

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: P838454

Luminaire Tested: HCSQ625D010-HM60525827-61SQC

Issue Date: 5/21/2024



**Test Information**

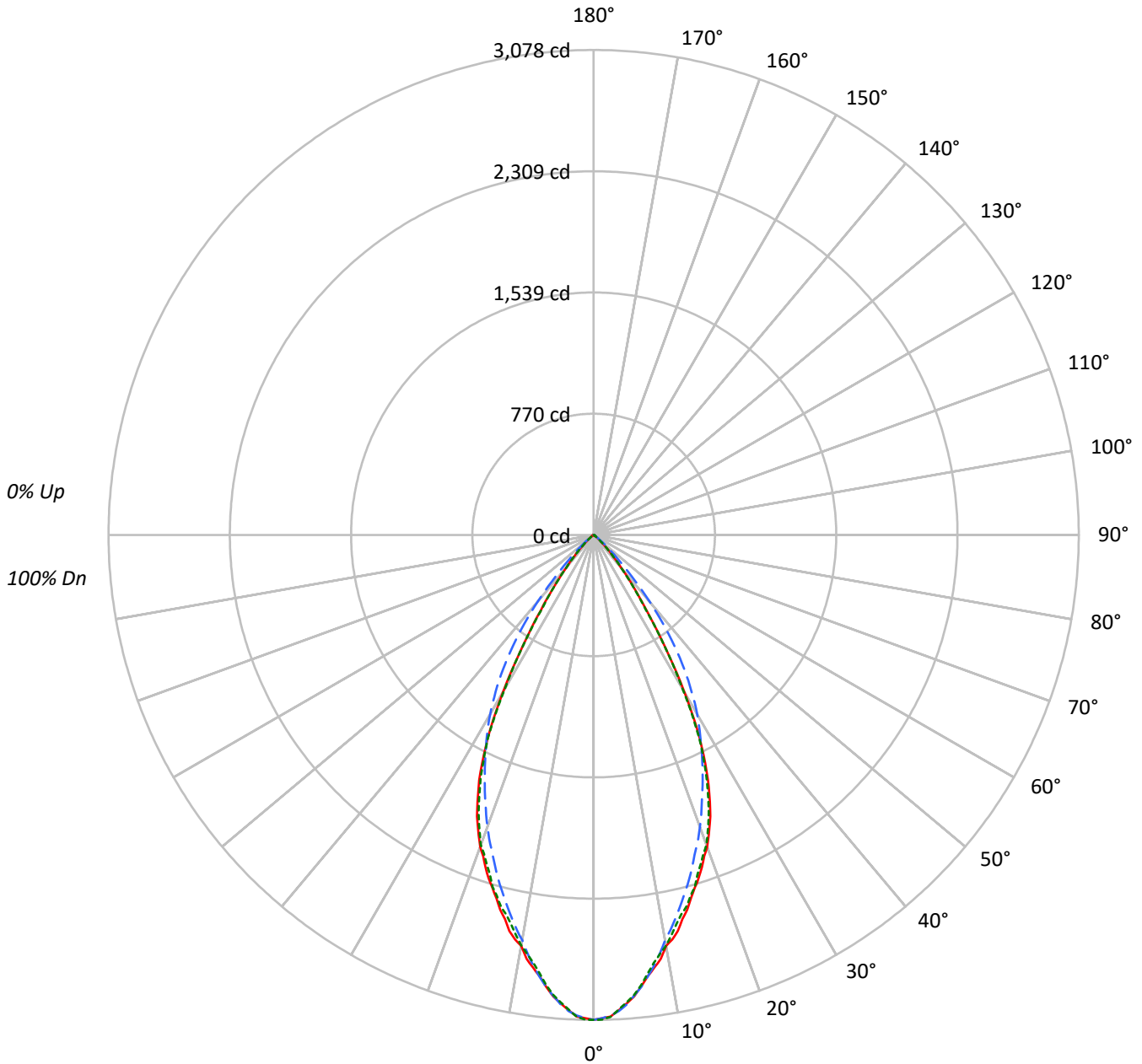
Test Method: LM-79-2019  
Report Number: P838454  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ625D010-HM60525827-61SQC  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2305.3 lumens  
Efficiency: N/A  
Efficacy: 83.2 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): 27.7  
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°	132512	132512	132512
5°	127110	126890	126713
10°	115770	114201	115683
15°	106395	102504	105753
20°	96554	90336	95894
25°	81602	77650	80481
30°	57139	65367	56165
35°	30691	50143	30097
40°	15198	31025	15080
45°	6637	13079	6509
50°	2137	4749	2137
55°	1081	1546	1006
60°	706	706	706
65°	520	520	520
70°	390	390	390
75°	349	349	349
80°	248	248	248
85°	494	494	494

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 13079 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	270.3	11.7
10°-20°	652.6	28.3
20°-30°	753.9	32.7
30°-40°	470.8	20.4
40°-50°	130.8	5.7
50°-60°	18.3	0.8
60°-70°	5.4	0.2
70°-80°	2.3	0.1
80°-90°	1.0	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°	1676.7	72.7
0°-40°	2147.5	93.2
0°-60°	2296.6	99.6
0°-90°	2305.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2305.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3078	3078	3078	3078	3078	
5°	2941	2933	2936	2932	2932	271
15°	2387	2342	2300	2336	2372	669
25°	1718	1667	1634	1666	1694	767
35°	584	721	954	712	573	388
45°	109	139	215	138	107	94
55°	14	14	21	14	13	14
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°	3077.7	3077.7	3077.7	3077.7	3077.7
1°	3068.5	3068.5	3068.5	3076.7	3076.7
2°	3059.2	3057.2	3052.0	3058.2	3061.3
3°	3021.2	3025.3	3027.4	3024.3	3017.1
4°	2982.1	2978.0	2989.3	2982.1	2976.0
5°	2941.0	2932.8	2935.9	2931.8	2931.8
6°	2883.4	2893.7	2885.5	2878.3	2874.2
7°	2820.7	2829.0	2823.8	2813.5	2806.3
8°	2771.4	2766.3	2758.0	2756.0	2743.6
9°	2724.1	2705.6	2687.1	2690.2	2693.3
10°	2648.0	2650.1	2612.1	2640.8	2646.0
11°	2616.2	2604.9	2554.5	2578.1	2586.4
12°	2569.9	2533.9	2490.8	2510.3	2525.7
13°	2503.1	2466.1	2427.0	2456.8	2472.3
14°	2452.7	2410.6	2361.2	2399.3	2431.1
15°	2386.9	2341.7	2299.6	2335.5	2372.5
16°	2329.4	2276.9	2234.8	2269.7	2325.3
17°	2279.0	2214.2	2162.8	2199.8	2253.3
18°	2220.4	2145.4	2098.1	2137.1	2197.8
19°	2155.6	2079.6	2037.4	2069.3	2139.2
20°	2107.3	2022.0	1971.6	2002.5	2092.9
22.5°	1934.6	1845.2	1798.9	1835.9	1907.9
25°	1717.7	1667.4	1634.5	1666.3	1694.1
27.5°	1460.7	1460.7	1472.0	1458.7	1450.5
30°	1149.3	1232.5	1314.8	1228.4	1129.7
32.5°	838.8	972.5	1138.0	989.9	837.8
35°	583.9	720.6	954.0	712.4	572.6
37.5°	406.0	496.5	752.5	501.6	400.9
40°	270.4	333.1	552.0	339.2	268.3
42.5°	176.8	220.0	356.7	221.0	172.7
45°	109.0	138.8	214.8	137.7	106.9
47.5°	63.7	82.2	125.4	83.3	62.7
50°	31.9	48.3	70.9	47.3	31.9
52.5°	18.5	25.7	39.1	24.7	18.5
55°	14.4	14.4	20.6	14.4	13.4
57.5°	11.3	11.3	11.3	11.3	10.3
60°	8.2	9.3	8.2	8.2	8.2
62.5°	7.2	7.2	6.2	7.2	6.2
65°	5.1	5.1	5.1	5.1	5.1
67.5°	4.1	4.1	4.1	4.1	4.1
70°	3.1	3.1	3.1	3.1	3.1
72.5°	2.1	3.1	2.1	3.1	3.1
75°	2.1	2.1	2.1	2.1	2.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	1.0
87.5°	1.0	1.0	1.0	1.0	1.0
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°	2.1	2.1	2.1	2.1	1.0
80°	1.0	1.0	1.0	1.0	1.0

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Scaled Data Report



(END OF REPORT)