

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: P838707

Luminaire Tested: HCSQ655D010-HM64560835-61SQMB

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838707
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ655D010-HM64560835-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

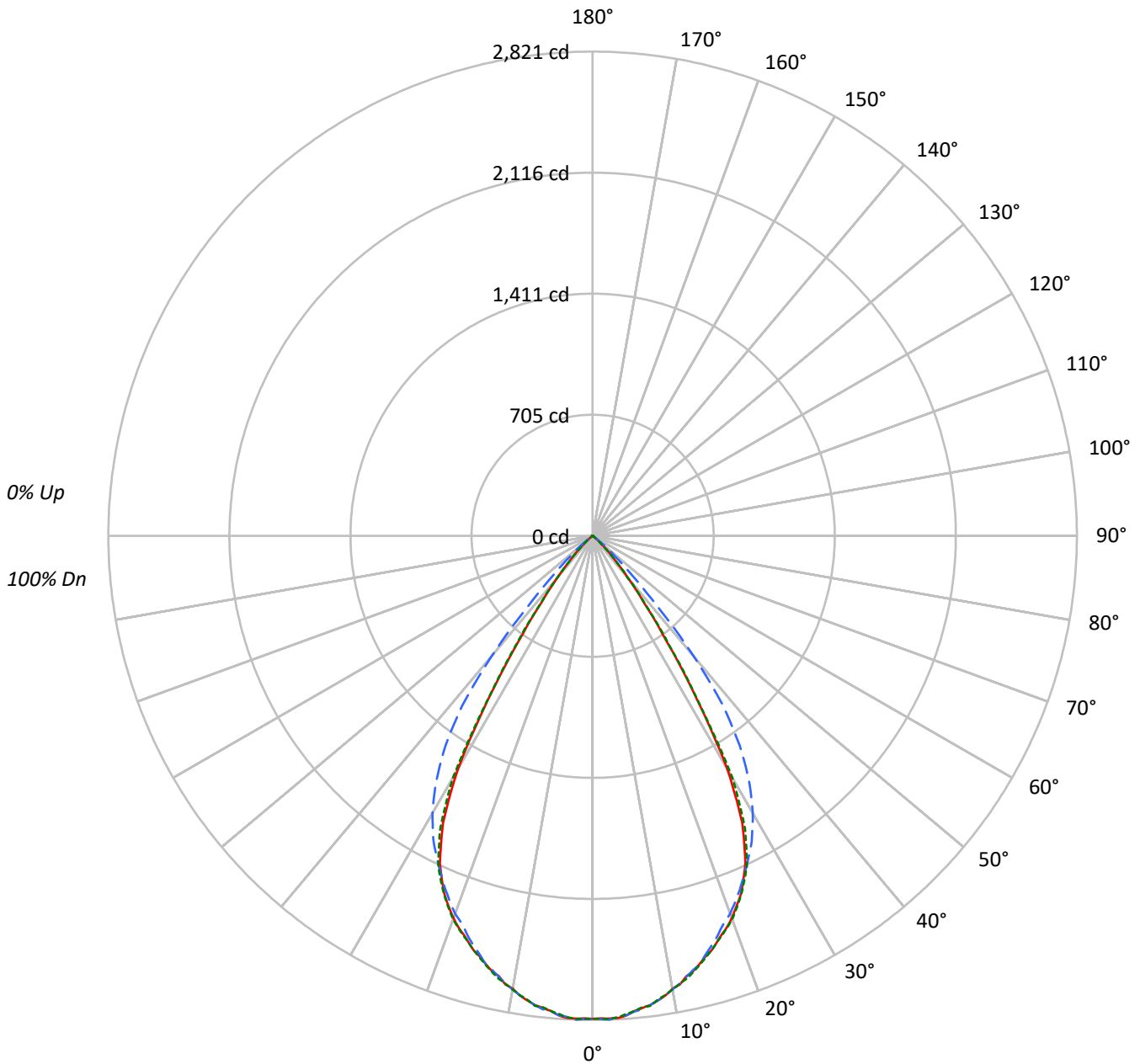
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2797.6 lumens
Efficiency: N/A
Efficacy: 51.8 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03
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										
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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93								
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87								
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81								
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75								
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70								
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65								
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60								
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56								
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53								
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	121172	121172	121172
5°	120152	120251	120152
10°	117143	117344	117344
15°	113117	112809	113420
20°	108627	107372	108944
25°	100030	100790	101009
30°	77970	92746	80928
35°	39537	78590	40977
40°	17991	51400	17991
45°	6960	19351	6820
50°	1072	6122	1072
55°	345	1201	345
60°	198	198	198
65°	234	0	234
70°	0	0	290
75°	0	0	383
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 19351 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.8	9.4
10°-20°	712.7	25.5
20°-30°	960.7	34.3
30°-40°	675.4	24.1
40°-50°	172.5	6.2
50°-60°	11.9	0.4
60°-70°	1.4	0.1
70°-80°	0.2	0.0
80°-90°	0.0	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°	1936.1	69.2
0°-40°	2611.6	93.4
0°-60°	2796.0	99.9
0°-90°	2797.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2797.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2814	2814	2814	2814	2814	
5°	2780	2785	2782	2785	2780	263
15°	2538	2533	2531	2538	2544	714
25°	2106	2112	2122	2128	2126	941
35°	752	997	1495	1022	780	506
45°	114	172	318	174	112	100
55°	5	5	16	5	5	6
65°	2	2	0	2	2	2
75°	0	0	0	0	2	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2814.3	2814.3	2814.3	2814.3	2814.3
1°	2812.0	2814.3	2816.6	2816.6	2814.3
2°	2814.3	2807.5	2821.2	2814.3	2816.6
3°	2814.3	2800.6	2807.5	2812.0	2809.7
4°	2802.9	2793.7	2800.6	2798.3	2793.7
5°	2780.0	2784.6	2782.3	2784.6	2780.0
6°	2766.3	2770.9	2775.5	2768.6	2761.7
7°	2754.9	2752.6	2754.9	2759.5	2759.5
8°	2734.3	2738.9	2734.3	2736.6	2729.7
9°	2711.4	2711.4	2711.4	2716.0	2709.2
10°	2679.4	2690.9	2684.0	2688.6	2684.0
11°	2663.4	2658.9	2658.9	2661.1	2658.9
12°	2624.6	2629.1	2626.9	2631.4	2638.3
13°	2604.0	2606.3	2597.1	2608.6	2608.6
14°	2572.0	2569.7	2574.3	2572.0	2576.6
15°	2537.7	2533.1	2530.8	2537.7	2544.5
16°	2512.5	2501.1	2494.3	2503.4	2512.5
17°	2476.0	2464.5	2455.4	2473.7	2476.0
18°	2439.4	2434.8	2411.9	2434.8	2446.2
19°	2409.7	2393.7	2373.1	2398.2	2411.9
20°	2370.8	2357.1	2343.4	2357.1	2377.7
22.5°	2258.8	2247.3	2235.9	2251.9	2263.3
25°	2105.6	2112.5	2121.6	2128.5	2126.2
27.5°	1888.4	1950.1	2007.3	1970.7	1922.7
30°	1568.3	1723.8	1865.5	1748.9	1627.8
32.5°	1136.2	1401.4	1696.4	1454.0	1147.7
35°	752.2	996.8	1495.2	1021.9	779.6
37.5°	489.2	669.9	1248.3	672.1	512.1
40°	320.1	436.7	914.5	445.8	320.1
42.5°	196.6	276.6	555.5	288.1	196.6
45°	114.3	171.5	317.8	173.8	112.0
47.5°	52.6	93.7	180.6	91.4	54.9
50°	16.0	41.2	91.4	41.2	16.0
52.5°	6.9	11.4	43.4	11.4	6.9
55°	4.6	4.6	16.0	4.6	4.6
57.5°	4.6	2.3	4.6	4.6	4.6
60°	2.3	2.3	2.3	2.3	2.3
62.5°	2.3	2.3	2.3	2.3	2.3
65°	2.3	2.3	0.0	2.3	2.3
67.5°	2.3	0.0	0.0	0.0	2.3
70°	0.0	0.0	0.0	0.0	2.3
72.5°	0.0	0.0	0.0	0.0	2.3
75°	0.0	0.0	0.0	0.0	2.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0

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