

Light efficiency:



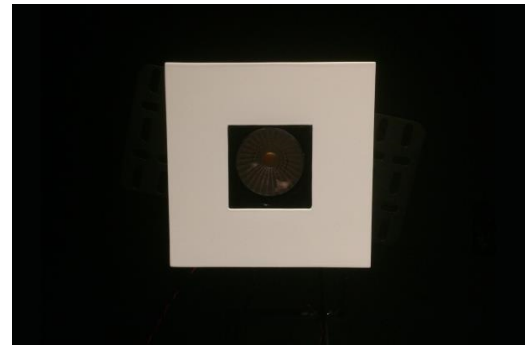
Output: 1322 lm

Light quality:

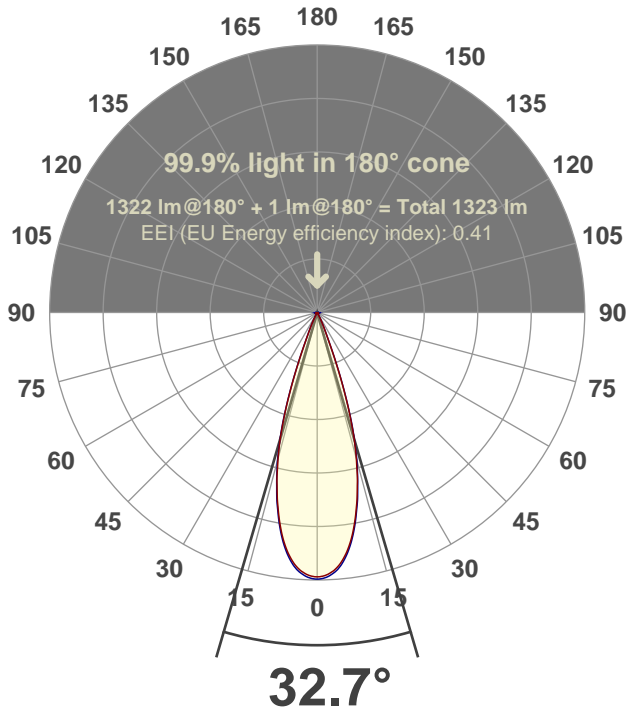


Peak: 4375 cd

Power: 29.9 W



Beam angle



Test number:

CR4D-S-FL-C28-30k-40 (GRF-CZ20-FL-SQ)

Luminaire Model:

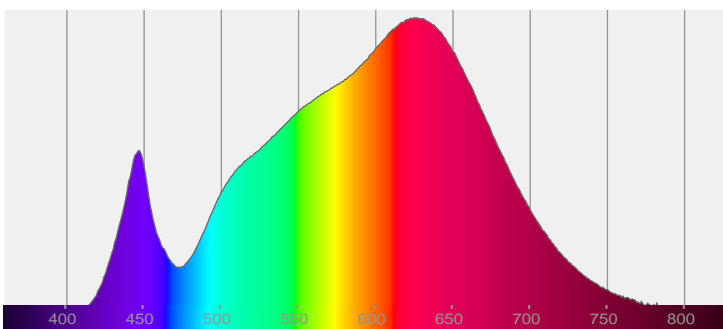
Core 4" Square Flat C28 30K 40°

Date and time:

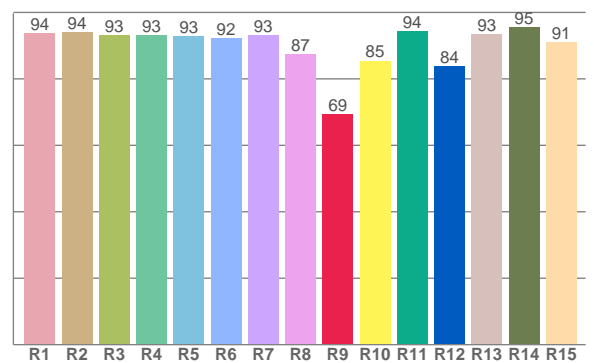
4/3/2017 1:23:47 PM

LUM: 1322

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

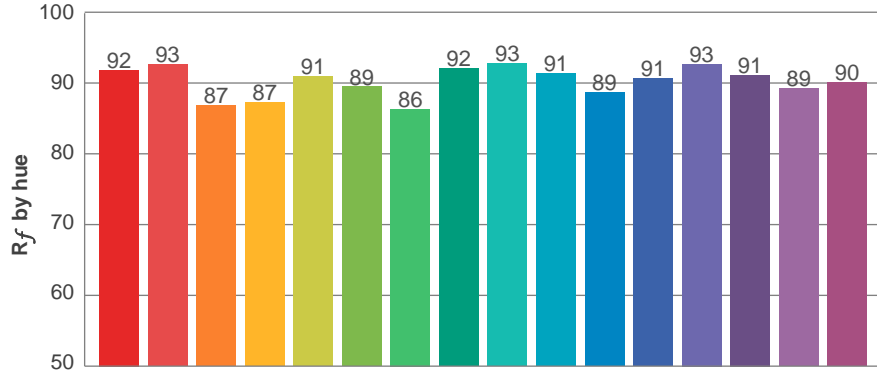
Fidelity index R_f

R_g 103.2

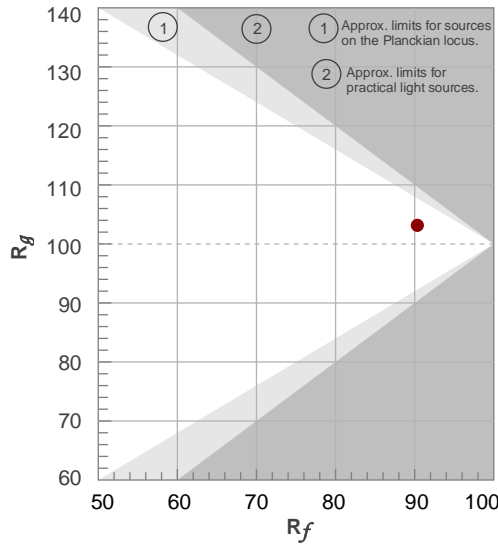
Gammut index R_g

TM30: 90.3

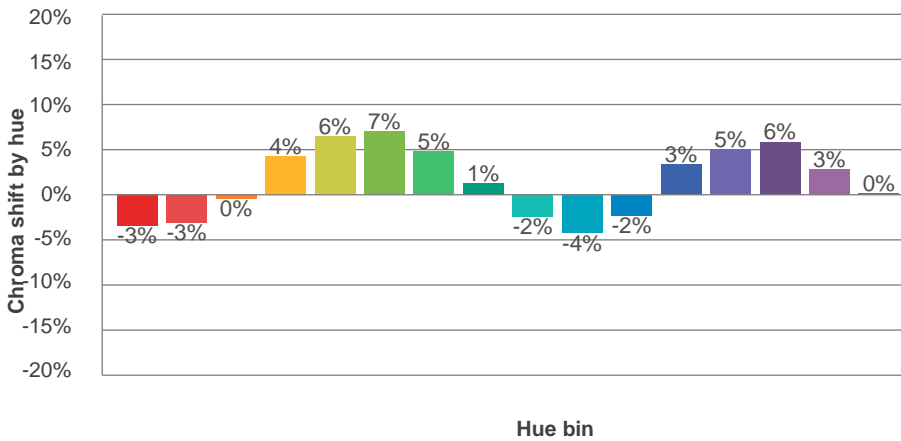
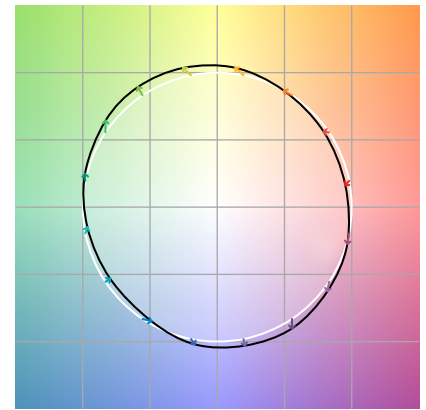
TM-30Color



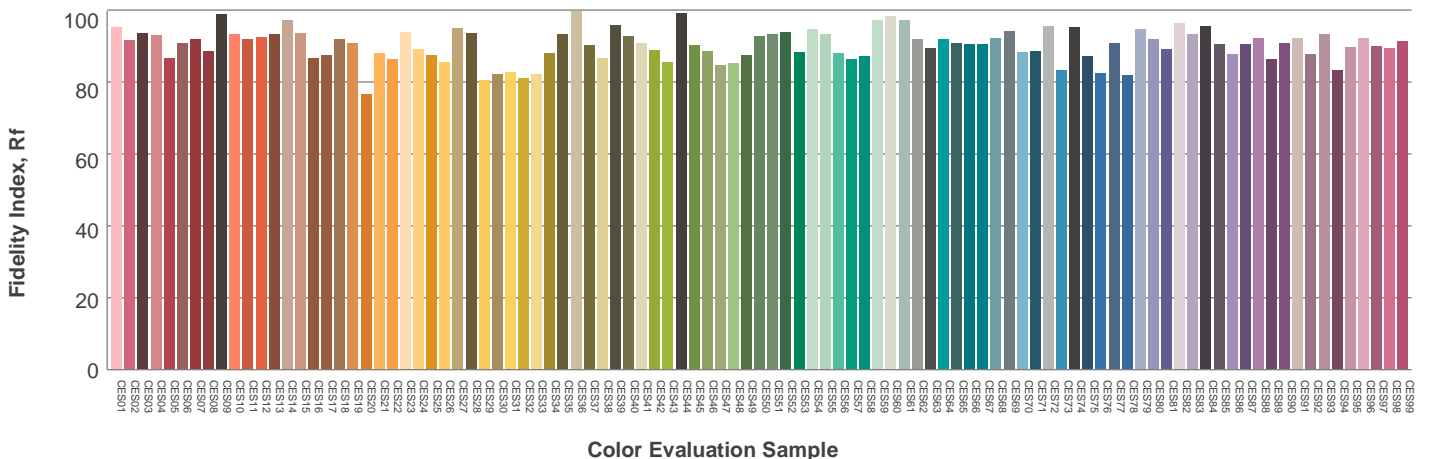
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	92	-3%	-3%
2	93	-3%	3%
3	87	0%	7%
4	87	4%	7%
5	91	6%	5%
6	89	7%	-1%
7	86	5%	-7%
8	92	1%	-5%
9	93	-2%	-4%
10	91	-4%	0%
11	89	-2%	7%
12	91	3%	4%
13	93	5%	0%
14	91	6%	-4%
15	89	3%	-6%
16	90	0%	-8%



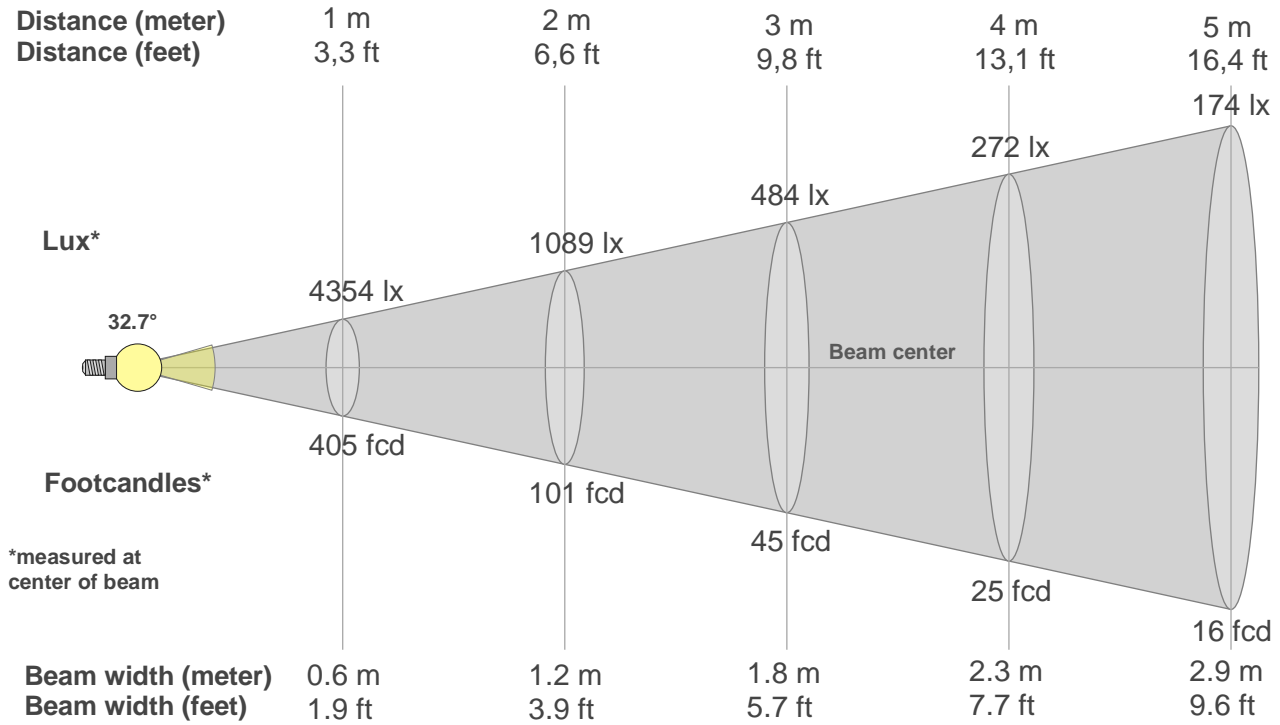
Color vector graphics



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
4354lx	1089lx	484lx	272lx	174lx	121lx	89lx	68lx	54lx	44lx	36lx	30lx	26lx	22lx	19lx	17lx	15lx	13lx	12lx	11lx
404.5fcd	101.1fcd	44.9fcd	25.3fcd	16.2fcd	11.2fcd	8.3fcd	6.3fcd	5fcd	4fcd	3.3fcd	2.8fcd	2.4fcd	2.1fcd	1.8fcd	1.6fcd	1.4fcd	1.2fcd	1.1fcd	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°
4354	4310	4225	4070	3838	3524	3149	2724	2255	1692	1078	563	310	189	110	62	37	27	21	17
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°
4354	4348	4265	4109	3873	3557	3181	2745	2263	1708	1090	567	312	189	111	62	37	27	21	17
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°
4354	4310	4225	4070	3838	3524	3149	2724	2255	1692	1078	563	310	189	110	62	37	27	21	17
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

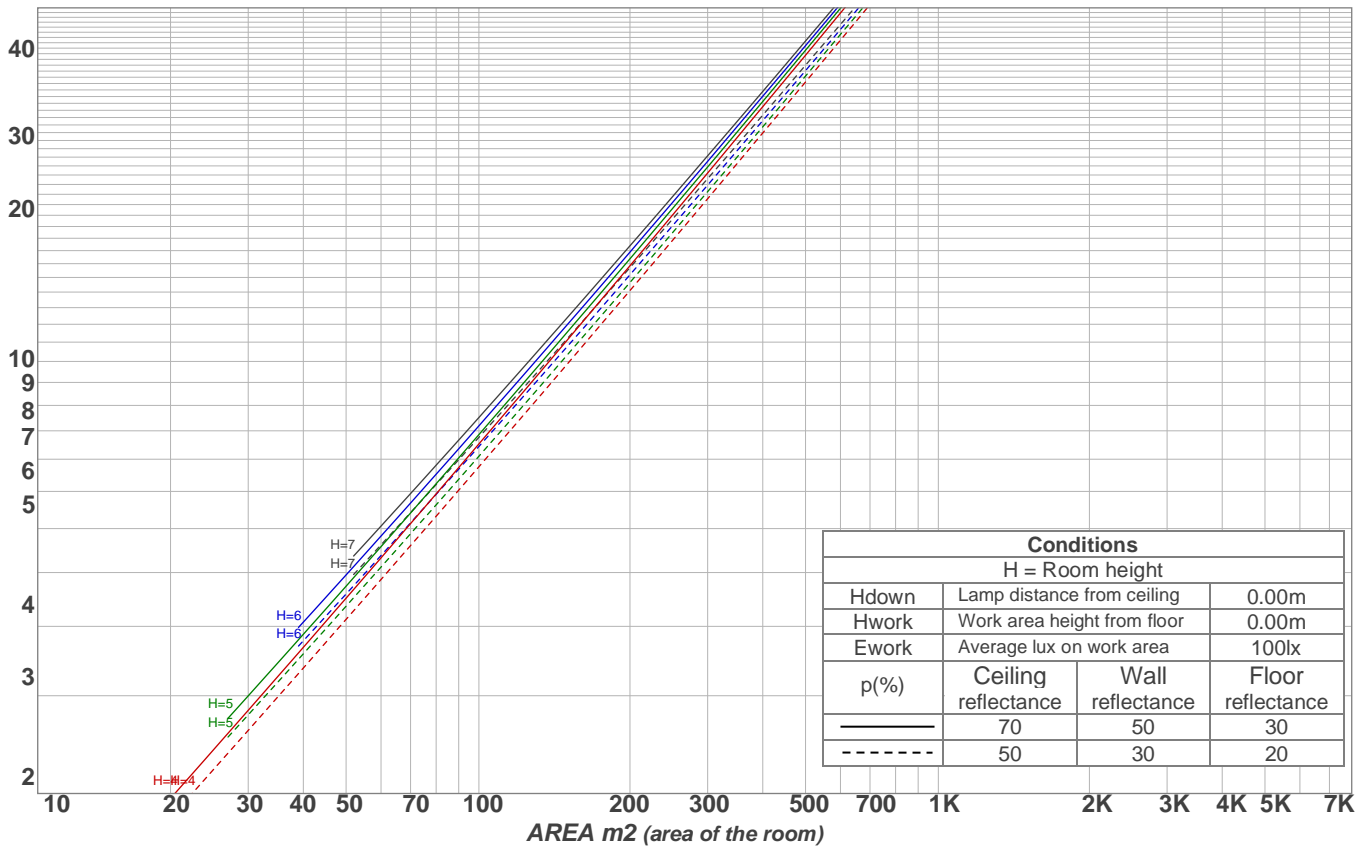
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4354	4348	4265	4109	3873	3557	3181	2745	2263	1708	1090	567	312	189	111	62	37	27	21	17
100%	100%	98%	94%	89%	82%	73%	63%	52%	39%	25%	13%	7%	4%	3%	1%	1%	1%	0%	0%

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	96	96	96	96
2	111	107	104	101	109	105	103	100	102	100	98	99	98	96	97	95	94	93	93	93	93
3	107	102	99	96	105	101	98	95	99	96	93	96	94	92	94	92	91	89	89	89	89
4	104	98	94	91	102	97	93	90	95	92	89	93	91	88	92	89	87	86	86	86	86
5	100	94	90	87	99	94	90	87	92	89	86	90	88	85	89	87	85	83	83	83	83
6	97	91	87	84	96	90	86	83	89	85	83	88	85	82	87	84	82	81	81	81	81
7	95	88	84	81	93	87	83	80	86	83	80	85	82	80	84	81	79	78	78	78	78
8	92	85	81	78	91	85	81	78	84	80	77	83	80	77	82	79	77	76	76	76	76
9	89	82	78	75	88	82	78	75	81	78	75	80	77	75	80	77	75	74	74	74	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°
375 lm	690 lm	217 lm	16.0 lm	6.41 lm	5.24 lm	5.46 lm	3.98 lm	3.19 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	18.0	18.4	18.1	18.6	18.8	17.2	17.6	17.3	17.8	18.0
	3H	19.2	19.8	19.6	20.0	20.1	18.9	19.5	19.3	19.7	19.8
	4H	20.0	20.6	20.4	20.8	21.0	20.0	20.6	20.4	20.8	21.0
	6H	21.1	21.6	21.4	21.9	22.2	21.3	21.8	21.6	22.1	22.4
	8H	21.9	22.3	22.2	22.6	23.0	22.1	22.5	22.4	22.8	23.2
	12H	22.7	23.1	23.1	23.5	23.9	22.9	23.4	23.3	23.7	24.1
4H	2H	18.4	19.0	18.8	19.2	19.4	17.8	18.4	18.2	18.6	18.9
	3H	20.1	20.6	20.5	20.9	21.3	20.0	20.4	20.3	20.8	21.2
	4H	21.1	21.5	21.5	21.9	22.4	21.2	21.6	21.6	22.0	22.5
	6H	22.4	22.9	22.9	23.2	23.5	22.7	23.1	23.2	23.4	23.8
	8H	23.3	23.7	23.8	24.0	24.4	23.5	23.9	24.0	24.3	24.6
	12H	24.3	24.6	24.8	25.0	25.4	24.5	24.8	25.0	25.2	25.7
8H	4H	21.6	22.1	22.1	22.4	22.7	21.7	22.2	22.2	22.5	22.8
	6H	23.3	23.6	23.8	24.0	24.6	23.6	23.8	24.1	24.3	24.8
	8H	24.5	24.7	25.0	25.2	25.8	24.6	24.8	25.1	25.3	26.0
	12H	25.7	25.8	26.3	26.3	26.9	25.9	26.1	26.5	26.6	27.2
12H	4H	21.8	22.1	22.3	22.5	22.9	21.8	22.2	22.3	22.6	23.0
	6H	23.7	23.9	24.2	24.4	25.0	23.9	24.1	24.4	24.6	25.2
	8H	24.8	25.0	25.4	25.5	26.1	25.0	25.2	25.6	25.7	26.3
Corrected glare indices referring to 1322 lm total luminous flux											