

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: P838572

Luminaire Tested: HCSQ635D010-HM63040940-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838572
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ635D010-HM63040940-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

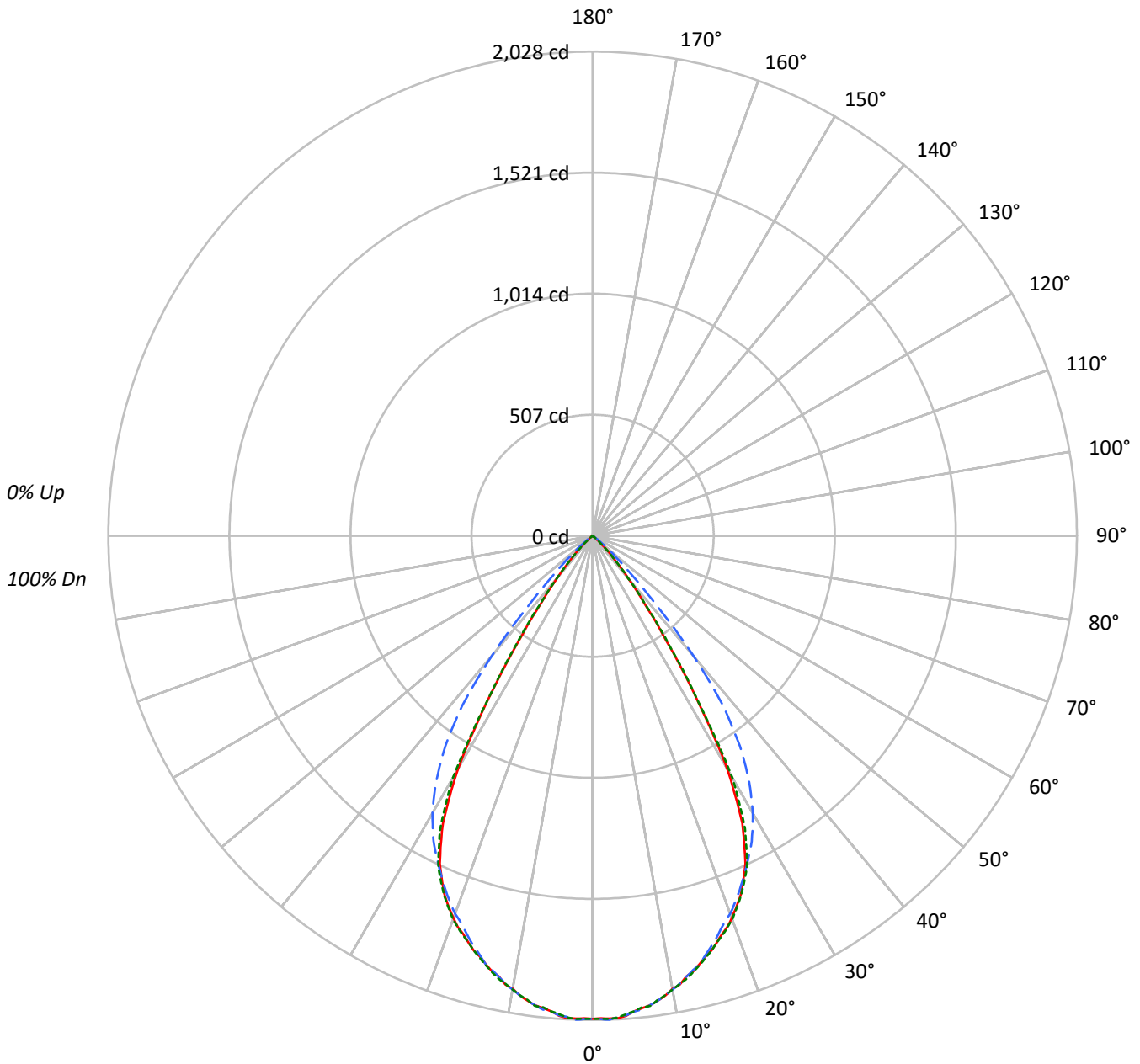
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2011.5 lumens
Efficiency: N/A
Efficacy: 59.2 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03
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	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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93								
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87								
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81								
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75								
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70								
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65								
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60								
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56								
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53								
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	87123	87123	87123
5°	86393	86462	86393
10°	84231	84371	84371
15°	81331	81112	81554
20°	78103	77200	78332
25°	71925	72471	72628
30°	56065	66690	58188
35°	28425	56509	29461
40°	12933	36955	12933
45°	5005	13913	4902
50°	770	4407	770
55°	248	863	248
60°	138	138	138
65°	163	0	163
70°	0	0	201
75°	0	0	266
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13913 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.9	9.4
10°-20°	512.4	25.5
20°-30°	690.8	34.3
30°-40°	485.7	24.1
40°-50°	124.0	6.2
50°-60°	8.6	0.4
60°-70°	1.0	0.1
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	1392.1	69.2
0°-40°	1877.8	93.4
0°-60°	2010.4	99.9
0°-90°	2011.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2011.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2024	2024	2024	2024	2024	
5°	1999	2002	2000	2002	1999	189
15°	1825	1821	1820	1825	1830	514
25°	1514	1519	1526	1530	1529	677
35°	541	717	1075	735	560	364
45°	82	123	228	125	80	72
55°	3	3	12	3	3	4
65°	2	2	0	2	2	1
75°	0	0	0	0	2	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2023.5	2023.5	2023.5	2023.5	2023.5
1°	2021.9	2023.5	2025.2	2025.2	2023.5
2°	2023.5	2018.6	2028.5	2023.5	2025.2
3°	2023.5	2013.7	2018.6	2021.9	2020.3
4°	2015.3	2008.8	2013.7	2012.0	2008.8
5°	1998.9	2002.2	2000.5	2002.2	1998.9
6°	1989.0	1992.3	1995.6	1990.7	1985.7
7°	1980.8	1979.2	1980.8	1984.1	1984.1
8°	1966.0	1969.3	1966.0	1967.7	1962.7
9°	1949.6	1949.6	1949.6	1952.9	1947.9
10°	1926.6	1934.8	1929.8	1933.1	1929.8
11°	1915.1	1911.8	1911.8	1913.4	1911.8
12°	1887.1	1890.4	1888.8	1892.0	1897.0
13°	1872.3	1874.0	1867.4	1875.6	1875.6
14°	1849.3	1847.7	1850.9	1849.3	1852.6
15°	1824.6	1821.4	1819.7	1824.6	1829.6
16°	1806.6	1798.3	1793.4	1800.0	1806.6
17°	1780.3	1772.0	1765.5	1778.6	1780.3
18°	1754.0	1750.7	1734.2	1750.7	1758.9
19°	1732.6	1721.1	1706.3	1724.4	1734.2
20°	1704.6	1694.8	1684.9	1694.8	1709.6
22.5°	1624.1	1615.9	1607.7	1619.2	1627.4
25°	1514.0	1518.9	1525.5	1530.4	1528.8
27.5°	1357.8	1402.2	1443.3	1417.0	1382.5
30°	1127.7	1239.4	1341.4	1257.5	1170.4
32.5°	817.0	1007.7	1219.7	1045.5	825.2
35°	540.8	716.7	1075.1	734.8	560.5
37.5°	351.8	481.6	897.5	483.3	368.2
40°	230.1	314.0	657.5	320.5	230.1
42.5°	141.4	198.9	399.4	207.1	141.4
45°	82.2	123.3	228.5	124.9	80.5
47.5°	37.8	67.4	129.9	65.8	39.5
50°	11.5	29.6	65.8	29.6	11.5
52.5°	4.9	8.2	31.2	8.2	4.9
55°	3.3	3.3	11.5	3.3	3.3
57.5°	3.3	1.6	3.3	3.3	3.3
60°	1.6	1.6	1.6	1.6	1.6
62.5°	1.6	1.6	1.6	1.6	1.6
65°	1.6	1.6	0.0	1.6	1.6
67.5°	1.6	0.0	0.0	0.0	1.6
70°	0.0	0.0	0.0	0.0	1.6
72.5°	0.0	0.0	0.0	0.0	1.6
75°	0.0	0.0	0.0	0.0	1.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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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— 0°-180° - - 45°-225° - - - - 90°-270°

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77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0

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