

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: P838722

Luminaire Tested: HCSQ655D010-HM64560930-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838722
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-HM64560930-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

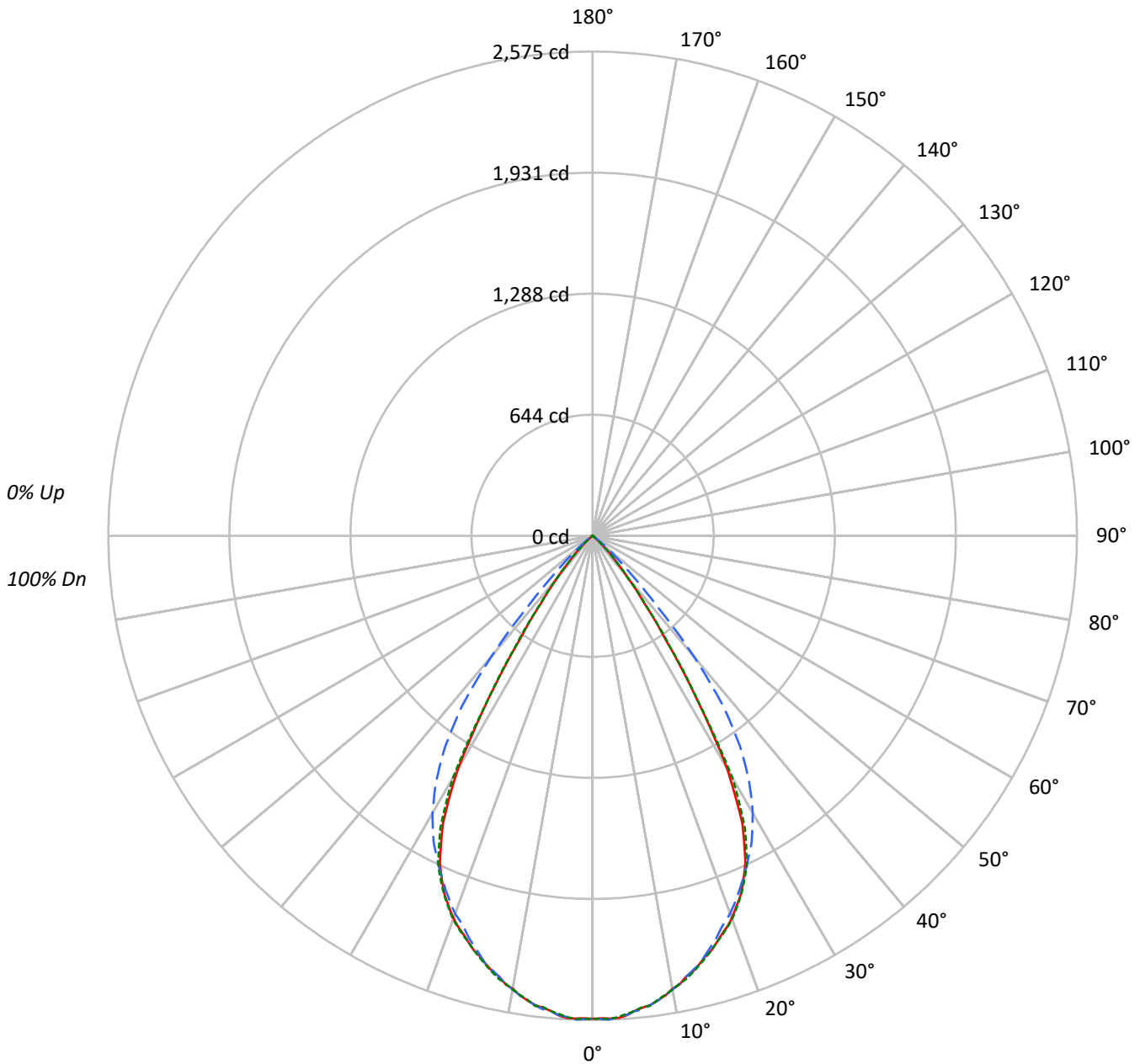
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2553.2 lumens
Efficiency: N/A
Efficacy: 47.3 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 (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	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°	110588	110588	110588
5°	109658	109749	109658
10°	106913	107092	107092
15°	103235	102954	103515
20°	99138	97993	99422
25°	91294	91987	92182
30°	71159	84647	73859
35°	36083	71725	37397
40°	16418	46909	16418
45°	6351	17658	6223
50°	978	5593	978
55°	315	1096	315
60°	181	181	181
65°	214	0	214
70°	0	0	264
75°	0	0	349
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17658 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.8	9.4
10°-20°	650.4	25.5
20°-30°	876.8	34.3
30°-40°	616.4	24.1
40°-50°	157.4	6.2
50°-60°	10.9	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°	1767.0	69.2
0°-40°	2383.4	93.4
0°-60°	2551.7	99.9
0°-90°	2553.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2553.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2568	2568	2568	2568	2568	
5°	2537	2541	2539	2541	2537	240
15°	2316	2312	2310	2316	2322	652
25°	1922	1928	1936	1942	1940	859
35°	686	910	1365	933	712	462
45°	104	156	290	159	102	91
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°	2568.5	2568.5	2568.5	2568.5	2568.5
1°	2566.4	2568.5	2570.6	2570.6	2568.5
2°	2568.5	2562.2	2574.7	2568.5	2570.6
3°	2568.5	2555.9	2562.2	2566.4	2564.3
4°	2558.0	2549.7	2555.9	2553.9	2549.7
5°	2537.2	2541.3	2539.3	2541.3	2537.2
6°	2524.7	2528.8	2533.0	2526.7	2520.5
7°	2514.2	2512.1	2514.2	2518.4	2518.4
8°	2495.4	2499.6	2495.4	2497.5	2491.3
9°	2474.6	2474.6	2474.6	2478.7	2472.5
10°	2445.4	2455.8	2449.5	2453.7	2449.5
11°	2430.8	2426.6	2426.6	2428.7	2426.6
12°	2395.3	2399.5	2397.4	2401.5	2407.8
13°	2376.5	2378.6	2370.3	2380.7	2380.7
14°	2347.3	2345.2	2349.4	2347.3	2351.5
15°	2316.0	2311.8	2309.7	2316.0	2322.3
16°	2293.1	2282.6	2276.4	2284.7	2293.1
17°	2259.7	2249.2	2240.9	2257.6	2259.7
18°	2226.3	2222.1	2201.2	2222.1	2232.5
19°	2199.2	2184.6	2165.8	2188.7	2201.2
20°	2163.7	2151.2	2138.7	2151.2	2169.9
22.5°	2061.5	2051.0	2040.6	2055.2	2065.6
25°	1921.7	1927.9	1936.3	1942.5	1940.4
27.5°	1723.4	1779.8	1831.9	1798.6	1754.7
30°	1431.3	1573.2	1702.6	1596.2	1485.6
32.5°	1037.0	1279.0	1548.2	1327.0	1047.4
35°	686.5	909.7	1364.6	932.7	711.5
37.5°	446.5	611.3	1139.2	613.4	467.4
40°	292.1	398.5	834.6	406.9	292.1
42.5°	179.4	252.5	507.0	262.9	179.4
45°	104.3	156.5	290.0	158.6	102.2
47.5°	48.0	85.5	164.8	83.5	50.1
50°	14.6	37.6	83.5	37.6	14.6
52.5°	6.3	10.4	39.6	10.4	6.3
55°	4.2	4.2	14.6	4.2	4.2
57.5°	4.2	2.1	4.2	4.2	4.2
60°	2.1	2.1	2.1	2.1	2.1
62.5°	2.1	2.1	2.1	2.1	2.1
65°	2.1	2.1	0.0	2.1	2.1
67.5°	2.1	0.0	0.0	0.0	2.1
70°	0.0	0.0	0.0	0.0	2.1
72.5°	0.0	0.0	0.0	0.0	2.1
75°	0.0	0.0	0.0	0.0	2.1



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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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