

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: P837423

Luminaire Tested: HCSQ425D010-HM40525935-41SQC

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837423
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-HM40525935-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

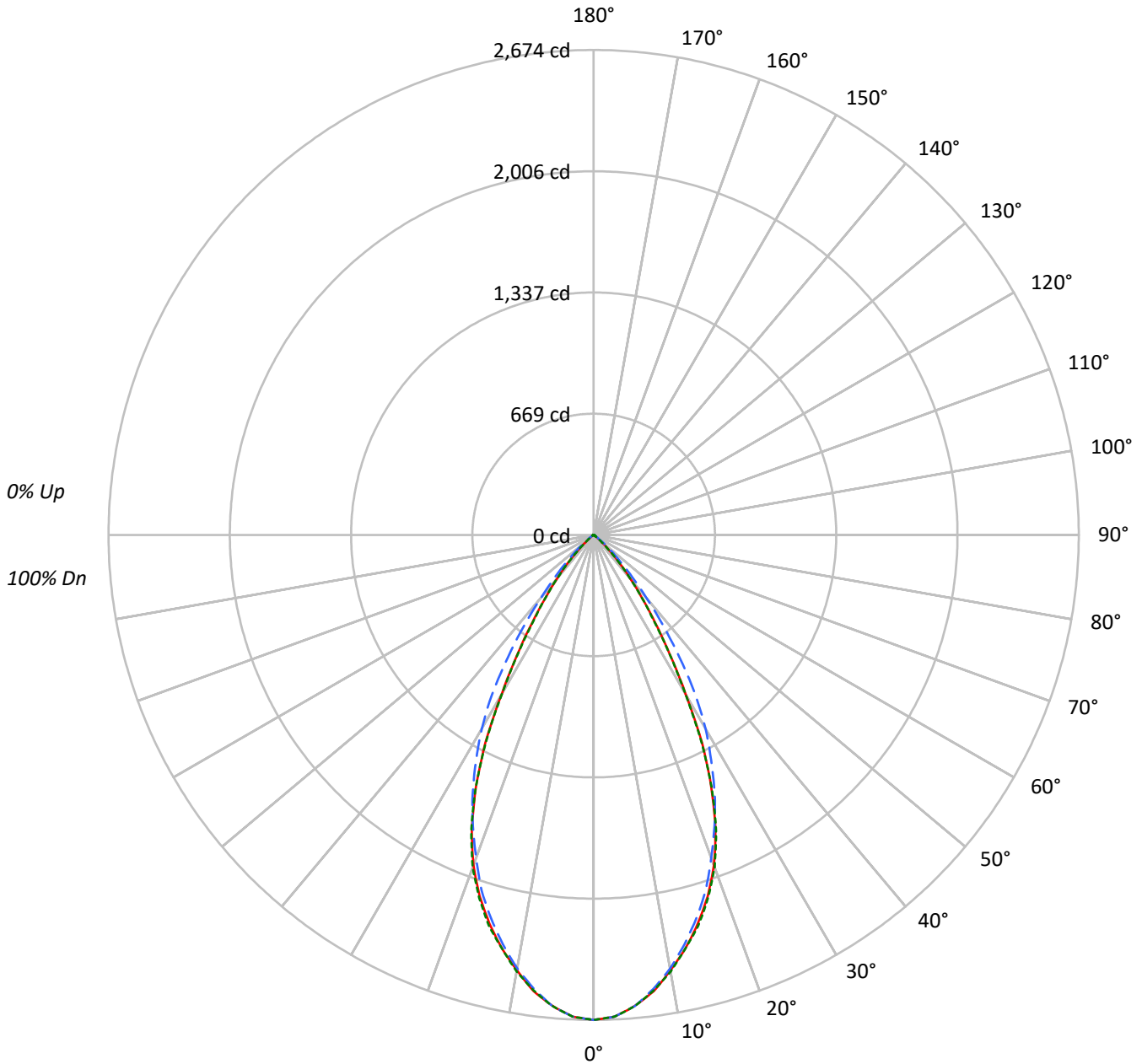
Lumens per Lamp: N/A
Luminaire Lumens: 2161.3 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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°	259084	259084	259084
5°	253529	253636	253636
10°	239806	238744	240446
15°	222510	219461	223703
20°	199732	195258	200969
25°	164055	168812	164632
30°	113406	137926	112556
35°	69834	97425	68155
40°	39393	56958	39115
45°	17988	28551	17249
50°	4582	11454	4747
55°	2196	3479	2010
60°	1473	1259	1686
65°	1238	986	1238
70°	935	935	1218
75°	823	823	1235
80°	1227	1227	1227
85°	1223	2445	2445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 28551 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.3	11.3
10°-20°	614.4	28.4
20°-30°	702.4	32.5
30°-40°	436.0	20.2
40°-50°	137.4	6.4
50°-60°	17.8	0.8
60°-70°	5.2	0.2
70°-80°	2.8	0.1
80°-90°	1.9	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°	1560.1	72.2
0°-40°	1996.1	92.4
0°-60°	2151.3	99.5
0°-90°	2161.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2161.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2674	2674	2674	2674	2674	
5°	2607	2605	2608	2606	2608	244
15°	2219	2202	2188	2202	2230	619
25°	1535	1556	1579	1556	1540	689
35°	590	682	824	665	576	379
45°	131	157	208	158	126	111
55°	13	13	21	13	12	13
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°	2674.4	2674.4	2674.4	2674.4	2674.4
2.5°	2658.1	2660.3	2658.1	2662.5	2658.1
5°	2607.1	2605.0	2608.2	2606.0	2608.2
7.5°	2537.7	2524.6	2523.6	2532.2	2533.3
10°	2437.8	2434.6	2427.0	2434.6	2444.3
12.5°	2335.8	2322.8	2311.9	2327.1	2335.8
15°	2218.6	2202.3	2188.2	2202.3	2230.5
17.5°	2089.4	2066.6	2054.7	2070.9	2098.1
20°	1937.4	1913.6	1894.0	1908.1	1949.4
22.5°	1755.1	1752.9	1739.9	1747.5	1762.7
25°	1534.8	1556.5	1579.3	1556.5	1540.2
27.5°	1292.7	1351.3	1403.4	1335.0	1282.9
30°	1013.8	1102.8	1233.0	1096.3	1006.2
32.5°	783.7	877.0	1043.1	865.1	777.1
35°	590.5	681.6	823.8	665.4	576.3
37.5°	434.2	502.5	626.3	498.2	434.2
40°	311.5	356.0	450.4	354.9	309.3
42.5°	216.0	245.3	314.8	243.1	209.5
45°	131.3	157.4	208.4	158.5	125.9
47.5°	69.5	99.9	131.3	95.5	69.5
50°	30.4	53.2	76.0	52.1	31.5
52.5°	16.3	22.8	41.2	22.8	16.3
55°	13.0	13.0	20.6	13.0	11.9
57.5°	9.8	9.8	10.9	9.8	9.8
60°	7.6	7.6	6.5	7.6	8.7
62.5°	6.5	6.5	5.4	6.5	6.5
65°	5.4	5.4	4.3	5.4	5.4
67.5°	4.3	4.3	4.3	4.3	4.3
70°	3.3	3.3	3.3	4.3	4.3
72.5°	3.3	3.3	3.3	3.3	3.3
75°	2.2	2.2	2.2	2.2	3.3
77.5°	2.2	2.2	2.2	2.2	2.2
80°	2.2	2.2	2.2	2.2	2.2
82.5°	1.1	2.2	2.2	2.2	2.2
85°	1.1	2.2	2.2	2.2	2.2
87.5°	1.1	1.1	2.2	2.2	2.2
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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