

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: P838537

Luminaire Tested: HCSQ635D010-HM63040827-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838537
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-HM63040827-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

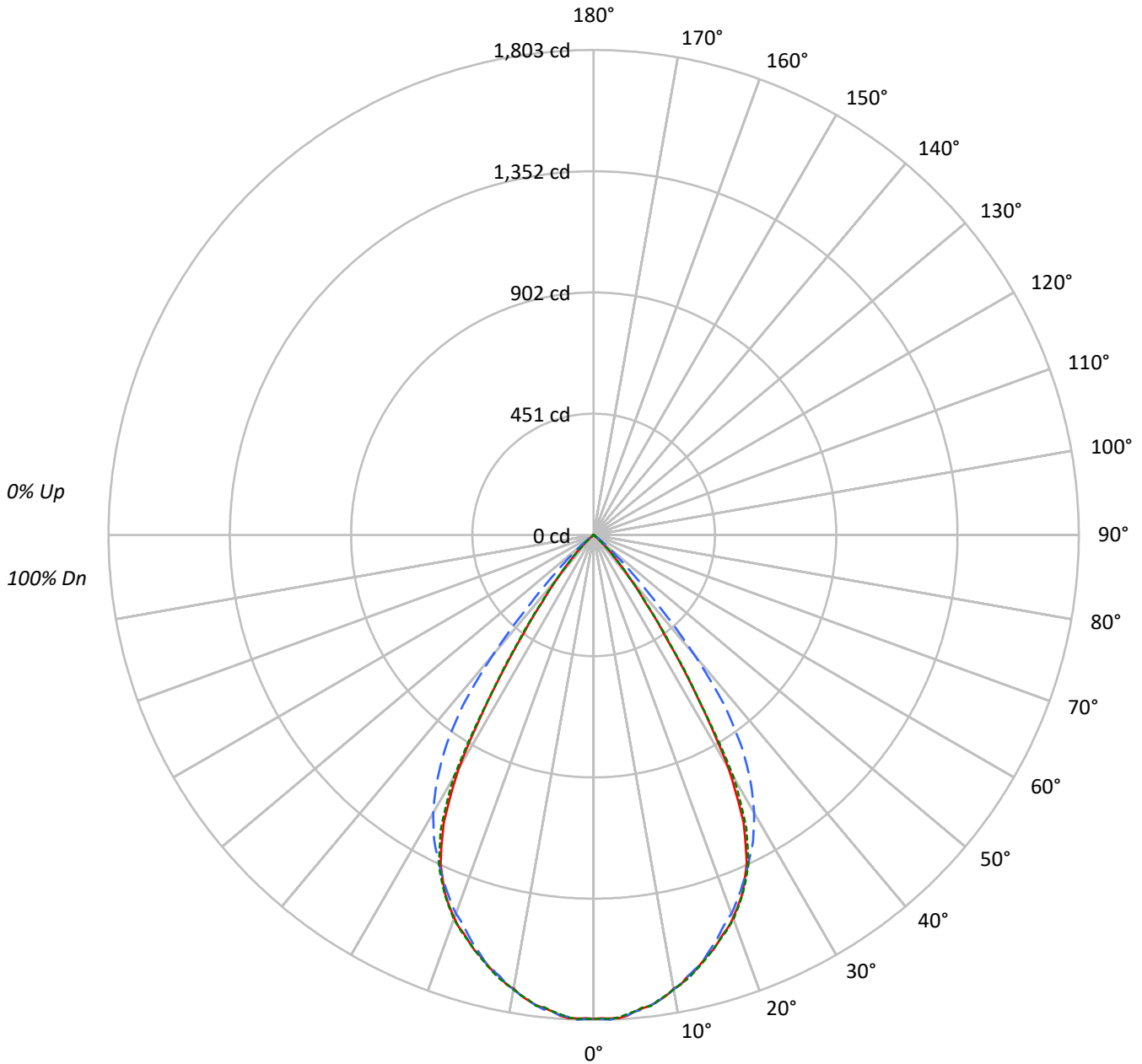
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1788.4 lumens
Efficiency: N/A
Efficacy: 52.6 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°	77457	77457	77457
5°	76806	76871	76806
10°	74883	75010	75010
15°	72309	72113	72505
20°	69439	68637	69640
25°	63944	64429	64566
30°	49841	59287	51730
35°	25271	50238	26191
40°	11500	32858	11500
45°	4451	12367	4360
50°	683	3918	683
55°	218	766	218
60°	129	129	129
65°	153	0	153
70°	0	0	189
75°	0	0	250
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 12367 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.0	9.4
10°-20°	455.6	25.5
20°-30°	614.1	34.3
30°-40°	431.8	24.1
40°-50°	110.3	6.2
50°-60°	7.6	0.4
60°-70°	0.9	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°	1237.7	69.2
0°-40°	1669.4	93.3
0°-60°	1787.3	99.9
0°-90°	1788.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1788.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1799	1799	1799	1799	1799	
5°	1777	1780	1779	1780	1777	168
15°	1622	1619	1618	1622	1627	457
25°	1346	1350	1356	1361	1359	601
35°	481	637	956	653	498	324
45°	73	110	203	111	72	64
55°	3	3	10	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°	1799.0	1799.0	1799.0	1799.0	1799.0
1°	1797.6	1799.0	1800.5	1800.5	1799.0
2°	1799.0	1794.6	1803.4	1799.0	1800.5
3°	1799.0	1790.3	1794.6	1797.6	1796.1
4°	1791.7	1785.9	1790.3	1788.8	1785.9
5°	1777.1	1780.0	1778.6	1780.0	1777.1
6°	1768.3	1771.3	1774.2	1769.8	1765.4
7°	1761.0	1759.6	1761.0	1764.0	1764.0
8°	1747.9	1750.8	1747.9	1749.3	1745.0
9°	1733.3	1733.3	1733.3	1736.2	1731.8
10°	1712.8	1720.1	1715.7	1718.6	1715.7
11°	1702.6	1699.6	1699.6	1701.1	1699.6
12°	1677.7	1680.6	1679.2	1682.1	1686.5
13°	1664.6	1666.0	1660.2	1667.5	1667.5
14°	1644.1	1642.7	1645.6	1644.1	1647.0
15°	1622.2	1619.3	1617.8	1622.2	1626.6
16°	1606.1	1598.8	1594.4	1600.3	1606.1
17°	1582.7	1575.4	1569.6	1581.3	1582.7
18°	1559.4	1556.4	1541.8	1556.4	1563.7
19°	1540.4	1530.1	1517.0	1533.0	1541.8
20°	1515.5	1506.7	1498.0	1506.7	1519.9
22.5°	1443.9	1436.6	1429.3	1439.5	1446.8
25°	1346.0	1350.4	1356.2	1360.6	1359.1
27.5°	1207.1	1246.6	1283.1	1259.8	1229.1
30°	1002.5	1101.9	1192.5	1118.0	1040.5
32.5°	726.3	895.9	1084.4	929.5	733.6
35°	480.8	637.2	955.8	653.3	498.3
37.5°	312.7	428.2	797.9	429.7	327.4
40°	204.6	279.1	584.6	285.0	204.6
42.5°	125.7	176.8	355.1	184.1	125.7
45°	73.1	109.6	203.1	111.1	71.6
47.5°	33.6	59.9	115.5	58.5	35.1
50°	10.2	26.3	58.5	26.3	10.2
52.5°	4.4	7.3	27.8	7.3	4.4
55°	2.9	2.9	10.2	2.9	2.9
57.5°	2.9	1.5	2.9	2.9	2.9
60°	1.5	1.5	1.5	1.5	1.5
62.5°	1.5	1.5	1.5	1.5	1.5
65°	1.5	1.5	0.0	1.5	1.5
67.5°	1.5	0.0	0.0	0.0	1.5
70°	0.0	0.0	0.0	0.0	1.5
72.5°	0.0	0.0	0.0	0.0	1.5
75°	0.0	0.0	0.0	0.0	1.5



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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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Scaled Data Report





— 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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