

# PHOTOMETRIC TEST REPORT

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ARTEMIS 900 LED

astro

## LIGHT EFFICIENCY:

57 Lumen/Watt

## LIGHT QUALITY:

CRI: 85.1

## COLOR TEMPERATURE:

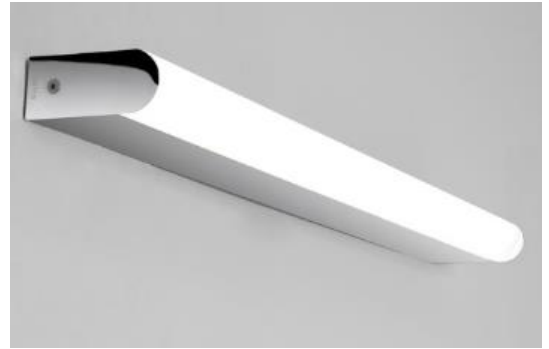
2965 K

OUTPUT: 1033 lm

PEAK: 206 cd

POWER: 18.3 W

PF: 0.43

Tracking number: [n/a](#)

Product name:

Artemis 900 LED

Item number:

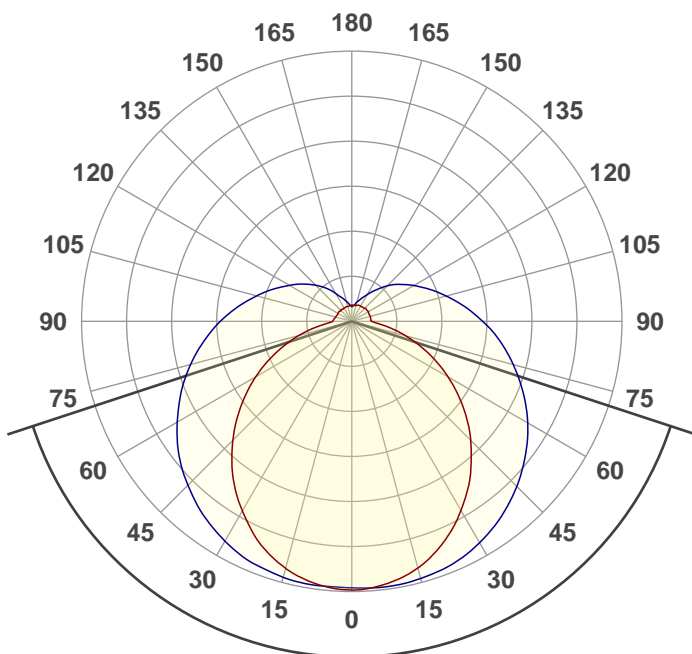
1308007

Date and time:

11/10/2019 14:36:18

Description:

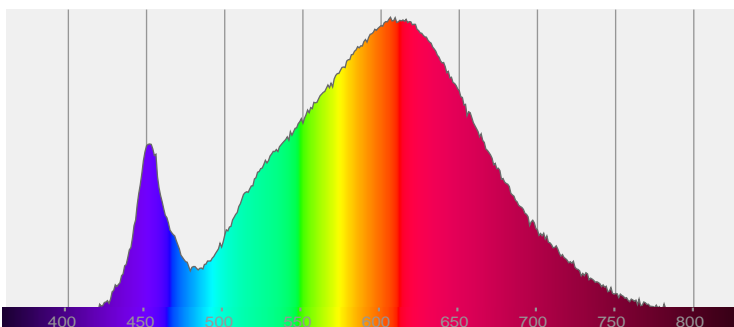
IP44 LED Bathroom Wall Light



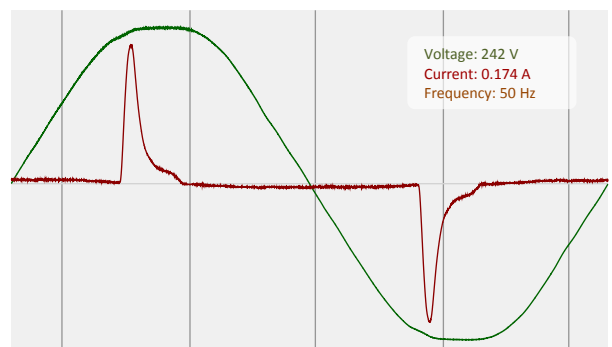
143.6°

CIE 1931  
x: 0.437  
y: 0.400

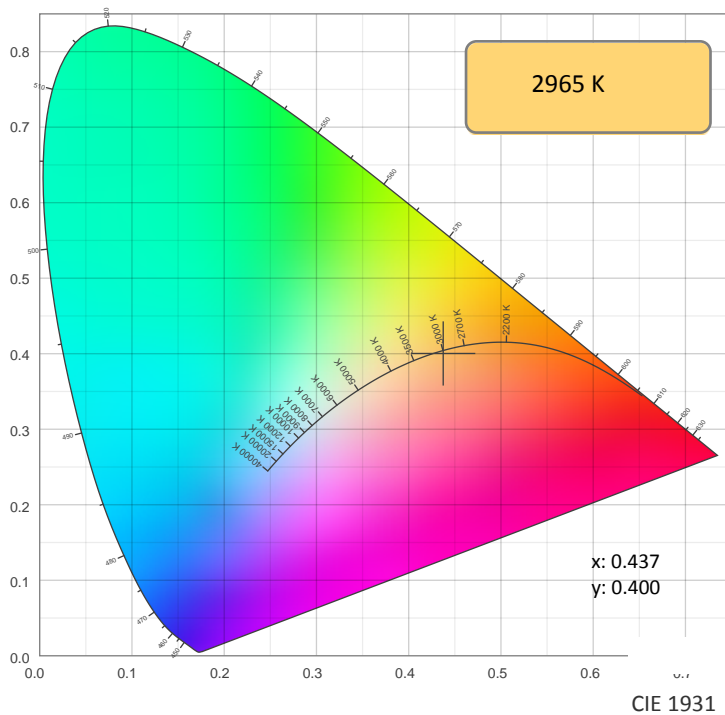
## SPECTRA



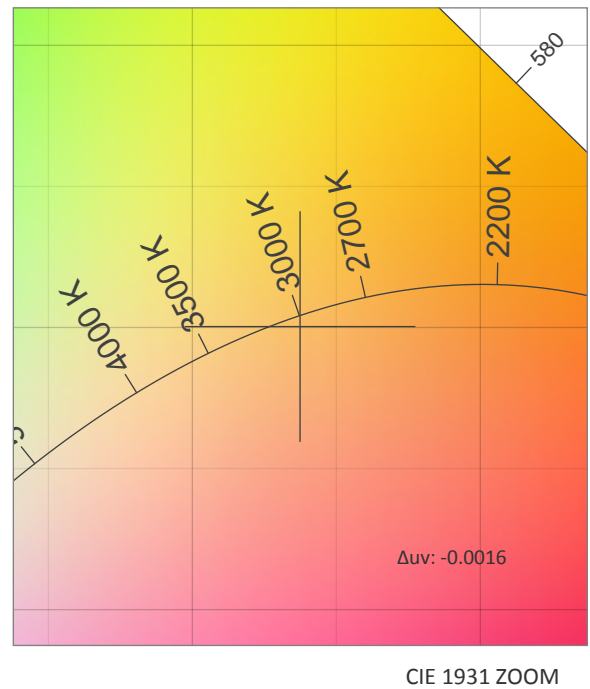
## POWER



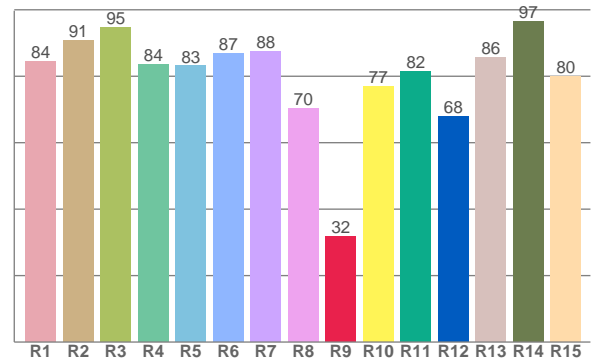
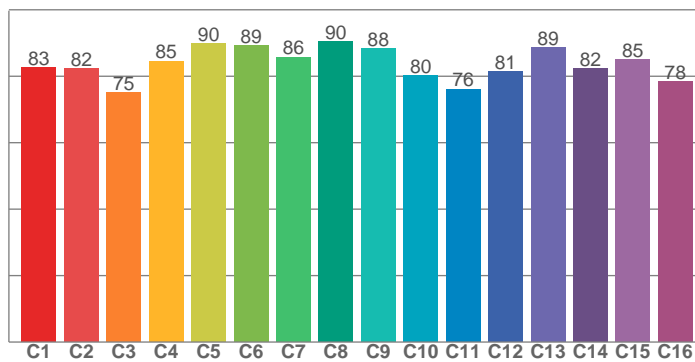
## COLOR DETAILS



TM30: 83.4



CRI: 85.1 (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
84.3	90.7	94.7	83.6	83.1	86.8	87.5	70.3	31.8	76.9	81.5	67.8	85.6	96.5	79.9

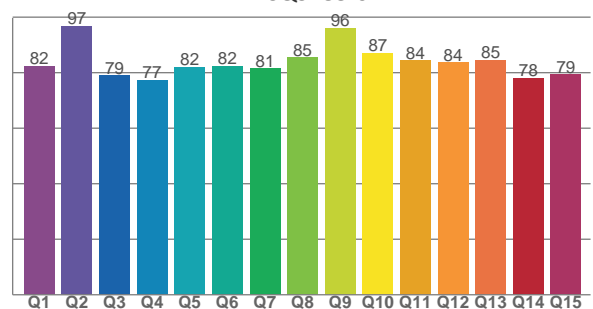
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
82.7	82.3	75.0	84.5	89.8	89.2	85.8	90.3	88.2	80.3	76.1	81.5	88.6	82.4	85.1	78.3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.5	96.7	78.9	77.3	82.0	82.4	81.5	85.4	96.1	87.0	84.4	83.7	84.6	78.2	79.3

CQS: 83.0



## 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	Δuv
2965 K	85.1	31.8	83.4	99.0	83.0	0.437	0.400	0.253	0.347	-0.0016

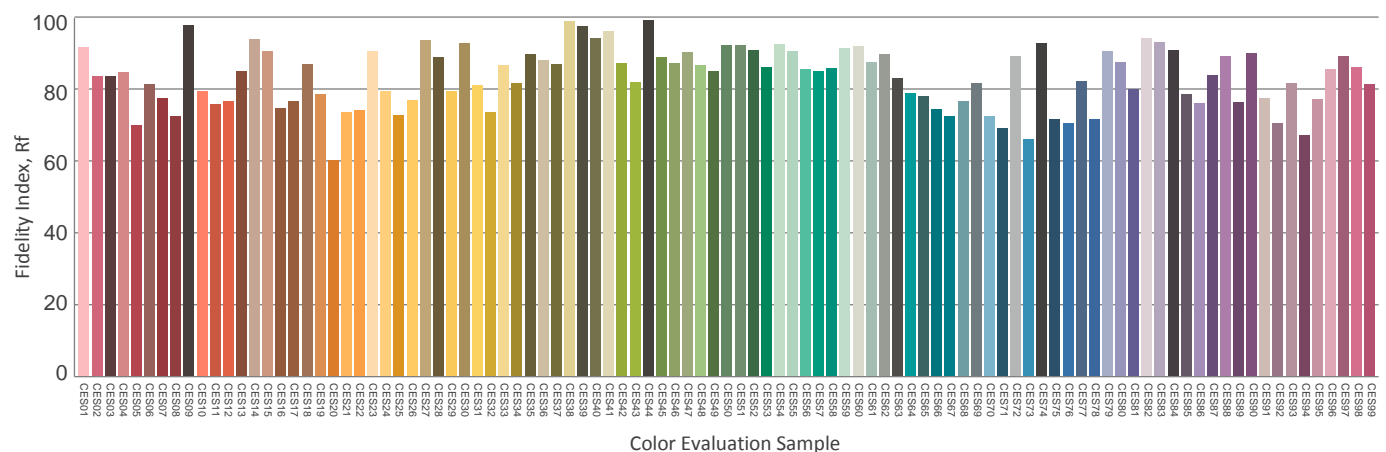
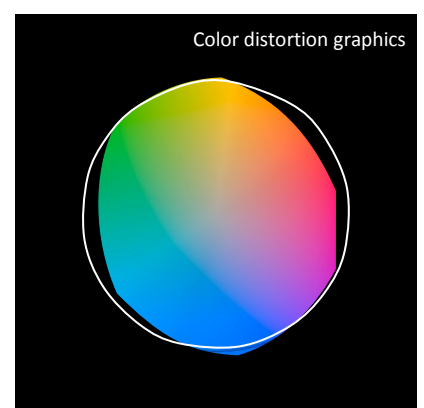
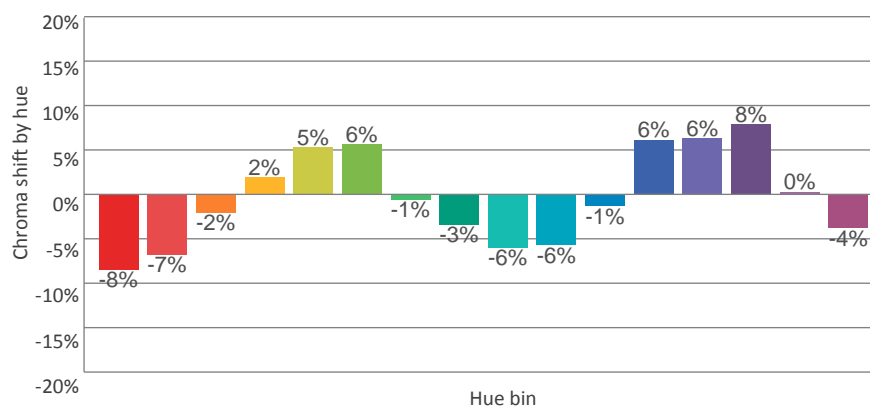
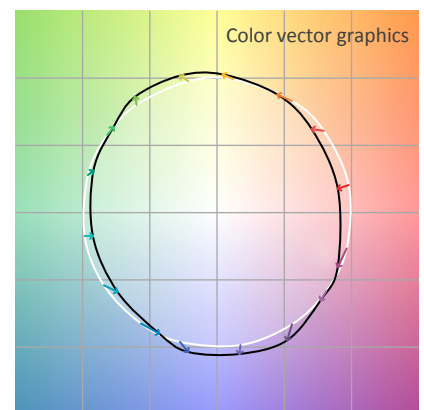
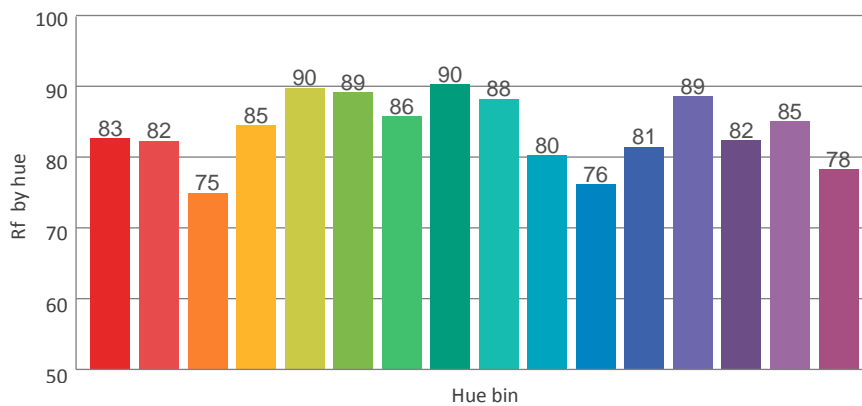
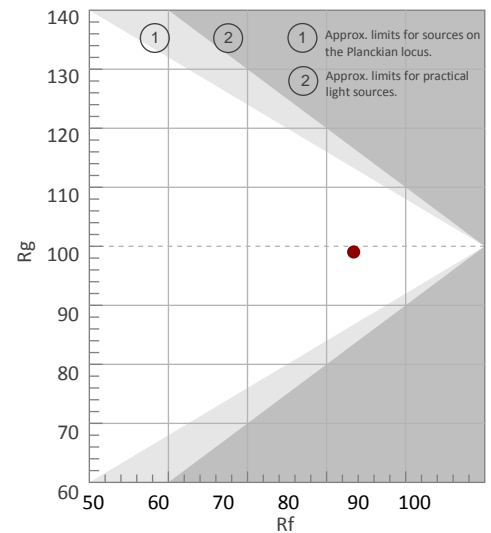
Rf 83.4

Fidelity index Rf

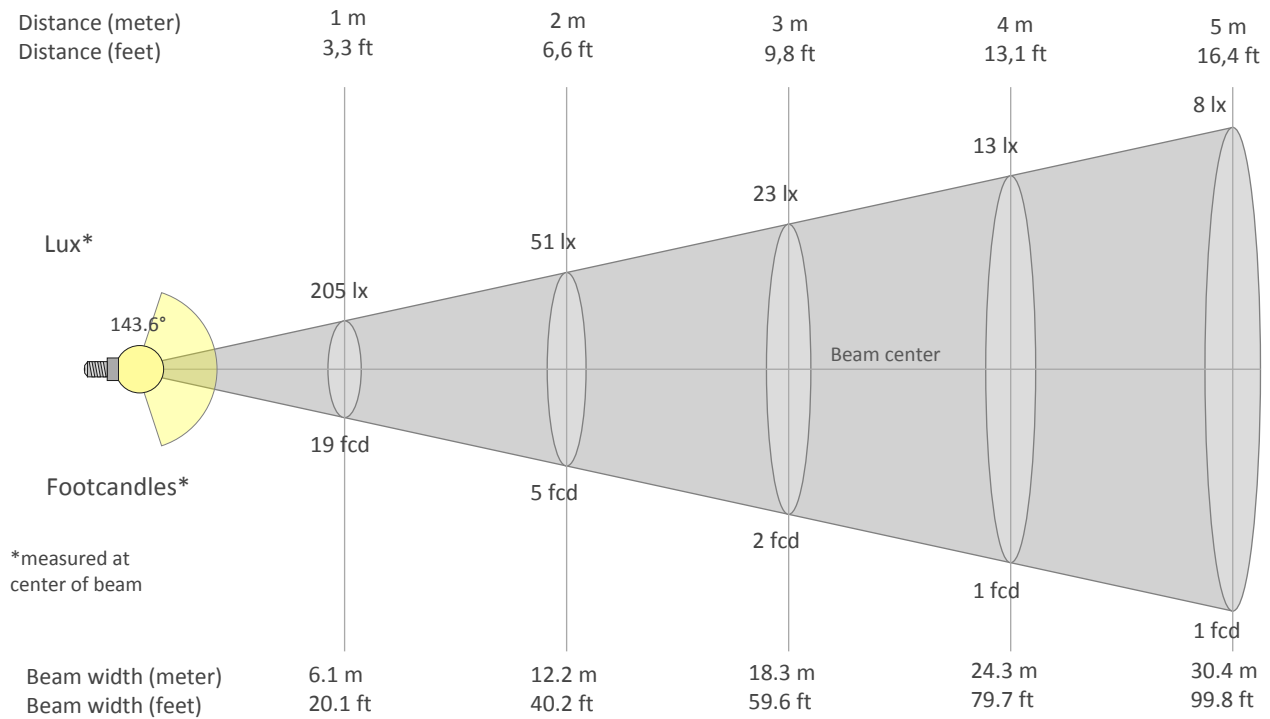
Rg 99.0

Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	83	-8%	-1%
2	82	-7%	6%
3	75	-2%	12%
4	85	2%	8%
5	90	5%	5%
6	89	6%	-2%
7	86	-1%	-8%
8	90	-3%	-4%
9	88	-6%	1%
10	80	-6%	10%
11	76	-1%	16%
12	81	6%	7%
13	89	6%	-2%
14	82	8%	-10%
15	85	0%	-8%
16	78	-4%	-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
205lx	51lx	23lx	13lx	8lx	6lx	4lx	3lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx
19.1fcd	4.8fcd	2.1fcd	1.2fcd	0.8fcd	0.5fcd	0.4fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	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°
205	202	191	174	153	129	103	77	51	29	16	15	15	14	14	14	14	13	13	13
100%	98%	93%	85%	75%	63%	50%	37%	25%	14%	8%	7%	7%	7%	7%	7%	7%	7%	6%	6%

## 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°
205	205	203	199	190	179	166	150	134	117	100	85	71	58	48	39	29	22	16	13
100%	100%	99%	97%	93%	87%	81%	73%	65%	57%	49%	41%	34%	28%	23%	19%	14%	11%	8%	6%

## 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°
205	202	192	175	154	129	103	76	50	28	15	14	13	12	12	12	11	12	12	12
100%	98%	93%	85%	75%	63%	50%	37%	24%	13%	7%	7%	6%	6%	6%	6%	6%	6%	6%	6%

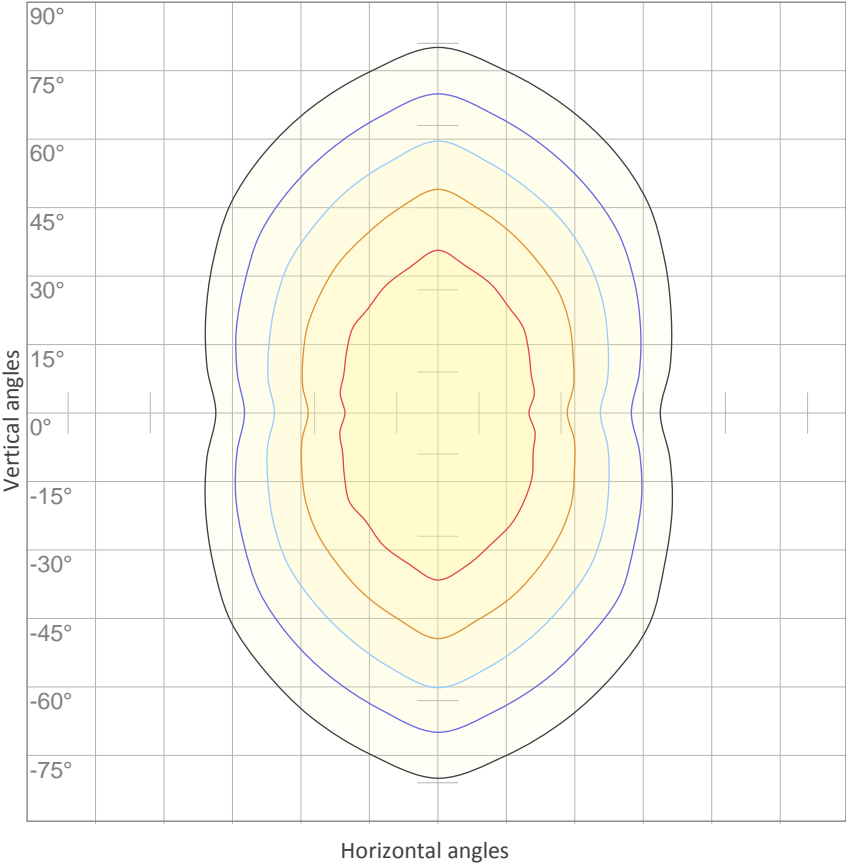
## Intensities in 270° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
205	204	202	197	189	178	165	149	134	117	101	85	71	59	49	39	31	22	17	14
100%	100%	98%	96%	92%	87%	80%	73%	65%	57%	49%	41%	35%	29%	24%	19%	15%	11%	8%	7%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
143.6°	265.1°	360°	49.7%	32.1%

ISO DIAGRAMS

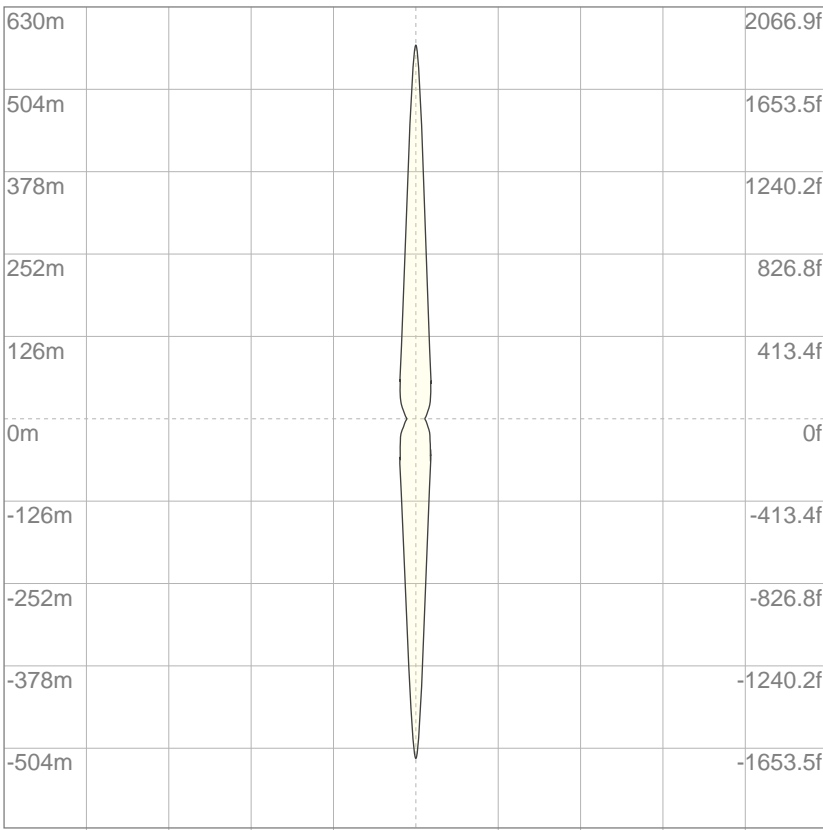
ISO CANDELA DIAGRAM



10%	21 cd
20%	41 cd
30%	62 cd
40%	82 cd
50%	103 cd
60%	123 cd
70%	144 cd
80%	164 cd
90%	185 cd

Conditions:  
Number of c-planes: 8  
Candela at center: 205 cd

ISO LUX DIAGRAM



3%	61.6m lx
5%	0.103 lx
10%	0.205 lx
30%	0.616 lx
50%	{LUX_10M50} lx

Conditions:  
Number of c-planes: 8  
Lux at center: 2.05 lx

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

Mounting height: 10 meters (33 feet)

## UGR

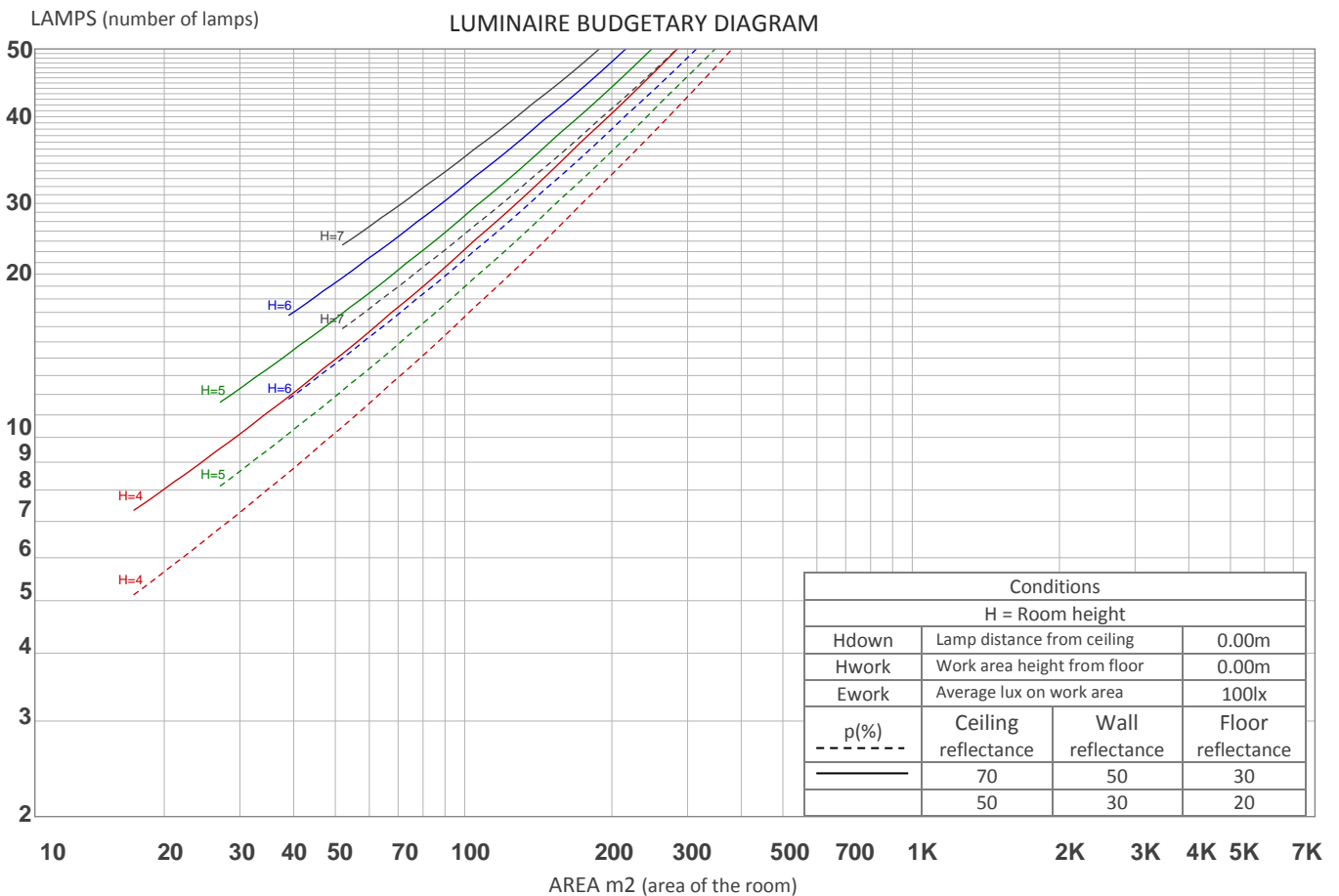
## GLARE EVALUATION ACCORDING TO UGR

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	17.6	18.7	18.2	19.3	20.0	19.6	20.8	20.2	21.4	22.1
	3H	19.3	20.4	19.9	21.0	21.7	22.4	23.5	23.0	24.1	24.8
	4H	20.1	21.1	20.7	21.7	22.5	24.0	25.0	24.6	25.6	26.4
	6H	20.8	21.7	21.4	22.4	23.2	25.7	26.6	26.3	27.3	28.0
	8H	21.1	22.0	21.8	22.7	23.5	26.6	27.5	27.3	28.2	29.0
	12H	21.4	22.3	22.1	23.0	23.8	27.7	28.6	28.4	29.3	30.1
4H	2H	18.8	19.8	19.5	20.5	21.2	20.3	21.3	20.9	21.9	22.7
	3H	20.9	21.7	21.5	22.4	23.2	23.3	24.1	24.0	24.8	25.6
	4H	21.9	22.7	22.6	23.4	24.2	25.0	25.8	25.7	26.5	27.3
	6H	22.8	23.5	23.5	24.2	25.1	26.9	27.6	27.6	28.3	29.2
	8H	23.2	23.9	24.0	24.6	25.5	28.0	28.6	28.7	29.4	30.2
	12H	23.6	24.2	24.4	25.0	25.9	29.2	29.8	30.0	30.6	31.5
8H	4H	23.0	23.6	23.7	24.4	25.2	25.4	26.1	26.2	26.8	27.7
	6H	24.3	24.9	25.1	25.6	26.5	27.6	28.2	28.4	28.9	29.8
	8H	25.0	25.5	25.8	26.3	27.2	28.9	29.4	29.7	30.1	31.1
	12H	25.6	26.1	26.4	26.8	27.8	30.4	30.8	31.2	31.6	32.5
12H	4H	23.3	23.9	24.1	24.7	25.6	25.5	26.1	26.2	26.8	27.7
	6H	24.9	25.4	25.7	26.2	27.1	27.8	28.3	28.5	29.0	30.0
	8H	25.7	26.2	26.5	27.0	27.9	29.1	29.6	29.9	30.4	31.3
Variation of the observer position for the luminaire distance S											
S = 1.0H		+0.1 / -0.1					+0.1 / -0.1				
S = 1.5H		+0.2 / -0.2					+0.3 / -0.3				
S = 2.0H		+0.4 / -0.5					+0.4 / -0.5				
Standard table		BK10					---				
Correction summand		9.1					---				
Corrected glare indices referring to 1033 lm total luminous flux											

UGR data could be incorrect as lamp output is not symmetrical. 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	114	114	114	114	108	108	108	108	99	99	99	90	90	90	81	81	81	78
1	100	94	89	84	95	90	85	81	81	78	74	74	71	68	67	64	62	58
2	90	81	73	66	85	77	70	64	70	64	59	63	58	54	57	53	50	46
3	82	70	61	54	77	67	58	52	60	54	48	55	49	44	49	45	41	38
4	74	61	52	45	70	59	50	43	53	46	40	48	42	37	43	38	34	31
5	68	54	45	38	64	52	43	37	47	40	34	43	37	32	39	34	29	27
6	63	49	39	33	59	47	38	32	42	35	30	39	32	28	35	30	26	23
7	58	44	35	29	55	42	34	28	38	31	26	35	29	24	32	27	23	20
8	54	40	31	25	51	38	30	24	35	28	23	32	26	21	29	24	20	18
9	50	36	28	22	47	35	27	22	32	25	21	29	24	19	27	22	18	16
10	47	33	25	20	44	32	25	20	30	23	18	27	21	17	25	20	16	14



## ZONAL LUMEN SUMMARY

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
19.5 lm	56.5 lm	87.5 lm	109 lm	120 lm	120 lm	112 lm	96.8 lm	79.5 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
64.6 lm	51.6 lm	40.0 lm	29.6 lm	20.1 lm	13.0 lm	7.84 lm	4.03 lm	1.17 lm

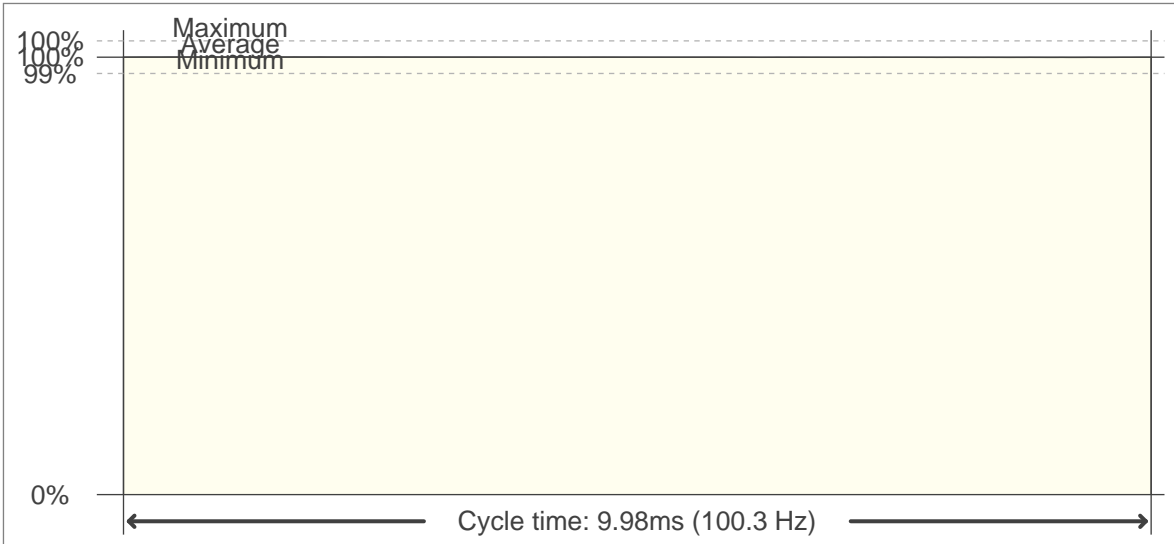


FLICKER

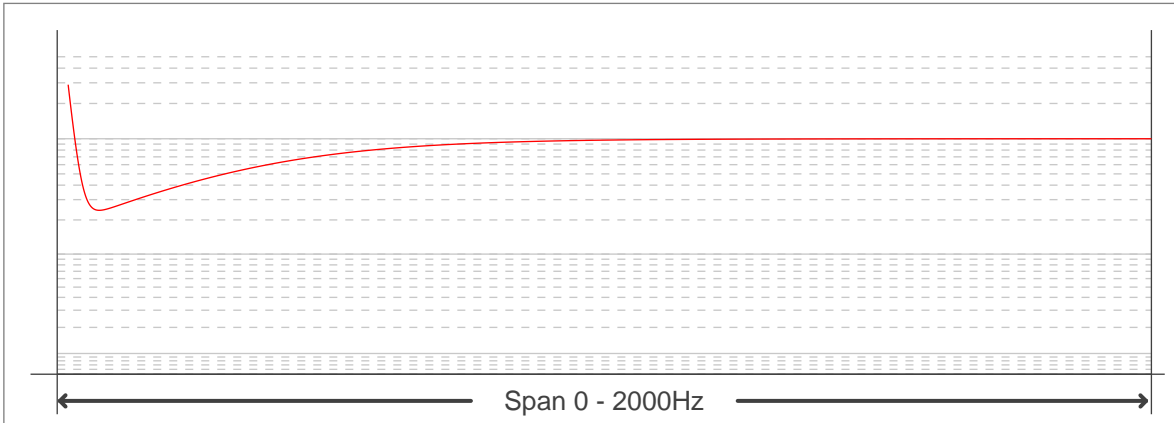
FLICKER CURVE (COMPLETE SAMPLED FLICKER)



FLICKER FRAME (FRAME OF ONE FLICKER PERIOD)



FLICKER FFT (FREQUENCY SCOPE OF FLICKER CURVE)



FLICKER RESULTS:

Flicker frequency:	100.25 Hz
Flicker index:	0
Flicker percentage:	0.08 %
SVM: (Visual flicker)	0

FLICKER CONDITIONS:

Sample rate:	40000 samples/second
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