

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: P838414

Luminaire Tested: HCSQ620D010-HM60525827-61SQC

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838414
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ620D010-HM60525827-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

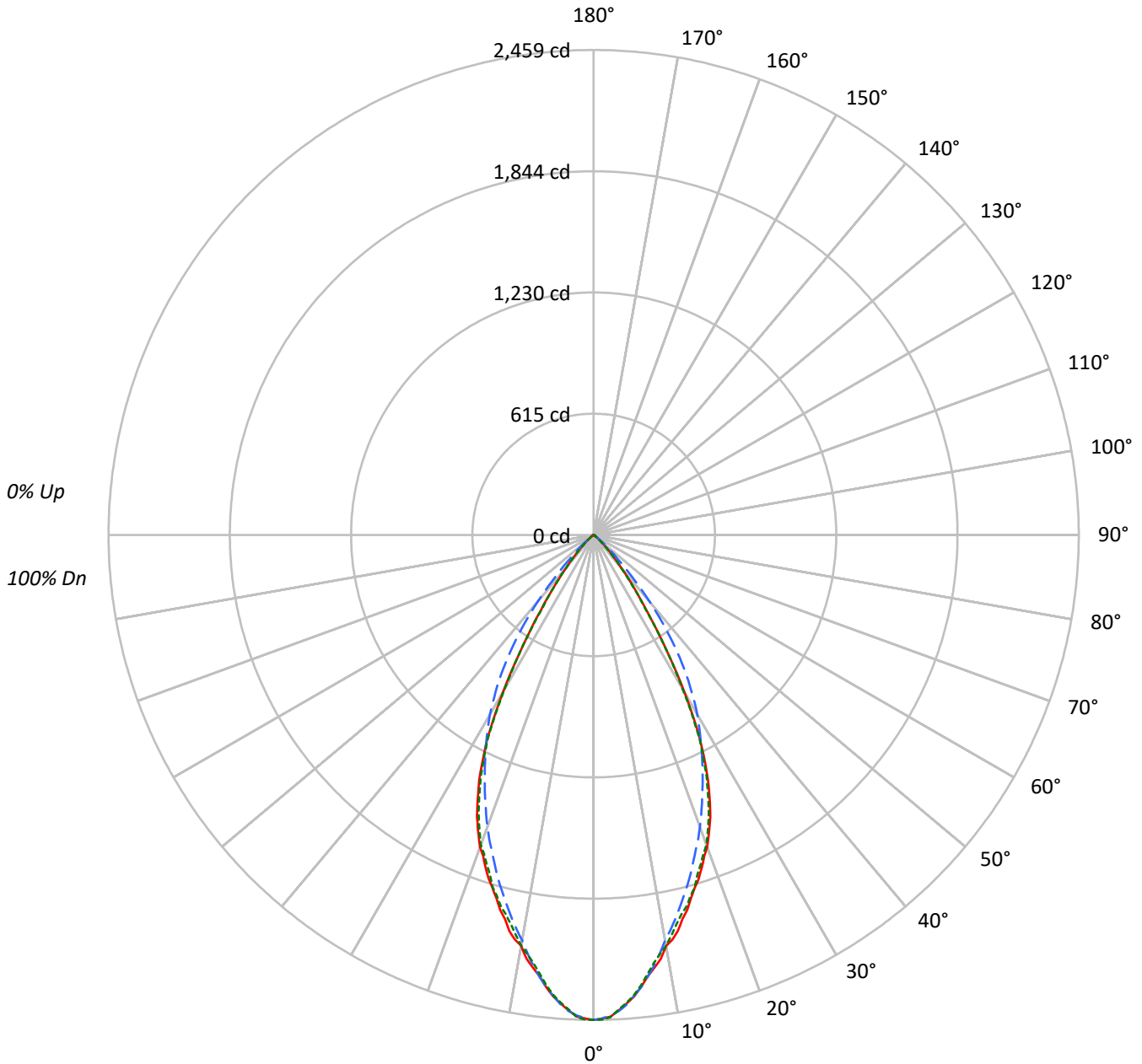
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1841.9 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59																			
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55																			
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	105882	105882	105882
5°	101563	101386	101243
10°	92502	91248	92433
15°	85012	81901	84500
20°	77150	72183	76623
25°	65203	62044	64305
30°	45655	52227	44879
35°	24520	40062	24047
40°	12140	24792	12050
45°	5304	10455	5200
50°	1708	3798	1708
55°	863	1231	803
60°	568	568	568
65°	418	418	418
70°	315	315	315
75°	266	266	266
80°	198	198	198
85°	395	395	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10455 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.9	11.7
10°-20°	521.5	28.3
20°-30°	602.4	32.7
30°-40°	376.2	20.4
40°-50°	104.5	5.7
50°-60°	14.6	0.8
60°-70°	4.3	0.2
70°-80°	1.8	0.1
80°-90°	0.8	0.0
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°	1339.8	72.7
0°-40°	1715.9	93.2
0°-60°	1835.1	99.6
0°-90°	1841.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1841.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2459	2459	2459	2459	2459	
5°	2350	2343	2346	2342	2342	217
15°	1907	1871	1837	1866	1896	534
25°	1372	1332	1306	1331	1354	613
35°	466	576	762	569	458	310
45°	87	111	172	110	85	75
55°	12	12	16	12	11	11
65°	4	4	4	4	4	4
75°	2	2	2	2	2	2
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2459.2	2459.2	2459.2	2459.2	2459.2
1°	2451.8	2451.8	2451.8	2458.3	2458.3
2°	2444.4	2442.7	2438.6	2443.6	2446.0
3°	2414.0	2417.3	2418.9	2416.5	2410.7
4°	2382.8	2379.5	2388.5	2382.8	2377.8
5°	2349.9	2343.4	2345.8	2342.5	2342.5
6°	2303.9	2312.1	2305.6	2299.8	2296.5
7°	2253.8	2260.4	2256.3	2248.1	2242.3
8°	2214.4	2210.3	2203.7	2202.1	2192.2
9°	2176.6	2161.8	2147.0	2149.5	2152.0
10°	2115.8	2117.5	2087.1	2110.1	2114.2
11°	2090.4	2081.3	2041.1	2060.0	2066.6
12°	2053.4	2024.7	1990.2	2005.8	2018.1
13°	2000.0	1970.5	1939.2	1963.1	1975.4
14°	1959.8	1926.1	1886.7	1917.1	1942.5
15°	1907.2	1871.1	1837.4	1866.1	1895.7
16°	1861.2	1819.3	1785.6	1813.6	1857.9
17°	1821.0	1769.2	1728.1	1757.7	1800.4
18°	1774.1	1714.2	1676.4	1707.6	1756.1
19°	1722.4	1661.6	1627.9	1653.4	1709.3
20°	1683.8	1615.6	1575.4	1600.0	1672.3
22.5°	1545.8	1474.3	1437.4	1467.0	1524.5
25°	1372.5	1332.3	1306.0	1331.4	1353.6
27.5°	1167.2	1167.2	1176.2	1165.5	1158.9
30°	918.3	984.8	1050.5	981.5	902.7
32.5°	670.2	777.0	909.2	791.0	669.4
35°	466.5	575.8	762.2	569.2	457.5
37.5°	324.4	396.7	601.2	400.8	320.3
40°	216.0	266.1	441.1	271.1	214.4
42.5°	141.3	175.8	285.0	176.6	138.0
45°	87.1	110.9	171.7	110.1	85.4
47.5°	50.9	65.7	100.2	66.5	50.1
50°	25.5	38.6	56.7	37.8	25.5
52.5°	14.8	20.5	31.2	19.7	14.8
55°	11.5	11.5	16.4	11.5	10.7
57.5°	9.0	9.0	9.0	9.0	8.2
60°	6.6	7.4	6.6	6.6	6.6
62.5°	5.7	5.7	4.9	5.7	4.9
65°	4.1	4.1	4.1	4.1	4.1
67.5°	3.3	3.3	3.3	3.3	3.3
70°	2.5	2.5	2.5	2.5	2.5
72.5°	1.6	2.5	1.6	2.5	2.5
75°	1.6	1.6	1.6	1.6	1.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.8	0.8	0.8	0.8	0.8
85°	0.8	0.8	0.8	0.8	0.8
87.5°	0.8	0.8	0.8	0.8	0.8
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°	1.6	1.6	1.6	1.6	0.8
80°	0.8	0.8	0.8	0.8	0.8

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