

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: P838758

Luminaire Tested: HCSQ660D010-HM64560927-61SQMW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838758
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-HM64560927-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

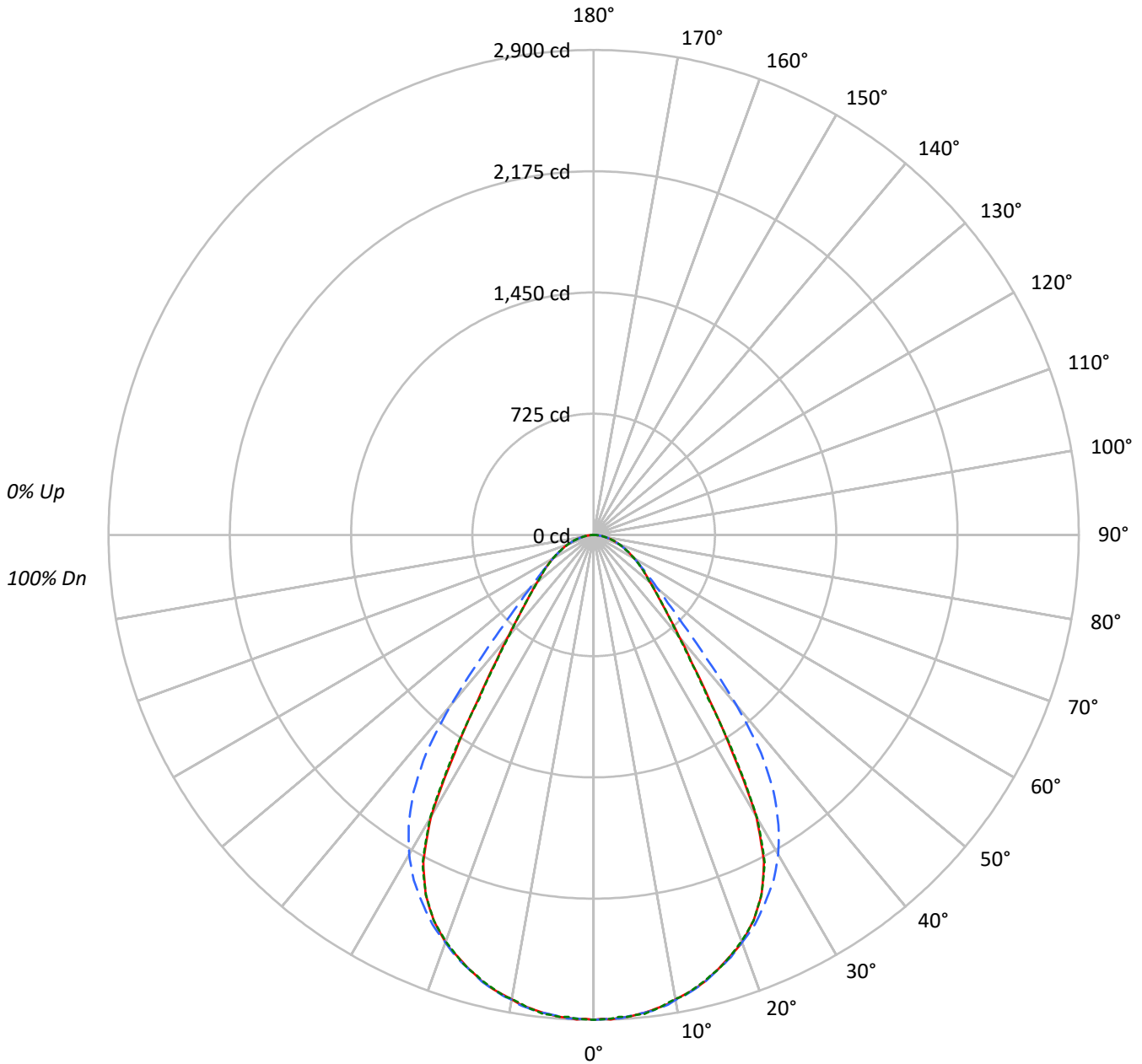
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4277.2 lumens
Efficiency: N/A
Efficacy: 76.4 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 (Ain): 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	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°	124848	124848	124848
5°	124539	124452	124539
10°	123321	123408	123146
15°	121488	121577	121305
20°	118749	118845	118474
25°	112824	115232	112729
30°	96614	109709	97220
35°	63478	98626	62522
40°	44874	74371	44076
45°	34792	45777	35042
50°	29586	33391	29318
55°	26618	27376	26618
60°	24077	24077	24077
65°	22087	21883	21883
70°	20154	20154	20406
75°	18881	18199	18549
80°	16588	16588	16588
85°	14030	14030	14030

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 45777 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	273.4	6.4
10°-20°	767.7	17.9
20°-30°	1094.0	25.6
30°-40°	932.8	21.8
40°-50°	516.1	12.1
50°-60°	325.0	7.6
60°-70°	215.8	5.0
70°-80°	118.6	2.8
80°-90°	33.8	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°	2135.1	49.9
0°-40°	3067.9	71.7
0°-60°	3909.0	91.4
0°-90°	4277.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4277.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2900	2900	2900	2900	2900	
5°	2882	2886	2880	2875	2882	273
15°	2726	2726	2728	2726	2721	767
25°	2375	2403	2426	2401	2373	1073
35°	1208	1424	1876	1427	1190	785
45°	571	626	752	622	576	453
55°	355	361	365	359	355	319
65°	217	219	215	217	215	216
75°	114	112	109	112	112	119
85°	28	28	28	30	28	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2899.7	2899.7	2899.7	2899.7	2899.7
1°	2893.7	2897.7	2897.7	2895.7	2897.7
2°	2899.7	2893.7	2893.7	2893.7	2895.7
3°	2891.6	2895.7	2895.7	2889.6	2885.6
4°	2889.6	2887.6	2887.6	2893.7	2889.6
5°	2881.5	2885.6	2879.5	2875.4	2881.5
6°	2873.4	2875.4	2873.4	2875.4	2881.5
7°	2863.3	2869.3	2867.3	2865.3	2865.3
8°	2851.1	2859.2	2855.2	2855.2	2853.1
9°	2839.0	2841.0	2845.0	2845.0	2832.9
10°	2820.7	2826.8	2822.7	2824.8	2816.7
11°	2804.5	2812.6	2810.6	2806.5	2808.6
12°	2790.3	2794.4	2792.3	2786.3	2788.3
13°	2772.1	2776.1	2774.1	2774.1	2768.0
14°	2751.8	2747.8	2753.8	2749.8	2747.8
15°	2725.5	2725.5	2727.5	2725.5	2721.4
16°	2701.2	2703.2	2703.2	2701.2	2703.2
17°	2672.8	2680.9	2678.9	2674.8	2676.8
18°	2646.4	2652.5	2654.6	2652.5	2646.4
19°	2622.1	2626.2	2624.2	2616.0	2616.0
20°	2591.7	2593.8	2593.8	2589.7	2585.7
22.5°	2496.5	2510.7	2520.8	2512.7	2496.5
25°	2374.9	2403.3	2425.6	2401.3	2372.9
27.5°	2204.7	2261.4	2328.3	2267.5	2214.8
30°	1943.3	2073.0	2206.7	2085.1	1955.5
32.5°	1546.1	1801.4	2056.8	1825.8	1570.4
35°	1207.7	1424.5	1876.4	1426.6	1189.5
37.5°	964.6	1118.6	1645.4	1108.4	954.4
40°	798.4	901.7	1323.2	897.7	784.2
42.5°	666.7	745.7	990.9	737.6	666.7
45°	571.4	626.1	751.8	622.1	575.5
47.5°	500.5	535.0	601.8	532.9	500.5
50°	441.7	462.0	498.5	460.0	437.7
52.5°	395.1	407.3	421.5	403.2	391.1
55°	354.6	360.7	364.7	358.7	354.6
57.5°	316.1	320.2	318.1	316.1	314.1
60°	279.6	281.7	279.6	281.7	279.6
62.5°	247.2	249.2	245.2	247.2	245.2
65°	216.8	218.8	214.8	216.8	214.8
67.5°	188.5	188.5	188.5	188.5	186.4
70°	160.1	162.1	160.1	162.1	162.1
72.5°	135.8	135.8	133.7	135.8	135.8
75°	113.5	111.5	109.4	111.5	111.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	48.6	48.6	46.6	48.6	48.6
85°	28.4	28.4	28.4	30.4	28.4
87.5°	14.2	12.2	12.2	14.2	14.2
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°	89.2	89.2	87.1	89.2	89.2
80°	66.9	68.9	66.9	68.9	66.9

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