

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: P838563

Luminaire Tested: HCSQ635D010-HM63040930-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838563
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-HM63040930-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

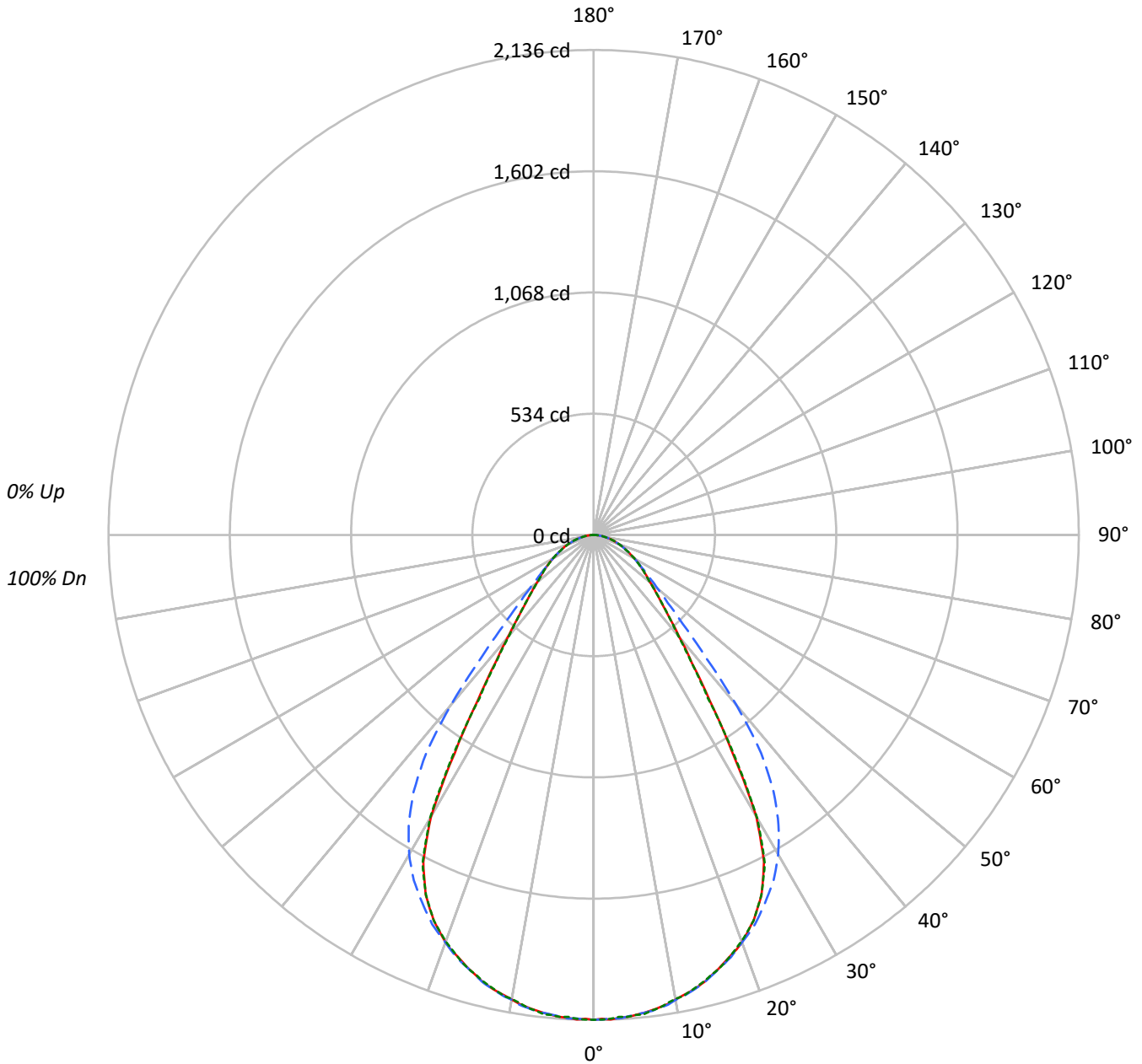
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3150.5 lumens
Efficiency: N/A
Efficacy: 92.7 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					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°	91963	91963	91963
5°	91735	91670	91735
10°	90837	90902	90706
15°	89483	89550	89350
20°	87468	87537	87262
25°	83103	84875	83032
30°	71164	80809	71607
35°	46758	72645	46049
40°	33054	54783	32464
45°	25629	33715	25811
50°	21796	24596	21595
55°	19607	20170	19607
60°	17739	17739	17739
65°	16270	16117	16117
70°	14842	14842	15031
75°	13907	13408	13658
80°	12224	12224	12224
85°	10325	10325	10325

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 33715 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	201.4	6.4
10°-20°	565.5	17.9
20°-30°	805.8	25.6
30°-40°	687.1	21.8
40°-50°	380.1	12.1
50°-60°	239.4	7.6
60°-70°	159.0	5.0
70°-80°	87.4	2.8
80°-90°	24.9	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°	1572.7	49.9
0°-40°	2259.8	71.7
0°-60°	2879.3	91.4
0°-90°	3150.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3150.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2136	2136	2136	2136	2136	
5°	2122	2125	2121	2118	2122	201
15°	2008	2008	2009	2008	2004	565
25°	1749	1770	1787	1769	1748	790
35°	890	1049	1382	1051	876	578
45°	421	461	554	458	424	334
55°	261	266	269	264	261	235
65°	160	161	158	160	158	159
75°	84	82	81	82	82	88
85°	21	21	21	22	21	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2135.9	2135.9	2135.9	2135.9	2135.9
1°	2131.4	2134.4	2134.4	2132.9	2134.4
2°	2135.9	2131.4	2131.4	2131.4	2132.9
3°	2129.9	2132.9	2132.9	2128.4	2125.4
4°	2128.4	2126.9	2126.9	2131.4	2128.4
5°	2122.5	2125.4	2121.0	2118.0	2122.5
6°	2116.5	2118.0	2116.5	2118.0	2122.5
7°	2109.0	2113.5	2112.0	2110.5	2110.5
8°	2100.1	2106.0	2103.1	2103.1	2101.6
9°	2091.1	2092.6	2095.6	2095.6	2086.6
10°	2077.7	2082.2	2079.2	2080.7	2074.7
11°	2065.7	2071.7	2070.2	2067.2	2068.7
12°	2055.3	2058.3	2056.8	2052.3	2053.8
13°	2041.9	2044.8	2043.3	2043.3	2038.9
14°	2026.9	2023.9	2028.4	2025.4	2023.9
15°	2007.5	2007.5	2009.0	2007.5	2004.5
16°	1989.6	1991.1	1991.1	1989.6	1991.1
17°	1968.7	1974.7	1973.2	1970.2	1971.7
18°	1949.3	1953.8	1955.3	1953.8	1949.3
19°	1931.4	1934.4	1932.9	1926.9	1926.9
20°	1909.0	1910.5	1910.5	1907.5	1904.5
22.5°	1838.9	1849.3	1856.8	1850.8	1838.9
25°	1749.3	1770.2	1786.6	1768.7	1747.8
27.5°	1623.9	1665.7	1715.0	1670.2	1631.4
30°	1431.4	1526.9	1625.4	1535.9	1440.3
32.5°	1138.8	1326.9	1515.0	1344.8	1156.8
35°	889.6	1049.3	1382.1	1050.8	876.1
37.5°	710.5	823.9	1212.0	816.4	703.0
40°	588.1	664.2	974.7	661.2	577.6
42.5°	491.1	549.3	729.9	543.3	491.1
45°	420.9	461.2	553.7	458.2	423.9
47.5°	368.7	394.0	443.3	392.5	368.7
50°	325.4	340.3	367.2	338.8	322.4
52.5°	291.1	300.0	310.5	297.0	288.1
55°	261.2	265.7	268.7	264.2	261.2
57.5°	232.8	235.8	234.3	232.8	231.4
60°	206.0	207.5	206.0	207.5	206.0
62.5°	182.1	183.6	180.6	182.1	180.6
65°	159.7	161.2	158.2	159.7	158.2
67.5°	138.8	138.8	138.8	138.8	137.3
70°	117.9	119.4	117.9	119.4	119.4
72.5°	100.0	100.0	98.5	100.0	100.0
75°	83.6	82.1	80.6	82.1	82.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	35.8	35.8	34.3	35.8	35.8
85°	20.9	20.9	20.9	22.4	20.9
87.5°	10.4	9.0	9.0	10.4	10.4
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°	65.7	65.7	64.2	65.7	65.7
80°	49.3	50.7	49.3	50.7	49.3

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(END OF REPORT)