

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: P838460

Luminaire Tested: HCSQ625D010-HM60525830-61SQH

Issue Date: 5/21/2024

**Test Information**

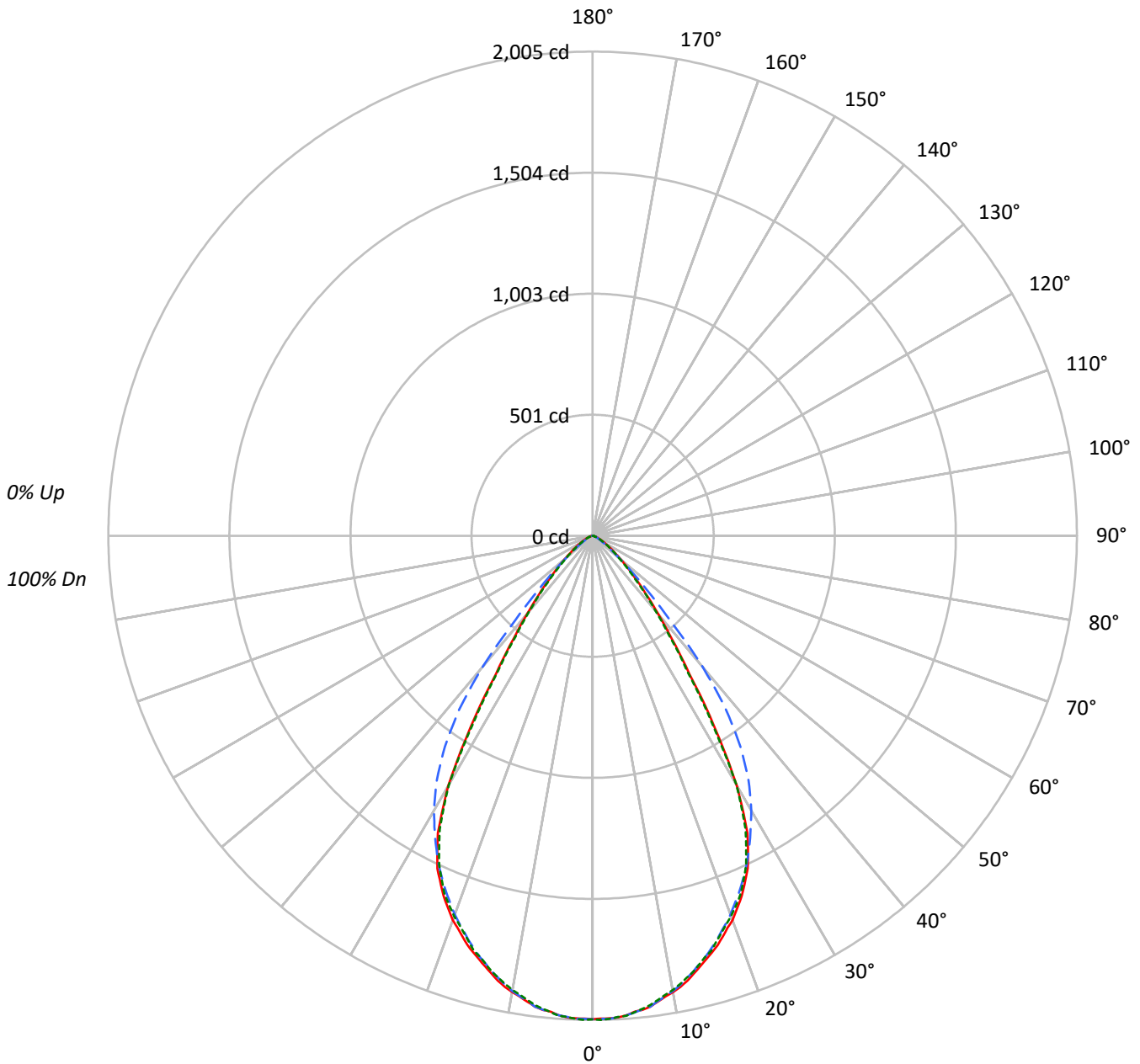
Test Method: LM-79-2019  
Report Number: P838460  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ625D010-HM60525830-61SQH  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2251.6 lumens  
Efficiency: N/A  
Efficacy: 81.3 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	79	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°	86202	86202	86202
5°	85520	85667	85619
10°	83890	83693	83501
15°	80925	80479	80430
20°	77590	76467	76825
25°	72215	71583	71426
30°	59346	65307	59182
35°	36651	56088	35778
40°	23527	39754	22718
45°	15350	19272	14601
50°	10188	9592	9518
55°	6921	4999	6418
60°	4684	3057	4306
65°	3280	2262	2944
70°	2102	1674	1951
75°	1481	1298	1298
80°	1091	818	818
85°	543	1087	543

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 19272 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	187.0	8.3
10°-20°	507.5	22.5
20°-30°	685.0	30.4
30°-40°	534.6	23.7
40°-50°	224.0	9.9
50°-60°	75.9	3.4
60°-70°	27.1	1.2
70°-80°	8.8	0.4
80°-90°	1.8	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°	1379.5	61.3
0°-40°	1914.1	85.0
0°-60°	2214.0	98.3
0°-90°	2251.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2251.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2002	2002	2002	2002	2002	
5°	1979	1981	1982	1979	1981	187
15°	1816	1811	1806	1803	1804	511
25°	1520	1514	1507	1507	1504	684
35°	697	818	1067	817	681	459
45°	252	270	316	258	240	202
55°	92	84	67	80	86	85
65°	32	27	22	26	29	33
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°	2002.1	2002.1	2002.1	2002.1	2002.1
1°	1999.8	2003.2	2000.9	2002.1	2005.4
2°	1999.8	1999.8	2002.1	2000.9	2002.1
3°	1997.6	1997.6	1995.4	1995.4	1995.4
4°	1991.0	1991.0	1991.0	1988.7	1993.2
5°	1978.7	1981.0	1982.1	1978.7	1981.0
6°	1974.3	1975.4	1973.2	1972.1	1969.9
7°	1964.3	1961.0	1964.3	1956.5	1957.6
8°	1947.6	1947.6	1945.4	1943.2	1941.0
9°	1932.1	1932.1	1929.9	1926.5	1924.3
10°	1918.8	1915.4	1914.3	1911.0	1909.9
11°	1903.2	1896.6	1895.5	1892.1	1892.1
12°	1884.4	1881.0	1873.2	1872.1	1872.1
13°	1861.0	1857.7	1852.2	1847.7	1852.2
14°	1838.8	1836.6	1826.6	1829.9	1828.8
15°	1815.5	1811.1	1805.5	1803.3	1804.4
16°	1794.4	1786.6	1778.9	1780.0	1786.6
17°	1772.2	1761.1	1753.3	1752.2	1755.5
18°	1744.4	1735.6	1723.3	1727.8	1727.8
19°	1716.7	1704.5	1696.7	1695.6	1700.0
20°	1693.4	1674.5	1668.9	1667.8	1676.7
22.5°	1613.4	1594.5	1590.1	1594.5	1603.4
25°	1520.1	1513.5	1506.8	1506.8	1503.5
27.5°	1388.0	1403.5	1411.3	1395.8	1370.2
30°	1193.7	1259.2	1313.6	1251.4	1190.4
32.5°	940.5	1076.0	1201.5	1072.6	918.3
35°	697.3	818.4	1067.1	817.3	680.7
37.5°	537.4	615.2	907.2	605.2	521.9
40°	418.6	464.1	707.3	458.6	404.2
42.5°	325.3	354.2	470.8	347.6	314.2
45°	252.1	269.8	316.5	257.6	239.8
47.5°	196.5	204.3	216.5	195.4	185.4
50°	152.1	152.1	143.2	146.6	142.1
52.5°	117.7	113.3	96.6	106.6	108.8
55°	92.2	84.4	66.6	79.9	85.5
57.5°	70.0	62.2	47.7	58.9	64.4
60°	54.4	46.6	35.5	44.4	50.0
62.5°	42.2	35.5	27.8	33.3	37.8
65°	32.2	26.6	22.2	25.5	28.9
67.5°	24.4	20.0	16.7	18.9	22.2
70°	16.7	15.5	13.3	14.4	15.5
72.5°	12.2	11.1	10.0	10.0	11.1
75°	8.9	7.8	7.8	7.8	7.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	2.2	2.2	2.2	2.2	2.2
85°	1.1	1.1	2.2	1.1	1.1
87.5°	1.1	1.1	1.1	1.1	1.1
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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Scaled Data Report





77.5°	5.6	5.6	5.6	5.6	5.6
80°	4.4	4.4	3.3	3.3	3.3

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Scaled Data Report



(END OF REPORT)