

PHOTOMETRIC TEST REPORT

PARK LANE READER

astro

LIGHT EFFICIENCY:

41 Lumen/Watt

LIGHT QUALITY:

CRI: 81.9

COLOR TEMPERATURE:

2613 K

OUTPUT: 85.4 lm

PEAK: 602 cd

POWER: 2.1 W

PF: 0.38

Tracking number: [n/a](#)

Product name:

Park Lane Reader

Item number:

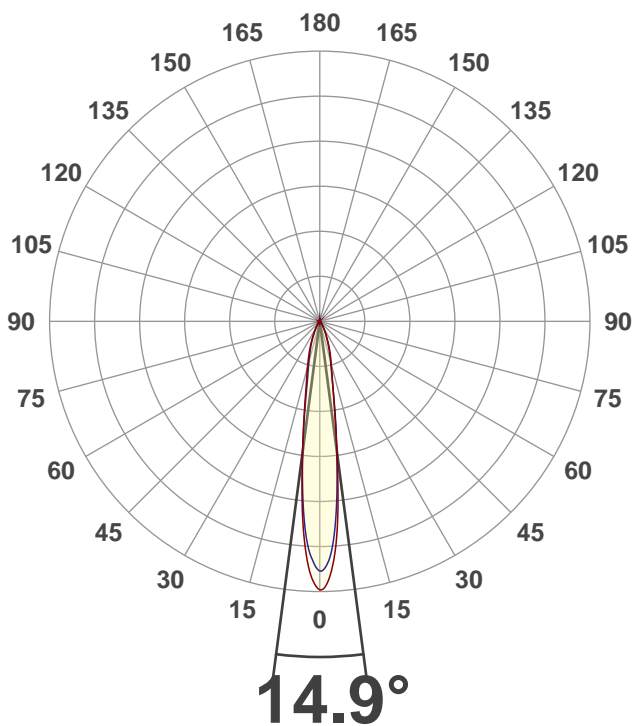
1080030

Date and time:

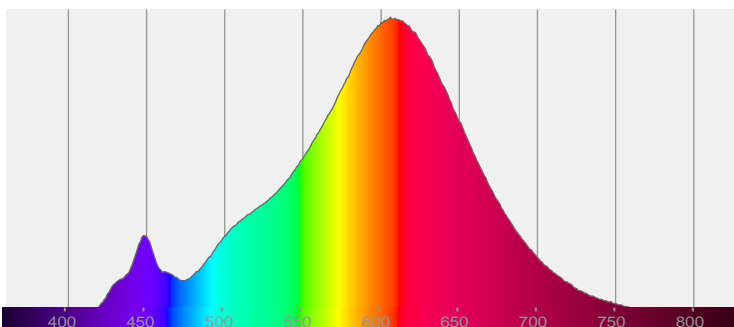
15/11/2019 11:30:49

Description:

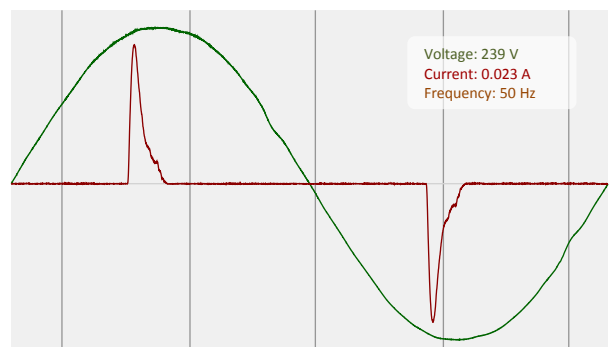
E27 Wall Light with LED Reader head

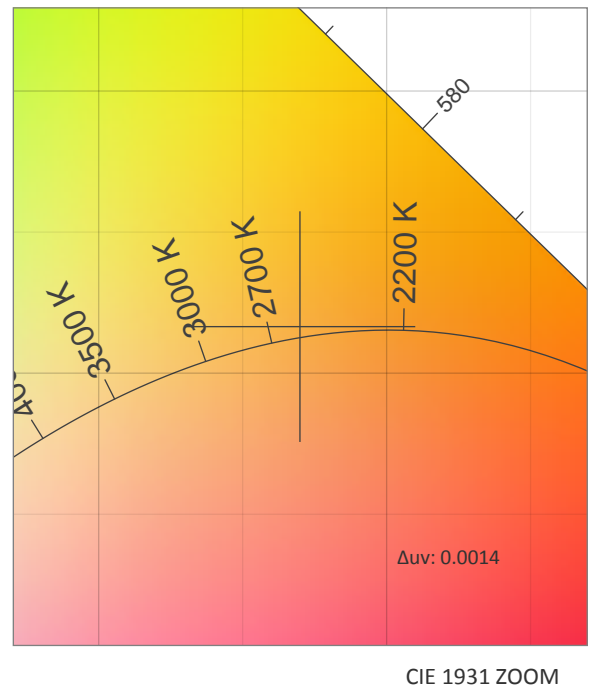
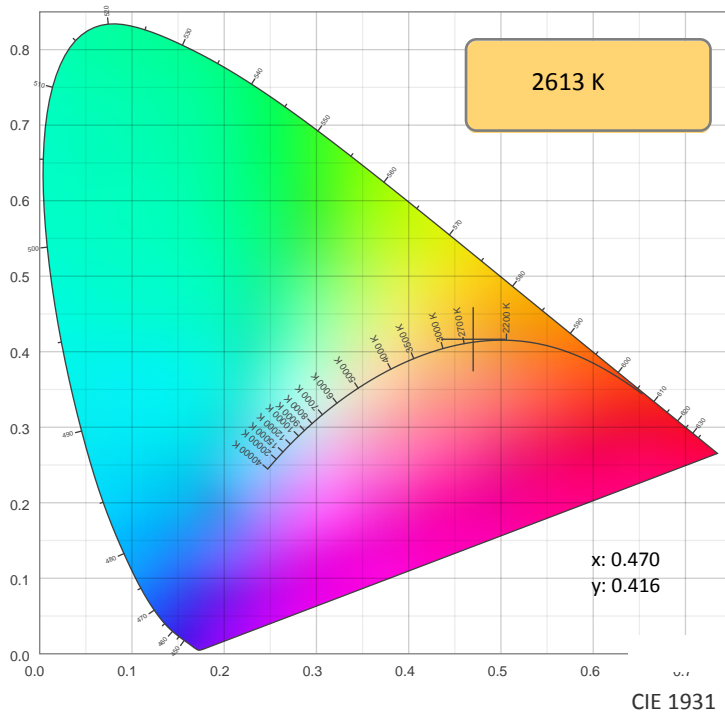
CIE 1931
x: 0.470
y: 0.416

SPECTRA



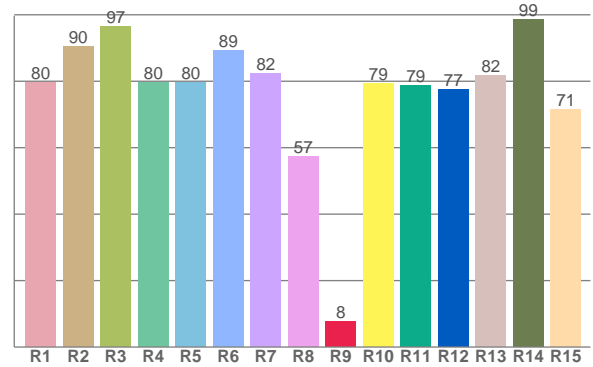
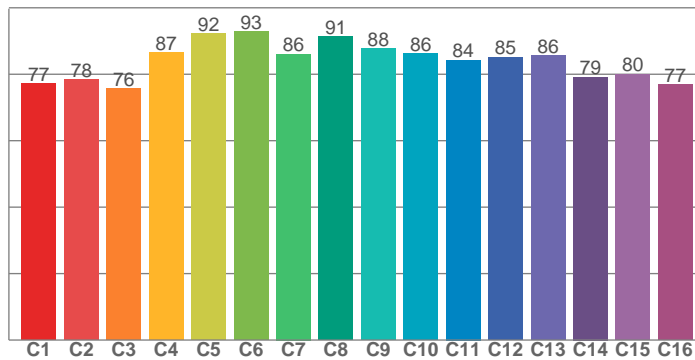
POWER





TM30: 83.8

CRI: 81.9 (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
79.6	90.4	96.6	79.7	79.8	89.4	82.2	57.3	7.7	79.2	78.7	77.4	81.9	98.7	71.5

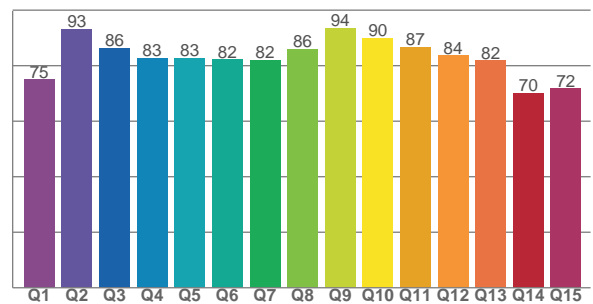
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.2	78.3	75.6	86.6	92.2	92.9	86.1	91.2	87.8	86.1	84.3	85.2	85.6	79.2	80.1	76.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
75.0	93.1	86.3	82.7	82.8	82.2	82.1	86.1	93.6	90.0	86.8	83.6	81.8	70.2	71.8

CQS: 81.7



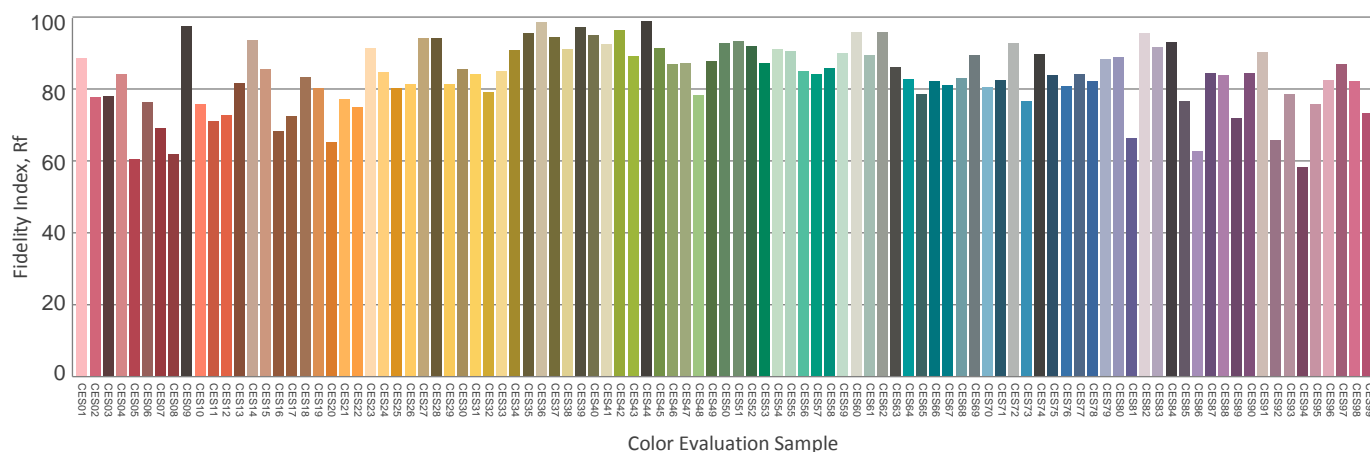
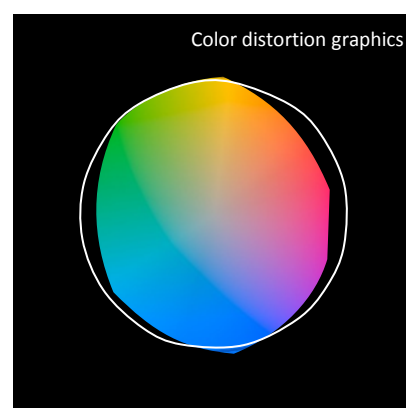
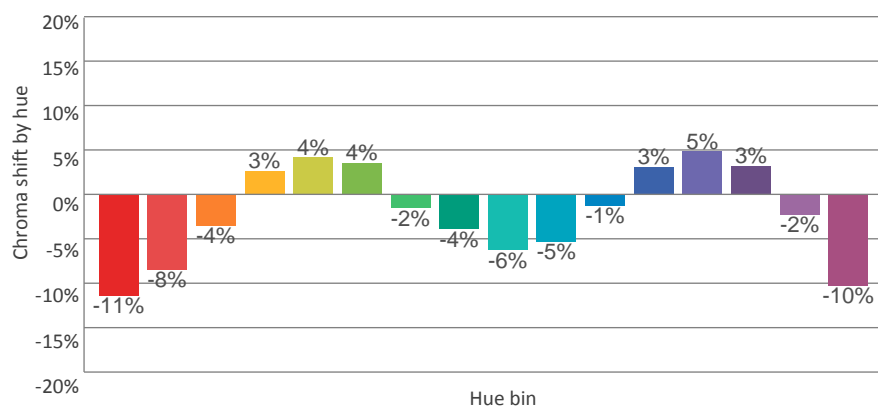
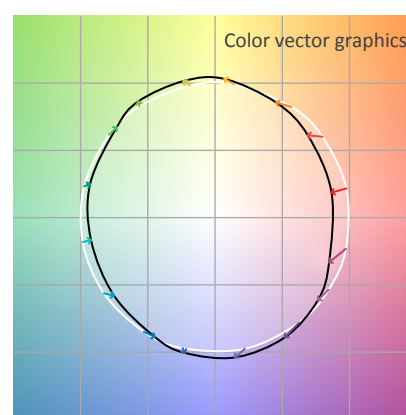
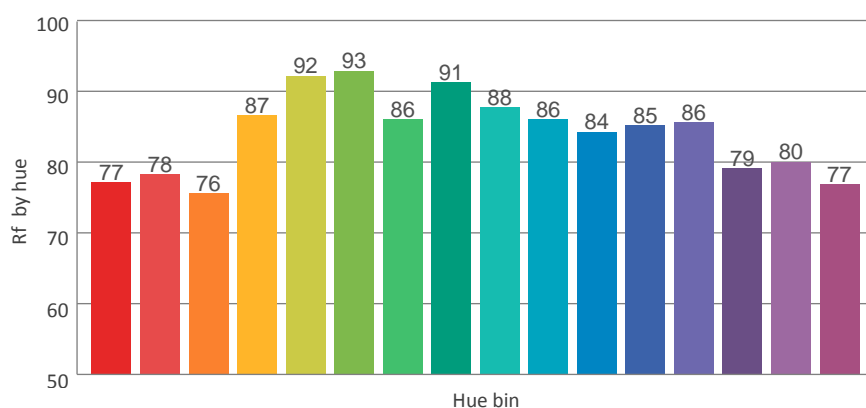
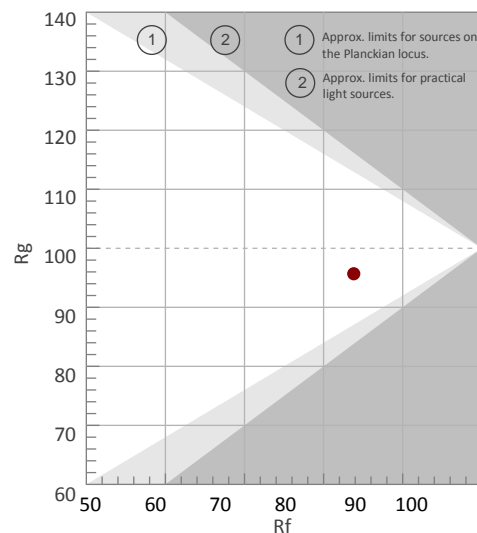
COLOR PARAMETERS

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
2613 K	81.9	7.7	83.8	95.7	81.7	0.470	0.416	0.266	0.354	0.0014

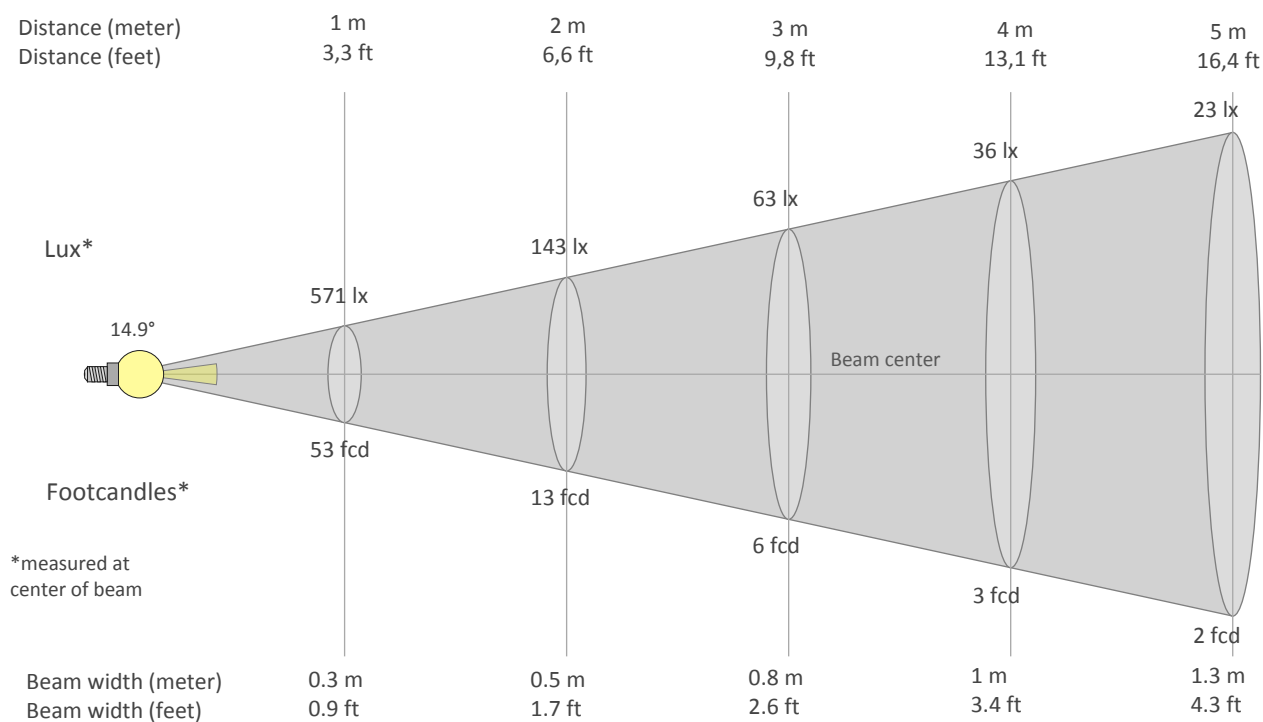
Rf 83.8
Fidelity index Rf

Rg 95.7
Gammut index Rg

Hue Bin	Graphic shifts (%)		
	R _f	Chroma	Hue
1	77	-11%	-1%
2	78	-8%	7%
3	76	-4%	11%
4	87	3%	8%
5	92	4%	4%
6	93	4%	-1%
7	86	-2%	-8%
8	91	-4%	-2%
9	88	-6%	0%
10	86	-5%	6%
11	84	-1%	9%
12	85	3%	2%
13	86	5%	-8%
14	79	3%	-15%
15	80	-2%	-11%
16	77	-10%	-12%



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
571lx	143lx	63lx	36lx	23lx	16lx	12lx	9lx	7lx	6lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx
53.1fcd	13.3fcd	5.9fcd	3.3fcd	2.1fcd	1.5fcd	1.1fcd	0.8fcd	0.7fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
571	565	496	382	262	179	134	106	88	73	59	46	36	28	22	17	13	10	8	6
100%	99%	87%	67%	46%	31%	23%	19%	15%	13%	10%	8%	6%	5%	4%	3%	2%	2%	1%	1%

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
571	526	462	361	262	185	132	102	82	67	53	42	33	27	21	16	13	10	8	6
100%	92%	81%	63%	46%	32%	23%	18%	14%	12%	9%	7%	6%	5%	4%	3%	2%	2%	1%	1%

Intensities in 180° c-plane

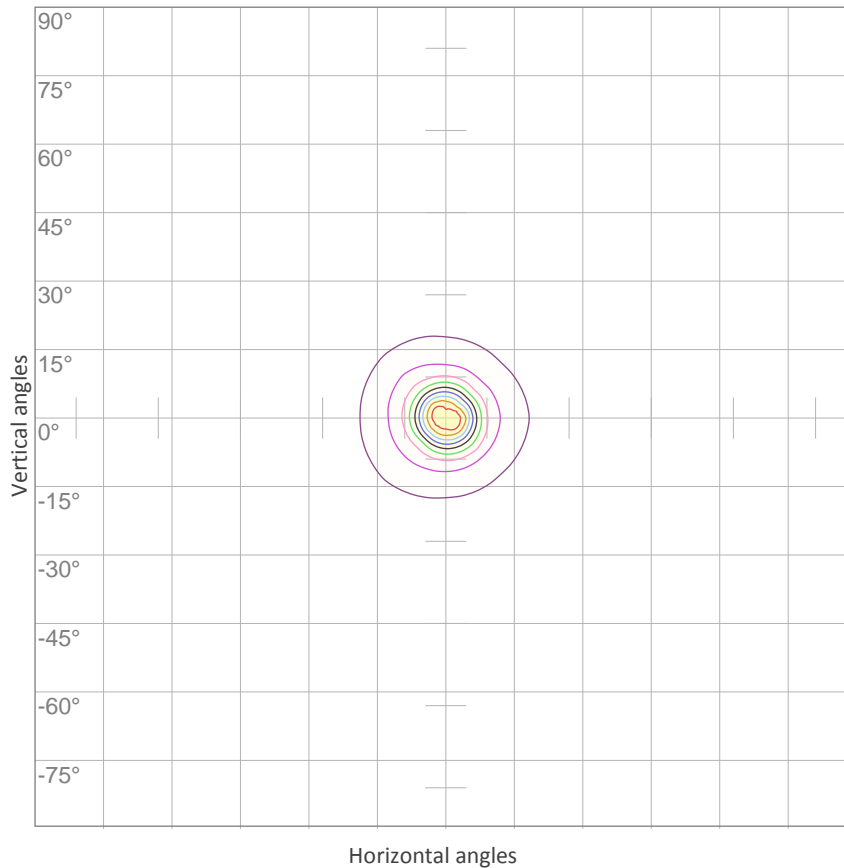
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
571	557	481	373	266	191	143	115	94	77	63	50	39	30	23	18	14	11	9	7
100%	97%	84%	65%	47%	33%	25%	20%	16%	14%	11%	9%	7%	5%	4%	3%	2%	2%	1%	1%

Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
571	518	457	361	261	182	130	103	83	68	56	44	34	26	20	16	12	9	7	6
100%	91%	80%	63%	46%	32%	23%	18%	14%	12%	10%	8%	6%	5%	4%	3%	2%	2%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
14.9°	40.3°	62.5°	98.1%	95.8%

ISO CANDELA DIAGRAM



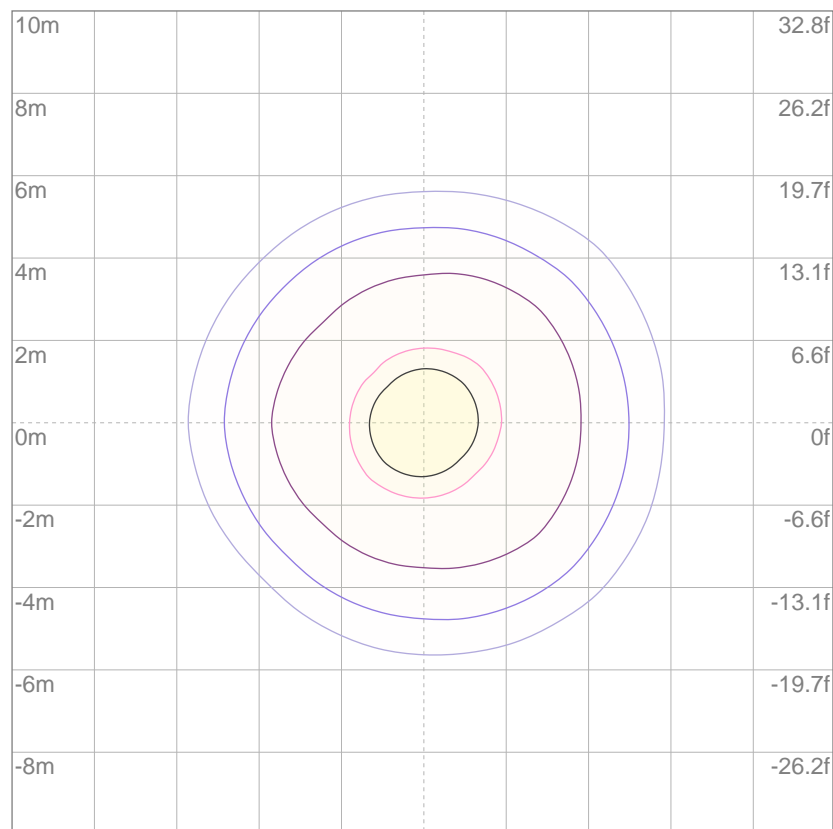
10%	57 cd
20%	114 cd
30%	171 cd
40%	229 cd
50%	286 cd
60%	343 cd
70%	400 cd
80%	457 cd
90%	514 cd

Conditions:

Number of c-planes: 8

Candela at center: 571 cd

ISO LUX DIAGRAM



3%	0.171 lx
5%	0.286 lx
10%	0.571 lx
30%	1.71 lx
50%	{LUX_10M50} lx

Conditions:

Number of c-planes: 8

Lux at center: 5.71 lx

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

UGR

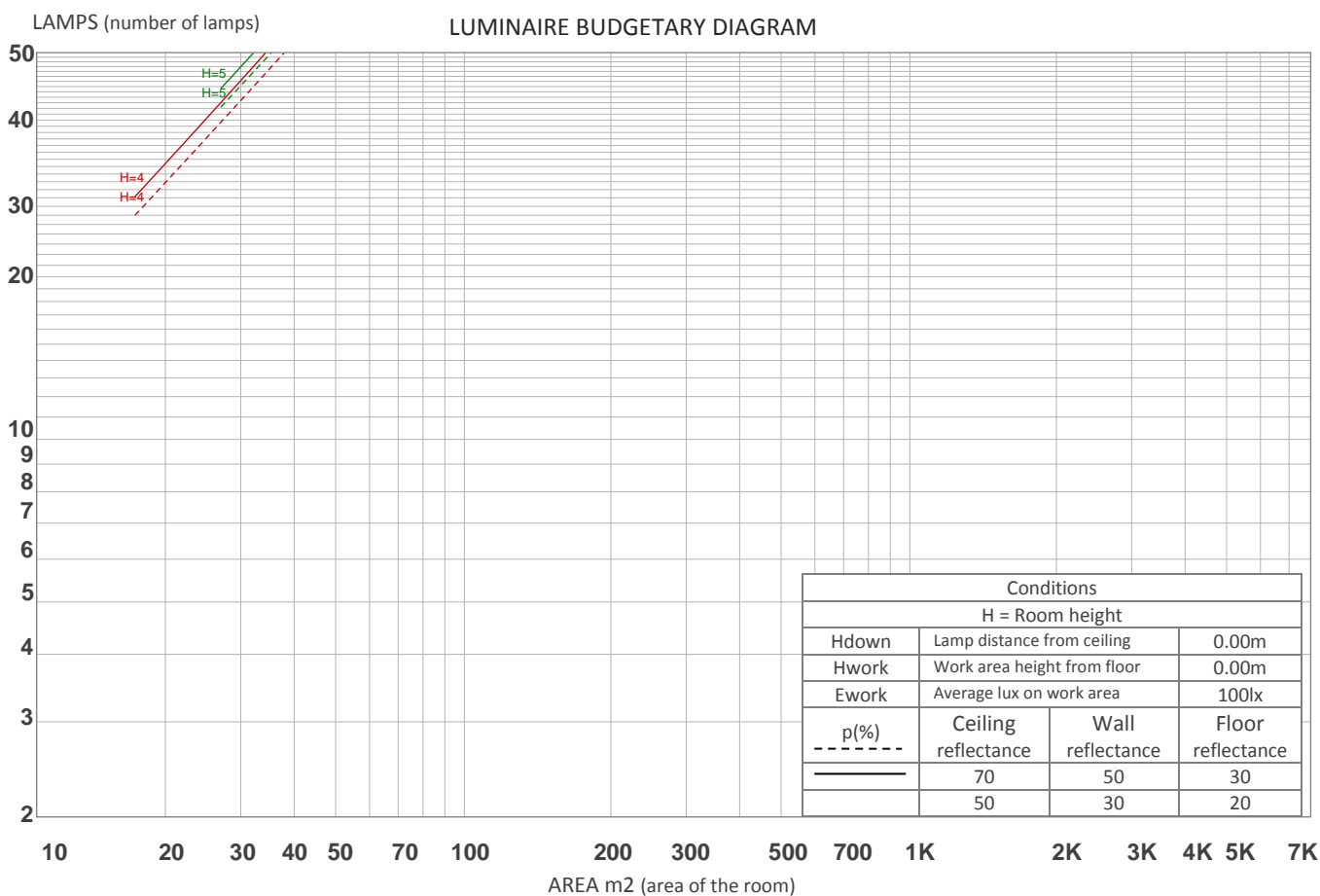
GLARE EVALUATION ACCORDING TO UGR

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	13.4	14.1	13.7	14.3	14.5	13.7	14.4	14.0	14.6	14.8
	3H	13.7	14.4	14.0	14.6	14.9	14.1	14.7	14.4	15.0	15.2
	4H	13.8	14.3	14.1	14.6	14.9	14.2	14.8	14.5	15.1	15.3
	6H	13.8	14.3	14.1	14.6	14.9	14.3	14.9	14.7	15.1	15.4
	8H	13.8	14.3	14.1	14.6	14.9	14.3	14.8	14.7	15.1	15.5
	12H	13.8	14.3	14.1	14.6	14.9	14.3	14.8	14.7	15.1	15.4
4H	2H	13.5	14.1	13.8	14.4	14.6	13.8	14.3	14.1	14.6	14.9
	3H	14.0	14.5	14.3	14.8	15.1	14.3	14.8	14.7	15.1	15.4
	4H	14.0	14.5	14.4	14.8	15.2	14.5	14.9	14.9	15.3	15.6
	6H	14.1	14.4	14.5	14.8	15.2	14.6	15.0	15.1	15.4	15.8
	8H	14.1	14.4	14.6	14.8	15.2	14.7	15.0	15.1	15.4	15.8
	12H	14.2	14.4	14.6	14.8	15.3	14.7	14.9	15.1	15.4	15.8
8H	4H	14.1	14.4	14.5	14.8	15.2	14.5	14.8	14.9	15.2	15.6
	6H	14.2	14.4	14.6	14.8	15.3	14.7	14.9	15.1	15.3	15.8
	8H	14.2	14.4	14.7	14.9	15.3	14.7	14.9	15.2	15.4	15.8
	12H	14.3	14.4	14.8	14.9	15.4	14.7	14.9	15.2	15.4	15.9
12H	4H	14.0	14.3	14.5	14.7	15.2	14.5	14.7	14.9	15.1	15.6
	6H	14.1	14.3	14.6	14.8	15.3	14.6	14.8	15.1	15.3	15.8
	8H	14.2	14.3	14.7	14.8	15.3	14.7	14.8	15.2	15.3	15.8
Variation of the observer position for the luminaire distance S											
S = 1.0H		+2.7 / -2.0					+2.4 / -1.8				
S = 1.5H		+4.9 / -2.6					+4.5 / -2.2				
S = 2.0H		+6.6 / -2.8					+6.3 / -2.4				
Standard table		BK02					BK02				
Correction summand		-3.6					-3.2				
Corrected glare indices referring to 85.4 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95
2	110	106	103	100	108	105	102	99	101	99	97	98	96	95	95	94	93	91
3	106	101	97	94	104	100	96	93	97	94	92	95	92	90	93	91	89	87
4	103	97	92	89	101	96	92	89	93	90	87	92	89	86	90	87	85	84
5	99	93	88	85	98	92	88	85	90	87	84	89	85	83	87	84	82	81
6	96	89	85	81	95	88	84	81	87	83	81	86	82	80	84	82	79	78
7	93	86	82	78	92	85	81	78	84	80	78	83	80	77	82	79	77	76
8	90	83	79	76	89	83	78	76	82	78	75	81	77	75	80	77	75	73
9	88	81	76	73	87	80	76	73	79	76	73	78	75	73	78	75	72	71
10	85	78	74	71	84	78	74	71	77	73	71	76	73	71	76	73	70	69



ZONAL LUMEN SUMMARY

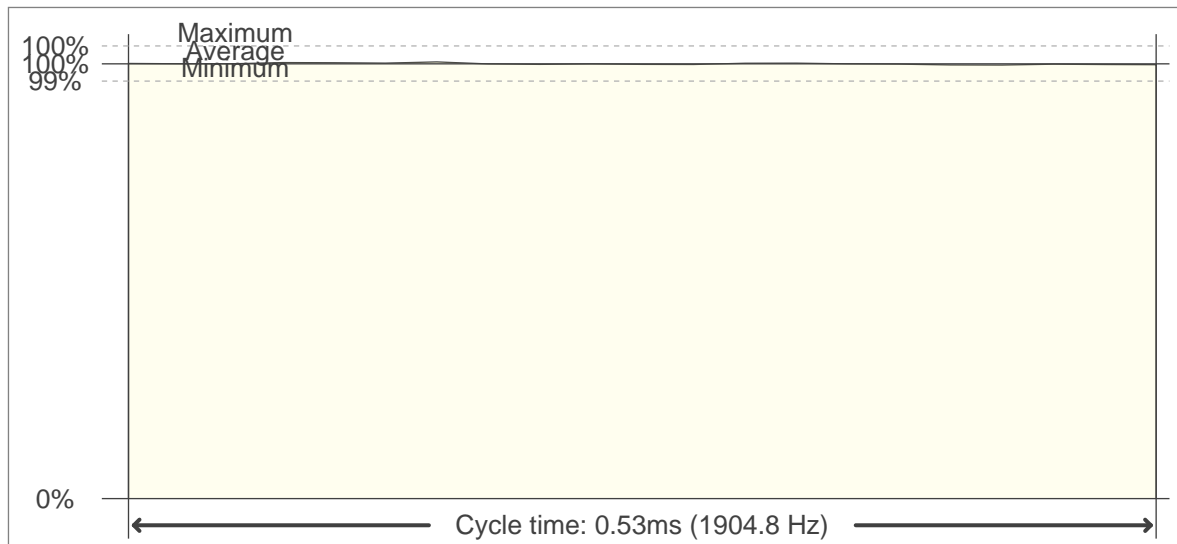
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
31.7 lm	27.7 lm	15.0 lm	5.90 lm	2.35 lm	1.07 lm	0.602 lm	0.237 lm	0.083 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.063 lm	0.066 lm	0.076 lm	0.083 lm	0.109 lm	0.103 lm	0.097 lm	0.067 lm	0.019 lm

FLICKER

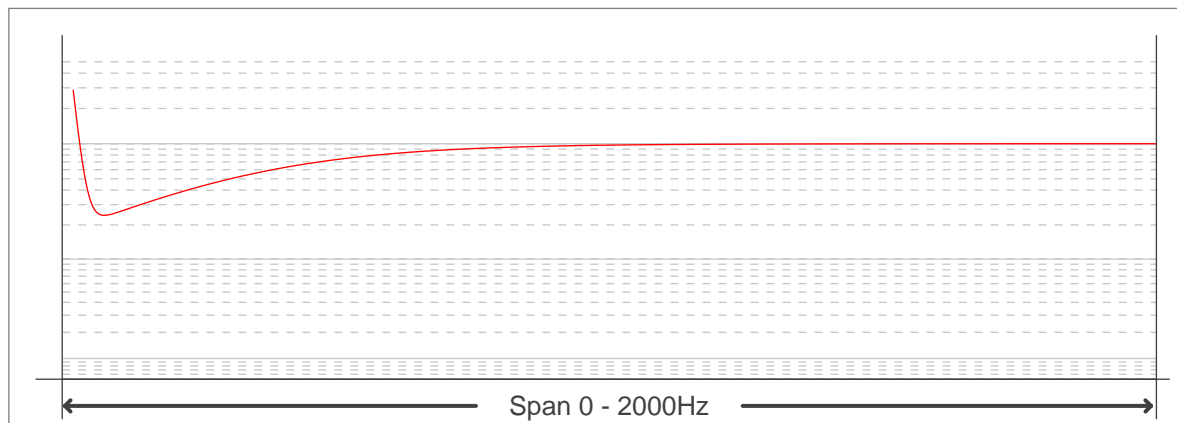
FLICKER CURVE (COMPLETE SAMPLED FLICKER)



FLICKER FRAME (FRAME OF ONE FLICKER PERIOD)



FLICKER FFT (FREQUENCY SCOPE OF FLICKER CURVE)



FLICKER RESULTS:

Flicker frequency:	1904.76 Hz
Flicker index:	0
Flicker percentage:	0.64 %
SVM: (Visual flicker)	0

FLICKER CONDITIONS:

Sample rate:	40000 samples/second
--------------	----------------------