

# PHOTOMETRIC TEST REPORT

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ARTEMIS 600 LED II

astro

## LIGHT EFFICIENCY:

53 Lumen/Watt

## LIGHT QUALITY:

CRI: 83.1

## COLOR TEMPERATURE:

3053 K

OUTPUT: 645 lm

PEAK: 150 cd

POWER: 12.1 W

PF: 0.43

Tracking number: [VT190612-004574](https://www.astro-lighting.com/VT190612-004574)

Product name:

Artemis 600 LED II

Item number:

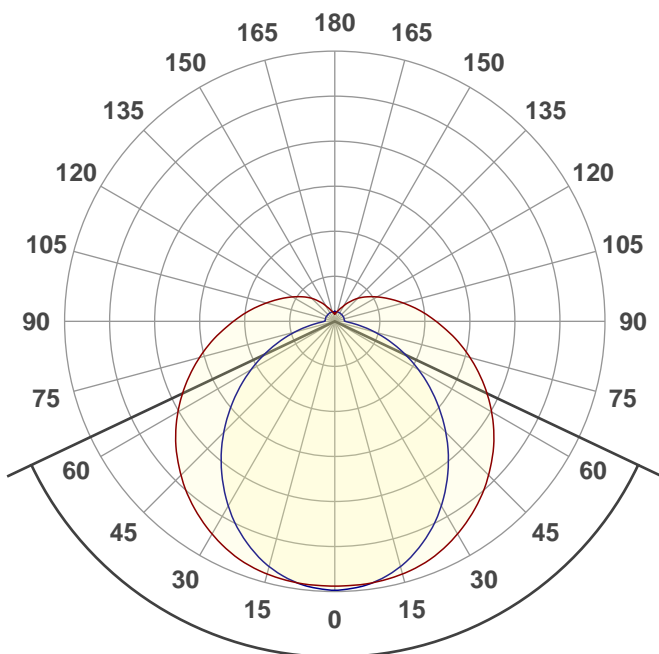
SKU 1308006

Date and time:

12/06/2019 15:16:38

Description:

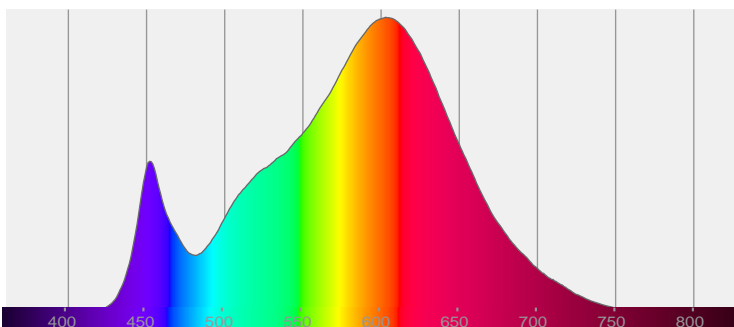
IP44 Vert/ Horiz LED Wall Light



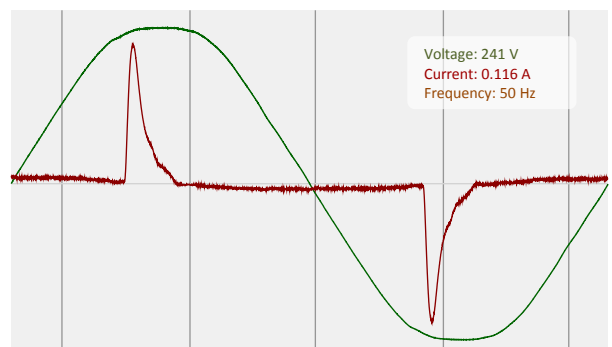
129.3°

CIE 1931  
x: 0.434  
y: 0.404

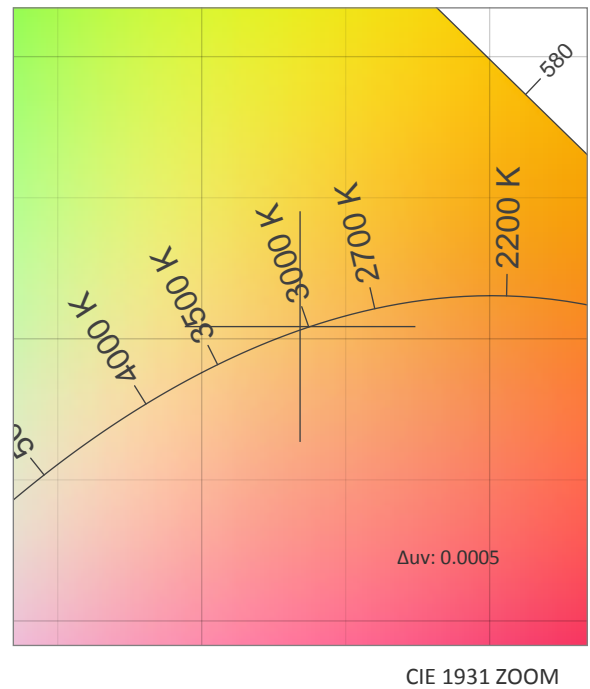
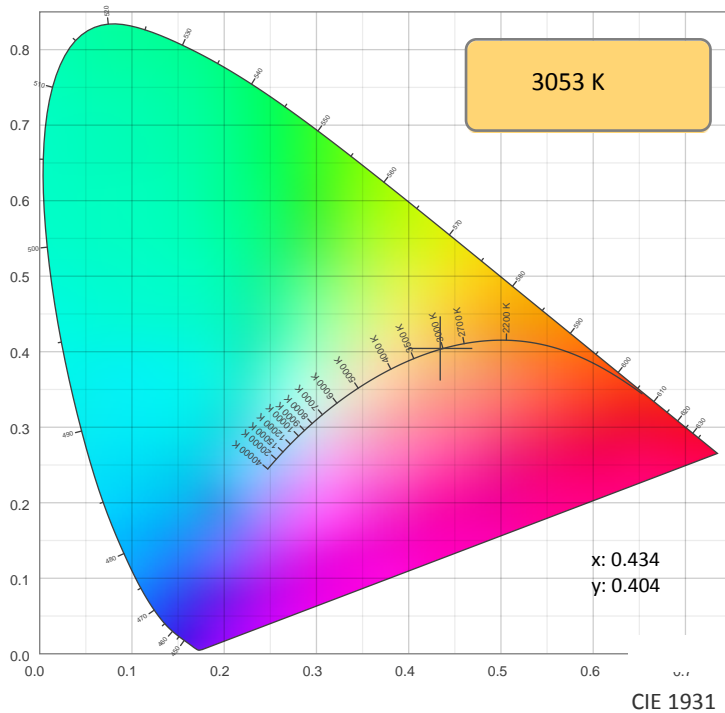
## SPECTRA



## POWER

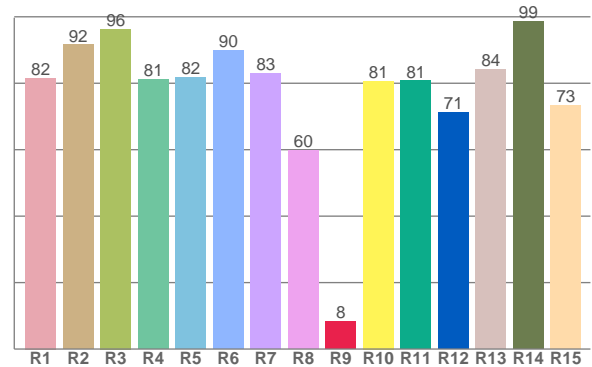
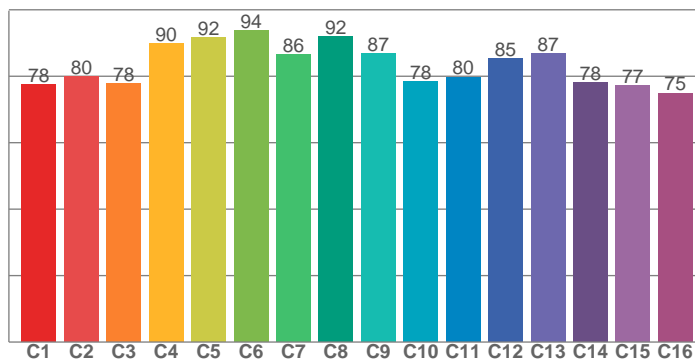


## COLOR DETAILS



TM30: 83.5

CRI: 83.1 (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
81.6	91.5	96.3	81.2	81.7	89.8	83.0	59.7	8.2	80.7	80.7	71.1	84.1	98.7	73.4

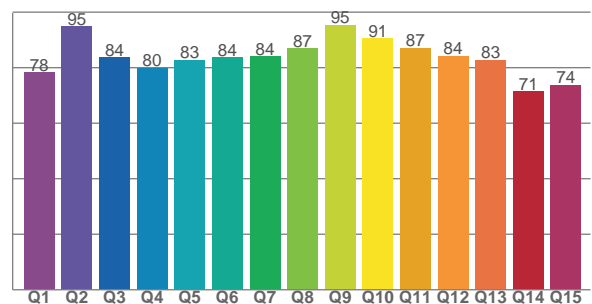
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.5	79.8	77.8	89.9	91.7	93.7	86.5	91.9	86.9	78.4	79.7	85.4	86.8	78.1	77.3	74.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
78.2	94.8	83.6	79.9	82.7	83.7	84.0	86.9	95.4	90.5	87.0	84.3	82.8	71.4	73.8

CQS: 82.6



## 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
3053 K	83.1	8.2	83.5	95.2	82.6	0.434	0.404	0.249	0.347	0.0005

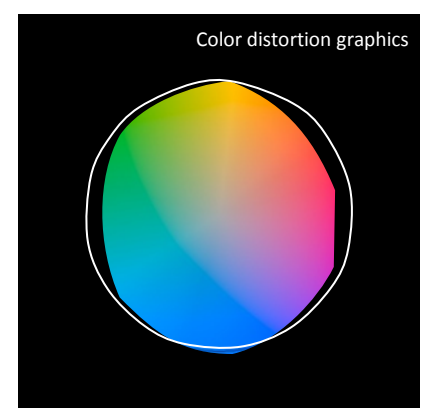
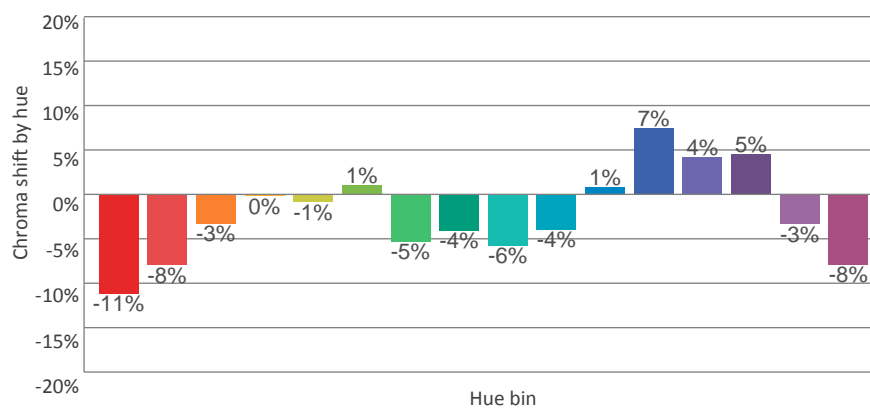
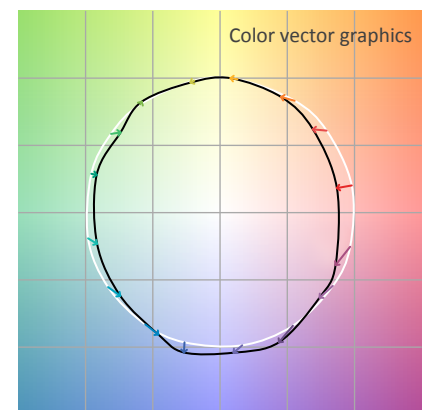
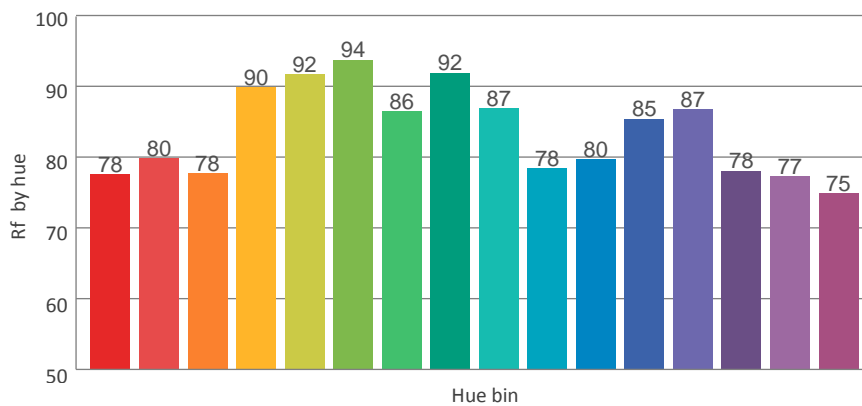
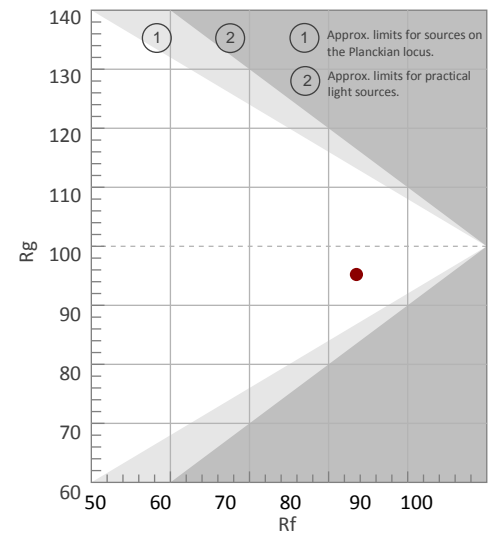
Rf 83.5

Fidelity index Rf

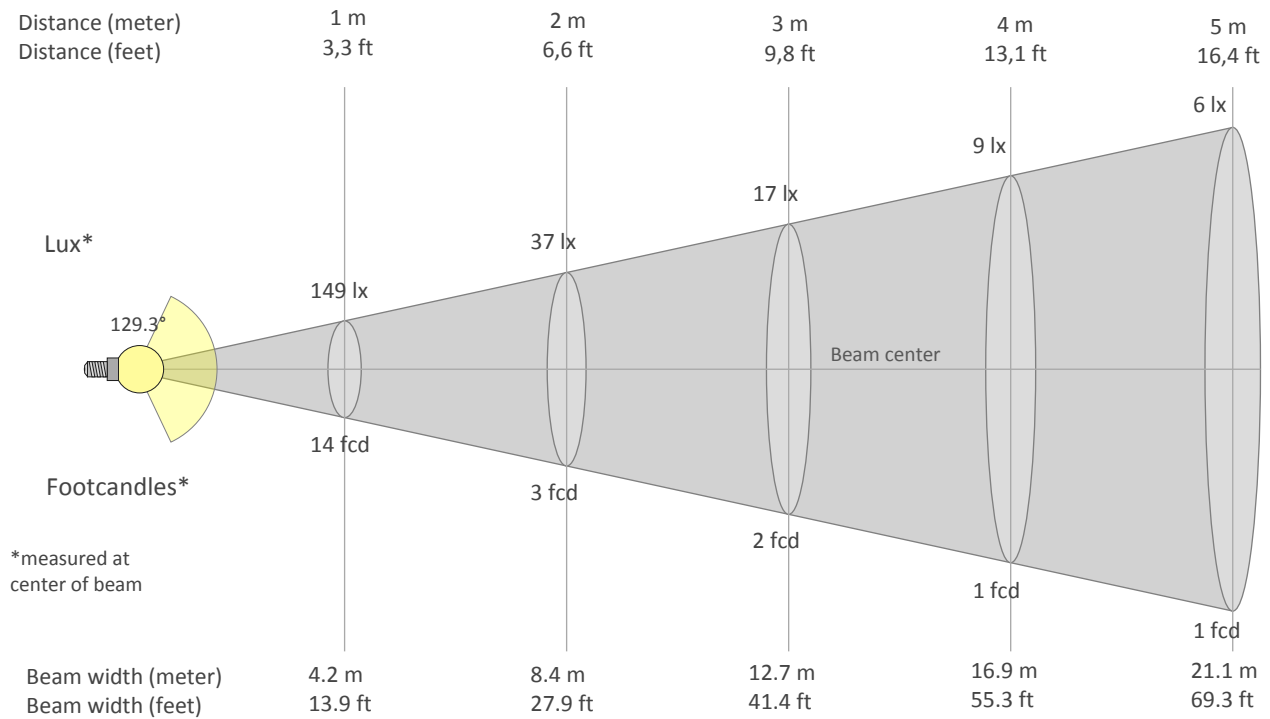
Rg 95.2

Gammut index Rg

Hue Bin	Graphic shifts (%)		
	R <sub>f</sub>	Chroma	Hue
1	78	-11%	0%
2	80	-8%	6%
3	78	-3%	10%
4	90	0%	5%
5	92	-1%	3%
6	94	1%	-2%
7	86	-5%	-5%
8	92	-4%	0%
9	87	-6%	5%
10	78	-4%	10%
11	80	1%	12%
12	85	7%	1%
13	87	4%	-7%
14	78	5%	-15%
15	77	-3%	-13%
16	75	-8%	-15%



## 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
149lx	37lx	17lx	9lx	6lx	4lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx
13.9fcd	3.5fcd	1.5fcd	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°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
149	148	145	140	132	122	110	97	83	70	57	46	37	30	23	18	13	9	6	5
100%	99%	97%	94%	88%	82%	74%	65%	56%	47%	38%	31%	25%	20%	16%	12%	9%	6%	4%	3%

## 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°
149	147	138	125	107	88	68	48	29	14	6	5	5	5	5	5	5	5	5	5
100%	99%	93%	84%	72%	59%	45%	32%	19%	9%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%

## Intensities in 180° c-plane

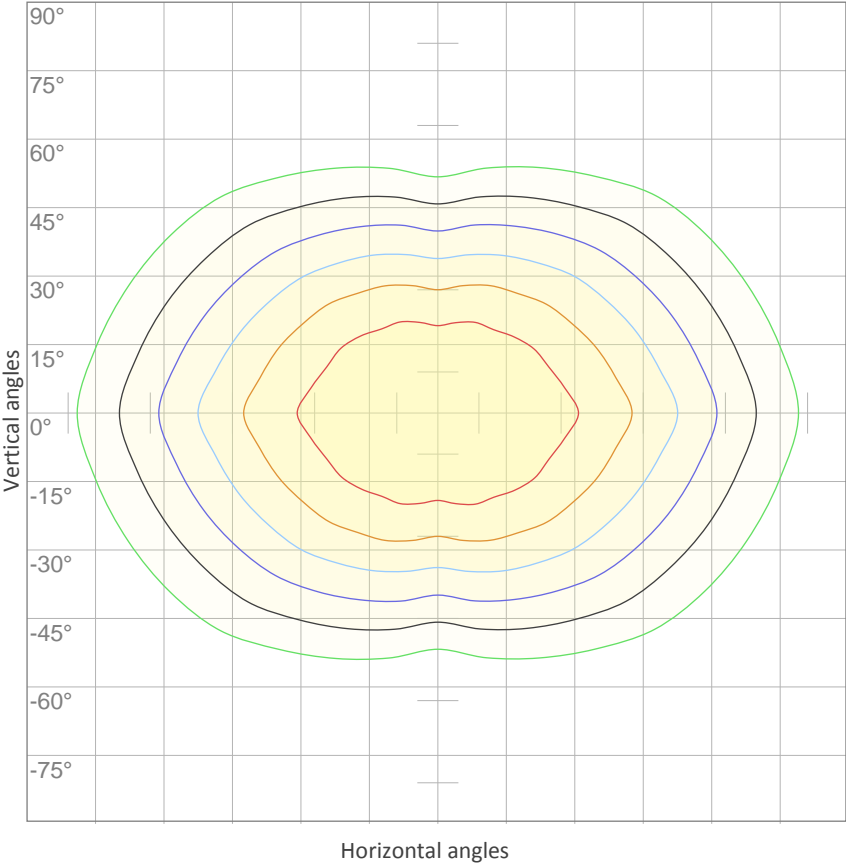
0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
149	148	145	140	132	122	110	97	83	70	57	46	37	30	23	18	13	9	6	5
100%	99%	97%	94%	88%	82%	74%	65%	56%	47%	38%	31%	25%	20%	16%	12%	9%	6%	4%	3%

## 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°
149	147	138	125	107	88	68	48	29	14	6	5	5	5	5	5	5	5	5	5
100%	99%	93%	84%	72%	59%	45%	32%	19%	9%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
129.3°	237.7°	360°	55.0%	36.3%

ISO CANDELA DIAGRAM



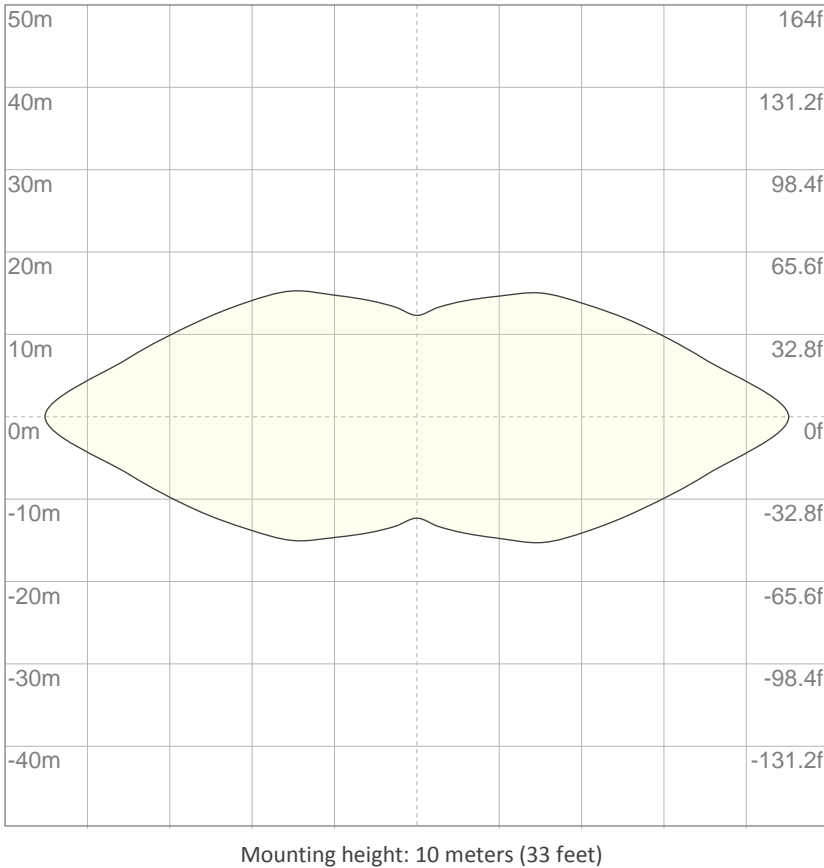
10%	15 cd
20%	30 cd
30%	45 cd
40%	60 cd
50%	75 cd
60%	89 cd
70%	104 cd
80%	119 cd
90%	134 cd

Conditions:

Number of c-planes: 8

Candela at center: 149 cd

ISO LUX DIAGRAM



3%	44.7m lx
5%	74.6m lx
10%	0.149 lx
30%	0.447 lx
50%	{LUX_10M50} lx

Conditions:

Number of c-planes: 8

Lux at center: 1.49 lx

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

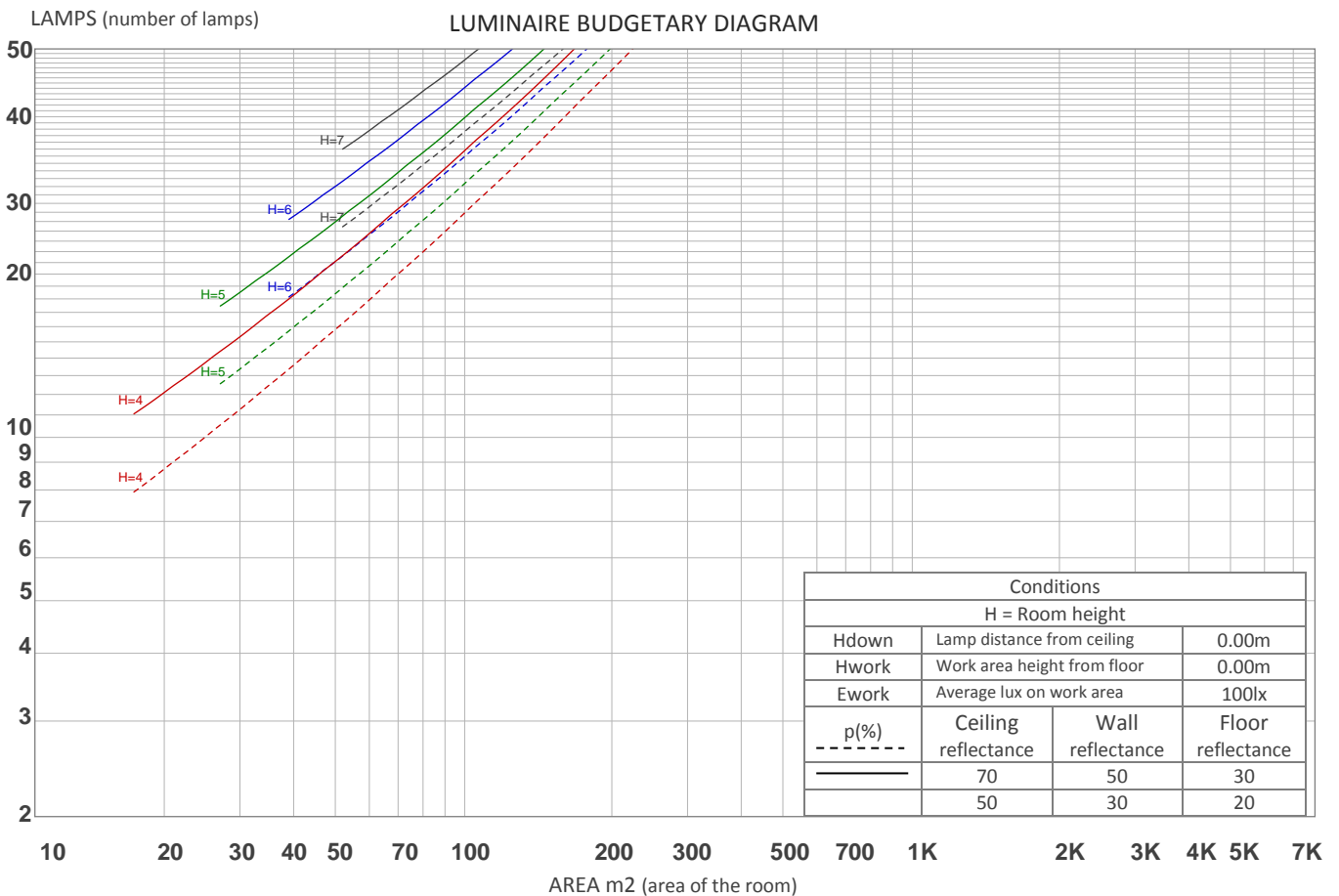
## UGR

## 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	19.3	20.5	19.9	21.1	21.7	17.2	18.4	17.7	18.9	19.5
	3H	21.9	23.0	22.5	23.6	24.2	18.7	19.8	19.3	20.4	21.0
	4H	23.4	24.4	24.0	25.0	25.7	19.4	20.4	20.0	21.0	21.6
	6H	25.0	25.9	25.6	26.5	27.2	19.9	20.9	20.5	21.5	22.1
	8H	25.8	26.8	26.5	27.4	28.1	20.1	21.0	20.7	21.6	22.3
	12H	26.8	27.7	27.5	28.4	29.1	20.3	21.2	20.9	21.8	22.5
4H	2H	20.0	21.0	20.5	21.6	22.2	18.4	19.5	19.0	20.0	20.7
	3H	22.8	23.7	23.4	24.3	25.0	20.3	21.2	20.9	21.8	22.5
	4H	24.4	25.2	25.1	25.9	26.6	21.1	21.9	21.8	22.6	23.3
	6H	26.2	26.9	26.9	27.6	28.3	21.9	22.6	22.6	23.3	24.0
	8H	27.2	27.9	27.9	28.5	29.3	22.2	22.9	22.9	23.5	24.3
	12H	28.4	29.0	29.0	29.6	30.4	22.5	23.1	23.2	23.8	24.6
8H	4H	24.8	25.5	25.5	26.1	26.9	22.2	22.9	22.9	23.5	24.3
	6H	26.9	27.4	27.6	28.1	28.9	23.4	23.9	24.1	24.6	25.4
	8H	28.1	28.6	28.8	29.3	30.1	23.9	24.4	24.6	25.1	26.0
	12H	29.5	29.9	30.2	30.6	31.5	24.4	24.9	25.2	25.6	26.4
12H	4H	24.8	25.4	25.5	26.1	26.9	22.5	23.1	23.2	23.8	24.6
	6H	27.0	27.5	27.7	28.2	29.1	23.9	24.4	24.6	25.1	26.0
	8H	28.3	28.7	29.0	29.5	30.3	24.6	25.1	25.4	25.8	26.7
Variation of the observer position for the luminaire distance S											
S = 1.0H		+0.1 / -0.1					+0.1 / -0.1				
S = 1.5H		+0.3 / -0.3					+0.2 / -0.3				
S = 2.0H		+0.4 / -0.4					+0.4 / -0.6				
Standard table		BK12					BK13				
Correction summand		13.1					7.7				
Corrected glare indices referring to 645 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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	82
1	102	96	91	86	97	92	87	83	84	81	77	77	74	72	71	69	66	63
2	92	82	75	68	87	79	72	66	72	67	62	66	62	58	61	57	54	50
3	83	72	63	56	79	69	61	54	63	56	51	58	52	48	53	48	45	42
4	76	63	54	47	72	60	52	45	56	48	43	51	45	40	47	42	38	35
5	69	56	47	40	66	54	45	39	50	42	36	46	39	34	42	37	32	30
6	64	50	41	34	61	48	40	33	45	37	32	41	35	30	38	33	28	26
7	59	45	36	30	56	44	35	29	40	33	28	37	31	26	35	29	25	23
8	55	41	32	27	52	40	32	26	37	30	25	34	28	23	32	26	22	20
9	51	38	29	24	49	36	29	23	34	27	22	32	25	21	29	24	20	18
10	48	35	27	21	46	33	26	21	31	25	20	29	23	19	27	22	18	16



## ZONAL LUMEN SUMMARY

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
14.2 lm	40.8 lm	62.3 lm	76.3 lm	81.9 lm	79.6 lm	71.0 lm	58.4 lm	45.3 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
35.0 lm	26.7 lm	19.9 lm	13.9 lm	8.91 lm	5.57 lm	3.26 lm	1.66 lm	0.477 lm

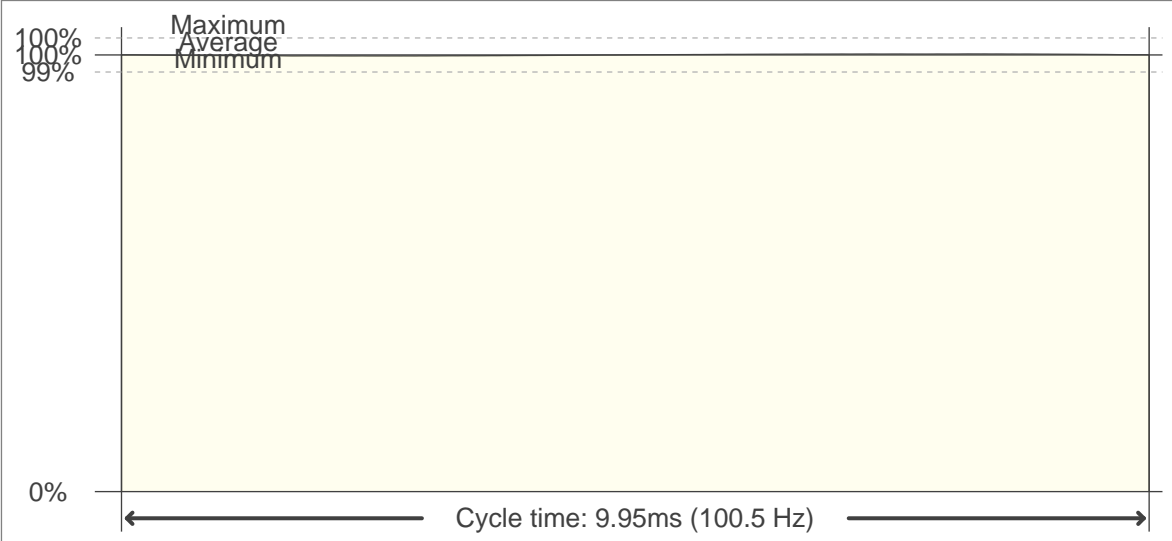


FLICKER

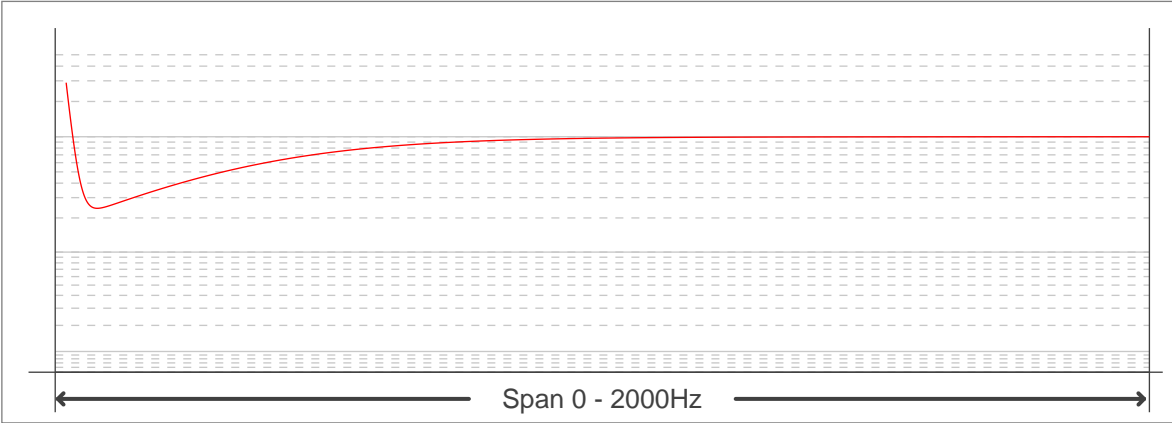
FLICKER CURVE (COMPLETE SAMPLED FLICKER)



FLICKER FRAME (FRAME OF ONE FLICKER PERIOD)



FLICKER FFT (FREQUENCY SCOPE OF FLICKER CURVE)



FLICKER RESULTS:

Flicker frequency:	100.5 Hz
Flicker index:	0
Flicker percentage:	0.27 %
SVM: (Visual flicker)	0.01

FLICKER CONDITIONS:

Sample rate:	40000 samples/second
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