

# PHOTOMETRIC TEST REPORT

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TILE 170 - PHASE UL

astro

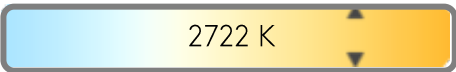
LIGHT EFFICIENCY:



LIGHT QUALITY:



COLOR TEMPERATURE:



OUTPUT: 865 lm

PEAK: 212 cd

POWER: 16.0 W

PF: 0.96



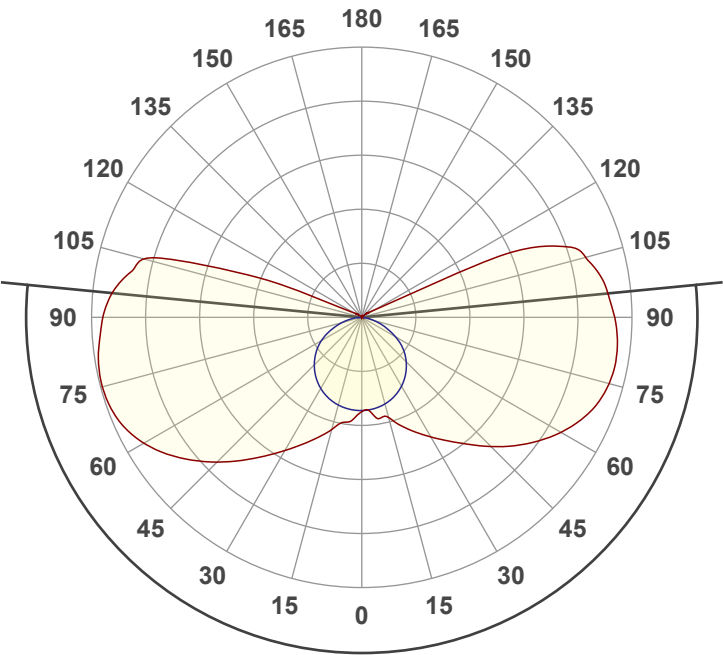
Tracking number: [n/a](#)

Product name:  
Tile 170 - Phase UL

Item number:  
1493004

Date and time:  
24/09/2025 14:52:47

Description:

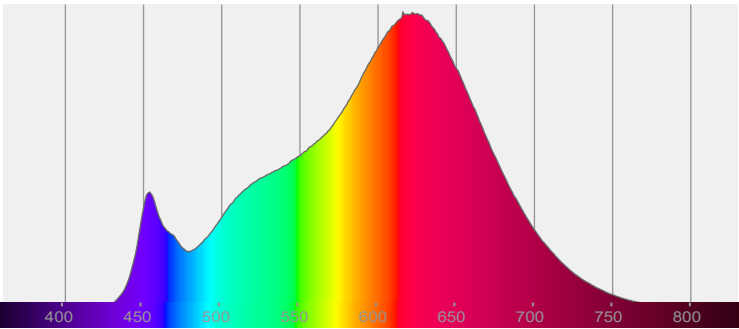


191.1°

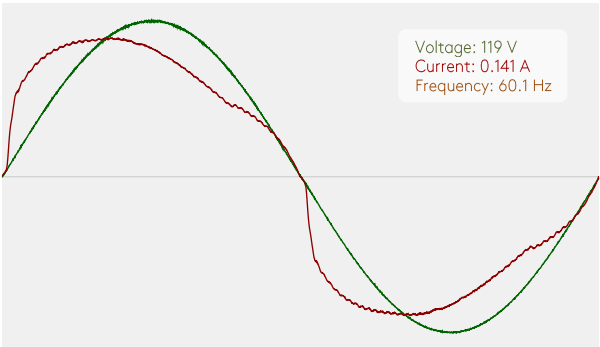


CIE 1931  
x: 0.456  
y: 0.405

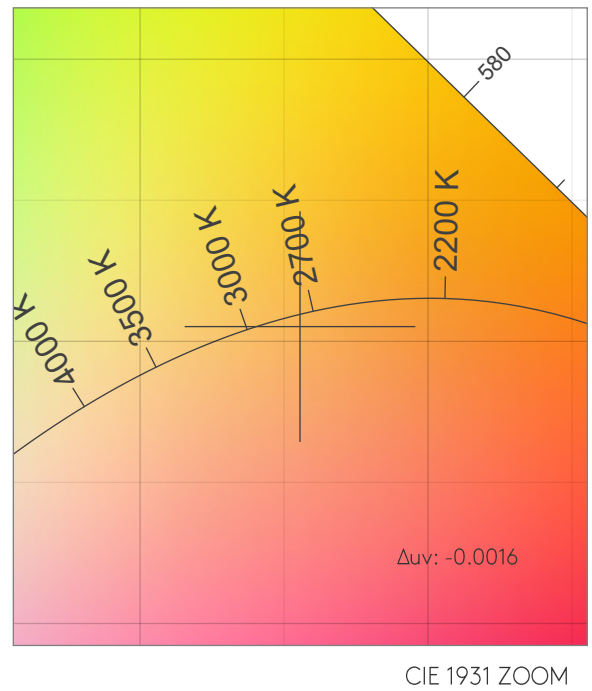
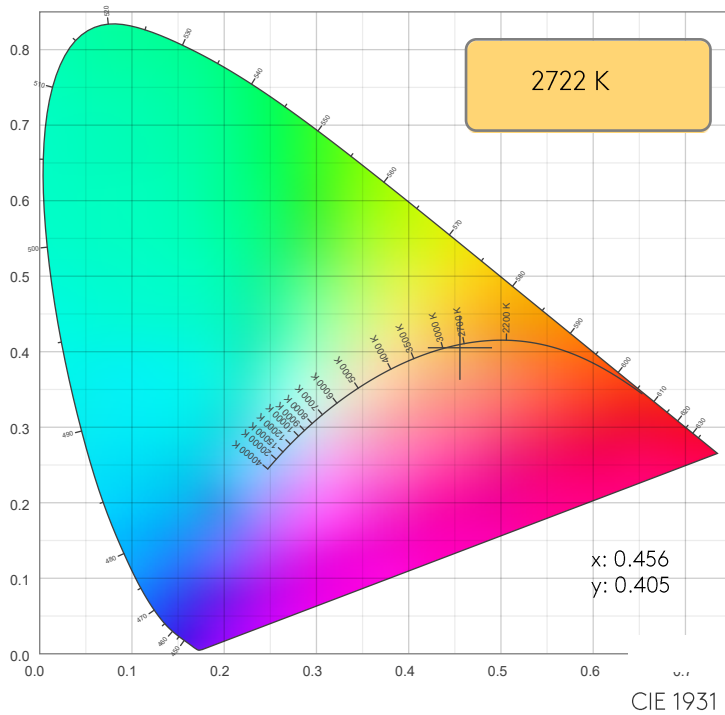
SPECTRA



POWER

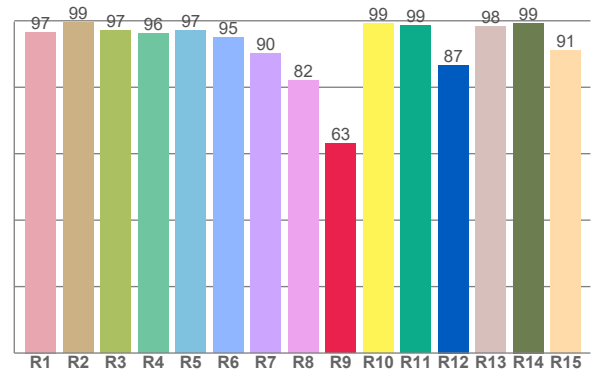
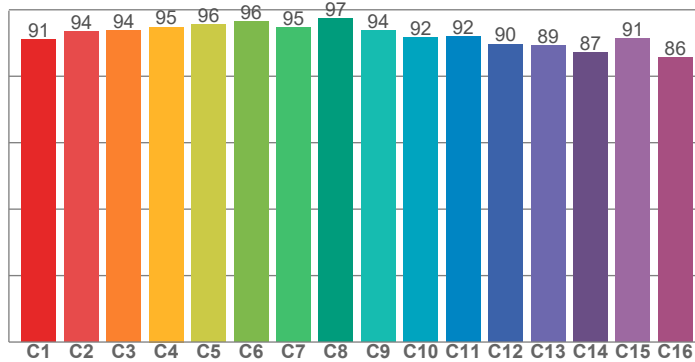


## COLOR DETAILS



TM30: 92.4

CRI: 94.2 (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
96.6	99.4	97.1	96.2	97.1	95.1	90.3	82.1	63.0	99.3	98.5	86.7	98.2	99.3	91.2

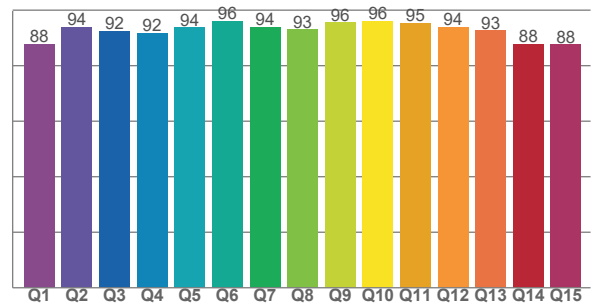
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.0	93.5	93.8	94.8	95.7	96.5	94.7	97.5	93.7	91.7	91.9	89.7	89.1	87.0	91.3	85.7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.8	94.0	92.5	91.8	93.7	96.0	93.9	93.0	95.5	96.1	95.4	93.8	92.6	87.8	87.6

CQS: 92.0



## 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	$\Delta uv$
2722 K	94.2	63.0	92.4	98.9	92.0	0.456	0.405	0.262	0.350	-0.0016

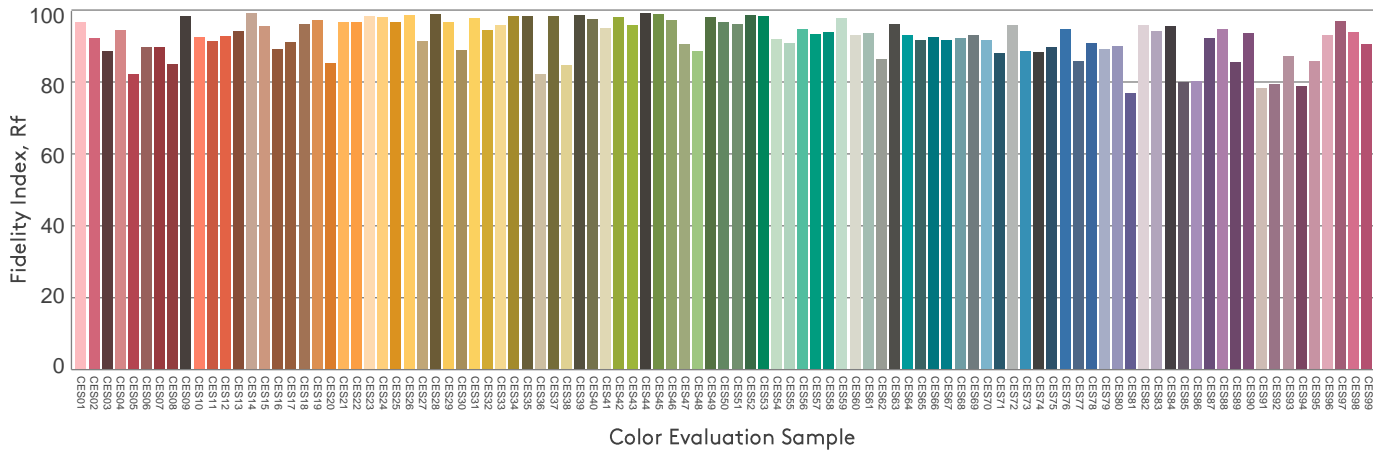
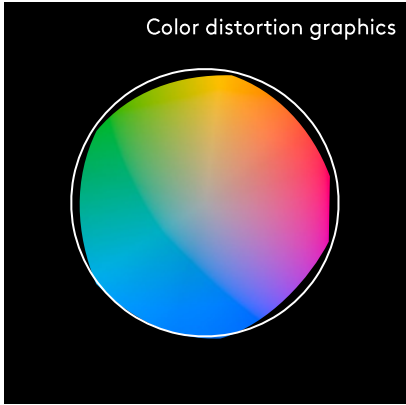
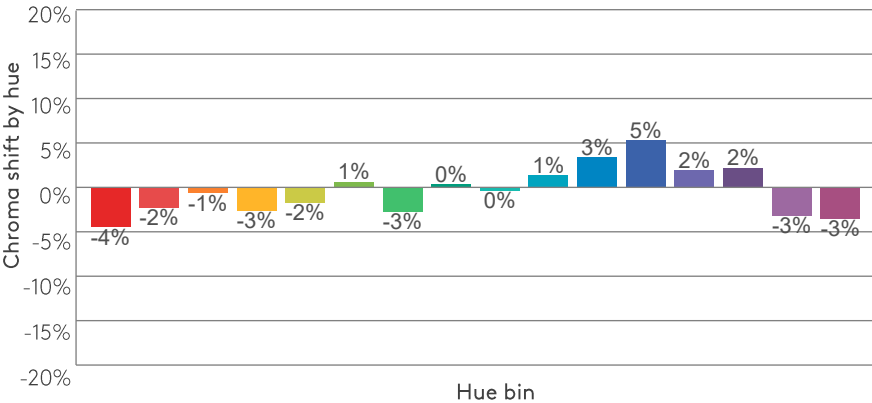
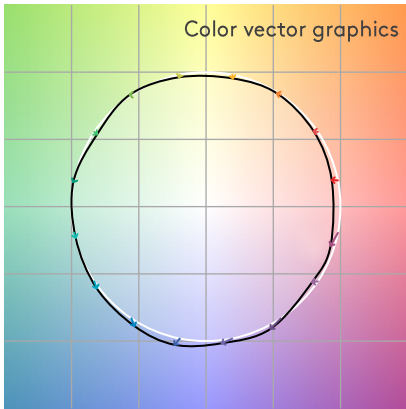
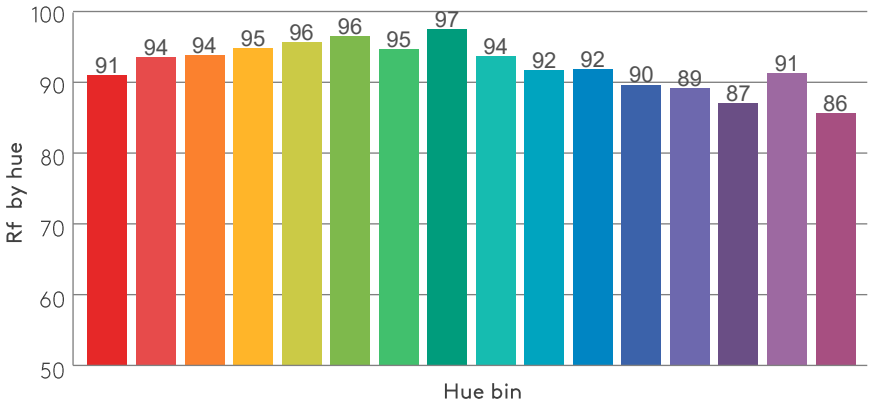
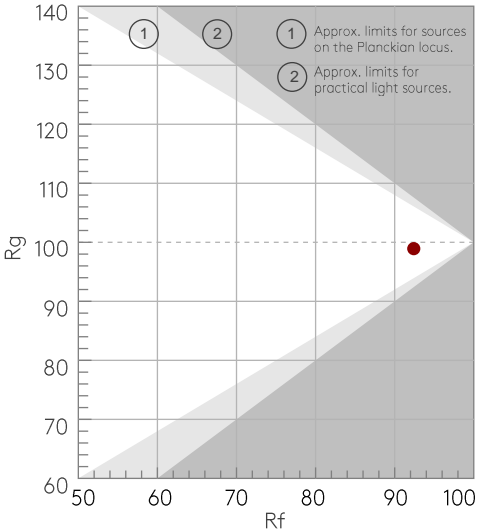
Rf 92.4

Fidelity index Rf

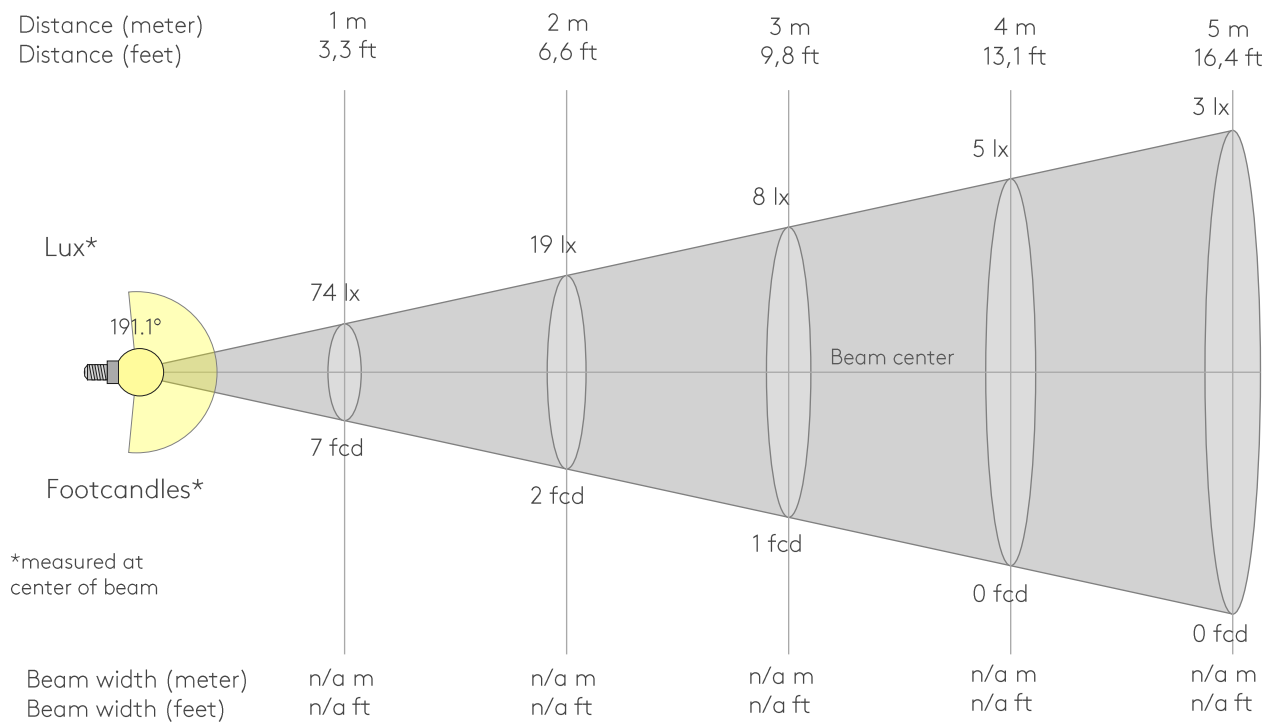
Rg 98.9

Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	91	-4%	1%
2	94	-2%	2%
3	94	-1%	3%
4	95	-3%	-1%
5	96	-2%	1%
6	96	1%	1%
7	95	-3%	0%
8	97	0%	1%
9	94	0%	4%
10	92	1%	5%
11	92	3%	5%
12	90	5%	-3%
13	89	2%	-8%
14	87	2%	-11%
15	91	-3%	-3%
16	86	-3%	-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
74lx	19lx	8lx	5lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx
6.9fcd	1.7fcd	0.8fcd	0.4fcd	0.3fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd

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°
74	81	88	103	121	144	168	187	200	203	199	192	174	53	6	2	0	0	0	0
100%	109%	118%	139%	164%	194%	226%	252%	269%	274%	269%	259%	235%	72%	7%	2%	0%	0%	0%	0%

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°
74.2	72.3	69.5	64.6	58.0	49.5	39.2	26.2	14.2	4.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
100%	97%	94%	87%	78%	67%	53%	35%	19%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Intensities in 180° c-plane

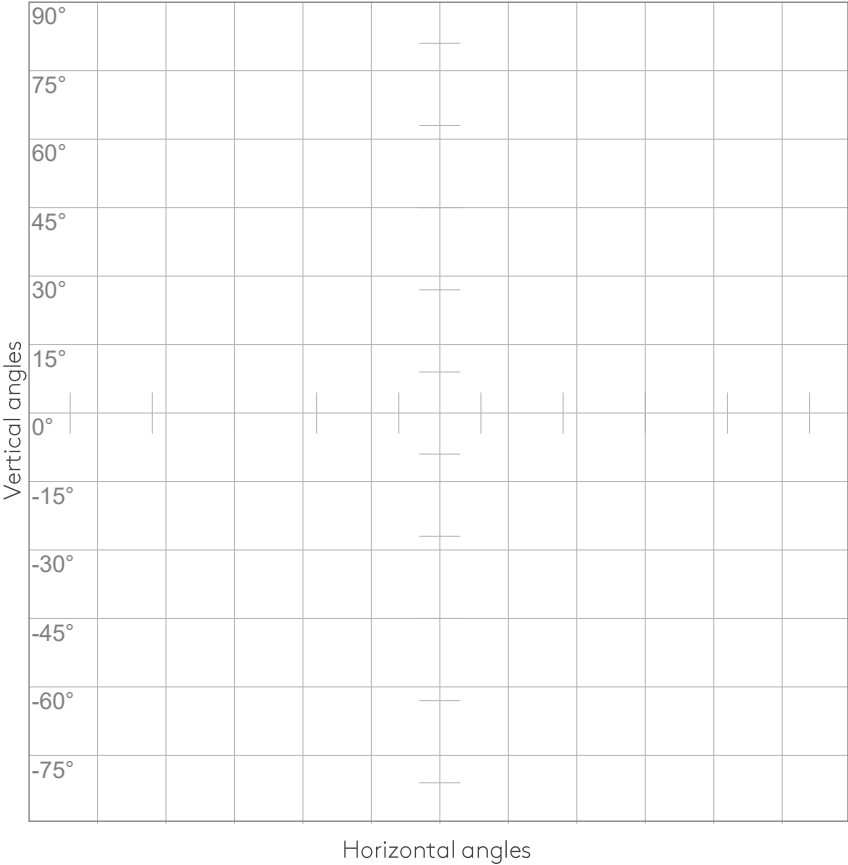
0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
74	84	97	115	136	161	185	203	211	210	204	190	138	11	3	1	0	0	0	0
100%	113%	131%	155%	184%	218%	250%	274%	284%	283%	275%	257%	186%	14%	5%	1%	1%	0%	0%	0%

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°
74.2	72.9	70.6	66.4	60.5	52.9	43.8	32.8	20.3	9.2	2.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
100%	98%	95%	90%	82%	71%	59%	44%	27%	12%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
191.1°	210°	225.2°	35.2%	19.1%

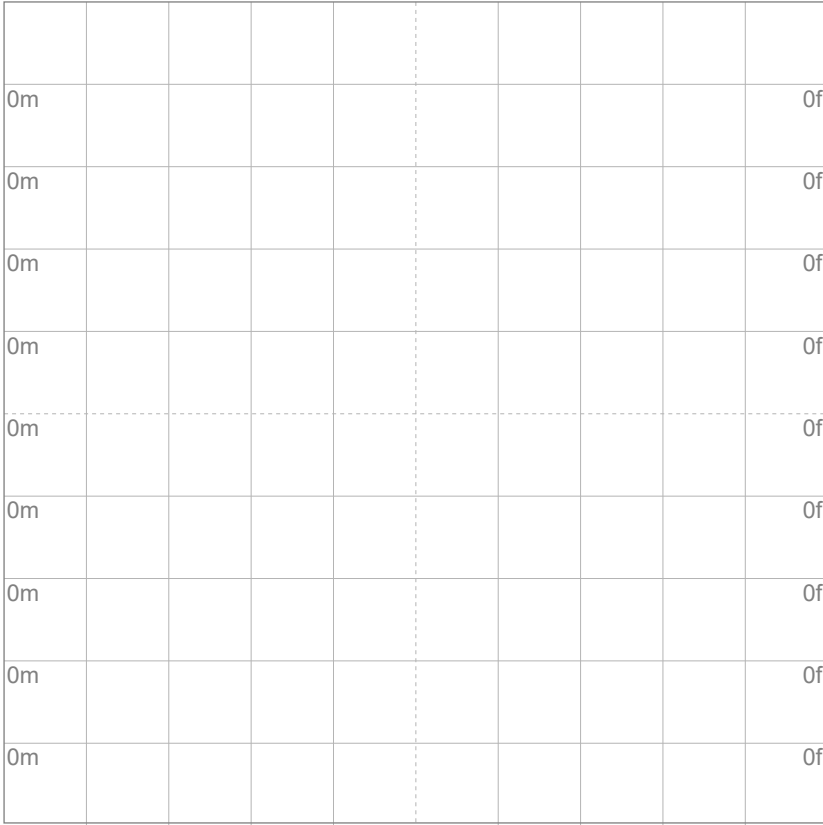
ISO CANDELA DIAGRAM



- 10% 7 cd
- 20% 15 cd
- 30% 22 cd
- 40% 30 cd
- 50% 37 cd
- 60% 45 cd
- 70% 52 cd
- 80% 59 cd
- 90% 67 cd

Conditions:  
Number of c-planes: 8  
Candela at center: 74 cd

ISO LUX DIAGRAM



- 3% 22.3m lx
- 5% 37.1m lx
- 10% 74.2m lx
- 30% 0.223 lx
- 50% {LUX\_10M50} lx

Conditions:  
Number of c-planes: 8  
Lux at center: 0.742 lx

Lux distribution on a surface  
when lamp is mounted at 10  
meters from the surface.

Mounting height: 10 meters (33 feet)

## GLARE EVALUATION ACCORDING TO UGR

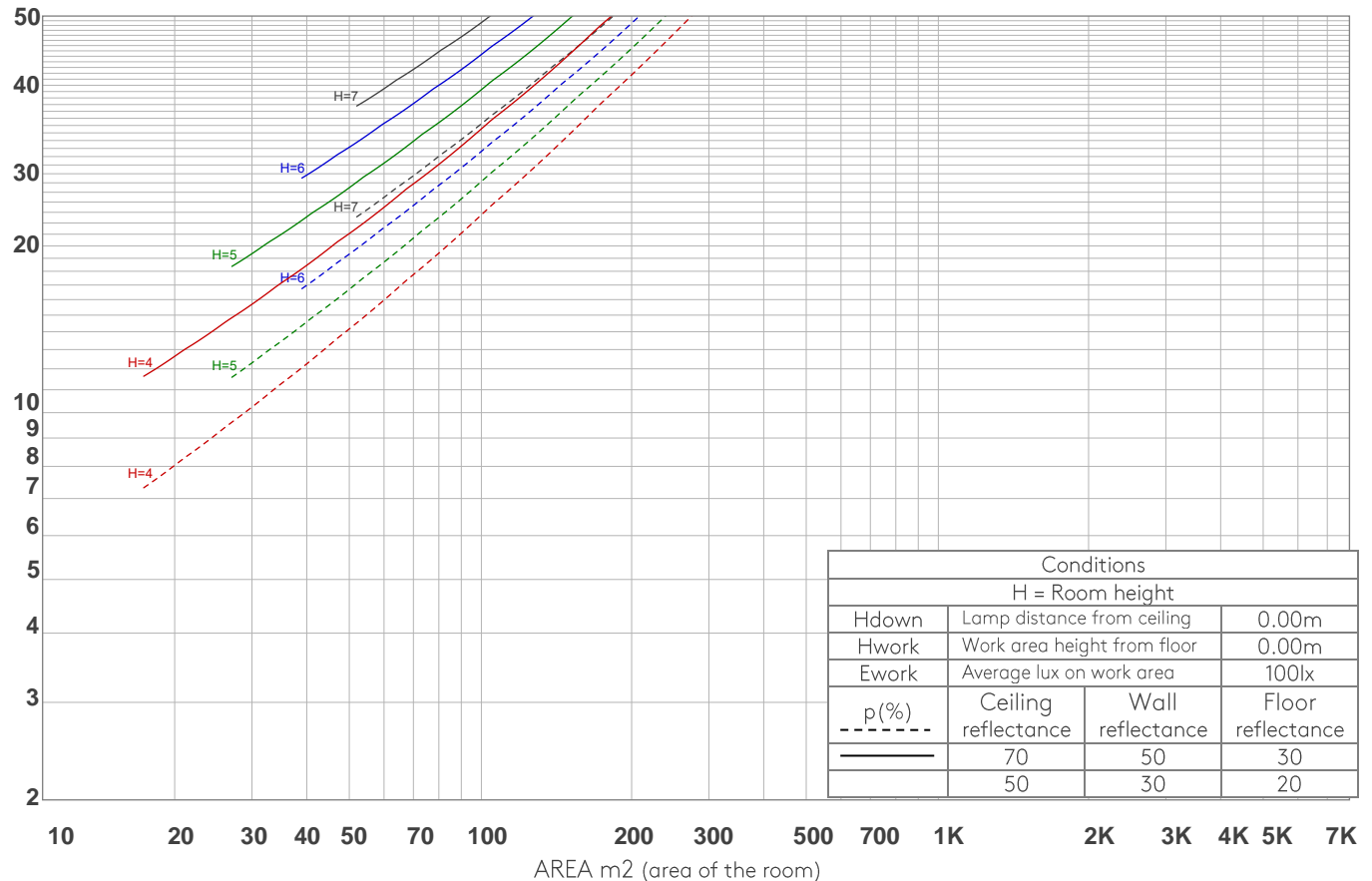
UGR data could not be calculated due to missing/wrong symmetry. Goto Edit->Photometric->Corrections and select Correct asymmetry.

## 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	113	113	113	113	108	108	108	108	98	98	98	88	88	88	80	80	80	76
1	97	89	83	76	91	84	78	73	75	71	66	67	63	60	60	57	54	50
2	85	74	65	57	80	70	62	54	62	55	49	55	50	45	49	44	40	36
3	76	63	53	45	71	59	50	43	53	45	39	47	40	35	41	36	31	28
4	69	54	44	36	64	51	42	34	46	38	31	40	34	28	35	30	25	22
5	63	48	37	30	59	45	36	28	40	32	26	35	29	23	31	25	21	18
6	57	42	32	25	54	40	31	24	36	28	22	32	25	20	28	22	18	15
7	53	38	28	21	50	36	27	20	32	24	19	28	22	17	25	19	15	12
8	49	34	25	19	46	32	24	18	29	22	16	26	19	15	23	17	13	11
9	46	31	22	16	43	30	21	16	27	19	14	24	17	13	21	16	12	9
10	43	28	20	14	40	27	19	14	24	17	13	22	16	11	19	14	10	8

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°
7.33 lm	22.8 lm	40.1 lm	58.6 lm	78.1 lm	97.7 lm	113 lm	120 lm	117 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
108 lm	79.3 lm	19.8 lm	1.80 lm	0.378 lm	0.160 lm	0.116 lm	0.071 lm	0.025 lm

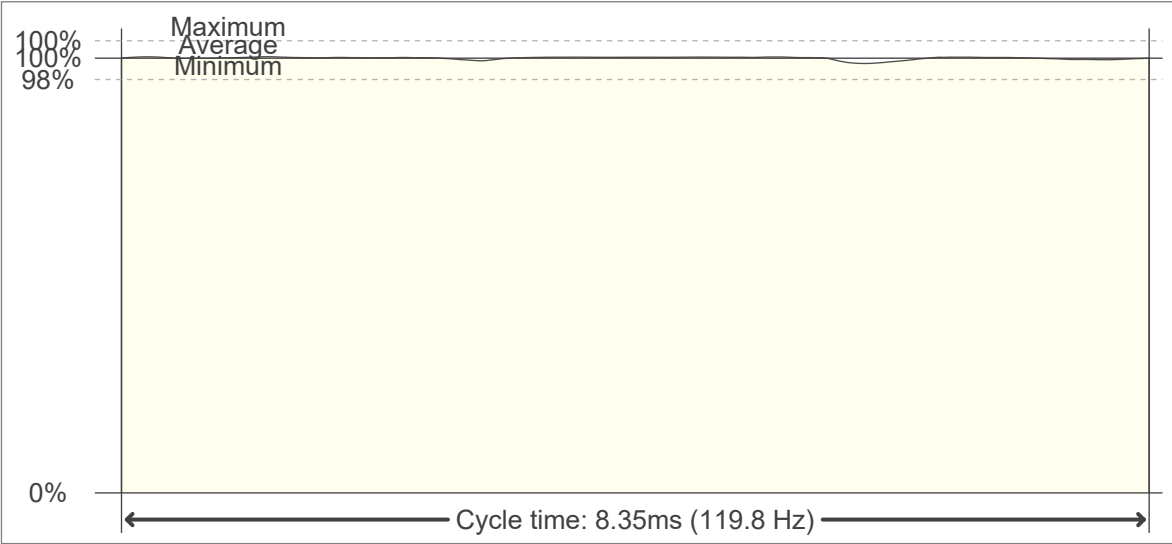


FLICKER

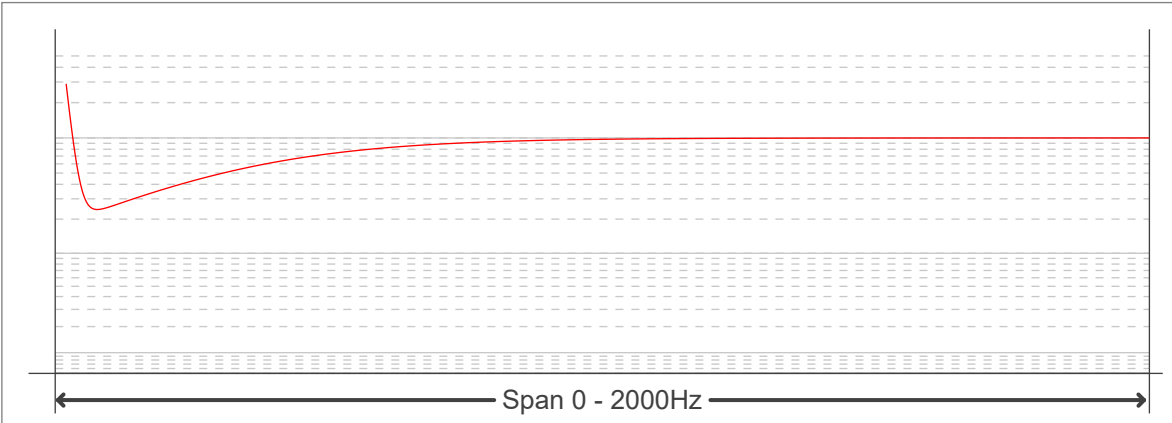
FLICKER CURVE (COMPLETE SAMPLED)



FLICKER FRAME (FRAME OF ONE FLICKER)



FLICKER FFT (FREQUENCY SCOPE OF FLICKER)



FLICKER RESULTS:

Flicker frequency:	119.76 Hz
Flicker index:	0
Flicker percentage:	1.01 %
SVM: (Visual flicker)	0.01

FLICKER CONDITIONS:

Sample rate:	20000 samples/second
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