

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



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: P837543

Luminaire Tested: HCSQ440D010-HM43040935-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837543
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ440D010-HM43040935-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

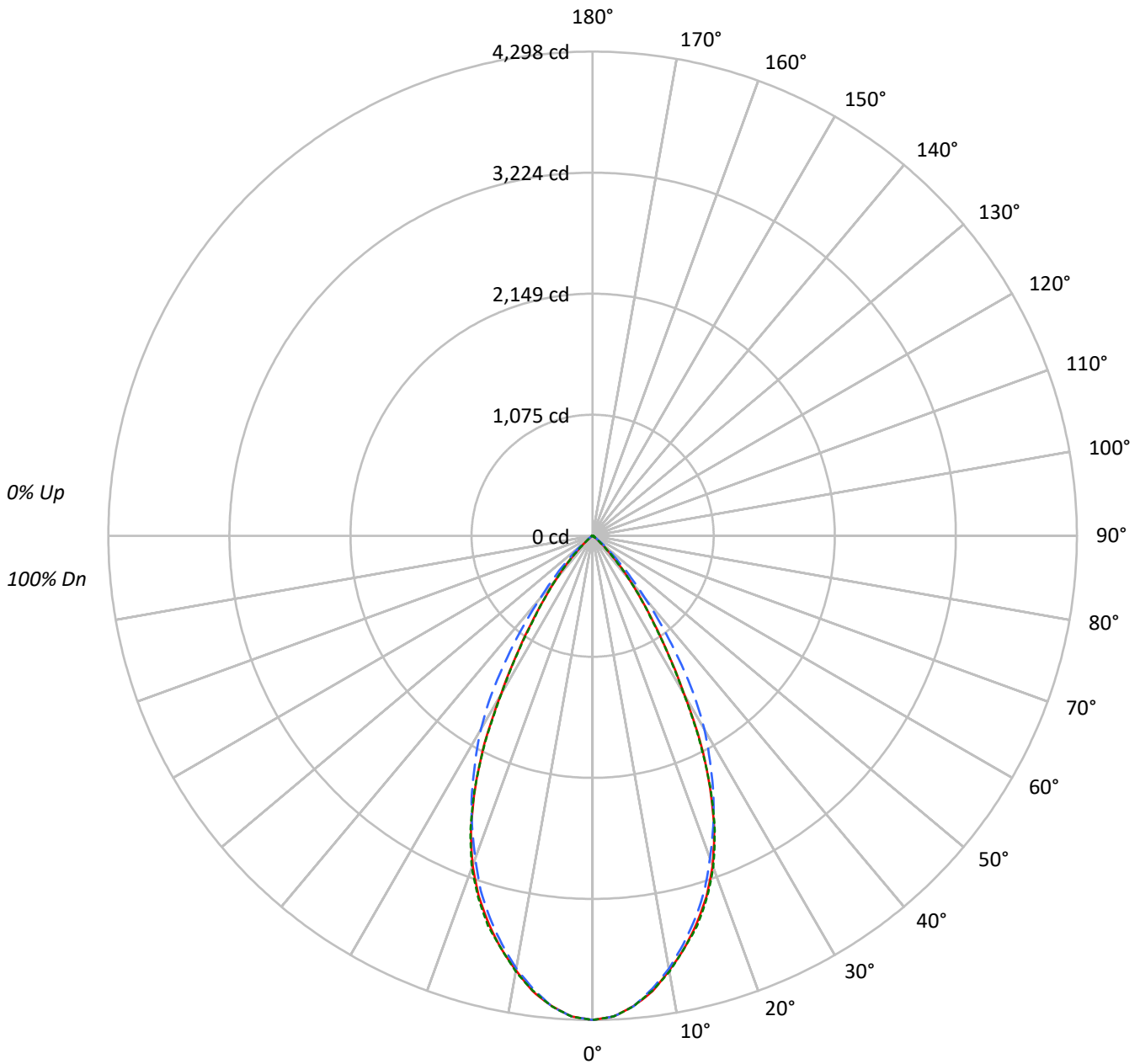
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3472.8 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 41
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

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Luminous Intensity Polar Plot





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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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94																			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	91	87	101	95	90	87	92	89	85	90	87	84	88	85	83	81																			
4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76																			
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71																			
6	88	79	73	69	87	79	73	69	77	72	68	76	71	68	74	70	68	66																			
7	84	75	69	65	82	74	68	64	73	68	64	71	67	64	70	66	63	62																			
8	80	70	64	60	79	70	64	60	69	64	60	68	63	60	67	63	60	58																			
9	76	67	61	57	75	66	60	57	65	60	56	64	60	56	63	59	56	55																			
10	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	416322	416322	416322
5°	407390	407566	407566
10°	385344	383623	386367
15°	357544	352640	359460
20°	320948	313763	322928
25°	263613	271255	264543
30°	182223	221632	180859
35°	112208	156557	109523
40°	63307	91533	62864
45°	28908	45882	27716
50°	7355	18402	7626
55°	3530	5590	3243
60°	2364	2034	2713
65°	1994	1605	1994
70°	1473	1473	1983
75°	1310	1310	1946
80°	1953	1953	1953
85°	1890	3890	3890

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 45882 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	390.9	11.3
10°-20°	987.3	28.4
20°-30°	1128.6	32.5
30°-40°	700.6	20.2
40°-50°	220.8	6.4
50°-60°	28.6	0.8
60°-70°	8.5	0.2
70°-80°	4.5	0.1
80°-90°	3.0	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°	2506.9	72.2
0°-40°	3207.5	92.4
0°-60°	3456.8	99.5
0°-90°	3472.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3472.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4298	4298	4298	4298	4298	
5°	4189	4186	4191	4188	4191	392
15°	3565	3539	3516	3539	3584	994
25°	2466	2501	2538	2501	2475	1106
35°	949	1095	1324	1069	926	610
45°	211	253	335	255	202	178
55°	21	21	33	21	19	21
65°	9	9	7	9	9	9
75°	4	4	4	4	5	4
85°	2	4	4	4	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4297.5	4297.5	4297.5	4297.5	4297.5
2.5°	4271.3	4274.8	4271.3	4278.3	4271.3
5°	4189.3	4185.9	4191.1	4187.6	4191.1
7.5°	4077.7	4056.8	4055.0	4069.0	4070.7
10°	3917.3	3912.0	3899.8	3912.0	3927.7
12.5°	3753.3	3732.4	3714.9	3739.4	3753.3
15°	3565.0	3538.8	3516.1	3538.8	3584.1
17.5°	3357.4	3320.8	3301.6	3327.8	3371.4
20°	3113.2	3074.9	3043.5	3066.1	3132.4
22.5°	2820.2	2816.7	2795.8	2808.0	2832.4
25°	2466.2	2501.0	2537.7	2501.0	2474.9
27.5°	2077.2	2171.4	2255.1	2145.2	2061.5
30°	1629.0	1772.0	1981.3	1761.5	1616.8
32.5°	1259.2	1409.2	1676.1	1390.1	1248.8
35°	948.8	1095.3	1323.8	1069.1	926.1
37.5°	697.6	807.5	1006.3	800.5	697.6
40°	500.6	572.1	723.8	570.3	497.1
42.5°	347.1	394.2	505.8	390.7	336.6
45°	211.0	252.9	334.9	254.6	202.3
47.5°	111.6	160.5	211.0	153.5	111.6
50°	48.8	85.5	122.1	83.7	50.6
52.5°	26.2	36.6	66.3	36.6	26.2
55°	20.9	20.9	33.1	20.9	19.2
57.5°	15.7	15.7	17.4	15.7	15.7
60°	12.2	12.2	10.5	12.2	14.0
62.5°	10.5	10.5	8.7	10.5	10.5
65°	8.7	8.7	7.0	8.7	8.7
67.5°	7.0	7.0	7.0	7.0	7.0
70°	5.2	5.2	5.2	7.0	7.0
72.5°	5.2	5.2	5.2	5.2	5.2
75°	3.5	3.5	3.5	3.5	5.2
77.5°	3.5	3.5	3.5	3.5	3.5
80°	3.5	3.5	3.5	3.5	3.5
82.5°	1.7	3.5	3.5	3.5	3.5
85°	1.7	3.5	3.5	3.5	3.5
87.5°	1.7	1.7	3.5	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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