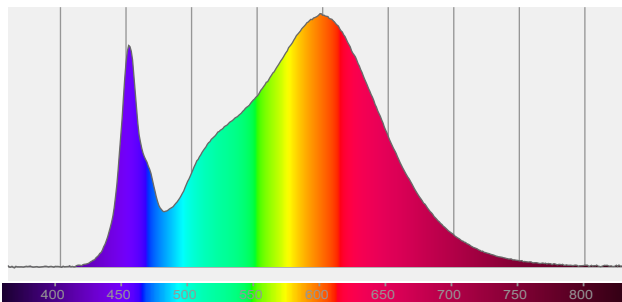
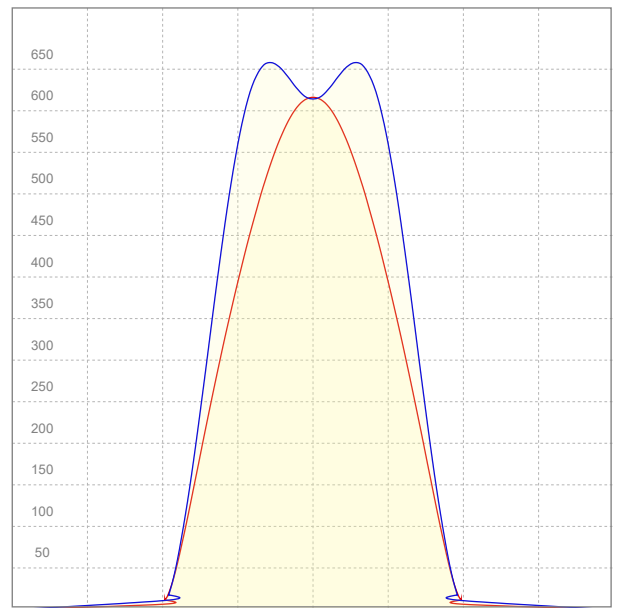
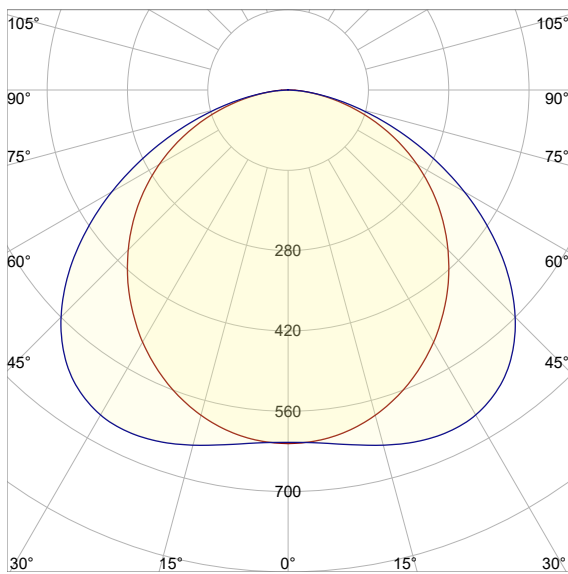
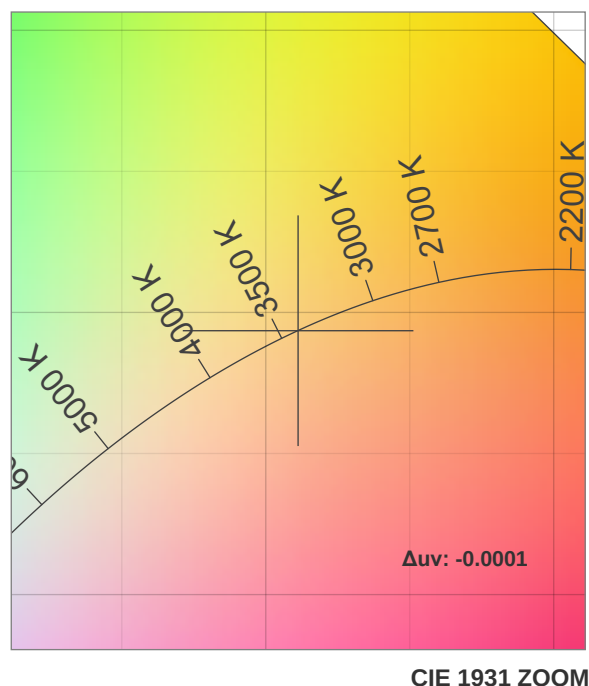
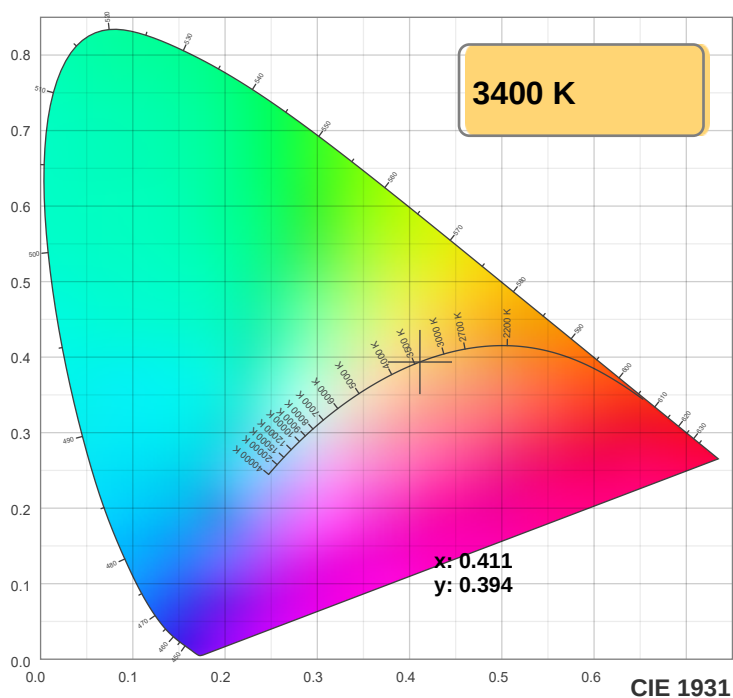


MICROSquare Batwing 60°**MSQ140****Light efficiency:****143 Lumen/Watt****Output: 2027 lm****Light quality:****CRI: 82.0****Peak: 658 cd****Color temperature:****3400 K****Power: 14.1 W****PF: 1.0**

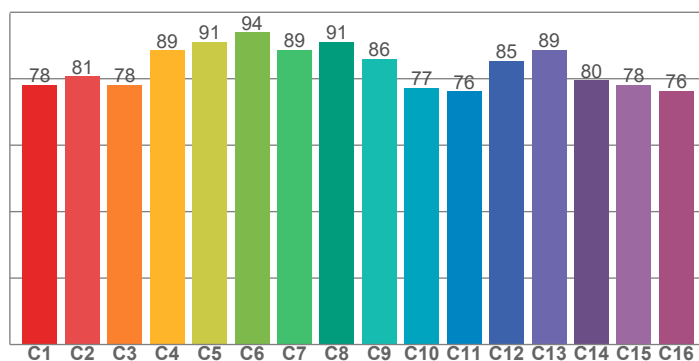
No photo

**Product name:****MICROSquare Batwing 60°****Item number:****MSQ140****Configuration:****MSQ140-4FT-3580-AL-DB60-500LPF****Date and time:****8/9/2021 9:10:56 AM****Description:****Power Supply @ 390mA, No Lenticular**

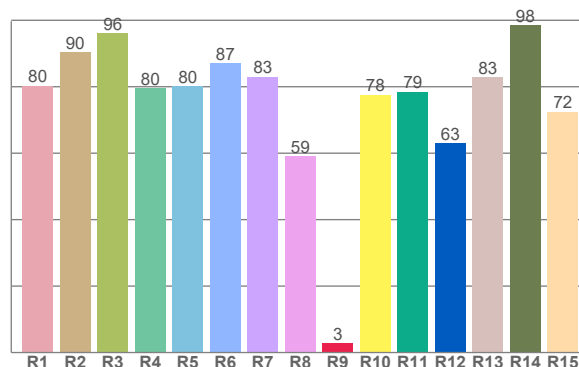
Color Details



TM-30: 83.3



CRI: 82.0 (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
80.3	90.4	96.1	79.6	80.2	87.2	83.0	59.1	2.7	77.6	78.5	63.0	82.9	98.5	72.5

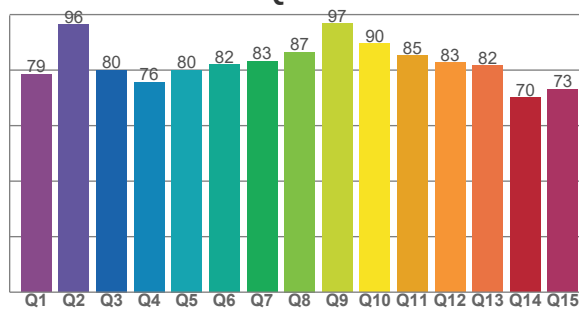
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
78.2	80.7	78.1	88.5	91.2	94.0	88.7	91.0	86.0	77.2	76.2	85.3	88.7	79.5	78.1	76.3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
78.5	96.4	80.0	75.7	80.0	81.9	83.2	86.6	96.8	89.5	85.3	82.8	81.7	70.0	73.1

CQS: 81.3



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
3400 K	82.0	2.7	83.3	94.7	81.3	0.411	0.394	0.238	0.342	-0.0001

TM-30 Details

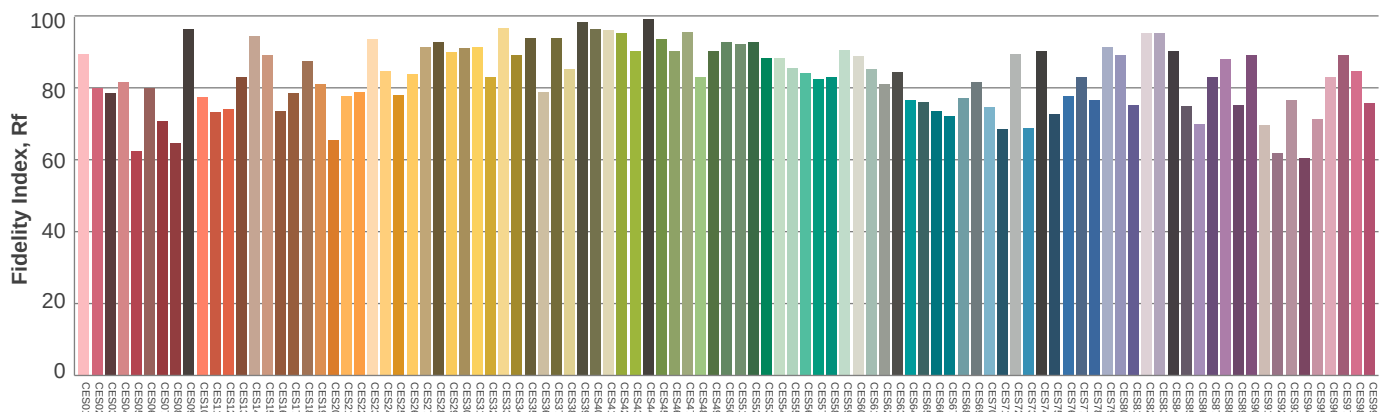
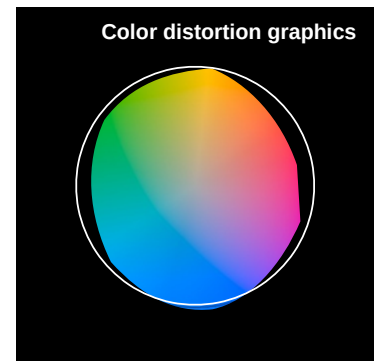
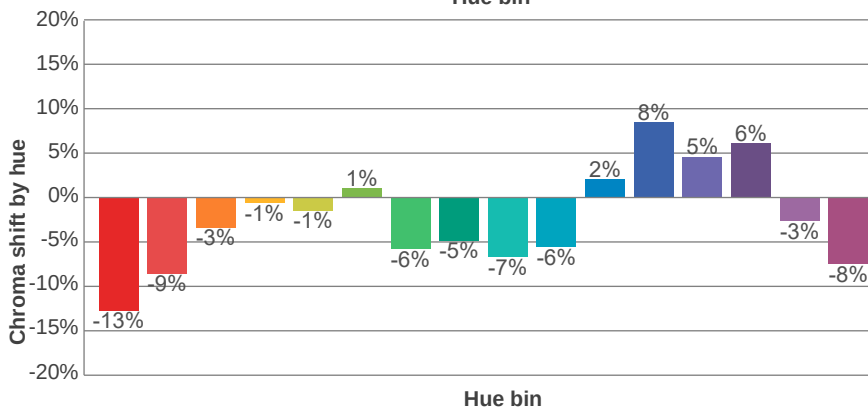
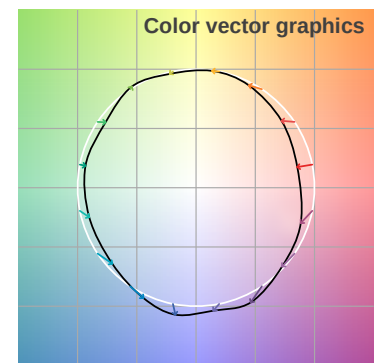
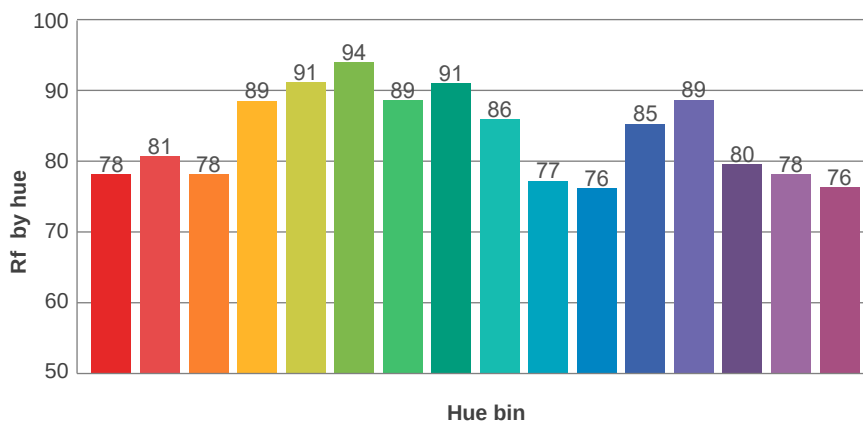
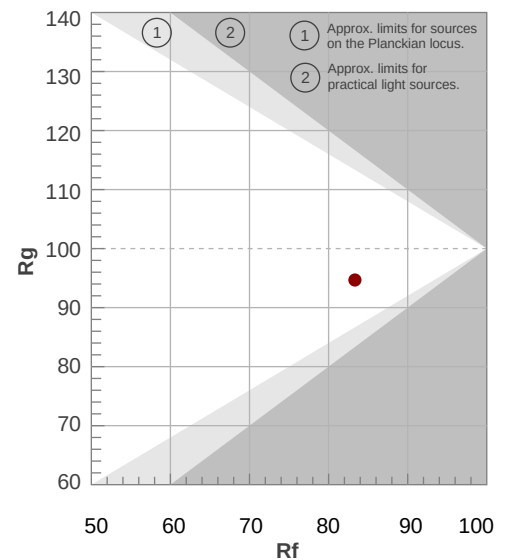
Rf 83.3

Fidelity index Rf

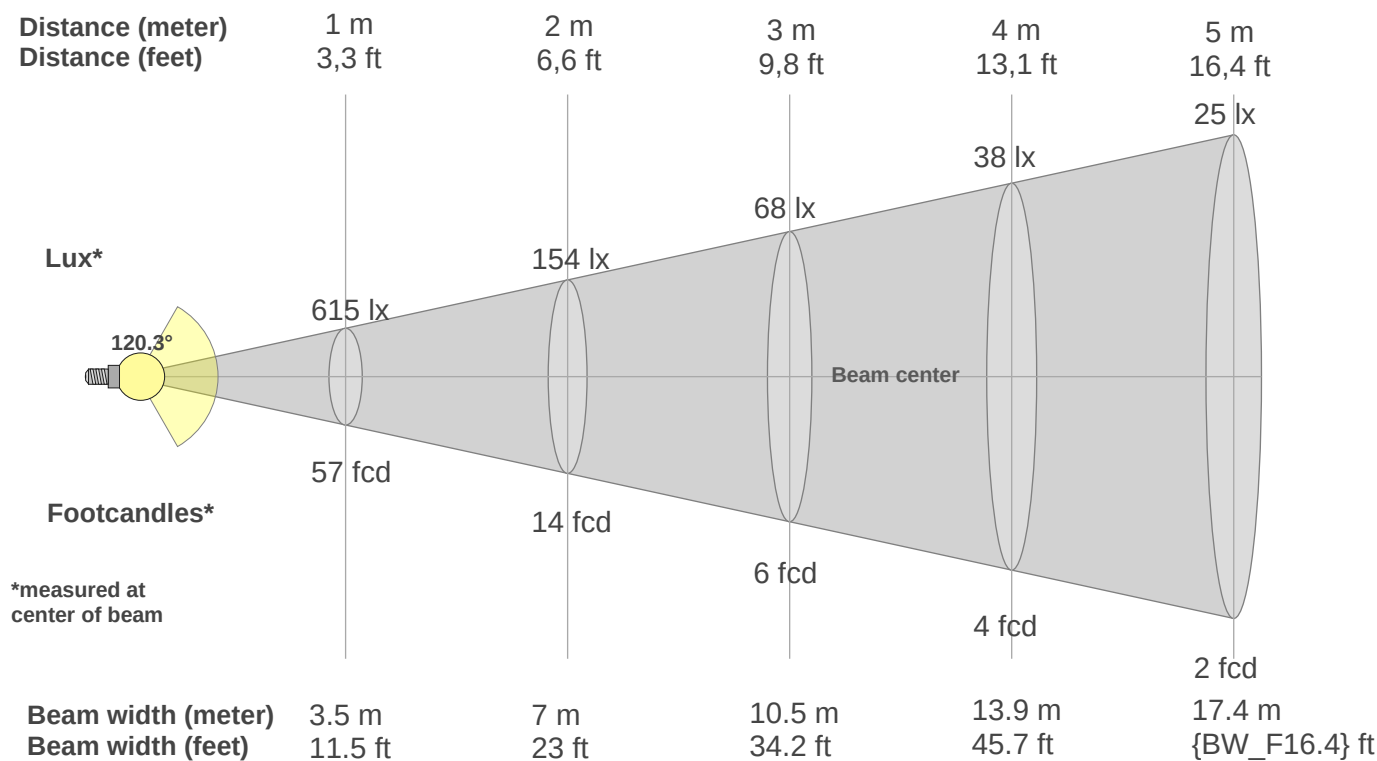
Rg 94.7

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	78	-13%	0%
2	81	-9%	7%
3	78	-3%	11%
4	89	-1%	6%
5	91	-1%	3%
6	94	1%	-2%
7	89	-6%	-3%
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
615lx	154lx	68lx	38lx	25lx	17lx	13lx	10lx	8lx	6lx	5lx	4lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	2lx
57.2fcd	14.3fcd	6.4fcd	3.6fcd	2.3fcd	1.6fcd	1.2fcd	0.9fcd	0.7fcd	0.6fcd	0.5fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd	0.1fcd

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°
615	613	603	587	565	538	507	472	434	394	351	306	259	210	161	111	65	27	6	6
100%	100%	98%	95%	92%	87%	82%	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°
615	618	628	641	652	658	654	637	605	559	500	430	355	276	201	132	72	27	11	10
100%	100%	102%	104%	106%	107%	106%	103%	98%	91%	81%	70%	58%	45%	33%	21%	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°
615	613	603	587	565	538	507	472	434	394	351	306	259	210	161	111	65	27	6	6
100%	100%	98%	95%	92%	87%	82%	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°
615	618	628	641	652	658	654	637	605	559	500	430	355	276	201	132	72	27	11	10
100%	100%	102%	104%	106%	107%	106%	103%	98%	91%	81%	70%	58%	45%	33%	21%	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	21.7	22.9	21.9	23.2	23.4	23.1	24.4	23.4	24.7	24.9
	3H	23.0	24.3	23.4	24.6	24.8	24.5	25.7	24.9	26.0	26.2
	4H	23.6	24.8	24.0	25.1	25.3	25.0	26.2	25.4	26.5	26.7
	6H	24.0	25.1	24.3	25.4	25.8	25.4	26.4	25.7	26.7	27.1
	8H	24.1	25.2	24.5	25.5	25.9	25.4	26.5	25.8	26.8	27.2
	12H	24.2	25.2	24.6	25.5	26.0	25.4	26.5	25.8	26.8	27.2
4H	2H	22.5	23.7	22.9	24.0	24.3	23.6	24.8	24.0	25.1	25.4
	3H	24.1	25.2	24.5	25.5	25.9	25.3	26.3	25.7	26.6	27.1
	4H	24.7	25.7	25.2	26.1	26.6	25.8	26.8	26.3	27.2	27.7
	6H	25.2	26.1	25.7	26.5	26.8	26.3	27.2	26.8	27.5	27.9
	8H	25.4	26.2	25.9	26.6	26.9	26.4	27.2	26.9	27.6	28.0
	12H	25.5	26.2	26.0	26.6	27.1	26.5	27.1	27.0	27.6	28.0
8H	4H	25.1	25.9	25.6	26.3	26.7	26.1	26.9	26.6	27.3	27.6
	6H	25.7	26.4	26.2	26.8	27.4	26.7	27.3	27.2	27.7	28.3
	8H	26.0	26.5	26.5	27.1	27.7	26.9	27.4	27.4	27.9	28.6
	12H	26.2	26.6	26.7	27.1	27.7	27.0	27.4	27.6	27.9	28.6
12H	4H	25.1	25.8	25.6	26.2	26.7	26.1	26.8	26.6	27.2	27.7
	6H	25.8	26.4	26.3	26.9	27.5	26.7	27.3	27.2	27.8	28.4
	8H	26.1	26.5	26.7	27.0	27.7	26.9	27.4	27.5	27.9	28.5
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 2027 lm total luminous flux											