

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: P838562

Luminaire Tested: HCSQ635D010-HM63040930-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838562
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: HCSQ635D010-HM63040930-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

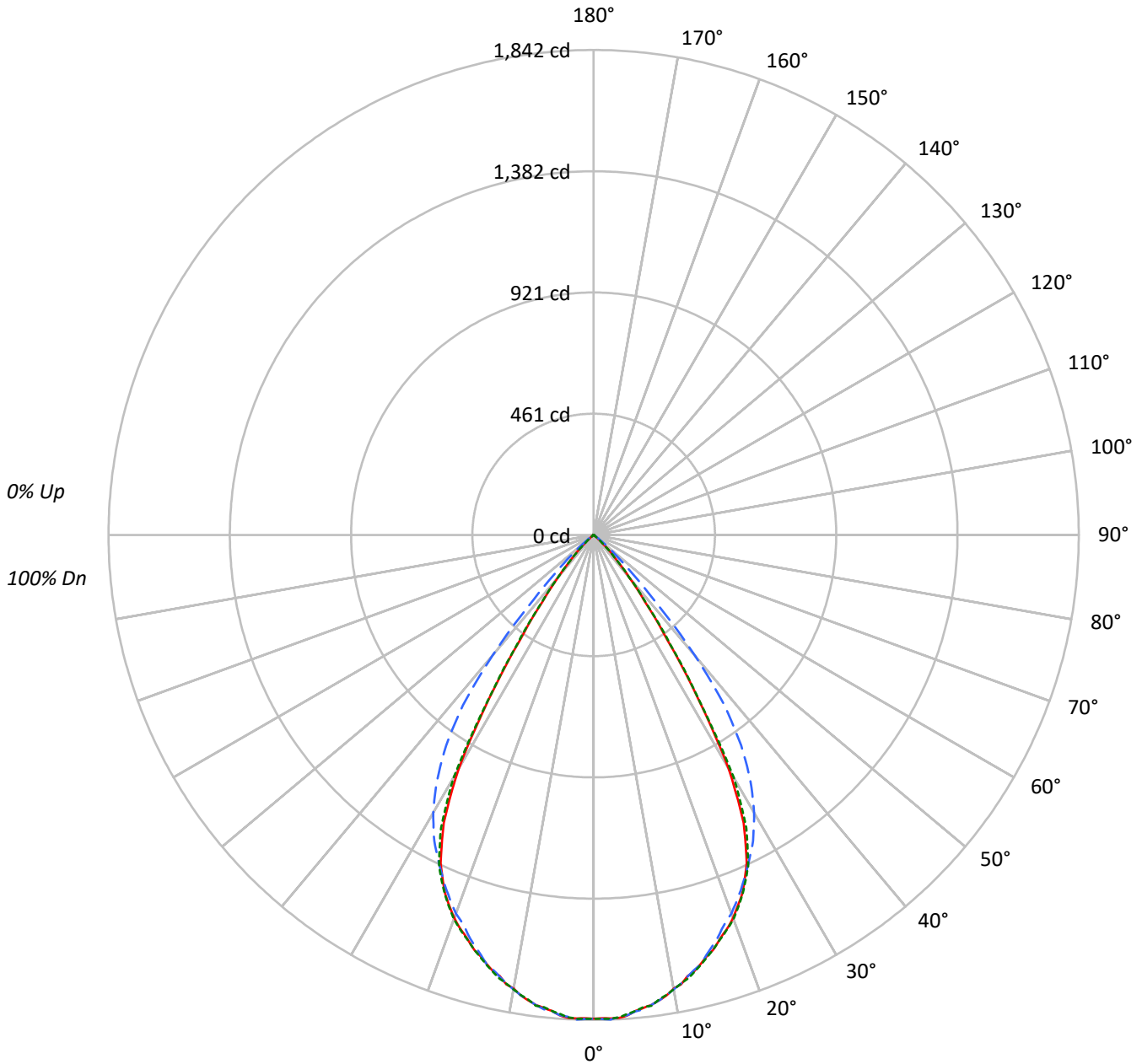
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1826.7 lumens
Efficiency: N/A
Efficacy: 53.7 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): 34
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°	79119	79119	79119
5°	78453	78518	78453
10°	76492	76619	76619
15°	73860	73659	74061
20°	70928	70107	71134
25°	65317	65811	65954
30°	50915	60560	52844
35°	25813	51316	26754
40°	11747	33560	11747
45°	4542	12635	4451
50°	697	3999	697
55°	225	781	225
60°	129	129	129
65°	153	0	153
70°	0	0	189
75°	0	0	250
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12635 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.6	9.4
10°-20°	465.3	25.5
20°-30°	627.3	34.3
30°-40°	441.0	24.1
40°-50°	112.6	6.2
50°-60°	7.8	0.4
60°-70°	0.9	0.1
70°-80°	0.1	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°	1264.2	69.2
0°-40°	1705.3	93.4
0°-60°	1825.7	99.9
0°-90°	1826.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1826.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1838	1838	1838	1838	1838	
5°	1815	1818	1817	1818	1815	172
15°	1657	1654	1652	1657	1662	466
25°	1375	1379	1385	1390	1388	614
35°	491	651	976	667	509	331
45°	75	112	208	114	73	65
55°	3	3	10	3	3	4
65°	2	2	0	2	2	1
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°	1837.6	1837.6	1837.6	1837.6	1837.6
1°	1836.1	1837.6	1839.1	1839.1	1837.6
2°	1837.6	1833.2	1842.1	1837.6	1839.1
3°	1837.6	1828.7	1833.2	1836.1	1834.7
4°	1830.2	1824.2	1828.7	1827.2	1824.2
5°	1815.2	1818.2	1816.7	1818.2	1815.2
6°	1806.3	1809.3	1812.3	1807.8	1803.3
7°	1798.8	1797.3	1798.8	1801.8	1801.8
8°	1785.4	1788.4	1785.4	1786.9	1782.4
9°	1770.5	1770.5	1770.5	1773.4	1769.0
10°	1749.6	1757.0	1752.5	1755.5	1752.5
11°	1739.1	1736.1	1736.1	1737.6	1736.1
12°	1713.7	1716.7	1715.2	1718.2	1722.7
13°	1700.3	1701.8	1695.8	1703.3	1703.3
14°	1679.4	1677.9	1680.9	1679.4	1682.4
15°	1657.0	1654.0	1652.5	1657.0	1661.5
16°	1640.6	1633.1	1628.6	1634.6	1640.6
17°	1616.7	1609.2	1603.3	1615.2	1616.7
18°	1592.8	1589.8	1574.9	1589.8	1597.3
19°	1573.4	1563.0	1549.5	1565.9	1574.9
20°	1548.0	1539.1	1530.1	1539.1	1552.5
22.5°	1474.9	1467.4	1460.0	1470.4	1477.9
25°	1374.9	1379.3	1385.3	1389.8	1388.3
27.5°	1233.1	1273.4	1310.7	1286.8	1255.4
30°	1024.1	1125.6	1218.1	1142.0	1062.9
32.5°	741.9	915.1	1107.7	949.4	749.4
35°	491.1	650.9	976.3	667.3	509.0
37.5°	319.5	437.4	815.1	438.9	334.4
40°	209.0	285.1	597.1	291.1	209.0
42.5°	128.4	180.6	362.8	188.1	128.4
45°	74.6	112.0	207.5	113.5	73.1
47.5°	34.3	61.2	117.9	59.7	35.8
50°	10.4	26.9	59.7	26.9	10.4
52.5°	4.5	7.5	28.4	7.5	4.5
55°	3.0	3.0	10.4	3.0	3.0
57.5°	3.0	1.5	3.0	3.0	3.0
60°	1.5	1.5	1.5	1.5	1.5
62.5°	1.5	1.5	1.5	1.5	1.5
65°	1.5	1.5	0.0	1.5	1.5
67.5°	1.5	0.0	0.0	0.0	1.5
70°	0.0	0.0	0.0	0.0	1.5
72.5°	0.0	0.0	0.0	0.0	1.5
75°	0.0	0.0	0.0	0.0	1.5



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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)