

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: P838404

Luminaire Tested: HCSQ615D010-HM60525935-61SQC

Issue Date: 5/21/2024

**Test Information**

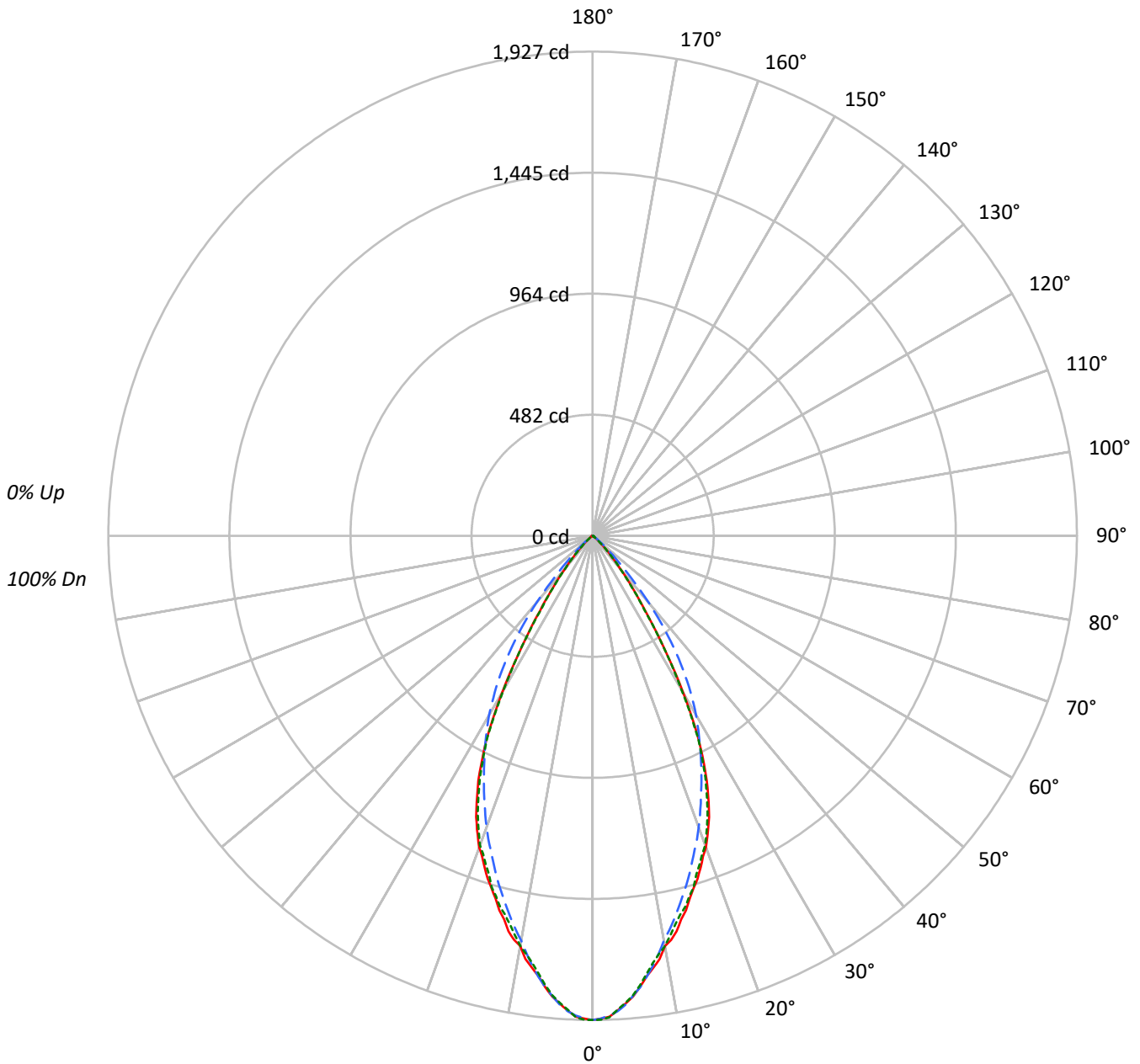
Test Method: LM-79-2019  
Report Number: P838404  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ615D010-HM60525935-61SQC  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1443.5 lumens  
Efficiency: N/A  
Efficacy: 103.1 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 (A<sub>in</sub>): 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

TEST NUMBER: P838404  
CATALOG NUMBER: HCSQ615D010-HM60525935-61SQC

### Luminous Intensity Polar Plot





TEST NUMBER: P838404

CATALOG NUMBER: HCSQ615D010-HM60525935-61SQC

**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	97	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	78	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°	82977	82977	82977
5°	79594	79456	79344
10°	72492	71508	72435
15°	66621	64183	66220
20°	60463	56568	60046
25°	51098	48623	50395
30°	35776	40932	35169
35°	19216	31395	18843
40°	9516	19430	9442
45°	4153	8190	4074
50°	1340	2974	1340
55°	676	968	631
60°	439	439	439
65°	326	326	326
70°	239	239	239
75°	216	216	216
80°	149	149	149
85°	296	296	296

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 8190 cd/sqm



TEST NUMBER: P838404

CATALOG NUMBER: HCSQ615D010-HM60525935-61SQC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	169.2	11.7
10°-20°	408.6	28.3
20°-30°	472.1	32.7
30°-40°	294.8	20.4
40°-50°	81.9	5.7
50°-60°	11.5	0.8
60°-70°	3.4	0.2
70°-80°	1.4	0.1
80°-90°	0.6	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°	1049.9	72.7
0°-40°	1344.7	93.2
0°-60°	1438.1	99.6
0°-90°	1443.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1443.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1927	1927	1927	1927	1927	
5°	1842	1836	1838	1836	1836	170
15°	1495	1466	1440	1462	1486	419
25°	1076	1044	1024	1043	1061	480
35°	366	451	597	446	358	243
45°	68	87	134	86	67	59
55°	9	9	13	9	8	9
65°	3	3	3	3	3	3
75°	1	1	1	1	1	1
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



TEST NUMBER: P838404

CATALOG NUMBER: HCSQ615D010-HM60525935-61SQC

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1927.2	1927.2	1927.2	1927.2	1927.2
1°	1921.4	1921.4	1921.4	1926.5	1926.5
2°	1915.6	1914.3	1911.1	1915.0	1916.9
3°	1891.8	1894.4	1895.6	1893.7	1889.2
4°	1867.3	1864.8	1871.8	1867.3	1863.5
5°	1841.6	1836.4	1838.4	1835.8	1835.8
6°	1805.5	1812.0	1806.8	1802.3	1799.7
7°	1766.3	1771.4	1768.2	1761.8	1757.3
8°	1735.4	1732.2	1727.0	1725.7	1718.0
9°	1705.8	1694.2	1682.6	1684.5	1686.5
10°	1658.1	1659.4	1635.6	1653.6	1656.8
11°	1638.2	1631.1	1599.6	1614.4	1619.5
12°	1609.2	1586.7	1559.6	1571.9	1581.5
13°	1567.4	1544.2	1519.7	1538.4	1548.1
14°	1535.8	1509.4	1478.5	1502.4	1522.3
15°	1494.6	1466.3	1439.9	1462.4	1485.6
16°	1458.6	1425.8	1399.4	1421.3	1456.0
17°	1427.0	1386.5	1354.3	1377.5	1411.0
18°	1390.4	1343.4	1313.8	1338.2	1376.2
19°	1349.8	1302.2	1275.8	1295.7	1339.5
20°	1319.6	1266.1	1234.6	1253.9	1310.5
22.5°	1211.4	1155.4	1126.4	1149.6	1194.7
25°	1075.6	1044.1	1023.5	1043.4	1060.8
27.5°	914.7	914.7	921.8	913.4	908.2
30°	719.6	771.8	823.3	769.2	707.4
32.5°	525.2	608.9	712.6	619.9	524.6
35°	365.6	451.2	597.3	446.1	358.5
37.5°	254.3	310.9	471.2	314.1	251.0
40°	169.3	208.6	345.7	212.4	168.0
42.5°	110.7	137.7	223.4	138.4	108.1
45°	68.2	86.9	134.5	86.3	66.9
47.5°	39.9	51.5	78.5	52.1	39.3
50°	20.0	30.3	44.4	29.6	20.0
52.5°	11.6	16.1	24.5	15.4	11.6
55°	9.0	9.0	12.9	9.0	8.4
57.5°	7.1	7.1	7.1	7.1	6.4
60°	5.1	5.8	5.1	5.1	5.1
62.5°	4.5	4.5	3.9	4.5	3.9
65°	3.2	3.2	3.2	3.2	3.2
67.5°	2.6	2.6	2.6	2.6	2.6
70°	1.9	1.9	1.9	1.9	1.9
72.5°	1.3	1.9	1.3	1.9	1.9
75°	1.3	1.3	1.3	1.3	1.3



TEST NUMBER: P838404

CATALOG NUMBER: HCSQ615D010-HM60525935-61SQC

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	0.6	0.6	0.6	0.6	0.6
85°	0.6	0.6	0.6	0.6	0.6
87.5°	0.6	0.6	0.6	0.6	0.6
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



Report Generated By 670245859 / DESKTOP-T8S5UU9



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report





— 0°-180°    - - 45°-225°    - - - 90°-270°

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



77.5°	1.3	1.3	1.3	1.3	0.6
80°	0.6	0.6	0.6	0.6	0.6

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)