

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: P838773

Luminaire Tested: HCSQ660D010-HM64560940-61SQMW

Issue Date: 5/21/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P838773  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ660D010-HM64560940-61SQMW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

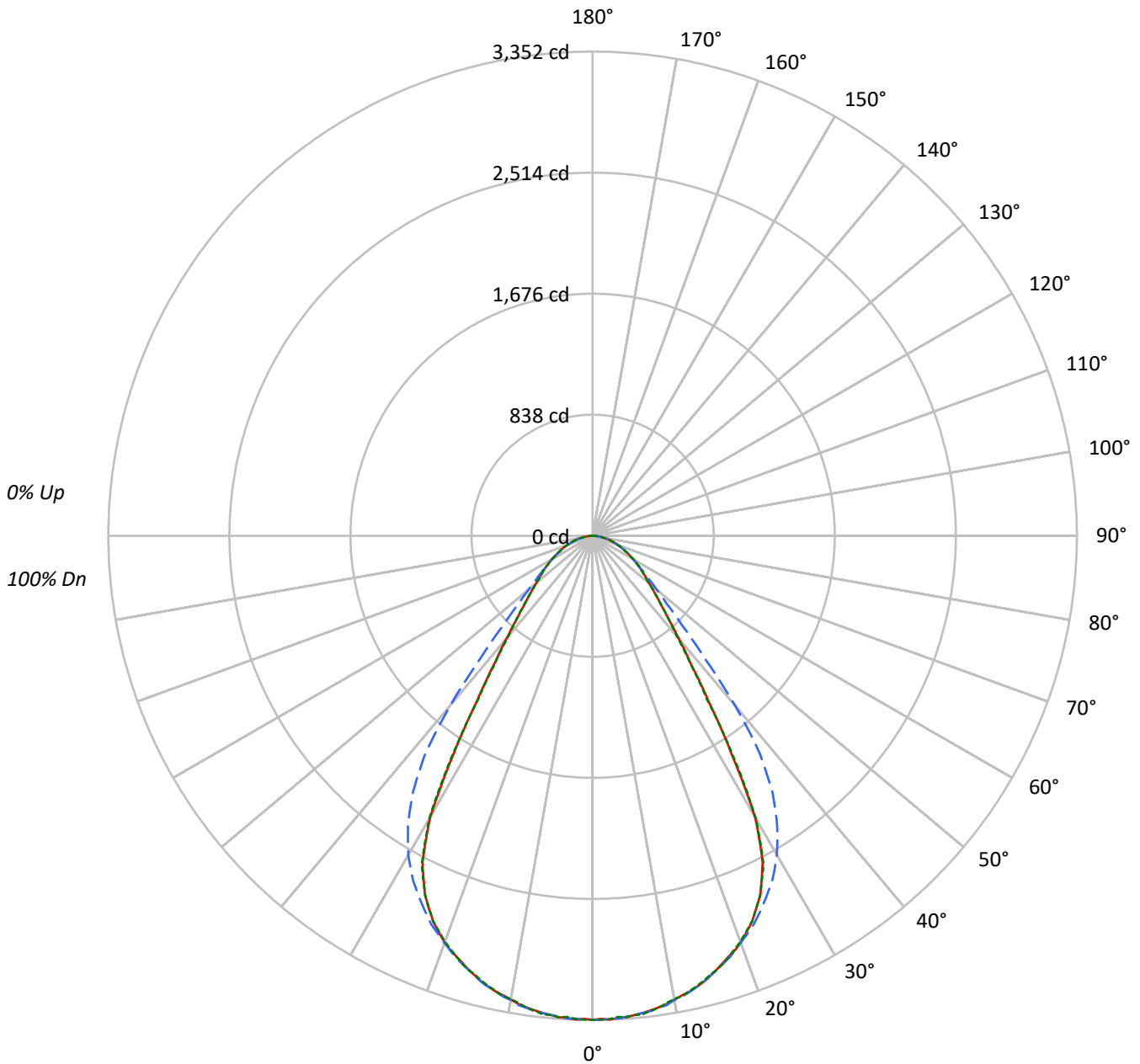
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4944.7 lumens  
Efficiency: N/A  
Efficacy: 88.3 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 56  
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					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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79								
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71								
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64								
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58								
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53								
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48								
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44								
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41								
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38								

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

	0°	45°	90°
0°	144331	144331	144331
5°	143975	143871	143975
10°	142566	142667	142361
15°	140445	140548	140236
20°	137283	137388	136957
25°	130430	133213	130320
30°	111688	126831	112389
35°	73386	114016	72277
40°	51877	85977	50956
45°	40224	52919	40510
50°	34208	38602	33893
55°	30777	31655	30777
60°	27840	27840	27840
65°	25541	25296	25296
70°	23302	23302	23591
75°	21826	21044	21426
80°	19166	19166	19166
85°	16203	16203	16203

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 52919 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	316.0	6.4
10°-20°	887.5	17.9
20°-30°	1264.7	25.6
30°-40°	1078.4	21.8
40°-50°	596.6	12.1
50°-60°	375.8	7.6
60°-70°	249.5	5.0
70°-80°	137.1	2.8
80°-90°	39.0	0.8
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°	2468.3	49.9
0°-40°	3546.7	71.7
0°-60°	4519.0	91.4
0°-90°	4944.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4944.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3352	3352	3352	3352	3352	
5°	3331	3336	3329	3324	3331	316
15°	3151	3151	3153	3151	3146	887
25°	2746	2778	2804	2776	2743	1240
35°	1396	1647	2169	1649	1375	908
45°	661	724	869	719	665	524
55°	410	417	422	415	410	368
65°	251	253	248	251	248	249
75°	131	129	126	129	129	138
85°	33	33	33	35	33	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3352.2	3352.2	3352.2	3352.2	3352.2
1°	3345.2	3349.9	3349.9	3347.5	3349.9
2°	3352.2	3345.2	3345.2	3345.2	3347.5
3°	3342.9	3347.5	3347.5	3340.5	3335.8
4°	3340.5	3338.2	3338.2	3345.2	3340.5
5°	3331.2	3335.8	3328.8	3324.1	3331.2
6°	3321.8	3324.1	3321.8	3324.1	3331.2
7°	3310.1	3317.1	3314.8	3312.4	3312.4
8°	3296.0	3305.4	3300.7	3300.7	3298.4
9°	3282.0	3284.3	3289.0	3289.0	3274.9
10°	3260.9	3267.9	3263.2	3265.6	3256.2
11°	3242.1	3251.5	3249.2	3244.5	3246.8
12°	3225.7	3230.4	3228.1	3221.0	3223.4
13°	3204.7	3209.3	3207.0	3207.0	3200.0
14°	3181.2	3176.5	3183.6	3178.9	3176.5
15°	3150.8	3150.8	3153.1	3150.8	3146.1
16°	3122.7	3125.0	3125.0	3122.7	3125.0
17°	3089.9	3099.2	3096.9	3092.2	3094.5
18°	3059.4	3066.4	3068.8	3066.4	3059.4
19°	3031.3	3036.0	3033.6	3024.3	3024.3
20°	2996.2	2998.5	2998.5	2993.8	2989.1
22.5°	2886.1	2902.5	2914.2	2904.8	2886.1
25°	2745.5	2778.3	2804.1	2776.0	2743.2
27.5°	2548.7	2614.3	2691.6	2621.3	2560.4
30°	2246.5	2396.5	2551.1	2410.5	2260.6
32.5°	1787.4	2082.6	2377.7	2110.7	1815.5
35°	1396.2	1646.8	2169.2	1649.2	1375.1
37.5°	1115.1	1293.1	1902.2	1281.4	1103.4
40°	923.0	1042.4	1529.7	1037.8	906.6
42.5°	770.7	862.1	1145.5	852.7	770.7
45°	660.6	723.9	869.1	719.2	665.3
47.5°	578.6	618.4	695.7	616.1	578.6
50°	510.7	534.1	576.3	531.8	506.0
52.5°	456.8	470.9	487.3	466.2	452.1
55°	410.0	417.0	421.7	414.6	410.0
57.5°	365.4	370.1	367.8	365.4	363.1
60°	323.3	325.6	323.3	325.6	323.3
62.5°	285.8	288.1	283.5	285.8	283.5
65°	250.7	253.0	248.3	250.7	248.3
67.5°	217.9	217.9	217.9	217.9	215.5
70°	185.1	187.4	185.1	187.4	187.4
72.5°	157.0	157.0	154.6	157.0	157.0
75°	131.2	128.8	126.5	128.8	128.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	56.2	56.2	53.9	56.2	56.2
85°	32.8	32.8	32.8	35.1	32.8
87.5°	16.4	14.1	14.1	16.4	16.4
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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Scaled Data Report





77.5°	103.1	103.1	100.7	103.1	103.1
80°	77.3	79.6	77.3	79.6	77.3

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Scaled Data Report



(END OF REPORT)