

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: P838553

Luminaire Tested: HCSQ635D010-HM63040840-61SQMW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838553
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-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

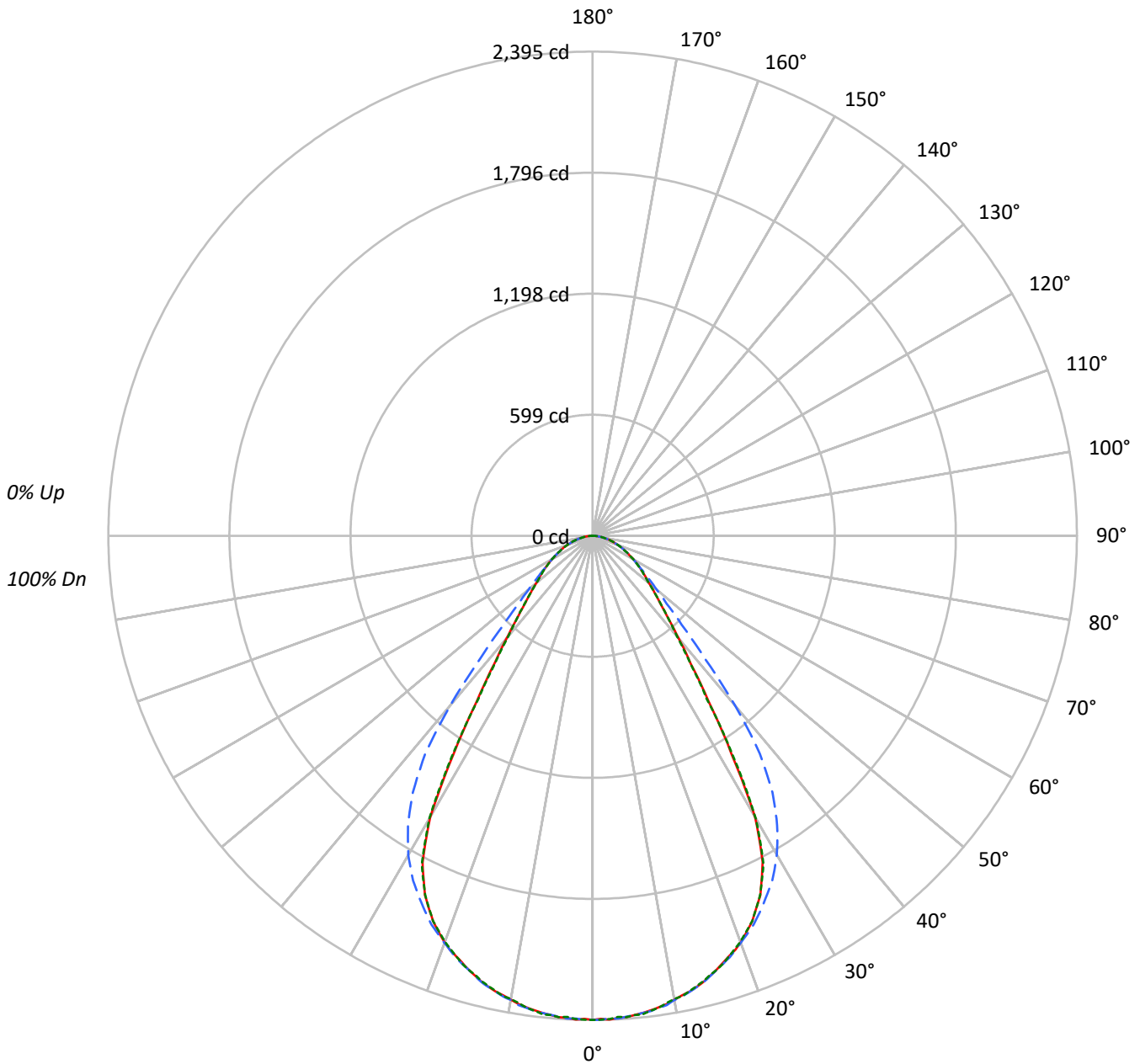
Lumens per Lamp: N/A
Luminaire Lumens: 3533.0 lumens
Efficiency: N/A
Efficacy: 103.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	103127	103127	103127
5°	102868	102795	102868
10°	101863	101937	101719
15°	100346	100422	100199
20°	98089	98162	97860
25°	93194	95180	93113
30°	79805	90623	80302
35°	52435	81465	51641
40°	37067	61432	36410
45°	28740	37813	28947
50°	24442	27583	24214
55°	21987	22617	21987
60°	19892	19892	19892
65°	18246	18073	18073
70°	16642	16642	16856
75°	15587	15038	15321
80°	13687	13687	13687
85°	11560	11560	11560

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 37813 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.8	6.4
10°-20°	634.1	17.9
20°-30°	903.6	25.6
30°-40°	770.5	21.8
40°-50°	426.3	12.1
50°-60°	268.5	7.6
60°-70°	178.3	5.0
70°-80°	97.9	2.8
80°-90°	27.9	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°	1763.6	49.9
0°-40°	2534.1	71.7
0°-60°	3228.9	91.4
0°-90°	3533.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3533.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2395	2395	2395	2395	2395	
5°	2380	2384	2378	2375	2380	226
15°	2251	2251	2253	2251	2248	634
25°	1962	1985	2004	1983	1960	886
35°	998	1177	1550	1178	982	649
45°	472	517	621	514	475	374
55°	293	298	301	296	293	263
65°	179	181	177	179	177	178
75°	94	92	90	92	92	98
85°	23	23	23	25	23	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2395.2	2395.2	2395.2	2395.2	2395.2
1°	2390.2	2393.5	2393.5	2391.8	2393.5
2°	2395.2	2390.2	2390.2	2390.2	2391.8
3°	2388.5	2391.8	2391.8	2386.8	2383.5
4°	2386.8	2385.1	2385.1	2390.2	2386.8
5°	2380.1	2383.5	2378.4	2375.1	2380.1
6°	2373.4	2375.1	2373.4	2375.1	2380.1
7°	2365.1	2370.1	2368.4	2366.7	2366.7
8°	2355.0	2361.7	2358.4	2358.4	2356.7
9°	2345.0	2346.6	2350.0	2350.0	2340.0
10°	2329.9	2334.9	2331.6	2333.3	2326.6
11°	2316.5	2323.2	2321.5	2318.2	2319.9
12°	2304.8	2308.2	2306.5	2301.5	2303.1
13°	2289.7	2293.1	2291.4	2291.4	2286.4
14°	2273.0	2269.7	2274.7	2271.3	2269.7
15°	2251.2	2251.2	2252.9	2251.2	2247.9
16°	2231.2	2232.8	2232.8	2231.2	2232.8
17°	2207.7	2214.4	2212.7	2209.4	2211.1
18°	2186.0	2191.0	2192.7	2191.0	2186.0
19°	2165.9	2169.2	2167.6	2160.9	2160.9
20°	2140.8	2142.4	2142.4	2139.1	2135.8
22.5°	2062.1	2073.8	2082.2	2075.5	2062.1
25°	1961.7	1985.1	2003.5	1983.4	1960.0
27.5°	1821.1	1867.9	1923.2	1873.0	1829.4
30°	1605.2	1712.3	1822.8	1722.3	1615.2
32.5°	1277.1	1488.0	1698.9	1508.1	1297.2
35°	997.6	1176.7	1549.9	1178.3	982.5
37.5°	796.7	923.9	1359.1	915.6	788.4
40°	659.5	744.8	1093.0	741.5	647.8
42.5°	550.7	616.0	818.5	609.3	550.7
45°	472.0	517.2	621.0	513.9	475.4
47.5°	413.4	441.9	497.1	440.2	413.4
50°	364.9	381.6	411.8	379.9	361.5
52.5°	326.4	336.4	348.1	333.1	323.0
55°	292.9	297.9	301.3	296.3	292.9
57.5°	261.1	264.5	262.8	261.1	259.4
60°	231.0	232.7	231.0	232.7	231.0
62.5°	204.2	205.9	202.5	204.2	202.5
65°	179.1	180.8	177.4	179.1	177.4
67.5°	155.7	155.7	155.7	155.7	154.0
70°	132.2	133.9	132.2	133.9	133.9
72.5°	112.1	112.1	110.5	112.1	112.1
75°	93.7	92.1	90.4	92.1	92.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	40.2	40.2	38.5	40.2	40.2
85°	23.4	23.4	23.4	25.1	23.4
87.5°	11.7	10.0	10.0	11.7	11.7
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°	73.6	73.6	72.0	73.6	73.6
80°	55.2	56.9	55.2	56.9	55.2

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