

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: P837398

Luminaire Tested: HCSQ425D010-HM40525830-41SQC

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837398
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-HM40525830-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

Summary

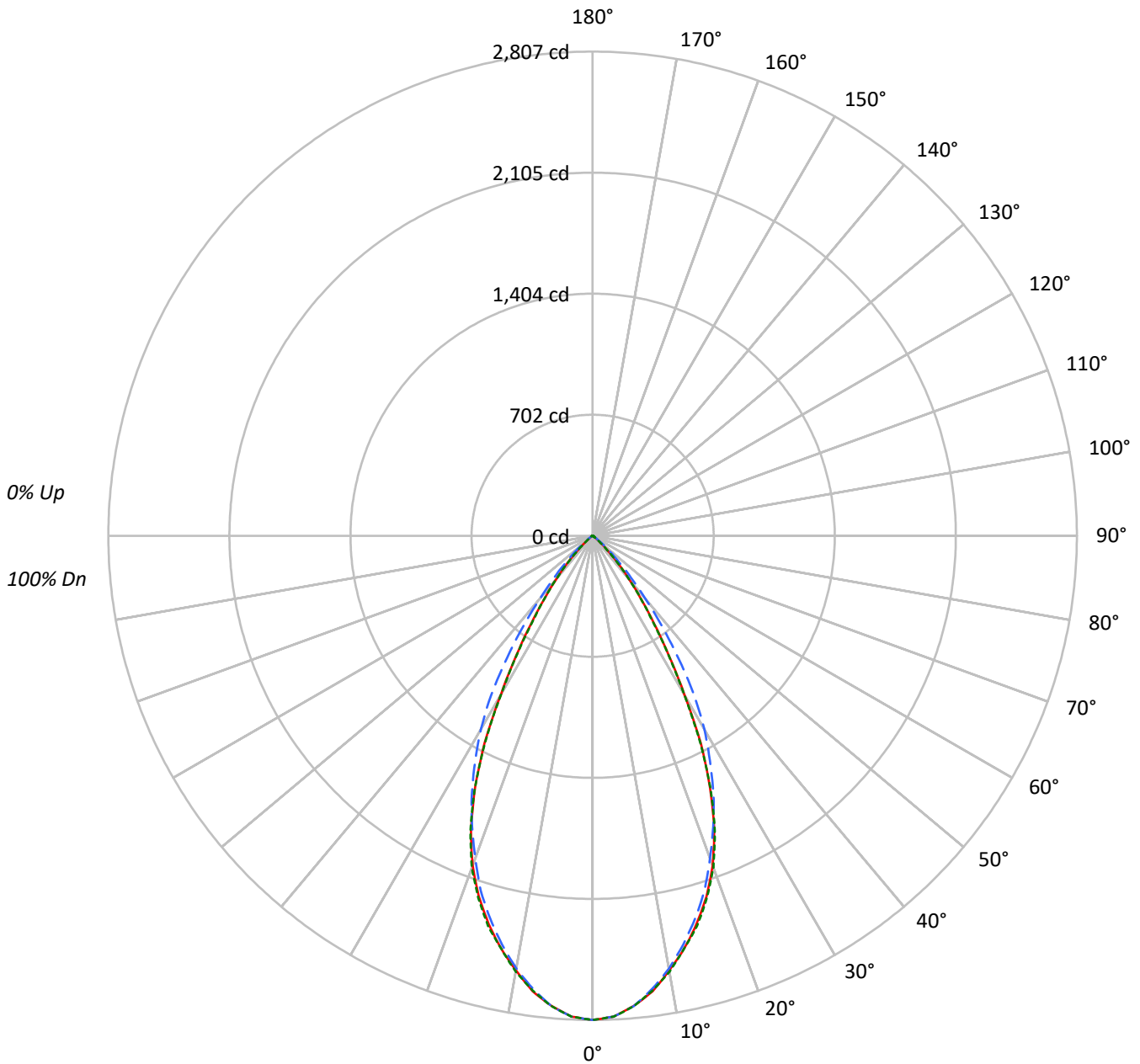
Lumens per Lamp: N/A
Luminaire Lumens: 2268.6 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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									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°	271949	271949	271949
5°	266122	266229	266229
10°	251719	250597	252388
15°	233552	230353	234816
20°	209649	204959	210948
25°	172200	177192	172809
30°	119032	144772	118138
35°	73299	102262	71549
40°	41353	59791	41062
45°	18893	29962	18112
50°	4808	12027	4973
55°	2314	3648	2111
60°	1550	1318	1763
65°	1307	1054	1307
70°	963	963	1303
75°	861	861	1273
80°	1283	1283	1283
85°	1223	2556	2556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 29962 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.4	11.3
10°-20°	644.9	28.4
20°-30°	737.3	32.5
30°-40°	457.7	20.2
40°-50°	144.2	6.4
50°-60°	18.7	0.8
60°-70°	5.5	0.2
70°-80°	3.0	0.1
80°-90°	2.0	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°	1637.6	72.2
0°-40°	2095.2	92.4
0°-60°	2258.1	99.5
0°-90°	2268.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2268.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2807	2807	2807	2807	2807	
5°	2737	2734	2738	2736	2738	256
15°	2329	2312	2297	2312	2341	649
25°	1611	1634	1658	1634	1617	723
35°	620	716	865	698	605	398
45°	138	165	219	166	132	116
55°	14	14	22	14	12	14
65°	6	6	5	6	6	6
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°	2807.2	2807.2	2807.2	2807.2	2807.2
2.5°	2790.1	2792.4	2790.1	2794.7	2790.1
5°	2736.6	2734.3	2737.7	2735.5	2737.7
7.5°	2663.7	2650.0	2648.9	2658.0	2659.1
10°	2558.9	2555.4	2547.5	2555.4	2565.7
12.5°	2451.8	2438.1	2426.7	2442.7	2451.8
15°	2328.7	2311.6	2296.8	2311.6	2341.3
17.5°	2193.1	2169.2	2156.7	2173.8	2202.3
20°	2033.6	2008.6	1988.1	2002.9	2046.2
22.5°	1842.2	1840.0	1826.3	1834.3	1850.2
25°	1611.0	1633.8	1657.7	1633.8	1616.7
27.5°	1356.9	1418.4	1473.1	1401.3	1346.7
30°	1064.1	1157.5	1294.2	1150.7	1056.1
32.5°	822.6	920.6	1094.9	908.0	815.7
35°	619.8	715.5	864.7	698.4	605.0
37.5°	455.7	527.5	657.4	522.9	455.7
40°	327.0	373.7	472.8	372.6	324.7
42.5°	226.7	257.5	330.4	255.2	219.9
45°	137.9	165.2	218.7	166.3	132.2
47.5°	72.9	104.8	137.9	100.3	72.9
50°	31.9	55.8	79.8	54.7	33.0
52.5°	17.1	23.9	43.3	23.9	17.1
55°	13.7	13.7	21.6	13.7	12.5
57.5°	10.3	10.3	11.4	10.3	10.3
60°	8.0	8.0	6.8	8.0	9.1
62.5°	6.8	6.8	5.7	6.8	6.8
65°	5.7	5.7	4.6	5.7	5.7
67.5°	4.6	4.6	4.6	4.6	4.6
70°	3.4	3.4	3.4	4.6	4.6
72.5°	3.4	3.4	3.4	3.4	3.4
75°	2.3	2.3	2.3	2.3	3.4
77.5°	2.3	2.3	2.3	2.3	2.3
80°	2.3	2.3	2.3	2.3	2.3
82.5°	1.1	2.3	2.3	2.3	2.3
85°	1.1	2.3	2.3	2.3	2.3
87.5°	1.1	1.1	2.3	2.3	2.3
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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