

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: P838513

Luminaire Tested: HCSQ630D010-HM63040840-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838513
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-HM63040840-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

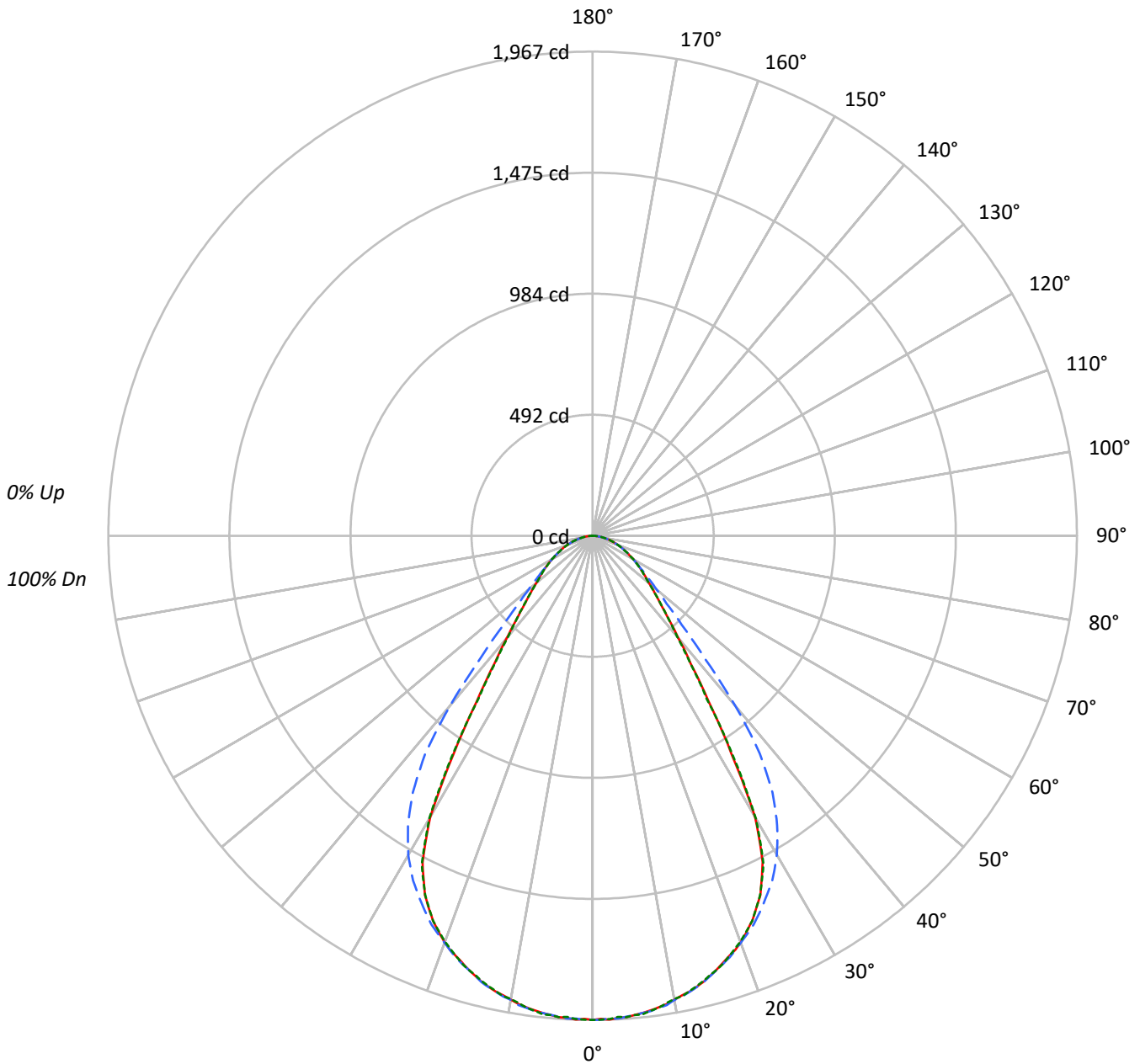
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2901.5 lumens
Efficiency: N/A
Efficacy: 102.9 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°	84695	84695	84695
5°	84482	84422	84482
10°	83658	83715	83536
15°	82414	82472	82289
20°	80554	80618	80366
25°	76538	78167	76471
30°	65541	74425	65949
35°	43063	66905	42412
40°	30441	50450	29901
45°	23601	31054	23771
50°	20075	22654	19887
55°	18061	18571	18061
60°	16335	16335	16335
65°	14986	14844	14844
70°	13671	13671	13847
75°	12809	12343	12576
80°	11257	11257	11257
85°	9485	9485	9485

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 31054 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.5	6.4
10°-20°	520.8	17.9
20°-30°	742.1	25.6
30°-40°	632.8	21.8
40°-50°	350.1	12.1
50°-60°	220.5	7.6
60°-70°	146.4	5.0
70°-80°	80.4	2.8
80°-90°	22.9	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°	1448.4	49.9
0°-40°	2081.2	71.7
0°-60°	2651.7	91.4
0°-90°	2901.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2901.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1967	1967	1967	1967	1967	
5°	1955	1958	1953	1951	1955	185
15°	1849	1849	1850	1849	1846	520
25°	1611	1630	1645	1629	1610	728
35°	819	966	1273	968	807	533
45°	388	425	510	422	390	307
55°	241	245	247	243	241	216
65°	147	148	146	147	146	146
75°	77	76	74	76	76	81
85°	19	19	19	21	19	23
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1967.1	1967.1	1967.1	1967.1	1967.1
1°	1963.0	1965.7	1965.7	1964.3	1965.7
2°	1967.1	1963.0	1963.0	1963.0	1964.3
3°	1961.6	1964.3	1964.3	1960.2	1957.5
4°	1960.2	1958.8	1958.8	1963.0	1960.2
5°	1954.7	1957.5	1953.3	1950.6	1954.7
6°	1949.2	1950.6	1949.2	1950.6	1954.7
7°	1942.3	1946.5	1945.1	1943.7	1943.7
8°	1934.1	1939.6	1936.8	1936.8	1935.5
9°	1925.8	1927.2	1930.0	1930.0	1921.7
10°	1913.5	1917.6	1914.8	1916.2	1910.7
11°	1902.5	1908.0	1906.6	1903.8	1905.2
12°	1892.9	1895.6	1894.2	1890.1	1891.5
13°	1880.5	1883.2	1881.9	1881.9	1877.7
14°	1866.7	1864.0	1868.1	1865.4	1864.0
15°	1848.9	1848.9	1850.2	1848.9	1846.1
16°	1832.4	1833.7	1833.7	1832.4	1833.7
17°	1813.1	1818.6	1817.2	1814.5	1815.9
18°	1795.3	1799.4	1800.8	1799.4	1795.3
19°	1778.8	1781.5	1780.1	1774.6	1774.6
20°	1758.1	1759.5	1759.5	1756.8	1754.0
22.5°	1693.5	1703.2	1710.0	1704.5	1693.5
25°	1611.1	1630.3	1645.4	1628.9	1609.7
27.5°	1495.6	1534.1	1579.4	1538.2	1502.5
30°	1318.3	1406.2	1497.0	1414.5	1326.5
32.5°	1048.8	1222.0	1395.2	1238.5	1065.3
35°	819.3	966.4	1272.9	967.7	806.9
37.5°	654.3	758.8	1116.2	751.9	647.4
40°	541.6	611.7	897.6	609.0	532.0
42.5°	452.3	505.9	672.2	500.4	452.3
45°	387.6	424.8	510.0	422.0	390.4
47.5°	339.5	362.9	408.3	361.5	339.5
50°	299.7	313.4	338.2	312.0	296.9
52.5°	268.1	276.3	285.9	273.5	265.3
55°	240.6	244.7	247.4	243.3	240.6
57.5°	214.4	217.2	215.8	214.4	213.1
60°	189.7	191.1	189.7	191.1	189.7
62.5°	167.7	169.1	166.3	167.7	166.3
65°	147.1	148.5	145.7	147.1	145.7
67.5°	127.8	127.8	127.8	127.8	126.5
70°	108.6	110.0	108.6	110.0	110.0
72.5°	92.1	92.1	90.7	92.1	92.1
75°	77.0	75.6	74.2	75.6	75.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	<i>33.0</i>	33.0	31.6	33.0	33.0
85°	<i>19.2</i>	19.2	19.2	20.6	19.2
87.5°	<i>9.6</i>	8.2	8.2	9.6	9.6
90°	<i>0.0</i>	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°	60.5	60.5	59.1	60.5	60.5
80°	45.4	46.7	45.4	46.7	45.4

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