

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P838554

Luminaire Tested: HCSQ635D010-HM63040927-61SQC

Issue Date: 5/21/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P838554  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ635D010-HM63040927-61SQC  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

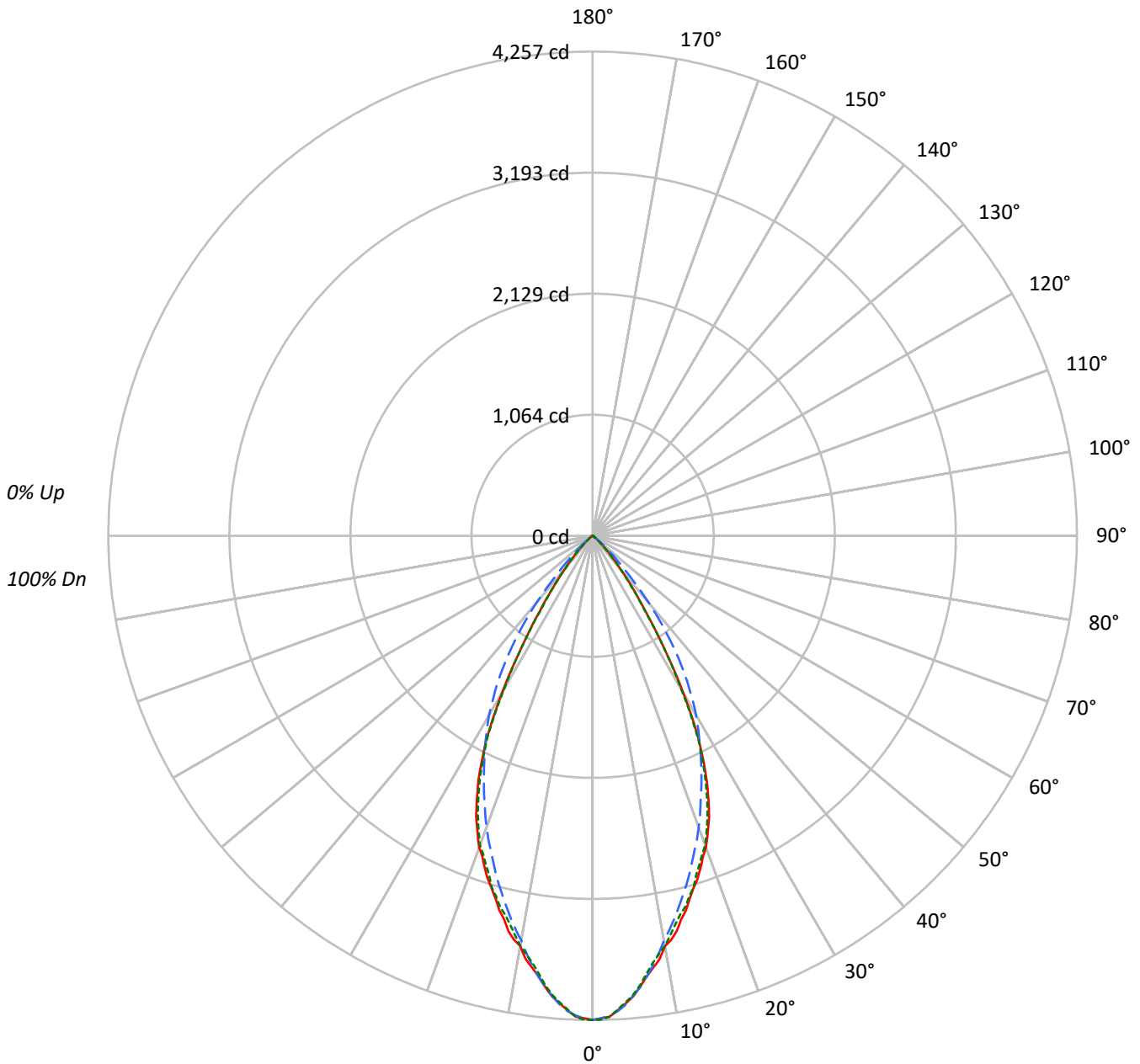
Lumens per Lamp: N/A  
Luminaire Lumens: 3188.5 lumens  
Efficiency: N/A  
Efficacy: 93.8 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct

Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20										
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94								
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87								
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81								
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76								
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71								
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66								
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62								
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59								
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55								
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52								

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	183288	183288	183288
5°	175811	175504	175262
10°	160128	157955	160006
15°	147163	141774	146276
20°	133548	124953	132636
25°	112871	107398	111318
30°	79029	90409	77687
35°	42448	69355	41629
40°	21015	42913	20858
45°	9176	18096	9006
50°	2954	6571	2954
55°	1494	2132	1389
60°	982	982	982
65°	723	723	723
70°	541	541	541
75°	466	466	466
80°	347	347	347
85°	692	692	692

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 18096 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	373.8	11.7
10°-20°	902.7	28.3
20°-30°	1042.7	32.7
30°-40°	651.2	20.4
40°-50°	180.9	5.7
50°-60°	25.3	0.8
60°-70°	7.5	0.2
70°-80°	3.2	0.1
80°-90°	1.3	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2319.2	72.7
0°-40°	2970.4	93.2
0°-60°	3176.6	99.6
0°-90°	3188.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3188.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4257	4257	4257	4257	4257	
5°	4068	4056	4061	4055	4055	375
15°	3302	3239	3181	3230	3282	925
25°	2376	2306	2261	2305	2343	1061
35°	808	997	1320	985	792	537
45°	151	192	297	190	148	131
55°	20	20	28	20	18	20
65°	7	7	7	7	7	8
75°	3	3	3	3	3	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4257.0	4257.0	4257.0	4257.0	4257.0
1°	4244.2	4244.2	4244.2	4255.5	4255.5
2°	4231.4	4228.5	4221.4	4229.9	4234.2
3°	4178.7	4184.4	4187.3	4183.0	4173.1
4°	4124.7	4119.0	4134.7	4124.7	4116.2
5°	4067.8	4056.5	4060.7	4055.1	4055.1
6°	3988.2	4002.4	3991.1	3981.1	3975.4
7°	3901.5	3912.9	3905.8	3891.5	3881.6
8°	3833.2	3826.1	3814.8	3811.9	3794.9
9°	3767.8	3742.2	3716.7	3720.9	3725.2
10°	3662.6	3665.5	3612.9	3652.7	3659.8
11°	3618.6	3602.9	3533.2	3565.9	3577.3
12°	3554.6	3504.8	3445.1	3472.1	3493.4
13°	3462.1	3411.0	3356.9	3398.2	3419.5
14°	3392.5	3334.2	3265.9	3318.5	3362.6
15°	3301.5	3238.9	3180.6	3230.4	3281.6
16°	3221.9	3149.3	3091.1	3139.4	3216.2
17°	3152.2	3062.6	2991.5	3042.7	3116.6
18°	3071.1	2967.4	2901.9	2956.0	3039.9
19°	2981.6	2876.4	2818.1	2862.1	2958.8
20°	2914.7	2796.7	2727.1	2769.7	2894.8
22.5°	2675.9	2552.2	2488.2	2539.4	2638.9
25°	2375.9	2306.2	2260.7	2304.8	2343.2
27.5°	2020.4	2020.4	2036.1	2017.6	2006.2
30°	1589.6	1704.8	1818.5	1699.1	1562.6
32.5°	1160.2	1345.0	1574.0	1369.2	1158.8
35°	807.6	996.7	1319.5	985.3	792.0
37.5°	561.6	686.7	1040.8	693.9	554.5
40°	373.9	460.7	763.5	469.2	371.1
42.5°	244.6	304.3	493.4	305.7	238.9
45°	150.7	191.9	297.2	190.5	147.9
47.5°	88.2	113.7	173.5	115.2	86.7
50°	44.1	66.8	98.1	65.4	44.1
52.5°	25.6	35.5	54.0	34.1	25.6
55°	19.9	19.9	28.4	19.9	18.5
57.5°	15.6	15.6	15.6	15.6	14.2
60°	11.4	12.8	11.4	11.4	11.4
62.5°	10.0	10.0	8.5	10.0	8.5
65°	7.1	7.1	7.1	7.1	7.1
67.5°	5.7	5.7	5.7	5.7	5.7
70°	4.3	4.3	4.3	4.3	4.3
72.5°	2.8	4.3	2.8	4.3	4.3
75°	2.8	2.8	2.8	2.8	2.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	1.4	1.4	1.4	1.4	1.4
85°	1.4	1.4	1.4	1.4	1.4
87.5°	1.4	1.4	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





— 0°-180°    - - 45°-225°    - - - - 90°-270°

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77.5°	2.8	2.8	2.8	2.8	1.4
80°	1.4	1.4	1.4	1.4	1.4

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