

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: P838409

Luminaire Tested: HCSQ615D010-HM60525940-61SQC

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838409
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ615D010-HM60525940-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

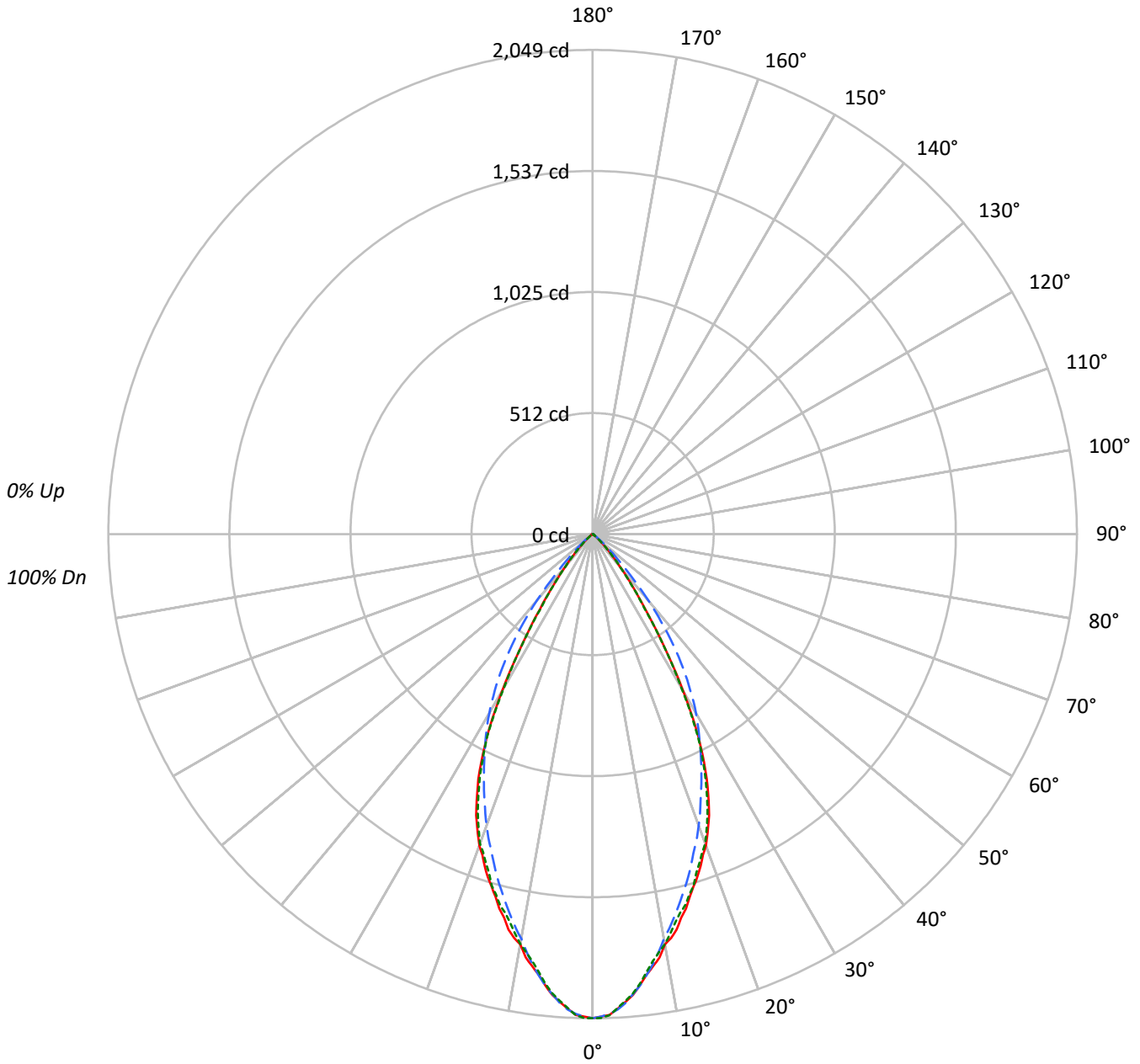
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1534.7 lumens
Efficiency: N/A
Efficacy: 109.6 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): 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	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59																			
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55																			
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	88212	88212	88212
5°	84616	84469	84348
10°	77069	76020	77008
15°	70829	68235	70401
20°	64275	60137	63835
25°	54324	51687	53573
30°	38038	43512	37392
35°	20431	33376	20036
40°	10117	20655	10038
45°	4415	8707	4335
50°	1420	3162	1420
55°	721	1028	668
60°	474	474	474
65°	346	346	346
70°	264	264	264
75°	233	233	233
80°	174	174	174
85°	346	346	346

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8707 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.9	11.7
10°-20°	434.4	28.3
20°-30°	501.8	32.7
30°-40°	313.4	20.4
40°-50°	87.1	5.7
50°-60°	12.2	0.8
60°-70°	3.6	0.2
70°-80°	1.6	0.1
80°-90°	0.7	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°	1116.2	72.7
0°-40°	1429.6	93.2
0°-60°	1528.8	99.6
0°-90°	1534.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1534.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2049	2049	2049	2049	2049	
5°	1958	1952	1954	1952	1952	180
15°	1589	1559	1531	1555	1579	445
25°	1144	1110	1088	1109	1128	511
35°	389	480	635	474	381	258
45°	72	92	143	92	71	63
55°	10	10	14	10	9	9
65°	3	3	3	3	3	4
75°	1	1	1	1	1	1
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2048.8	2048.8	2048.8	2048.8	2048.8
1°	2042.7	2042.7	2042.7	2048.1	2048.1
2°	2036.5	2035.1	2031.7	2035.8	2037.9
3°	2011.2	2013.9	2015.3	2013.2	2008.4
4°	1985.2	1982.4	1990.0	1985.2	1981.1
5°	1957.8	1952.3	1954.4	1951.6	1951.6
6°	1919.5	1926.3	1920.8	1916.1	1913.3
7°	1877.7	1883.2	1879.8	1872.9	1868.2
8°	1844.9	1841.5	1836.0	1834.6	1826.4
9°	1813.4	1801.1	1788.8	1790.8	1792.9
10°	1762.8	1764.1	1738.8	1758.0	1761.4
11°	1741.6	1734.0	1700.5	1716.2	1721.7
12°	1710.8	1686.8	1658.1	1671.1	1681.3
13°	1666.3	1641.7	1615.6	1635.5	1645.8
14°	1632.8	1604.7	1571.9	1597.2	1618.4
15°	1589.0	1558.9	1530.8	1554.7	1579.4
16°	1550.6	1515.7	1487.7	1510.9	1547.9
17°	1517.1	1474.0	1439.8	1464.4	1500.0
18°	1478.1	1428.1	1396.7	1422.7	1463.0
19°	1435.0	1384.4	1356.3	1377.5	1424.0
20°	1402.8	1346.0	1312.5	1333.0	1393.2
22.5°	1287.9	1228.3	1197.5	1222.2	1270.1
25°	1143.5	1109.9	1088.0	1109.3	1127.7
27.5°	972.4	972.4	979.9	971.0	965.6
30°	765.1	820.5	875.2	817.7	752.1
32.5°	558.4	647.4	757.5	659.0	557.7
35°	388.7	479.7	635.0	474.2	381.2
37.5°	270.3	330.5	500.9	333.9	266.9
40°	180.0	221.7	367.5	225.8	178.6
42.5°	117.7	146.4	237.5	147.1	115.0
45°	72.5	92.4	143.0	91.7	71.2
47.5°	42.4	54.7	83.5	55.4	41.7
50°	21.2	32.2	47.2	31.5	21.2
52.5°	12.3	17.1	26.0	16.4	12.3
55°	9.6	9.6	13.7	9.6	8.9
57.5°	7.5	7.5	7.5	7.5	6.8
60°	5.5	6.2	5.5	5.5	5.5
62.5°	4.8	4.8	4.1	4.8	4.1
65°	3.4	3.4	3.4	3.4	3.4
67.5°	2.7	2.7	2.7	2.7	2.7
70°	2.1	2.1	2.1	2.1	2.1
72.5°	1.4	2.1	1.4	2.1	2.1
75°	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.7	0.7	0.7	0.7	0.7
85°	0.7	0.7	0.7	0.7	0.7
87.5°	0.7	0.7	0.7	0.7	0.7
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°	1.4	1.4	1.4	1.4	0.7
80°	0.7	0.7	0.7	0.7	0.7

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