

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: P838528

Luminaire Tested: HCSQ630D010-HM63040935-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838528
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-HM63040935-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

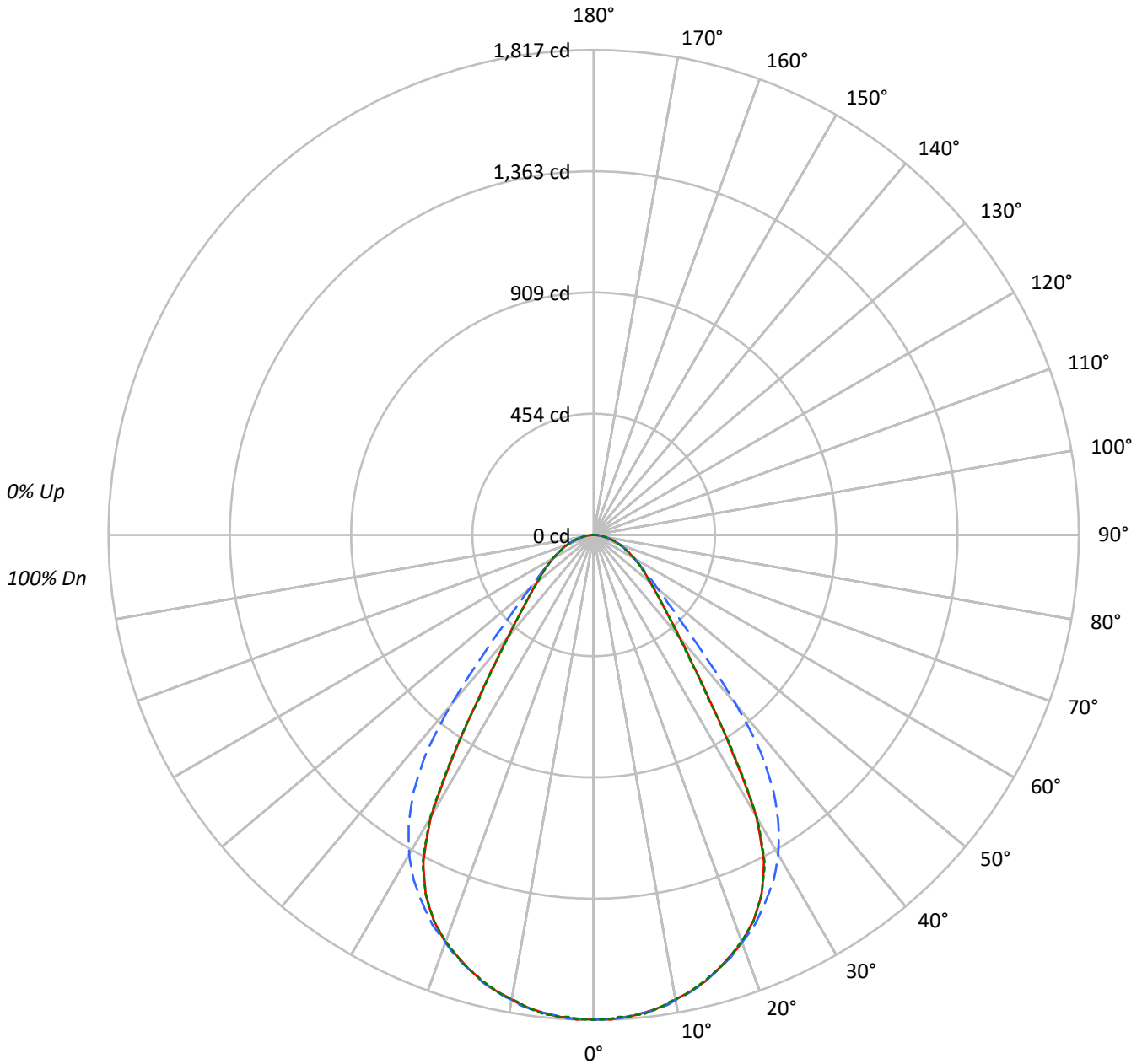
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2680.0 lumens
Efficiency: N/A
Efficacy: 95.0 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°	78228	78228	78228
5°	78034	77978	78034
10°	77270	77327	77161
15°	76120	76178	76008
20°	74405	74465	74231
25°	70695	72201	70633
30°	60535	68743	60913
35°	39773	61796	39174
40°	28119	46600	27619
45°	21805	28685	21957
50°	18541	20919	18373
55°	16679	17152	16679
60°	15087	15087	15087
65°	13845	13713	13713
70°	12626	12626	12790
75°	11828	11412	11612
80°	10389	10389	10389
85°	8793	8793	8793

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 28685 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.3	6.4
10°-20°	481.0	17.9
20°-30°	685.5	25.6
30°-40°	584.5	21.8
40°-50°	323.4	12.1
50°-60°	203.7	7.6
60°-70°	135.2	5.0
70°-80°	74.3	2.8
80°-90°	21.2	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°	1337.8	49.9
0°-40°	1922.3	71.7
0°-60°	2449.3	91.4
0°-90°	2680.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2680.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1817	1817	1817	1817	1817	
5°	1806	1808	1804	1802	1806	171
15°	1708	1708	1709	1708	1705	481
25°	1488	1506	1520	1505	1487	672
35°	757	893	1176	894	745	492
45°	358	392	471	390	361	284
55°	222	226	228	225	222	200
65°	136	137	135	136	135	135
75°	71	70	69	70	70	75
85°	18	18	18	19	18	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1816.9	1816.9	1816.9	1816.9	1816.9
1°	1813.1	1815.7	1815.7	1814.4	1815.7
2°	1816.9	1813.1	1813.1	1813.1	1814.4
3°	1811.8	1814.4	1814.4	1810.6	1808.0
4°	1810.6	1809.3	1809.3	1813.1	1810.6
5°	1805.5	1808.0	1804.2	1801.7	1805.5
6°	1800.4	1801.7	1800.4	1801.7	1805.5
7°	1794.1	1797.9	1796.6	1795.3	1795.3
8°	1786.5	1791.5	1789.0	1789.0	1787.7
9°	1778.8	1780.1	1782.6	1782.6	1775.0
10°	1767.4	1771.2	1768.7	1769.9	1764.9
11°	1757.2	1762.3	1761.1	1758.5	1759.8
12°	1748.4	1750.9	1749.6	1745.8	1747.1
13°	1736.9	1739.5	1738.2	1738.2	1734.4
14°	1724.2	1721.7	1725.5	1723.0	1721.7
15°	1707.7	1707.7	1709.0	1707.7	1705.2
16°	1692.5	1693.8	1693.8	1692.5	1693.8
17°	1674.7	1679.8	1678.5	1676.0	1677.3
18°	1658.2	1662.0	1663.3	1662.0	1658.2
19°	1643.0	1645.5	1644.2	1639.2	1639.2
20°	1623.9	1625.2	1625.2	1622.7	1620.1
22.5°	1564.3	1573.1	1579.5	1574.4	1564.3
25°	1488.1	1505.8	1519.8	1504.6	1486.8
27.5°	1381.4	1417.0	1458.9	1420.8	1387.8
30°	1217.6	1298.9	1382.7	1306.5	1225.2
32.5°	968.8	1128.8	1288.7	1144.0	984.0
35°	756.7	892.6	1175.7	893.9	745.3
37.5°	604.4	700.9	1031.0	694.5	598.0
40°	500.3	565.0	829.1	562.5	491.4
42.5°	417.7	467.2	620.9	462.2	417.7
45°	358.1	392.3	471.1	389.8	360.6
47.5°	313.6	335.2	377.1	333.9	313.6
50°	276.8	289.5	312.3	288.2	274.3
52.5°	247.6	255.2	264.1	252.7	245.0
55°	222.2	226.0	228.5	224.7	222.2
57.5°	198.1	200.6	199.3	198.1	196.8
60°	175.2	176.5	175.2	176.5	175.2
62.5°	154.9	156.2	153.6	154.9	153.6
65°	135.9	137.1	134.6	135.9	134.6
67.5°	118.1	118.1	118.1	118.1	116.8
70°	100.3	101.6	100.3	101.6	101.6
72.5°	85.1	85.1	83.8	85.1	85.1
75°	71.1	69.8	68.6	69.8	69.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	30.5	30.5	29.2	30.5	30.5
85°	17.8	17.8	17.8	19.0	17.8
87.5°	8.9	7.6	7.6	8.9	8.9
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°	55.9	55.9	54.6	55.9	55.9
80°	41.9	43.2	41.9	43.2	41.9

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(END OF REPORT)