

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: P838533

Luminaire Tested: HCSQ630D010-HM63040940-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838533
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ630D010-HM63040940-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

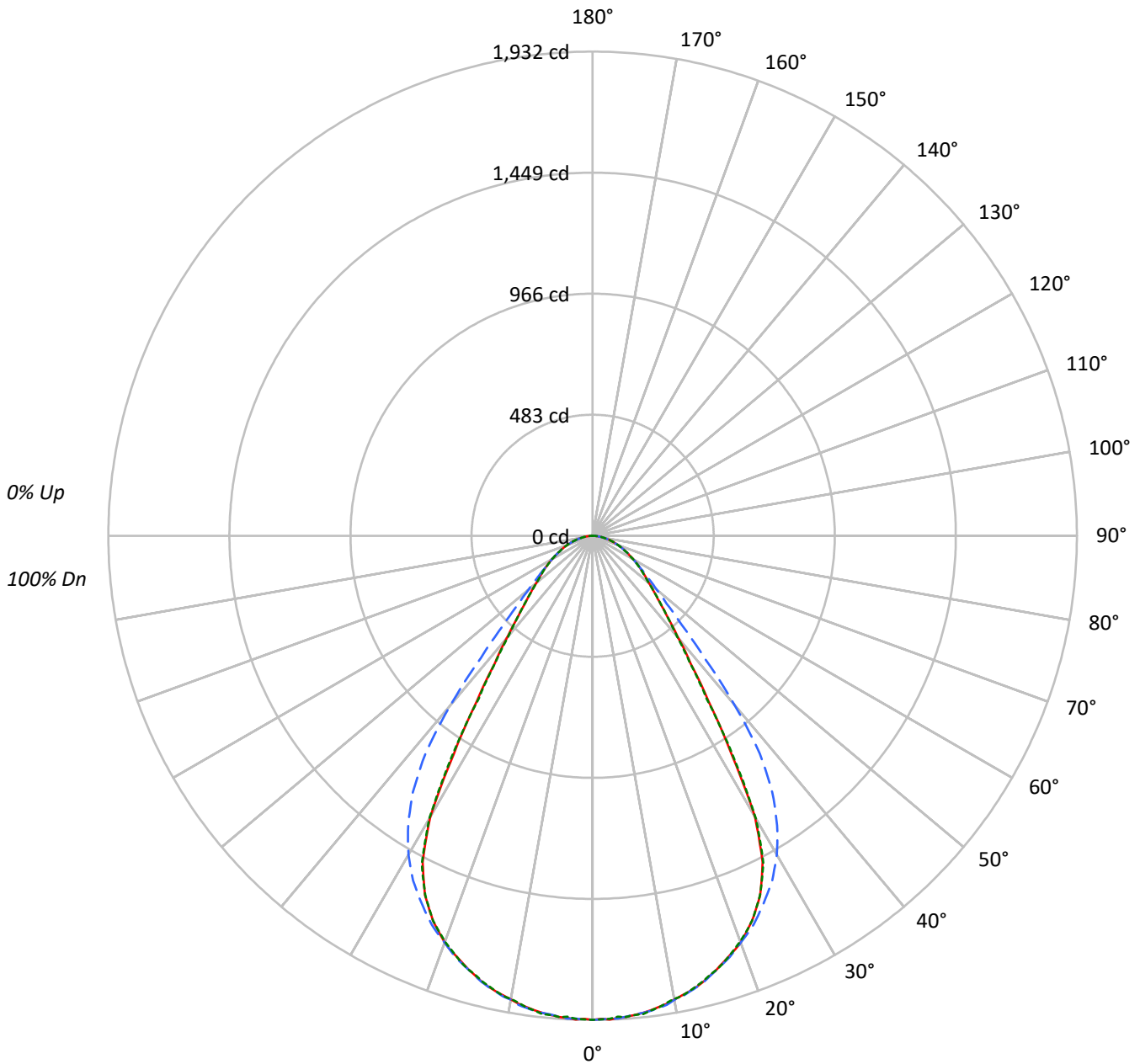
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2849.1 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
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									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79																			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71																			
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41																			
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	83166	83166	83166
5°	82957	82901	82957
10°	82145	82206	82027
15°	80925	80987	80805
20°	79102	79166	78918
25°	75156	76757	75089
30°	64358	73083	64761
35°	42286	65696	41644
40°	29890	49539	29362
45°	23175	30494	23339
50°	19713	22245	19532
55°	17730	18241	17730
60°	16043	16043	16043
65°	14711	14579	14579
70°	13419	13419	13596
75°	12576	12127	12343
80°	11034	11034	11034
85°	9337	9337	9337

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 30494 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.1	6.4
10°-20°	511.4	17.9
20°-30°	728.7	25.6
30°-40°	621.4	21.8
40°-50°	343.8	12.1
50°-60°	216.5	7.6
60°-70°	143.8	5.0
70°-80°	79.0	2.8
80°-90°	22.5	0.8
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°	1422.3	49.9
0°-40°	2043.6	71.7
0°-60°	2603.9	91.4
0°-90°	2849.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2849.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1932	1932	1932	1932	1932	
5°	1919	1922	1918	1915	1919	182
15°	1816	1816	1817	1816	1813	511
25°	1582	1601	1616	1600	1581	715
35°	804	949	1250	950	792	523
45°	381	417	501	414	383	302
55°	236	240	243	239	236	212
65°	144	146	143	144	143	144
75°	76	74	73	74	74	79
85°	19	19	19	20	19	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1931.6	1931.6	1931.6	1931.6	1931.6
1°	1927.5	1930.2	1930.2	1928.9	1930.2
2°	1931.6	1927.5	1927.5	1927.5	1928.9
3°	1926.2	1928.9	1928.9	1924.8	1922.1
4°	1924.8	1923.5	1923.5	1927.5	1924.8
5°	1919.4	1922.1	1918.1	1915.4	1919.4
6°	1914.0	1915.4	1914.0	1915.4	1919.4
7°	1907.3	1911.3	1910.0	1908.6	1908.6
8°	1899.2	1904.6	1901.9	1901.9	1900.5
9°	1891.1	1892.4	1895.1	1895.1	1887.0
10°	1878.9	1883.0	1880.3	1881.6	1876.2
11°	1868.1	1873.5	1872.2	1869.5	1870.8
12°	1858.7	1861.4	1860.0	1856.0	1857.3
13°	1846.6	1849.3	1847.9	1847.9	1843.9
14°	1833.1	1830.4	1834.4	1831.7	1830.4
15°	1815.5	1815.5	1816.9	1815.5	1812.8
16°	1799.3	1800.7	1800.7	1799.3	1800.7
17°	1780.4	1785.8	1784.5	1781.8	1783.1
18°	1762.9	1766.9	1768.3	1766.9	1762.9
19°	1746.7	1749.4	1748.0	1742.6	1742.6
20°	1726.4	1727.8	1727.8	1725.1	1722.4
22.5°	1663.0	1672.4	1679.2	1673.8	1663.0
25°	1582.0	1600.9	1615.7	1599.5	1580.6
27.5°	1468.6	1506.4	1550.9	1510.4	1475.4
30°	1294.5	1380.9	1470.0	1389.0	1302.6
32.5°	1029.9	1200.0	1370.1	1216.2	1046.1
35°	804.5	948.9	1249.9	950.3	792.3
37.5°	642.5	745.1	1096.1	738.4	635.8
40°	531.8	600.7	881.4	598.0	522.4
42.5°	444.1	496.7	660.1	491.3	444.1
45°	380.6	417.1	500.8	414.4	383.3
47.5°	333.4	356.4	400.9	355.0	333.4
50°	294.3	307.8	332.1	306.4	291.6
52.5°	263.2	271.3	280.8	268.6	260.5
55°	236.2	240.3	243.0	238.9	236.2
57.5°	210.6	213.3	211.9	210.6	209.2
60°	186.3	187.6	186.3	187.6	186.3
62.5°	164.7	166.0	163.3	164.7	163.3
65°	144.4	145.8	143.1	144.4	143.1
67.5°	125.5	125.5	125.5	125.5	124.2
70°	106.6	108.0	106.6	108.0	108.0
72.5°	90.4	90.4	89.1	90.4	90.4
75°	75.6	74.2	72.9	74.2	74.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	32.4	32.4	31.0	32.4	32.4
85°	18.9	18.9	18.9	20.2	18.9
87.5°	9.4	8.1	8.1	9.4	9.4
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°	59.4	59.4	58.0	59.4	59.4
80°	44.5	45.9	44.5	45.9	44.5

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(END OF REPORT)