

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: P838717

Luminaire Tested: HCSQ655D010-HM64560927-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838717
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-HM64560927-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

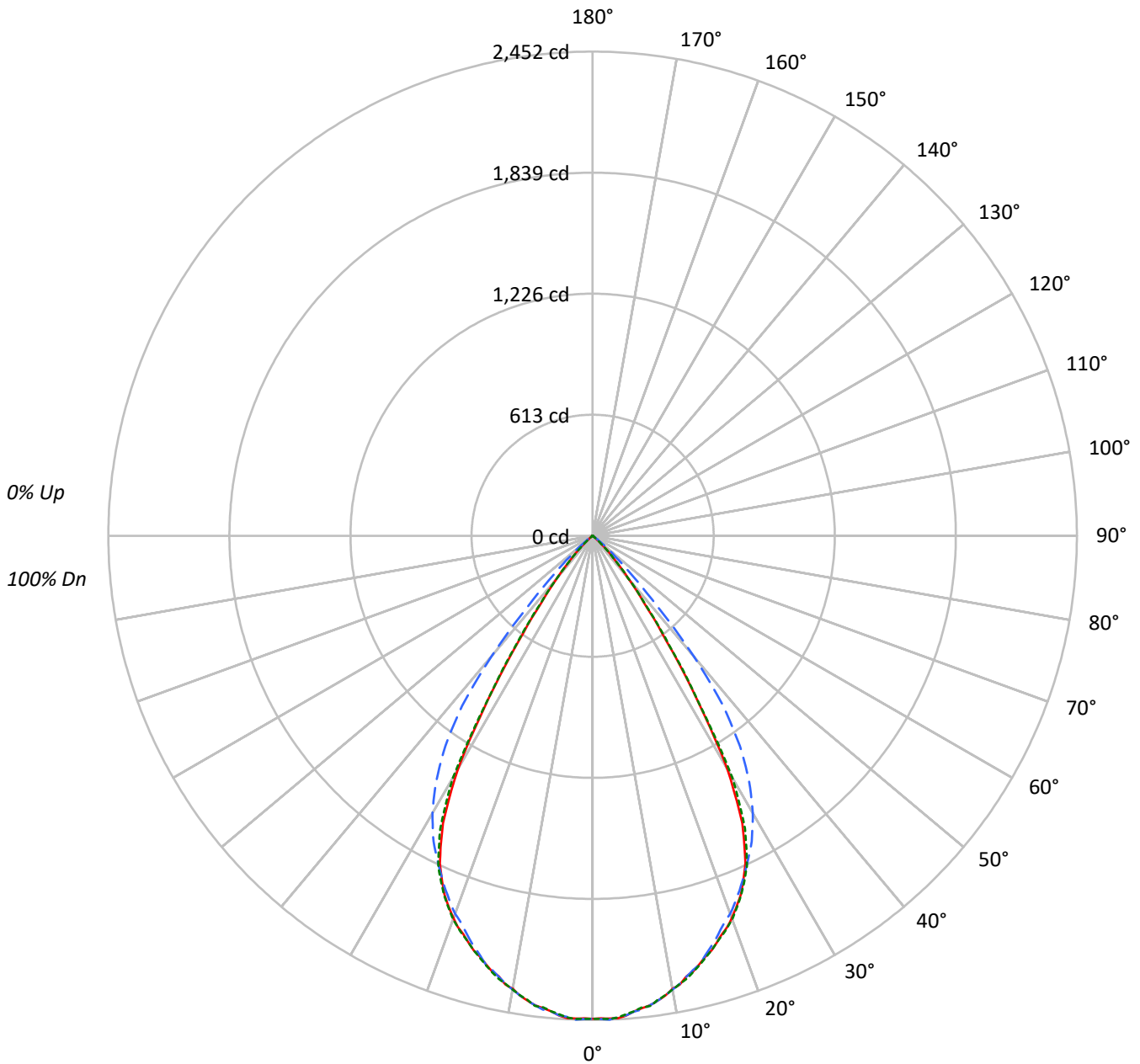
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2432.0 lumens
Efficiency: N/A
Efficacy: 45.0 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°	105336	105336	105336
5°	104450	104537	104450
10°	101837	102012	102012
15°	98336	98068	98599
20°	94433	93338	94703
25°	86956	87617	87807
30°	67783	80630	70354
35°	34370	68319	35621
40°	15636	44683	15636
45°	6052	16824	5931
50°	931	5325	931
55°	300	1043	300
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: 16824 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.4	9.4
10°-20°	619.5	25.5
20°-30°	835.1	34.3
30°-40°	587.2	24.1
40°-50°	149.9	6.2
50°-60°	10.4	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°	1683.1	69.2
0°-40°	2270.3	93.4
0°-60°	2430.6	99.9
0°-90°	2432.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2432.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2446	2446	2446	2446	2446	
5°	2417	2421	2419	2421	2417	228
15°	2206	2202	2200	2206	2212	621
25°	1830	1836	1844	1850	1848	818
35°	654	866	1300	888	678	440
45°	99	149	276	151	97	87
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°	2446.5	2446.5	2446.5	2446.5	2446.5
1°	2444.6	2446.5	2448.5	2448.5	2446.5
2°	2446.5	2440.6	2452.5	2446.5	2448.5
3°	2446.5	2434.6	2440.6	2444.6	2442.6
4°	2436.6	2428.7	2434.6	2432.6	2428.7
5°	2416.7	2420.7	2418.7	2420.7	2416.7
6°	2404.8	2408.8	2412.8	2406.8	2400.8
7°	2394.9	2392.9	2394.9	2398.8	2398.8
8°	2377.0	2381.0	2377.0	2379.0	2373.0
9°	2357.1	2357.1	2357.1	2361.1	2355.1
10°	2329.3	2339.2	2333.3	2337.2	2333.3
11°	2315.4	2311.4	2311.4	2313.4	2311.4
12°	2281.6	2285.6	2283.6	2287.5	2293.5
13°	2263.7	2265.7	2257.7	2267.7	2267.7
14°	2235.9	2233.9	2237.9	2235.9	2239.8
15°	2206.1	2202.1	2200.1	2206.1	2212.0
16°	2184.2	2174.3	2168.3	2176.2	2184.2
17°	2152.4	2142.5	2134.5	2150.4	2152.4
18°	2120.6	2116.6	2096.8	2116.6	2126.6
19°	2094.8	2080.9	2063.0	2084.8	2096.8
20°	2061.0	2049.1	2037.1	2049.1	2066.9
22.5°	1963.6	1953.7	1943.7	1957.6	1967.6
25°	1830.4	1836.4	1844.3	1850.3	1848.3
27.5°	1641.6	1695.3	1745.0	1713.2	1671.4
30°	1363.4	1498.5	1621.8	1520.4	1415.1
32.5°	987.8	1218.3	1474.7	1264.0	997.7
35°	653.9	866.5	1299.8	888.4	677.7
37.5°	425.3	582.3	1085.1	584.3	445.2
40°	278.2	379.6	795.0	387.6	278.2
42.5°	170.9	240.5	482.9	250.4	170.9
45°	99.4	149.1	276.3	151.0	97.4
47.5°	45.7	81.5	157.0	79.5	47.7
50°	13.9	35.8	79.5	35.8	13.9
52.5°	6.0	9.9	37.8	9.9	6.0
55°	4.0	4.0	13.9	4.0	4.0
57.5°	4.0	2.0	4.0	4.0	4.0
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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(END OF REPORT)