

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: P838764

Luminaire Tested: HCSQ660D010-HM64560935-61SQC

Issue Date: 5/21/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P838764  
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: HCSQ660D010-HM64560935-61SQC  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

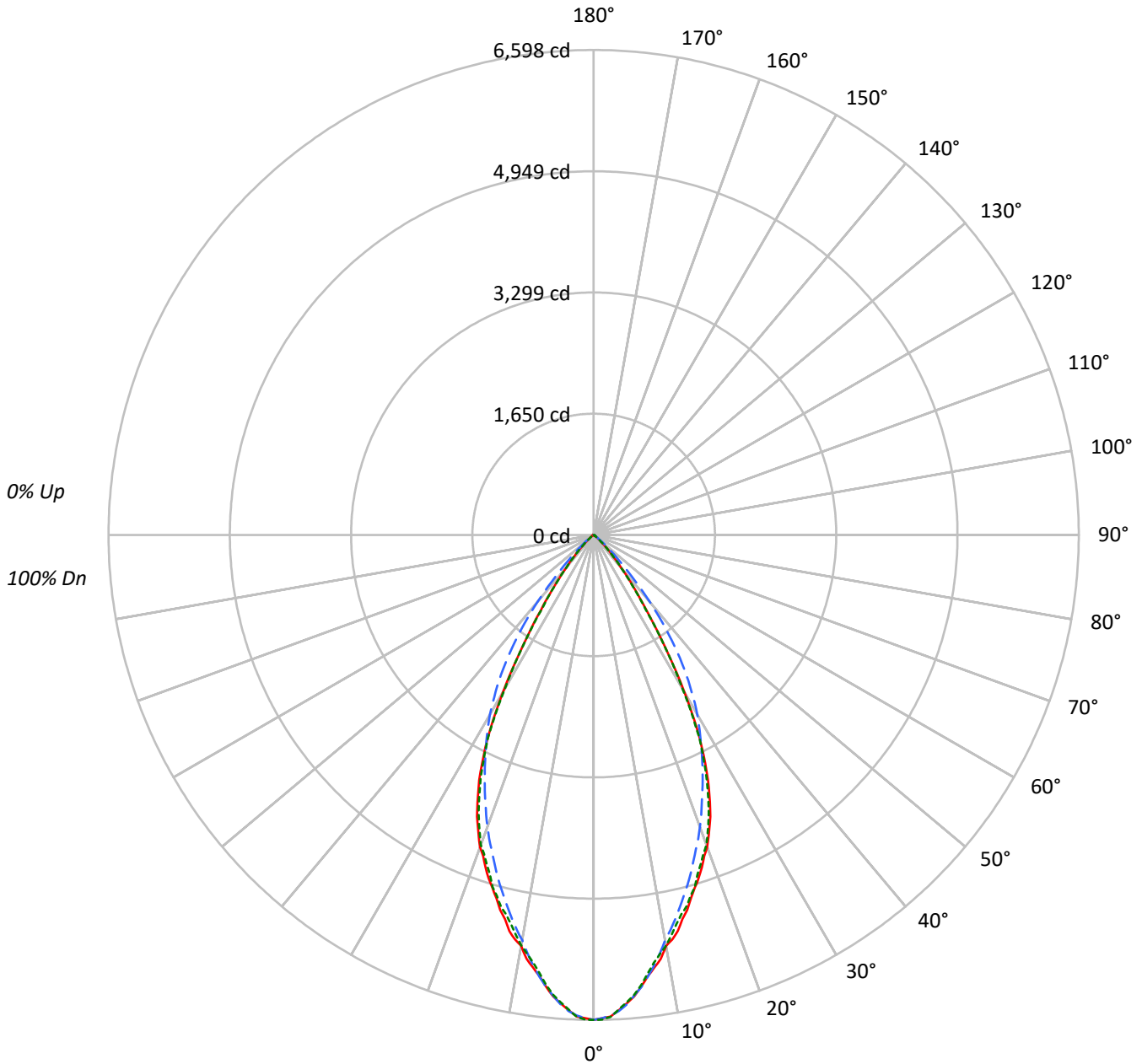
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4941.9 lumens  
Efficiency: N/A  
Efficacy: 88.2 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): 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									
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°	284073	284073	284073
5°	272490	272015	271634
10°	248180	244809	247988
15°	228083	219734	226710
20°	206987	193658	205576
25°	174934	166454	172525
30°	122486	140126	120403
35°	65791	107488	64514
40°	32577	66513	32329
45°	14224	28046	13956
50°	4575	10188	4575
55°	2320	3310	2147
60°	1516	1516	1516
65°	1121	1121	1121
70°	831	831	831
75°	732	732	732
80°	545	545	545
85°	1087	1087	1087

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 28046 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	579.4	11.7
10°-20°	1399.0	28.3
20°-30°	1616.1	32.7
30°-40°	1009.2	20.4
40°-50°	280.4	5.7
50°-60°	39.2	0.8
60°-70°	11.5	0.2
70°-80°	4.9	0.1
80°-90°	2.1	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°	3594.5	72.7
0°-40°	4603.7	93.2
0°-60°	4923.3	99.6
0°-90°	4941.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4941.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6598	6598	6598	6598	6598	
5°	6305	6287	6294	6285	6285	581
15°	5117	5020	4930	5007	5086	1433
25°	3682	3574	3504	3572	3632	1645
35°	1252	1545	2045	1527	1227	832
45°	234	298	461	295	229	202
55°	31	31	44	31	29	31
65°	11	11	11	11	11	12
75°	4	4	4	4	4	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°	6597.8	6597.8	6597.8	6597.8	6597.8
1°	6577.9	6577.9	6577.9	6595.6	6595.6
2°	6558.1	6553.7	6542.7	6555.9	6562.5
3°	6476.6	6485.4	6489.8	6483.2	6467.8
4°	6392.8	6384.0	6408.3	6392.8	6379.6
5°	6304.7	6287.1	6293.7	6284.9	6284.9
6°	6181.3	6203.3	6185.7	6170.3	6161.5
7°	6046.9	6064.5	6053.5	6031.4	6016.0
8°	5941.1	5930.1	5912.4	5908.0	5881.6
9°	5839.7	5800.1	5760.4	5767.0	5773.6
10°	5676.6	5681.1	5599.5	5661.2	5672.2
11°	5608.3	5584.1	5476.1	5526.8	5544.4
12°	5509.2	5432.0	5339.5	5381.4	5414.4
13°	5365.9	5286.6	5202.9	5266.8	5299.8
14°	5257.9	5167.6	5061.8	5143.4	5211.7
15°	5116.9	5020.0	4929.6	5006.7	5086.1
16°	4993.5	4881.1	4790.8	4865.7	4984.7
17°	4885.5	4746.7	4636.5	4715.8	4830.4
18°	4759.9	4599.1	4497.7	4581.4	4711.4
19°	4621.1	4458.0	4367.7	4436.0	4585.8
20°	4517.5	4334.6	4226.6	4292.7	4486.7
22.5°	4147.3	3955.6	3856.4	3935.7	4090.0
25°	3682.3	3574.3	3503.8	3572.1	3631.6
27.5°	3131.4	3131.4	3155.7	3127.0	3109.4
30°	2463.7	2642.2	2818.5	2633.4	2421.8
32.5°	1798.2	2084.7	2439.5	2122.1	1796.0
35°	1251.7	1544.8	2045.0	1527.1	1227.4
37.5°	870.4	1064.4	1613.1	1075.4	859.4
40°	579.6	714.0	1183.4	727.2	575.2
42.5°	379.0	471.6	764.7	473.8	370.2
45°	233.6	297.5	460.6	295.3	229.2
47.5°	136.6	176.3	268.8	178.5	134.4
50°	68.3	103.6	152.1	101.4	68.3
52.5°	39.7	55.1	83.7	52.9	39.7
55°	30.9	30.9	44.1	30.9	28.6
57.5°	24.2	24.2	24.2	24.2	22.0
60°	17.6	19.8	17.6	17.6	17.6
62.5°	15.4	15.4	13.2	15.4	13.2
65°	11.0	11.0	11.0	11.0	11.0
67.5°	8.8	8.8	8.8	8.8	8.8
70°	6.6	6.6	6.6	6.6	6.6
72.5°	4.4	6.6	4.4	6.6	6.6
75°	4.4	4.4	4.4	4.4	4.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	2.2	2.2	2.2	2.2	2.2
85°	2.2	2.2	2.2	2.2	2.2
87.5°	2.2	2.2	2.2	2.2	2.2
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°	4.4	4.4	4.4	4.4	2.2
80°	2.2	2.2	2.2	2.2	2.2

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