

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: P838702

Luminaire Tested: HCSQ655D010-HM64560830-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838702
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-HM64560830-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

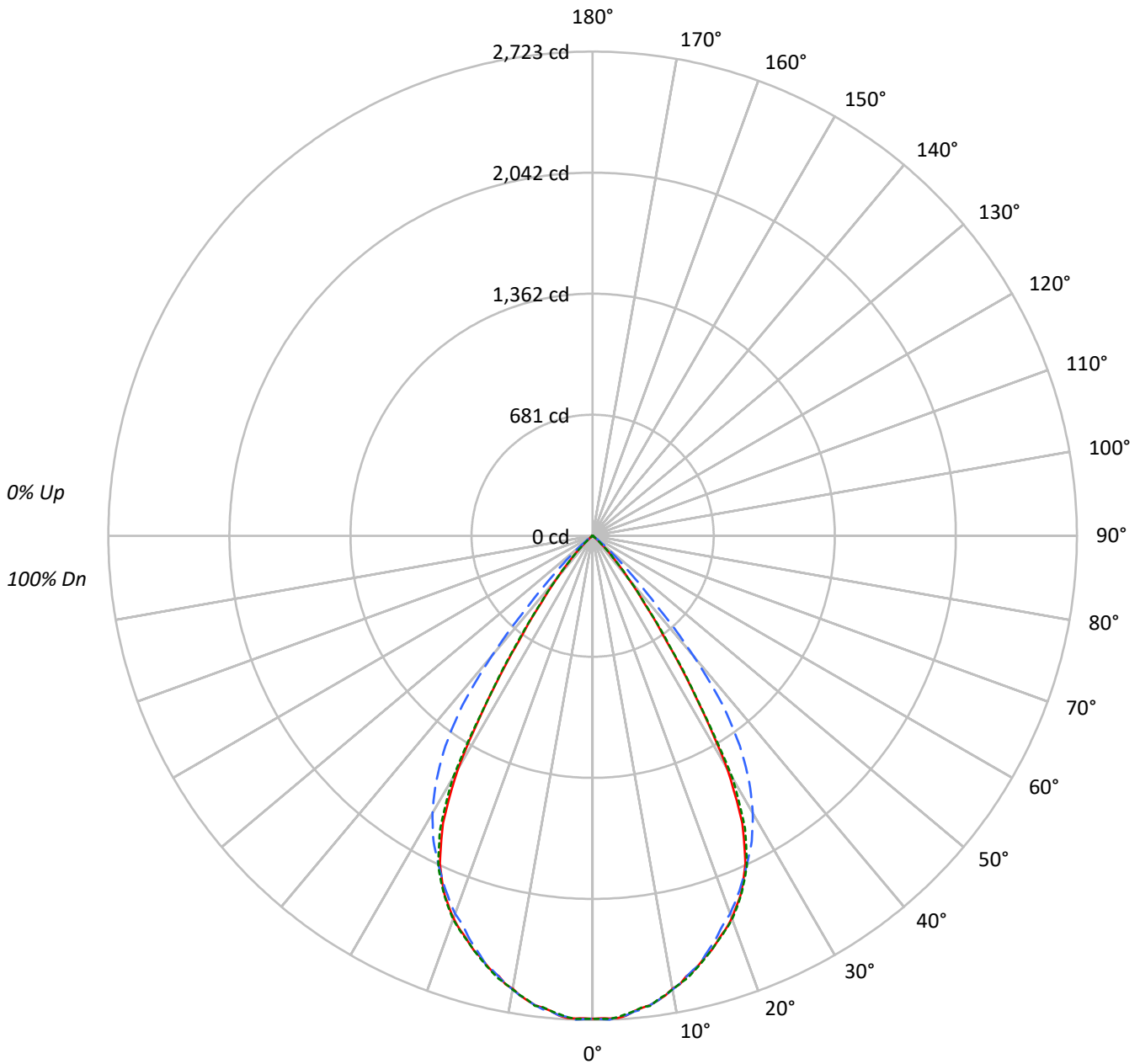
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2700.2 lumens
Efficiency: N/A
Efficacy: 50.0 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										
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	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°	116956	116956	116956
5°	115973	116068	115973
10°	113068	113261	113261
15°	109181	108887	109475
20°	104847	103633	105150
25°	96548	97284	97493
30°	75261	89519	78109
35°	38159	75851	39552
40°	17362	49612	17362
45°	6716	18675	6582
50°	1032	5915	1032
55°	330	1156	330
60°	189	189	189
65°	224	0	224
70°	0	0	277
75°	0	0	366
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18675 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.6	9.4
10°-20°	687.9	25.5
20°-30°	927.3	34.3
30°-40°	651.9	24.1
40°-50°	166.5	6.2
50°-60°	11.5	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°	1868.8	69.2
0°-40°	2520.7	93.4
0°-60°	2698.6	99.9
0°-90°	2700.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2700.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2716	2716	2716	2716	2716	
5°	2683	2688	2686	2688	2683	254
15°	2449	2445	2443	2449	2456	689
25°	2032	2039	2048	2054	2052	908
35°	726	962	1443	986	752	489
45°	110	166	307	168	108	96
55°	4	4	15	4	4	5
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°	2716.4	2716.4	2716.4	2716.4	2716.4
1°	2714.2	2716.4	2718.6	2718.6	2716.4
2°	2716.4	2709.8	2723.0	2716.4	2718.6
3°	2716.4	2703.1	2709.8	2714.2	2712.0
4°	2705.3	2696.5	2703.1	2700.9	2696.5
5°	2683.3	2687.7	2685.5	2687.7	2683.3
6°	2670.0	2674.5	2678.9	2672.2	2665.6
7°	2659.0	2656.8	2659.0	2663.4	2663.4
8°	2639.1	2643.6	2639.1	2641.4	2634.7
9°	2617.1	2617.1	2617.1	2621.5	2614.9
10°	2586.2	2597.2	2590.6	2595.0	2590.6
11°	2570.7	2566.3	2566.3	2568.5	2566.3
12°	2533.2	2537.6	2535.4	2539.8	2546.5
13°	2513.4	2515.6	2506.7	2517.8	2517.8
14°	2482.5	2480.3	2484.7	2482.5	2486.9
15°	2449.4	2445.0	2442.8	2449.4	2456.0
16°	2425.1	2414.1	2407.4	2416.3	2425.1
17°	2389.8	2378.8	2369.9	2387.6	2389.8
18°	2354.5	2350.1	2328.0	2350.1	2361.1
19°	2325.8	2310.4	2290.5	2314.8	2328.0
20°	2288.3	2275.1	2261.8	2275.1	2294.9
22.5°	2180.2	2169.1	2158.1	2173.5	2184.6
25°	2032.3	2038.9	2047.8	2054.4	2052.2
27.5°	1822.7	1882.3	1937.4	1902.1	1855.8
30°	1513.8	1663.8	1800.6	1688.1	1571.1
32.5°	1096.7	1352.7	1637.3	1403.4	1107.7
35°	726.0	962.1	1443.1	986.4	752.5
37.5°	472.2	646.5	1204.8	648.8	494.3
40°	308.9	421.5	882.7	430.3	308.9
42.5°	189.8	267.0	536.2	278.0	189.8
45°	110.3	165.5	306.7	167.7	108.1
47.5°	50.8	90.5	174.3	88.3	53.0
50°	15.4	39.7	88.3	39.7	15.4
52.5°	6.6	11.0	41.9	11.0	6.6
55°	4.4	4.4	15.4	4.4	4.4
57.5°	4.4	2.2	4.4	4.4	4.4
60°	2.2	2.2	2.2	2.2	2.2
62.5°	2.2	2.2	2.2	2.2	2.2
65°	2.2	2.2	0.0	2.2	2.2
67.5°	2.2	0.0	0.0	0.0	2.2
70°	0.0	0.0	0.0	0.0	2.2
72.5°	0.0	0.0	0.0	0.0	2.2
75°	0.0	0.0	0.0	0.0	2.2



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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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