

Light efficiency:



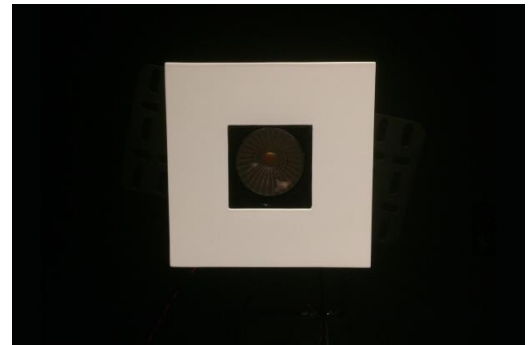
Output: 719 lm

Light quality:

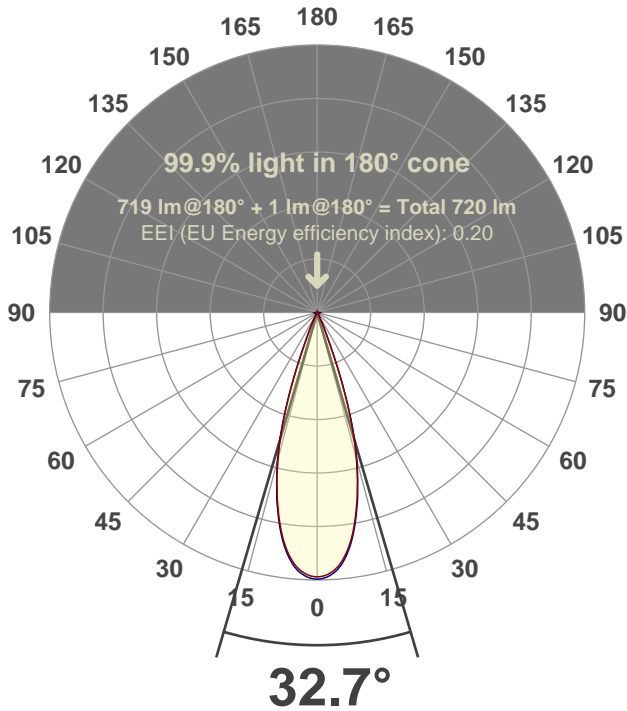


Peak: 2379 cd

Power: 15.0 W



Beam angle



Test number:

CR4D-S-FL-C14-30k-40 (GRF-CZ20-FL-SQ)

Luminaire Model:

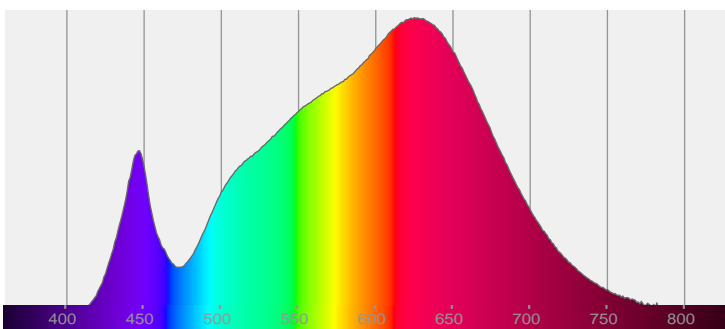
Core 4" Square Flat C14 30K 40°

Date and time:

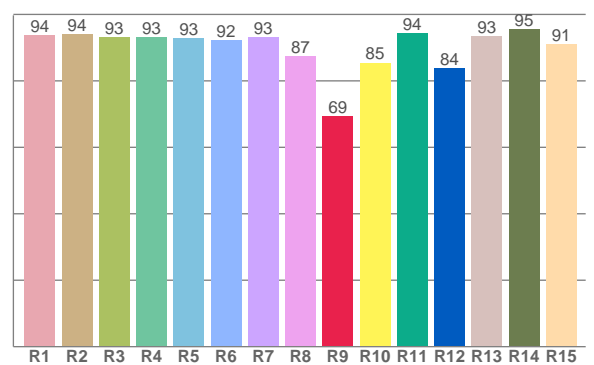
4/3/2017 1:23:47 PM

LUM: 719

Spectra



CRI: 92.4 (R1-R8)



Color parameters

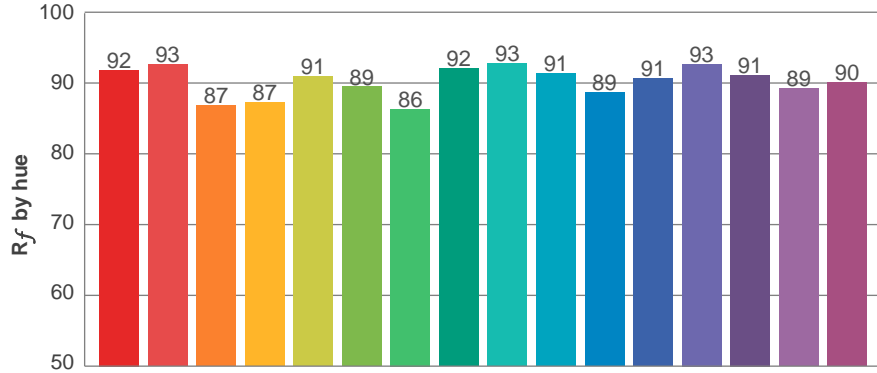
Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CRI	CRI R9	TM30 R _f	TM30 R _g	CQS	x	y	u	v	Δuv
92.4	69.3	90.3	103.2	90.2	0.429	0.399	0.247	0.346	-0.0007

R_f 90.3
Fidelity index R_f

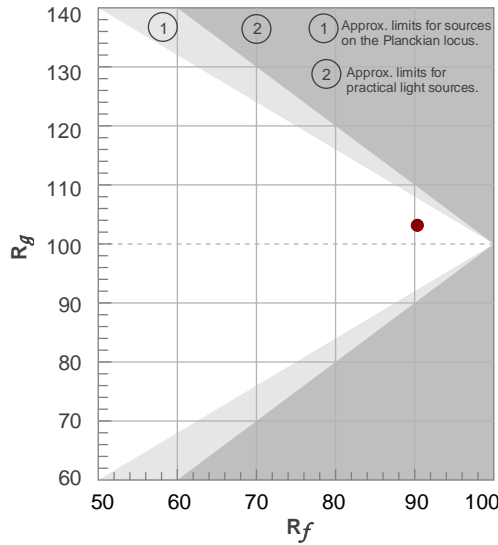
R_g 103.2
Gammut index R_g

TM30: 90.3

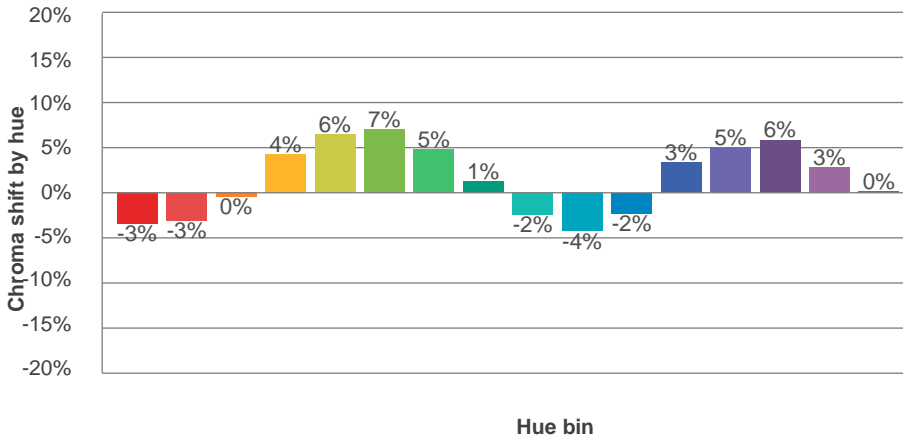
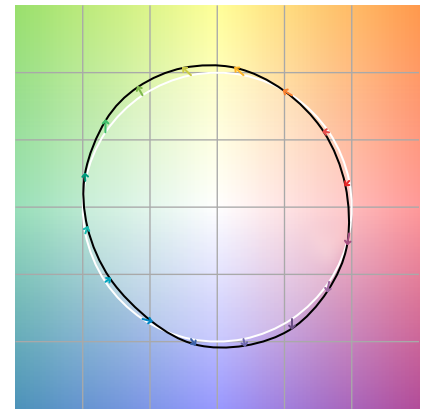
TM-30Color



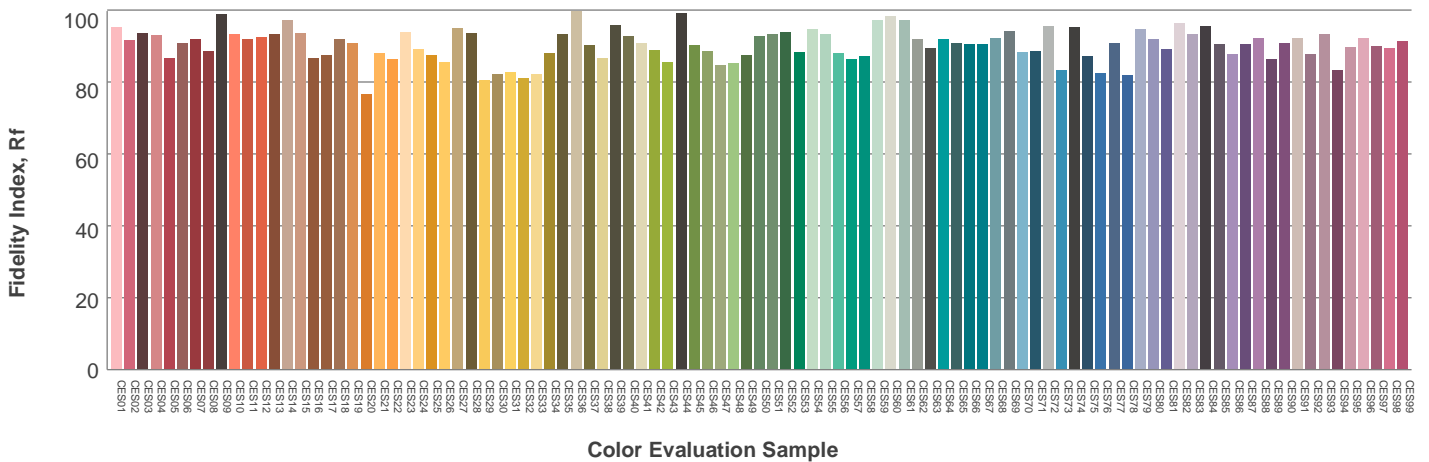
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	92	-3%	-3%
2	93	-3%	3%
3	87	0%	7%
4	87	4%	7%
5	91	6%	5%
6	89	7%	-1%
7	86	5%	-7%
8	92	1%	-5%
9	93	-2%	-4%
10	91	-4%	0%
11	89	-2%	7%
12	91	3%	4%
13	93	5%	0%
14	91	6%	-4%
15	89	3%	-6%
16	90	0%	-8%



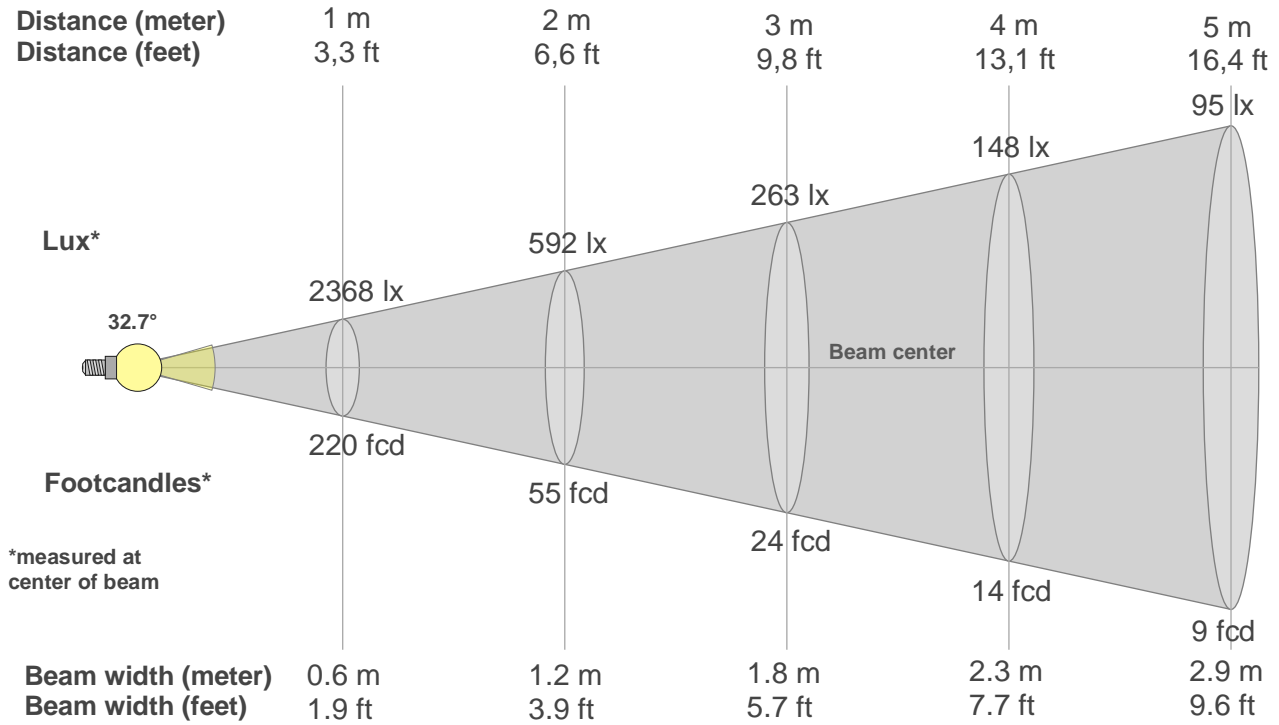
Color vector graphics



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
2368lx	592lx	263lx	148lx	95lx	66lx	48lx	37lx	29lx	24lx	20lx	16lx	14lx	12lx	11lx	9lx	8lx	7lx	7lx	6lx
220fcd	55fcd	24.4fcd	13.8fcd	8.8fcd	6.1fcd	4.5fcd	3.4fcd	2.7fcd	2.2fcd	1.8fcd	1.5fcd	1.3fcd	1.1fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd

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°
2368	2344	2298	2214	2087	1916	1713	1482	1227	920	586	306	169	103	60	33	20	15	12	9
100%	99%	97%	93%	88%	81%	72%	63%	52%	39%	25%	13%	7%	4%	3%	1%	1%	1%	0%	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°
2368	2365	2319	2235	2106	1934	1730	1493	1231	929	593	308	170	103	60	34	20	15	12	9
100%	100%	98%	94%	89%	82%	73%	63%	52%	39%	25%	13%	7%	4%	3%	1%	1%	1%	0%	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°
2368	2344	2298	2214	2087	1916	1713	1482	1227	920	586	306	169	103	60	33	20	15	12	9
100%	99%	97%	93%	88%	81%	72%	63%	52%	39%	25%	13%	7%	4%	3%	1%	1%	1%	0%	0%

Intensities in 270° c-plane

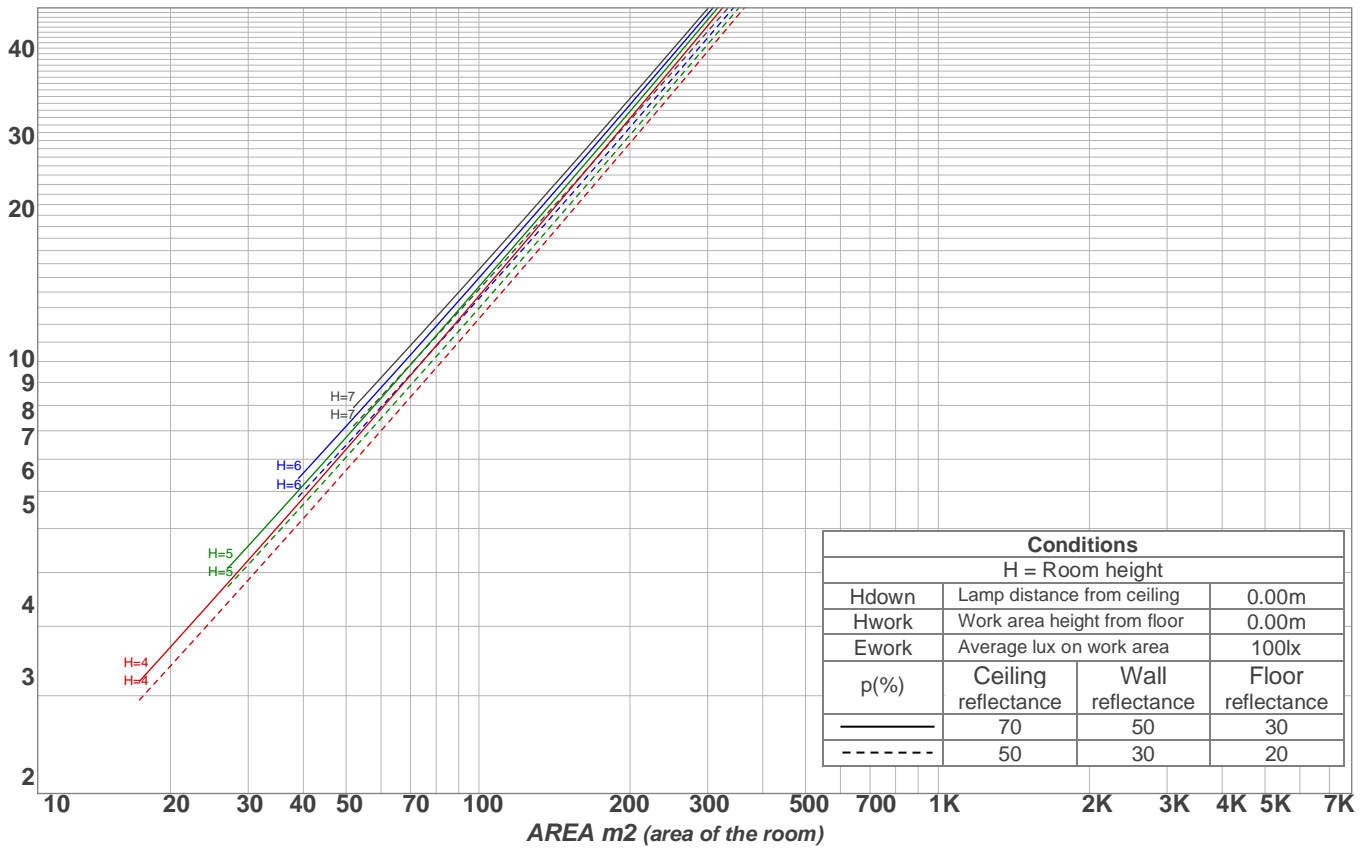
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
2368	2365	2319	2235	2106	1934	1730	1493	1231	929	593	308	170	103	60	34	20	15	12	9
100%	100%	98%	94%	89%	82%	73%	63%	52%	39%	25%	13%	7%	4%	3%	1%	1%	1%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
32.7°	45.6°	56.1°	99.0%	98.4%

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	103	100	102	100	98	99	98	96	97	95	94	94	94	94	93
3	107	102	99	96	105	101	98	95	99	96	93	96	94	92	94	92	91	91	91	91	89
4	104	98	94	91	102	97	93	90	95	92	89	93	91	88	92	89	87	87	87	87	86
5	100	94	90	87	99	94	90	87	92	89	86	90	88	85	89	87	85	85	85	85	83
6	97	91	87	84	96	90	86	83	89	85	83	88	85	82	87	84	82	82	82	82	81
7	95	88	84	81	93	87	83	80	86	83	80	85	82	80	84	81	79	79	79	79	78
8	92	85	81	78	91	85	81	78	84	80	77	83	80	77	82	79	77	77	77	77	76
9	89	82	78	75	88	82	78	75	81	78	75	80	77	75	80	77	75	75	75	75	74
10	87	80	76	73	86	80	76	73	79	75	73	78	75	73	78	75	72	72	72	72	72

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
204 lm	375 lm	118 lm	8.73 lm	3.49 lm	2.85 lm	2.97 lm	2.17 lm	1.74 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	15.9	16.3	15.9	16.5	16.7	15.1	15.5	15.2	15.7	15.9
	3H	17.1	17.7	17.4	17.8	18.0	16.8	17.4	17.2	17.5	17.7
	4H	17.9	18.4	18.3	18.7	18.9	17.9	18.5	18.3	18.7	18.9
	6H	19.0	19.5	19.3	19.8	20.1	19.2	19.7	19.5	20.0	20.3
	8H	19.8	20.2	20.1	20.5	20.9	19.9	20.4	20.3	20.7	21.1
	12H	20.6	21.0	20.9	21.4	21.8	20.8	21.3	21.2	21.6	22.0
4H	2H	16.3	16.9	16.7	17.1	17.3	15.7	16.3	16.1	16.5	16.7
	3H	18.0	18.4	18.4	18.8	19.2	17.9	18.3	18.2	18.7	19.1
	4H	19.0	19.4	19.4	19.8	20.3	19.1	19.5	19.5	19.9	20.4
	6H	20.3	20.7	20.8	21.1	21.4	20.5	21.0	21.0	21.3	21.7
	8H	21.2	21.6	21.7	21.9	22.3	21.4	21.8	21.9	22.1	22.5
	12H	22.1	22.5	22.6	22.9	23.3	22.4	22.7	22.9	23.1	23.6
8H	4H	19.5	19.9	20.0	20.3	20.6	19.6	20.0	20.1	20.4	20.7
	6H	21.2	21.5	21.7	21.9	22.5	21.4	21.7	21.9	22.2	22.7
	8H	22.3	22.5	22.9	23.1	23.7	22.5	22.7	23.0	23.2	23.8
	12H	23.6	23.7	24.1	24.2	24.8	23.8	24.0	24.4	24.5	25.1
12H	4H	19.6	20.0	20.1	20.4	20.8	19.7	20.1	20.2	20.5	20.9
	6H	21.5	21.7	22.1	22.3	22.9	21.8	22.0	22.3	22.5	23.1
	8H	22.7	22.9	23.3	23.4	24.0	22.9	23.0	23.5	23.5	24.1
Corrected glare indices referring to 719 lm total luminous flux											