

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: P838424

Luminaire Tested: HCSQ620D010-HM60525835-61SQC

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838424
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-HM60525835-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

Summary

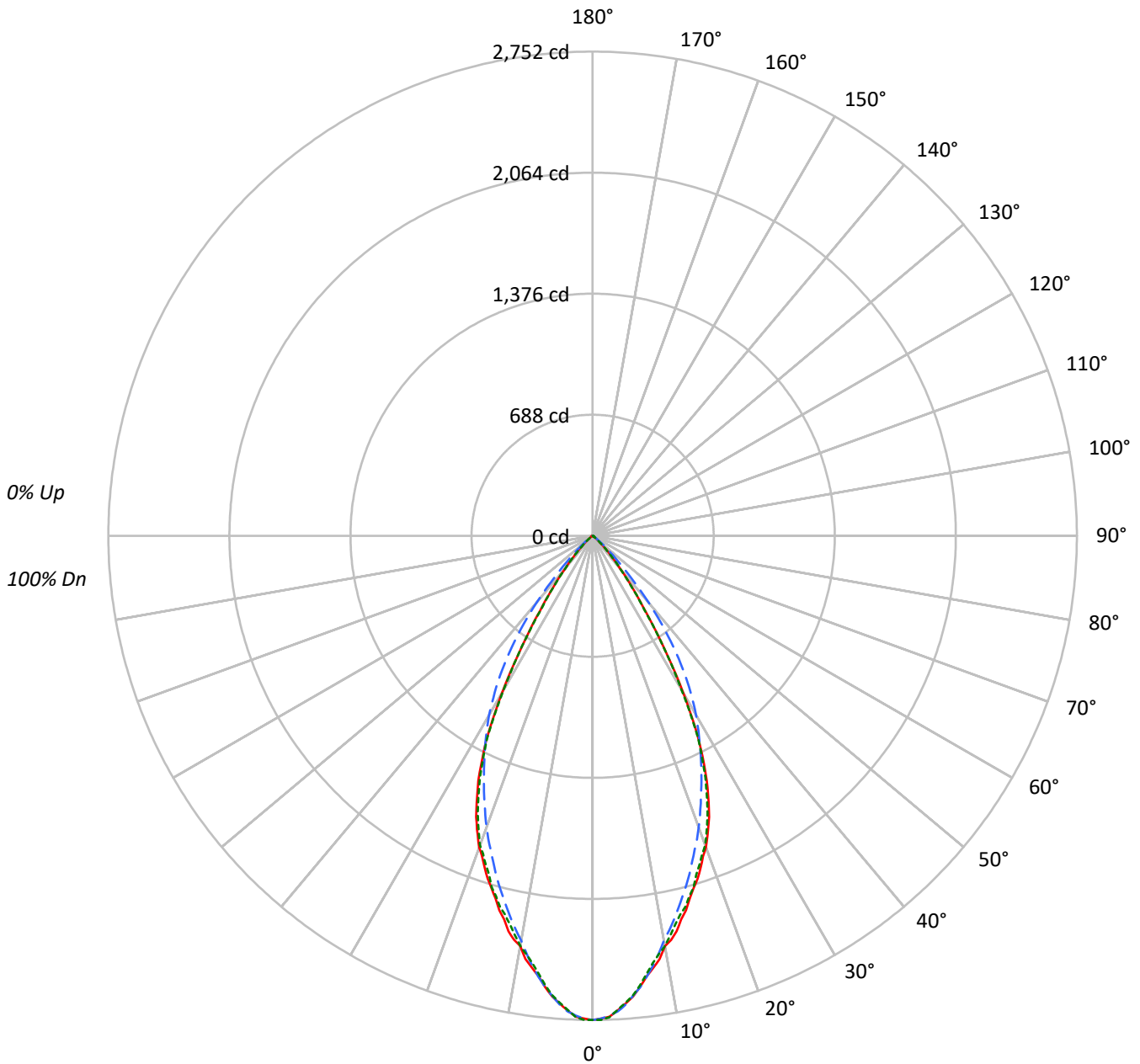
Lumens per Lamp: N/A
Luminaire Lumens: 2061.6 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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°	118506	118506	118506
5°	113673	113474	113315
10°	103533	102125	103454
15°	95149	91667	94574
20°	86350	80788	85759
25°	72980	69440	71973
30°	51099	58457	50228
35°	27447	44840	26917
40°	13590	27748	13484
45°	5931	11697	5821
50°	1909	4247	1909
55°	968	1381	901
60°	637	637	637
65°	469	469	469
70°	352	352	352
75°	299	299	299
80°	223	223	223
85°	445	445	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 11697 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	241.7	11.7
10°-20°	583.6	28.3
20°-30°	674.2	32.7
30°-40°	421.0	20.4
40°-50°	117.0	5.7
50°-60°	16.4	0.8
60°-70°	4.8	0.2
70°-80°	2.0	0.1
80°-90°	0.9	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°	1499.5	72.7
0°-40°	1920.5	93.2
0°-60°	2053.9	99.6
0°-90°	2061.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2061.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2752	2752	2752	2752	2752	
5°	2630	2623	2626	2622	2622	242
15°	2135	2094	2056	2089	2122	598
25°	1536	1491	1462	1490	1515	686
35°	522	644	853	637	512	347
45°	97	124	192	123	96	84
55°	13	13	18	13	12	13
65°	5	5	5	5	5	5
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°	2752.4	2752.4	2752.4	2752.4	2752.4
1°	2744.1	2744.1	2744.1	2751.5	2751.5
2°	2735.8	2734.0	2729.4	2734.9	2737.7
3°	2701.8	2705.5	2707.3	2704.6	2698.1
4°	2666.9	2663.2	2673.3	2666.9	2661.4
5°	2630.1	2622.8	2625.5	2621.8	2621.8
6°	2578.6	2587.8	2580.5	2574.0	2570.4
7°	2522.6	2529.9	2525.3	2516.1	2509.7
8°	2478.4	2473.8	2466.5	2464.6	2453.6
9°	2436.1	2419.6	2403.1	2405.8	2408.6
10°	2368.1	2370.0	2335.9	2361.7	2366.3
11°	2339.6	2329.5	2284.5	2305.6	2313.0
12°	2298.3	2266.1	2227.5	2244.9	2258.7
13°	2238.5	2205.4	2170.5	2197.1	2210.9
14°	2193.5	2155.8	2111.6	2145.6	2174.1
15°	2134.6	2094.2	2056.5	2088.7	2121.7
16°	2083.1	2036.3	1998.6	2029.8	2079.5
17°	2038.1	1980.2	1934.2	1967.3	2015.1
18°	1985.7	1918.6	1876.3	1911.2	1965.5
19°	1927.8	1859.7	1822.1	1850.6	1913.1
20°	1884.6	1808.3	1763.2	1790.8	1871.7
22.5°	1730.1	1650.1	1608.8	1641.9	1706.2
25°	1536.2	1491.1	1461.7	1490.2	1515.0
27.5°	1306.3	1306.3	1316.4	1304.5	1297.1
30°	1027.8	1102.2	1175.8	1098.6	1010.3
32.5°	750.1	869.7	1017.7	885.3	749.2
35°	522.2	644.4	853.1	637.1	512.1
37.5°	363.1	444.0	672.9	448.6	358.5
40°	241.8	297.9	493.7	303.4	239.9
42.5°	158.1	196.7	319.0	197.6	154.4
45°	97.4	124.1	192.1	123.2	95.6
47.5°	57.0	73.5	112.2	74.5	56.1
50°	28.5	43.2	63.4	42.3	28.5
52.5°	16.5	23.0	34.9	22.1	16.5
55°	12.9	12.9	18.4	12.9	12.0
57.5°	10.1	10.1	10.1	10.1	9.2
60°	7.4	8.3	7.4	7.4	7.4
62.5°	6.4	6.4	5.5	6.4	5.5
65°	4.6	4.6	4.6	4.6	4.6
67.5°	3.7	3.7	3.7	3.7	3.7
70°	2.8	2.8	2.8	2.8	2.8
72.5°	1.8	2.8	1.8	2.8	2.8
75°	1.8	1.8	1.8	1.8	1.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.9
87.5°	0.9	0.9	0.9	0.9	0.9
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°	1.8	1.8	1.8	1.8	0.9
80°	0.9	0.9	0.9	0.9	0.9

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(END OF REPORT)