

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: P838600

Luminaire Tested: HCSQ640D010-HM63040930-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838600
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: HCSQ640D010-HM63040930-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

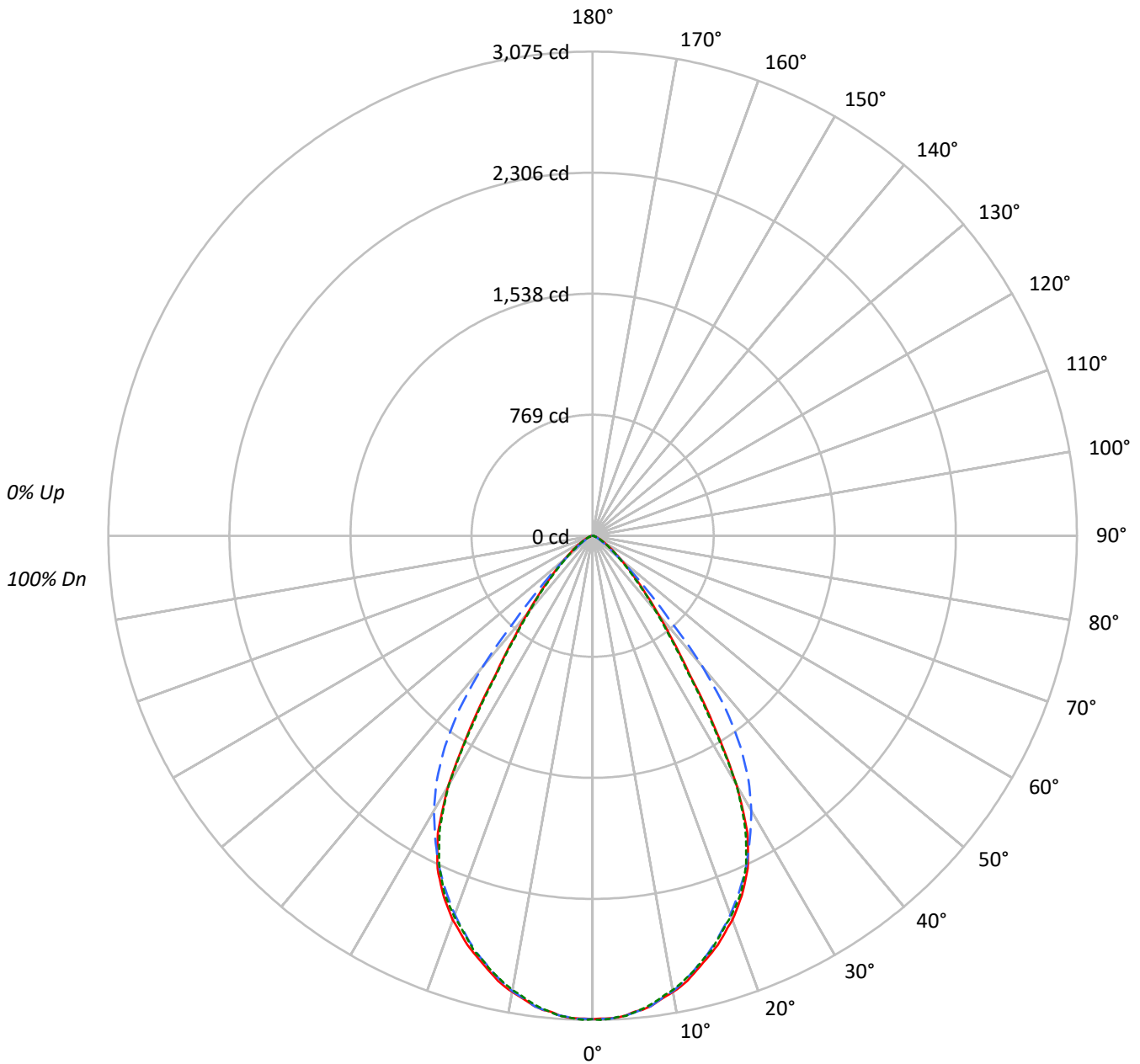
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3452.8 lumens
Efficiency: N/A
Efficacy: 84.2 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): 41
Input Voltage (V): NR
Input Current (Ain): 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: P838600
CATALOG NUMBER: HCSQ640D010-HM63040930-61SQH

Luminous Intensity Polar Plot





TEST NUMBER: P838600

CATALOG NUMBER: HCSQ640D010-HM63040930-61SQH

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°	132181	132181	132181
5°	131139	131363	131290
10°	128637	128340	128042
15°	124091	123409	123333
20°	118973	117260	117805
25°	110738	109769	109527
30°	91001	100144	90747
35°	56204	86006	54863
40°	36078	60960	34836
45°	23534	29550	22395
50°	15627	14716	14596
55°	10607	7672	9841
60°	7182	4693	6596
65°	5033	3474	4513
70°	3210	2568	2996
75°	2262	1980	1980
80°	1686	1265	1265
85°	840	1680	840

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 29550 cd/sqm



TEST NUMBER: P838600
 CATALOG NUMBER: HCSQ640D010-HM63040930-61SQH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.7	8.3
10°-20°	778.2	22.5
20°-30°	1050.5	30.4
30°-40°	819.8	23.7
40°-50°	343.4	9.9
50°-60°	116.4	3.4
60°-70°	41.5	1.2
70°-80°	13.5	0.4
80°-90°	2.7	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°	2115.3	61.3
0°-40°	2935.1	85.0
0°-60°	3395.0	98.3
0°-90°	3452.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3452.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3070	3070	3070	3070	3070	
5°	3034	3038	3039	3034	3038	287
15°	2784	2777	2769	2765	2767	783
25°	2331	2321	2311	2311	2306	1048
35°	1069	1255	1636	1253	1044	703
45°	386	414	485	395	368	310
55°	141	129	102	123	131	130
65°	49	41	34	39	44	51
75°	14	12	12	12	12	15
85°	2	2	3	2	2	3
90°	0	0	0	0	0	



TEST NUMBER: P838600

CATALOG NUMBER: HCSQ640D010-HM63040930-61SQH

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3070.0	3070.0	3070.0	3070.0	3070.0
1°	3066.6	3071.7	3068.3	3070.0	3075.1
2°	3066.6	3066.6	3070.0	3068.3	3070.0
3°	3063.2	3063.2	3059.8	3059.8	3059.8
4°	3053.0	3053.0	3053.0	3049.6	3056.4
5°	3034.2	3037.7	3039.4	3034.2	3037.7
6°	3027.4	3029.1	3025.7	3024.0	3020.6
7°	3012.1	3007.0	3012.1	3000.2	3001.9
8°	2986.6	2986.6	2983.2	2979.8	2976.4
9°	2962.7	2962.7	2959.3	2954.2	2950.8
10°	2942.3	2937.2	2935.5	2930.4	2928.7
11°	2918.5	2908.2	2906.5	2901.4	2901.4
12°	2889.5	2884.4	2872.5	2870.8	2870.8
13°	2853.8	2848.7	2840.1	2833.3	2840.1
14°	2819.7	2816.3	2801.0	2806.1	2804.4
15°	2783.9	2777.1	2768.6	2765.2	2766.9
16°	2751.6	2739.7	2727.8	2729.5	2739.7
17°	2717.5	2700.5	2688.6	2686.9	2692.0
18°	2675.0	2661.4	2642.6	2649.4	2649.4
19°	2632.4	2613.7	2601.8	2600.1	2606.9
20°	2596.6	2567.7	2559.2	2557.5	2571.1
22.5°	2474.1	2445.1	2438.3	2445.1	2458.7
25°	2331.0	2320.8	2310.6	2310.6	2305.5
27.5°	2128.4	2152.2	2164.2	2140.3	2101.2
30°	1830.4	1930.9	2014.3	1919.0	1825.3
32.5°	1442.2	1649.9	1842.3	1644.8	1408.1
35°	1069.3	1254.9	1636.3	1253.2	1043.8
37.5°	824.1	943.3	1391.1	928.0	800.3
40°	641.9	711.7	1084.6	703.2	619.8
42.5°	498.9	543.2	722.0	533.0	481.9
45°	386.5	413.8	485.3	395.0	367.8
47.5°	301.4	313.3	332.0	299.7	284.4
50°	233.3	233.3	219.7	224.8	217.9
52.5°	180.5	173.7	148.1	163.5	166.9
55°	141.3	129.4	102.2	122.6	131.1
57.5°	107.3	95.4	73.2	90.2	98.8
60°	83.4	71.5	54.5	68.1	76.6
62.5°	64.7	54.5	42.6	51.1	57.9
65°	49.4	40.9	34.1	39.2	44.3
67.5°	37.5	30.6	25.5	28.9	34.1
70°	25.5	23.8	20.4	22.1	23.8
72.5°	18.7	17.0	15.3	15.3	17.0
75°	13.6	11.9	11.9	11.9	11.9



TEST NUMBER: P838600

CATALOG NUMBER: HCSQ640D010-HM63040930-61SQH

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	3.4	3.4	3.4	3.4	3.4
85°	1.7	1.7	3.4	1.7	1.7
87.5°	1.7	1.7	1.7	1.7	1.7
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°	8.5	8.5	8.5	8.5	8.5
80°	6.8	6.8	5.1	5.1	5.1

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

Scaled Data Report



(END OF REPORT)