

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: P838747

Luminaire Tested: HCSQ660D010-HM64560835-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838747
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ660D010-HM64560835-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

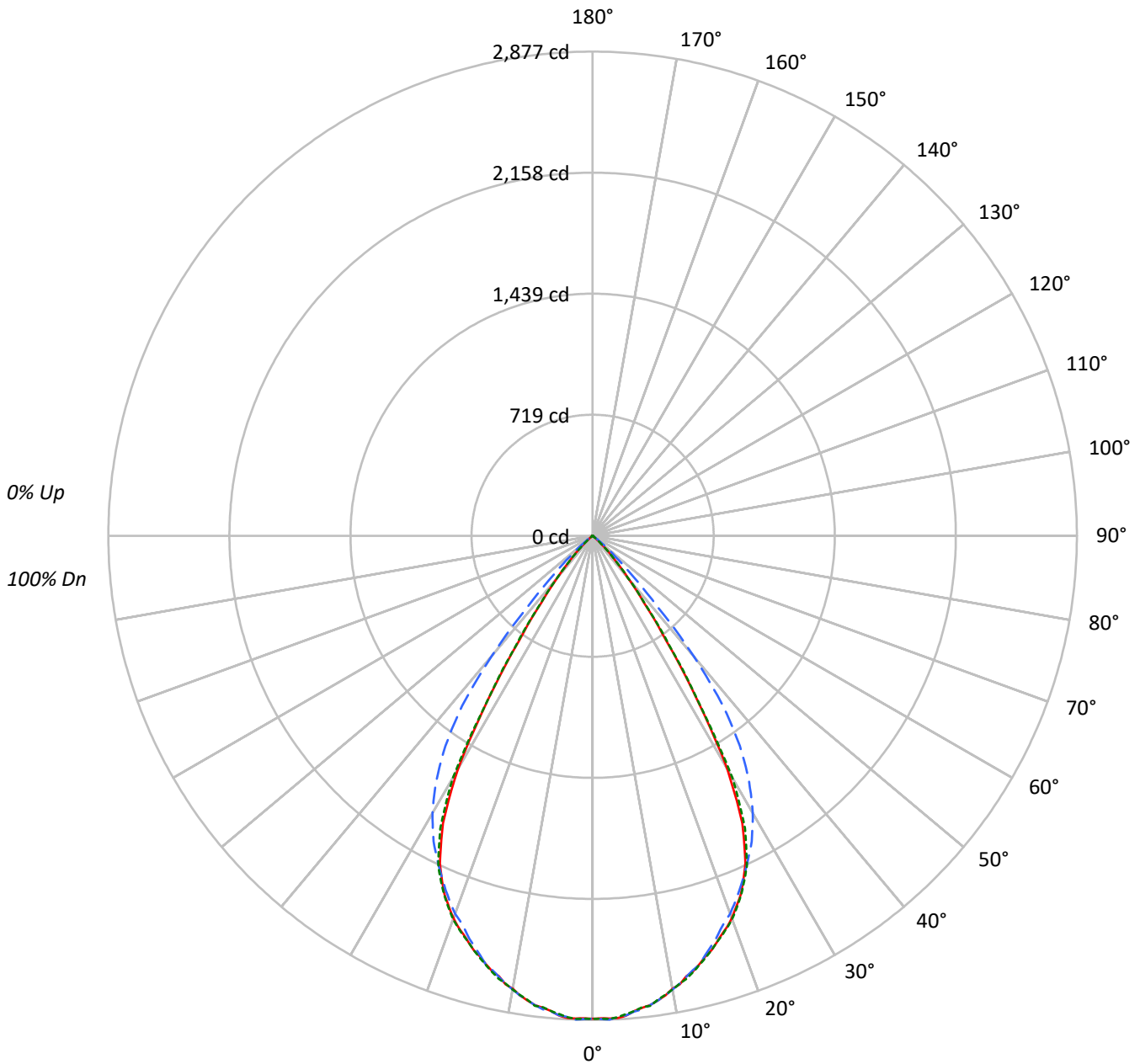
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2852.8 lumens
Efficiency: N/A
Efficacy: 50.9 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 56
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: P838747
CATALOG NUMBER: HCSQ660D010-HM64560835-61SQMB

Luminous Intensity Polar Plot





TEST NUMBER: P838747

CATALOG NUMBER: HCSQ660D010-HM64560835-61SQMB

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								
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93								
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87								
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81								
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75								
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70								
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65								
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60								
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56								
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53								
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	123565	123565	123565
5°	122525	122624	122525
10°	119456	119661	119661
15°	115350	115038	115662
20°	110772	109489	111092
25°	102006	102781	102999
30°	79511	94580	82524
35°	40314	80140	41786
40°	18345	52411	18345
45°	7100	19734	6954
50°	1092	6249	1092
55°	353	1224	353
60°	198	198	198
65°	234	0	234
70°	0	0	290
75°	0	0	383
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 19734 cd/sqm



TEST NUMBER: P838747
 CATALOG NUMBER: HCSQ660D010-HM64560835-61SQMB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.0	9.4
10°-20°	726.7	25.5
20°-30°	979.7	34.3
30°-40°	688.8	24.1
40°-50°	175.9	6.2
50°-60°	12.2	0.4
60°-70°	1.4	0.1
70°-80°	0.2	0.0
80°-90°	0.0	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°	1974.4	69.2
0°-40°	2663.1	93.4
0°-60°	2851.2	99.9
0°-90°	2852.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2852.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2870	2870	2870	2870	2870	
5°	2835	2840	2837	2840	2835	268
15°	2588	2583	2581	2588	2595	728
25°	2147	2154	2164	2170	2168	960
35°	767	1016	1525	1042	795	516
45°	117	175	324	177	114	102
55°	5	5	16	5	5	6
65°	2	2	0	2	2	2
75°	0	0	0	0	2	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P838747

CATALOG NUMBER: HCSQ660D010-HM64560835-61SQMB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2869.9	2869.9	2869.9	2869.9	2869.9
1°	2867.5	2869.9	2872.2	2872.2	2869.9
2°	2869.9	2862.9	2876.9	2869.9	2872.2
3°	2869.9	2855.9	2862.9	2867.5	2865.2
4°	2858.2	2848.9	2855.9	2853.5	2848.9
5°	2834.9	2839.6	2837.2	2839.6	2834.9
6°	2820.9	2825.6	2830.2	2823.2	2816.2
7°	2809.3	2806.9	2809.3	2813.9	2813.9
8°	2788.3	2792.9	2788.3	2790.6	2783.6
9°	2765.0	2765.0	2765.0	2769.6	2762.6
10°	2732.3	2744.0	2737.0	2741.6	2737.0
11°	2716.0	2711.3	2711.3	2713.7	2711.3
12°	2676.4	2681.0	2678.7	2683.4	2690.4
13°	2655.4	2657.7	2648.4	2660.0	2660.0
14°	2622.7	2620.4	2625.1	2622.7	2627.4
15°	2587.8	2583.1	2580.8	2587.8	2594.8
16°	2562.1	2550.5	2543.5	2552.8	2562.1
17°	2524.8	2513.2	2503.8	2522.5	2524.8
18°	2487.5	2482.9	2459.6	2482.9	2494.5
19°	2457.2	2440.9	2419.9	2445.6	2459.6
20°	2417.6	2403.6	2389.6	2403.6	2424.6
22.5°	2303.4	2291.7	2280.0	2296.4	2308.0
25°	2147.2	2154.1	2163.5	2170.5	2168.1
27.5°	1925.7	1988.6	2046.9	2009.6	1960.6
30°	1599.3	1757.8	1902.4	1783.5	1659.9
32.5°	1158.7	1429.1	1729.8	1482.7	1170.3
35°	767.0	1016.5	1524.7	1042.1	795.0
37.5°	498.9	683.1	1272.9	685.4	522.2
40°	326.4	445.3	932.5	454.6	326.4
42.5°	200.5	282.1	566.5	293.7	200.5
45°	116.6	174.8	324.1	177.2	114.2
47.5°	53.6	95.6	184.2	93.3	56.0
50°	16.3	42.0	93.3	42.0	16.3
52.5°	7.0	11.7	44.3	11.7	7.0
55°	4.7	4.7	16.3	4.7	4.7
57.5°	4.7	2.3	4.7	4.7	4.7
60°	2.3	2.3	2.3	2.3	2.3
62.5°	2.3	2.3	2.3	2.3	2.3
65°	2.3	2.3	0.0	2.3	2.3
67.5°	2.3	0.0	0.0	0.0	2.3
70°	0.0	0.0	0.0	0.0	2.3
72.5°	0.0	0.0	0.0	0.0	2.3
75°	0.0	0.0	0.0	0.0	2.3



TEST NUMBER: P838747

CATALOG NUMBER: HCSQ660D010-HM64560835-61SQMB

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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



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

Scaled Data Report



77.5°	0.0	0.0	0.0	0.0	0.0
80°	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



(END OF REPORT)