

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: P838718

Luminaire Tested: HCSQ655D010-HM64560927-61SQMW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838718
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ655D010-HM64560927-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

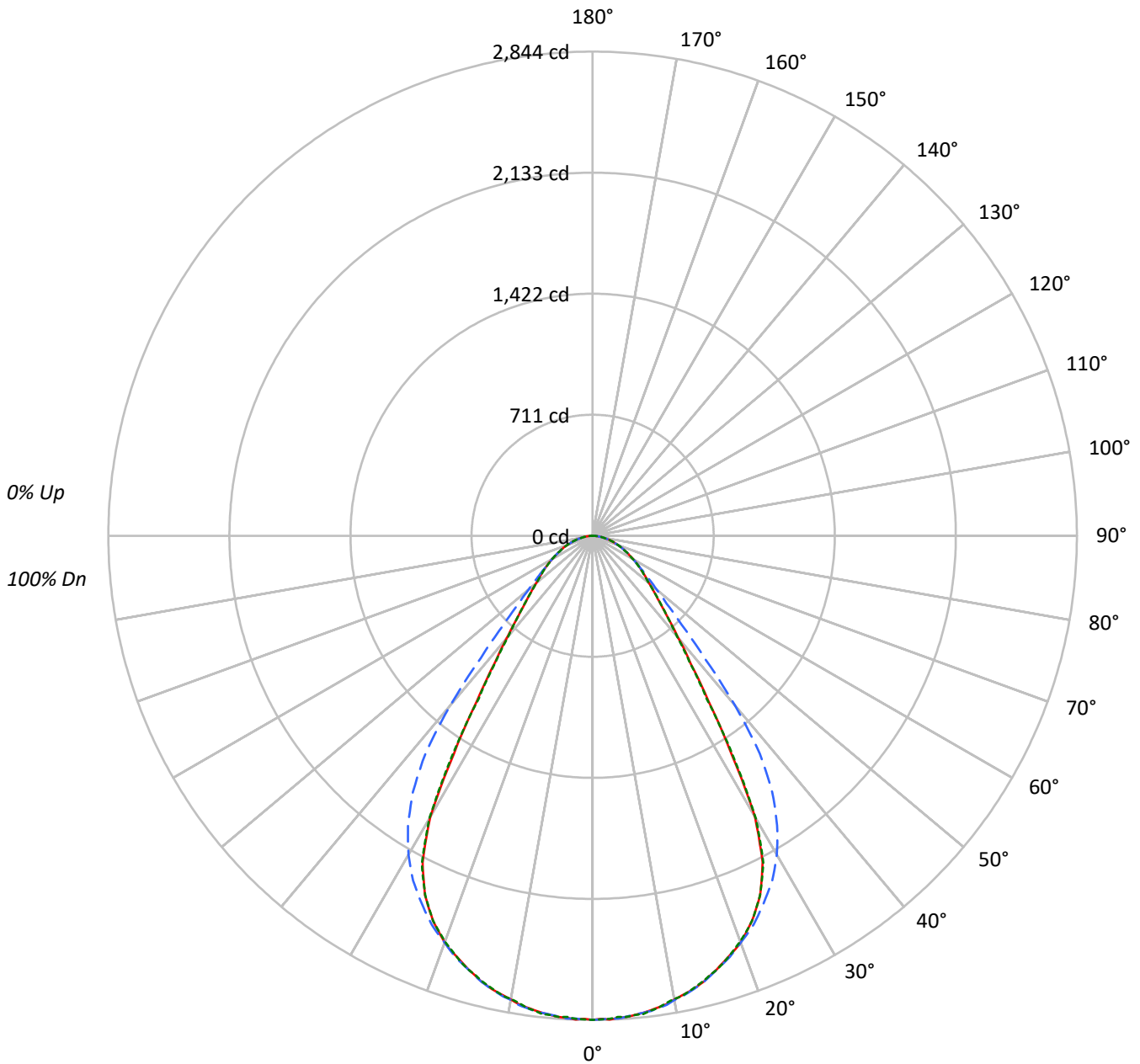
Lumens per Lamp: N/A
Luminaire Lumens: 4194.4 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 54
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: P838718

CATALOG NUMBER: HCSQ655D010-HM64560927-61SQMW

Luminous Intensity Polar Plot





TEST NUMBER: P838718

CATALOG NUMBER: HCSQ655D010-HM64560927-61SQMW

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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79								
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71								
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64								
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58								
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53								
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48								
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44								
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41								
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	122433	122433	122433
5°	122127	122041	122127
10°	120934	121021	120759
15°	119134	119223	118956
20°	116453	116545	116178
25°	110638	112999	110548
30°	94745	107586	95336
35°	62248	96718	61313
40°	44003	72932	43222
45°	34123	44888	34366
50°	29017	32741	28749
55°	26108	26851	26108
60°	23612	23612	23612
65°	21659	21456	21456
70°	19764	19764	20016
75°	18515	17850	18183
80°	16265	16265	16265
85°	13733	13733	13733

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 44888 cd/sqm



TEST NUMBER: P838718

CATALOG NUMBER: HCSQ655D010-HM64560927-61SQMW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.1	6.4
10°-20°	752.9	17.9
20°-30°	1072.8	25.6
30°-40°	914.8	21.8
40°-50°	506.1	12.1
50°-60°	318.8	7.6
60°-70°	211.6	5.0
70°-80°	116.3	2.8
80°-90°	33.1	0.8
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°	2093.8	49.9
0°-40°	3008.5	71.7
0°-60°	3833.4	91.4
0°-90°	4194.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4194.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2844	2844	2844	2844	2844	
5°	2826	2830	2824	2820	2826	268
15°	2673	2673	2675	2673	2669	752
25°	2329	2357	2379	2355	2327	1052
35°	1184	1397	1840	1399	1166	770
45°	560	614	737	610	564	444
55°	348	354	358	352	348	312
65°	213	215	211	213	211	212
75°	111	109	107	109	109	117
85°	28	28	28	30	28	33
90°	0	0	0	0	0	



TEST NUMBER: P838718

CATALOG NUMBER: HCSQ655D010-HM64560927-61SQMW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2843.6	2843.6	2843.6	2843.6	2843.6
1°	2837.7	2841.6	2841.6	2839.6	2841.6
2°	2843.6	2837.7	2837.7	2837.7	2839.6
3°	2835.7	2839.6	2839.6	2833.7	2829.7
4°	2833.7	2831.7	2831.7	2837.7	2833.7
5°	2825.7	2829.7	2823.7	2819.8	2825.7
6°	2817.8	2819.8	2817.8	2819.8	2825.7
7°	2807.8	2813.8	2811.8	2809.8	2809.8
8°	2795.9	2803.9	2799.9	2799.9	2797.9
9°	2784.0	2786.0	2790.0	2790.0	2778.0
10°	2766.1	2772.1	2768.1	2770.1	2762.1
11°	2750.2	2758.2	2756.2	2752.2	2754.2
12°	2736.3	2740.3	2738.3	2732.3	2734.3
13°	2718.4	2722.4	2720.4	2720.4	2714.5
14°	2698.6	2694.6	2700.5	2696.6	2694.6
15°	2672.7	2672.7	2674.7	2672.7	2668.7
16°	2648.9	2650.9	2650.9	2648.9	2650.9
17°	2621.1	2629.0	2627.0	2623.0	2625.0
18°	2595.2	2601.2	2603.2	2601.2	2595.2
19°	2571.4	2575.4	2573.4	2565.4	2565.4
20°	2541.6	2543.6	2543.6	2539.6	2535.6
22.5°	2448.2	2462.1	2472.0	2464.1	2448.2
25°	2328.9	2356.8	2378.6	2354.8	2327.0
27.5°	2162.0	2217.7	2283.2	2223.6	2172.0
30°	1905.7	2032.9	2164.0	2044.8	1917.6
32.5°	1516.2	1766.6	2017.0	1790.4	1540.0
35°	1184.3	1397.0	1840.1	1399.0	1166.5
37.5°	945.9	1096.9	1613.6	1087.0	935.9
40°	782.9	884.3	1297.6	880.3	769.0
42.5°	653.8	731.3	971.7	723.3	653.8
45°	560.4	614.0	737.2	610.1	564.4
47.5°	490.8	524.6	590.2	522.6	490.8
50°	433.2	453.1	488.8	451.1	429.2
52.5°	387.5	399.4	413.3	395.4	383.5
55°	347.8	353.7	357.7	351.7	347.8
57.5°	310.0	314.0	312.0	310.0	308.0
60°	274.2	276.2	274.2	276.2	274.2
62.5°	242.4	244.4	240.4	242.4	240.4
65°	212.6	214.6	210.6	212.6	210.6
67.5°	184.8	184.8	184.8	184.8	182.8
70°	157.0	159.0	157.0	159.0	159.0
72.5°	133.1	133.1	131.2	133.1	133.1
75°	111.3	109.3	107.3	109.3	109.3



TEST NUMBER: P838718

CATALOG NUMBER: HCSQ655D010-HM64560927-61SQMW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	47.7	47.7	45.7	47.7	47.7
85°	27.8	27.8	27.8	29.8	27.8
87.5°	13.9	11.9	11.9	13.9	13.9
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



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°	87.4	87.4	85.4	87.4	87.4
80°	65.6	67.6	65.6	67.6	65.6

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

Scaled Data Report



(END OF REPORT)