

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: P838713

Luminaire Tested: HCSQ655D010-HM64560840-61SQMW

Issue Date: 5/21/2024



**Test Information**

Test Method: LM-79-2019  
Report Number: P838713  
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-HM64560840-61SQMW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: -

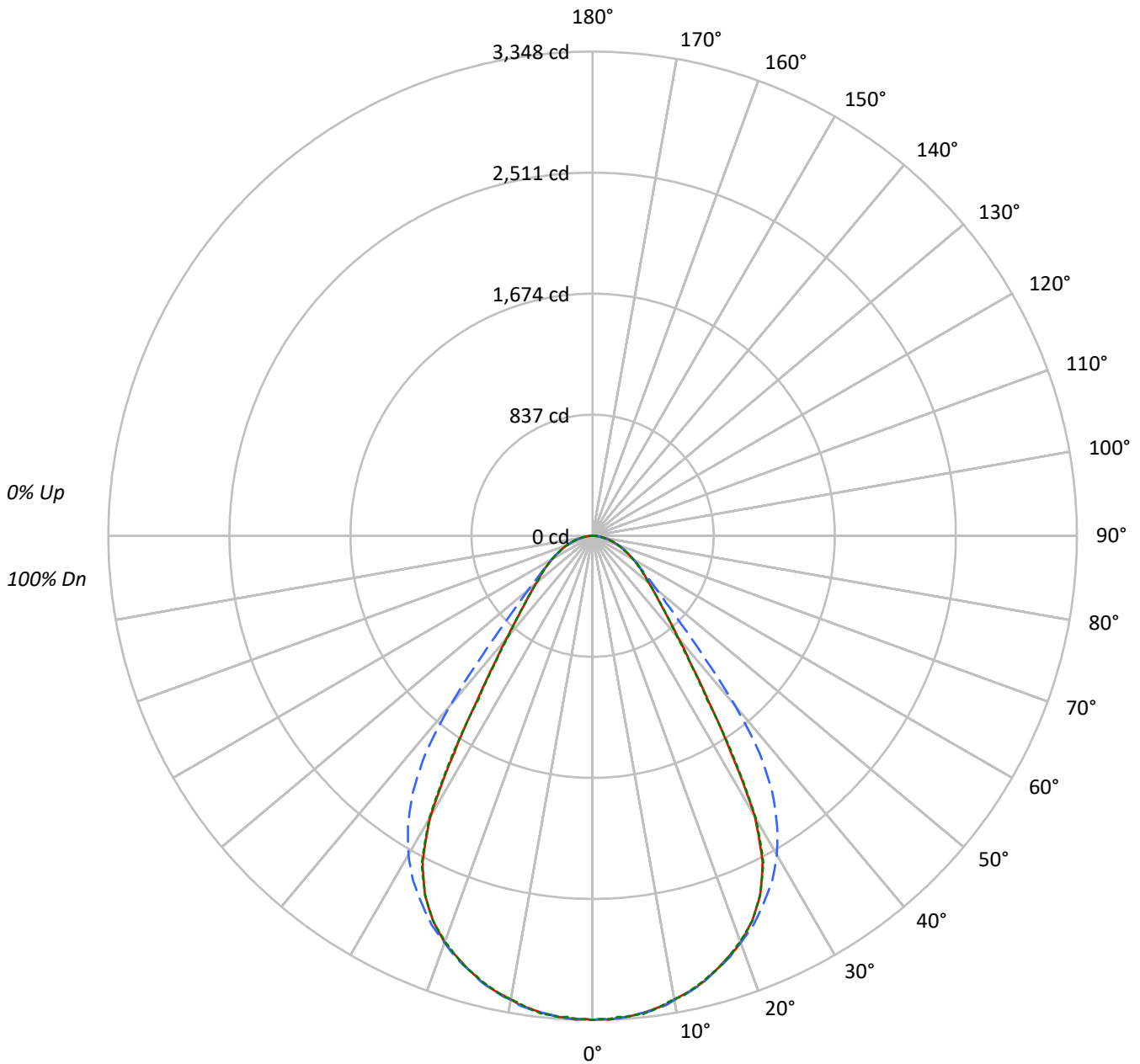
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4938.0 lumens  
Efficiency: N/A  
Efficacy: 91.4 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<sub>in</sub>): 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: P838713

CATALOG NUMBER: HCSQ655D010-HM64560840-61SQMW

### Luminous Intensity Polar Plot





TEST NUMBER: P838713

CATALOG NUMBER: HCSQ655D010-HM64560840-61SQMW

**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	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°	144142	144142	144142
5°	143780	143681	143780
10°	142374	142479	142168
15°	140258	140361	140049
20°	137099	137205	136774
25°	130254	133033	130145
30°	111539	126662	112240
35°	73286	113863	72182
40°	51804	85865	50888
45°	40169	52846	40455
50°	34161	38549	33846
55°	30732	31610	30732
60°	27797	27797	27797
65°	25500	25266	25266
70°	23264	23264	23566
75°	21792	21011	21410
80°	19142	19142	19142
85°	16203	16203	16203

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 52846 cd/sqm



TEST NUMBER: P838713

CATALOG NUMBER: HCSQ655D010-HM64560840-61SQMW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	315.6	6.4
10°-20°	886.3	17.9
20°-30°	1263.0	25.6
30°-40°	1076.9	21.8
40°-50°	595.8	12.1
50°-60°	375.3	7.6
60°-70°	249.2	5.0
70°-80°	136.9	2.8
80°-90°	39.0	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°	2465.0	49.9
0°-40°	3541.9	71.7
0°-60°	4513.0	91.4
0°-90°	4938.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4938.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3348	3348	3348	3348	3348	
5°	3327	3331	3324	3320	3327	315
15°	3147	3147	3149	3147	3142	886
25°	2742	2775	2800	2772	2740	1239
35°	1394	1645	2166	1647	1373	906
45°	660	723	868	718	664	523
55°	409	416	421	414	409	368
65°	250	253	248	250	248	249
75°	131	129	126	129	129	138
85°	33	33	33	35	33	39
90°	0	0	0	0	0	



TEST NUMBER: P838713

CATALOG NUMBER: HCSQ655D010-HM64560840-61SQMW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3347.8	3347.8	3347.8	3347.8	3347.8
1°	3340.7	3345.4	3345.4	3343.1	3345.4
2°	3347.8	3340.7	3340.7	3340.7	3343.1
3°	3338.4	3343.1	3343.1	3336.1	3331.4
4°	3336.1	3333.7	3333.7	3340.7	3336.1
5°	3326.7	3331.4	3324.4	3319.7	3326.7
6°	3317.3	3319.7	3317.3	3319.7	3326.7
7°	3305.6	3312.7	3310.3	3308.0	3308.0
8°	3291.6	3301.0	3296.3	3296.3	3293.9
9°	3277.6	3279.9	3284.6	3284.6	3270.6
10°	3256.5	3263.5	3258.9	3261.2	3251.8
11°	3237.8	3247.2	3244.8	3240.1	3242.5
12°	3221.4	3226.1	3223.8	3216.7	3219.1
13°	3200.4	3205.0	3202.7	3202.7	3195.7
14°	3177.0	3172.3	3179.3	3174.6	3172.3
15°	3146.6	3146.6	3148.9	3146.6	3141.9
16°	3118.5	3120.8	3120.8	3118.5	3120.8
17°	3085.7	3095.1	3092.8	3088.1	3090.4
18°	3055.3	3062.3	3064.7	3062.3	3055.3
19°	3027.3	3031.9	3029.6	3020.2	3020.2
20°	2992.2	2994.5	2994.5	2989.8	2985.1
22.5°	2882.2	2898.6	2910.3	2900.9	2882.2
25°	2741.8	2774.6	2800.3	2772.3	2739.5
27.5°	2545.3	2610.8	2688.0	2617.8	2557.0
30°	2243.5	2393.3	2547.7	2407.3	2257.6
32.5°	1785.0	2079.8	2374.5	2107.8	1813.1
35°	1394.3	1644.6	2166.3	1647.0	1373.3
37.5°	1113.6	1291.4	1899.6	1279.7	1101.9
40°	921.7	1041.1	1527.7	1036.4	905.4
42.5°	769.7	860.9	1144.0	851.6	769.7
45°	659.7	722.9	867.9	718.2	664.4
47.5°	577.8	617.6	694.8	615.3	577.8
50°	510.0	533.4	575.5	531.1	505.3
52.5°	456.2	470.2	486.6	465.6	451.5
55°	409.4	416.4	421.1	414.1	409.4
57.5°	365.0	369.6	367.3	365.0	362.6
60°	322.8	325.2	322.8	325.2	322.8
62.5°	285.4	287.8	283.1	285.4	283.1
65°	250.3	252.7	248.0	250.3	248.0
67.5°	217.6	217.6	217.6	217.6	215.2
70°	184.8	187.2	184.8	187.2	187.2
72.5°	156.7	156.7	154.4	156.7	156.7
75°	131.0	128.7	126.3	128.7	128.7



TEST NUMBER: P838713

CATALOG NUMBER: HCSQ655D010-HM64560840-61SQMW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	56.1	56.1	53.8	56.1	56.1
85°	32.8	32.8	32.8	35.1	32.8
87.5°	16.4	14.0	14.0	16.4	16.4
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°	102.9	102.9	100.6	102.9	102.9
80°	77.2	79.5	77.2	79.5	77.2

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

Scaled Data Report



(END OF REPORT)