

Light efficiency:

67 Lumen/Watt

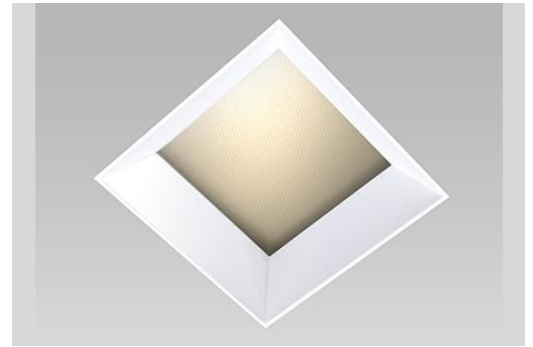
Output: 1411 lm

Light quality:

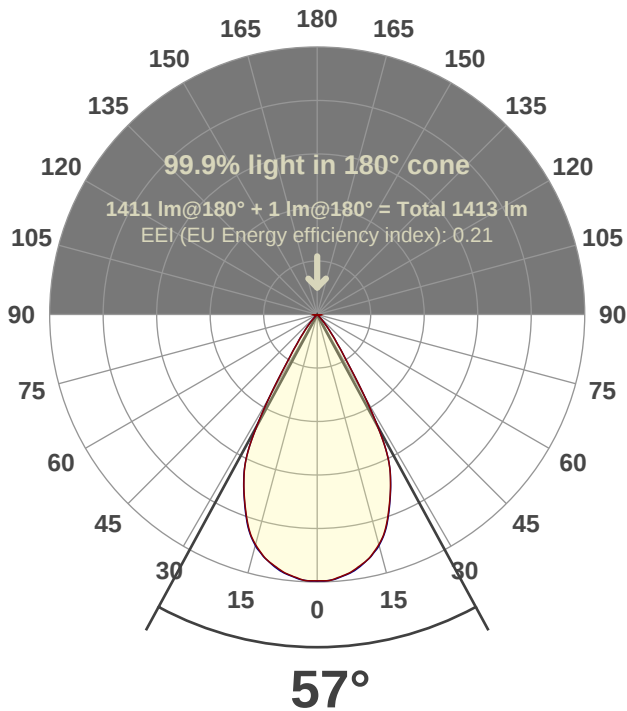
CRI: 92.4

Peak: 1810 cd

Power: 21.1 W



Beam angle



Test number:

CR4D-S-OR-C20-30k-55 (1017-CZ20-WF)

Luminaire Model:

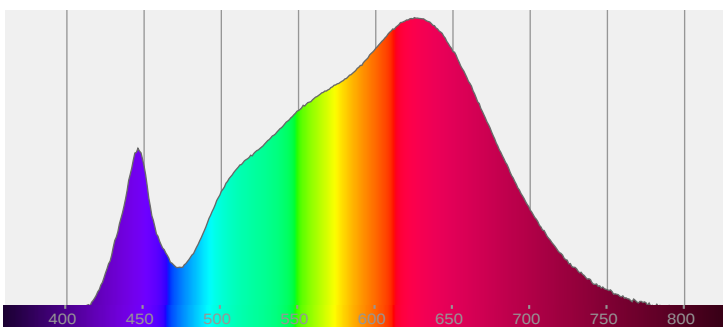
Core 4" Square Open Regress C20 30K 55°

Date and time:

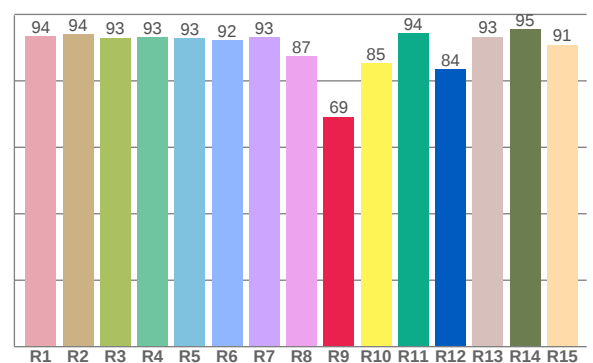
3/31/2017 2:11:34 PM

LUM: 1411

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	0.247	0.346	-0.0005

R_f 90.3

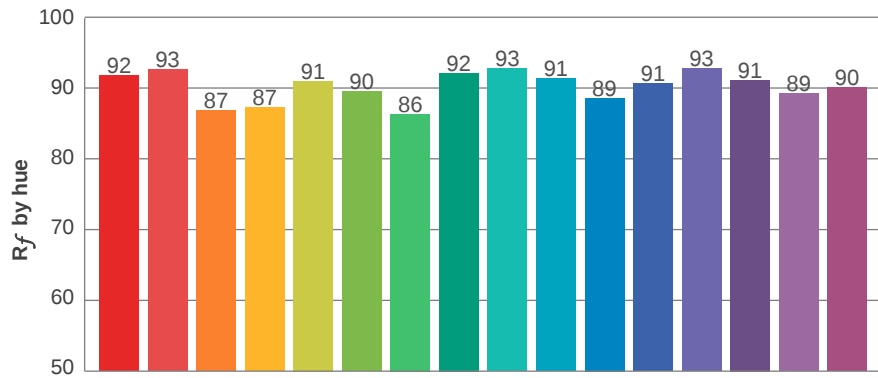
Fidelity index R_f

R_g 103.1

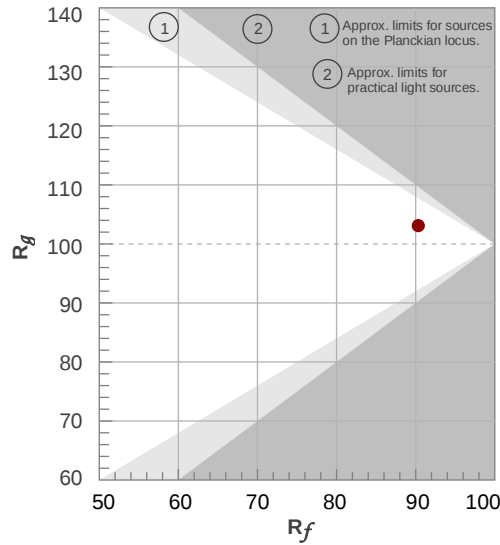
Gamut index R_g

TM30: 90.3

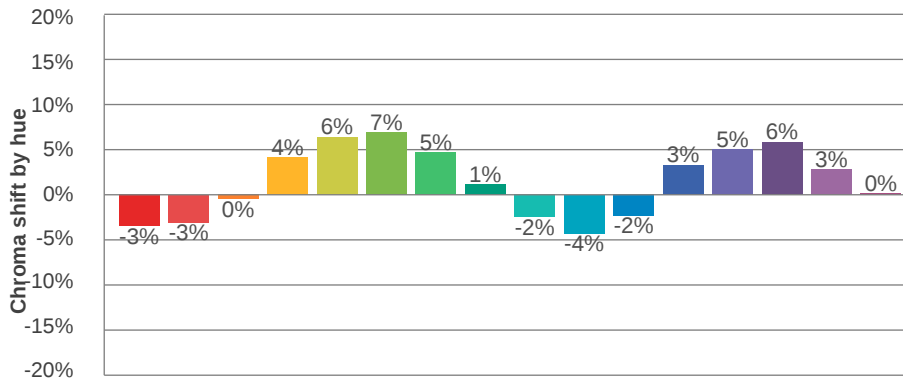
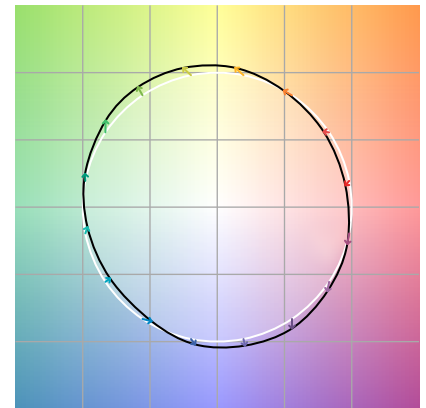
TM-30Color



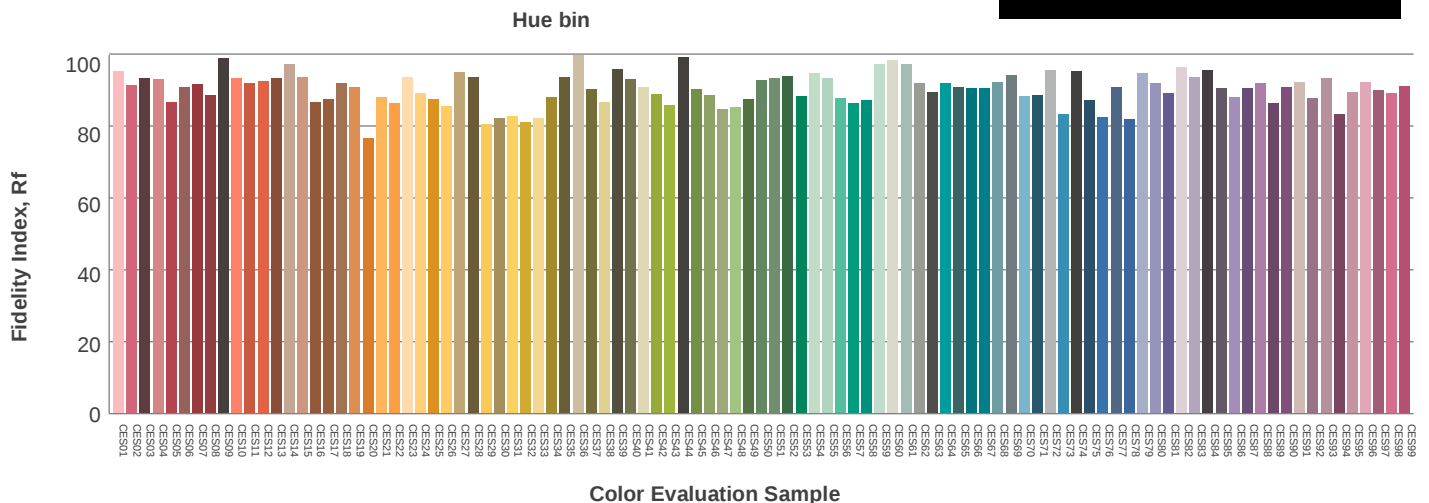
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	92	-3%	-3%
2	93	-3%	3%
3	87	0%	7%
4	87	4%	7%
5	91	6%	5%
6	90	7%	-1%
7	86	5%	-7%
8	92	1%	-5%
9	93	-2%	-4%
10	91	-4%	0%
11	89	-2%	7%
12	91	3%	4%
13	93	5%	0%
14	91	6%	-4%
15	89	3%	-6%
16	90	0%	-8%



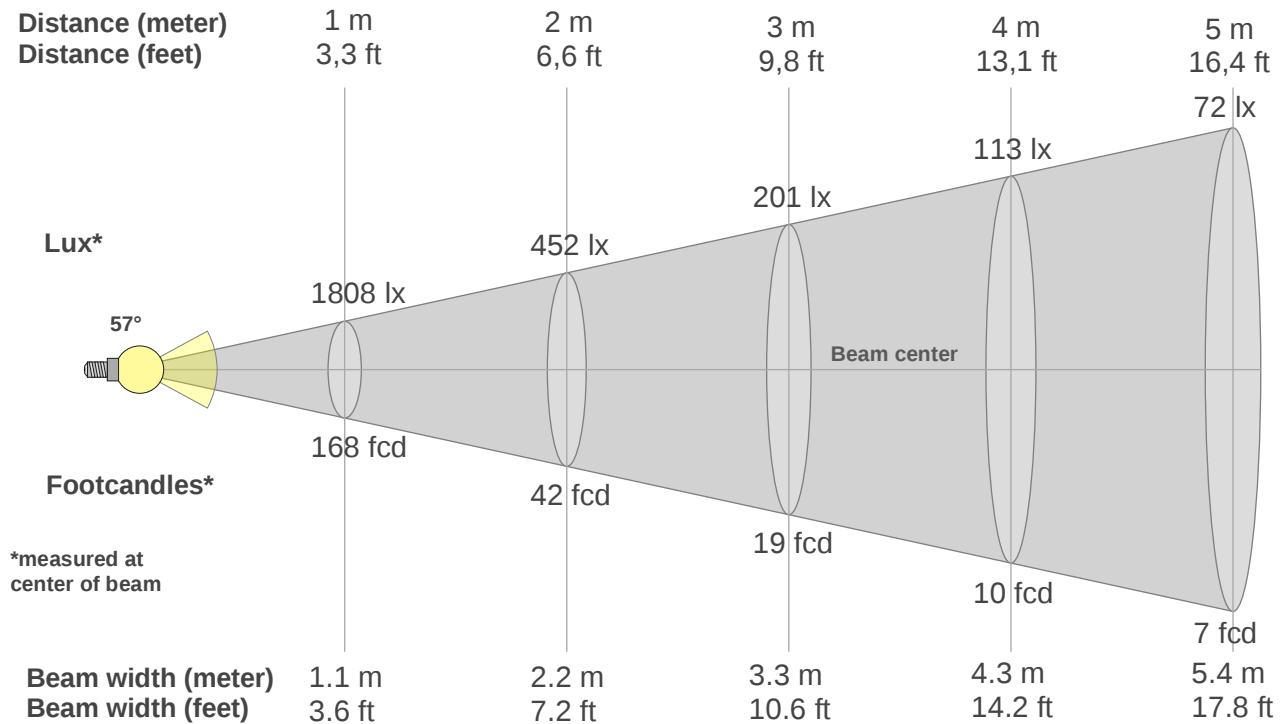
Color vector graphics



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
1808lx	452lx	201lx	113lx	72lx	50lx	37lx	28lx	22lx	18lx	15lx	13lx	11lx	9lx	8lx	7lx	6lx	6lx	5lx	5lx
168fcd	42fcd	18.7fcd	10.5fcd	6.7fcd	4.7fcd	3.4fcd	2.6fcd	2.1fcd	1.7fcd	1.4fcd	1.2fcd	1fcd	0.9fcd	0.7fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd

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°
1808	1806	1794	1776	1753	1723	1690	1642	1586	1512	1419	1323	1224	1111	922	670	427	291	204	142
100%	100%	99%	98%	97%	95%	93%	91%	88%	84%	78%	73%	68%	61%	51%	37%	24%	16%	11%	8%

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°
1808	1806	1797	1779	1759	1727	1691	1647	1591	1518	1425	1327	1227	1110	923	665	419	288	204	141
100%	100%	99%	98%	97%	96%	94%	91%	88%	84%	79%	73%	68%	61%	51%	37%	23%	16%	11%	8%

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°
1808	1806	1794	1776	1753	1723	1690	1642	1586	1512	1419	1323	1224	1111	922	670	427	291	204	142
100%	100%	99%	98%	97%	95%	93%	91%	88%	84%	78%	73%	68%	61%	51%	37%	24%	16%	11%	8%

Intensities in 270° c-plane

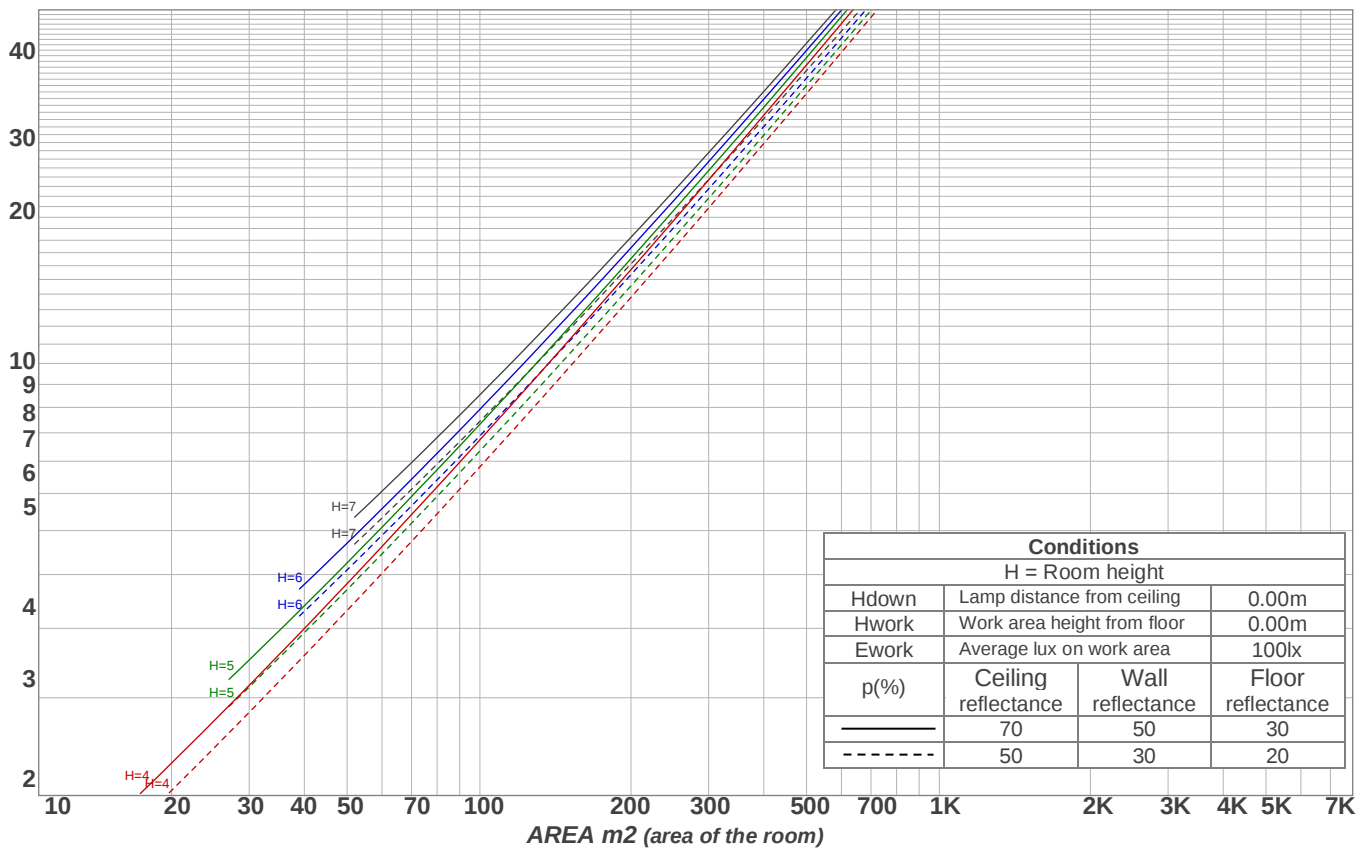
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1808	1806	1797	1779	1759	1727	1691	1647	1591	1518	1425	1327	1227	1110	923	665	419	288	204	141
100%	100%	99%	98%	97%	96%	94%	91%	88%	84%	79%	73%	68%	61%	51%	37%	23%	16%	11%	8%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
57°	76°	89,4°	99.3%	97.9%

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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88
3	103	97	93	89	102	96	92	88	93	90	87	91	88	86	89	86	84	83
4	99	92	86	82	97	90	86	82	88	84	81	86	83	80	85	82	79	78
5	94	86	81	77	93	85	80	76	84	79	76	82	78	75	80	77	74	73
6	90	81	76	72	88	81	75	71	79	74	71	78	74	71	76	73	70	69
7	86	77	71	67	84	76	71	67	75	70	67	74	70	66	73	69	66	65
8	82	73	67	63	81	72	67	63	71	66	63	70	66	63	69	65	62	61
9	78	69	64	60	77	69	63	60	68	63	59	67	62	59	66	62	59	58
10	75	66	60	57	74	65	60	56	64	60	56	64	59	56	63	59	56	55

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
169 lm	450 lm	519 lm	216 lm	40.3 lm	9.13 lm	4.94 lm	2.83 lm	1.06 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	30.3	30.9	30.4	31.1	31.3	30.3	30.9	30.4	31.1	31.3
	3H	30.1	30.8	30.4	31.0	31.2	30.0	30.8	30.4	31.0	31.1
	4H	30.0	30.7	30.4	30.9	31.2	30.0	30.7	30.4	30.9	31.2
	6H	30.0	30.6	30.3	30.9	31.2	30.0	30.6	30.3	30.9	31.2
	8H	30.0	30.5	30.3	30.9	31.2	30.0	30.5	30.3	30.9	31.2
	12H	29.9	30.5	30.3	30.8	31.2	29.9	30.5	30.3	30.8	31.2
4H	2H	30.0	30.7	30.4	30.9	31.1	29.9	30.6	30.3	30.9	31.1
	3H	29.9	30.5	30.3	30.8	31.2	29.9	30.4	30.2	30.8	31.2
	4H	29.8	30.3	30.2	30.7	31.2	29.8	30.3	30.2	30.7	31.2
	6H	29.8	30.3	30.3	30.6	31.0	29.8	30.3	30.3	30.6	31.0
	8H	29.7	30.2	30.2	30.5	30.9	29.7	30.2	30.3	30.6	30.9
	12H	29.7	30.0	30.2	30.4	30.9	29.7	30.1	30.2	30.5	30.9
8H	4H	29.7	30.2	30.2	30.5	30.9	29.7	30.2	30.2	30.5	30.9
	6H	29.7	30.0	30.2	30.5	31.0	29.7	30.0	30.2	30.5	31.0
	8H	29.7	29.9	30.2	30.5	31.1	29.7	30.0	30.2	30.5	31.1
	12H	29.6	29.9	30.2	30.4	31.0	29.7	29.9	30.3	30.4	31.0
12H	4H	29.6	30.0	30.1	30.4	30.9	29.6	30.0	30.1	30.4	30.9
	6H	29.7	29.9	30.2	30.5	31.1	29.7	30.0	30.2	30.5	31.1
	8H	29.6	29.8	30.2	30.4	31.0	29.7	29.9	30.3	30.4	31.0
Corrected glare indices referring to 1411 lm total luminous flux											