

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: P838455

Luminaire Tested: HCSQ625D010-HM60525827-61SQH

Issue Date: 5/21/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P838455  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ625D010-HM60525827-61SQH  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: -

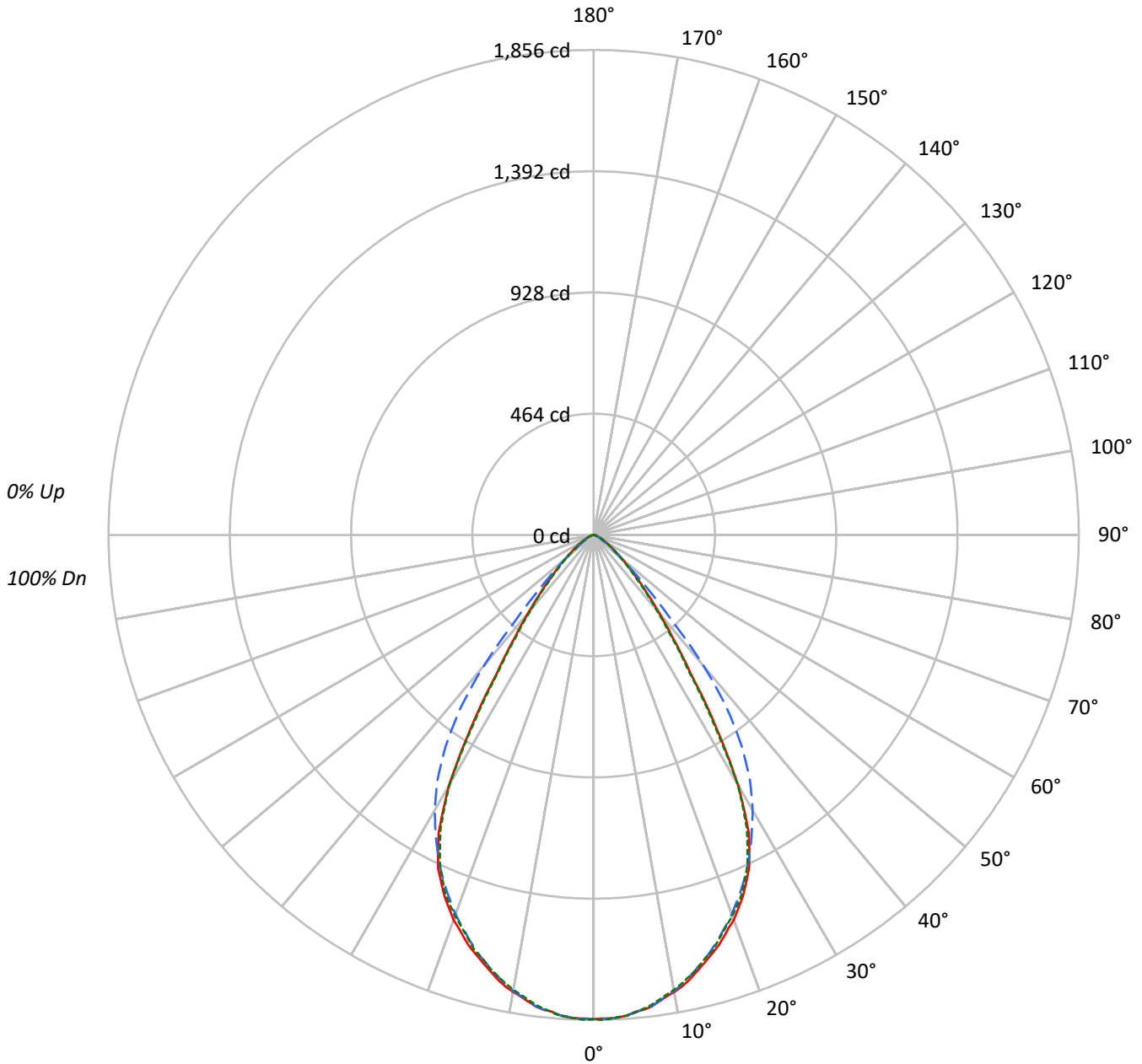
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2084.3 lumens  
Efficiency: N/A  
Efficacy: 75.2 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04  
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				100															
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92				92															
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85				85															
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78				78															
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71				71															
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66				66															
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61				61															
7	80	70	63	59	78	69	63	59	68	62	58	67	62	58	65	61	58	56				56															
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52				52															
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48				48															
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45				45															

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	79795	79795	79795
5°	79166	79300	79253
10°	77655	77476	77297
15°	74912	74497	74453
20°	71821	70786	71115
25°	66851	66262	66115
30°	54937	60455	54782
35°	33928	51920	33119
40°	21780	36803	21026
45°	14206	17835	13518
50°	9431	8882	8815
55°	6403	4632	5938
60°	4340	2833	3987
65°	3036	2099	2720
70°	1939	1548	1813
75°	1364	1198	1198
80°	1017	769	769
85°	494	1037	494

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 17835 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.1	8.3
10°-20°	469.8	22.5
20°-30°	634.1	30.4
30°-40°	494.9	23.7
40°-50°	207.3	9.9
50°-60°	70.3	3.4
60°-70°	25.1	1.2
70°-80°	8.1	0.4
80°-90°	1.7	0.1
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°	1277.0	61.3
0°-40°	1771.9	85.0
0°-60°	2049.5	98.3
0°-90°	2084.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2084.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1853	1853	1853	1853	1853	
5°	1832	1834	1835	1832	1834	173
15°	1681	1676	1671	1669	1670	473
25°	1407	1401	1395	1395	1392	633
35°	646	758	988	756	630	424
45°	233	250	293	238	222	187
55°	85	78	62	74	79	79
65°	30	25	21	24	27	31
75°	8	7	7	7	7	9
85°	1	1	2	1	1	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1853.3	1853.3	1853.3	1853.3	1853.3
1°	1851.2	1854.3	1852.2	1853.3	1856.3
2°	1851.2	1851.2	1853.3	1852.2	1853.3
3°	1849.2	1849.2	1847.1	1847.1	1847.1
4°	1843.0	1843.0	1843.0	1840.9	1845.0
5°	1831.7	1833.7	1834.8	1831.7	1833.7
6°	1827.6	1828.6	1826.5	1825.5	1823.5
7°	1818.3	1815.2	1818.3	1811.1	1812.1
8°	1802.9	1802.9	1800.8	1798.8	1796.7
9°	1788.5	1788.5	1786.5	1783.4	1781.3
10°	1776.2	1773.1	1772.1	1769.0	1768.0
11°	1761.8	1755.6	1754.6	1751.5	1751.5
12°	1744.3	1741.2	1734.0	1733.0	1733.0
13°	1722.7	1719.6	1714.5	1710.4	1714.5
14°	1702.2	1700.1	1690.9	1693.9	1692.9
15°	1680.6	1676.5	1671.3	1669.3	1670.3
16°	1661.1	1653.9	1646.7	1647.7	1653.9
17°	1640.5	1630.2	1623.0	1622.0	1625.1
18°	1614.8	1606.6	1595.3	1599.4	1599.4
19°	1589.1	1577.8	1570.6	1569.6	1573.7
20°	1567.5	1550.0	1544.9	1543.9	1552.1
22.5°	1493.5	1476.0	1471.9	1476.0	1484.3
25°	1407.2	1401.0	1394.8	1394.8	1391.7
27.5°	1284.8	1299.2	1306.4	1292.0	1268.4
30°	1105.0	1165.6	1216.0	1158.4	1101.9
32.5°	870.6	996.0	1112.2	992.9	850.1
35°	645.5	757.5	987.8	756.5	630.1
37.5°	497.5	569.4	839.8	560.2	483.1
40°	387.5	429.7	654.8	424.5	374.1
42.5°	301.2	327.9	435.8	321.7	290.9
45°	233.3	249.8	292.9	238.5	222.0
47.5°	181.9	189.1	200.4	180.9	171.7
50°	140.8	140.8	132.6	135.7	131.6
52.5°	109.0	104.8	89.4	98.7	100.7
55°	85.3	78.1	61.7	74.0	79.1
57.5°	64.8	57.6	44.2	54.5	59.6
60°	50.4	43.2	32.9	41.1	46.3
62.5°	39.1	32.9	25.7	30.8	34.9
65°	29.8	24.7	20.6	23.6	26.7
67.5°	22.6	18.5	15.4	17.5	20.6
70°	15.4	14.4	12.3	13.4	14.4
72.5°	11.3	10.3	9.3	9.3	10.3
75°	8.2	7.2	7.2	7.2	7.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	2.1	2.1	2.1	2.1	2.1
85°	1.0	1.0	2.1	1.0	1.0
87.5°	1.0	1.0	1.0	1.0	1.0
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°	5.1	5.1	5.1	5.1	5.1
80°	4.1	4.1	3.1	3.1	3.1

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Scaled Data Report



(END OF REPORT)