

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: P837393

Luminaire Tested: HCSQ425D010-HM40525827-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837393
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: HCSQ425D010-HM40525827-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

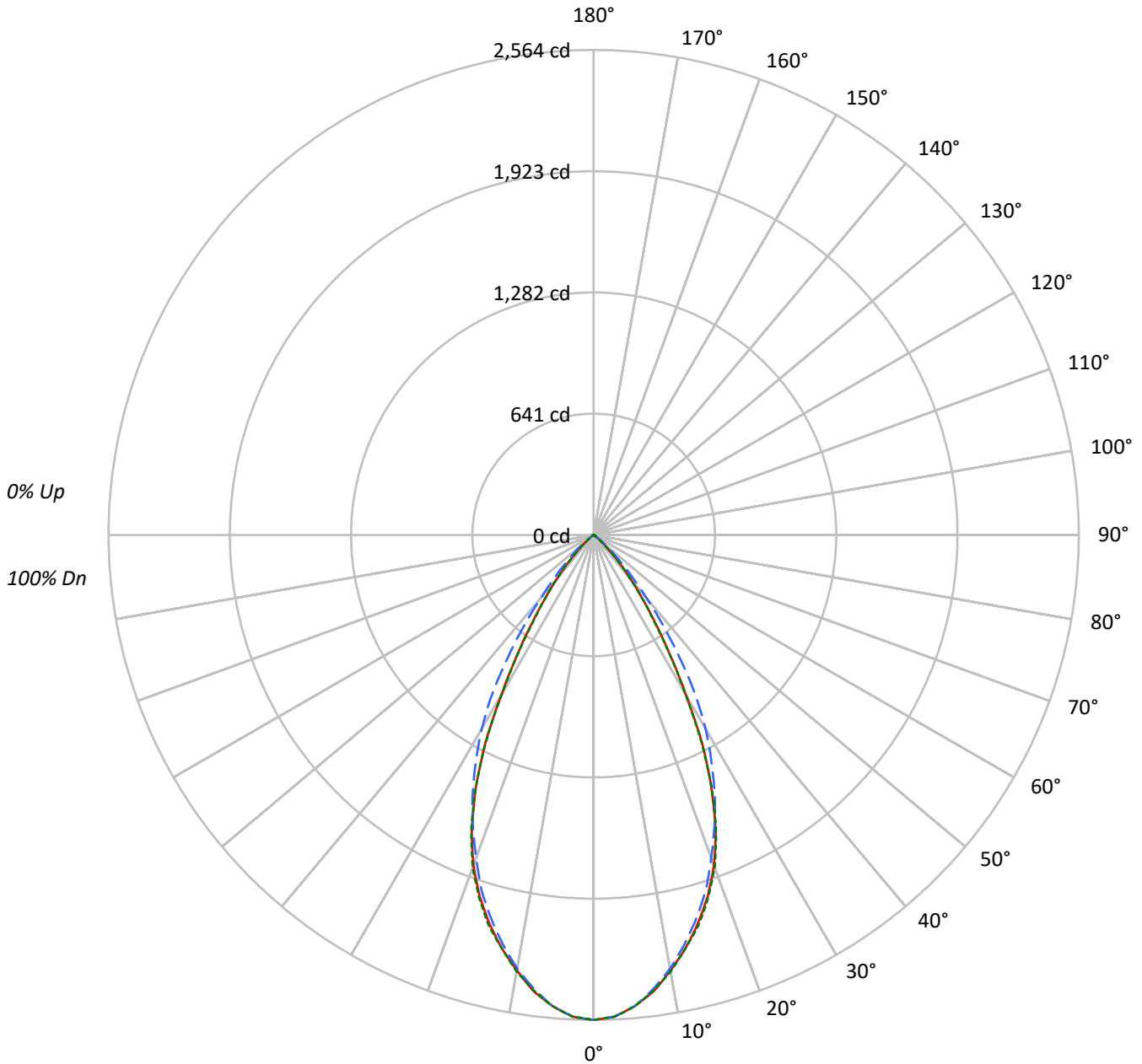
Lumens per Lamp: N/A
Luminaire Lumens: 2072.4 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 27.7
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					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	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°	248437	248437	248437
5°	243114	243211	243211
10°	229949	228926	230569
15°	213363	210434	214506
20°	191526	187237	192711
25°	157310	161875	157866
30°	108741	132255	107925
35°	66961	93428	65364
40°	37774	54619	37509
45°	17249	27373	16536
50°	4386	10987	4551
55°	2111	3344	1925
60°	1414	1201	1608
65°	1192	963	1192
70°	878	878	1190
75°	786	786	1160
80°	1172	1172	1172
85°	1112	2334	2334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 27373 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.3	11.3
10°-20°	589.2	28.4
20°-30°	673.5	32.5
30°-40°	418.1	20.2
40°-50°	131.7	6.4
50°-60°	17.1	0.8
60°-70°	5.0	0.2
70°-80°	2.7	0.1
80°-90°	1.8	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°	1496.0	72.2
0°-40°	1914.1	92.4
0°-60°	2062.9	99.5
0°-90°	2072.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2072.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2564	2564	2564	2564	2564	
5°	2500	2498	2501	2499	2501	234
15°	2127	2112	2098	2112	2139	593
25°	1472	1492	1514	1492	1477	660
35°	566	654	790	638	553	364
45°	126	151	200	152	121	106
55°	12	12	20	12	11	12
65°	5	5	4	5	5	5
75°	2	2	2	2	3	3
85°	1	2	2	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2564.5	2564.5	2564.5	2564.5	2564.5
2.5°	2548.9	2551.0	2548.9	2553.1	2548.9
5°	2500.0	2497.9	2501.0	2498.9	2501.0
7.5°	2433.4	2420.9	2419.8	2428.2	2429.2
10°	2337.6	2334.5	2327.2	2334.5	2343.9
12.5°	2239.8	2227.3	2216.9	2231.5	2239.8
15°	2127.4	2111.8	2098.2	2111.8	2138.8
17.5°	2003.5	1981.7	1970.2	1985.8	2011.9
20°	1857.8	1834.9	1816.2	1829.7	1869.3
22.5°	1683.0	1680.9	1668.4	1675.7	1690.3
25°	1471.7	1492.5	1514.4	1492.5	1476.9
27.5°	1239.6	1295.8	1345.7	1280.2	1230.2
30°	972.1	1057.4	1182.3	1051.2	964.8
32.5°	751.5	841.0	1000.2	829.5	745.2
35°	566.2	653.6	790.0	638.0	552.7
37.5°	416.3	481.9	600.5	477.7	416.3
40°	298.7	341.4	431.9	340.3	296.6
42.5°	207.1	235.2	301.8	233.1	200.9
45°	125.9	150.9	199.8	152.0	120.7
47.5°	66.6	95.8	125.9	91.6	66.6
50°	29.1	51.0	72.9	50.0	30.2
52.5°	15.6	21.9	39.6	21.9	15.6
55°	12.5	12.5	19.8	12.5	11.4
57.5°	9.4	9.4	10.4	9.4	9.4
60°	7.3	7.3	6.2	7.3	8.3
62.5°	6.2	6.2	5.2	6.2	6.2
65°	5.2	5.2	4.2	5.2	5.2
67.5°	4.2	4.2	4.2	4.2	4.2
70°	3.1	3.1	3.1	4.2	4.2
72.5°	3.1	3.1	3.1	3.1	3.1
75°	2.1	2.1	2.1	2.1	3.1
77.5°	2.1	2.1	2.1	2.1	2.1
80°	2.1	2.1	2.1	2.1	2.1
82.5°	1.0	2.1	2.1	2.1	2.1
85°	1.0	2.1	2.1	2.1	2.1
87.5°	1.0	1.0	2.1	2.1	2.1
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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