

Light efficiency:

68 Lumen/Watt

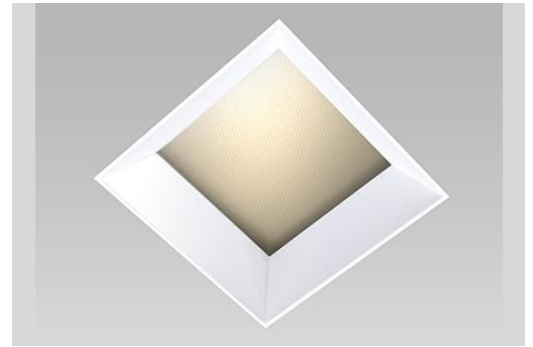
Output: 1455 lm

Light quality:

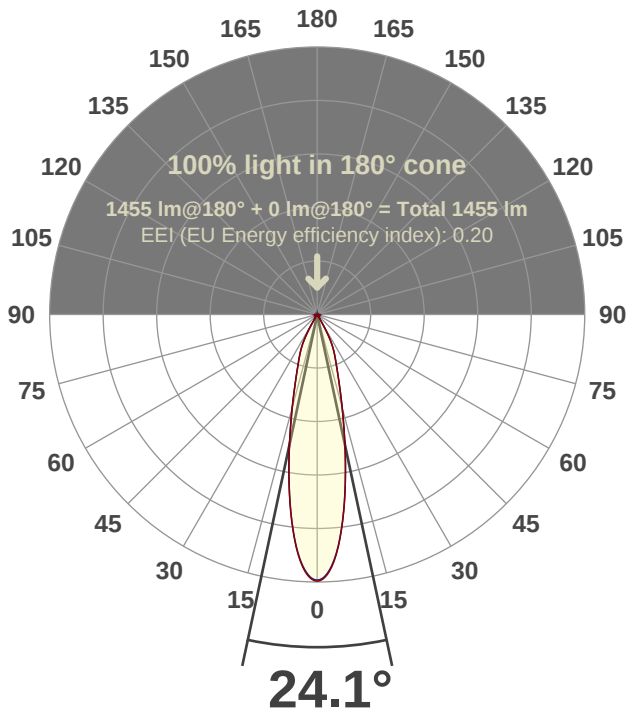
CRI: 92.4

Peak: 5559 cd

Power: 21.3 W



Beam angle



Test number:

CR4D-S-OR-C20-30k-24 (1017-CZ20-NF)

Luminaire Model:

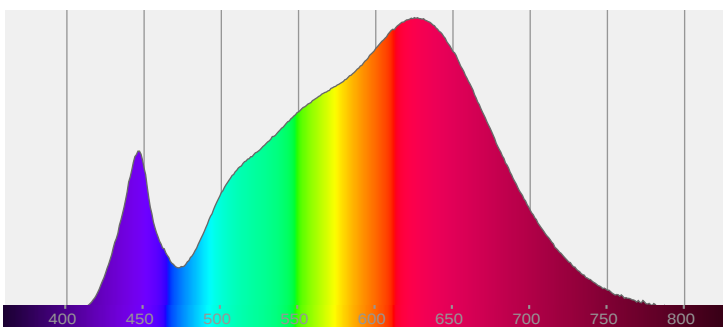
Core 4" Square Open Regress C20 30K 24°

Date and time:

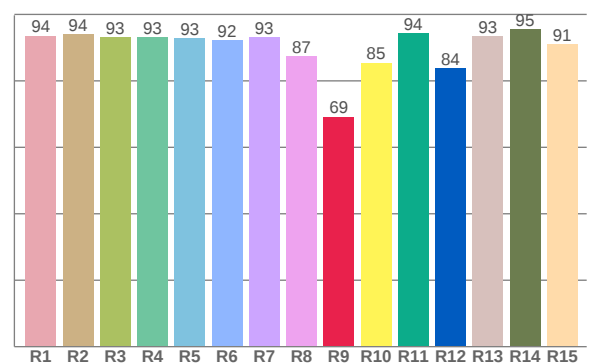
3/31/2017 12:52:28 PM

LUM: 1455

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	69.2	90.3	103.1	90.2	0.429	0.400	0.248	0.346	-0.0007

R_f 90.3

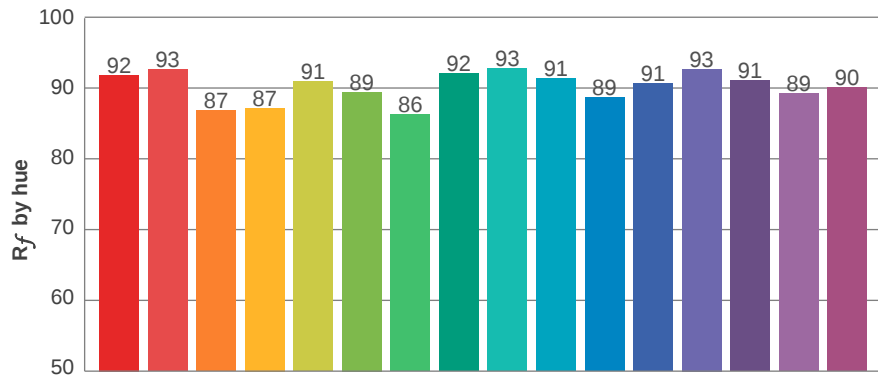
Fidelity index R_f

R_g 103.1

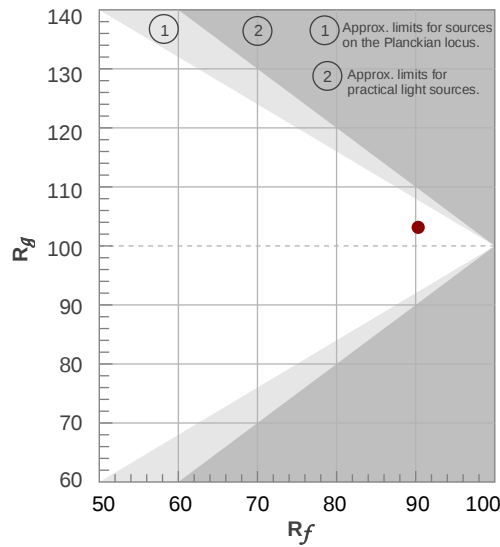
Gammut index R_g

TM30: 90.3

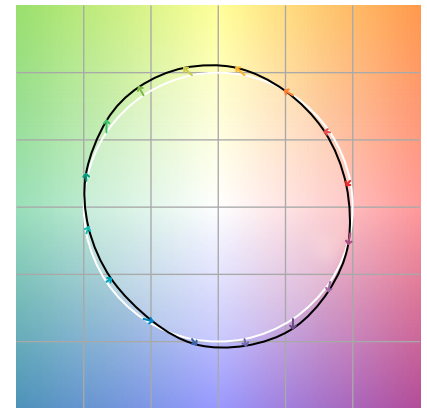
TM-30Color



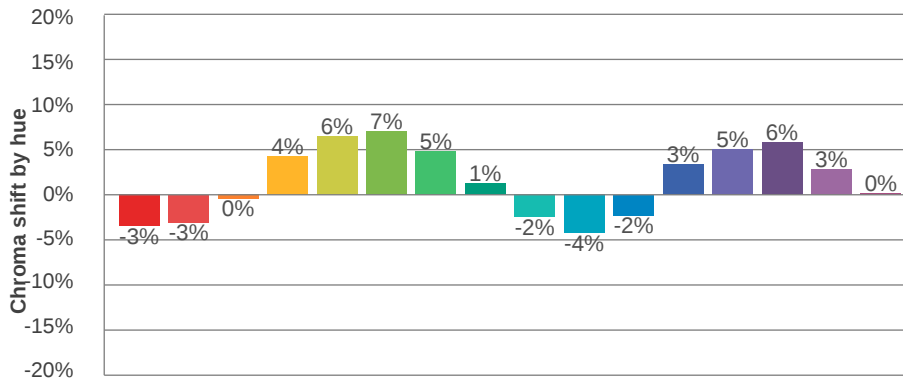
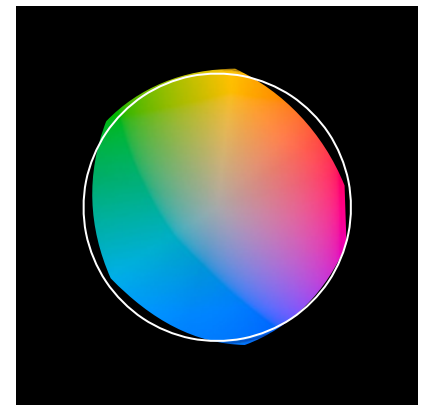
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	92	-3%	-3%
2	93	-3%	3%
3	87	0%	7%
4	87	4%	7%
5	91	6%	5%
6	89	7%	-1%
7	86	5%	-7%
8	92	1%	-5%
9	93	-2%	-4%
10	91	-4%	0%
11	89	-2%	7%
12	91	3%	4%
13	93	5%	0%
14	91	6%	-4%
15	89	3%	-6%
16	90	0%	-8%



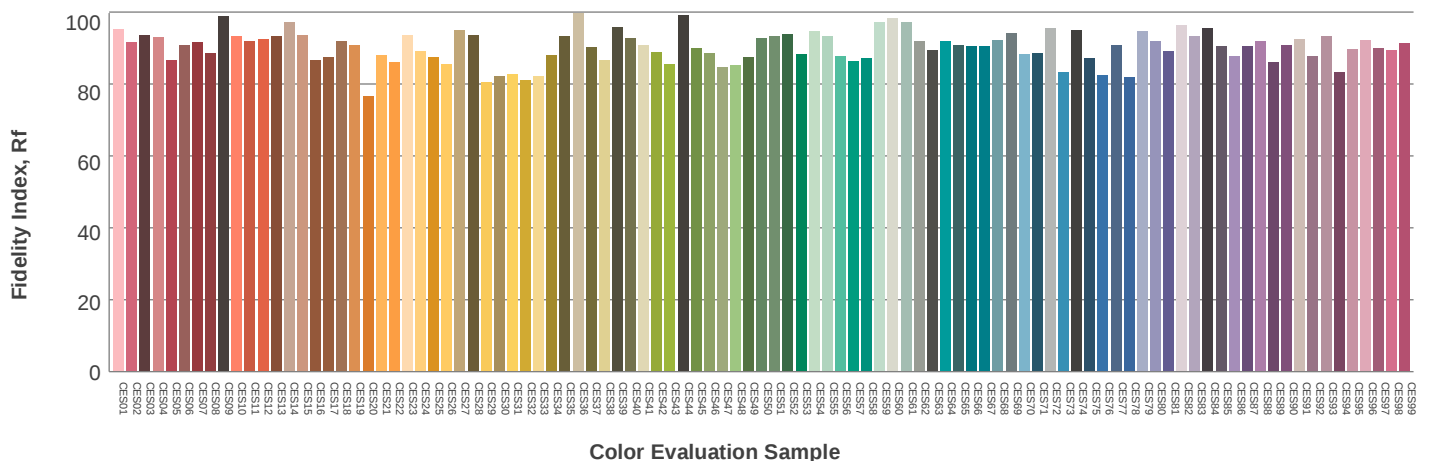
Color vector graphics



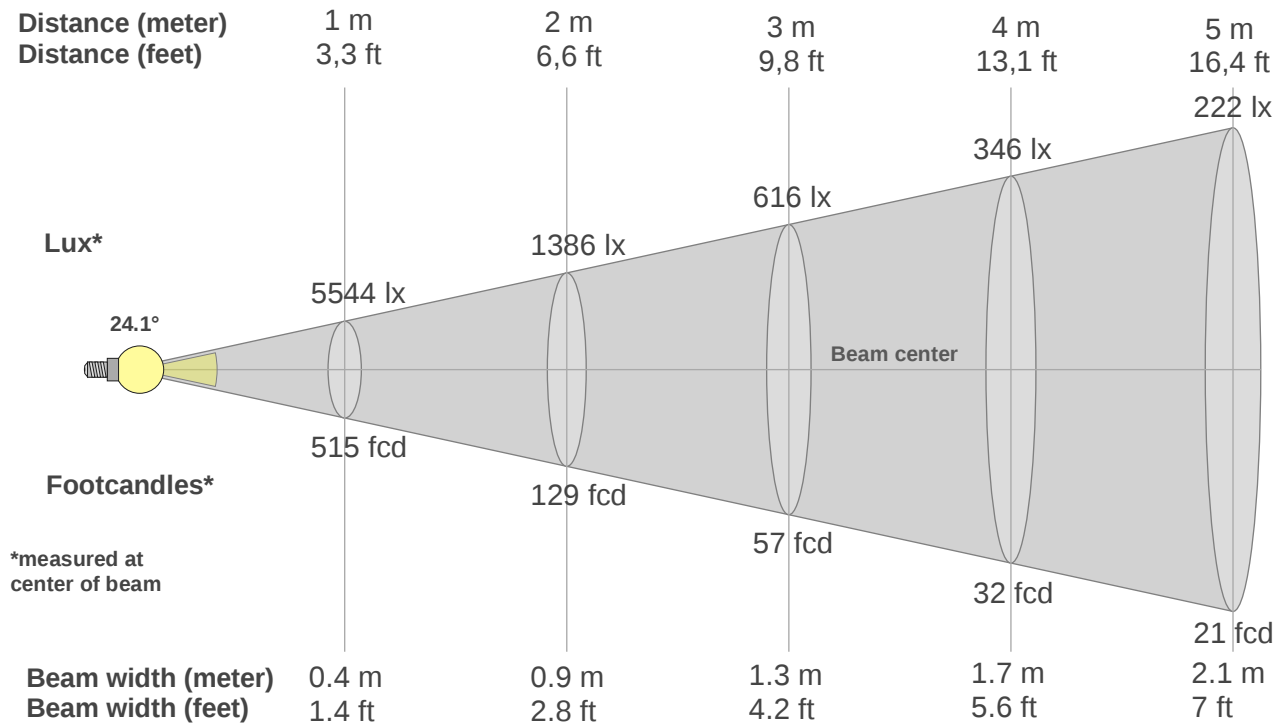
Color distortion



Hue bin



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
5544lx	1386lx	616lx	346lx	222lx	154lx	113lx	87lx	68lx	55lx	46lx	38lx	33lx	28lx	25lx	22lx	19lx	17lx	15lx	14lx
515fcd	128.8fcd	57.2fcd	32.2fcd	20.6fcd	14.3fcd	10.5fcd	8fcd	6.4fcd	5.2fcd	4.3fcd	3.6fcd	3fcd	2.6fcd	2.3fcd	2fcd	1.8fcd	1.6fcd	1.4fcd	1.3fcd

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°
5544	5451	5138	4641	4042	3397	2788	2248	1811	1471	1218	1033	885	729	534	298	104	44	34	27
100%	98%	93%	84%	73%	61%	50%	41%	33%	27%	22%	19%	16%	13%	10%	5%	2%	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°
5544	5426	5116	4629	4031	3396	2795	2256	1818	1473	1216	1027	874	721	524	298	114	46	34	27
100%	98%	92%	84%	73%	61%	50%	41%	33%	27%	22%	19%	16%	13%	9%	5%	2%	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°
5544	5451	5138	4641	4042	3397	2788	2248	1811	1471	1218	1033	885	729	534	298	104	44	34	27
100%	98%	93%	84%	73%	61%	50%	41%	33%	27%	22%	19%	16%	13%	10%	5%	2%	1%	1%	0%

Intensities in 270° c-plane

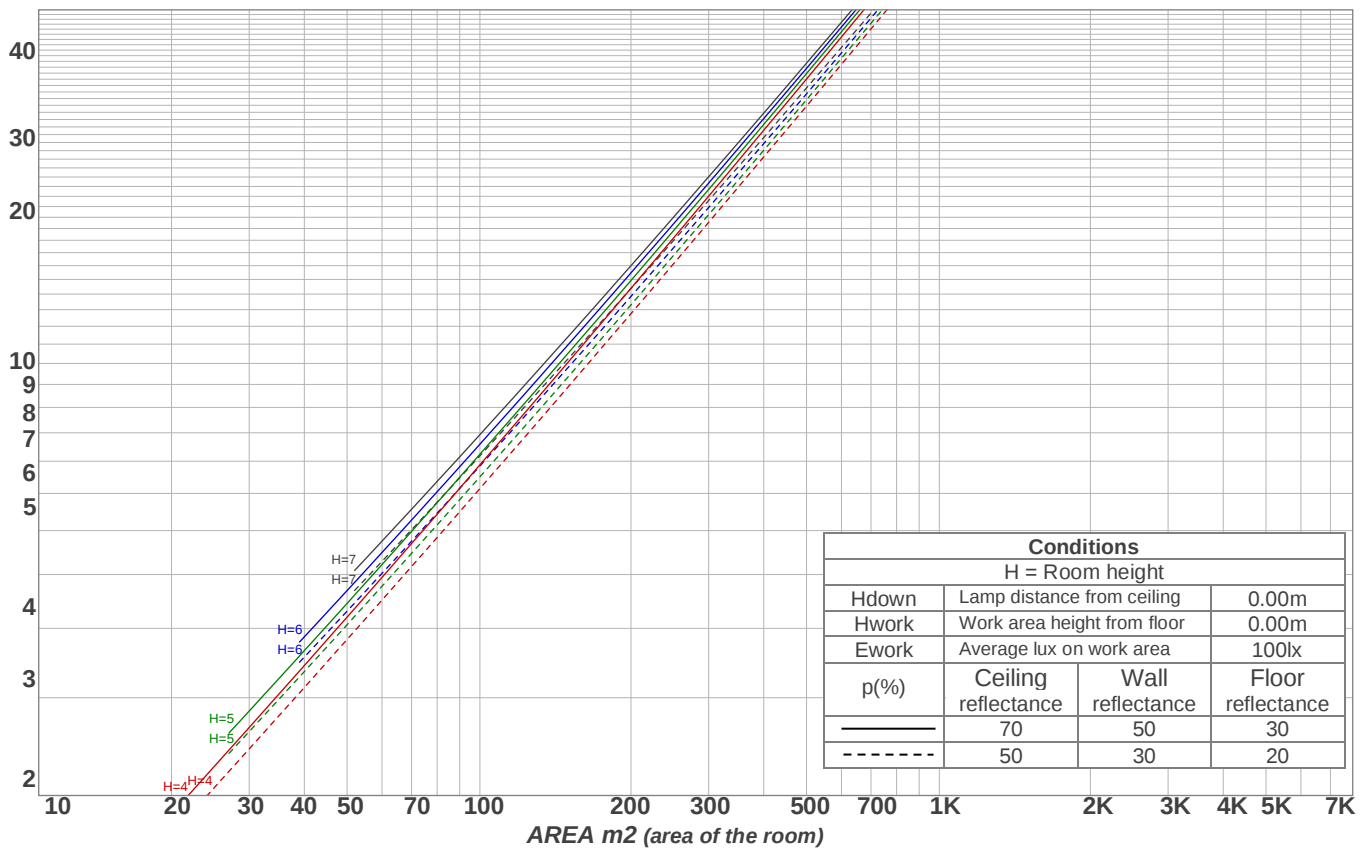
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
5544	5426	5116	4629	4031	3396	2795	2256	1818	1473	1216	1027	874	721	524	298	114	46	34	27
100%	98%	92%	84%	73%	61%	50%	41%	33%	27%	22%	19%	16%	13%	9%	5%	2%	1%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
24.1°	56.9°	67.1°	99.4%	98.6%

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	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	102	102	102	100
1	115	112	110	108	112	110	108	107	106	105	103	103	101	100	99	98	97	96
2	110	106	103	100	108	105	102	99	102	99	97	99	97	95	96	95	93	92
3	106	101	97	94	105	100	96	94	97	95	92	95	93	91	93	91	89	88
4	103	97	92	89	101	96	92	89	94	90	88	92	89	87	90	88	86	84
5	99	93	88	85	98	92	88	84	90	87	84	89	85	83	87	85	82	81
6	96	89	84	81	95	88	84	81	87	83	80	86	82	80	84	82	79	78
7	93	86	81	78	92	85	81	78	84	80	77	83	79	77	82	79	76	75
8	90	82	78	75	89	82	78	75	81	77	74	80	77	74	79	76	74	73
9	87	80	75	72	86	79	75	72	78	74	72	78	74	71	77	74	71	70
10	84	77	72	70	83	77	72	69	76	72	69	75	72	69	75	71	69	68

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
417 lm	566 lm	362 lm	82.0 lm	12.2 lm	6.58 lm	5.28 lm	2.85 lm	1.18 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	22.6	23.1	22.7	23.3	23.5	22.9	23.4	23.0	23.6	23.8
	3H	22.6	23.2	23.0	23.4	23.6	23.0	23.6	23.4	23.8	24.0
	4H	22.7	23.3	23.1	23.5	23.7	23.2	23.8	23.6	24.0	24.2
	6H	22.8	23.3	23.1	23.6	24.0	23.4	23.9	23.7	24.2	24.5
	8H	22.8	23.3	23.1	23.6	24.0	23.4	23.9	23.7	24.2	24.6
	12H	22.8	23.3	23.2	23.6	24.0	23.4	23.9	23.8	24.2	24.7
4H	2H	22.5	23.1	22.9	23.3	23.5	22.8	23.4	23.2	23.6	23.8
	3H	22.8	23.2	23.1	23.6	24.0	23.2	23.7	23.6	24.0	24.4
	4H	22.9	23.3	23.3	23.7	24.2	23.4	23.8	23.8	24.2	24.7
	6H	23.0	23.5	23.5	23.9	24.2	23.6	24.1	24.1	24.4	24.8
	8H	23.1	23.5	23.6	23.8	24.2	23.7	24.1	24.2	24.5	24.8
	12H	23.1	23.4	23.6	23.8	24.3	23.7	24.1	24.2	24.5	24.9
8H	4H	22.9	23.4	23.4	23.7	24.1	23.4	23.9	23.9	24.2	24.6
	6H	23.2	23.5	23.7	23.9	24.5	23.8	24.1	24.3	24.5	25.0
	8H	23.3	23.5	23.8	24.1	24.7	23.9	24.1	24.4	24.7	25.3
	12H	23.4	23.6	24.0	24.1	24.7	24.0	24.2	24.6	24.7	25.3
12H	4H	22.9	23.2	23.4	23.6	24.1	23.4	23.7	23.9	24.1	24.6
	6H	23.3	23.5	23.8	24.0	24.6	23.8	24.0	24.3	24.5	25.2
	8H	23.3	23.5	23.9	24.0	24.6	23.9	24.1	24.5	24.6	25.2
Corrected glare indices referring to 1455 lm total luminous flux											