

PHOTOMETRIC TEST REPORT

TALLINN TWIN - WITHOUT
DIFFUSER

astro

TALLINN TWIN - WITHOUT DIFFUSER

astro

LIGHT EFFICIENCY:



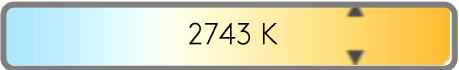
OUTPUT: 1497 lm

LIGHT QUALITY:



PEAK: 4908 cd

COLOR TEMPERATURE:



POWER: 19.7 W

PF: 0.97



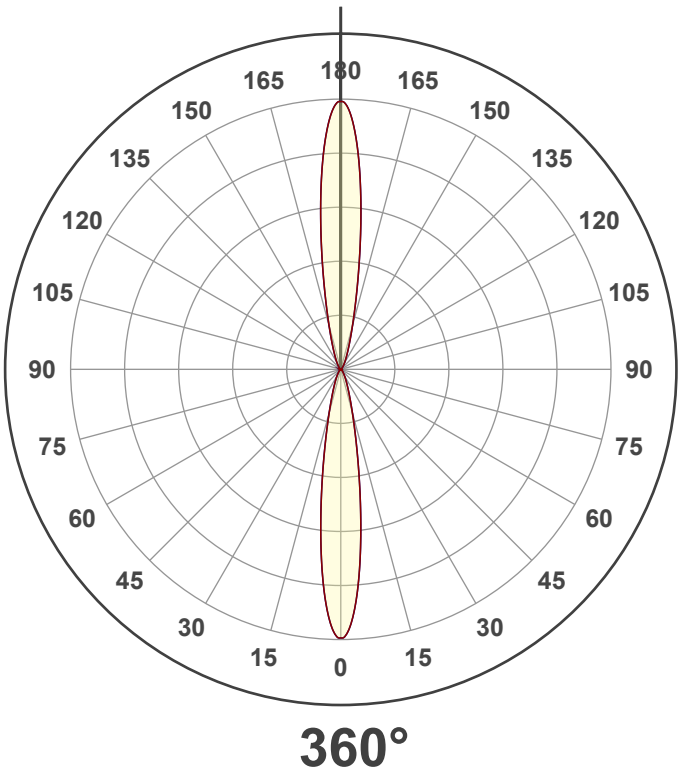
Tracking number: [n/a](#)

Product name:
Tallinn Twin - without diffuser

Item number:
1516002

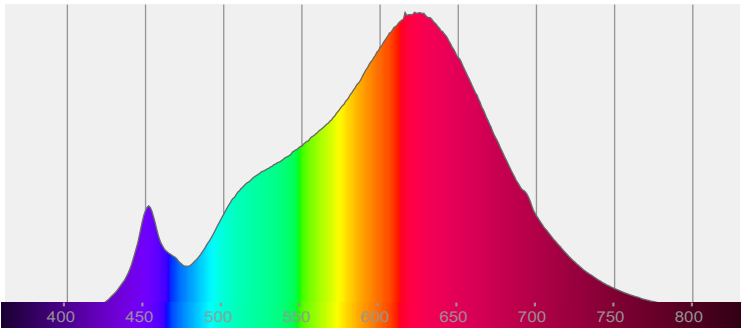
Date and time:
11/12/2025 14:51:05

Description:
Outddor IP65 LED Wall Up & Downlight
Without Diffusers Fitted

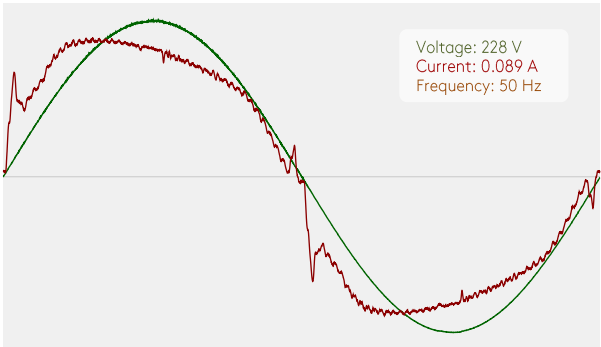


CIE 1931
x: 0.459
y: 0.414

SPECTRA

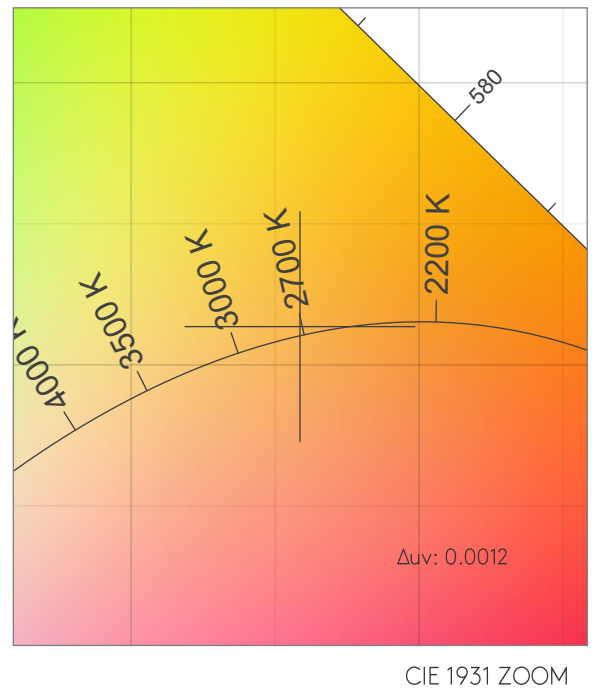
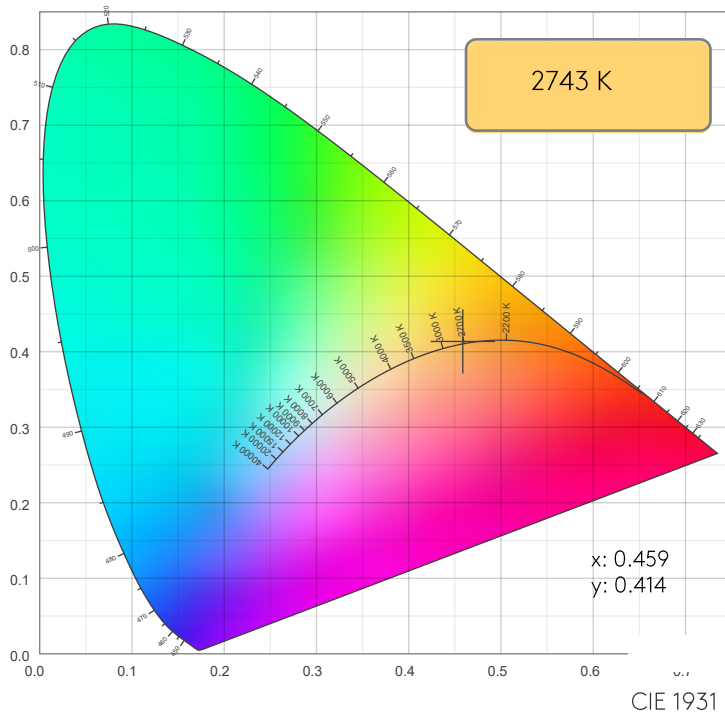


POWER



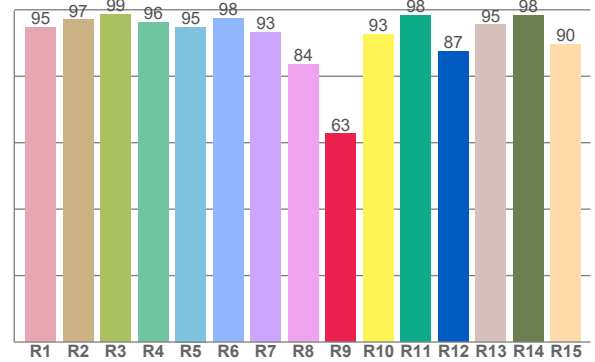
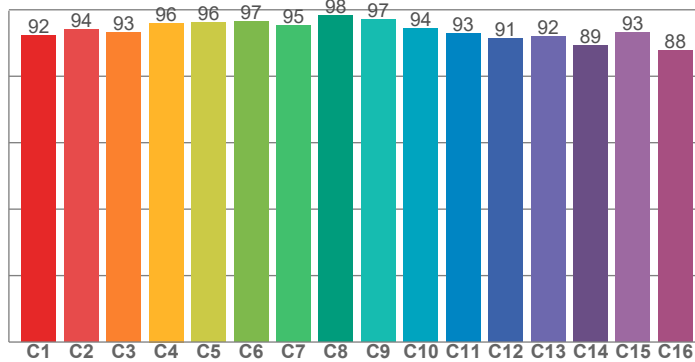
Voltage: 228 V
Current: 0.089 A
Frequency: 50 Hz

COLOR DETAILS



TM30: 93.7

CRI: 94.4 (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
94.8	96.9	98.6	96.2	94.8	97.5	93.2	83.5	62.7	92.6	98.2	87.4	95.4	98.3	89.5

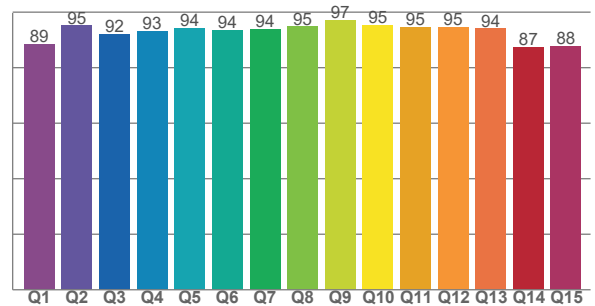
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.2	93.9	93.0	96.0	96.3	96.6	95.3	98.3	96.9	94.4	92.8	91.3	92.0	89.2	93.2	87.7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.5	95.1	92.2	93.2	94.3	93.6	93.9	94.8	97.1	95.5	94.7	94.7	94.1	87.4	87.8

CQS: 92.4



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
2743 K	94.4	62.7	93.7	99.3	92.4	0.459	0.414	0.260	0.352	0.0012

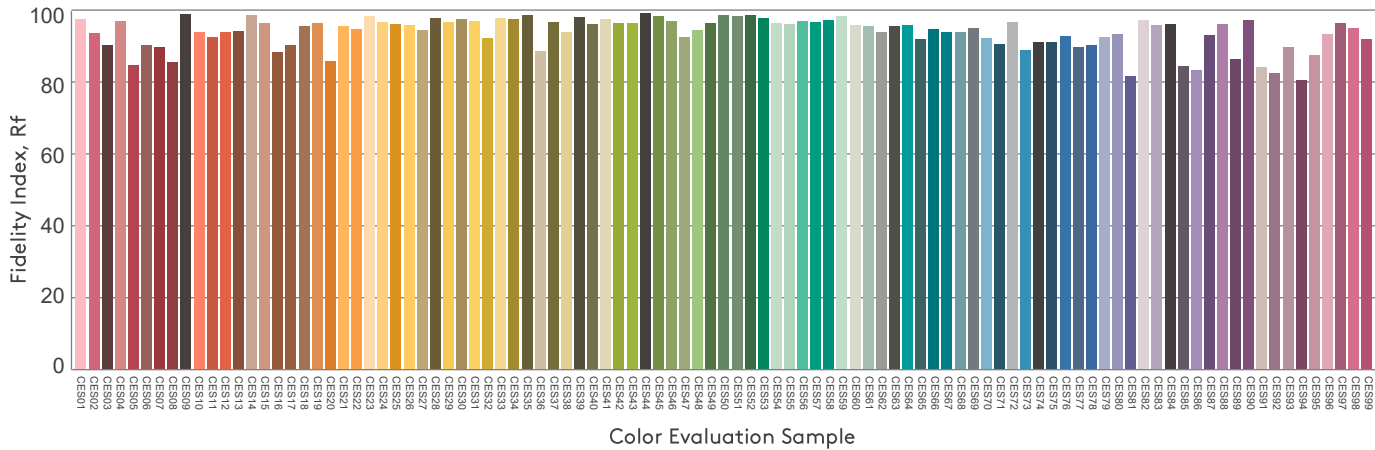
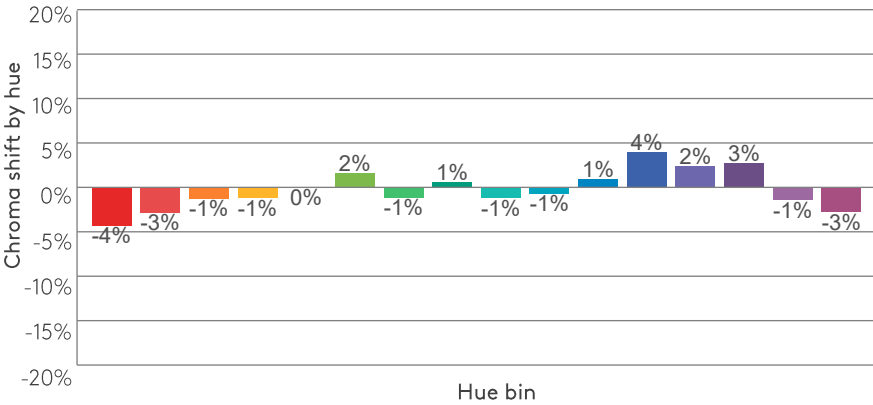
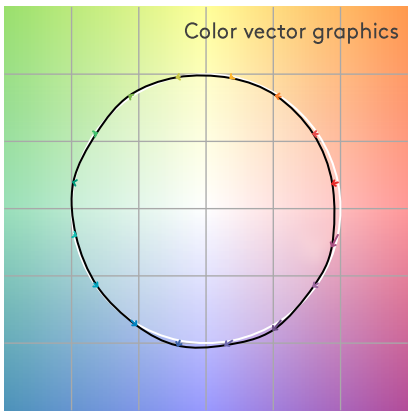
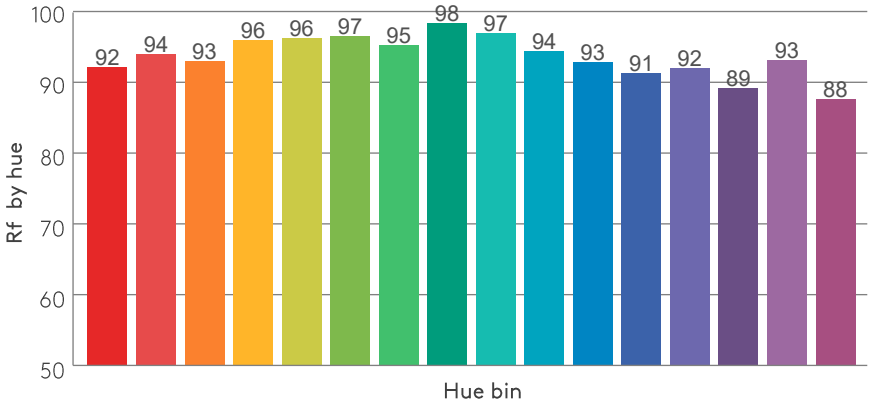
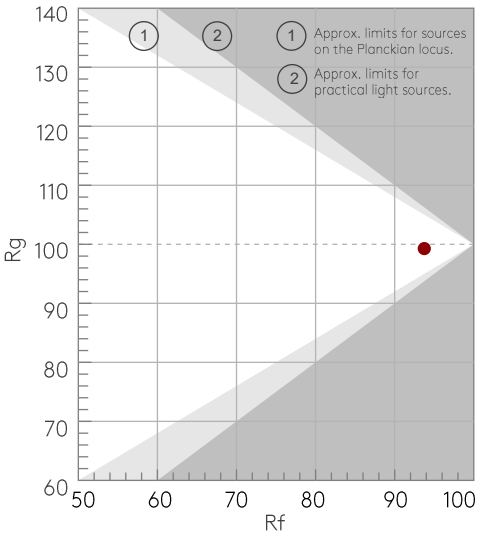
Rf 93.7

Fidelity index Rf

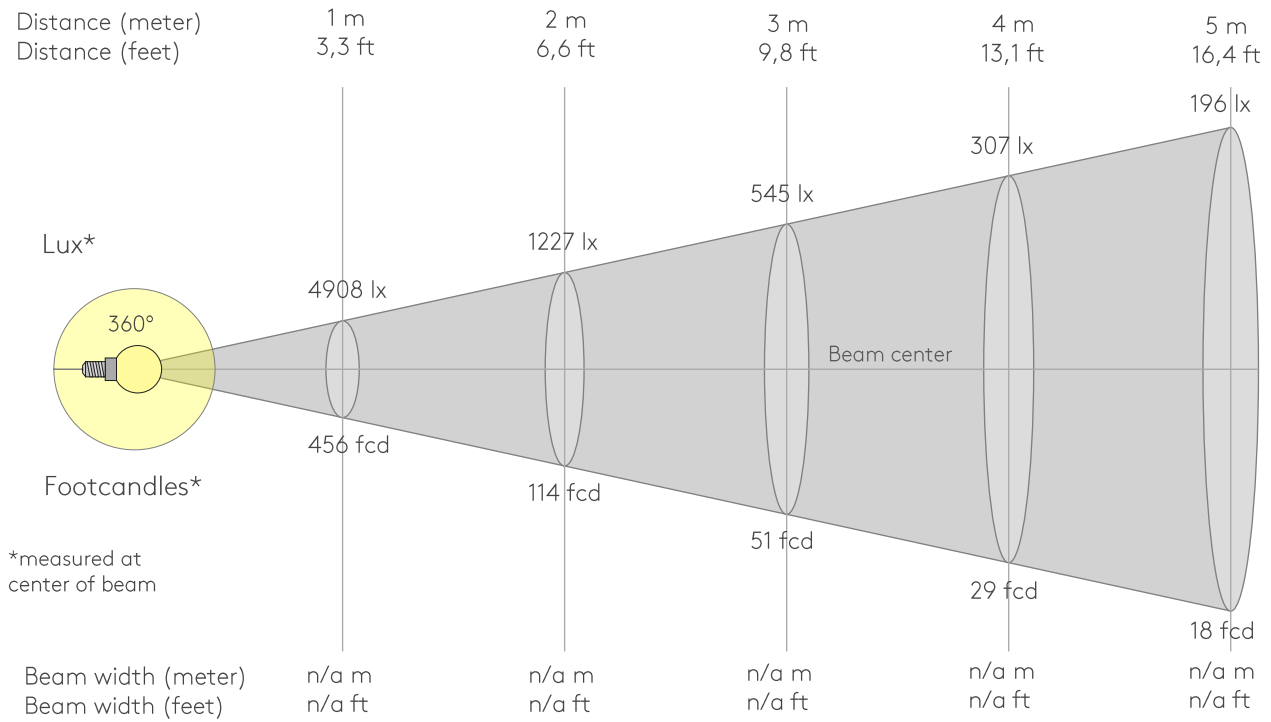
Rg 99.3

Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	92	-4%	0%
2	94	-3%	2%
3	93	-1%	3%
4	96	-1%	1%
5	96	0%	2%
6	97	2%	1%
7	95	-1%	-2%
8	98	1%	0%
9	97	-1%	1%
10	94	-1%	3%
11	93	1%	5%
12	91	4%	-1%
13	92	2%	-6%
14	89	3%	-8%
15	93	-1%	-4%
16	88	-3%	-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
4908lx	1227lx	545lx	307lx	196lx	136lx	100lx	77lx	61lx	49lx	41lx	34lx	29lx	25lx	22lx	19lx	17lx	15lx	14lx	12lx
456fcd	114fcd	50.7fcd	28.5fcd	18.2fcd	12.7fcd	9.3fcd	7.1fcd	5.6fcd	4.6fcd	3.8fcd	3.2fcd	2.7fcd	2.3fcd	2fcd	1.8fcd	1.6fcd	1.4fcd	1.3fcd	1.1fcd

Intensities in 0° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
4908	2230	523	181	74	35	18	8	2	0	0	0	2	8	18	35	74	181	529	2251
100%	45%	11%	4%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	2%	4%	11%	46%

Intensities in 90° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
4908	2230	523	181	74	35	18	8	2	0	0	0	2	8	18	35	74	181	529	2251
100%	45%	11%	4%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	2%	4%	11%	46%

Intensities in 180° c-plane

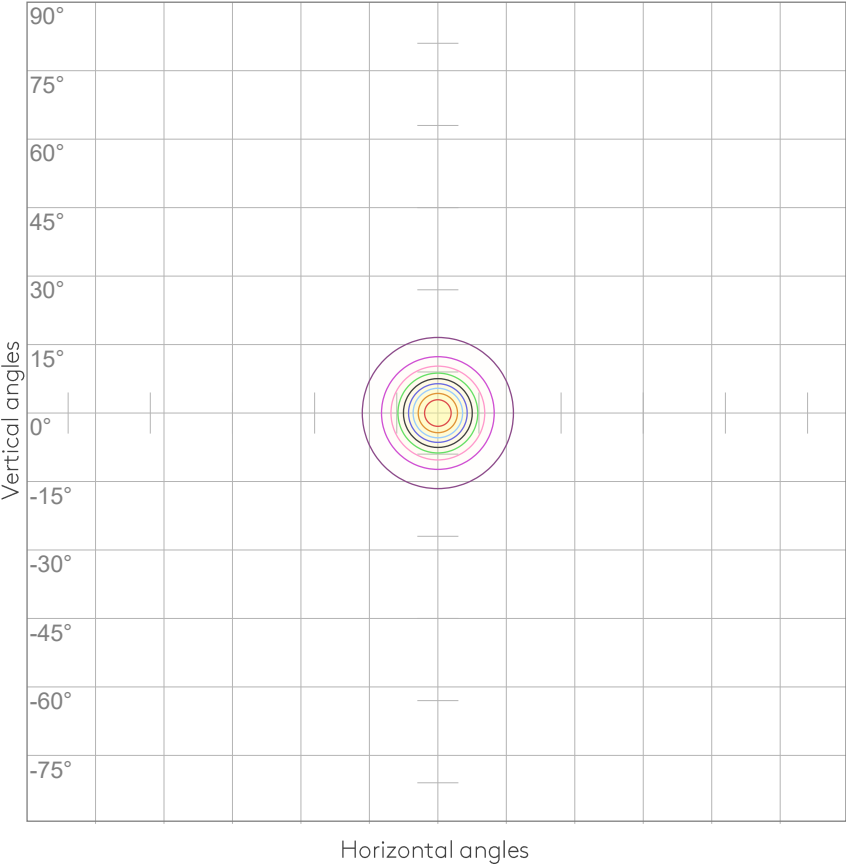
0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
4908	2230	523	181	74	35	18	8	2	0	0	0	2	8	18	35	74	181	529	2251
100%	45%	11%	4%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	2%	4%	11%	46%

Intensities in 270° c-plane

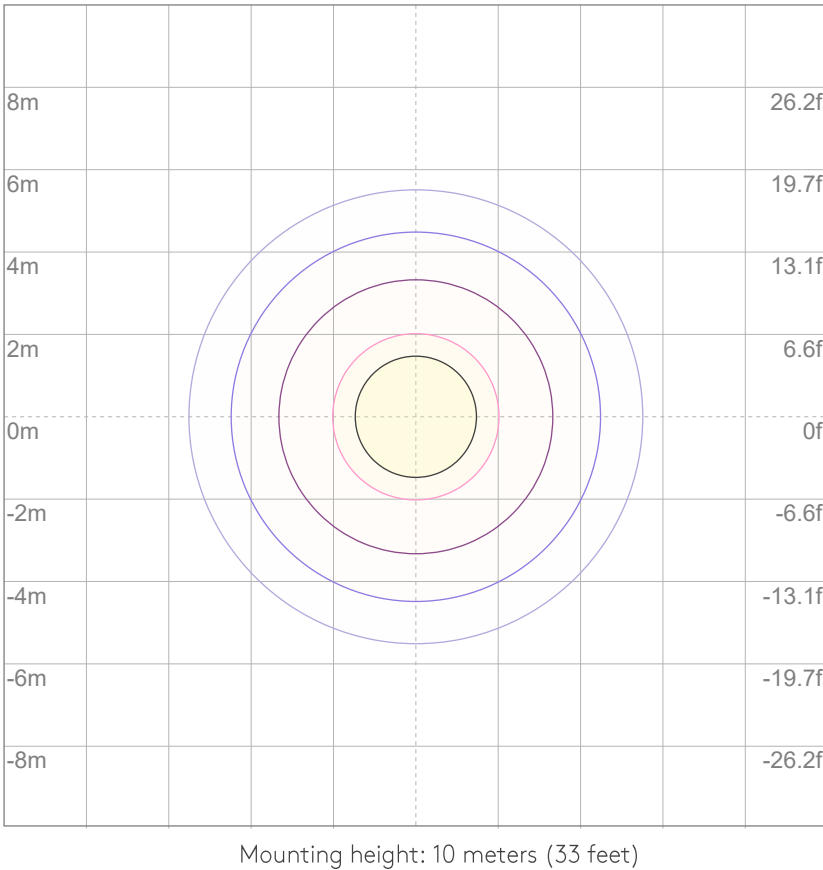
0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
4908	2230	523	181	74	35	18	8	2	0	0	0	2	8	18	35	74	181	529	2251
100%	45%	11%	4%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	2%	4%	11%	46%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
360°	360°	360°	49.4%	47.6%

ISO CANDELA DIAGRAM



ISO LUX DIAGRAM



UGR

GLARE EVALUATION ACCORDING TO UGR

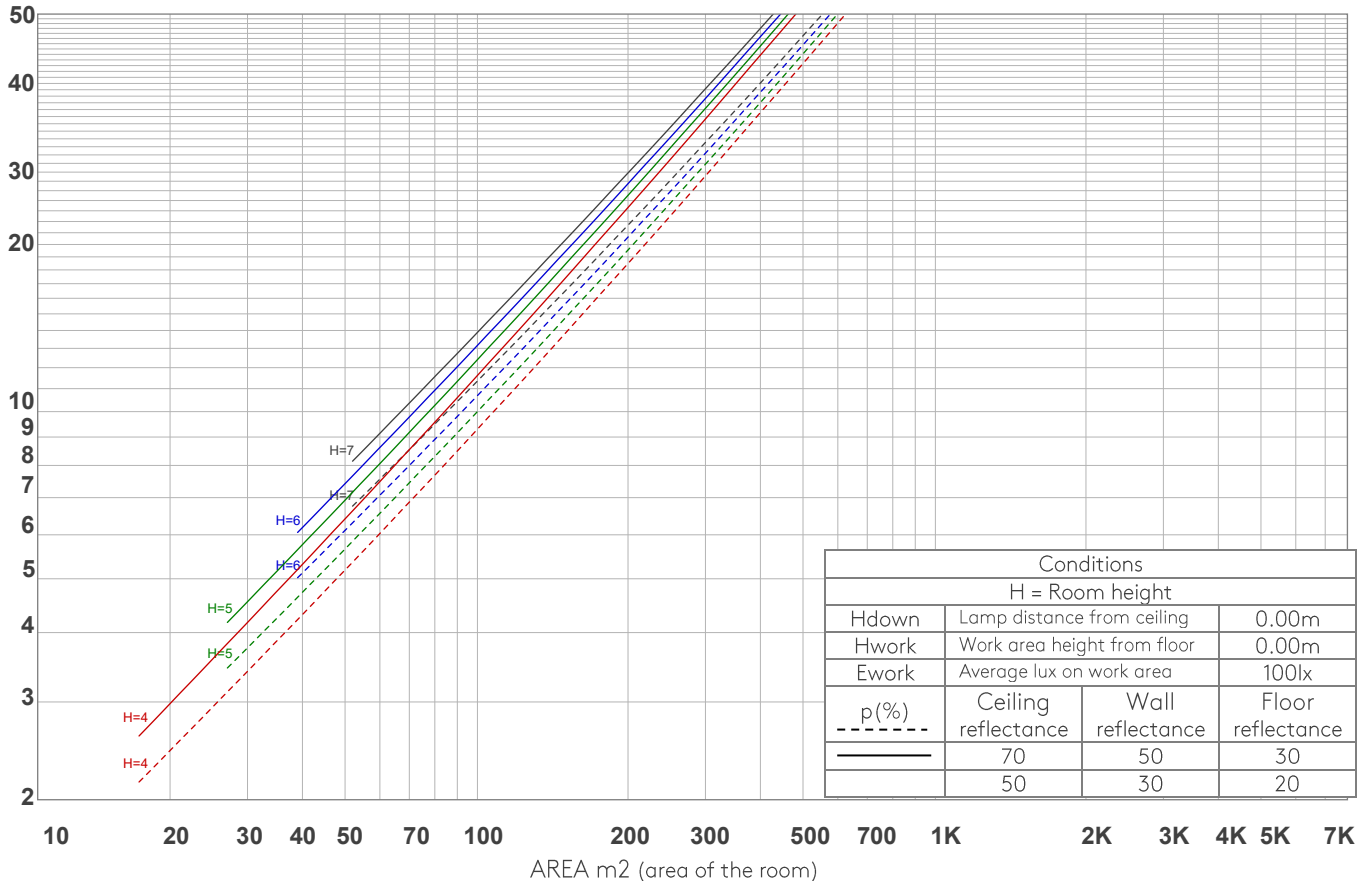
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	11.5	12.1	12.4	12.8	13.9	11.5	12.1	12.4	12.8	13.9
	3H	11.4	12.0	12.4	12.8	13.8	11.4	12.0	12.4	12.8	13.8
	4H	11.3	11.8	12.3	12.7	13.7	11.3	11.8	12.3	12.7	13.7
	6H	11.2	11.6	12.1	12.6	13.6	11.2	11.6	12.1	12.6	13.6
	8H	11.2	11.6	12.1	12.5	13.6	11.2	11.6	12.1	12.5	13.6
	12H	11.1	11.7	12.0	12.4	13.5	11.1	11.7	12.0	12.4	13.5
4H	2H	11.3	11.8	12.3	12.7	13.7	11.3	11.8	12.3	12.7	13.7
	3H	11.4	11.9	12.3	12.7	13.8	11.4	11.9	12.3	12.7	13.8
	4H	11.2	12.0	12.2	12.6	13.7	11.2	12.0	12.2	12.6	13.7
	6H	11.1	11.5	12.1	12.4	13.5	11.1	11.5	12.1	12.4	13.5
	8H	11.0	11.3	12.0	12.2	13.3	11.0	11.3	12.0	12.2	13.3
	12H	10.9	11.1	11.9	12.1	13.2	10.9	11.1	11.9	12.1	13.2
8H	4H	11.0	11.3	12.0	12.3	13.4	11.0	11.3	12.0	12.3	13.4
	6H	10.9	11.1	11.9	12.1	13.2	10.9	11.1	11.9	12.1	13.2
	8H	10.8	10.9	11.8	12.0	13.2	10.8	10.9	11.8	12.0	13.2
	12H	10.7	10.9	11.8	11.9	13.0	10.7	10.9	11.8	11.9	13.0
12H	4H	10.9	11.2	11.9	12.2	13.3	10.9	11.2	11.9	12.2	13.3
	6H	10.8	10.9	11.8	12.0	13.2	10.8	10.9	11.8	12.0	13.2
	8H	10.7	10.9	11.8	11.9	13.0	10.7	10.9	11.8	11.9	13.0
Variation of the observer position for the luminaire distance S											
S = 1.0H		2.2 / -2.1					2.2 / -2.1				
S = 1.5H		4.2 / -3.9					4.2 / -3.9				
S = 2.0H		5.9 / -6.4					5.9 / -6.4				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1497 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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50
1	101	97	95	92	93	90	88	86	77	76	74	65	64	63	54	53	53	48
2	95	89	85	81	88	83	80	76	72	69	67	62	60	59	52	51	50	46
3	89	82	77	73	83	77	73	69	67	64	62	58	56	55	50	49	48	44
4	84	76	71	66	78	72	67	63	63	60	57	56	53	51	48	47	46	42
5	80	71	65	61	74	67	62	58	60	56	53	53	50	48	47	45	44	41
6	76	67	61	57	71	63	58	54	57	53	50	51	48	46	45	43	42	39
7	72	63	57	53	68	60	55	51	54	50	47	49	46	44	44	42	40	38
8	69	60	54	50	65	57	52	48	52	48	45	47	44	42	42	40	39	37
9	66	57	51	47	62	54	49	46	50	46	43	45	42	41	41	39	38	36
10	63	54	49	45	60	52	47	44	48	44	41	44	41	39	40	38	37	35

LAMPS (number of lamps)

LUMINAIRE BUDGETARY DIAGRAM



ZONAL LUMEN SUMMARY

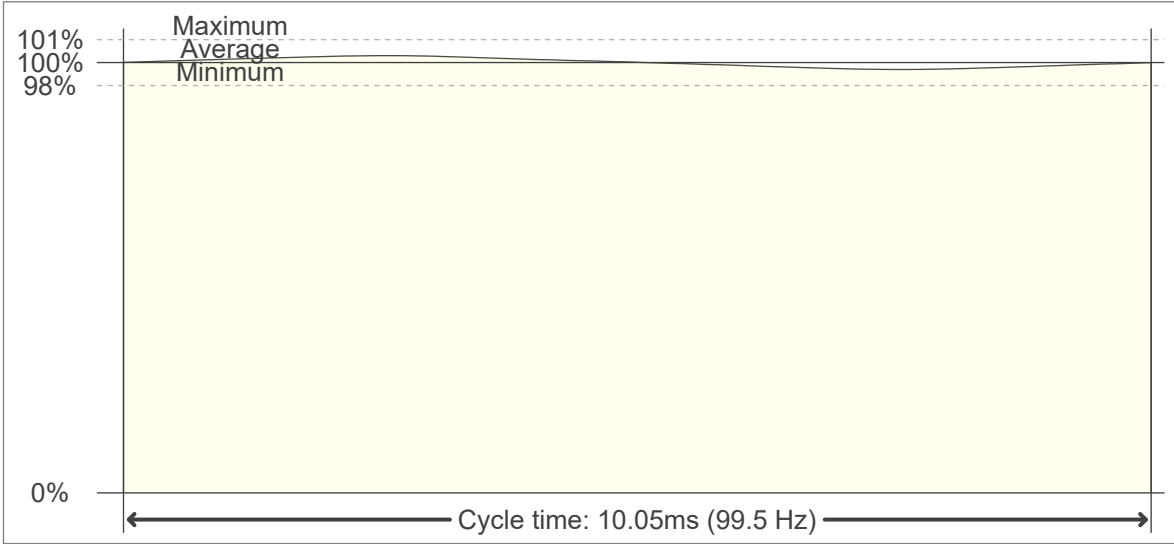
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
297 lm	240 lm	106 lm	52.8 lm	27.3 lm	14.5 lm	6.18 lm	1.27 lm	0.042 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.041 lm	1.25 lm	6.22 lm	14.6 lm	27.3 lm	52.8 lm	107 lm	243 lm	298 lm

FLICKER

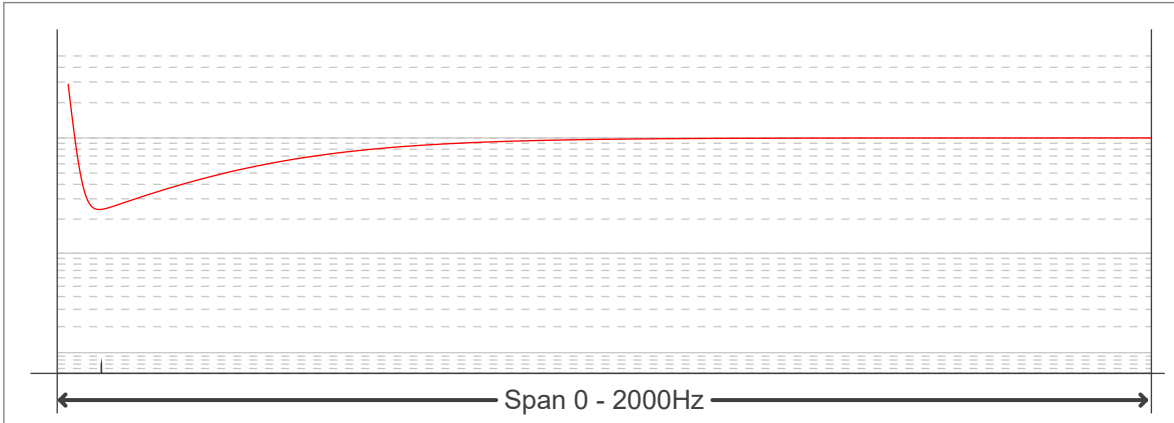
FLICKER CURVE (COMPLETE SAMPLED)



FLICKER FRAME (FRAME OF ONE FLICKER)



FLICKER FFT (FREQUENCY SCOPE OF FLICKER)



FLICKER RESULTS:

Flicker frequency:	99.5 Hz
Flicker index:	0
Flicker percentage:	1.76 %
SVM: (Visual flicker)	0.06

FLICKER CONDITIONS:

Sample rate:	20000 samples/second
--------------	----------------------