

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: P838698

Luminaire Tested: HCSQ655D010-HM64560827-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838698
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: HCSQ655D010-HM64560827-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

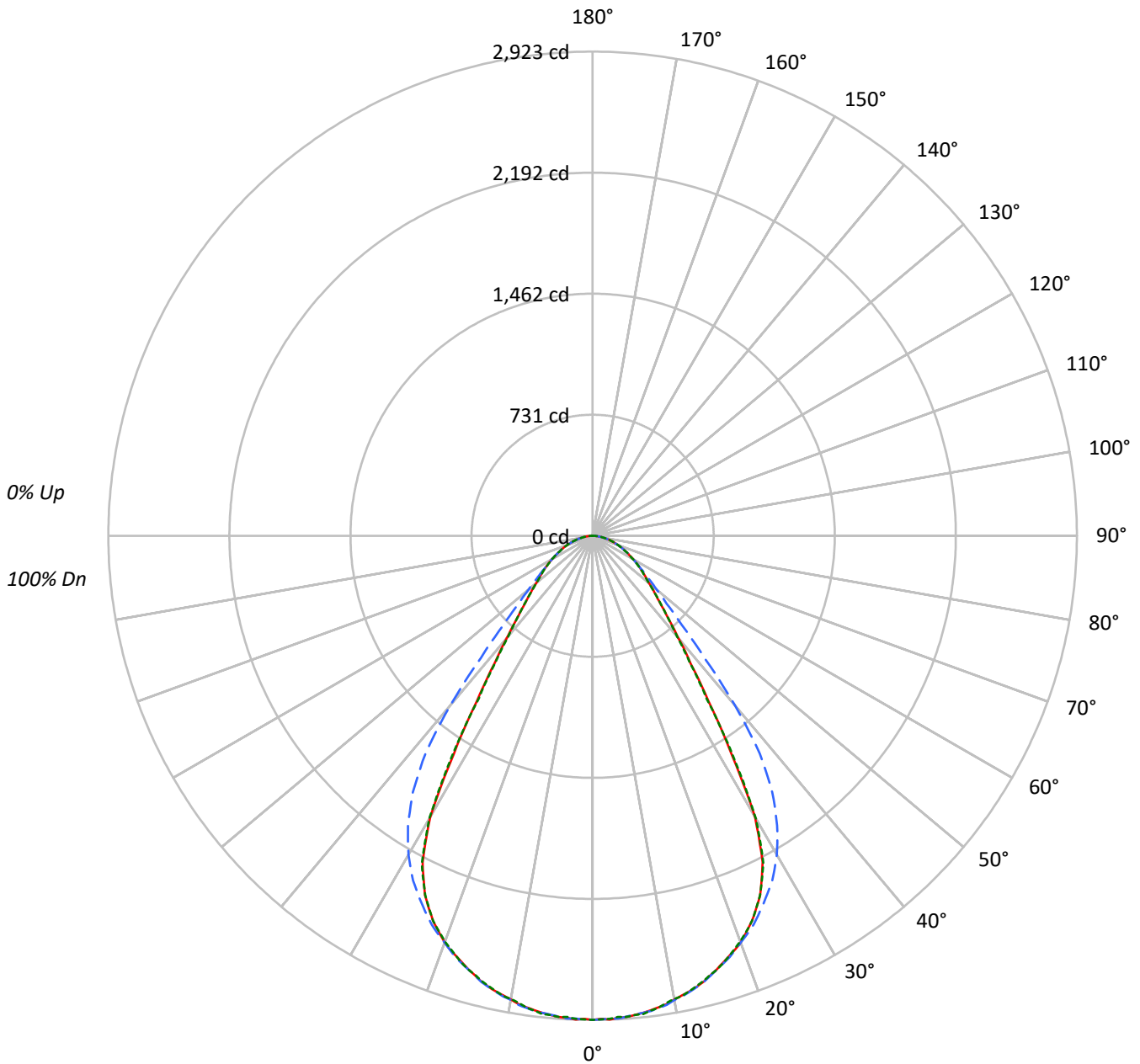
Lumens per Lamp: N/A
Luminaire Lumens: 4310.9 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 54
Input Voltage (V): NR
Input Current (A_{in}): 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°	125834	125834	125834
5°	125520	125433	125520
10°	124296	124383	124116
15°	122446	122535	122263
20°	119688	119780	119404
25°	113712	116140	113617
30°	97375	110574	97986
35°	63978	99404	63016
40°	45228	74961	44425
45°	35066	46136	35316
50°	29821	33652	29546
55°	26828	27594	26828
60°	24266	24266	24266
65°	22260	22057	22057
70°	20305	20305	20570
75°	19031	18349	18682
80°	16712	16712	16712
85°	14129	14129	14129

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 46136 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.5	6.4
10°-20°	773.8	17.9
20°-30°	1102.6	25.6
30°-40°	940.2	21.8
40°-50°	520.1	12.1
50°-60°	327.6	7.6
60°-70°	217.5	5.0
70°-80°	119.5	2.8
80°-90°	34.0	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°	2151.9	49.9
0°-40°	3092.1	71.7
0°-60°	3939.8	91.4
0°-90°	4310.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4310.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2923	2923	2923	2923	2923	
5°	2904	2908	2902	2898	2904	275
15°	2747	2747	2749	2747	2743	773
25°	2394	2422	2445	2420	2392	1081
35°	1217	1436	1891	1438	1199	791
45°	576	631	758	627	580	457
55°	357	364	368	362	357	321
65°	218	221	216	218	216	217
75°	114	112	110	112	112	120
85°	29	29	29	31	29	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2922.6	2922.6	2922.6	2922.6	2922.6
1°	2916.5	2920.6	2920.6	2918.5	2920.6
2°	2922.6	2916.5	2916.5	2916.5	2918.5
3°	2914.4	2918.5	2918.5	2912.4	2908.3
4°	2912.4	2910.4	2910.4	2916.5	2912.4
5°	2904.2	2908.3	2902.2	2898.1	2904.2
6°	2896.1	2898.1	2896.1	2898.1	2904.2
7°	2885.8	2892.0	2889.9	2887.9	2887.9
8°	2873.6	2881.8	2877.7	2877.7	2875.6
9°	2861.3	2863.4	2867.5	2867.5	2855.2
10°	2843.0	2849.1	2845.0	2847.0	2838.9
11°	2826.6	2834.8	2832.7	2828.7	2830.7
12°	2812.3	2816.4	2814.4	2808.2	2810.3
13°	2793.9	2798.0	2796.0	2796.0	2789.9
14°	2773.5	2769.4	2775.6	2771.5	2769.4
15°	2747.0	2747.0	2749.0	2747.0	2742.9
16°	2722.5	2724.5	2724.5	2722.5	2724.5
17°	2693.9	2702.0	2700.0	2695.9	2697.9
18°	2667.3	2673.4	2675.5	2673.4	2667.3
19°	2642.8	2646.9	2644.8	2636.7	2636.7
20°	2612.2	2614.2	2614.2	2610.1	2606.0
22.5°	2516.2	2530.5	2540.7	2532.5	2516.2
25°	2393.6	2422.2	2444.7	2420.2	2391.6
27.5°	2222.1	2279.3	2346.7	2285.4	2232.3
30°	1958.6	2089.3	2224.1	2101.6	1970.9
32.5°	1558.3	1815.7	2073.0	1840.2	1582.8
35°	1217.2	1435.8	1891.2	1437.8	1198.9
37.5°	972.2	1127.4	1658.4	1117.2	961.9
40°	804.7	908.8	1333.7	904.8	790.4
42.5°	671.9	751.6	998.7	743.4	671.9
45°	575.9	631.1	757.7	627.0	580.0
47.5°	504.5	539.2	606.6	537.1	504.5
50°	445.2	465.7	502.4	463.6	441.1
52.5°	398.3	410.5	424.8	406.4	394.2
55°	357.4	363.5	367.6	361.5	357.4
57.5°	318.6	322.7	320.6	318.6	316.6
60°	281.8	283.9	281.8	283.9	281.8
62.5°	249.2	251.2	247.1	249.2	247.1
65°	218.5	220.6	216.5	218.5	216.5
67.5°	189.9	189.9	189.9	189.9	187.9
70°	161.3	163.4	161.3	163.4	163.4
72.5°	136.8	136.8	134.8	136.8	136.8
75°	114.4	112.3	110.3	112.3	112.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	<i>49.0</i>	49.0	47.0	49.0	49.0
85°	<i>28.6</i>	28.6	28.6	30.6	28.6
87.5°	<i>14.3</i>	12.3	12.3	14.3	14.3
90°	<i>0.0</i>	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°	89.9	89.9	87.8	89.9	89.9
80°	67.4	69.4	67.4	69.4	67.4

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