

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: P838510

Luminaire Tested: HCSQ630D010-HM63040840-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838510
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-HM63040840-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

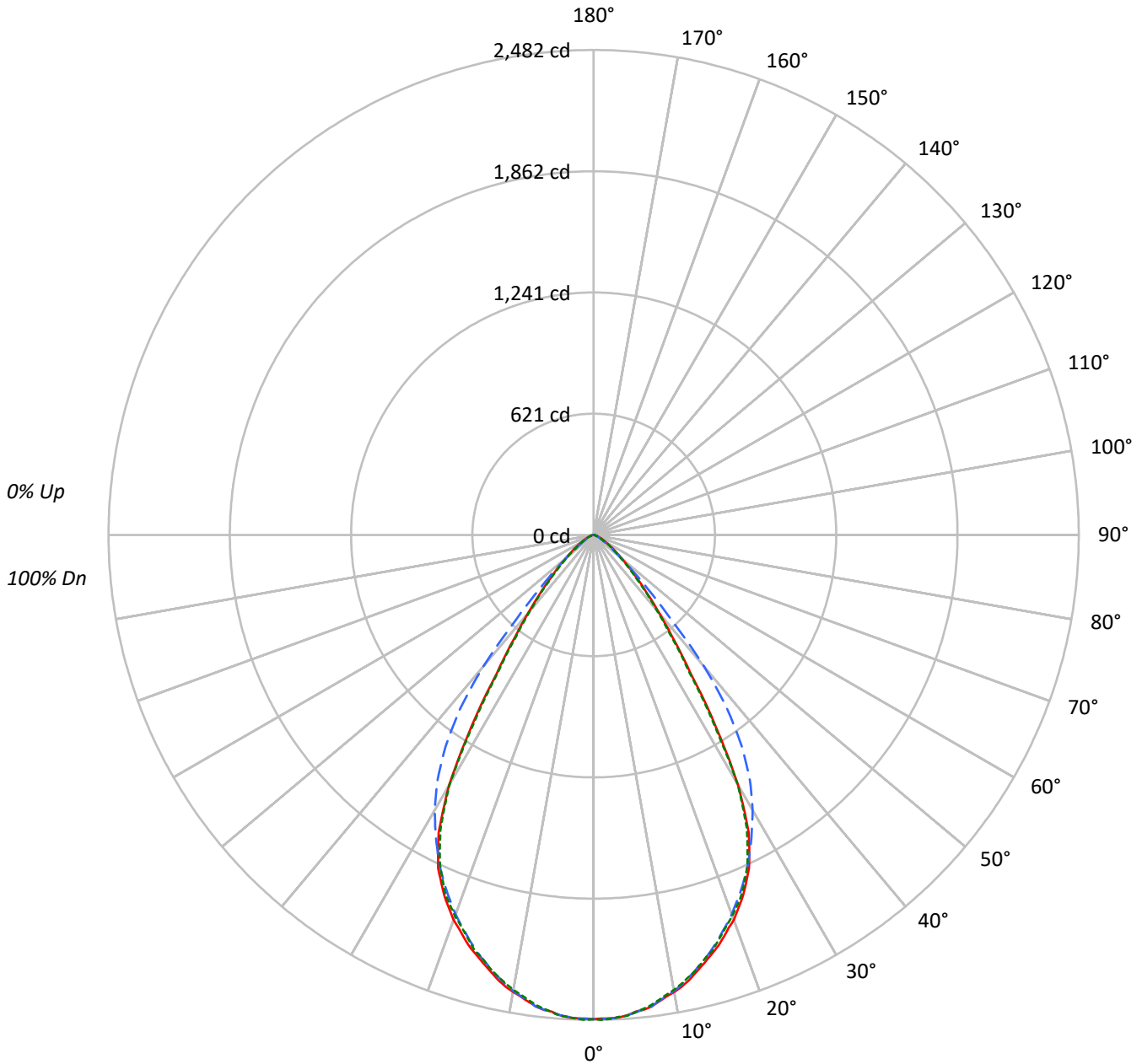
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2787.4 lumens
Efficiency: N/A
Efficacy: 98.8 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

TEST NUMBER: P838510
CATALOG NUMBER: HCSQ630D010-HM63040840-61SQH

Luminous Intensity Polar Plot





TEST NUMBER: P838510

CATALOG NUMBER: HCSQ630D010-HM63040840-61SQH

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	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°	106709	106709	106709
5°	105868	106049	105989
10°	103848	103607	103367
15°	100181	99628	99566
20°	96050	94662	95102
25°	89398	88614	88419
30°	73466	80844	73262
35°	45371	69433	44288
40°	29126	49213	28125
45°	18998	23857	18078
50°	12613	11876	11782
55°	8565	6193	7942
60°	5804	3789	5330
65°	4065	2802	3637
70°	2593	2077	2417
75°	1830	1597	1597
80°	1364	1017	1017
85°	692	1334	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 23857 cd/sqm



TEST NUMBER: P838510
 CATALOG NUMBER: HCSQ630D010-HM63040840-61SQH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	231.5	8.3
10°-20°	628.2	22.5
20°-30°	848.0	30.4
30°-40°	661.8	23.7
40°-50°	277.2	9.9
50°-60°	94.0	3.4
60°-70°	33.5	1.2
70°-80°	10.9	0.4
80°-90°	2.2	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°	1707.7	61.3
0°-40°	2369.5	85.0
0°-60°	2740.8	98.3
0°-90°	2787.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2787.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2478	2478	2478	2478	2478	
5°	2450	2452	2454	2450	2452	232
15°	2248	2242	2235	2232	2234	632
25°	1882	1874	1865	1865	1861	846
35°	863	1013	1321	1012	843	568
45°	312	334	392	319	297	250
55°	114	104	82	99	106	105
65°	40	33	28	32	36	41
75°	11	10	10	10	10	12
85°	1	1	3	1	1	2
90°	0	0	0	0	0	



TEST NUMBER: P838510

CATALOG NUMBER: HCSQ630D010-HM63040840-61SQH

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2478.4	2478.4	2478.4	2478.4	2478.4
1°	2475.7	2479.8	2477.0	2478.4	2482.5
2°	2475.7	2475.7	2478.4	2477.0	2478.4
3°	2472.9	2472.9	2470.2	2470.2	2470.2
4°	2464.7	2464.7	2464.7	2461.9	2467.4
5°	2449.5	2452.3	2453.7	2449.5	2452.3
6°	2444.0	2445.4	2442.7	2441.3	2438.5
7°	2431.7	2427.5	2431.7	2422.0	2423.4
8°	2411.0	2411.0	2408.3	2405.5	2402.8
9°	2391.8	2391.8	2389.1	2384.9	2382.2
10°	2375.3	2371.2	2369.8	2365.7	2364.3
11°	2356.1	2347.8	2346.4	2342.3	2342.3
12°	2332.7	2328.6	2318.9	2317.6	2317.6
13°	2303.8	2299.7	2292.8	2287.3	2292.8
14°	2276.3	2273.6	2261.2	2265.3	2264.0
15°	2247.5	2242.0	2235.1	2232.3	2233.7
16°	2221.4	2211.7	2202.1	2203.5	2211.7
17°	2193.9	2180.1	2170.5	2169.1	2173.2
18°	2159.5	2148.5	2133.4	2138.9	2138.9
19°	2125.1	2110.0	2100.4	2099.0	2104.5
20°	2096.3	2072.9	2066.0	2064.6	2075.6
22.5°	1997.3	1973.9	1968.4	1973.9	1984.9
25°	1881.8	1873.6	1865.3	1865.3	1861.2
27.5°	1718.2	1737.5	1747.1	1727.9	1696.3
30°	1477.7	1558.8	1626.1	1549.2	1473.6
32.5°	1164.3	1332.0	1487.3	1327.9	1136.8
35°	863.2	1013.1	1321.0	1011.7	842.6
37.5°	665.3	761.5	1123.0	749.2	646.1
40°	518.2	574.6	875.6	567.7	500.4
42.5°	402.8	438.5	582.8	430.2	389.0
45°	312.0	334.0	391.8	318.9	296.9
47.5°	243.3	252.9	268.0	241.9	229.6
50°	188.3	188.3	177.3	181.4	175.9
52.5°	145.7	140.2	119.6	132.0	134.7
55°	114.1	104.5	82.5	99.0	105.8
57.5°	86.6	77.0	59.1	72.9	79.7
60°	67.4	57.7	44.0	55.0	61.9
62.5°	52.2	44.0	34.4	41.2	46.7
65°	39.9	33.0	27.5	31.6	35.7
67.5°	30.2	24.7	20.6	23.4	27.5
70°	20.6	19.2	16.5	17.9	19.2
72.5°	15.1	13.7	12.4	12.4	13.7
75°	11.0	9.6	9.6	9.6	9.6



TEST NUMBER: P838510

CATALOG NUMBER: HCSQ630D010-HM63040840-61SQH

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	2.7	2.7	2.7	2.7	2.7
85°	1.4	1.4	2.7	1.4	1.4
87.5°	1.4	1.4	1.4	1.4	1.4
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



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





77.5°	6.9	6.9	6.9	6.9	6.9
80°	5.5	5.5	4.1	4.1	4.1

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)