

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: P838697

Luminaire Tested: HCSQ655D010-HM64560827-61SQMB

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838697
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-HM64560827-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

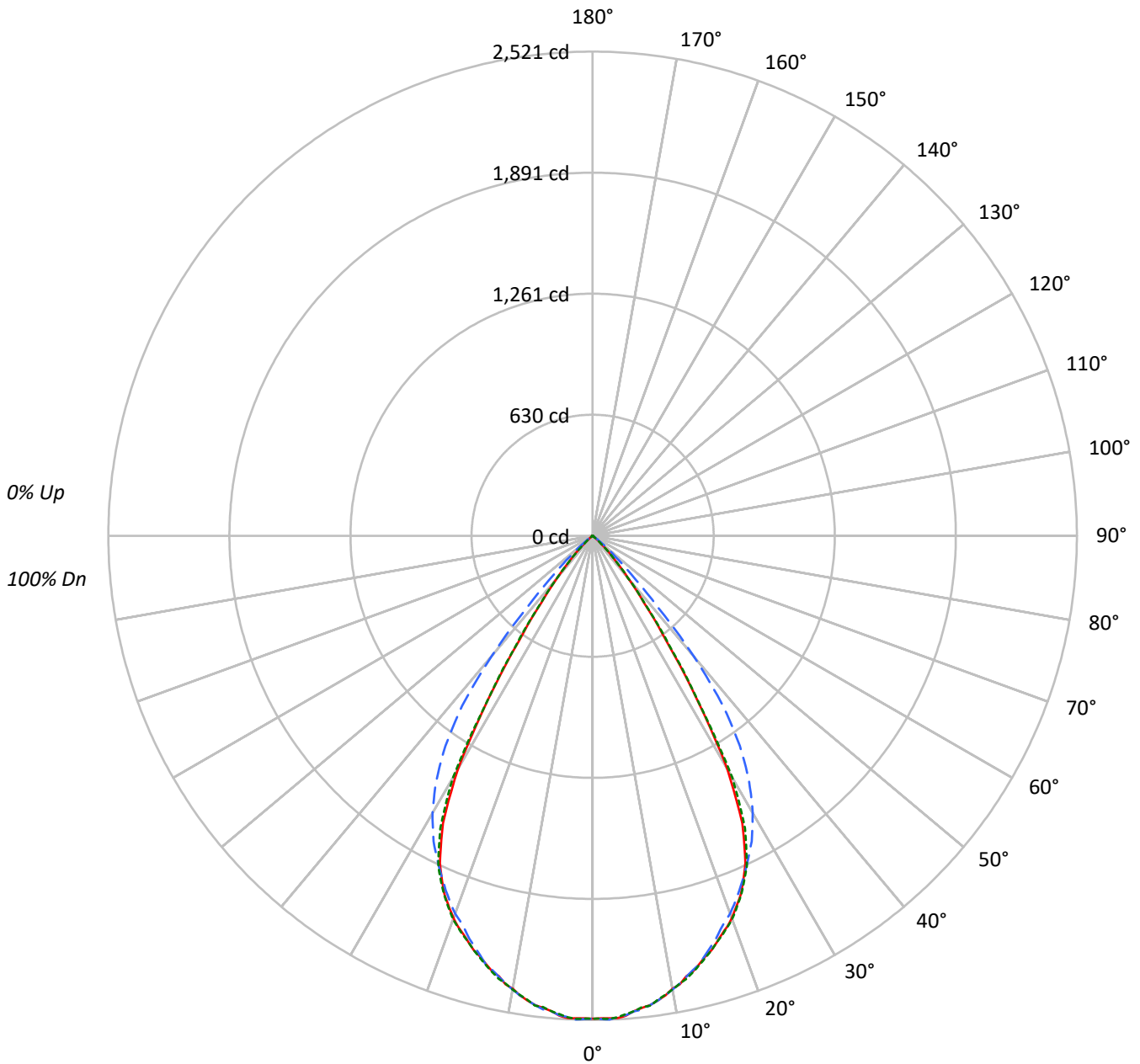
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2499.5 lumens
Efficiency: N/A
Efficacy: 46.3 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 (Ain): 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	100	100	100	100	100		
	1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93	93	93	93	93	93		
	2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87	87	87	87	87	87		
	3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81	81	81	81	81	81		
	4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75	75	75	75	75	75		
	5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70	70	70	70	70	70		
	6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65	65	65	65	65	65		
	7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60	60	60	60	60	60		
	8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56	56	56	56	56	56		
	9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53	53	53	53	53	53		
	10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50	50	50	50	50	50		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	108263	108263	108263
5°	107354	107441	107354
10°	104665	104845	104845
15°	101064	100792	101340
20°	97054	95931	97338
25°	89374	90054	90248
30°	69668	82867	72308
35°	35321	70217	36609
40°	16075	45925	16075
45°	6217	17287	6095
50°	958	5472	958
55°	308	1073	308
60°	172	172	172
65°	204	0	204
70°	0	0	252
75°	0	0	333
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17287 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.8	9.4
10°-20°	636.7	25.5
20°-30°	858.3	34.3
30°-40°	603.5	24.1
40°-50°	154.1	6.2
50°-60°	10.6	0.4
60°-70°	1.3	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°	1729.9	69.2
0°-40°	2333.4	93.4
0°-60°	2498.1	99.9
0°-90°	2499.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2499.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2514	2514	2514	2514	2514	
5°	2484	2488	2486	2488	2484	235
15°	2267	2263	2261	2267	2274	638
25°	1881	1887	1896	1902	1900	841
35°	672	891	1336	913	696	452
45°	102	153	284	155	100	89
55°	4	4	14	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°	2514.5	2514.5	2514.5	2514.5	2514.5
1°	2512.5	2514.5	2516.5	2516.5	2514.5
2°	2514.5	2508.4	2520.6	2514.5	2516.5
3°	2514.5	2502.2	2508.4	2512.5	2510.4
4°	2504.3	2496.1	2502.2	2500.2	2496.1
5°	2483.9	2487.9	2485.9	2487.9	2483.9
6°	2471.6	2475.7	2479.8	2473.6	2467.5
7°	2461.4	2459.3	2461.4	2465.5	2465.5
8°	2443.0	2447.1	2443.0	2445.1	2438.9
9°	2422.6	2422.6	2422.6	2426.7	2420.5
10°	2394.0	2404.2	2398.1	2402.2	2398.1
11°	2379.7	2375.6	2375.6	2377.6	2375.6
12°	2345.0	2349.0	2347.0	2351.1	2357.2
13°	2326.6	2328.6	2320.4	2330.7	2330.7
14°	2298.0	2295.9	2300.0	2298.0	2302.1
15°	2267.3	2263.3	2261.2	2267.3	2273.5
16°	2244.9	2234.7	2228.5	2236.7	2244.9
17°	2212.2	2202.0	2193.8	2210.1	2212.2
18°	2179.5	2175.4	2155.0	2175.4	2185.6
19°	2153.0	2138.7	2120.3	2142.7	2155.0
20°	2118.2	2106.0	2093.7	2106.0	2124.4
22.5°	2018.1	2007.9	1997.7	2012.0	2022.2
25°	1881.3	1887.4	1895.6	1901.7	1899.7
27.5°	1687.2	1742.4	1793.4	1760.8	1717.9
30°	1401.3	1540.2	1666.8	1562.6	1454.4
32.5°	1015.2	1252.1	1515.6	1299.1	1025.4
35°	672.0	890.6	1335.9	913.1	696.5
37.5°	437.1	598.5	1115.3	600.5	457.6
40°	286.0	390.1	817.1	398.3	286.0
42.5°	175.7	247.2	496.4	257.4	175.7
45°	102.1	153.2	283.9	155.2	100.1
47.5°	47.0	83.7	161.4	81.7	49.0
50°	14.3	36.8	81.7	36.8	14.3
52.5°	6.1	10.2	38.8	10.2	6.1
55°	4.1	4.1	14.3	4.1	4.1
57.5°	4.1	2.0	4.1	4.1	4.1
60°	2.0	2.0	2.0	2.0	2.0
62.5°	2.0	2.0	2.0	2.0	2.0
65°	2.0	2.0	0.0	2.0	2.0
67.5°	2.0	0.0	0.0	0.0	2.0
70°	0.0	0.0	0.0	0.0	2.0
72.5°	0.0	0.0	0.0	0.0	2.0
75°	0.0	0.0	0.0	0.0	2.0



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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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