

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: P838434

Luminaire Tested: HCSQ620D010-HM60525927-61SQC

Issue Date: 5/21/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P838434  
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-HM60525927-61SQC  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

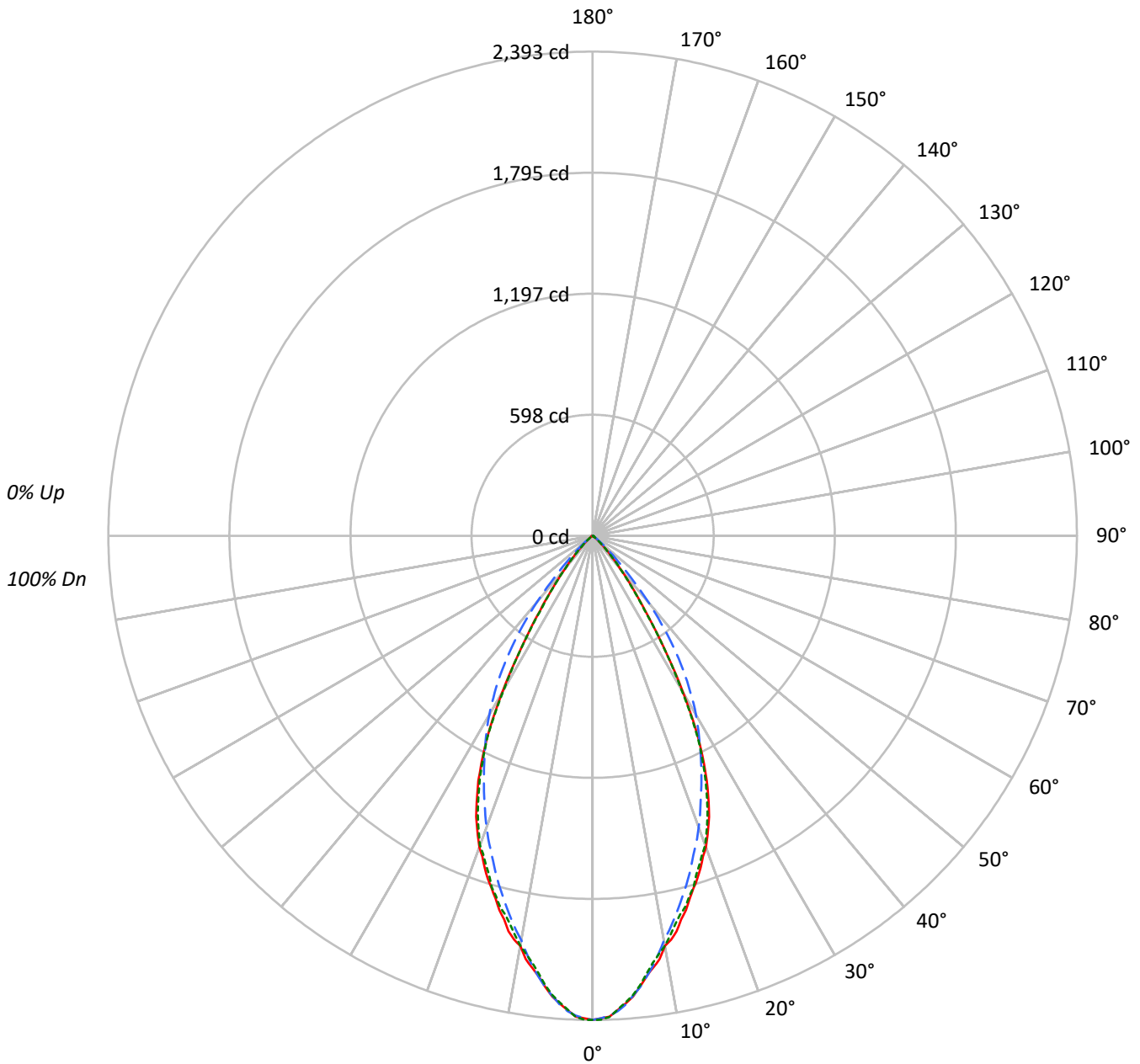
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1792.2 lumens  
Efficiency: N/A  
Efficacy: 89.6 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 (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									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°	103019	103019	103019
5°	98818	98646	98507
10°	90002	88782	89936
15°	82717	79686	82218
20°	75065	70231	74552
25°	63440	60367	62566
30°	44422	50815	43666
35°	23858	38979	23395
40°	11814	24123	11724
45°	5157	10169	5060
50°	1661	3691	1661
55°	841	1201	781
60°	551	551	551
65°	408	408	408
70°	302	302	302
75°	266	266	266
80°	198	198	198
85°	395	395	395

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 10169 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.1	11.7
10°-20°	507.4	28.3
20°-30°	586.1	32.7
30°-40°	366.0	20.4
40°-50°	101.7	5.7
50°-60°	14.2	0.8
60°-70°	4.2	0.2
70°-80°	1.8	0.1
80°-90°	0.8	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°	1303.5	72.7
0°-40°	1669.5	93.2
0°-60°	1785.5	99.6
0°-90°	1792.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1792.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2393	2393	2393	2393	2393	
5°	2286	2280	2282	2279	2279	211
15°	1856	1820	1788	1816	1844	520
25°	1335	1296	1271	1295	1317	596
35°	454	560	742	554	445	302
45°	85	108	167	107	83	73
55°	11	11	16	11	10	11
65°	4	4	4	4	4	4
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°	2392.7	2392.7	2392.7	2392.7	2392.7
1°	2385.5	2385.5	2385.5	2391.9	2391.9
2°	2378.3	2376.7	2372.7	2377.5	2379.9
3°	2348.7	2351.9	2353.5	2351.1	2345.5
4°	2318.4	2315.2	2324.0	2318.4	2313.6
5°	2286.4	2280.0	2282.4	2279.2	2279.2
6°	2241.7	2249.6	2243.3	2237.7	2234.5
7°	2192.9	2199.3	2195.3	2187.3	2181.7
8°	2154.5	2150.6	2144.2	2142.6	2133.0
9°	2117.8	2103.4	2089.0	2091.4	2093.8
10°	2058.6	2060.2	2030.7	2053.1	2057.1
11°	2033.9	2025.1	1985.9	2004.3	2010.7
12°	1997.9	1969.9	1936.4	1951.6	1963.5
13°	1946.0	1917.2	1886.8	1910.0	1922.0
14°	1906.8	1874.0	1835.7	1865.3	1890.0
15°	1855.7	1820.5	1787.7	1815.7	1844.5
16°	1810.9	1770.2	1737.4	1764.6	1807.7
17°	1771.7	1721.4	1681.4	1710.2	1751.8
18°	1726.2	1667.9	1631.1	1661.5	1708.6
19°	1675.8	1616.7	1583.9	1608.7	1663.1
20°	1638.3	1572.0	1532.8	1556.8	1627.1
22.5°	1504.0	1434.5	1398.5	1427.3	1483.3
25°	1335.4	1296.2	1270.7	1295.4	1317.0
27.5°	1135.6	1135.6	1144.4	1134.0	1127.6
30°	893.5	958.2	1022.1	955.0	878.3
32.5°	652.1	756.0	884.7	769.6	651.3
35°	453.9	560.2	741.6	553.8	445.1
37.5°	315.7	386.0	585.0	390.0	311.7
40°	210.2	258.9	429.2	263.7	208.6
42.5°	137.5	171.0	277.3	171.8	134.3
45°	84.7	107.9	167.0	107.1	83.1
47.5°	49.5	63.9	97.5	64.7	48.7
50°	24.8	37.6	55.1	36.8	24.8
52.5°	14.4	20.0	30.4	19.2	14.4
55°	11.2	11.2	16.0	11.2	10.4
57.5°	8.8	8.8	8.8	8.8	8.0
60°	6.4	7.2	6.4	6.4	6.4
62.5°	5.6	5.6	4.8	5.6	4.8
65°	4.0	4.0	4.0	4.0	4.0
67.5°	3.2	3.2	3.2	3.2	3.2
70°	2.4	2.4	2.4	2.4	2.4
72.5°	1.6	2.4	1.6	2.4	2.4
75°	1.6	1.6	1.6	1.6	1.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	0.8	0.8	0.8	0.8	0.8
85°	0.8	0.8	0.8	0.8	0.8
87.5°	0.8	0.8	0.8	0.8	0.8
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°	1.6	1.6	1.6	1.6	0.8
80°	0.8	0.8	0.8	0.8	0.8

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