

Light efficiency:



Output: 1179 lm

Light quality:

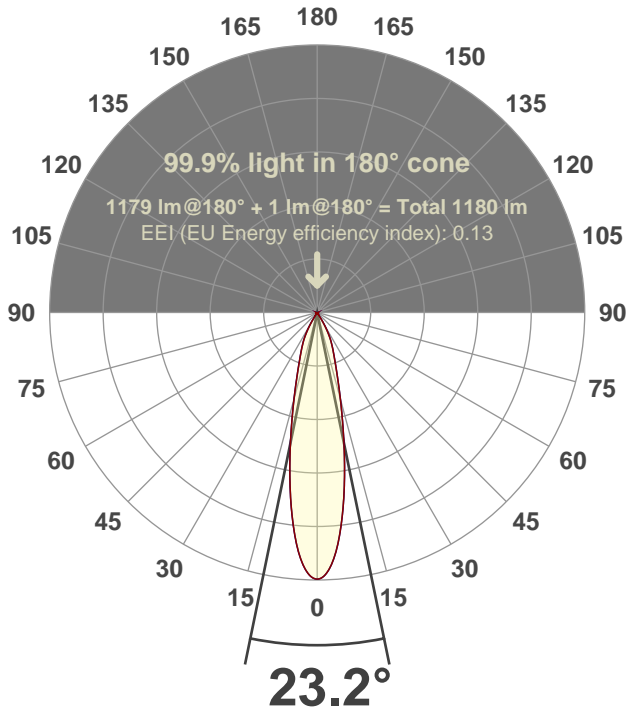


Peak: 4880 cd

Power: 15.0 W



Beam angle



Test number:

CR4D-R-OR-C14-30k-24 (GRO-CZ20-NF-RD)

Luminaire Model:

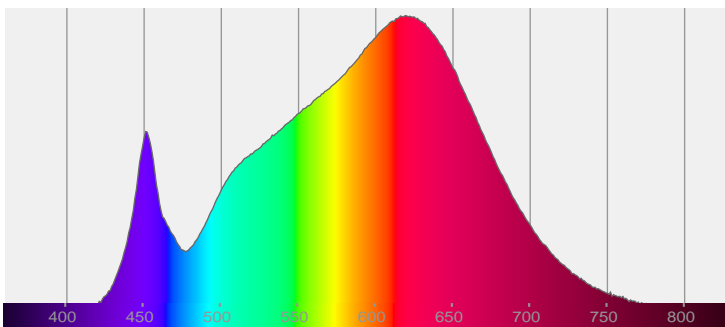
Core 4" Open Deep Regress C14 30K 24°

Date and time:

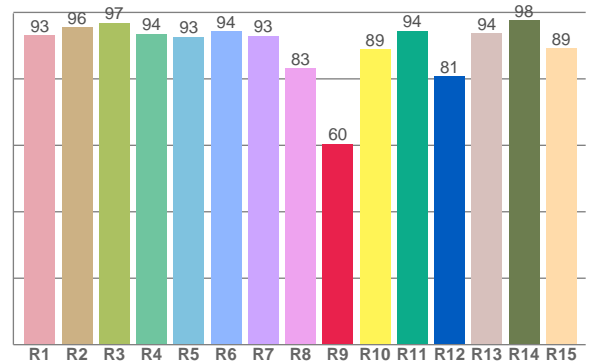
6/14/2017 5:11:14 PM

LUM: 1179

Spectra



CRI: 92.8 (R1-R8)



Color parameters

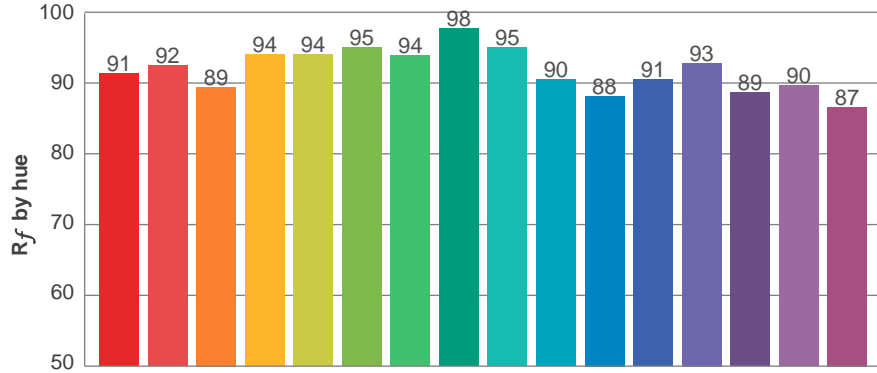
	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
	CRI	CRI R9	TM30 R _f	TM30 R _g	CQS	x	y	u	v	Δuv
	92.8	60.5	91.9	100.2	91.0	0.429	0.401	0.247	0.346	-0.0002

R_f 91.9
Fidelity index R_f

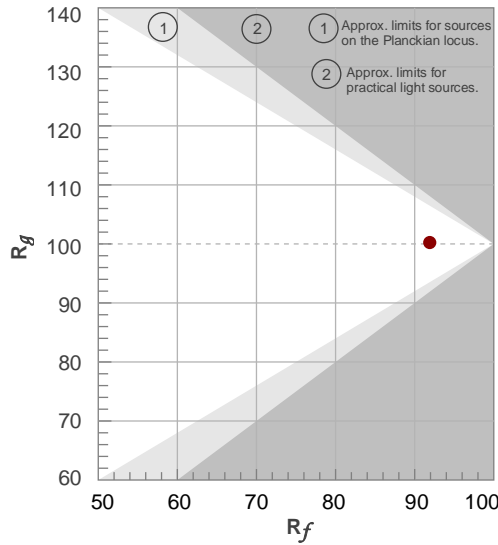
R_g 100.2
Gammut index R_g

TM30: 91.9

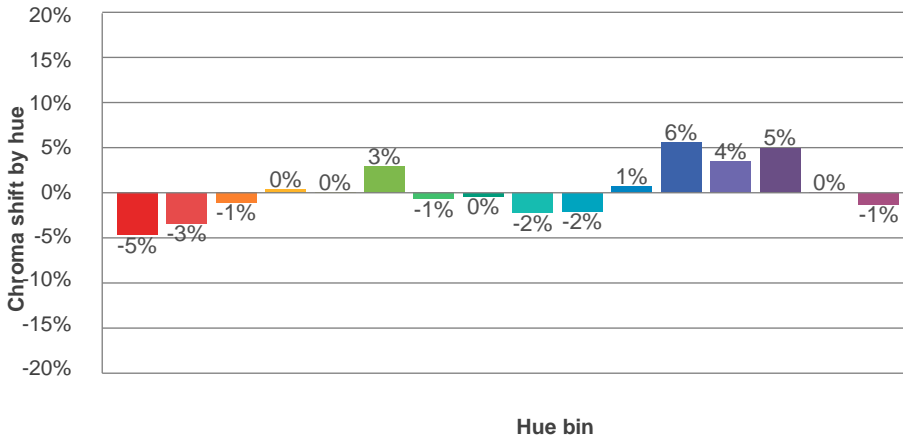
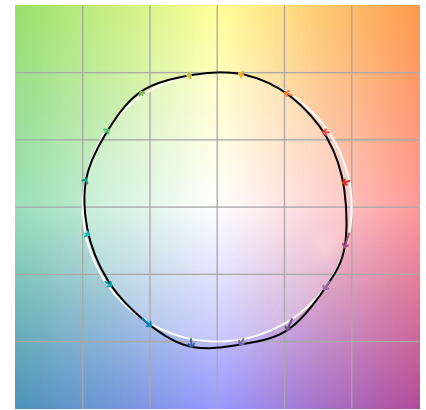
TM-30Color



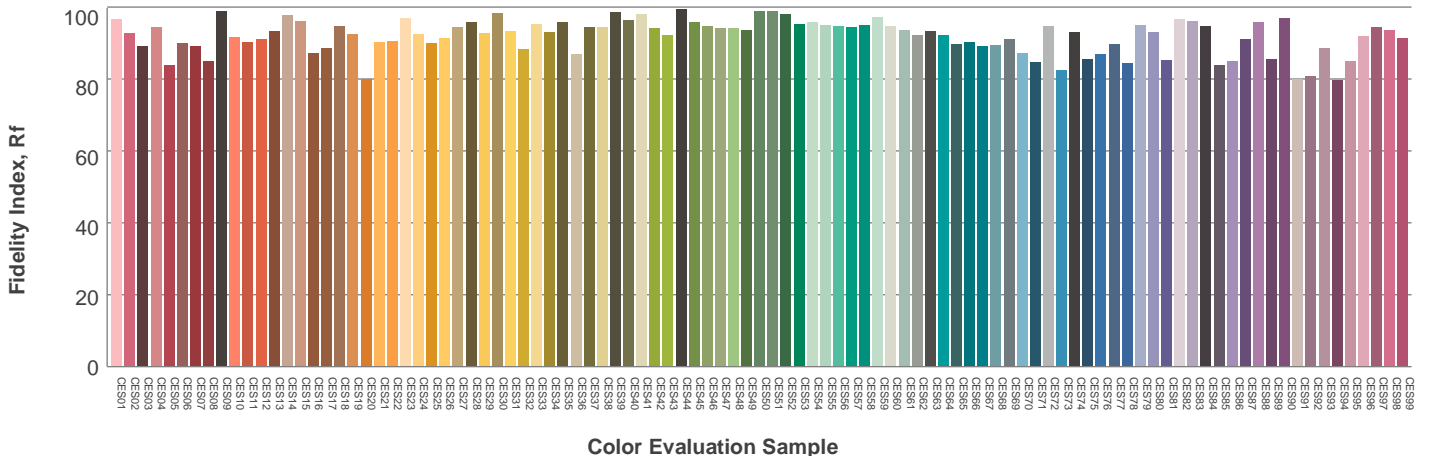
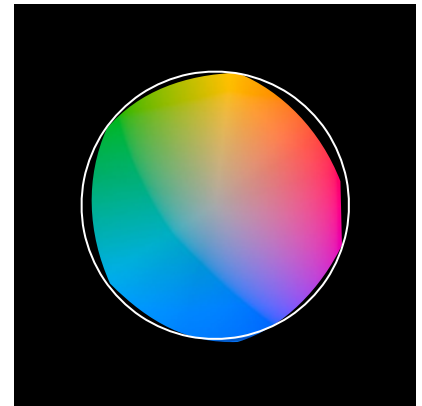
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	-1%
2	92	-3%	3%
3	89	-1%	5%
4	94	0%	3%
5	94	0%	3%
6	95	3%	0%
7	94	-1%	-3%
8	98	0%	-1%
9	95	-2%	2%
10	90	-2%	5%
11	88	1%	8%
12	91	6%	2%
13	93	4%	-3%
14	89	5%	-8%
15	90	0%	-7%
16	87	-1%	-11%



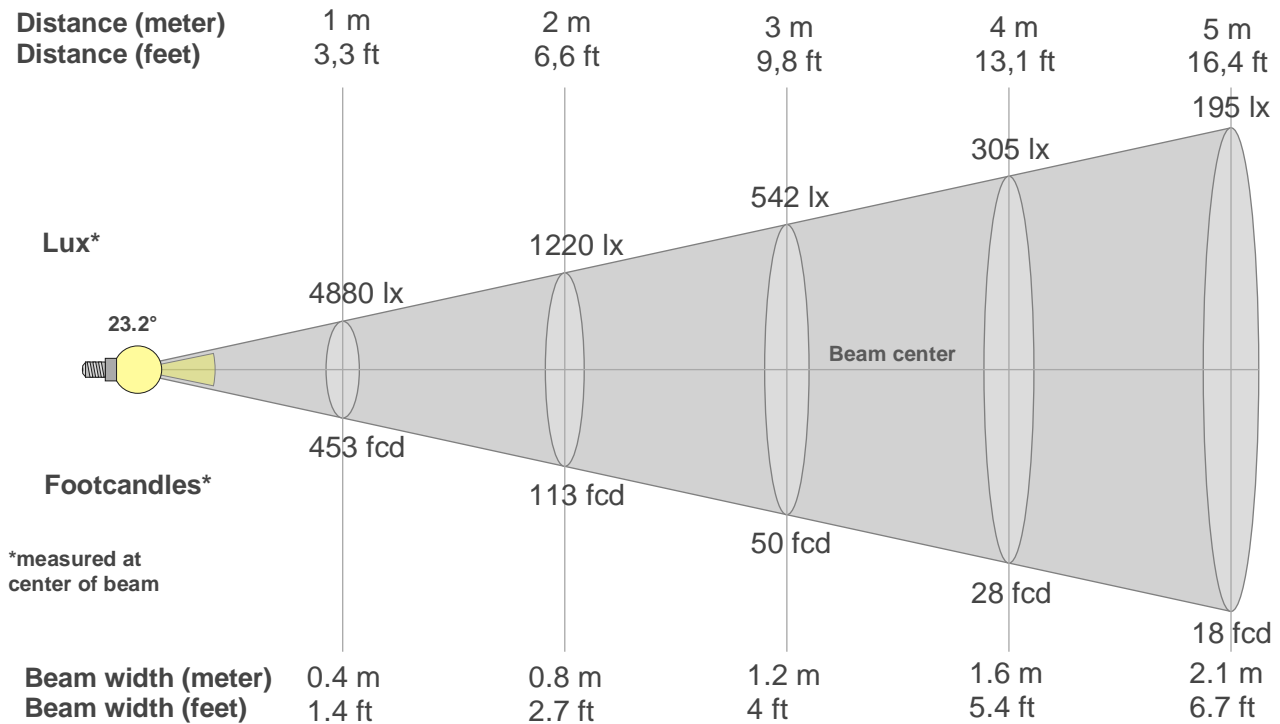
Color vector graphics



Color distortion



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
4880lx	1220lx	542lx	305lx	195lx	136lx	100lx	76lx	60lx	49lx	40lx	34lx	29lx	25lx	22lx	19lx	17lx	15lx	14lx	12lx
453.3fcd	113.3fcd	50.4fcd	28.3fcd	18.1fcd	12.6fcd	9.3fcd	7.1fcd	5.6fcd	4.5fcd	3.7fcd	3.1fcd	2.7fcd	2.3fcd	2fcd	1.8fcd	1.6fcd	1.4fcd	1.3fcd	1.1fcd

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°
4880	4779	4488	4032	3478	2891	2335	1854	1470	1176	963	807	683	571	447	315	189	67	29	23
100%	98%	92%	83%	71%	59%	48%	38%	30%	24%	20%	17%	14%	12%	9%	6%	4%	1%	1%	0%

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°
4880	4779	4488	4032	3478	2891	2335	1854	1470	1176	963	807	683	571	447	315	189	67	29	23
100%	98%	92%	83%	71%	59%	48%	38%	30%	24%	20%	17%	14%	12%	9%	6%	4%	1%	1%	0%

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°
4880	4779	4488	4032	3478	2891	2335	1854	1470	1176	963	807	683	571	447	315	189	67	29	23
100%	98%	92%	83%	71%	59%	48%	38%	30%	24%	20%	17%	14%	12%	9%	6%	4%	1%	1%	0%

Intensities in 270° c-plane

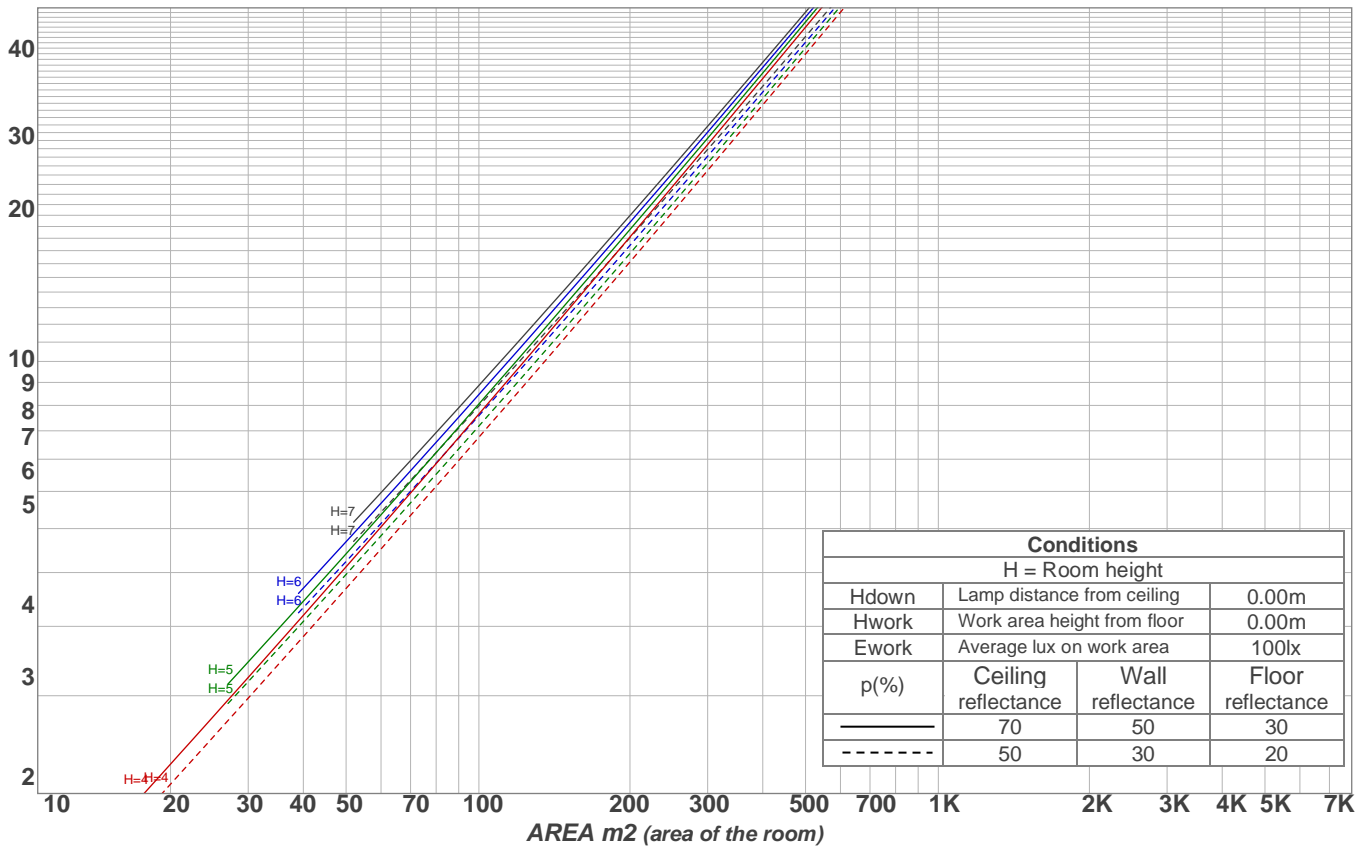
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4880	4779	4488	4032	3478	2891	2335	1854	1470	1176	963	807	683	571	447	315	189	67	29	23
100%	98%	92%	83%	71%	59%	48%	38%	30%	24%	20%	17%	14%	12%	9%	6%	4%	1%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23.2°	54.8°	66.9°	99.6%	99.0%

Light planning

Luminaire budgetary diagram

LAMPS (number of lamps)
50



Luminaire budgetary diagram
 AREA m2 (area of the room)
 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	50	30	10	0
Floor reflectance	20	20	20	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	102	102	102	100	100	100	100
1	115	113	111	109	112	110	109	107	106	105	104	103	102	101	99	99	98	98	98	98	96
2	111	107	104	101	109	105	102	100	102	100	98	99	97	96	97	95	94	94	94	94	92
3	107	102	98	95	105	101	97	94	98	95	93	96	93	91	94	92	90	91	91	91	89
4	103	98	93	90	102	96	93	90	94	91	89	93	90	88	91	89	87	88	88	88	85
5	100	94	89	86	98	93	89	86	91	88	85	90	87	84	88	86	83	86	86	86	82
6	97	90	86	82	95	89	85	82	88	84	82	87	83	81	85	83	81	84	84	84	79
7	94	87	82	79	92	86	82	79	85	81	79	84	81	78	83	80	78	82	82	82	77
8	91	84	79	76	90	83	79	76	82	78	76	81	78	75	81	77	75	80	80	80	74
9	88	81	77	74	87	80	76	73	80	76	73	79	75	73	78	75	73	78	78	78	72
10	85	78	74	71	85	78	74	71	77	74	71	77	73	71	76	73	71	76	76	76	70

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
362 lm	465 lm	282 lm	54.2 lm	7.76 lm	4.09 lm	1.50 lm	1.17 lm	0.986 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.000 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm

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	22.3	22.7	22.4	22.9	23.1	22.3	22.7	22.4	22.9	23.1
	3H	22.0	22.6	22.4	22.8	23.0	22.0	22.6	22.4	22.8	23.0
	4H	22.0	22.6	22.4	22.8	23.0	22.0	22.6	22.4	22.8	23.0
	6H	22.1	22.6	22.4	22.9	23.2	22.1	22.6	22.4	22.9	23.2
	8H	22.1	22.6	22.4	22.9	23.3	22.1	22.6	22.4	22.9	23.3
	12H	22.1	22.6	22.5	22.9	23.4	22.1	22.6	22.5	22.9	23.4
4H	2H	22.0	22.5	22.3	22.8	23.0	22.0	22.5	22.3	22.8	23.0
	3H	21.9	22.4	22.3	22.7	23.1	21.9	22.4	22.3	22.7	23.1
	4H	21.9	22.3	22.3	22.7	23.2	21.9	22.3	22.3	22.7	23.2
	6H	21.9	22.4	22.4	22.7	23.1	21.9	22.4	22.4	22.7	23.1
	8H	22.0	22.4	22.5	22.7	23.1	22.0	22.4	22.5	22.7	23.1
	12H	22.1	22.4	22.6	22.8	23.3	22.1	22.4	22.6	22.8	23.3
8H	4H	21.8	22.2	22.3	22.5	22.9	21.8	22.2	22.3	22.5	22.9
	6H	21.9	22.2	22.4	22.6	23.2	21.9	22.2	22.4	22.6	23.2
	8H	22.1	22.3	22.6	22.8	23.4	22.1	22.3	22.6	22.8	23.4
	12H	22.3	22.5	22.9	23.0	23.6	22.3	22.5	22.9	23.0	23.6
12H	4H	21.7	22.0	22.2	22.5	22.9	21.7	22.0	22.2	22.5	22.9
	6H	22.0	22.2	22.5	22.7	23.3	22.0	22.2	22.5	22.7	23.3
	8H	22.1	22.3	22.7	22.8	23.4	22.1	22.3	22.7	22.8	23.4
Corrected glare indices referring to 1179 lm total luminous flux											