

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: P838495

Luminaire Tested: HCSQ630D010-HM63040827-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838495
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: HCSQ630D010-HM63040827-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

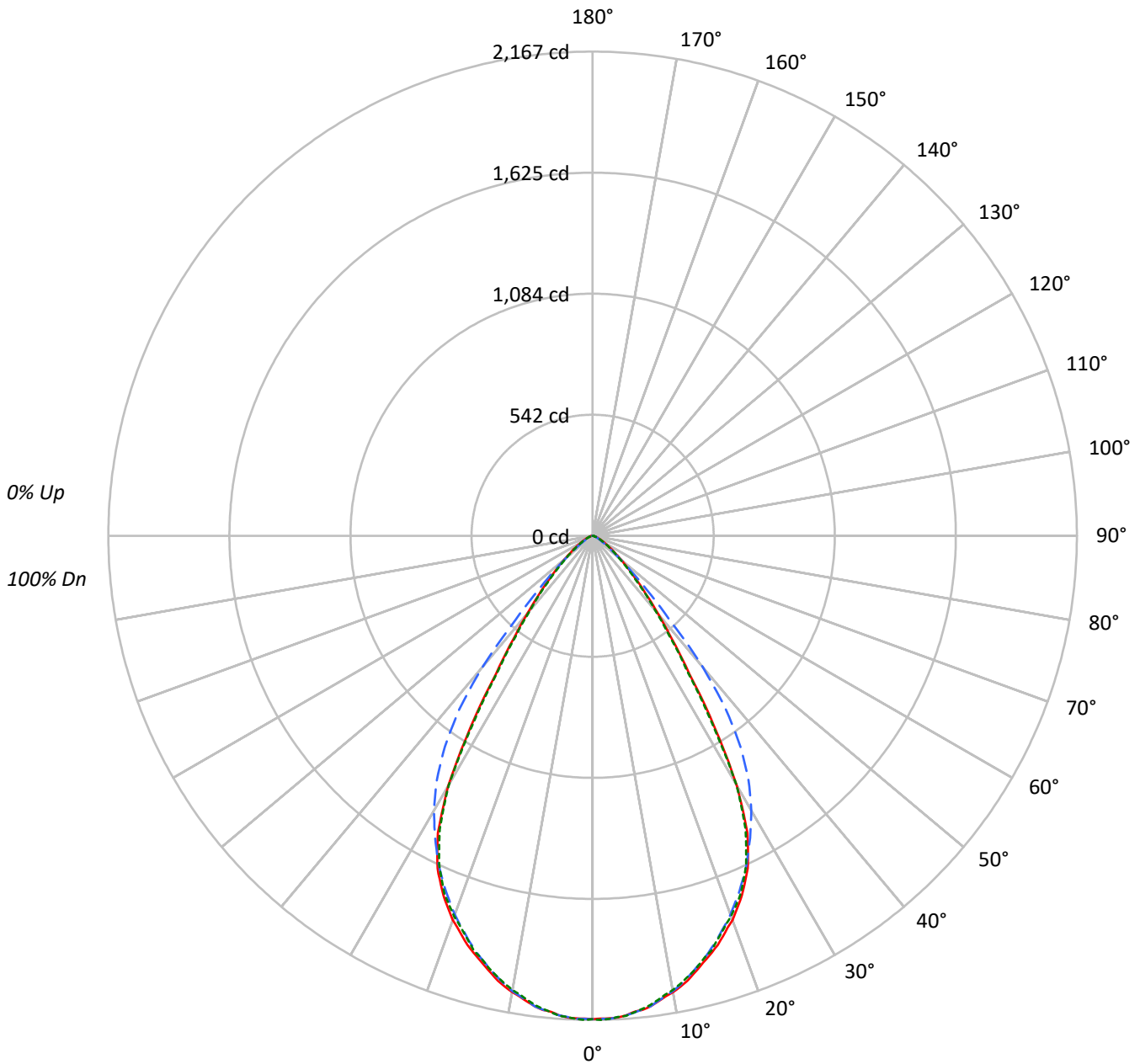
Lumens per Lamp: N/A
Luminaire Lumens: 2433.4 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (A_{in}): 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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92																			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85																			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78																			
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71																			
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66																			
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61																			
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56																			
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52																			
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48																			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	93160	93160	93160
5°	92426	92582	92530
10°	90662	90452	90242
15°	87460	86978	86925
20°	83849	82639	83024
25°	78044	77360	77189
30°	64134	70577	63955
35°	39610	60614	38664
40°	25427	42963	24550
45°	16586	20824	15783
50°	11012	10369	10289
55°	7476	5405	6936
60°	5063	3307	4650
65°	3545	2445	3179
70°	2266	1813	2115
75°	1597	1397	1397
80°	1190	893	893
85°	593	1186	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 20824 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.1	8.3
10°-20°	548.4	22.5
20°-30°	740.3	30.4
30°-40°	577.8	23.7
40°-50°	242.0	9.9
50°-60°	82.0	3.4
60°-70°	29.3	1.2
70°-80°	9.5	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°	1490.8	61.3
0°-40°	2068.6	85.0
0°-60°	2392.7	98.3
0°-90°	2433.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2433.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2164	2164	2164	2164	2164	
5°	2138	2141	2142	2138	2141	202
15°	1962	1957	1951	1949	1950	552
25°	1643	1636	1628	1628	1625	739
35°	754	884	1153	883	736	496
45°	272	292	342	278	259	219
55°	100	91	72	86	92	92
65°	35	29	24	28	31	36
75°	10	8	8	8	8	11
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°	2163.7	2163.7	2163.7	2163.7	2163.7
1°	2161.3	2164.9	2162.5	2163.7	2167.3
2°	2161.3	2161.3	2163.7	2162.5	2163.7
3°	2158.9	2158.9	2156.5	2156.5	2156.5
4°	2151.7	2151.7	2151.7	2149.3	2154.1
5°	2138.5	2140.9	2142.1	2138.5	2140.9
6°	2133.7	2134.9	2132.5	2131.3	2128.9
7°	2122.9	2119.3	2122.9	2114.5	2115.7
8°	2104.9	2104.9	2102.5	2100.1	2097.7
9°	2088.1	2088.1	2085.7	2082.1	2079.7
10°	2073.7	2070.1	2068.9	2065.3	2064.1
11°	2056.9	2049.7	2048.5	2044.9	2044.9
12°	2036.5	2032.9	2024.5	2023.3	2023.3
13°	2011.3	2007.7	2001.7	1996.9	2001.7
14°	1987.3	1984.9	1974.1	1977.7	1976.5
15°	1962.1	1957.3	1951.3	1948.9	1950.1
16°	1939.2	1930.8	1922.4	1923.6	1930.8
17°	1915.2	1903.2	1894.8	1893.6	1897.2
18°	1885.2	1875.6	1862.4	1867.2	1867.2
19°	1855.2	1842.0	1833.6	1832.4	1837.2
20°	1830.0	1809.6	1803.6	1802.4	1812.0
22.5°	1743.6	1723.2	1718.4	1723.2	1732.8
25°	1642.8	1635.6	1628.4	1628.4	1624.8
27.5°	1500.0	1516.8	1525.2	1508.4	1480.8
30°	1290.0	1360.8	1419.6	1352.4	1286.4
32.5°	1016.4	1162.8	1298.4	1159.2	992.4
35°	753.6	884.4	1153.2	883.2	735.6
37.5°	580.8	664.8	980.4	654.0	564.0
40°	452.4	501.6	764.4	495.6	436.8
42.5°	351.6	382.8	508.8	375.6	339.6
45°	272.4	291.6	342.0	278.4	259.2
47.5°	212.4	220.8	234.0	211.2	200.4
50°	164.4	164.4	154.8	158.4	153.6
52.5°	127.2	122.4	104.4	115.2	117.6
55°	99.6	91.2	72.0	86.4	92.4
57.5°	75.6	67.2	51.6	63.6	69.6
60°	58.8	50.4	38.4	48.0	54.0
62.5°	45.6	38.4	30.0	36.0	40.8
65°	34.8	28.8	24.0	27.6	31.2
67.5°	26.4	21.6	18.0	20.4	24.0
70°	18.0	16.8	14.4	15.6	16.8
72.5°	13.2	12.0	10.8	10.8	12.0
75°	9.6	8.4	8.4	8.4	8.4



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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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77.5°	6.0	6.0	6.0	6.0	6.0
80°	4.8	4.8	3.6	3.6	3.6

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(END OF REPORT)