

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: P837424

Luminaire Tested: HCSQ425D010-HM40525935-41SQH

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837424
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ425D010-HM40525935-41SQH
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

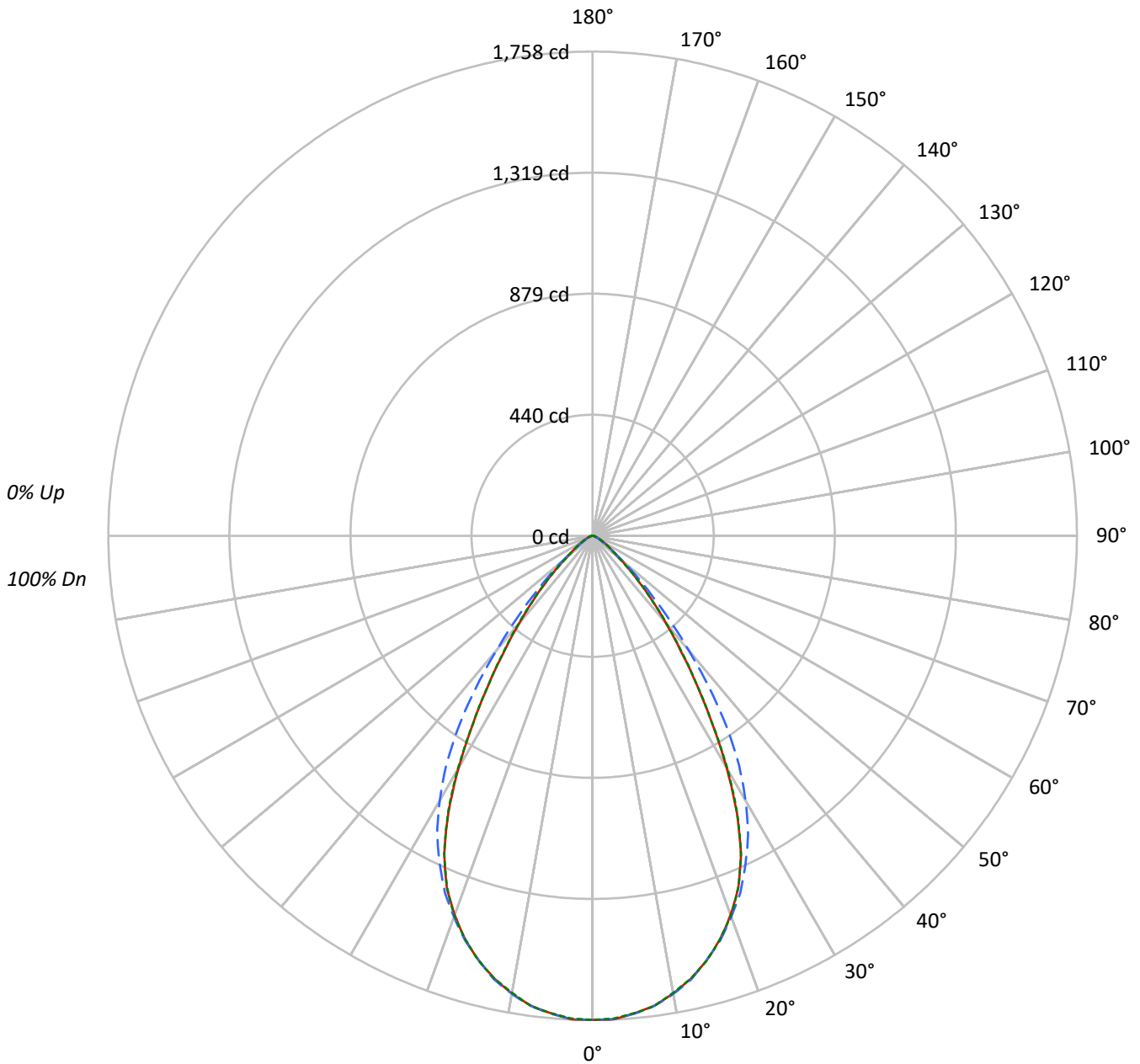
Lumens per Lamp: N/A
Luminaire Lumens: 1975.6 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.01
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: HCSQ425D010-HM40525935-41SQH

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				100															
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92				92															
2	107	101	97	93	104	100	95	92	96	93	90	93	90	88	90	88	86	85				85															
3	101	93	88	84	98	92	87	83	89	85	82	87	83	80	85	82	79	77				77															
4	95	87	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73	71				71															
5	89	80	74	69	88	79	73	69	77	72	68	76	71	68	74	70	67	65				65															
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62	60				60															
7	80	70	63	59	78	69	63	58	68	62	58	66	61	58	65	61	57	56				56															
8	75	65	59	54	74	65	58	54	63	58	54	62	57	54	61	57	53	52				52															
9	72	61	55	50	70	61	54	50	60	54	50	59	54	50	58	53	50	48				48															
10	68	57	51	47	67	57	51	47	56	51	47	55	50	47	55	50	46	45				45															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	170259	170259	170259
5°	169217	169431	169217
10°	166048	166157	165734
15°	160158	160047	160258
20°	150969	151752	151309
25°	136221	140400	136221
30°	108808	124223	109658
35°	77675	100524	77793
40°	52444	68365	53266
45°	33319	40457	33470
50°	18975	21597	18327
55°	12465	10455	12279
60°	8622	6103	8409
65°	5983	4470	5983
70°	4305	3371	4305
75°	2845	2845	2845
80°	1841	2399	2399
85°	2445	2445	2445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 40457 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.7	8.3
10°-20°	447.7	22.7
20°-30°	586.2	29.7
30°-40°	460.7	23.3
40°-50°	215.2	10.9
50°-60°	66.7	3.4
60°-70°	23.8	1.2
70°-80°	8.4	0.4
80°-90°	2.3	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°	1198.5	60.7
0°-40°	1659.2	84.0
0°-60°	1941.1	98.3
0°-90°	1975.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1975.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1758	1758	1758	1758	1758	
5°	1740	1741	1742	1744	1740	165
15°	1597	1597	1596	1597	1598	447
25°	1274	1292	1314	1293	1274	573
35°	657	716	850	725	658	414
45°	243	272	295	267	244	194
55°	74	70	62	68	73	69
65°	26	24	20	23	26	27
75°	8	8	8	8	8	9
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1757.5	1757.5	1757.5	1757.5	1757.5
2.5°	1757.5	1755.3	1756.4	1754.3	1754.3
5°	1740.1	1741.2	1742.3	1744.5	1740.1
7.5°	1720.6	1722.8	1721.7	1721.7	1721.7
10°	1688.0	1689.1	1689.1	1689.1	1684.8
12.5°	1646.8	1649.0	1650.0	1646.8	1646.8
15°	1596.9	1596.9	1595.8	1596.9	1597.9
17.5°	1537.1	1540.4	1540.4	1537.1	1536.1
20°	1464.4	1469.8	1472.0	1467.7	1467.7
22.5°	1383.0	1388.4	1401.5	1390.6	1381.9
25°	1274.4	1291.8	1313.5	1292.9	1274.4
27.5°	1134.4	1172.4	1222.3	1178.9	1137.7
30°	972.7	1034.5	1110.5	1037.8	980.3
32.5°	807.7	877.1	988.9	882.6	807.7
35°	656.8	716.5	850.0	725.2	657.8
37.5°	522.2	579.7	696.9	586.2	529.8
40°	414.7	461.4	540.6	460.3	421.2
42.5°	323.5	357.1	409.3	356.1	322.4
45°	243.2	272.5	295.3	267.0	244.3
47.5°	179.1	198.7	211.7	195.4	174.8
50°	125.9	140.0	143.3	136.8	121.6
52.5°	94.4	94.4	95.5	93.4	92.3
55°	73.8	69.5	61.9	68.4	72.7
57.5°	57.5	53.2	43.4	51.0	56.4
60°	44.5	40.2	31.5	39.1	43.4
62.5°	34.7	30.4	25.0	30.4	33.7
65°	26.1	23.9	19.5	22.8	26.1
67.5°	19.5	17.4	15.2	17.4	19.5
70°	15.2	14.1	11.9	13.0	15.2
72.5°	10.9	9.8	9.8	9.8	10.9
75°	7.6	7.6	7.6	7.6	7.6
77.5°	5.4	5.4	5.4	5.4	5.4
80°	3.3	3.3	4.3	4.3	4.3
82.5°	2.2	2.2	3.3	3.3	3.3
85°	2.2	2.2	2.2	2.2	2.2
87.5°	1.1	1.1	1.1	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

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

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