

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: P838463

Luminaire Tested: HCSQ625D010-HM60525830-61SQMW

Issue Date: 5/21/2024

**Test Information**

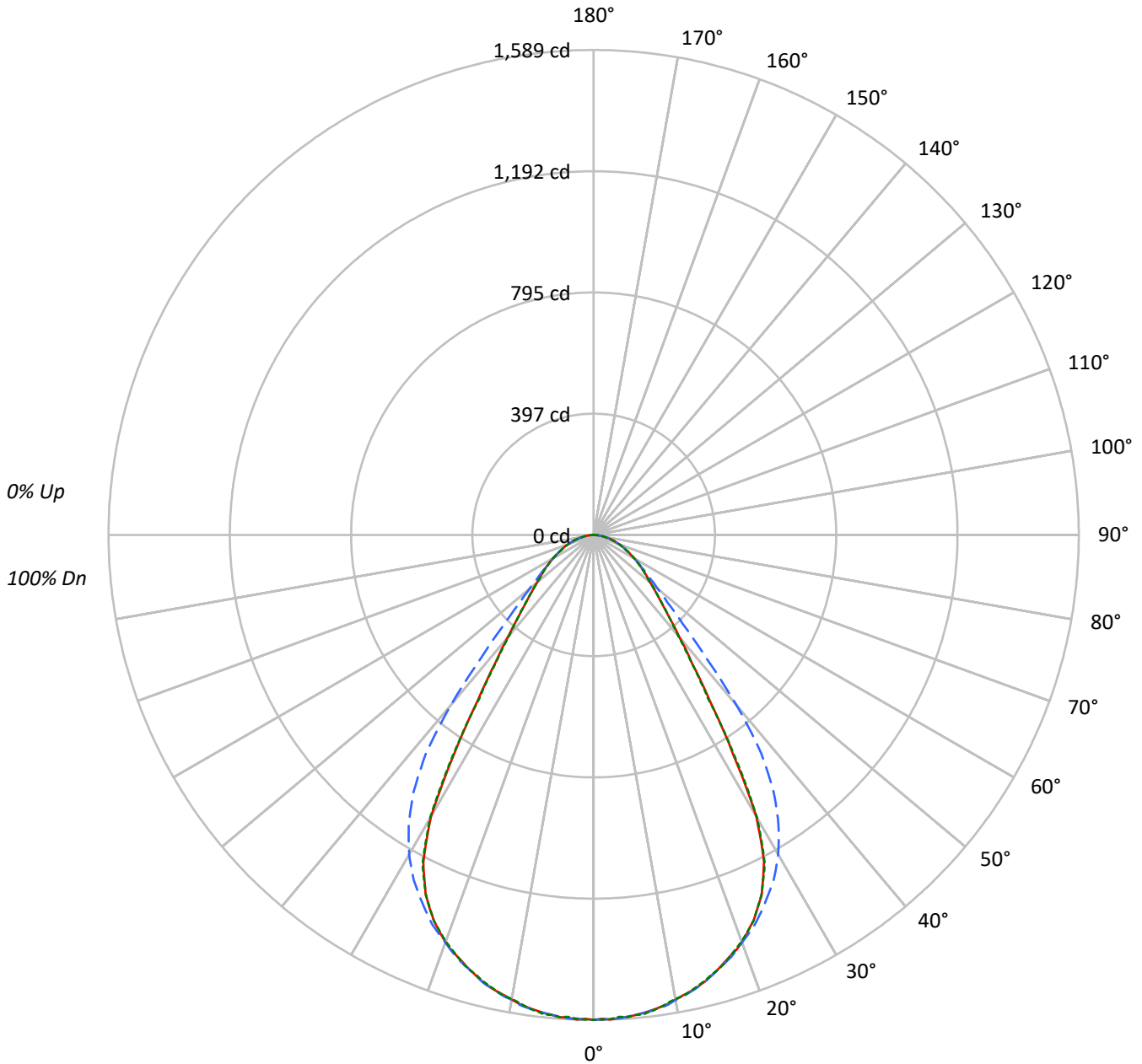
Test Method: LM-79-2019  
Report Number: P838463  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ625D010-HM60525830-61SQMW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2343.9 lumens  
Efficiency: N/A  
Efficacy: 84.6 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°	68415	68415	68415
5°	68245	68197	68245
10°	67578	67626	67482
15°	66572	66621	66474
20°	65072	65122	64921
25°	61825	63146	61773
30°	52943	60117	53276
35°	34785	54043	34259
40°	24590	40754	24151
45°	19065	25087	19205
50°	16217	18300	16069
55°	14585	15006	14585
60°	13192	13192	13192
65°	12103	11991	11991
70°	11040	11040	11179
75°	10347	9981	10164
80°	9075	9075	9075
85°	7657	7657	7657

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 25087 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.8	6.4
10°-20°	420.7	17.9
20°-30°	599.5	25.6
30°-40°	511.2	21.8
40°-50°	282.8	12.1
50°-60°	178.1	7.6
60°-70°	118.3	5.0
70°-80°	65.0	2.8
80°-90°	18.5	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°	1170.0	49.9
0°-40°	1681.2	71.7
0°-60°	2142.1	91.4
0°-90°	2343.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2343.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1589	1589	1589	1589	1589	
5°	1579	1581	1578	1576	1579	150
15°	1494	1494	1495	1494	1491	420
25°	1301	1317	1329	1316	1300	588
35°	662	781	1028	782	652	430
45°	313	343	412	341	315	248
55°	194	198	200	196	194	175
65°	119	120	118	119	118	118
75°	62	61	60	61	61	65
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°	1589.0	1589.0	1589.0	1589.0	1589.0
1°	1585.7	1587.9	1587.9	1586.8	1587.9
2°	1589.0	1585.7	1585.7	1585.7	1586.8
3°	1584.6	1586.8	1586.8	1583.5	1581.2
4°	1583.5	1582.3	1582.3	1585.7	1583.5
5°	1579.0	1581.2	1577.9	1575.7	1579.0
6°	1574.6	1575.7	1574.6	1575.7	1579.0
7°	1569.0	1572.4	1571.2	1570.1	1570.1
8°	1562.4	1566.8	1564.6	1564.6	1563.5
9°	1555.7	1556.8	1559.0	1559.0	1552.4
10°	1545.7	1549.0	1546.8	1547.9	1543.5
11°	1536.8	1541.3	1540.2	1537.9	1539.0
12°	1529.0	1531.3	1530.2	1526.8	1527.9
13°	1519.1	1521.3	1520.2	1520.2	1516.8
14°	1508.0	1505.7	1509.1	1506.8	1505.7
15°	1493.5	1493.5	1494.6	1493.5	1491.3
16°	1480.2	1481.3	1481.3	1480.2	1481.3
17°	1464.6	1469.1	1468.0	1465.8	1466.9
18°	1450.2	1453.5	1454.7	1453.5	1450.2
19°	1436.9	1439.1	1438.0	1433.6	1433.6
20°	1420.2	1421.3	1421.3	1419.1	1416.9
22.5°	1368.0	1375.8	1381.4	1376.9	1368.0
25°	1301.4	1317.0	1329.2	1315.8	1300.3
27.5°	1208.1	1239.2	1275.9	1242.6	1213.7
30°	1064.9	1136.0	1209.2	1142.6	1071.6
32.5°	847.3	987.2	1127.1	1000.5	860.6
35°	661.8	780.6	1028.2	781.7	651.8
37.5°	528.6	613.0	901.7	607.4	523.0
40°	437.5	494.1	725.1	491.9	429.7
42.5°	365.3	408.6	543.0	404.2	365.3
45°	313.1	343.1	412.0	340.9	315.4
47.5°	274.3	293.2	329.8	292.0	274.3
50°	242.1	253.2	273.2	252.1	239.9
52.5°	216.5	223.2	231.0	221.0	214.3
55°	194.3	197.7	199.9	196.5	194.3
57.5°	173.2	175.4	174.3	173.2	172.1
60°	153.2	154.3	153.2	154.3	153.2
62.5°	135.5	136.6	134.4	135.5	134.4
65°	118.8	119.9	117.7	118.8	117.7
67.5°	103.3	103.3	103.3	103.3	102.2
70°	87.7	88.8	87.7	88.8	88.8
72.5°	74.4	74.4	73.3	74.4	74.4
75°	62.2	61.1	60.0	61.1	61.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	26.7	26.7	25.5	26.7	26.7
85°	15.5	15.5	15.5	16.7	15.5
87.5°	7.8	6.7	6.7	7.8	7.8
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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Scaled Data Report





77.5°	48.9	48.9	47.7	48.9	48.9
80°	36.6	37.8	36.6	37.8	36.6

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Scaled Data Report



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