

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: P838729

Luminaire Tested: HCSQ655D010-HM64560940-61SQC

Issue Date: 5/21/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P838729  
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: HCSQ655D010-HM64560940-61SQC  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

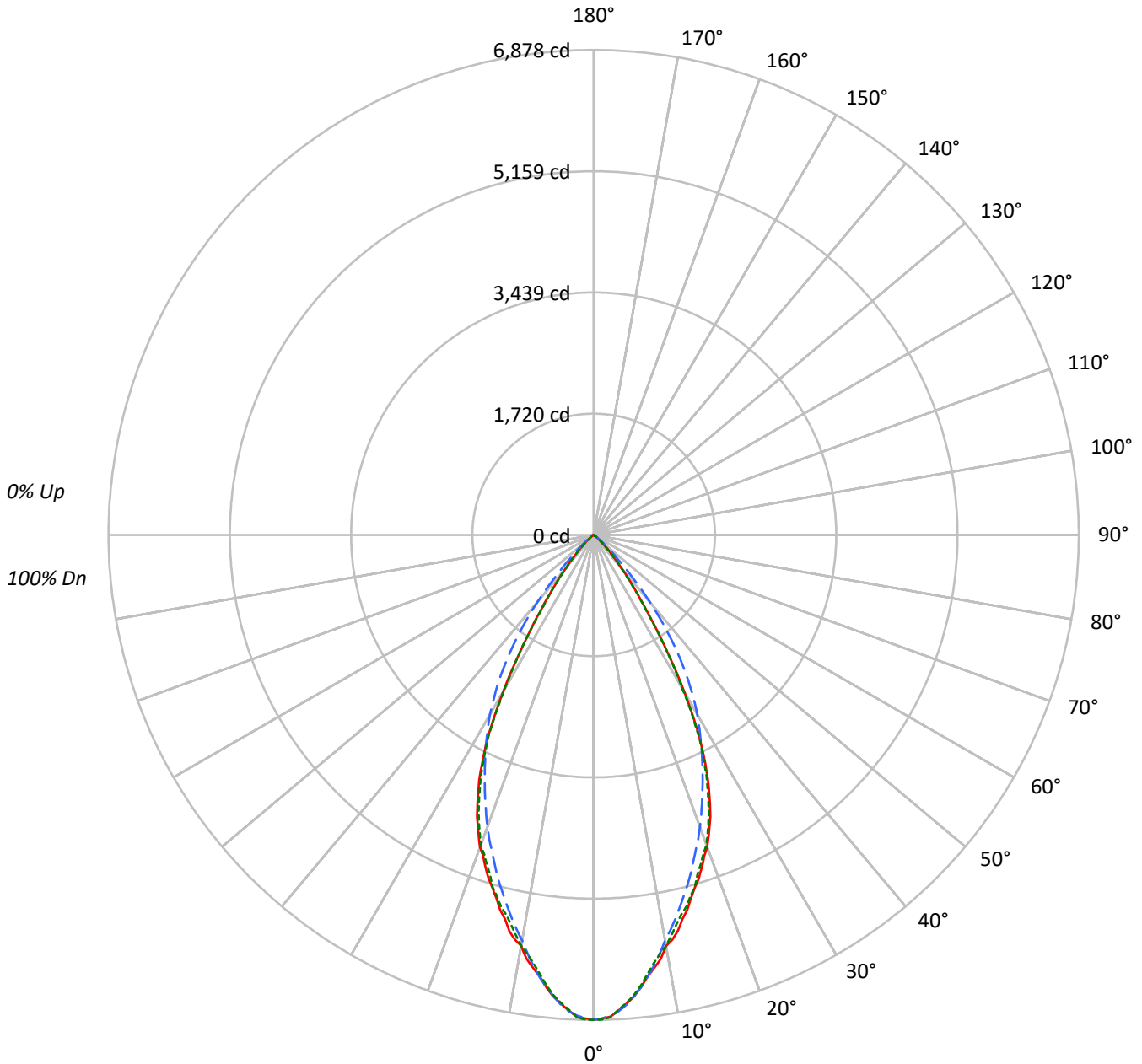
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5152.2 lumens  
Efficiency: N/A  
Efficacy: 95.4 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): 54  
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°	296154	296154	296154
5°	284082	283585	283187
10°	258739	255223	258537
15°	237787	229082	236352
20°	215793	201896	214318
25°	182378	173537	179865
30°	127697	146087	125524
35°	68587	112061	67263
40°	33959	69340	33701
45°	14827	29239	14547
50°	4769	10617	4769
55°	2417	3445	2244
60°	1584	1584	1584
65°	1172	1172	1172
70°	869	869	869
75°	765	765	765
80°	570	570	570
85°	1136	1136	1136

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 29239 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	604.0	11.7
10°-20°	1458.5	28.3
20°-30°	1684.8	32.7
30°-40°	1052.2	20.4
40°-50°	292.3	5.7
50°-60°	40.9	0.8
60°-70°	12.1	0.2
70°-80°	5.2	0.1
80°-90°	2.2	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°	3747.4	72.7
0°-40°	4799.5	93.2
0°-60°	5132.8	99.6
0°-90°	5152.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5152.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6878	6878	6878	6878	6878	
5°	6573	6554	6561	6552	6552	606
15°	5335	5234	5139	5220	5302	1494
25°	3839	3726	3653	3724	3786	1715
35°	1305	1610	2132	1592	1280	867
45°	244	310	480	308	239	211
55°	32	32	46	32	30	32
65°	12	12	12	12	12	12
75°	5	5	5	5	5	5
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6878.4	6878.4	6878.4	6878.4	6878.4
1°	6857.7	6857.7	6857.7	6876.1	6876.1
2°	6837.1	6832.5	6821.0	6834.8	6841.6
3°	6752.1	6761.2	6765.8	6758.9	6742.9
4°	6664.8	6655.6	6680.8	6664.8	6651.0
5°	6572.9	6554.5	6561.4	6552.2	6552.2
6°	6444.2	6467.2	6448.8	6432.7	6423.5
7°	6304.1	6322.4	6311.0	6288.0	6271.9
8°	6193.8	6182.3	6163.9	6159.3	6131.8
9°	6088.1	6046.8	6005.4	6012.3	6019.2
10°	5918.1	5922.7	5837.7	5902.0	5913.5
11°	5846.9	5821.6	5709.0	5761.9	5780.3
12°	5743.5	5663.1	5566.6	5610.2	5644.7
13°	5594.2	5511.5	5424.2	5490.8	5525.2
14°	5481.6	5387.4	5277.1	5362.1	5433.3
15°	5334.6	5233.5	5139.3	5219.7	5302.4
16°	5205.9	5088.7	4994.5	5072.7	5196.7
17°	5093.3	4948.6	4833.7	4916.4	5035.9
18°	4962.4	4794.7	4689.0	4776.3	4911.8
19°	4817.6	4647.6	4553.4	4624.7	4780.9
20°	4709.7	4519.0	4406.4	4475.3	4677.5
22.5°	4323.7	4123.8	4020.4	4103.2	4264.0
25°	3839.0	3726.4	3652.9	3724.1	3786.1
27.5°	3264.6	3264.6	3289.9	3260.0	3241.6
30°	2568.5	2754.6	2938.4	2745.4	2524.8
32.5°	1874.7	2173.3	2543.2	2212.4	1872.4
35°	1304.9	1610.5	2132.0	1592.1	1279.7
37.5°	907.5	1109.6	1681.7	1121.1	896.0
40°	604.2	744.4	1233.7	758.1	599.6
42.5°	395.2	491.6	797.2	493.9	386.0
45°	243.5	310.1	480.2	307.9	238.9
47.5°	142.4	183.8	280.3	186.1	140.1
50°	71.2	108.0	158.5	105.7	71.2
52.5°	41.4	57.4	87.3	55.1	41.4
55°	32.2	32.2	45.9	32.2	29.9
57.5°	25.3	25.3	25.3	25.3	23.0
60°	18.4	20.7	18.4	18.4	18.4
62.5°	16.1	16.1	13.8	16.1	13.8
65°	11.5	11.5	11.5	11.5	11.5
67.5°	9.2	9.2	9.2	9.2	9.2
70°	6.9	6.9	6.9	6.9	6.9
72.5°	4.6	6.9	4.6	6.9	6.9
75°	4.6	4.6	4.6	4.6	4.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	2.3	2.3	2.3	2.3	2.3
85°	2.3	2.3	2.3	2.3	2.3
87.5°	2.3	2.3	2.3	2.3	2.3
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°	4.6	4.6	4.6	4.6	2.3
80°	2.3	2.3	2.3	2.3	2.3

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(END OF REPORT)