

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: P838728

Luminaire Tested: HCSQ655D010-HM64560935-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838728
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-HM64560935-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

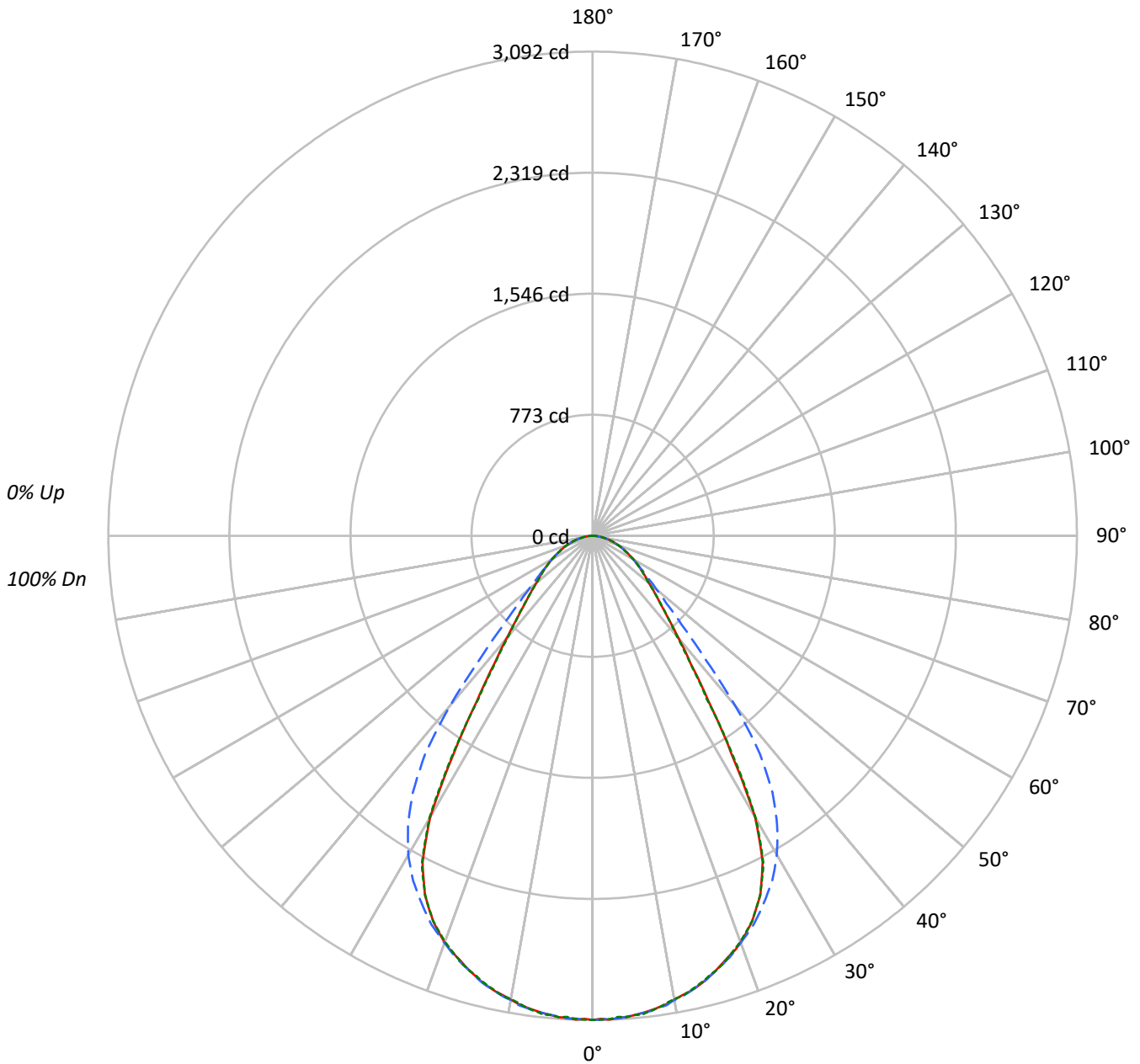
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4561.1 lumens
Efficiency: N/A
Efficacy: 84.5 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: P838728
CATALOG NUMBER: HCSQ655D010-HM64560935-61SQMW

Luminous Intensity Polar Plot





TEST NUMBER: P838728

CATALOG NUMBER: HCSQ655D010-HM64560935-61SQMW

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°	133137	133137	133137
5°	132807	132712	132807
10°	131505	131601	131317
15°	129551	129645	129355
20°	126630	126730	126336
25°	120311	122881	120211
30°	103027	116993	103669
35°	67694	105175	66669
40°	47853	79305	47004
45°	37106	48815	37368
50°	31556	35608	31261
55°	28390	29200	28390
60°	25678	25678	25678
65°	23554	23340	23340
70°	21489	21489	21766
75°	20129	19414	19763
80°	17679	17679	17679
85°	14968	14968	14968

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 48815 cd/sqm



TEST NUMBER: P838728

CATALOG NUMBER: HCSQ655D010-HM64560935-61SQMW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.5	6.4
10°-20°	818.7	17.9
20°-30°	1166.6	25.6
30°-40°	994.7	21.8
40°-50°	550.3	12.1
50°-60°	346.6	7.6
60°-70°	230.2	5.0
70°-80°	126.5	2.8
80°-90°	36.0	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°	2276.8	49.9
0°-40°	3271.5	71.7
0°-60°	4168.5	91.4
0°-90°	4561.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4561.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3092	3092	3092	3092	3092	
5°	3073	3077	3071	3066	3073	291
15°	2906	2906	2908	2906	2902	818
25°	2532	2563	2587	2561	2530	1144
35°	1288	1519	2001	1521	1268	837
45°	609	668	802	663	614	483
55°	378	385	389	382	378	340
65°	231	233	229	231	229	230
75°	121	119	117	119	119	127
85°	30	30	30	32	30	36
90°	0	0	0	0	0	



TEST NUMBER: P838728

CATALOG NUMBER: HCSQ655D010-HM64560935-61SQMW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3092.2	3092.2	3092.2	3092.2	3092.2
1°	3085.7	3090.0	3090.0	3087.9	3090.0
2°	3092.2	3085.7	3085.7	3085.7	3087.9
3°	3083.6	3087.9	3087.9	3081.4	3077.1
4°	3081.4	3079.2	3079.2	3085.7	3081.4
5°	3072.8	3077.1	3070.6	3066.3	3072.8
6°	3064.1	3066.3	3064.1	3066.3	3072.8
7°	3053.3	3059.8	3057.6	3055.5	3055.5
8°	3040.3	3049.0	3044.7	3044.7	3042.5
9°	3027.4	3029.5	3033.9	3033.9	3020.9
10°	3007.9	3014.4	3010.1	3012.2	3003.6
11°	2990.6	2999.3	2997.1	2992.8	2995.0
12°	2975.5	2979.8	2977.7	2971.2	2973.4
13°	2956.1	2960.4	2958.2	2958.2	2951.7
14°	2934.5	2930.1	2936.6	2932.3	2930.1
15°	2906.4	2906.4	2908.5	2906.4	2902.0
16°	2880.4	2882.6	2882.6	2880.4	2882.6
17°	2850.2	2858.8	2856.7	2852.3	2854.5
18°	2822.1	2828.6	2830.7	2828.6	2822.1
19°	2796.2	2800.5	2798.3	2789.7	2789.7
20°	2763.7	2765.9	2765.9	2761.6	2757.3
22.5°	2662.2	2677.3	2688.1	2679.5	2662.2
25°	2532.5	2562.8	2586.6	2560.6	2530.4
27.5°	2351.0	2411.5	2482.8	2418.0	2361.8
30°	2072.3	2210.6	2353.2	2223.5	2085.2
32.5°	1648.7	1921.0	2193.3	1946.9	1674.7
35°	1287.9	1519.1	2001.0	1521.3	1268.4
37.5°	1028.6	1192.8	1754.6	1182.0	1017.8
40°	851.4	961.6	1411.0	957.3	836.3
42.5°	710.9	795.2	1056.7	786.6	710.9
45°	609.4	667.7	801.7	663.4	613.7
47.5°	533.7	570.5	641.8	568.3	533.7
50°	471.1	492.7	531.6	490.5	466.7
52.5°	421.4	434.3	449.5	430.0	417.0
55°	378.2	384.6	389.0	382.5	378.2
57.5°	337.1	341.4	339.3	337.1	334.9
60°	298.2	300.4	298.2	300.4	298.2
62.5°	263.6	265.8	261.5	263.6	261.5
65°	231.2	233.4	229.1	231.2	229.1
67.5°	201.0	201.0	201.0	201.0	198.8
70°	170.7	172.9	170.7	172.9	172.9
72.5°	144.8	144.8	142.6	144.8	144.8
75°	121.0	118.8	116.7	118.8	118.8



TEST NUMBER: P838728

CATALOG NUMBER: HCSQ655D010-HM64560935-61SQMW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	<i>51.9</i>	51.9	49.7	51.9	51.9
85°	<i>30.3</i>	30.3	30.3	32.4	30.3
87.5°	<i>15.1</i>	13.0	13.0	15.1	15.1
90°	<i>0.0</i>	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°	95.1	95.1	92.9	95.1	95.1
80°	71.3	73.5	71.3	73.5	71.3

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

Scaled Data Report



(END OF REPORT)