

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: P838543

Luminaire Tested: HCSQ635D010-HM63040830-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838543
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: HCSQ635D010-HM63040830-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

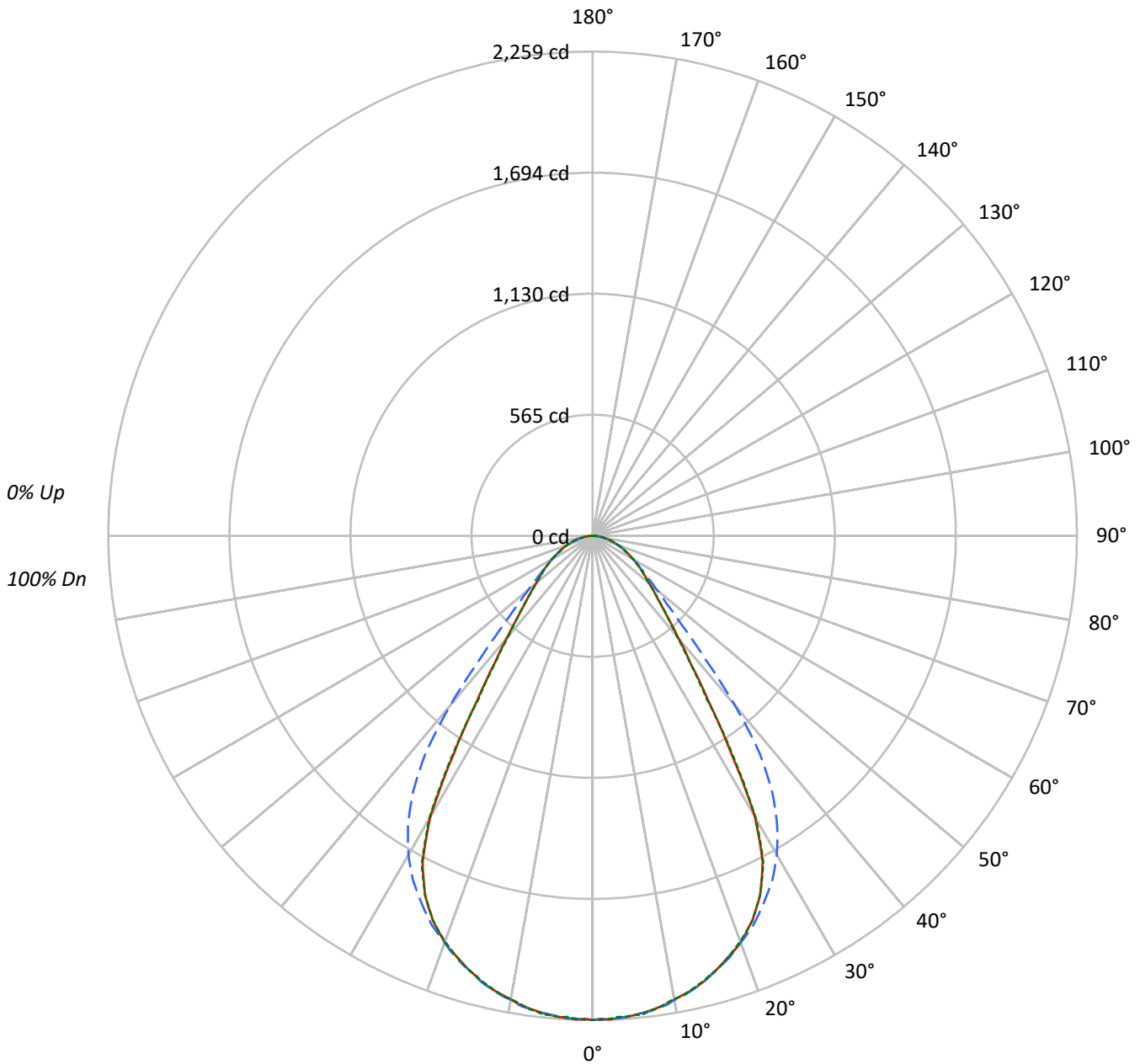
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3331.9 lumens
Efficiency: N/A
Efficacy: 98.0 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): 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					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					100			
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89					89			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71					71			
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64					64			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53					53			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41					41			
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	97258	97258	97258
5°	97016	96947	97016
10°	96066	96136	95930
15°	94636	94707	94498
20°	92508	92577	92288
25°	87887	89764	87816
30°	75261	85462	75733
35°	49450	76829	48703
40°	34954	57936	34336
45°	27102	35657	27297
50°	23049	26009	22841
55°	20733	21326	20733
60°	18755	18755	18755
65°	17207	17044	17044
70°	15698	15698	15899
75°	14706	14173	14440
80°	12918	12918	12918
85°	10918	10918	10918

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 35657 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.0	6.4
10°-20°	598.1	17.9
20°-30°	852.2	25.6
30°-40°	726.7	21.8
40°-50°	402.0	12.1
50°-60°	253.2	7.6
60°-70°	168.1	5.0
70°-80°	92.4	2.8
80°-90°	26.3	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°	1663.2	49.9
0°-40°	2389.9	71.7
0°-60°	3045.1	91.4
0°-90°	3331.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3331.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2259	2259	2259	2259	2259	
5°	2245	2248	2243	2240	2245	213
15°	2123	2123	2125	2123	2120	598
25°	1850	1872	1890	1871	1848	836
35°	941	1110	1462	1111	927	612
45°	445	488	586	485	448	353
55°	276	281	284	279	276	248
65°	169	170	167	169	167	168
75°	88	87	85	87	87	93
85°	22	22	22	24	22	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2258.9	2258.9	2258.9	2258.9	2258.9
1°	2254.2	2257.3	2257.3	2255.7	2257.3
2°	2258.9	2254.2	2254.2	2254.2	2255.7
3°	2252.6	2255.7	2255.7	2251.0	2247.8
4°	2251.0	2249.4	2249.4	2254.2	2251.0
5°	2244.7	2247.8	2243.1	2239.9	2244.7
6°	2238.4	2239.9	2238.4	2239.9	2244.7
7°	2230.5	2235.2	2233.6	2232.1	2232.1
8°	2221.0	2227.3	2224.2	2224.2	2222.6
9°	2211.5	2213.1	2216.3	2216.3	2206.8
10°	2197.3	2202.1	2198.9	2200.5	2194.2
11°	2184.7	2191.0	2189.4	2186.3	2187.9
12°	2173.6	2176.8	2175.2	2170.5	2172.1
13°	2159.4	2162.6	2161.0	2161.0	2156.3
14°	2143.7	2140.5	2145.2	2142.1	2140.5
15°	2123.1	2123.1	2124.7	2123.1	2120.0
16°	2104.2	2105.8	2105.8	2104.2	2105.8
17°	2082.1	2088.4	2086.8	2083.7	2085.2
18°	2061.6	2066.3	2067.9	2066.3	2061.6
19°	2042.6	2045.8	2044.2	2037.9	2037.9
20°	2019.0	2020.5	2020.5	2017.4	2014.2
22.5°	1944.8	1955.8	1963.7	1957.4	1944.8
25°	1850.0	1872.1	1889.5	1870.6	1848.5
27.5°	1717.5	1761.6	1813.7	1766.4	1725.3
30°	1513.8	1614.8	1719.0	1624.3	1523.3
32.5°	1204.4	1403.3	1602.2	1422.3	1223.4
35°	940.8	1109.7	1461.7	1111.3	926.6
37.5°	751.4	871.4	1281.8	863.5	743.5
40°	621.9	702.4	1030.8	699.3	610.9
42.5°	519.3	580.9	771.9	574.6	519.3
45°	445.1	487.8	585.6	484.6	448.3
47.5°	389.9	416.7	468.8	415.2	389.9
50°	344.1	359.9	388.3	358.3	341.0
52.5°	307.8	317.3	328.3	314.1	304.7
55°	276.2	281.0	284.1	279.4	276.2
57.5°	246.3	249.4	247.8	246.3	244.7
60°	217.8	219.4	217.8	219.4	217.8
62.5°	192.6	194.2	191.0	192.6	191.0
65°	168.9	170.5	167.3	168.9	167.3
67.5°	146.8	146.8	146.8	146.8	145.2
70°	124.7	126.3	124.7	126.3	126.3
72.5°	105.8	105.8	104.2	105.8	105.8
75°	88.4	86.8	85.2	86.8	86.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	37.9	37.9	36.3	37.9	37.9
85°	22.1	22.1	22.1	23.7	22.1
87.5°	11.0	9.5	9.5	11.0	11.0
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°	69.5	69.5	67.9	69.5	69.5
80°	52.1	53.7	52.1	53.7	52.1

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(END OF REPORT)