

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: P838738

Luminaire Tested: HCSQ660D010-HM64560827-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838738
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-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

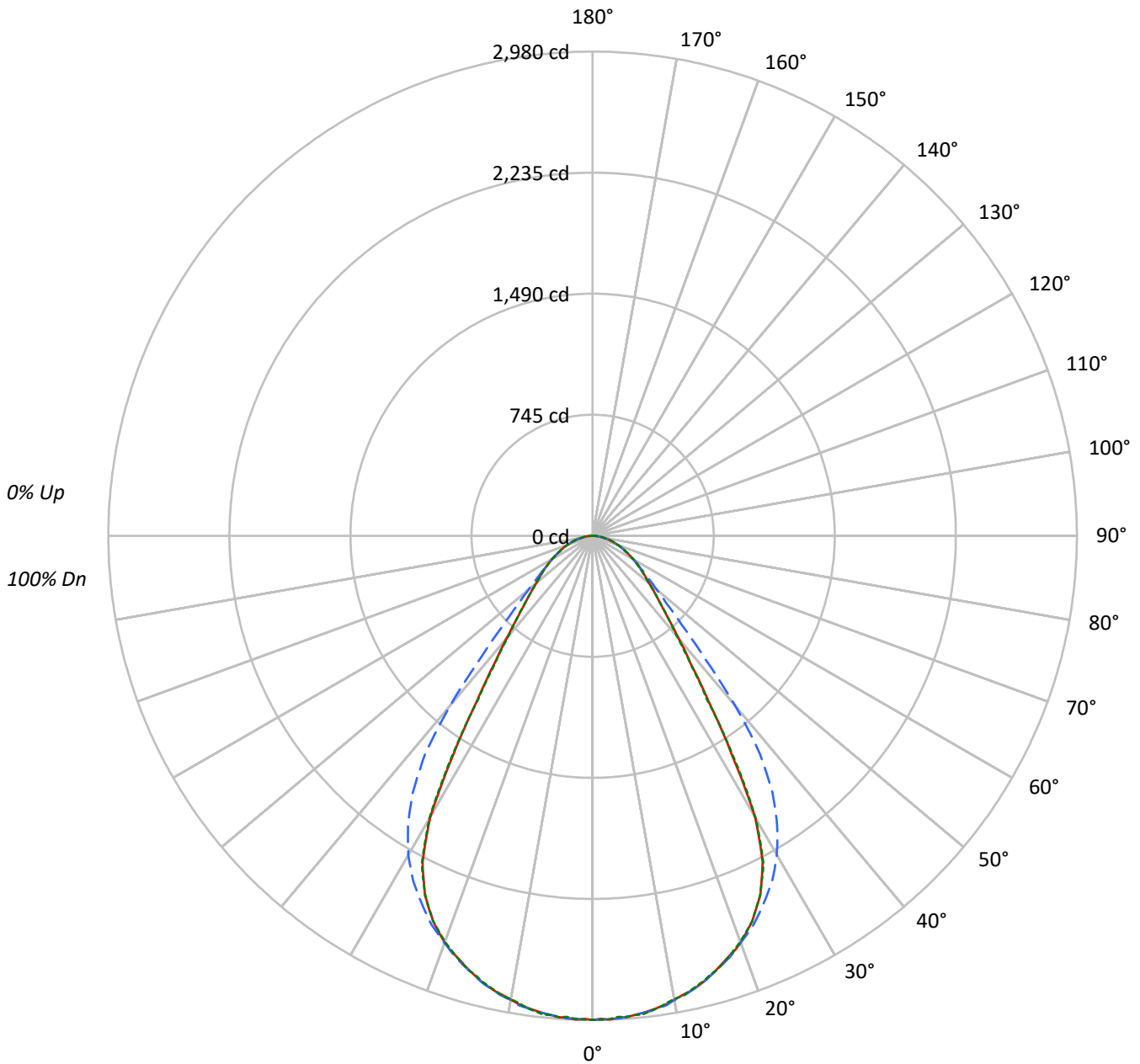
Lumens per Lamp: N/A
Luminaire Lumens: 4396.0 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 56
Input Voltage (V): NR
Input Current (A_{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										
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	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°	128319	128319	128319
5°	127996	127910	127996
10°	126748	126836	126565
15°	124862	124956	124675
20°	122048	122144	121764
25°	115959	118429	115859
30°	99299	112757	99920
35°	65244	101364	64256
40°	46122	76439	45301
45°	35761	47050	36016
50°	30410	34315	30136
55°	27361	28142	27361
60°	24748	24748	24748
65°	22699	22495	22495
70°	20708	20708	20973
75°	19397	18715	19048
80°	17034	17034	17034
85°	14425	14425	14425

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 47050 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.0	6.4
10°-20°	789.0	17.9
20°-30°	1124.4	25.6
30°-40°	958.7	21.8
40°-50°	530.4	12.1
50°-60°	334.1	7.6
60°-70°	221.8	5.0
70°-80°	121.9	2.8
80°-90°	34.7	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°	2194.4	49.9
0°-40°	3153.1	71.7
0°-60°	4017.6	91.4
0°-90°	4396.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4396.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2980	2980	2980	2980	2980	
5°	2962	2966	2960	2955	2962	281
15°	2801	2801	2803	2801	2797	789
25°	2441	2470	2493	2468	2439	1103
35°	1241	1464	1928	1466	1222	807
45°	587	644	773	639	592	466
55°	364	371	375	369	364	327
65°	223	225	221	223	221	222
75°	117	114	112	114	114	122
85°	29	29	29	31	29	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2980.3	2980.3	2980.3	2980.3	2980.3
1°	2974.0	2978.2	2978.2	2976.1	2978.2
2°	2980.3	2974.0	2974.0	2974.0	2976.1
3°	2972.0	2976.1	2976.1	2969.9	2965.7
4°	2969.9	2967.8	2967.8	2974.0	2969.9
5°	2961.5	2965.7	2959.5	2955.3	2961.5
6°	2953.2	2955.3	2953.2	2955.3	2961.5
7°	2942.8	2949.0	2947.0	2944.9	2944.9
8°	2930.3	2938.6	2934.5	2934.5	2932.4
9°	2917.8	2919.9	2924.1	2924.1	2911.6
10°	2899.1	2905.3	2901.1	2903.2	2894.9
11°	2882.4	2890.7	2888.7	2884.5	2886.6
12°	2867.8	2872.0	2869.9	2863.7	2865.7
13°	2849.1	2853.2	2851.2	2851.2	2844.9
14°	2828.3	2824.1	2830.3	2826.2	2824.1
15°	2801.2	2801.2	2803.3	2801.2	2797.0
16°	2776.2	2778.3	2778.3	2776.2	2778.3
17°	2747.0	2755.4	2753.3	2749.1	2751.2
18°	2720.0	2726.2	2728.3	2726.2	2720.0
19°	2695.0	2699.1	2697.0	2688.7	2688.7
20°	2663.7	2665.8	2665.8	2661.6	2657.5
22.5°	2565.8	2580.4	2590.8	2582.5	2565.8
25°	2440.9	2470.0	2492.9	2468.0	2438.8
27.5°	2265.9	2324.3	2393.0	2330.5	2276.3
30°	1997.3	2130.6	2268.0	2143.1	2009.8
32.5°	1589.1	1851.5	2113.9	1876.5	1614.1
35°	1241.3	1464.1	1928.5	1466.2	1222.5
37.5°	991.3	1149.6	1691.1	1139.2	980.9
40°	820.6	926.8	1360.0	922.6	806.0
42.5°	685.2	766.4	1018.4	758.1	685.2
45°	587.3	643.5	772.7	639.4	591.5
47.5°	514.4	549.8	618.6	547.7	514.4
50°	454.0	474.8	512.3	472.8	449.9
52.5°	406.1	418.6	433.2	414.4	402.0
55°	364.5	370.7	374.9	368.6	364.5
57.5°	324.9	329.1	327.0	324.9	322.8
60°	287.4	289.5	287.4	289.5	287.4
62.5°	254.1	256.2	252.0	254.1	252.0
65°	222.8	224.9	220.8	222.8	220.8
67.5°	193.7	193.7	193.7	193.7	191.6
70°	164.5	166.6	164.5	166.6	166.6
72.5°	139.5	139.5	137.5	139.5	139.5
75°	116.6	114.5	112.5	114.5	114.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	50.0	50.0	47.9	50.0	50.0
85°	29.2	29.2	29.2	31.2	29.2
87.5°	14.6	12.5	12.5	14.6	14.6
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°	91.6	91.6	89.6	91.6	91.6
80°	68.7	70.8	68.7	70.8	68.7

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