

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: P838493

Luminaire Tested: HCSQ625D010-HM60525940-61SQMW

Issue Date: 5/21/2024



**Test Information**

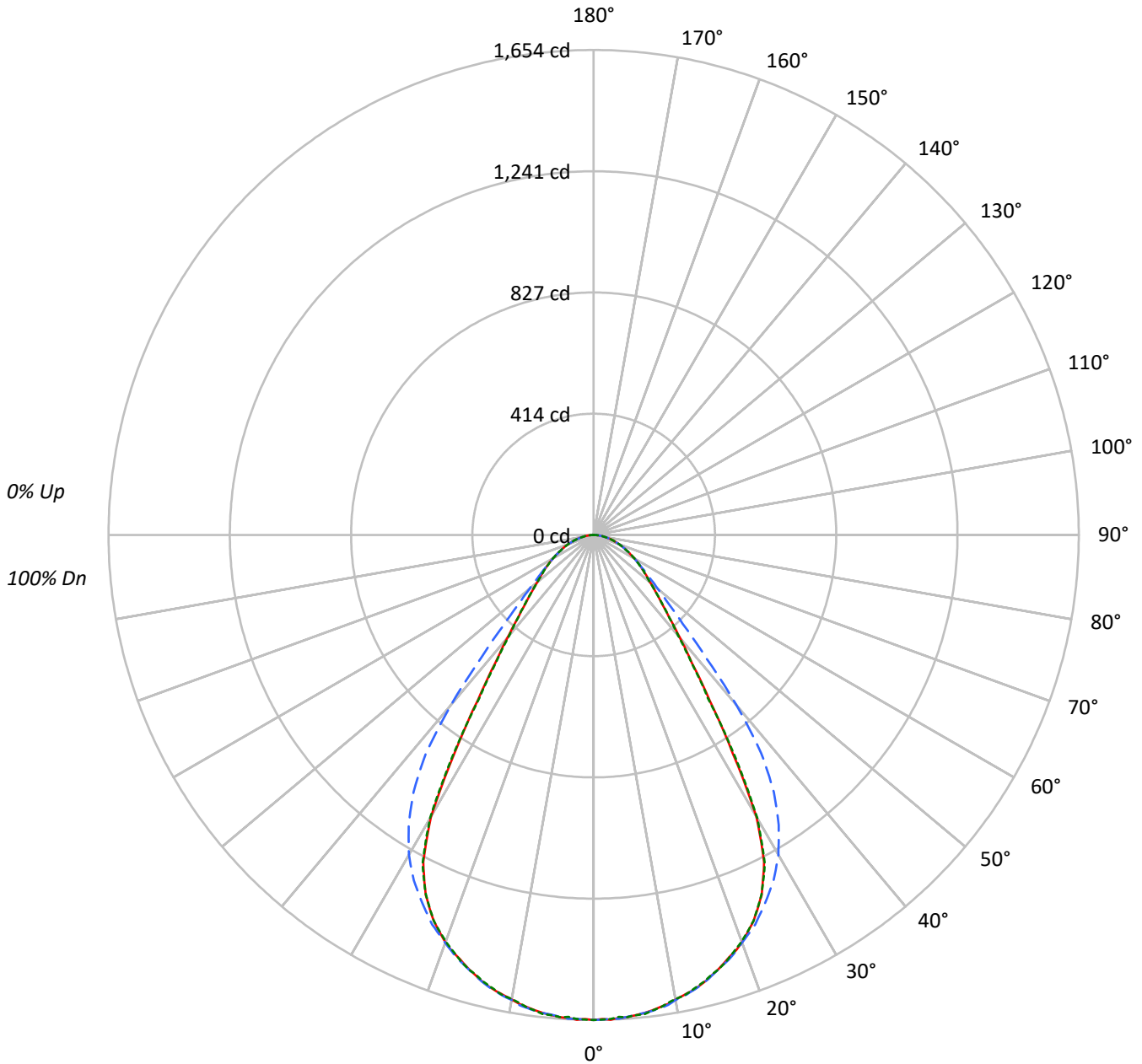
Test Method: LM-79-2019  
Report Number: P838493  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ625D010-HM60525940-61SQMW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2440.4 lumens  
Efficiency: N/A  
Efficacy: 88.1 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): 27.7  
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

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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	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°	71236	71236	71236
5°	71058	71006	71058
10°	70363	70415	70262
15°	69318	69367	69211
20°	67757	67807	67597
25°	64372	65744	64319
30°	55126	62598	55469
35°	36220	56272	35673
40°	25601	42435	25146
45°	19850	26116	19996
50°	16880	19050	16726
55°	15186	15621	15186
60°	13743	13743	13743
65°	12602	12490	12490
70°	11493	11493	11644
75°	10763	10381	10580
80°	9472	9472	9472
85°	8003	8003	8003

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 26116 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.0	6.4
10°-20°	438.0	17.9
20°-30°	624.2	25.6
30°-40°	532.2	21.8
40°-50°	294.4	12.1
50°-60°	185.5	7.6
60°-70°	123.1	5.0
70°-80°	67.7	2.8
80°-90°	19.3	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°	1218.2	49.9
0°-40°	1750.4	71.7
0°-60°	2230.3	91.4
0°-90°	2440.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2440.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1654	1654	1654	1654	1654	
5°	1644	1646	1643	1641	1644	156
15°	1555	1555	1556	1555	1553	438
25°	1355	1371	1384	1370	1354	612
35°	689	813	1071	814	679	448
45°	326	357	429	355	328	258
55°	202	206	208	205	202	182
65°	124	125	123	124	123	123
75°	65	64	62	64	64	68
85°	16	16	16	17	16	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1654.5	1654.5	1654.5	1654.5	1654.5
1°	1651.0	1653.3	1653.3	1652.2	1653.3
2°	1654.5	1651.0	1651.0	1651.0	1652.2
3°	1649.9	1652.2	1652.2	1648.7	1646.4
4°	1648.7	1647.6	1647.6	1651.0	1648.7
5°	1644.1	1646.4	1642.9	1640.6	1644.1
6°	1639.5	1640.6	1639.5	1640.6	1644.1
7°	1633.7	1637.1	1636.0	1634.8	1634.8
8°	1626.7	1631.4	1629.1	1629.1	1627.9
9°	1619.8	1621.0	1623.3	1623.3	1616.3
10°	1609.4	1612.9	1610.6	1611.7	1607.1
11°	1600.1	1604.8	1603.6	1601.3	1602.5
12°	1592.1	1594.4	1593.2	1589.7	1590.9
13°	1581.7	1584.0	1582.8	1582.8	1579.3
14°	1570.1	1567.8	1571.2	1568.9	1567.8
15°	1555.1	1555.1	1556.2	1555.1	1552.7
16°	1541.2	1542.3	1542.3	1541.2	1542.3
17°	1525.0	1529.6	1528.5	1526.2	1527.3
18°	1510.0	1513.4	1514.6	1513.4	1510.0
19°	1496.1	1498.4	1497.2	1492.6	1492.6
20°	1478.8	1479.9	1479.9	1477.6	1475.3
22.5°	1424.4	1432.5	1438.3	1433.7	1424.4
25°	1355.0	1371.2	1383.9	1370.1	1353.9
27.5°	1257.9	1290.3	1328.4	1293.8	1263.7
30°	1108.8	1182.8	1259.1	1189.7	1115.7
32.5°	882.2	1027.8	1173.5	1041.7	896.0
35°	689.1	812.8	1070.6	813.9	678.7
37.5°	550.3	638.2	938.8	632.4	544.6
40°	455.5	514.5	755.0	512.2	447.4
42.5°	380.4	425.5	565.4	420.8	380.4
45°	326.0	357.3	428.9	354.9	328.4
47.5°	285.6	305.2	343.4	304.1	285.6
50°	252.0	263.6	284.4	262.5	249.7
52.5°	225.5	232.4	240.5	230.1	223.1
55°	202.3	205.8	208.1	204.6	202.3
57.5°	180.4	182.7	181.5	180.4	179.2
60°	159.6	160.7	159.6	160.7	159.6
62.5°	141.1	142.2	139.9	141.1	139.9
65°	123.7	124.9	122.6	123.7	122.6
67.5°	107.5	107.5	107.5	107.5	106.4
70°	91.3	92.5	91.3	92.5	92.5
72.5°	77.5	77.5	76.3	77.5	77.5
75°	64.7	63.6	62.4	63.6	63.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	27.7	27.7	26.6	27.7	27.7
85°	16.2	16.2	16.2	17.3	16.2
87.5°	8.1	6.9	6.9	8.1	8.1
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°	50.9	50.9	49.7	50.9	50.9
80°	38.2	39.3	38.2	39.3	38.2

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