

Light efficiency:



Output: 737 lm

Light quality:

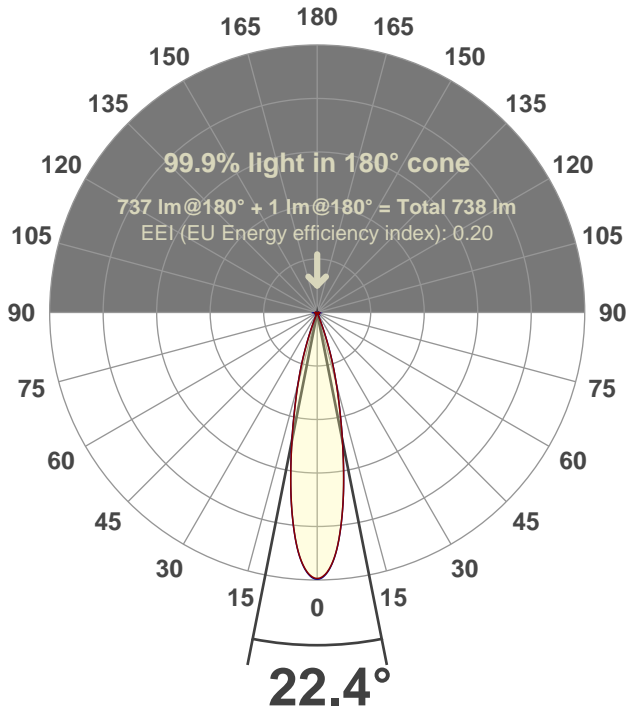


Peak: 4136 cd

Power: 15.0 W



Beam angle



Test number:

CR4D-S-FL-C14-30k-24 (GRF-CZ20-NF-SQ)

Luminaire Model:

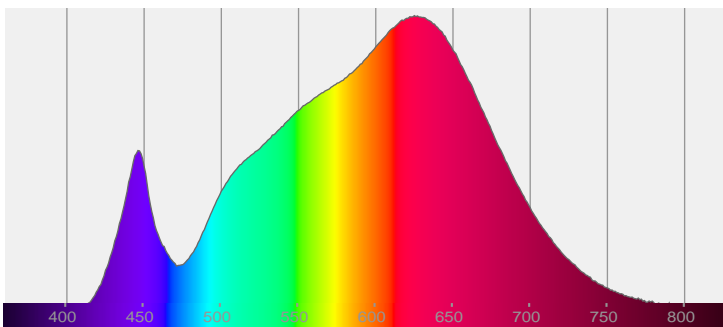
Core 4" Square Flat C14 30K 24°

Date and time:

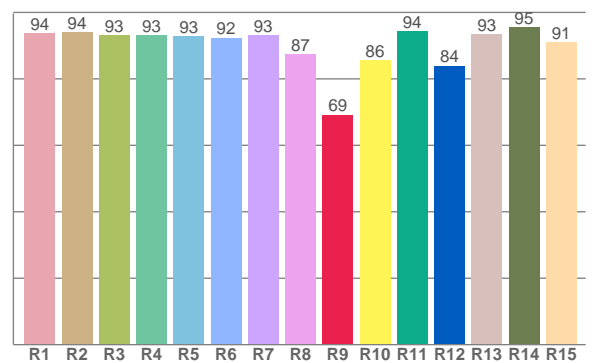
4/3/2017 1:08:31 PM

LUM: 737

Spectra



CRI: 92.5 (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 <sub>f</sub>	TM30 R <sub>g</sub>	CQS	x	y	u	v	Δuv
92.5	69.1	90.4	103.1	90.2	0.429	0.400	0.248	0.346	-0.0007

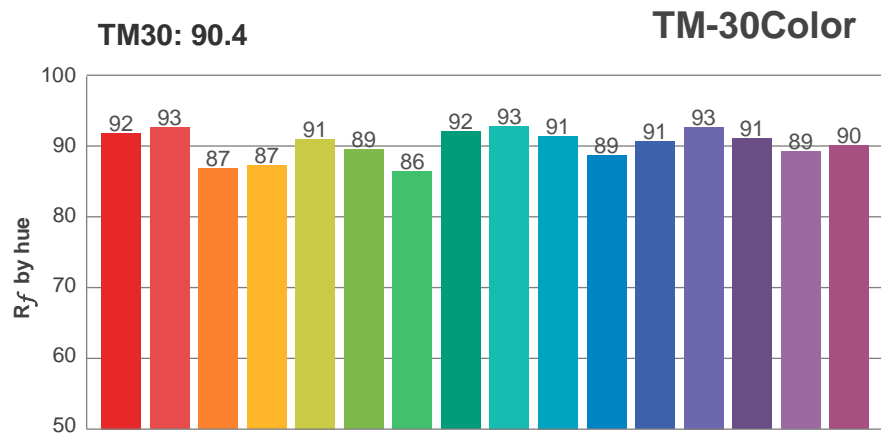
# R<sub>f</sub> 90.4

Fidelity index R<sub>f</sub>

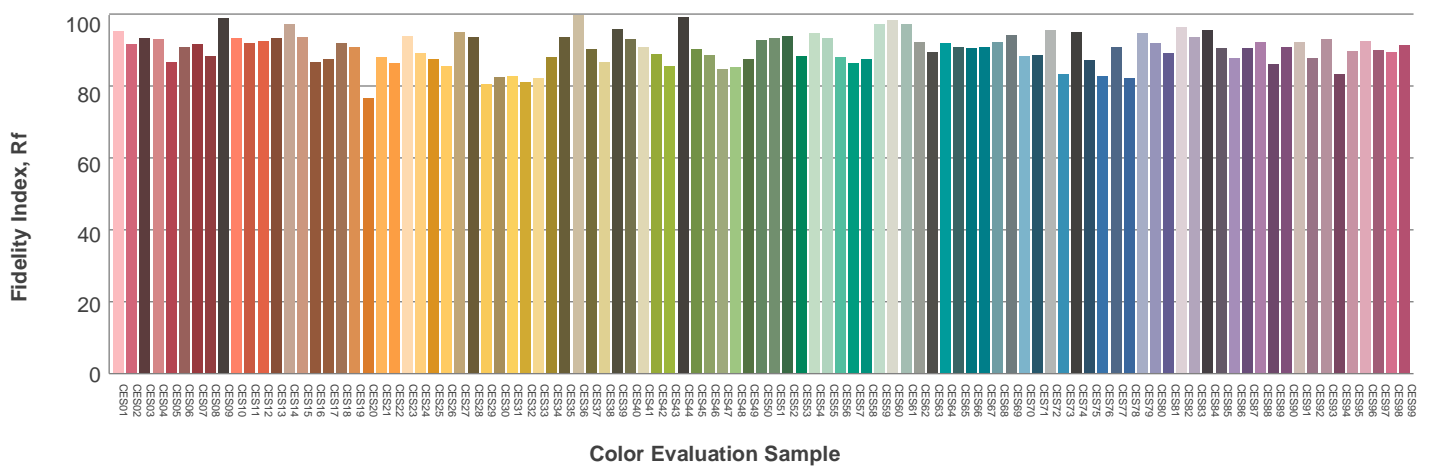
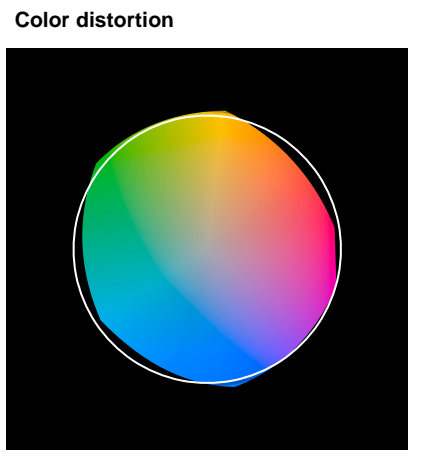
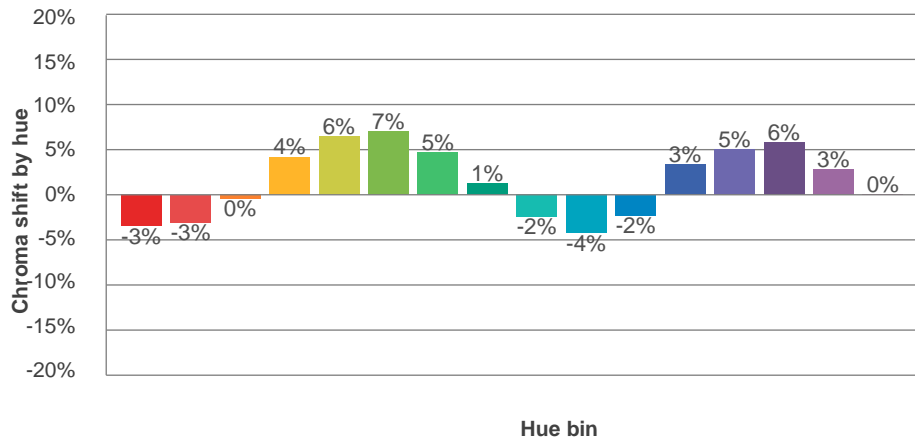
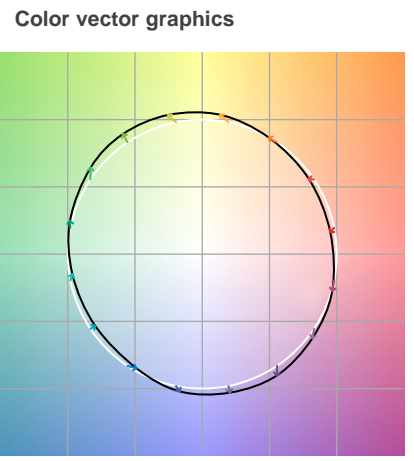
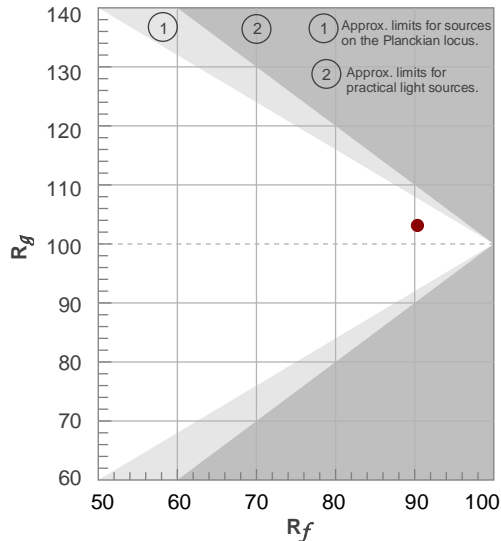
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# R<sub>g</sub> 103.1

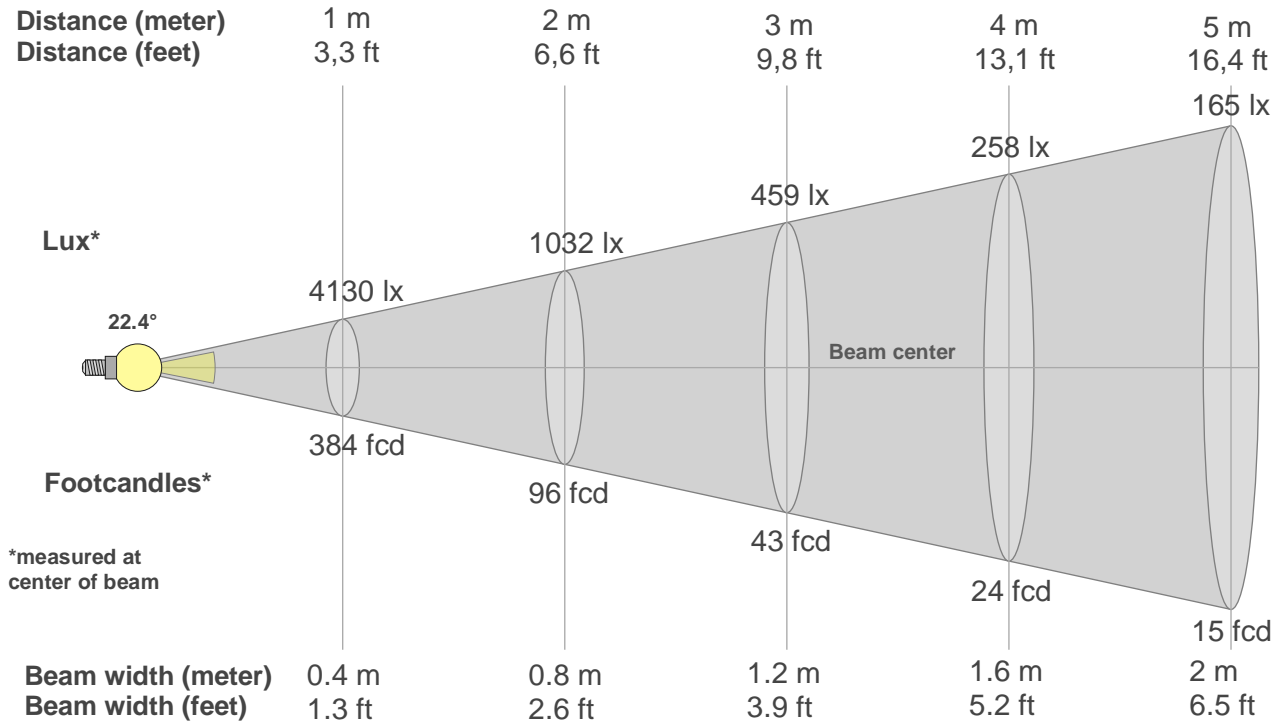
Gammut index R<sub>g</sub>



Hue Bin	R <sub>f</sub>	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%	6%
12	91	3%	4%
13	93	5%	0%
14	91	6%	-4%
15	89	3%	-6%
16	90	0%	-8%



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
4130lx	1032lx	459lx	258lx	165lx	115lx	84lx	65lx	51lx	41lx	34lx	29lx	24lx	21lx	18lx	16lx	14lx	13lx	11lx	10lx
383.7fc	95.9fcd	42.6fcd	24fcd	15.3fcd	10.7fcd	7.8fcd	6fcd	4.7fcd	3.8fcd	3.2fcd	2.7fcd	2.3fcd	2fcd	1.7fcd	1.5fcd	1.3fcd	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°
4130	4039	3805	3409	2904	2341	1814	1359	983	636	326	110	48	36	30	25	20	16	13	9
100%	98%	92%	83%	70%	57%	44%	33%	24%	15%	8%	3%	1%	1%	1%	1%	0%	0%	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°
4130	4048	3810	3411	2907	2344	1817	1360	981	643	331	115	51	38	31	25	21	16	13	9
100%	98%	92%	83%	70%	57%	44%	33%	24%	16%	8%	3%	1%	1%	1%	1%	1%	0%	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°
4130	4039	3805	3409	2904	2341	1814	1359	983	636	326	110	48	36	30	25	20	16	13	9
100%	98%	92%	83%	70%	57%	44%	33%	24%	15%	8%	3%	1%	1%	1%	1%	0%	0%	0%	0%

Intensities in 270° c-plane

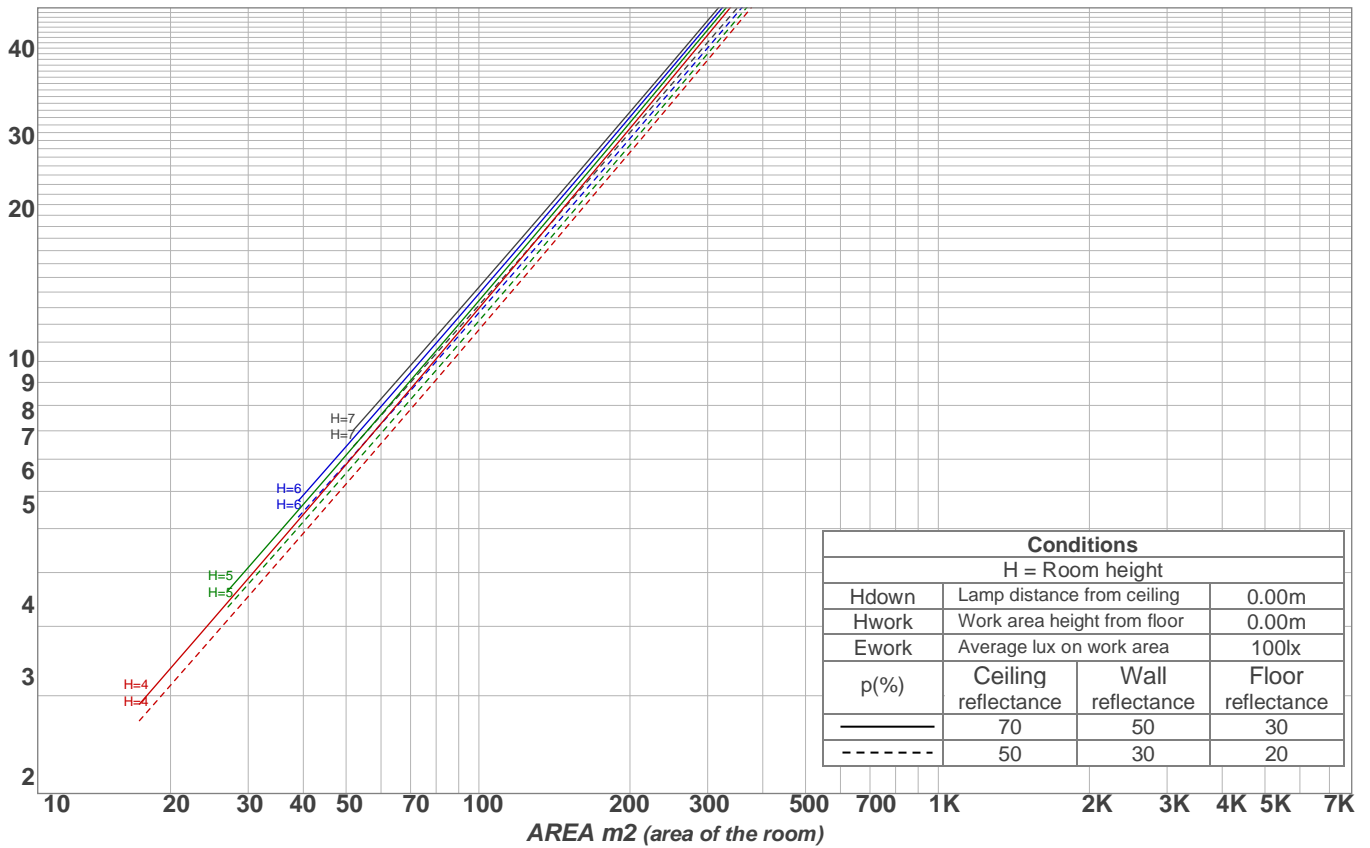
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
4130	4048	3810	3411	2907	2344	1817	1360	981	643	331	115	51	38	31	25	21	16	13	9
100%	98%	92%	83%	70%	57%	44%	33%	24%	16%	8%	3%	1%	1%	1%	1%	1%	0%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22.4°	42.3°	49°	98.9%	98.3%

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
<b>RCR</b>	<b>(RCR: Room Cavity Ratio)</b>																				
	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	
1	115	113	111	109	113	111	109	108	107	106	104	103	102	101	100	99	98	97	97	97	
2	112	108	105	103	109	106	104	102	103	101	99	100	99	97	98	96	95	94	94	94	
3	108	104	100	98	107	103	99	97	100	97	95	98	96	94	96	94	93	91	91	91	
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89	
5	102	97	93	90	101	96	92	90	95	91	89	93	90	88	92	89	88	87	87	87	
6	100	94	90	87	99	93	90	87	92	89	87	91	88	86	90	87	85	84	84	84	
7	97	91	88	85	96	91	87	85	90	87	84	89	86	84	88	85	83	82	82	82	
8	95	89	85	83	94	89	85	82	88	84	82	87	84	82	86	83	82	81	81	81	
9	93	87	83	81	92	86	83	80	86	82	80	85	82	80	84	82	80	79	79	79	
10	91	85	81	79	90	84	81	79	84	81	78	83	80	78	83	80	78	77	77	77	

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
306 lm	336 lm	72.6 lm	8.85 lm	3.08 lm	3.05 lm	3.54 lm	2.49 lm	1.81 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	16.2	16.6	16.3	16.8	17.0	16.0	16.3	16.0	16.5	16.7
	3H	17.7	18.2	18.1	18.4	18.6	18.0	18.5	18.3	18.7	18.8
	4H	18.5	19.0	18.9	19.2	19.5	19.0	19.5	19.4	19.7	20.0
	6H	19.6	20.0	19.9	20.3	20.7	20.2	20.6	20.5	20.9	21.3
	8H	20.2	20.6	20.5	20.9	21.3	20.8	21.2	21.1	21.5	21.9
	12H	20.9	21.3	21.2	21.7	22.1	21.6	22.0	21.9	22.3	22.7
4H	2H	16.8	17.3	17.2	17.5	17.8	16.6	17.1	17.0	17.4	17.6
	3H	18.8	19.1	19.1	19.5	19.9	19.0	19.4	19.3	19.8	20.2
	4H	19.7	20.1	20.1	20.5	21.0	20.1	20.5	20.6	21.0	21.5
	6H	20.9	21.4	21.4	21.7	22.0	21.5	21.9	22.0	22.2	22.6
	8H	21.6	22.0	22.1	22.3	22.7	22.2	22.6	22.7	22.9	23.3
	12H	22.5	22.8	23.0	23.2	23.6	23.1	23.4	23.6	23.8	24.3
8H	4H	20.3	20.7	20.8	21.0	21.4	20.6	21.0	21.1	21.4	21.7
	6H	21.8	22.1	22.3	22.5	23.0	22.3	22.5	22.8	23.0	23.5
	8H	22.8	23.0	23.3	23.5	24.1	23.2	23.4	23.8	24.0	24.6
	12H	23.9	24.0	24.5	24.5	25.1	24.4	24.6	25.0	25.1	25.7
12H	4H	20.4	20.7	20.9	21.1	21.5	20.7	21.0	21.2	21.4	21.9
	6H	22.1	22.3	22.6	22.8	23.5	22.6	22.7	23.1	23.3	23.9
	8H	23.2	23.3	23.8	23.8	24.4	23.6	23.7	24.2	24.2	24.8
Corrected glare indices referring to 737 lm total luminous flux											