

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: P838468

Luminaire Tested: HCSQ625D010-HM60525835-61SQMW

Issue Date: 5/21/2024

**Test Information**

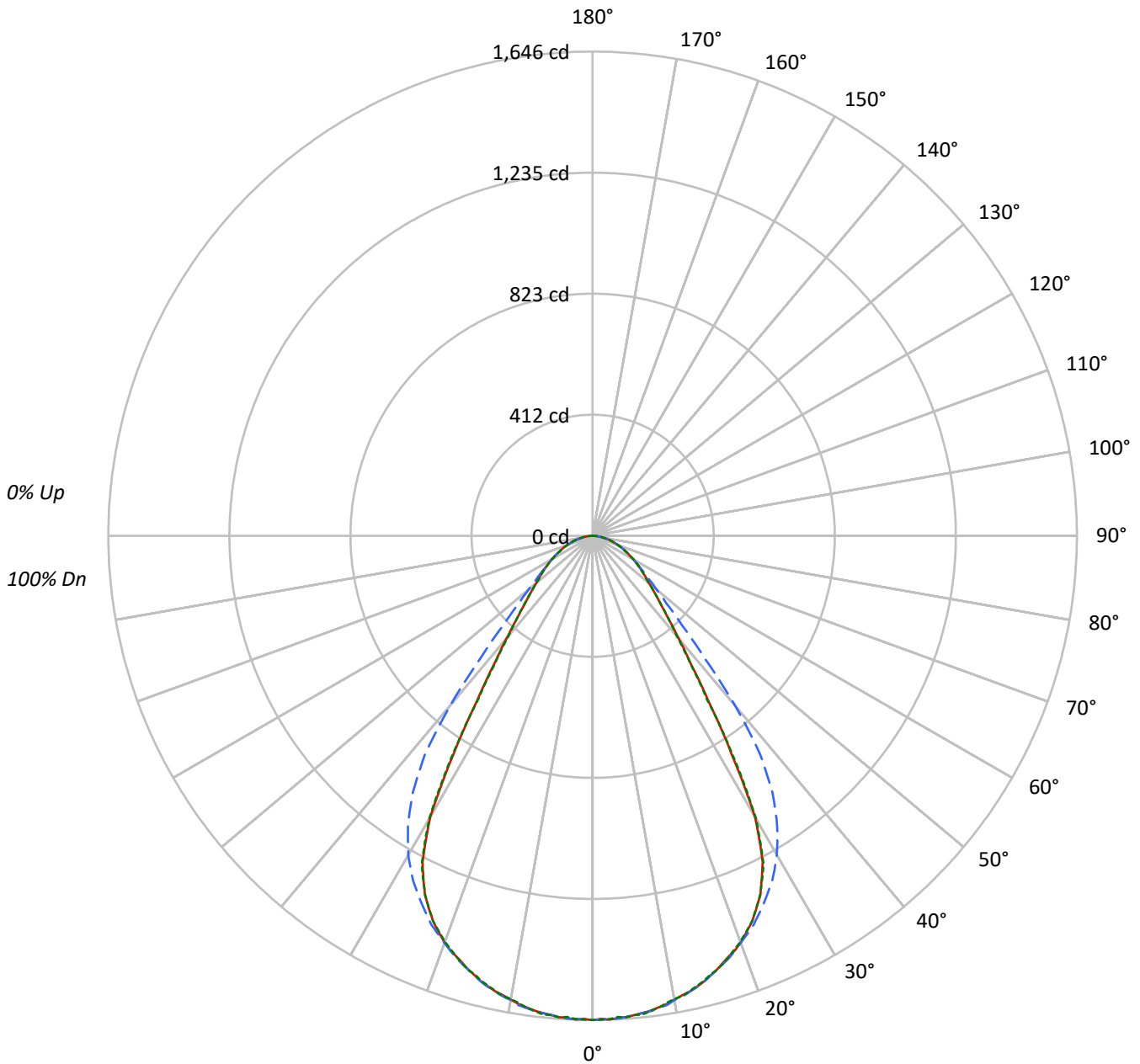
Test Method: LM-79-2019  
Report Number: P838468  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ625D010-HM60525835-61SQMW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2428.4 lumens  
Efficiency: N/A  
Efficacy: 87.7 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°	70883	70883	70883
5°	70708	70656	70708
10°	70013	70065	69912
15°	68975	69024	68872
20°	67418	67473	67262
25°	64053	65421	64001
30°	54852	62285	55195
35°	36041	55994	35495
40°	25478	42221	25023
45°	19753	25988	19893
50°	16799	18956	16645
55°	15111	15546	15111
60°	13674	13674	13674
65°	12541	12419	12419
70°	11443	11443	11582
75°	10713	10331	10530
80°	9422	9422	9422
85°	7954	7954	7954

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 25988 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.2	6.4
10°-20°	435.9	17.9
20°-30°	621.1	25.6
30°-40°	529.6	21.8
40°-50°	293.0	12.1
50°-60°	184.5	7.6
60°-70°	122.5	5.0
70°-80°	67.3	2.8
80°-90°	19.2	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°	1212.2	49.9
0°-40°	1741.8	71.7
0°-60°	2219.3	91.4
0°-90°	2428.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2428.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1646	1646	1646	1646	1646	
5°	1636	1638	1635	1632	1636	155
15°	1547	1547	1548	1547	1545	436
25°	1348	1364	1377	1363	1347	609
35°	686	809	1065	810	675	446
45°	324	356	427	353	327	257
55°	201	205	207	204	201	181
65°	123	124	122	123	122	122
75°	64	63	62	63	63	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°	1646.3	1646.3	1646.3	1646.3	1646.3
1°	1642.9	1645.2	1645.2	1644.0	1645.2
2°	1646.3	1642.9	1642.9	1642.9	1644.0
3°	1641.7	1644.0	1644.0	1640.6	1638.3
4°	1640.6	1639.4	1639.4	1642.9	1640.6
5°	1636.0	1638.3	1634.8	1632.5	1636.0
6°	1631.3	1632.5	1631.3	1632.5	1636.0
7°	1625.6	1629.0	1627.9	1626.7	1626.7
8°	1618.7	1623.3	1621.0	1621.0	1619.8
9°	1611.8	1612.9	1615.2	1615.2	1608.3
10°	1601.4	1604.9	1602.6	1603.7	1599.1
11°	1592.2	1596.8	1595.7	1593.4	1594.5
12°	1584.2	1586.5	1585.3	1581.9	1583.0
13°	1573.8	1576.1	1575.0	1575.0	1571.5
14°	1562.3	1560.0	1563.5	1561.2	1560.0
15°	1547.4	1547.4	1548.5	1547.4	1545.1
16°	1533.6	1534.7	1534.7	1533.6	1534.7
17°	1517.5	1522.1	1520.9	1518.6	1519.8
18°	1502.5	1505.9	1507.1	1505.9	1502.5
19°	1488.7	1491.0	1489.8	1485.2	1485.2
20°	1471.4	1472.6	1472.6	1470.3	1468.0
22.5°	1417.4	1425.4	1431.2	1426.6	1417.4
25°	1348.3	1364.4	1377.1	1363.3	1347.2
27.5°	1251.7	1283.9	1321.9	1287.4	1257.5
30°	1103.3	1176.9	1252.8	1183.8	1110.2
32.5°	877.8	1022.8	1167.7	1036.6	891.6
35°	685.7	808.8	1065.3	809.9	675.3
37.5°	547.6	635.1	934.2	629.3	541.9
40°	453.3	512.0	751.2	509.7	445.2
42.5°	378.5	423.4	562.6	418.8	378.5
45°	324.4	355.5	426.8	353.2	326.7
47.5°	284.2	303.7	341.7	302.6	284.2
50°	250.8	262.3	283.0	261.2	248.5
52.5°	224.3	231.2	239.3	228.9	222.0
55°	201.3	204.8	207.1	203.6	201.3
57.5°	179.5	181.8	180.6	179.5	178.3
60°	158.8	159.9	158.8	159.9	158.8
62.5°	140.4	141.5	139.2	140.4	139.2
65°	123.1	124.2	121.9	123.1	121.9
67.5°	107.0	107.0	107.0	107.0	105.8
70°	90.9	92.0	90.9	92.0	92.0
72.5°	77.1	77.1	75.9	77.1	77.1
75°	64.4	63.3	62.1	63.3	63.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	27.6	27.6	26.5	27.6	27.6
85°	16.1	16.1	16.1	17.3	16.1
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°	50.6	50.6	49.5	50.6	50.6
80°	38.0	39.1	38.0	39.1	38.0

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(END OF REPORT)