

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: P838470

Luminaire Tested: HCSQ625D010-HM60525840-61SQH

Issue Date: 5/21/2024

**Test Information**

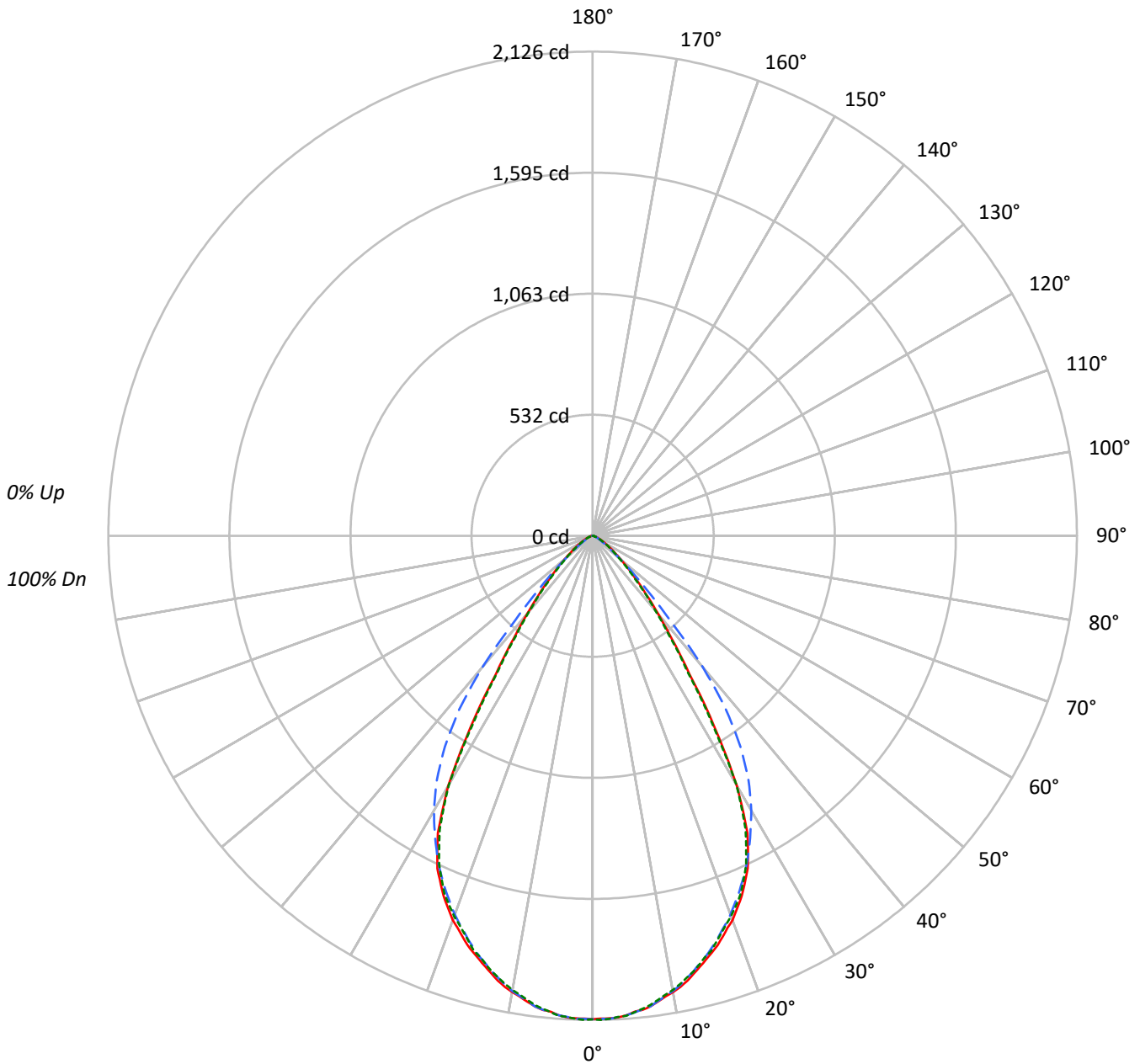
Test Method: LM-79-2019  
Report Number: P838470  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ625D010-HM60525840-61SQH  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2387.6 lumens  
Efficiency: N/A  
Efficacy: 86.2 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°	91403	91403	91403
5°	90680	90836	90784
10°	88952	88743	88537
15°	85810	85338	85284
20°	82268	81081	81461
25°	76576	75901	75735
30°	62926	69250	62752
35°	38864	59473	37933
40°	24949	42154	24090
45°	16276	20435	15484
50°	10804	10175	10094
55°	7334	5300	6808
60°	4969	3246	4564
65°	3474	2394	3117
70°	2228	1775	2077
75°	1564	1364	1364
80°	1165	868	868
85°	593	1186	593

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 20435 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	198.3	8.3
10°-20°	538.1	22.5
20°-30°	726.4	30.4
30°-40°	566.9	23.7
40°-50°	237.5	9.9
50°-60°	80.5	3.4
60°-70°	28.7	1.2
70°-80°	9.3	0.4
80°-90°	1.9	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°	1462.7	61.3
0°-40°	2029.6	85.0
0°-60°	2347.6	98.3
0°-90°	2387.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2387.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2123	2123	2123	2123	2123	
5°	2098	2100	2102	2098	2100	198
15°	1925	1920	1914	1912	1913	541
25°	1612	1605	1598	1598	1594	725
35°	739	868	1132	867	722	486
45°	267	286	336	273	254	215
55°	98	90	71	85	91	90
65°	34	28	24	27	31	35
75°	9	8	8	8	8	10
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°	2122.9	2122.9	2122.9	2122.9	2122.9
1°	2120.5	2124.0	2121.7	2122.9	2126.4
2°	2120.5	2120.5	2122.9	2121.7	2122.9
3°	2118.1	2118.1	2115.8	2115.8	2115.8
4°	2111.1	2111.1	2111.1	2108.7	2113.4
5°	2098.1	2100.5	2101.7	2098.1	2100.5
6°	2093.4	2094.6	2092.2	2091.1	2088.7
7°	2082.8	2079.3	2082.8	2074.6	2075.8
8°	2065.2	2065.2	2062.8	2060.5	2058.1
9°	2048.7	2048.7	2046.3	2042.8	2040.4
10°	2034.6	2031.0	2029.8	2026.3	2025.1
11°	2018.1	2011.0	2009.8	2006.3	2006.3
12°	1998.1	1994.5	1986.3	1985.1	1985.1
13°	1973.3	1969.8	1963.9	1959.2	1963.9
14°	1949.8	1947.4	1936.8	1940.4	1939.2
15°	1925.1	1920.3	1914.5	1912.1	1913.3
16°	1902.7	1894.4	1886.2	1887.4	1894.4
17°	1879.1	1867.4	1859.1	1857.9	1861.5
18°	1849.7	1840.3	1827.3	1832.0	1832.0
19°	1820.3	1807.3	1799.1	1797.9	1802.6
20°	1795.5	1775.5	1769.6	1768.5	1777.9
22.5°	1710.8	1690.7	1686.0	1690.7	1700.2
25°	1611.9	1604.8	1597.7	1597.7	1594.2
27.5°	1471.8	1488.2	1496.5	1480.0	1452.9
30°	1265.7	1335.2	1392.9	1326.9	1262.2
32.5°	997.3	1140.9	1273.9	1137.4	973.7
35°	739.4	867.7	1131.5	866.6	721.7
37.5°	569.9	652.3	961.9	641.7	553.4
40°	443.9	492.2	750.0	486.3	428.6
42.5°	345.0	375.6	499.2	368.5	333.2
45°	267.3	286.1	335.6	273.2	254.3
47.5°	208.4	216.6	229.6	207.2	196.6
50°	161.3	161.3	151.9	155.4	150.7
52.5°	124.8	120.1	102.4	113.0	115.4
55°	97.7	89.5	70.6	84.8	90.7
57.5°	74.2	65.9	50.6	62.4	68.3
60°	57.7	49.5	37.7	47.1	53.0
62.5°	44.7	37.7	29.4	35.3	40.0
65°	34.1	28.3	23.5	27.1	30.6
67.5°	25.9	21.2	17.7	20.0	23.5
70°	17.7	16.5	14.1	15.3	16.5
72.5°	13.0	11.8	10.6	10.6	11.8
75°	9.4	8.2	8.2	8.2	8.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	2.4	2.4	2.4	2.4	2.4
85°	1.2	1.2	2.4	1.2	1.2
87.5°	1.2	1.2	1.2	1.2	1.2
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°	5.9	5.9	5.9	5.9	5.9
80°	4.7	4.7	3.5	3.5	3.5

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Scaled Data Report



(END OF REPORT)