

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: P838538

Luminaire Tested: HCSQ635D010-HM63040827-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838538
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-HM63040827-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

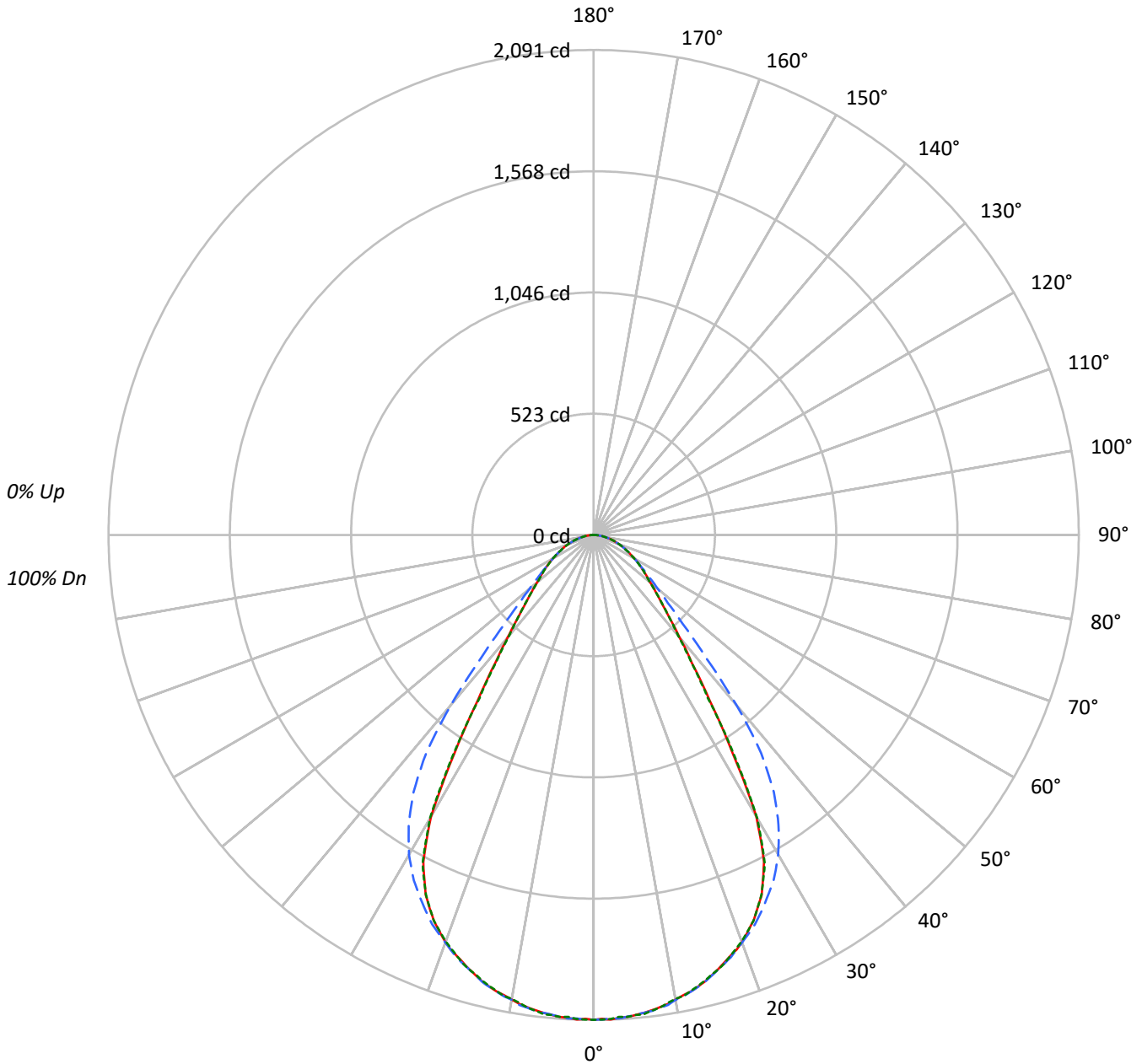
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3084.3 lumens
Efficiency: N/A
Efficacy: 90.7 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									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°	90029	90029	90029
5°	89807	89742	89807
10°	88926	88992	88799
15°	87602	87669	87473
20°	85631	85700	85429
25°	81360	83094	81289
30°	69668	79114	70105
35°	45776	71121	45082
40°	32357	53631	31784
45°	25093	33008	25269
50°	21334	24080	21140
55°	19194	19742	19194
60°	17360	17360	17360
65°	15934	15781	15781
70°	14527	14527	14716
75°	13608	13125	13375
80°	11951	11951	11951
85°	10127	10127	10127

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 33008 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.1	6.4
10°-20°	553.6	17.9
20°-30°	788.9	25.6
30°-40°	672.6	21.8
40°-50°	372.1	12.1
50°-60°	234.4	7.6
60°-70°	155.6	5.0
70°-80°	85.5	2.8
80°-90°	24.4	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°	1539.6	49.9
0°-40°	2212.3	71.7
0°-60°	2818.8	91.4
0°-90°	3084.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3084.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2091	2091	2091	2091	2091	
5°	2078	2081	2076	2074	2078	197
15°	1965	1965	1967	1965	1962	553
25°	1713	1733	1749	1732	1711	774
35°	871	1027	1353	1029	858	566
45°	412	452	542	449	415	327
55°	256	260	263	259	256	230
65°	156	158	155	156	155	156
75°	82	80	79	80	80	86
85°	20	20	20	22	20	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2091.0	2091.0	2091.0	2091.0	2091.0
1°	2086.6	2089.5	2089.5	2088.1	2089.5
2°	2091.0	2086.6	2086.6	2086.6	2088.1
3°	2085.2	2088.1	2088.1	2083.7	2080.8
4°	2083.7	2082.2	2082.2	2086.6	2083.7
5°	2077.9	2080.8	2076.4	2073.5	2077.9
6°	2072.0	2073.5	2072.0	2073.5	2077.9
7°	2064.7	2069.1	2067.6	2066.2	2066.2
8°	2055.9	2061.8	2058.9	2058.9	2057.4
9°	2047.2	2048.6	2051.6	2051.6	2042.8
10°	2034.0	2038.4	2035.5	2036.9	2031.1
11°	2022.3	2028.2	2026.7	2023.8	2025.3
12°	2012.1	2015.0	2013.6	2009.2	2010.6
13°	1999.0	2001.9	2000.4	2000.4	1996.0
14°	1984.3	1981.4	1985.8	1982.9	1981.4
15°	1965.3	1965.3	1966.8	1965.3	1962.4
16°	1947.8	1949.3	1949.3	1947.8	1949.3
17°	1927.4	1933.2	1931.7	1928.8	1930.3
18°	1908.4	1912.7	1914.2	1912.7	1908.4
19°	1890.8	1893.7	1892.3	1886.4	1886.4
20°	1868.9	1870.4	1870.4	1867.4	1864.5
22.5°	1800.2	1810.5	1817.8	1811.9	1800.2
25°	1712.6	1733.0	1749.1	1731.5	1711.1
27.5°	1589.8	1630.7	1678.9	1635.1	1597.1
30°	1401.3	1494.8	1591.3	1503.6	1410.1
32.5°	1114.9	1299.0	1483.1	1316.6	1132.4
35°	870.9	1027.2	1353.1	1028.7	857.7
37.5°	695.5	806.6	1186.5	799.3	688.2
40°	575.7	650.2	954.2	647.3	565.5
42.5°	480.7	537.7	714.5	531.9	480.7
45°	412.1	451.5	542.1	448.6	415.0
47.5°	360.9	385.8	434.0	384.3	360.9
50°	318.5	333.2	359.5	331.7	315.6
52.5°	284.9	293.7	303.9	290.8	282.0
55°	255.7	260.1	263.0	258.6	255.7
57.5°	228.0	230.9	229.4	228.0	226.5
60°	201.6	203.1	201.6	203.1	201.6
62.5°	178.3	179.7	176.8	178.3	176.8
65°	156.4	157.8	154.9	156.4	154.9
67.5°	135.9	135.9	135.9	135.9	134.4
70°	115.4	116.9	115.4	116.9	116.9
72.5°	97.9	97.9	96.4	97.9	97.9
75°	81.8	80.4	78.9	80.4	80.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	35.1	35.1	33.6	35.1	35.1
85°	20.5	20.5	20.5	21.9	20.5
87.5°	10.2	8.8	8.8	10.2	10.2
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°	64.3	64.3	62.8	64.3	64.3
80°	48.2	49.7	48.2	49.7	48.2

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(END OF REPORT)