

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: P837426

Luminaire Tested: HCSQ425D010-HM40525935-41SQMB

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837426
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ425D010-HM40525935-41SQMB
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

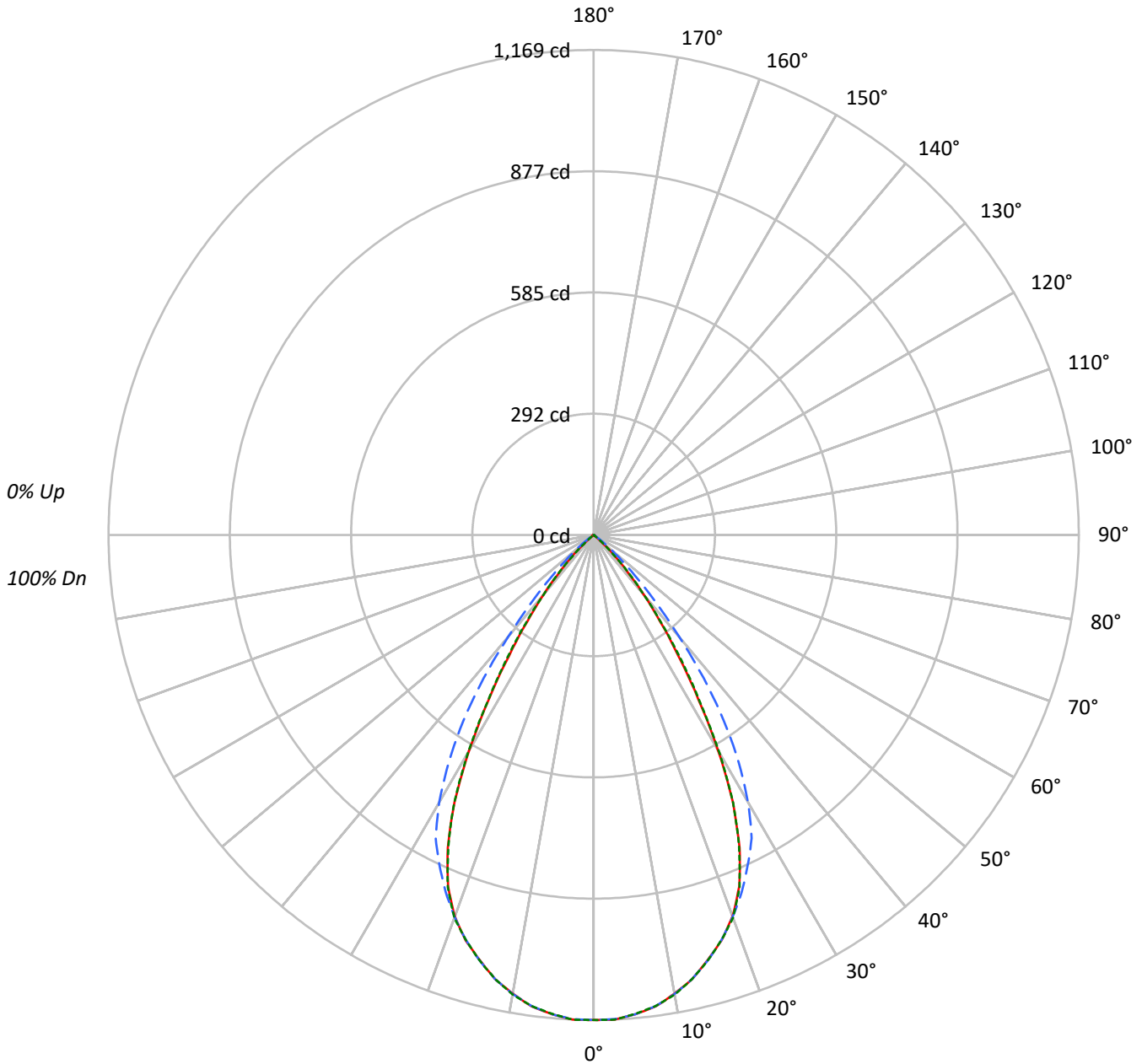
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1168.1 lumens
Efficiency: N/A
Efficacy: 42.2 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.96 / 0.99
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	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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93								
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87								
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80								
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74								
5	92	83	77	73	90	82	77	73	80	76	72	79	75	71	77	74	71	69								
6	87	78	72	67	85	77	71	67	76	70	67	74	70	66	73	69	66	64								
7	82	73	67	63	81	72	66	62	71	66	62	70	65	62	69	65	61	60								
8	78	69	62	58	77	68	62	58	67	62	58	66	61	58	65	61	57	56								
9	74	65	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52								
10	71	61	55	51	70	60	55	51	60	54	51	59	54	51	58	54	50	49								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	113276	113276	113276
5°	112756	112756	112649
10°	110430	110538	110646
15°	106391	106501	106501
20°	100866	100979	101196
25°	88922	93914	88580
30°	67095	83237	67699
35°	42078	64785	43485
40°	23724	40329	23724
45°	9960	20359	9809
50°	814	7852	980
55°	372	1655	372
60°	426	213	426
65°	252	252	252
70°	312	312	312
75°	412	412	412
80°	0	614	614
85°	0	1223	1223

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 20359 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.6	9.4
10°-20°	298.1	25.5
20°-30°	386.7	33.1
30°-40°	275.0	23.5
40°-50°	89.1	7.6
50°-60°	6.4	0.6
60°-70°	1.1	0.1
70°-80°	1.1	0.1
80°-90°	0.8	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°	794.5	68.0
0°-40°	1069.4	91.6
0°-60°	1165.0	99.7
0°-90°	1168.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1168.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1169	1169	1169	1169	1169	
5°	1160	1161	1160	1160	1158	110
15°	1061	1064	1062	1064	1062	298
25°	832	854	879	858	829	372
35°	356	421	548	425	368	228
45°	73	103	149	105	72	60
55°	2	2	10	2	2	3
65°	1	1	1	1	1	1
75°	1	1	1	1	1	1
85°	0	0	1	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1169.3	1169.3	1169.3	1169.3	1169.3
2.5°	1169.3	1169.3	1168.2	1168.2	1169.3
5°	1159.5	1160.6	1159.5	1159.5	1158.4
7.5°	1146.5	1146.5	1145.4	1145.4	1145.4
10°	1122.6	1123.7	1123.7	1123.7	1124.8
12.5°	1096.6	1096.6	1096.6	1096.6	1096.6
15°	1060.8	1064.1	1061.9	1064.1	1061.9
17.5°	1025.0	1025.0	1023.9	1026.1	1023.9
20°	978.4	978.4	979.5	981.6	981.6
22.5°	916.5	927.4	931.7	929.6	918.7
25°	831.9	853.6	878.6	858.0	828.7
27.5°	725.6	766.9	824.3	773.4	727.8
30°	599.8	661.6	744.1	663.8	605.2
32.5°	469.7	541.3	650.8	546.7	474.0
35°	355.8	420.9	547.8	425.2	367.7
37.5°	262.5	322.1	435.0	324.3	270.1
40°	187.6	231.0	318.9	235.4	187.6
42.5°	120.4	163.8	224.5	164.9	125.8
45°	72.7	103.0	148.6	105.2	71.6
47.5°	32.5	58.6	92.2	60.7	32.5
50°	5.4	23.9	52.1	24.9	6.5
52.5°	3.3	4.3	24.9	4.3	3.3
55°	2.2	2.2	9.8	2.2	2.2
57.5°	2.2	2.2	2.2	2.2	2.2
60°	2.2	1.1	1.1	1.1	2.2
62.5°	1.1	1.1	1.1	1.1	1.1
65°	1.1	1.1	1.1	1.1	1.1
67.5°	1.1	1.1	1.1	1.1	1.1
70°	1.1	1.1	1.1	1.1	1.1
72.5°	1.1	1.1	1.1	1.1	1.1
75°	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1
80°	0.0	1.1	1.1	1.1	1.1
82.5°	0.0	1.1	1.1	1.1	1.1
85°	0.0	0.0	1.1	1.1	1.1
87.5°	0.0	0.0	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





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

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