342	2996	2642	2297	1975	1680	1417	1191	1001	842	711	604	517	446	388
100%	99%	95%	90%	84%	77%	69%	61%	53%	45%	39%	33%	27%	23%	19%	16%	14%	12%	10%	9%

Intensities in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4351	4295	4155	3937	3660	3342	2996	2642	2297	1975	1680	1417	1191	1001	842	711	604	517	446	388
100%	99%	95%	90%	84%	77%	69%	61%	53%	45%	39%	33%	27%	23%	19%	16%	14%	12%	10%	9%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16.7°	36.4°	60.9°	98.6%	95.0%

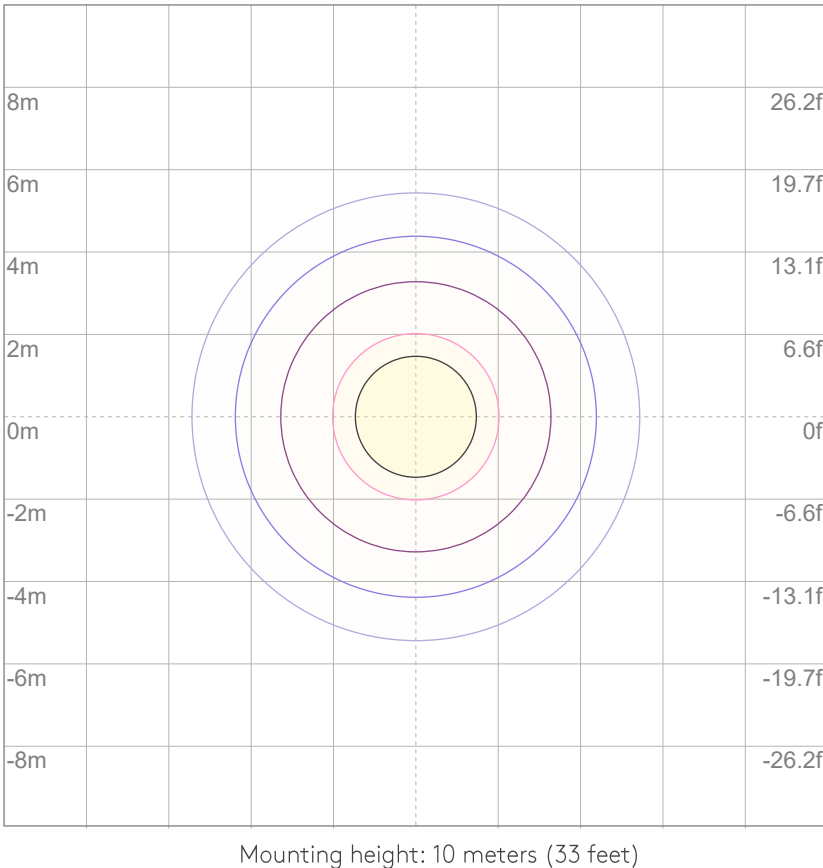
ISO CANDELA DIAGRAM



10%	435 cd
20%	870 cd
30%	1305 cd
40%	1740 cd
50%	2175 cd
60%	2611 cd
70%	3046 cd
80%	3481 cd
90%	3916 cd

Conditions:
Number of c-planes: 8
Candela at center: 4351 cd

ISO LUX DIAGRAM



3%	1.31 lx
5%	2.18 lx
10%	4.35 lx
30%	13.1 lx
50%	{LUX_10M50} lx

Conditions:
Number of c-planes: 8
Lux at center: 43.5 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	14.7	15.1	14.7	15.3	15.5	14.7	15.1	14.7	15.3	15.5
	3H	14.6	15.3	15.0	15.4	15.6	14.6	15.3	15.0	15.4	15.6
	4H	14.6	15.2	15.0	15.4	15.7	14.6	15.2	15.0	15.4	15.7
	6H	14.6	15.1	14.9	15.4	15.8	14.6	15.1	14.9	15.4	15.8
	8H	14.6	15.1	14.9	15.4	15.8	14.6	15.1	14.9	15.4	15.8
	12H	14.5	15.0	14.9	15.3	15.8	14.5	15.0	14.9	15.3	15.8
4H	2H	14.6	15.2	15.0	15.4	15.6	14.6	15.2	15.0	15.4	15.6
	3H	14.8	15.3	15.2	15.6	16.1	14.8	15.3	15.2	15.6	16.1
	4H	14.7	15.2	15.2	15.6	16.1	14.7	15.2	15.2	15.6	16.1
	6H	14.7	15.2	15.2	15.5	15.8	14.7	15.2	15.2	15.5	15.8
	8H	14.6	15.1	15.2	15.4	15.8	14.6	15.1	15.2	15.4	15.8
	12H	14.6	14.9	15.1	15.3	15.8	14.6	14.9	15.1	15.3	15.8
8H	4H	14.6	15.1	15.2	15.4	15.8	14.6	15.1	15.2	15.4	15.8
	6H	14.6	14.9	15.1	15.4	15.9	14.6	14.9	15.1	15.4	15.9
	8H	14.6	14.8	15.1	15.4	16.0	14.6	14.8	15.1	15.4	16.0
	12H	14.6	14.7	15.1	15.2	15.8	14.6	14.7	15.1	15.2	15.8
12H	4H	14.6	14.9	15.1	15.3	15.8	14.6	14.9	15.1	15.3	15.8
	6H	14.6	14.8	15.1	15.3	16.0	14.6	14.8	15.1	15.3	16.0
	8H	14.5	14.7	15.1	15.2	15.8	14.5	14.7	15.1	15.2	15.8
Variation of the observer position for the luminaire distance S											
S = 1.0H		2.0 / -1.8					2.0 / -1.8				
S = 1.5H		3.9 / -3.3					3.9 / -3.3				
S = 2.0H		5.5 / -5.3					5.5 / -5.3				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 653 lm total luminous flux											

TALLINN SINGLE - WITHOUT DIFFUSER

LIGHT PLANNING

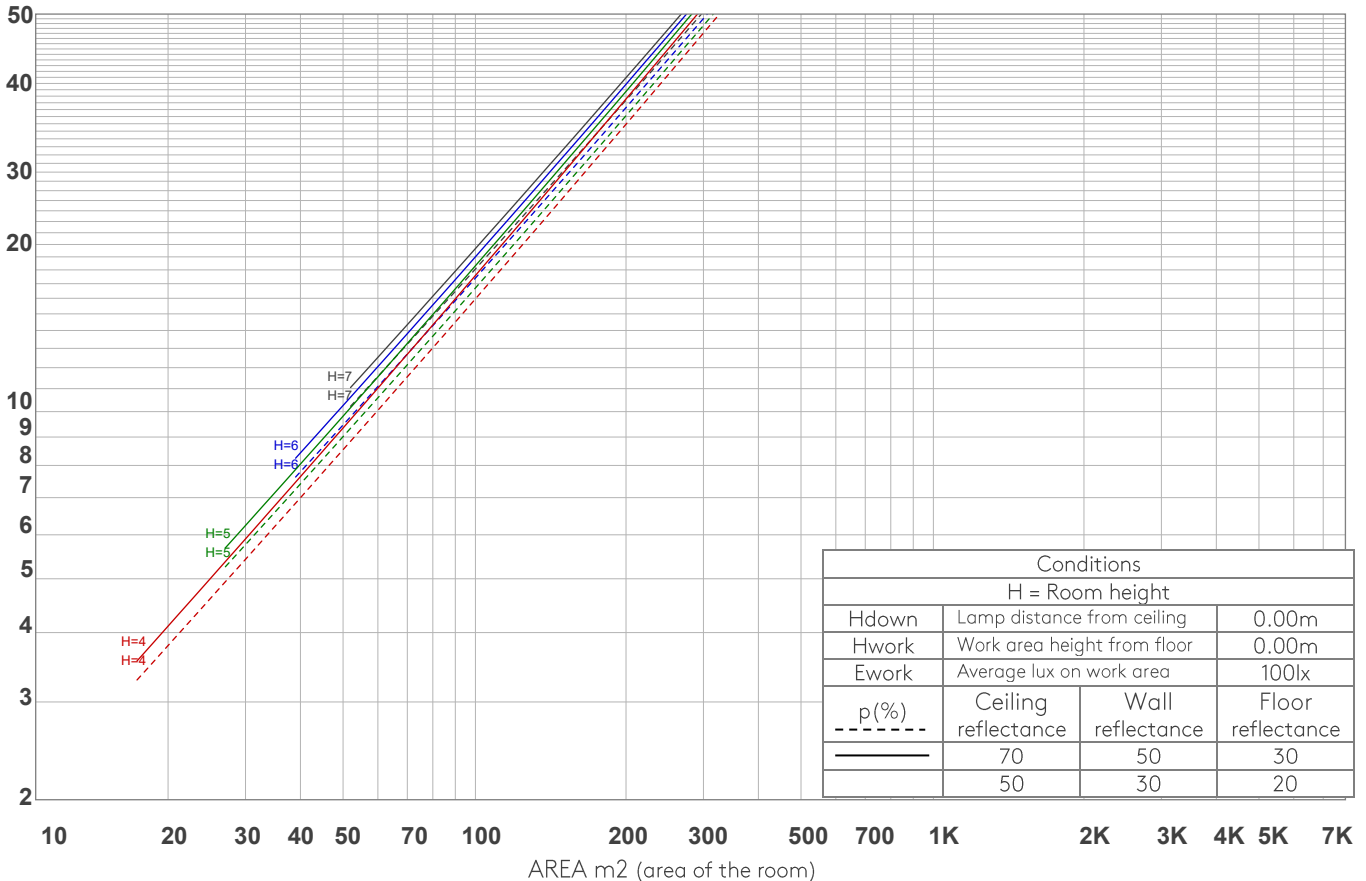
astro

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	100
1	115	112	110	108	112	110	108	107	106	105	103	102	101	100	99	98	97	96
2	110	107	103	101	108	105	102	99	102	99	97	99	97	95	96	95	93	92
3	106	101	98	94	105	100	97	94	98	95	92	95	93	91	93	91	89	88
4	103	97	93	90	101	96	92	89	94	91	88	92	89	87	90	88	86	85
5	100	93	89	85	98	92	88	85	91	87	84	89	86	84	88	85	83	82
6	96	90	85	82	95	89	85	82	88	84	81	86	83	81	85	82	80	79
7	94	87	82	79	92	86	82	79	85	81	79	84	81	78	83	80	78	77
8	91	84	80	77	90	83	79	76	82	79	76	82	78	76	81	78	75	74
9	88	81	77	74	88	81	77	74	80	76	74	79	76	74	79	76	73	72
10	86	79	75	72	85	79	75	72	78	74	72	77	74	72	77	74	72	71

LAMPS (number of lamps)

LUMINAIRE BUDGETARY DIAGRAM



ZONAL LUMEN SUMMARY

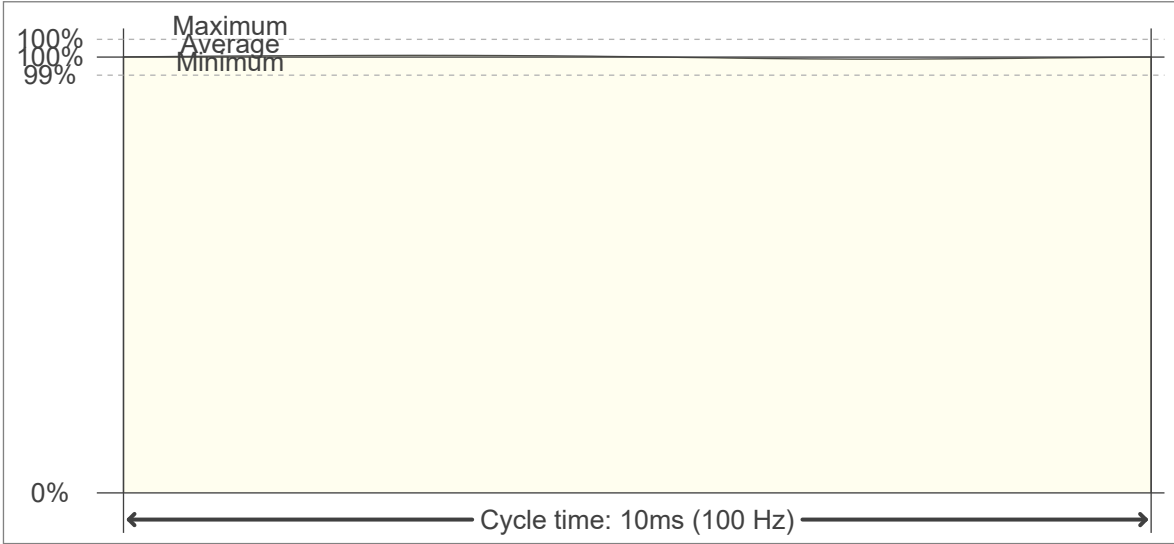
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
262 lm	210 lm	90.3 lm	44.8 lm	23.6 lm	13.1 lm	5.86 lm	1.46 lm	0.207 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.019 lm	0.022 lm	0.052 lm	0.097 lm	0.235 lm	0.399 lm	0.476 lm	0.387 lm	0.085 lm

FLICKER

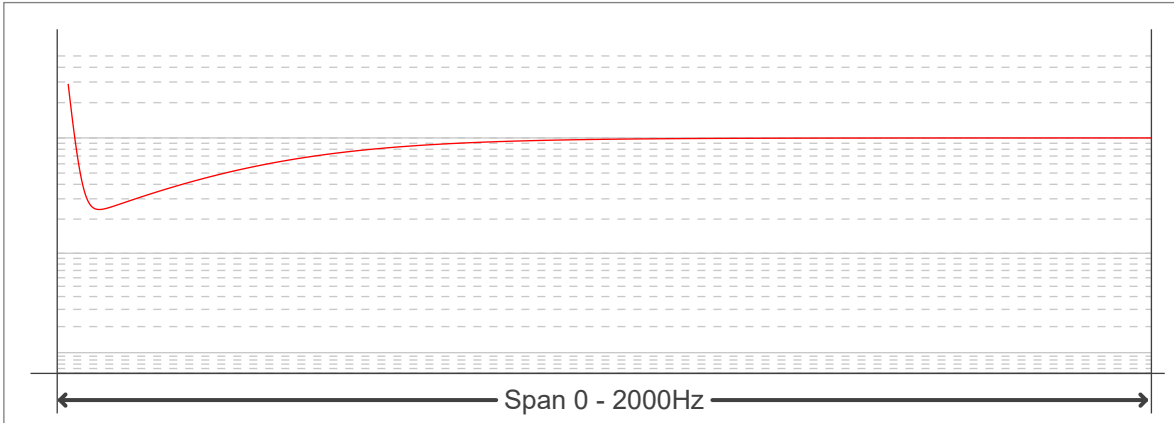
FLICKER CURVE (COMPLETE SAMPLED)



FLICKER FRAME (FRAME OF ONE FLICKER)



FLICKER FFT (FREQUENCY SCOPE OF FLICKER)



FLICKER RESULTS:

Flicker frequency:	100 Hz
Flicker index:	0
Flicker percentage:	0.47 %
SVM: (Visual flicker)	0.02

FLICKER CONDITIONS:

Sample rate:	20000 samples/second
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