

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: P838727

Luminaire Tested: HCSQ655D010-HM64560935-61SQMB

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838727
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-HM64560935-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

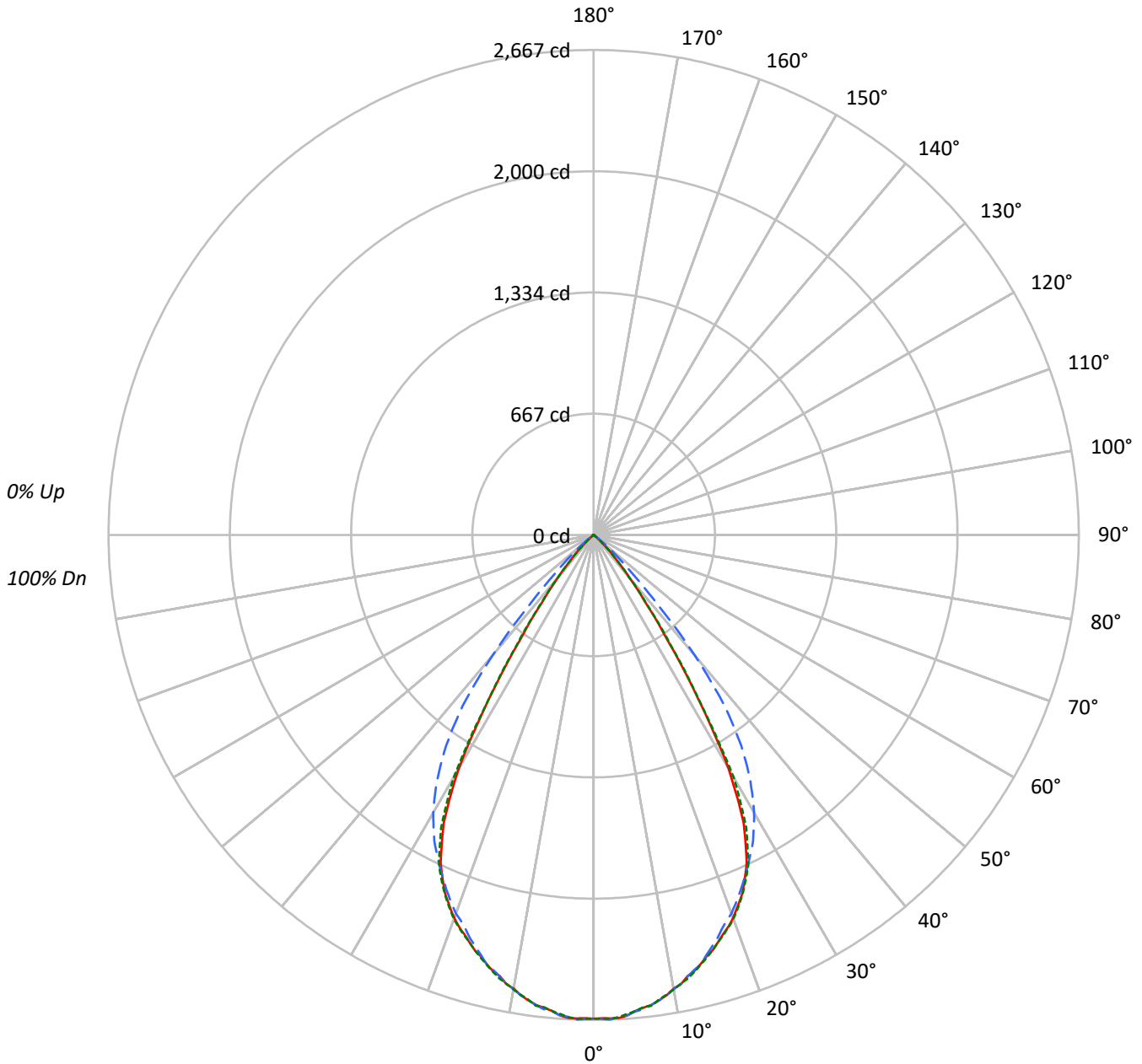
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2644.6 lumens
Efficiency: N/A
Efficacy: 49.0 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°	114545	114545	114545
5°	113582	113678	113582
10°	110738	110926	110926
15°	106930	106640	107220
20°	102685	101498	102983
25°	94557	95279	95484
30°	73710	87675	76504
35°	37371	74290	38738
40°	17008	48589	17008
45°	6582	18291	6448
50°	1011	5787	1011
55°	323	1133	323
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: 18291 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.4	9.4
10°-20°	673.7	25.5
20°-30°	908.2	34.3
30°-40°	638.5	24.1
40°-50°	163.0	6.2
50°-60°	11.3	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°	1830.3	69.2
0°-40°	2468.8	93.4
0°-60°	2643.1	99.9
0°-90°	2644.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2644.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2660	2660	2660	2660	2660	
5°	2628	2632	2630	2632	2628	248
15°	2399	2395	2392	2399	2405	675
25°	1990	1997	2006	2012	2010	889
35°	711	942	1413	966	737	478
45°	108	162	300	164	106	94
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°	2660.4	2660.4	2660.4	2660.4	2660.4
1°	2658.3	2660.4	2662.6	2662.6	2660.4
2°	2660.4	2653.9	2666.9	2660.4	2662.6
3°	2660.4	2647.4	2653.9	2658.3	2656.1
4°	2649.6	2641.0	2647.4	2645.3	2641.0
5°	2628.0	2632.3	2630.2	2632.3	2628.0
6°	2615.0	2619.4	2623.7	2617.2	2610.7
7°	2604.2	2602.1	2604.2	2608.5	2608.5
8°	2584.8	2589.1	2584.8	2586.9	2580.4
9°	2563.2	2563.2	2563.2	2567.5	2561.0
10°	2532.9	2543.7	2537.2	2541.5	2537.2
11°	2517.8	2513.5	2513.5	2515.6	2513.5
12°	2481.0	2485.4	2483.2	2487.5	2494.0
13°	2461.6	2463.7	2455.1	2465.9	2465.9
14°	2431.3	2429.2	2433.5	2431.3	2435.7
15°	2398.9	2394.6	2392.4	2398.9	2405.4
16°	2375.1	2364.3	2357.8	2366.5	2375.1
17°	2340.6	2329.8	2321.1	2338.4	2340.6
18°	2306.0	2301.7	2280.0	2301.7	2312.5
19°	2277.9	2262.8	2243.3	2267.1	2280.0
20°	2241.1	2228.2	2215.2	2228.2	2247.6
22.5°	2135.2	2124.4	2113.6	2128.8	2139.6
25°	1990.4	1996.9	2005.6	2012.1	2009.9
27.5°	1785.1	1843.5	1897.5	1862.9	1817.6
30°	1482.6	1629.5	1763.5	1653.3	1538.8
32.5°	1074.1	1324.8	1603.6	1374.5	1084.9
35°	711.0	942.3	1413.4	966.0	737.0
37.5°	462.5	633.2	1180.0	635.4	484.1
40°	302.6	412.8	864.5	421.4	302.6
42.5°	185.9	261.5	525.2	272.3	185.9
45°	108.1	162.1	300.4	164.2	105.9
47.5°	49.7	88.6	170.7	86.4	51.9
50°	15.1	38.9	86.4	38.9	15.1
52.5°	6.5	10.8	41.1	10.8	6.5
55°	4.3	4.3	15.1	4.3	4.3
57.5°	4.3	2.2	4.3	4.3	4.3
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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