

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: P838449

Luminaire Tested: HCSQ620D010-HM60525940-61SQC

Issue Date: 5/21/2024



**Test Information**

Test Method: LM-79-2019  
Report Number: P838449  
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: HCSQ620D010-HM60525940-61SQC  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

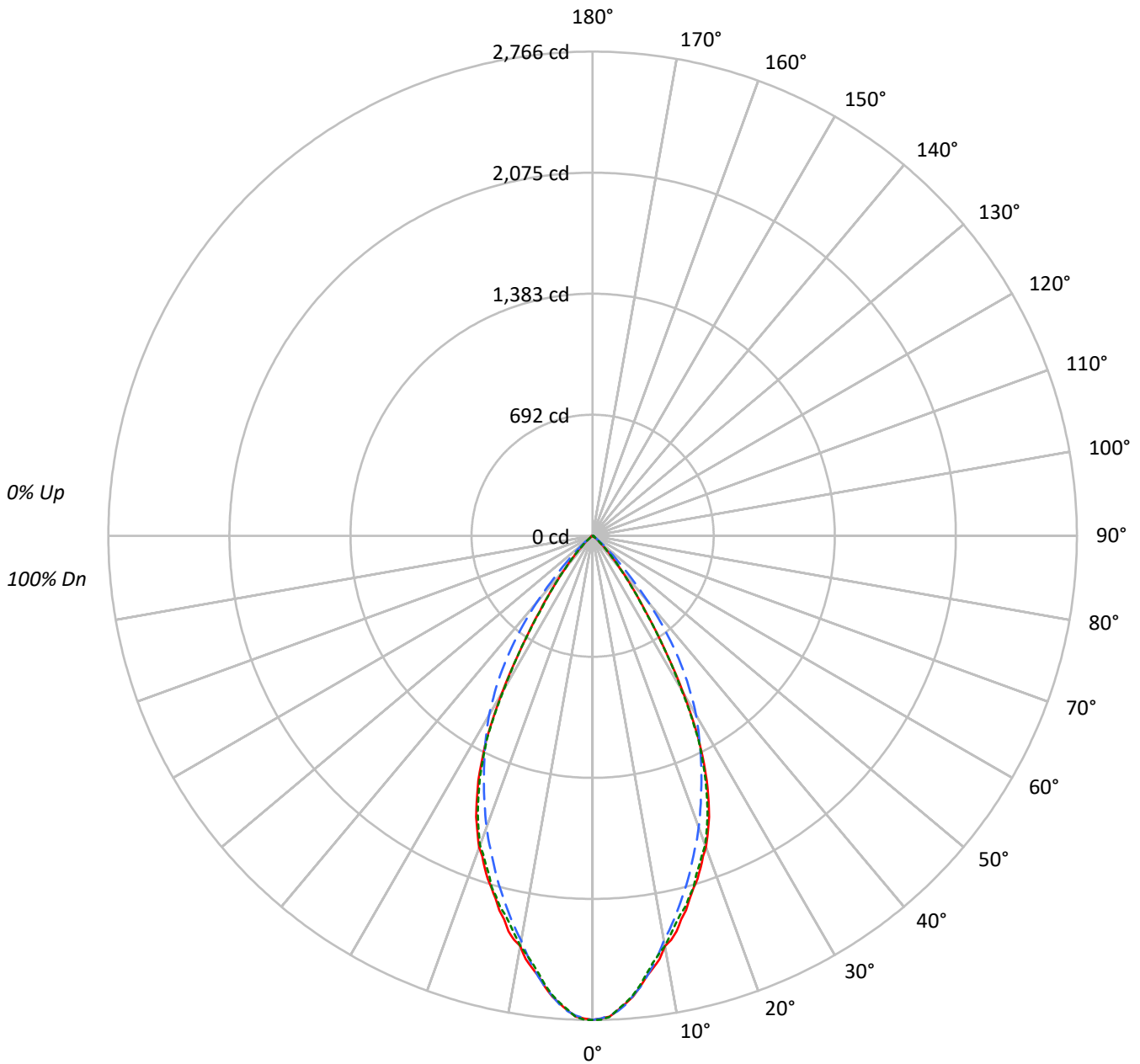
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2071.8 lumens  
Efficiency: N/A  
Efficacy: 103.6 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): 20  
Input Voltage (V): NR  
Input Current (Ain): 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									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°	119096	119096	119096
5°	114239	114041	113881
10°	104049	102637	103966
15°	95621	92122	95046
20°	86776	81191	86185
25°	73341	69787	72329
30°	51352	58745	50477
35°	27584	45066	27048
40°	13658	27883	13551
45°	5961	11758	5852
50°	1916	4267	1916
55°	968	1389	901
60°	637	637	637
65°	469	469	469
70°	352	352	352
75°	299	299	299
80°	223	223	223
85°	445	445	445

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 11758 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	242.9	11.7
10°-20°	586.5	28.3
20°-30°	677.5	32.7
30°-40°	423.1	20.4
40°-50°	117.5	5.7
50°-60°	16.4	0.8
60°-70°	4.8	0.2
70°-80°	2.0	0.1
80°-90°	0.9	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°	1507.0	72.7
0°-40°	1930.1	93.2
0°-60°	2064.1	99.6
0°-90°	2071.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2071.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2766	2766	2766	2766	2766	
5°	2643	2636	2639	2635	2635	244
15°	2145	2105	2067	2099	2132	601
25°	1544	1498	1469	1498	1522	689
35°	525	648	857	640	515	349
45°	98	125	193	124	96	85
55°	13	13	18	13	12	13
65°	5	5	5	5	5	5
75°	2	2	2	2	2	2
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°	2766.1	2766.1	2766.1	2766.1	2766.1
1°	2757.8	2757.8	2757.8	2765.1	2765.1
2°	2749.4	2747.6	2743.0	2748.5	2751.3
3°	2715.3	2719.0	2720.8	2718.0	2711.6
4°	2680.2	2676.5	2686.6	2680.2	2674.6
5°	2643.2	2635.8	2638.6	2634.9	2634.9
6°	2591.5	2600.7	2593.3	2586.8	2583.1
7°	2535.1	2542.5	2537.9	2528.6	2522.2
8°	2490.8	2486.1	2478.7	2476.9	2465.8
9°	2448.3	2431.6	2415.0	2417.8	2420.5
10°	2379.9	2381.7	2347.6	2373.4	2378.0
11°	2351.3	2341.1	2295.8	2317.1	2324.5
12°	2309.7	2277.3	2238.5	2256.1	2270.0
13°	2249.6	2216.4	2181.3	2208.1	2221.9
14°	2204.4	2166.5	2122.1	2156.3	2185.0
15°	2145.2	2104.6	2066.7	2099.0	2132.3
16°	2093.5	2046.4	2008.5	2039.9	2089.8
17°	2048.2	1990.0	1943.8	1977.1	2025.1
18°	1995.6	1928.1	1885.6	1920.7	1975.2
19°	1937.4	1869.0	1831.1	1859.8	1922.6
20°	1893.9	1817.3	1772.0	1799.7	1881.0
22.5°	1738.7	1658.3	1616.8	1650.0	1714.7
25°	1543.8	1498.5	1469.0	1497.6	1522.5
27.5°	1312.8	1312.8	1323.0	1311.0	1303.6
30°	1032.9	1107.7	1181.6	1104.0	1015.3
32.5°	753.9	874.0	1022.7	889.7	753.0
35°	524.8	647.6	857.4	640.2	514.6
37.5°	364.9	446.2	676.3	450.8	360.3
40°	243.0	299.3	496.1	304.9	241.1
42.5°	158.9	197.7	320.6	198.6	155.2
45°	97.9	124.7	193.1	123.8	96.1
47.5°	57.3	73.9	112.7	74.8	56.4
50°	28.6	43.4	63.7	42.5	28.6
52.5°	16.6	23.1	35.1	22.2	16.6
55°	12.9	12.9	18.5	12.9	12.0
57.5°	10.2	10.2	10.2	10.2	9.2
60°	7.4	8.3	7.4	7.4	7.4
62.5°	6.5	6.5	5.5	6.5	5.5
65°	4.6	4.6	4.6	4.6	4.6
67.5°	3.7	3.7	3.7	3.7	3.7
70°	2.8	2.8	2.8	2.8	2.8
72.5°	1.8	2.8	1.8	2.8	2.8
75°	1.8	1.8	1.8	1.8	1.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9
87.5°	0.9	0.9	0.9	0.9	0.9
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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Scaled Data Report





77.5°	1.8	1.8	1.8	1.8	0.9
80°	0.9	0.9	0.9	0.9	0.9

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Scaled Data Report



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