

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: P838439

Luminaire Tested: HCSQ620D010-HM60525930-61SQC

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838439
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-HM60525930-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

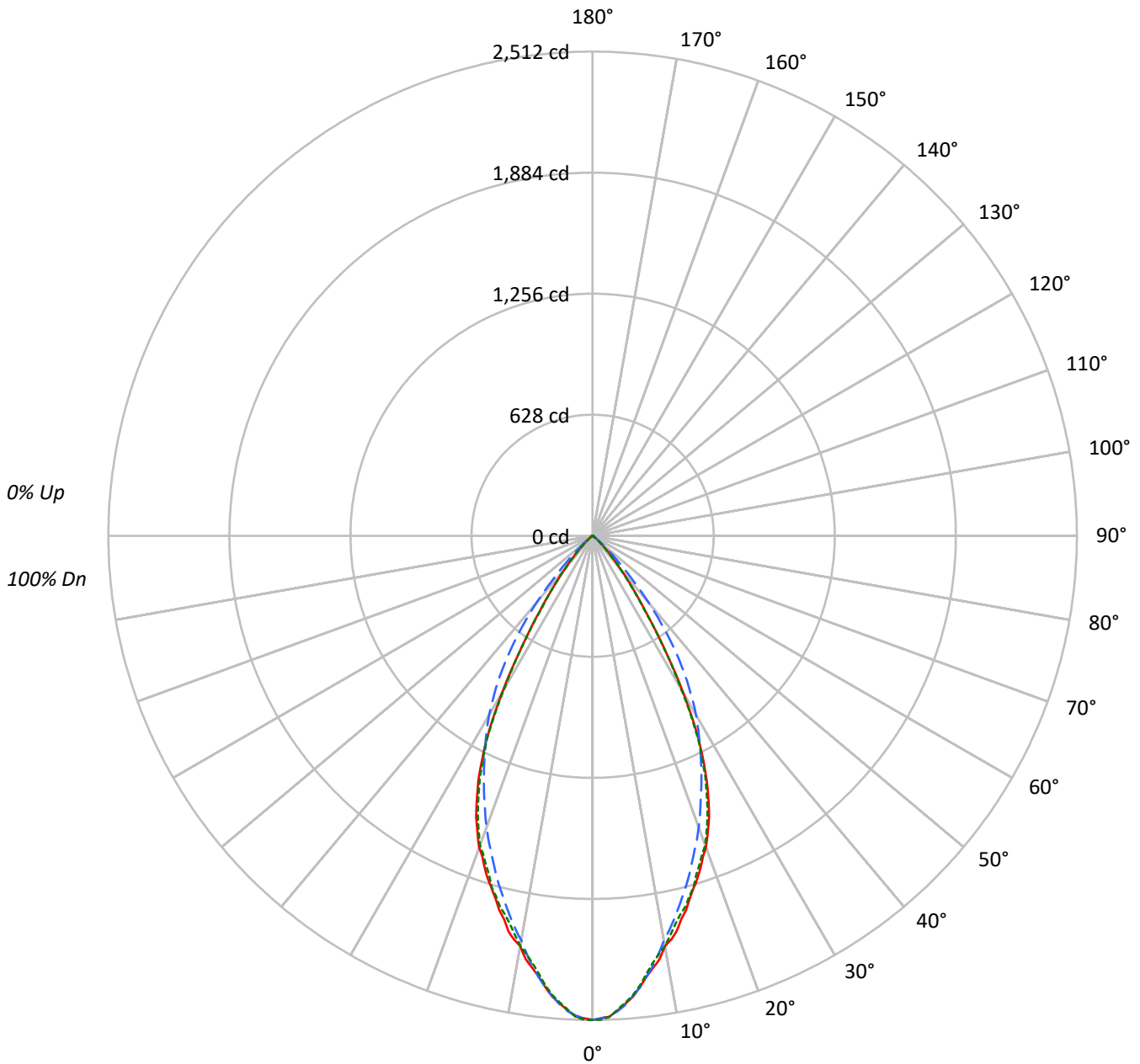
Lumens per Lamp: N/A
Luminaire Lumens: 1881.5 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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					70					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°	108152	108152	108152
5°	103746	103564	103417
10°	94487	93206	94417
15°	86836	83657	86314
20°	78804	73732	78268
25°	66604	63374	65687
30°	46634	53351	45843
35°	25045	40924	24562
40°	12404	25320	12309
45°	5413	10674	5316
50°	1742	3878	1742
55°	878	1261	818
60°	577	577	577
65°	428	428	428
70°	315	315	315
75°	283	283	283
80°	198	198	198
85°	395	395	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10674 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.6	11.7
10°-20°	532.6	28.3
20°-30°	615.3	32.7
30°-40°	384.2	20.4
40°-50°	106.8	5.7
50°-60°	14.9	0.8
60°-70°	4.4	0.2
70°-80°	1.9	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°	1368.5	72.7
0°-40°	1752.7	93.2
0°-60°	1874.4	99.6
0°-90°	1881.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1881.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2512	2512	2512	2512	2512	
5°	2400	2394	2396	2393	2393	221
15°	1948	1911	1877	1906	1936	546
25°	1402	1361	1334	1360	1383	626
35°	476	588	779	581	467	317
45°	89	113	175	112	87	77
55°	12	12	17	12	11	12
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°	2511.9	2511.9	2511.9	2511.9	2511.9
1°	2504.4	2504.4	2504.4	2511.1	2511.1
2°	2496.8	2495.2	2491.0	2496.0	2498.5
3°	2465.8	2469.2	2470.8	2468.3	2462.4
4°	2433.9	2430.6	2439.8	2433.9	2428.9
5°	2400.4	2393.6	2396.2	2392.8	2392.8
6°	2353.4	2361.8	2355.1	2349.2	2345.8
7°	2302.2	2308.9	2304.7	2296.3	2290.4
8°	2261.9	2257.7	2251.0	2249.3	2239.3
9°	2223.3	2208.2	2193.1	2195.6	2198.2
10°	2161.2	2162.9	2131.9	2155.4	2159.6
11°	2135.2	2126.0	2084.9	2104.2	2110.9
12°	2097.5	2068.1	2032.9	2048.8	2061.4
13°	2042.9	2012.7	1980.9	2005.2	2017.8
14°	2001.8	1967.4	1927.2	1958.2	1984.2
15°	1948.1	1911.2	1876.8	1906.2	1936.4
16°	1901.2	1858.4	1824.0	1852.5	1897.8
17°	1860.0	1807.2	1765.2	1795.4	1839.1
18°	1812.2	1751.0	1712.4	1744.3	1793.8
19°	1759.4	1697.3	1662.9	1688.9	1745.9
20°	1719.9	1650.3	1609.2	1634.4	1708.2
22.5°	1579.0	1506.0	1468.2	1498.4	1557.2
25°	1402.0	1360.8	1334.0	1360.0	1382.7
27.5°	1192.2	1192.2	1201.4	1190.5	1183.8
30°	938.0	1006.0	1073.1	1002.6	922.1
32.5°	684.6	793.7	928.8	807.9	683.8
35°	476.5	588.1	778.6	581.4	467.3
37.5°	331.4	405.2	614.1	409.4	327.2
40°	220.7	271.8	450.5	276.9	219.0
42.5°	144.3	179.5	291.1	180.4	141.0
45°	88.9	113.3	175.3	112.4	87.3
47.5°	52.0	67.1	102.4	68.0	51.2
50°	26.0	39.4	57.9	38.6	26.0
52.5°	15.1	21.0	31.9	20.1	15.1
55°	11.7	11.7	16.8	11.7	10.9
57.5°	9.2	9.2	9.2	9.2	8.4
60°	6.7	7.6	6.7	6.7	6.7
62.5°	5.9	5.9	5.0	5.9	5.0
65°	4.2	4.2	4.2	4.2	4.2
67.5°	3.4	3.4	3.4	3.4	3.4
70°	2.5	2.5	2.5	2.5	2.5
72.5°	1.7	2.5	1.7	2.5	2.5
75°	1.7	1.7	1.7	1.7	1.7



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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°	1.7	1.7	1.7	1.7	0.8
80°	0.8	0.8	0.8	0.8	0.8

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