

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: P838548

Luminaire Tested: HCSQ635D010-HM63040835-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838548
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-HM63040835-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

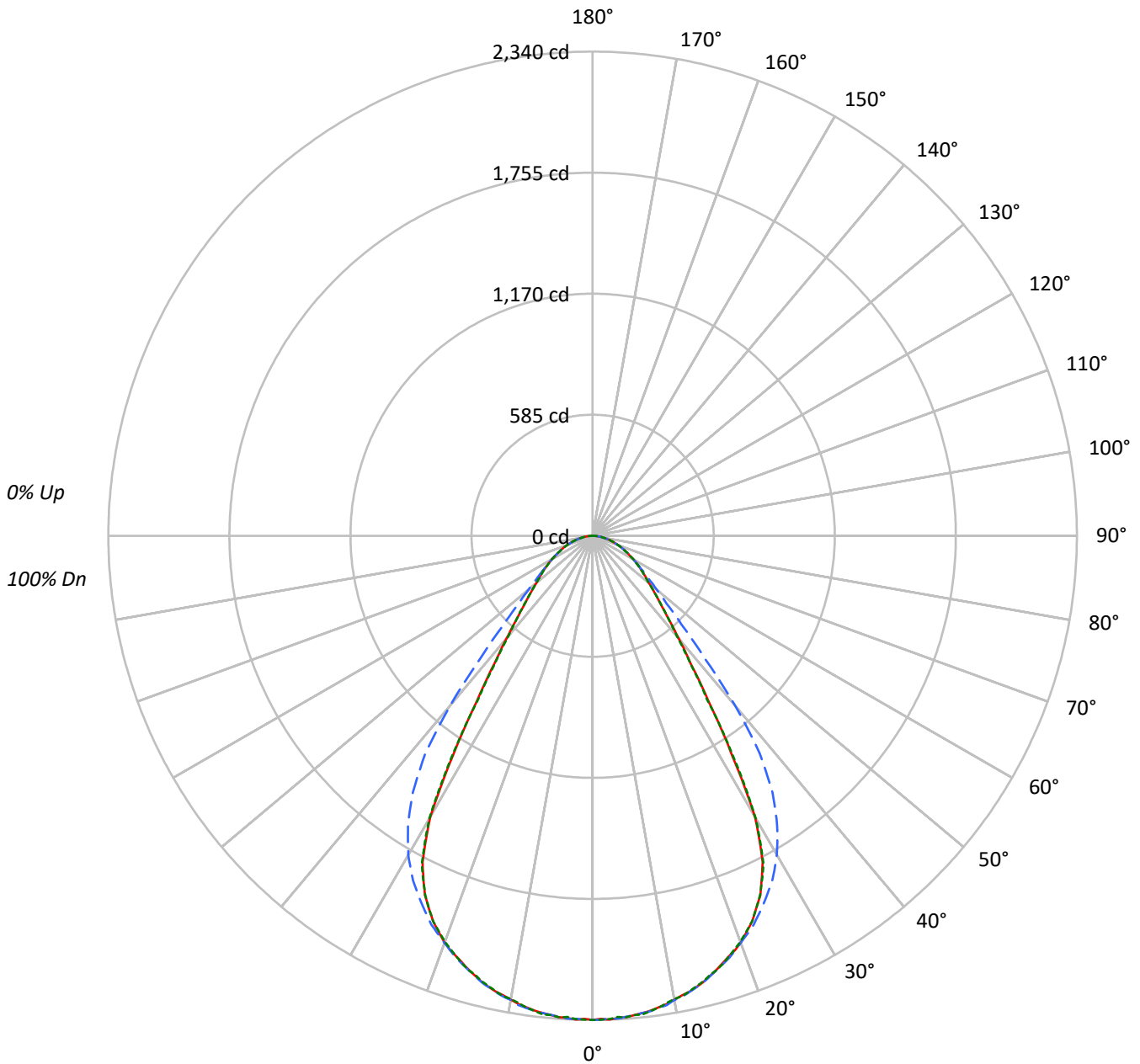
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3452.1 lumens
Efficiency: N/A
Efficacy: 101.5 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°	100763	100763	100763
5°	100513	100444	100513
10°	99533	99603	99388
15°	98051	98122	97903
20°	95839	95917	95615
25°	91061	92999	90980
30°	77975	88545	78462
35°	51231	79599	50459
40°	36219	60027	35572
45°	28082	36948	28283
50°	23879	26947	23665
55°	21484	22099	21484
60°	19435	19435	19435
65°	17829	17666	17666
70°	16265	16265	16466
75°	15238	14689	14955
80°	13389	13389	13389
85°	11313	11313	11313

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 36948 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.6	6.4
10°-20°	619.6	17.9
20°-30°	883.0	25.6
30°-40°	752.9	21.8
40°-50°	416.5	12.1
50°-60°	262.3	7.6
60°-70°	174.2	5.0
70°-80°	95.7	2.8
80°-90°	27.3	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°	1723.2	49.9
0°-40°	2476.1	71.7
0°-60°	3154.9	91.4
0°-90°	3452.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3452.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2340	2340	2340	2340	2340	
5°	2326	2329	2324	2321	2326	220
15°	2200	2200	2201	2200	2196	619
25°	1917	1940	1958	1938	1915	866
35°	975	1150	1514	1151	960	634
45°	461	505	607	502	464	366
55°	286	291	294	290	286	257
65°	175	177	173	175	173	174
75°	92	90	88	90	90	96
85°	23	23	23	24	23	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2340.3	2340.3	2340.3	2340.3	2340.3
1°	2335.4	2338.7	2338.7	2337.1	2338.7
2°	2340.3	2335.4	2335.4	2335.4	2337.1
3°	2333.8	2337.1	2337.1	2332.2	2328.9
4°	2332.2	2330.5	2330.5	2335.4	2332.2
5°	2325.6	2328.9	2324.0	2320.7	2325.6
6°	2319.1	2320.7	2319.1	2320.7	2325.6
7°	2310.9	2315.8	2314.2	2312.5	2312.5
8°	2301.1	2307.6	2304.4	2304.4	2302.7
9°	2291.3	2292.9	2296.2	2296.2	2286.4
10°	2276.6	2281.5	2278.2	2279.8	2273.3
11°	2263.5	2270.0	2268.4	2265.1	2266.7
12°	2252.0	2255.3	2253.7	2248.7	2250.4
13°	2237.3	2240.6	2238.9	2238.9	2234.0
14°	2220.9	2217.7	2222.6	2219.3	2217.7
15°	2199.7	2199.7	2201.3	2199.7	2196.4
16°	2180.1	2181.7	2181.7	2180.1	2181.7
17°	2157.2	2163.7	2162.1	2158.8	2160.4
18°	2135.9	2140.8	2142.4	2140.8	2135.9
19°	2116.3	2119.5	2117.9	2111.4	2111.4
20°	2091.7	2093.4	2093.4	2090.1	2086.8
22.5°	2014.9	2026.3	2034.5	2028.0	2014.9
25°	1916.8	1939.6	1957.6	1938.0	1915.1
27.5°	1779.4	1825.2	1879.1	1830.1	1787.6
30°	1568.4	1673.1	1781.0	1682.9	1578.2
32.5°	1247.9	1453.9	1660.0	1473.5	1267.5
35°	974.7	1149.7	1514.4	1151.4	960.0
37.5°	778.5	902.8	1328.0	894.6	770.3
40°	644.4	727.8	1068.0	724.5	632.9
42.5°	538.1	601.8	799.7	595.3	538.1
45°	461.2	505.4	606.8	502.1	464.5
47.5°	404.0	431.8	485.7	430.1	404.0
50°	356.5	372.9	402.3	371.2	353.3
52.5°	318.9	328.7	340.2	325.5	315.6
55°	286.2	291.1	294.4	289.5	286.2
57.5°	255.1	258.4	256.8	255.1	253.5
60°	225.7	227.3	225.7	227.3	225.7
62.5°	199.5	201.2	197.9	199.5	197.9
65°	175.0	176.6	173.4	175.0	173.4
67.5°	152.1	152.1	152.1	152.1	150.5
70°	129.2	130.8	129.2	130.8	130.8
72.5°	109.6	109.6	107.9	109.6	109.6
75°	91.6	89.9	88.3	89.9	89.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	39.3	39.3	37.6	39.3	39.3
85°	22.9	22.9	22.9	24.5	22.9
87.5°	11.4	9.8	9.8	11.4	11.4
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°	72.0	72.0	70.3	72.0	72.0
80°	54.0	55.6	54.0	55.6	54.0

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(END OF REPORT)