

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: P838712

Luminaire Tested: HCSQ655D010-HM64560840-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838712
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-HM64560840-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

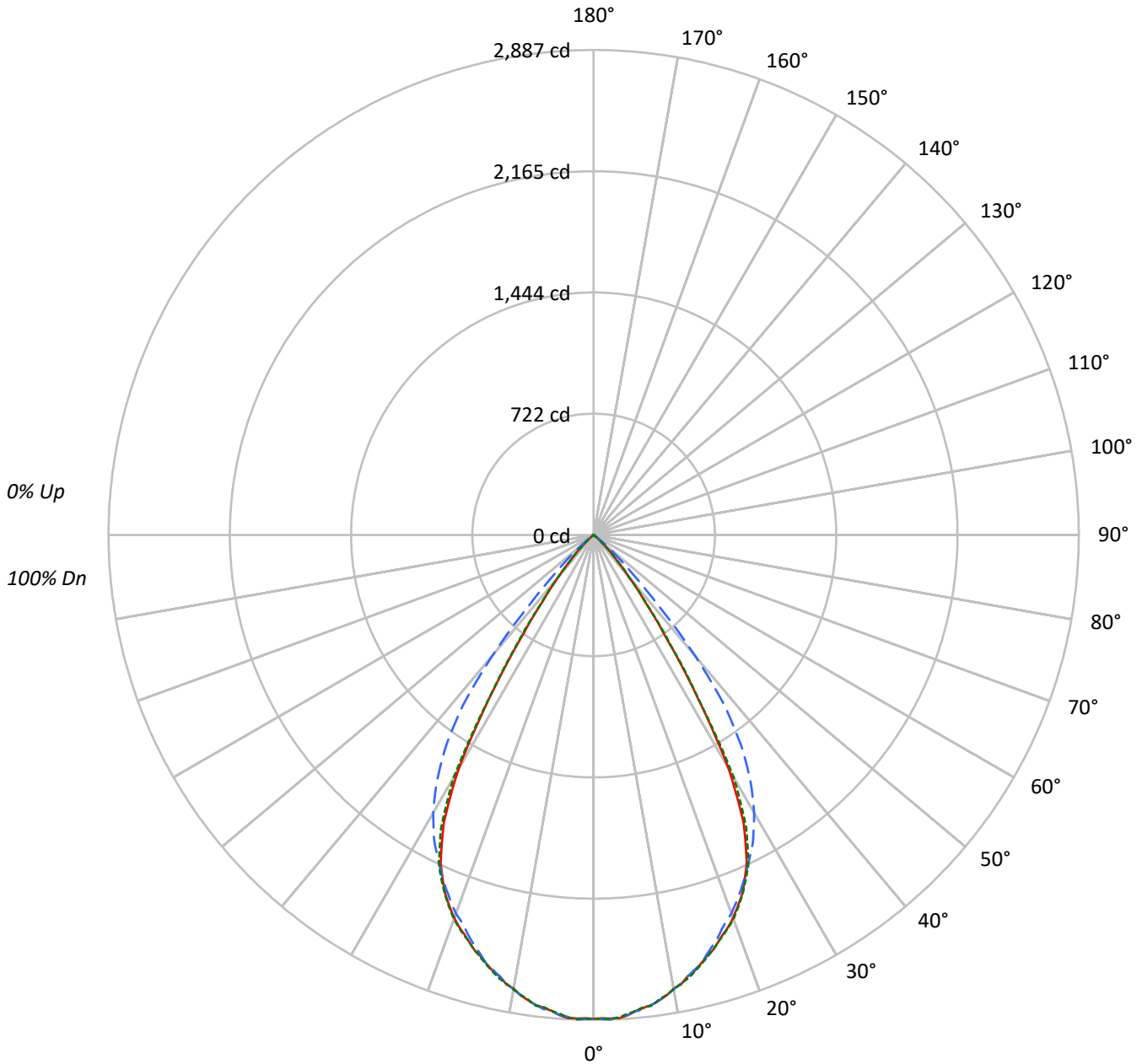
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2863.1 lumens
Efficiency: N/A
Efficacy: 53.0 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					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					100			
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93					93			
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87					87			
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81					81			
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75					75			
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70					70			
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65					65			
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60					60			
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56					56			
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53					53			
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50					50			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	124013	124013	124013
5°	122970	123069	122970
10°	119889	120094	120094
15°	115769	115452	116081
20°	111175	109887	111496
25°	102372	103151	103375
30°	79800	94924	82823
35°	40462	80429	41939
40°	18413	52602	18413
45°	7124	19801	6978
50°	1099	6270	1099
55°	353	1231	353
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: 19801 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.9	9.4
10°-20°	729.4	25.5
20°-30°	983.2	34.3
30°-40°	691.3	24.1
40°-50°	176.5	6.2
50°-60°	12.2	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°	1981.5	69.2
0°-40°	2672.8	93.4
0°-60°	2861.5	99.9
0°-90°	2863.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2863.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2880	2880	2880	2880	2880	
5°	2845	2850	2848	2850	2845	269
15°	2597	2592	2590	2597	2604	731
25°	2155	2162	2171	2178	2176	963
35°	770	1020	1530	1046	798	518
45°	117	176	325	178	115	102
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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2880.3	2880.3	2880.3	2880.3	2880.3
1°	2877.9	2880.3	2882.6	2882.6	2880.3
2°	2880.3	2873.3	2887.3	2880.3	2882.6
3°	2880.3	2866.2	2873.3	2877.9	2875.6
4°	2868.6	2859.2	2866.2	2863.9	2859.2
5°	2845.2	2849.9	2847.5	2849.9	2845.2
6°	2831.1	2835.8	2840.5	2833.5	2826.5
7°	2819.4	2817.1	2819.4	2824.1	2824.1
8°	2798.4	2803.1	2798.4	2800.7	2793.7
9°	2775.0	2775.0	2775.0	2779.7	2772.7
10°	2742.2	2753.9	2746.9	2751.6	2746.9
11°	2725.9	2721.2	2721.2	2723.5	2721.2
12°	2686.1	2690.8	2688.4	2693.1	2700.1
13°	2665.0	2667.4	2658.0	2669.7	2669.7
14°	2632.3	2629.9	2634.6	2632.3	2636.9
15°	2597.2	2592.5	2590.1	2597.2	2604.2
16°	2571.4	2559.7	2552.7	2562.1	2571.4
17°	2534.0	2522.3	2512.9	2531.7	2534.0
18°	2496.6	2491.9	2468.5	2491.9	2503.6
19°	2466.1	2449.8	2428.7	2454.4	2468.5
20°	2426.4	2412.3	2398.3	2412.3	2433.4
22.5°	2311.7	2300.0	2288.3	2304.7	2316.4
25°	2154.9	2162.0	2171.3	2178.3	2176.0
27.5°	1932.7	1995.8	2054.3	2016.9	1967.8
30°	1605.1	1764.2	1909.3	1789.9	1665.9
32.5°	1162.9	1434.3	1736.1	1488.1	1174.6
35°	769.8	1020.1	1530.2	1045.9	797.9
37.5°	500.7	685.6	1277.5	687.9	524.1
40°	327.6	446.9	935.9	456.3	327.6
42.5°	201.2	283.1	568.6	294.8	201.2
45°	117.0	175.5	325.2	177.8	114.6
47.5°	53.8	95.9	184.8	93.6	56.2
50°	16.4	42.1	93.6	42.1	16.4
52.5°	7.0	11.7	44.5	11.7	7.0
55°	4.7	4.7	16.4	4.7	4.7
57.5°	4.7	2.3	4.7	4.7	4.7
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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