

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: P837394

Luminaire Tested: HCSQ425D010-HM40525827-41SQH

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837394
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-HM40525827-41SQH
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

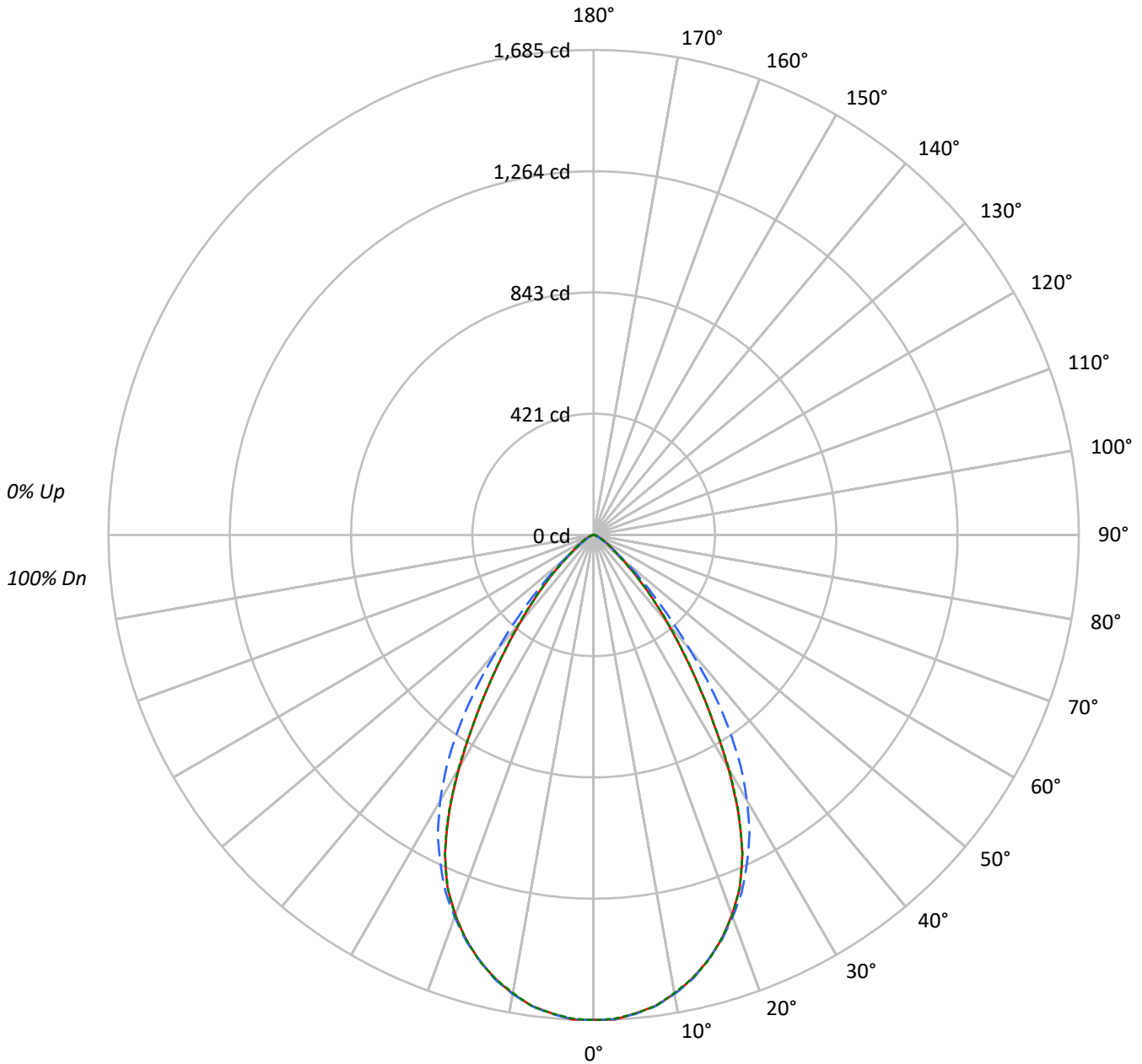
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1894.4 lumens
Efficiency: N/A
Efficacy: 68.4 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 (Ain): 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	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°	163264	163264	163264
5°	162264	162468	162264
10°	159231	159330	158917
15°	153568	153468	153679
20°	144763	145515	145093
25°	130631	134628	130631
30°	104334	119122	105150
35°	74482	96396	74600
40°	50281	65558	51078
45°	31949	38785	32086
50°	18191	20708	17573
55°	11958	10016	11772
60°	8273	5851	8060
65°	5731	4287	5731
70°	4135	3257	4135
75°	2732	2732	2732
80°	1729	2343	2343
85°	2334	2334	2334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 38785 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.9	8.3
10°-20°	429.3	22.7
20°-30°	562.1	29.7
30°-40°	441.8	23.3
40°-50°	206.4	10.9
50°-60°	63.9	3.4
60°-70°	22.8	1.2
70°-80°	8.0	0.4
80°-90°	2.2	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°	1149.3	60.7
0°-40°	1591.1	84.0
0°-60°	1861.4	98.3
0°-90°	1894.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1894.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1685	1685	1685	1685	1685	
5°	1669	1670	1671	1673	1669	158
15°	1531	1531	1530	1531	1532	429
25°	1222	1239	1260	1240	1222	550
35°	630	687	815	695	631	397
45°	233	261	283	256	234	186
55°	71	67	59	66	70	66
65°	25	23	19	22	25	26
75°	7	7	7	7	7	8
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°	1685.3	1685.3	1685.3	1685.3	1685.3
2.5°	1685.3	1683.2	1684.2	1682.2	1682.2
5°	1668.6	1669.7	1670.7	1672.8	1668.6
7.5°	1649.9	1652.0	1650.9	1650.9	1650.9
10°	1618.7	1619.7	1619.7	1619.7	1615.5
12.5°	1579.1	1581.2	1582.2	1579.1	1579.1
15°	1531.2	1531.2	1530.2	1531.2	1532.3
17.5°	1474.0	1477.1	1477.1	1474.0	1472.9
20°	1404.2	1409.4	1411.5	1407.4	1407.4
22.5°	1326.2	1331.4	1343.9	1333.4	1325.1
25°	1222.1	1238.7	1259.5	1239.8	1222.1
27.5°	1087.8	1124.2	1172.1	1130.5	1090.9
30°	932.7	992.0	1064.9	995.1	940.0
32.5°	774.5	841.1	948.3	846.3	774.5
35°	629.8	687.0	815.1	695.4	630.8
37.5°	500.7	555.9	668.3	562.1	508.0
40°	397.6	442.4	518.4	441.4	403.9
42.5°	310.2	342.5	392.4	341.4	309.2
45°	233.2	261.3	283.1	256.1	234.2
47.5°	171.8	190.5	203.0	187.4	167.6
50°	120.7	134.3	137.4	131.2	116.6
52.5°	90.6	90.6	91.6	89.5	88.5
55°	70.8	66.6	59.3	65.6	69.7
57.5°	55.2	51.0	41.6	48.9	54.1
60°	42.7	38.5	30.2	37.5	41.6
62.5°	33.3	29.1	23.9	29.1	32.3
65°	25.0	22.9	18.7	21.9	25.0
67.5°	18.7	16.7	14.6	16.7	18.7
70°	14.6	13.5	11.5	12.5	14.6
72.5°	10.4	9.4	9.4	9.4	10.4
75°	7.3	7.3	7.3	7.3	7.3
77.5°	5.2	5.2	5.2	5.2	5.2
80°	3.1	3.1	4.2	4.2	4.2
82.5°	2.1	2.1	3.1	3.1	3.1
85°	2.1	2.1	2.1	2.1	2.1
87.5°	1.0	1.0	1.0	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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