

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: P838558

Luminaire Tested: HCSQ635D010-HM63040927-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838558
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-HM63040927-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

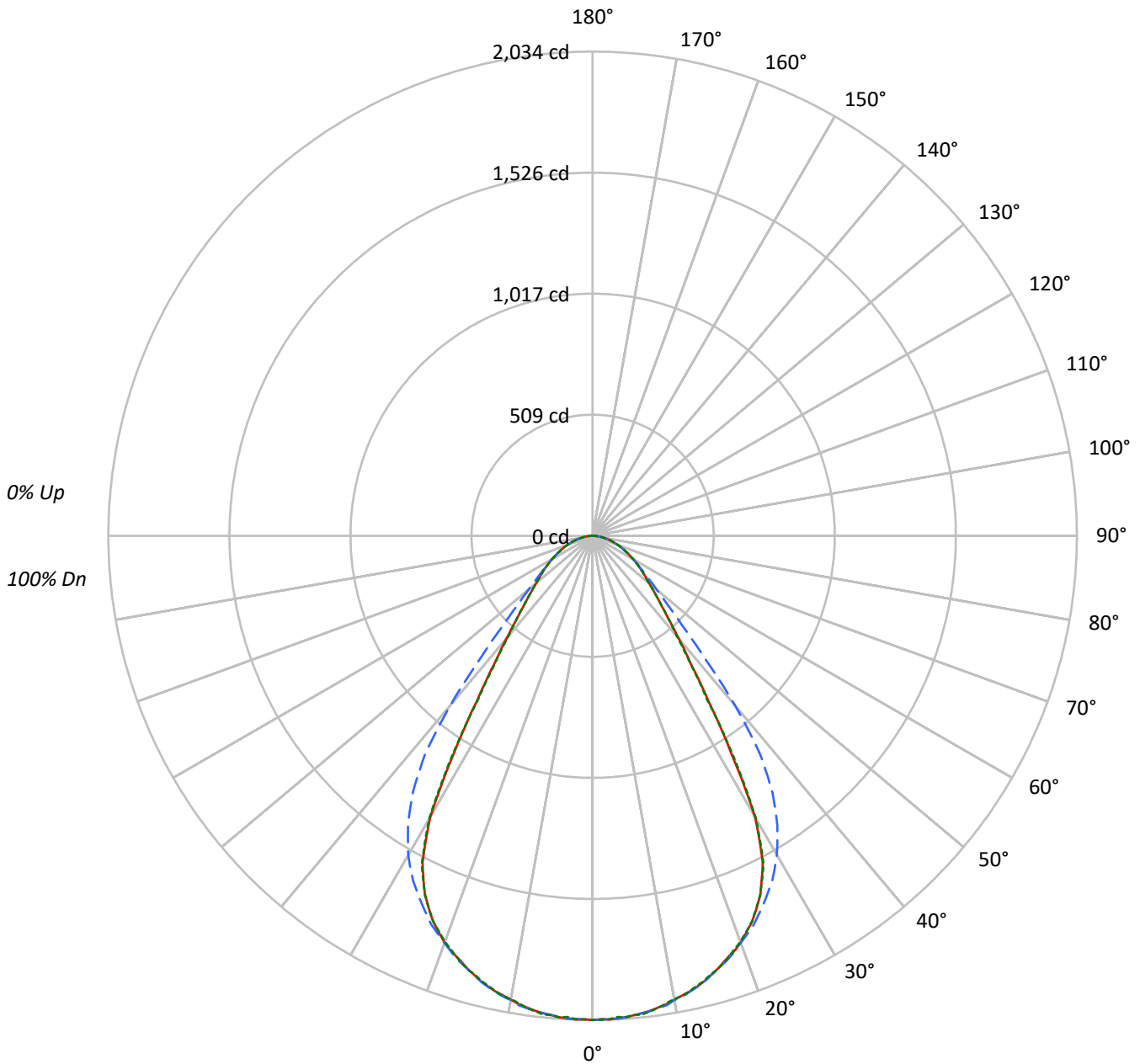
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3000.9 lumens
Efficiency: N/A
Efficacy: 88.3 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				
RW	70	50	30	10	70	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°	87597	87597	87597
5°	87378	87318	87378
10°	86522	86587	86399
15°	85235	85298	85111
20°	83317	83381	83120
25°	79160	80847	79089
30°	67783	76976	68211
35°	44540	69197	43868
40°	31486	52181	30924
45°	24411	32119	24587
50°	20758	23424	20570
55°	18676	19209	18676
60°	16895	16895	16895
65°	15496	15353	15353
70°	14137	14137	14313
75°	13242	12776	13009
80°	11629	11629	11629
85°	9831	9831	9831

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 32119 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.8	6.4
10°-20°	538.6	17.9
20°-30°	767.6	25.6
30°-40°	654.5	21.8
40°-50°	362.1	12.1
50°-60°	228.1	7.6
60°-70°	151.4	5.0
70°-80°	83.2	2.8
80°-90°	23.7	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°	1498.0	49.9
0°-40°	2152.5	71.7
0°-60°	2742.6	91.4
0°-90°	3000.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3000.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2034	2034	2034	2034	2034	
5°	2022	2024	2020	2017	2022	192
15°	1912	1912	1914	1912	1909	538
25°	1666	1686	1702	1685	1665	753
35°	847	1000	1316	1001	835	551
45°	401	439	528	436	404	318
55°	249	253	256	252	249	224
65°	152	154	151	152	151	151
75°	80	78	77	78	78	84
85°	20	20	20	21	20	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2034.5	2034.5	2034.5	2034.5	2034.5
1°	2030.2	2033.1	2033.1	2031.7	2033.1
2°	2034.5	2030.2	2030.2	2030.2	2031.7
3°	2028.8	2031.7	2031.7	2027.4	2024.5
4°	2027.4	2026.0	2026.0	2030.2	2027.4
5°	2021.7	2024.5	2020.3	2017.4	2021.7
6°	2016.0	2017.4	2016.0	2017.4	2021.7
7°	2008.9	2013.2	2011.7	2010.3	2010.3
8°	2000.4	2006.1	2003.2	2003.2	2001.8
9°	1991.8	1993.3	1996.1	1996.1	1987.6
10°	1979.0	1983.3	1980.5	1981.9	1976.2
11°	1967.7	1973.4	1971.9	1969.1	1970.5
12°	1957.7	1960.6	1959.1	1954.9	1956.3
13°	1944.9	1947.8	1946.3	1946.3	1942.1
14°	1930.7	1927.9	1932.1	1929.3	1927.9
15°	1912.2	1912.2	1913.6	1912.2	1909.4
16°	1895.2	1896.6	1896.6	1895.2	1896.6
17°	1875.3	1880.9	1879.5	1876.7	1878.1
18°	1856.8	1861.0	1862.5	1861.0	1856.8
19°	1839.7	1842.6	1841.1	1835.5	1835.5
20°	1818.4	1819.8	1819.8	1817.0	1814.1
22.5°	1751.6	1761.5	1768.6	1762.9	1751.6
25°	1666.3	1686.2	1701.8	1684.8	1664.8
27.5°	1546.8	1586.7	1633.6	1590.9	1554.0
30°	1363.4	1454.4	1548.3	1463.0	1372.0
32.5°	1084.8	1263.9	1443.1	1281.0	1101.8
35°	847.4	999.5	1316.5	1000.9	834.6
37.5°	676.7	784.8	1154.4	777.7	669.6
40°	560.2	632.7	928.4	629.8	550.2
42.5°	467.7	523.2	695.2	517.5	467.7
45°	400.9	439.3	527.5	436.5	403.8
47.5°	351.2	375.3	422.3	373.9	351.2
50°	309.9	324.2	349.7	322.7	307.1
52.5°	277.2	285.8	295.7	282.9	274.4
55°	248.8	253.1	255.9	251.6	248.8
57.5°	221.8	224.6	223.2	221.8	220.4
60°	196.2	197.6	196.2	197.6	196.2
62.5°	173.5	174.9	172.0	173.5	172.0
65°	152.1	153.5	150.7	152.1	150.7
67.5°	132.2	132.2	132.2	132.2	130.8
70°	112.3	113.7	112.3	113.7	113.7
72.5°	95.3	95.3	93.8	95.3	95.3
75°	79.6	78.2	76.8	78.2	78.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	34.1	34.1	32.7	34.1	34.1
85°	19.9	19.9	19.9	21.3	19.9
87.5°	10.0	8.5	8.5	10.0	10.0
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°	62.6	62.6	61.1	62.6	62.6
80°	46.9	48.3	46.9	48.3	46.9

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Scaled Data Report



(END OF REPORT)