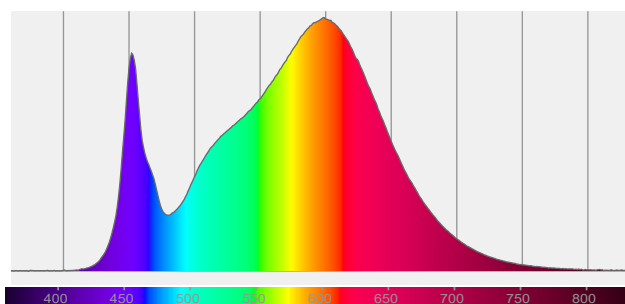
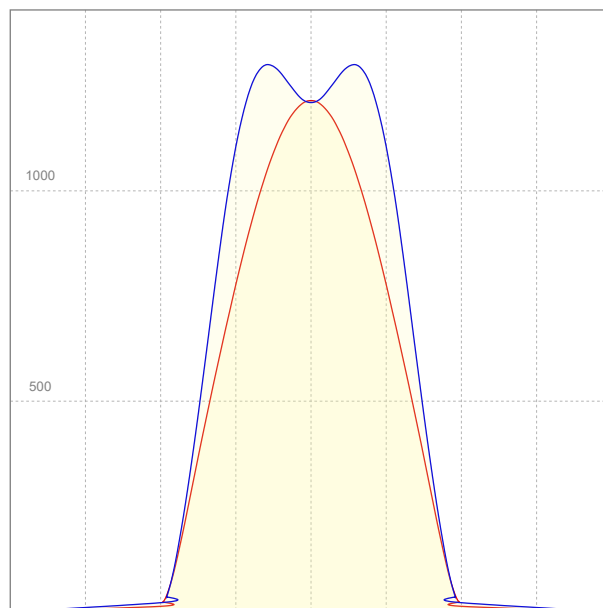
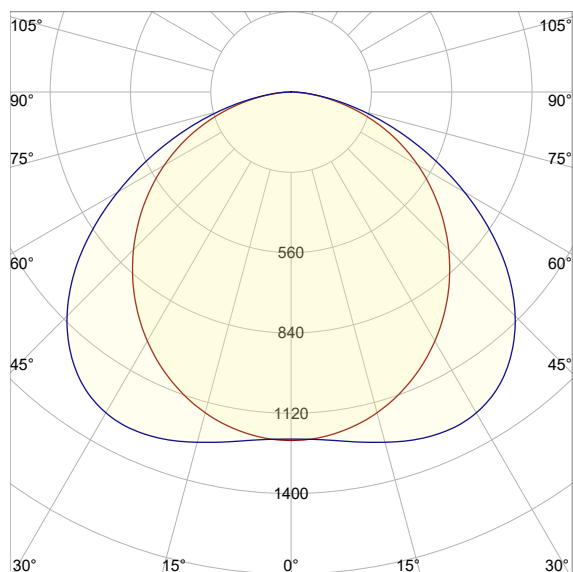
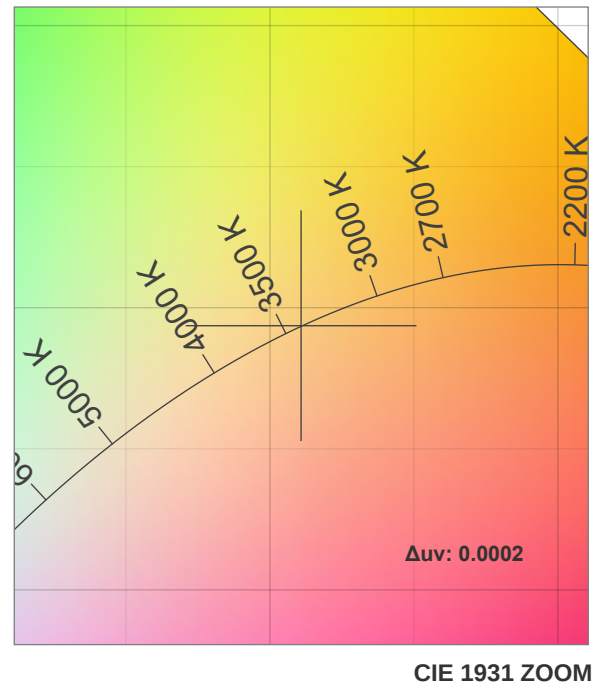
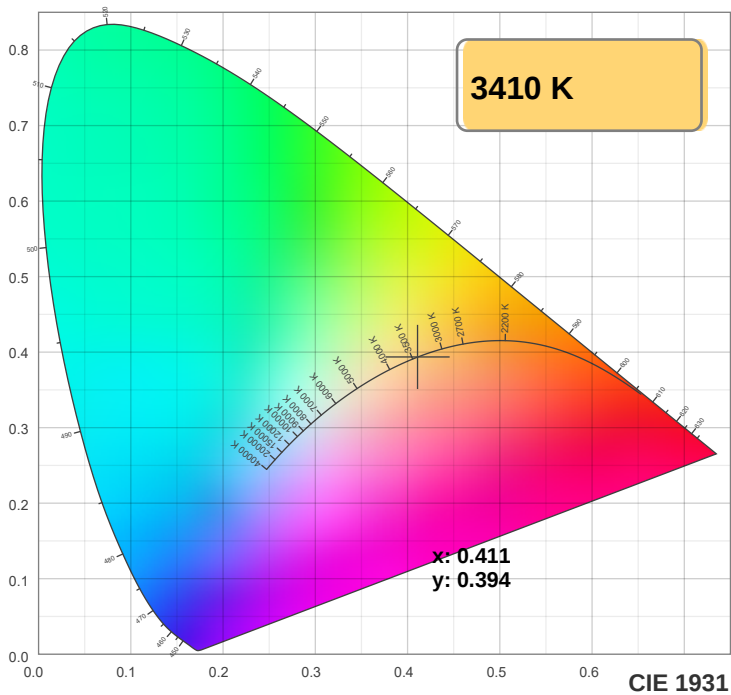


MICROSquare Batwing 60°**MSQ140****Light efficiency:****137 Lumen/Watt****Output: 4000 lm****Light quality:****CRI: 81.7****Peak: 1300 cd****Color temperature:****3410 K****Power: 29.1 W****PF: 1.0**

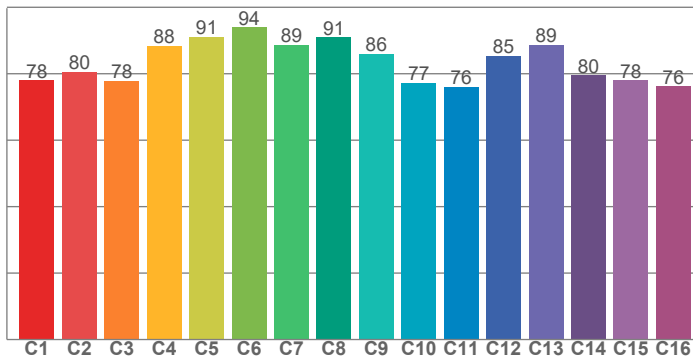
No photo

**Product name:****MICROSquare Batwing 60°****Item number:****MSQ140****Configuration:****MSQ140-4FT-3580-AL-DB60-1000LPF****Date and time:****8/9/2021 9:19:01 AM****Description:****Power Supply @ 770mA, No Lenticular**

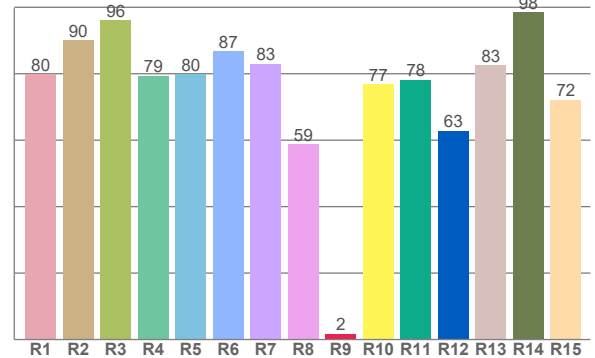
Color Details



TM-30: 83.2



CRI: 81.7 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
79.9	90.1	96.1	79.4	79.8	86.7	83.0	58.9	1.8	76.9	78.2	62.8	82.6	98.4	72.1

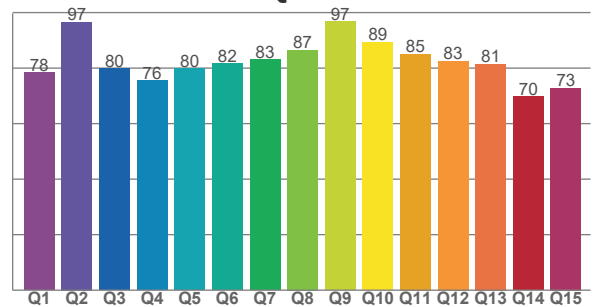
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
78.0	80.5	77.8	88.3	91.2	93.9	88.6	90.9	86.0	77.2	76.0	85.3	88.8	79.6	78.1	76.2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
78.5	96.6	79.9	75.6	79.9	81.7	83.0	86.5	96.8	89.3	85.1	82.6	81.5	69.7	72.9

CQS: 81.1



Color parameters

Color temperature	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
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3410 K	81.7	1.8	83.2	94.7	81.1	0.411	0.394	0.238	0.342	0.0002

TM-30 Details

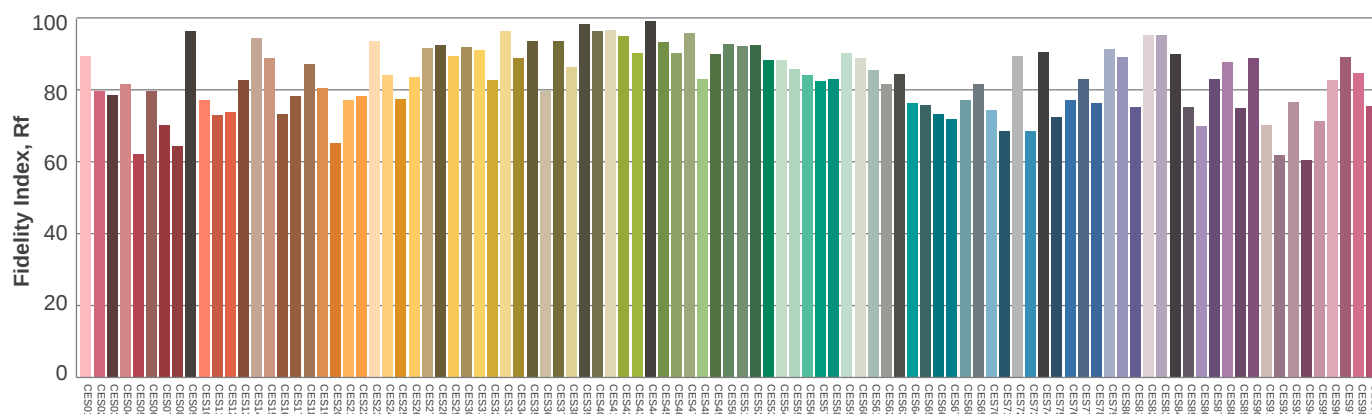
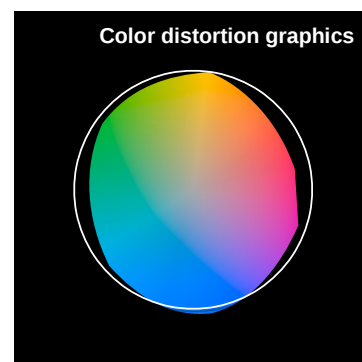
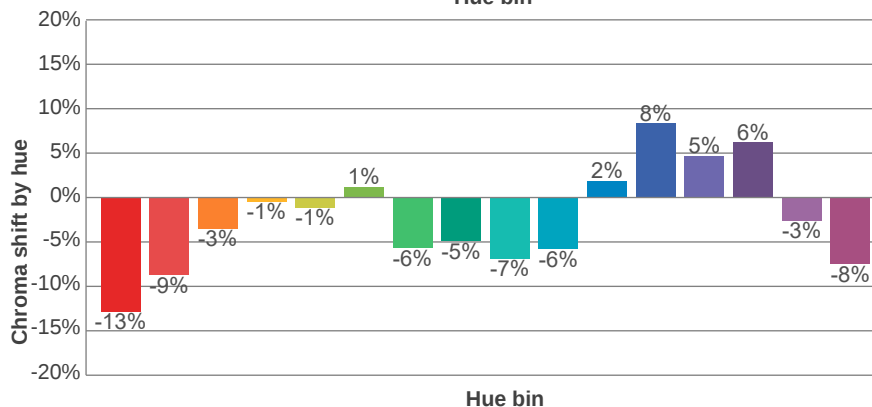
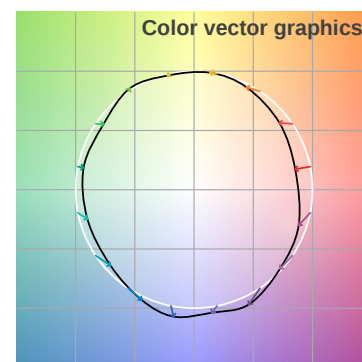
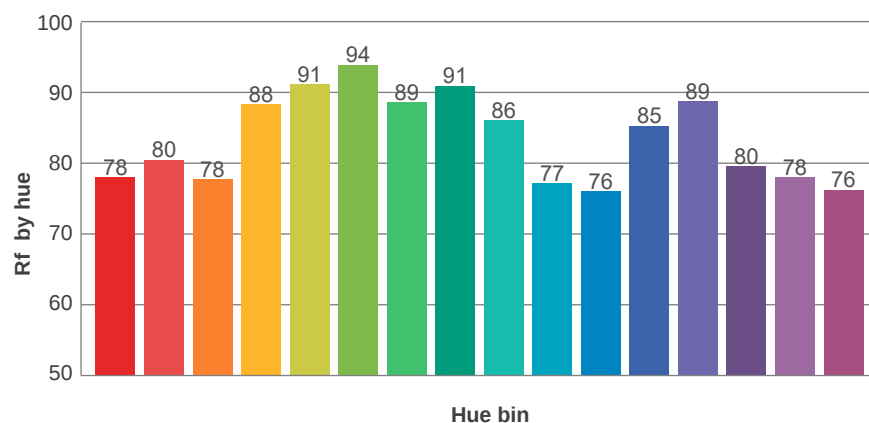
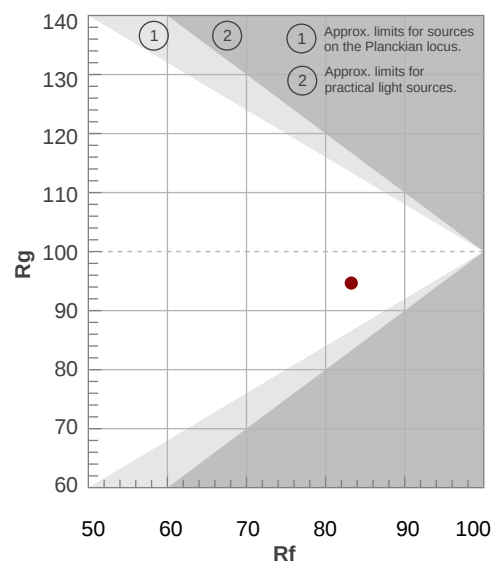
Rf 83.2

Fidelity index Rf

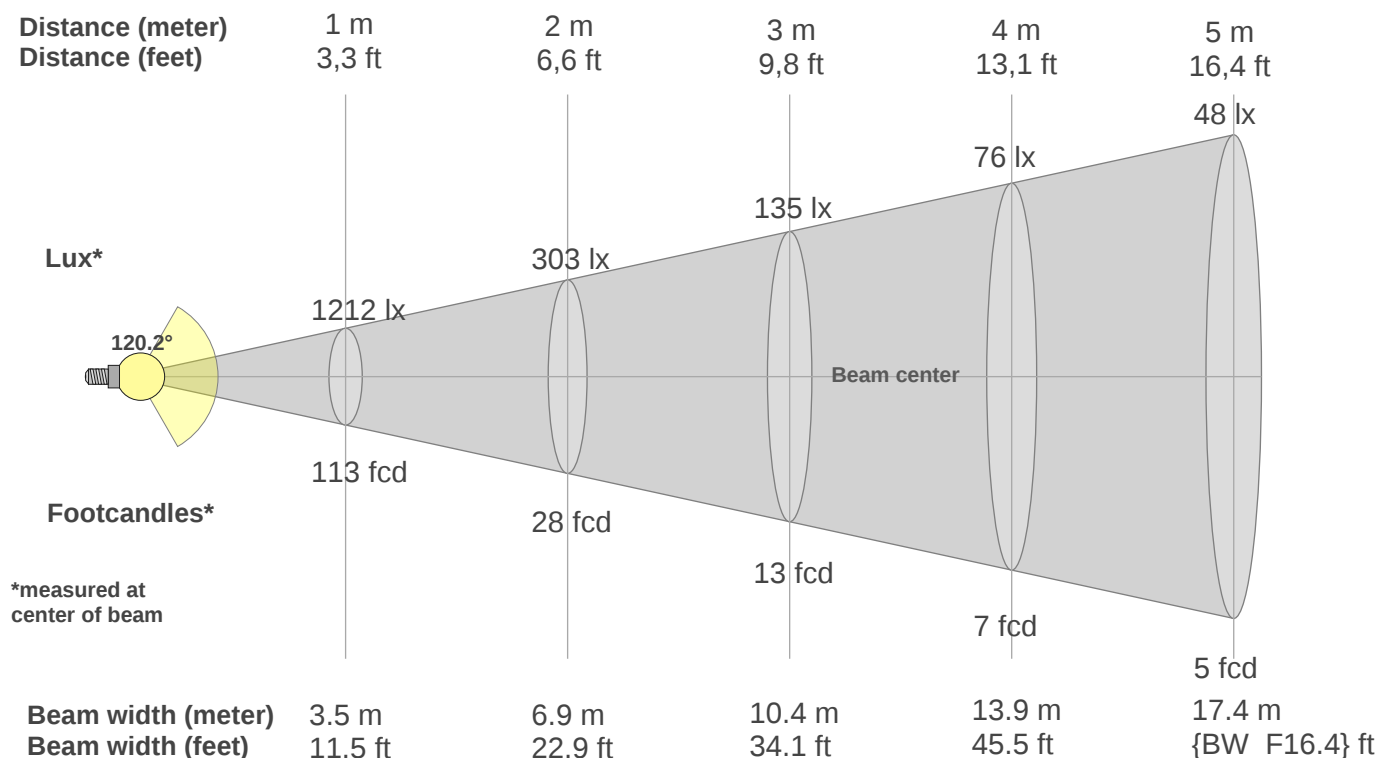
Rg 94.7

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	78	-13%	0%
2	80	-9%	7%
3	78	-3%	11%
4	88	-1%	6%
5	91	-1%	3%
6	94	1%	-2%
7	89	-6%	-4%
8	91	-5%	0%
9	86	-7%	7%
10	77	-6%	14%
11	76	2%	15%
12	85	8%	4%
13	89	5%	-6%
14	80	6%	-15%
15	78	-3%	-15%
16	76	-8%	-12%



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
1212lx	303lx	135lx	76lx	48lx	34lx	25lx	19lx	15lx	12lx	10lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx
112.6fcd	28.2fcd	12.5fcd	7fcd	4.5fcd	3.1fcd	2.3fcd	1.8fcd	1.4fcd	1.1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
1212	1208	1188	1157	1115	1063	1002	933	858	777	691	602	510	416	318	221	129	54	12	12
100%	100%	98%	95%	92%	88%	83%	77%	71%	64%	57%	50%	42%	34%	26%	18%	11%	4%	1%	1%

Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
1212	1217	1238	1264	1288	1299	1291	1256	1193	1104	988	849	698	544	396	261	143	52	21	20
100%	100%	102%	104%	106%	107%	106%	104%	98%	91%	82%	70%	58%	45%	33%	22%	12%	4%	2%	2%

Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
1212	1208	1188	1157	1115	1063	1002	933	858	777	691	602	510	416	318	221	129	54	12	12
100%	100%	98%	95%	92%	88%	83%	77%	71%	64%	57%	50%	42%	34%	26%	18%	11%	4%	1%	1%

Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
1212	1217	1238	1264	1288	1299	1291	1256	1193	1104	988	849	698	544	396	261	143	52	21	20
100%	100%	102%	104%	106%	107%	106%	104%	98%	91%	82%	70%	58%	45%	33%	22%	12%	4%	2%	2%

UGR

Glare evaluation according to 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	24.0	25.2	24.2	25.6	25.8	25.5	26.7	25.7	27.1	27.3
	3H	25.4	26.6	25.8	26.9	27.1	26.8	28.1	27.2	28.4	28.6
	4H	25.9	27.2	26.3	27.4	27.7	27.3	28.6	27.7	28.8	29.1
	6H	26.4	27.5	26.7	27.7	28.1	27.7	28.8	28.0	29.1	29.4
	8H	26.5	27.5	26.8	27.9	28.3	27.8	28.8	28.1	29.1	29.6
	12H	26.6	27.6	26.9	27.9	28.4	27.8	28.8	28.2	29.2	29.6
4H	2H	24.8	26.1	25.3	26.3	26.6	26.0	27.2	26.4	27.5	27.7
	3H	26.5	27.5	26.9	27.9	28.3	27.6	28.7	28.0	29.0	29.4
	4H	27.1	28.0	27.6	28.5	29.0	28.2	29.1	28.7	29.6	30.1
	6H	27.6	28.5	28.1	28.8	29.2	28.6	29.5	29.1	29.9	30.3
	8H	27.8	28.6	28.3	28.9	29.3	28.8	29.6	29.3	29.9	30.3
	12H	27.8	28.5	28.3	28.9	29.4	28.8	29.5	29.3	29.9	30.4
8H	4H	27.5	28.3	28.0	28.6	29.0	28.4	29.3	29.0	29.6	30.0
	6H	28.1	28.7	28.6	29.2	29.7	29.0	29.6	29.5	30.1	30.7
	8H	28.4	28.9	28.9	29.4	30.1	29.2	29.8	29.7	30.3	30.9
	12H	28.5	29.0	29.1	29.5	30.1	29.4	29.8	29.9	30.3	30.9
12H	4H	27.5	28.2	28.0	28.6	29.1	28.4	29.1	28.9	29.5	30.0
	6H	28.2	28.7	28.7	29.3	29.9	29.1	29.6	29.6	30.1	30.8
	8H	28.5	28.9	29.0	29.4	30.0	29.3	29.8	29.9	30.3	30.9
Variation of the observer position for the luminaire distance S											
S = 1.0H		0.1 / -0.1					0.1 / -0.1				
S = 1.5H		0.2 / -0.3					0.2 / -0.3				
S = 2.0H		0.4 / -0.7					0.6 / -0.6				
CIE 117-1995. Corrected glare indices referring to 4000 lm total luminous flux											