

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: P837432

Luminaire Tested: HCSQ425D010-HM40525940-41SQMW

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837432
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ425D010-HM40525940-41SQMW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

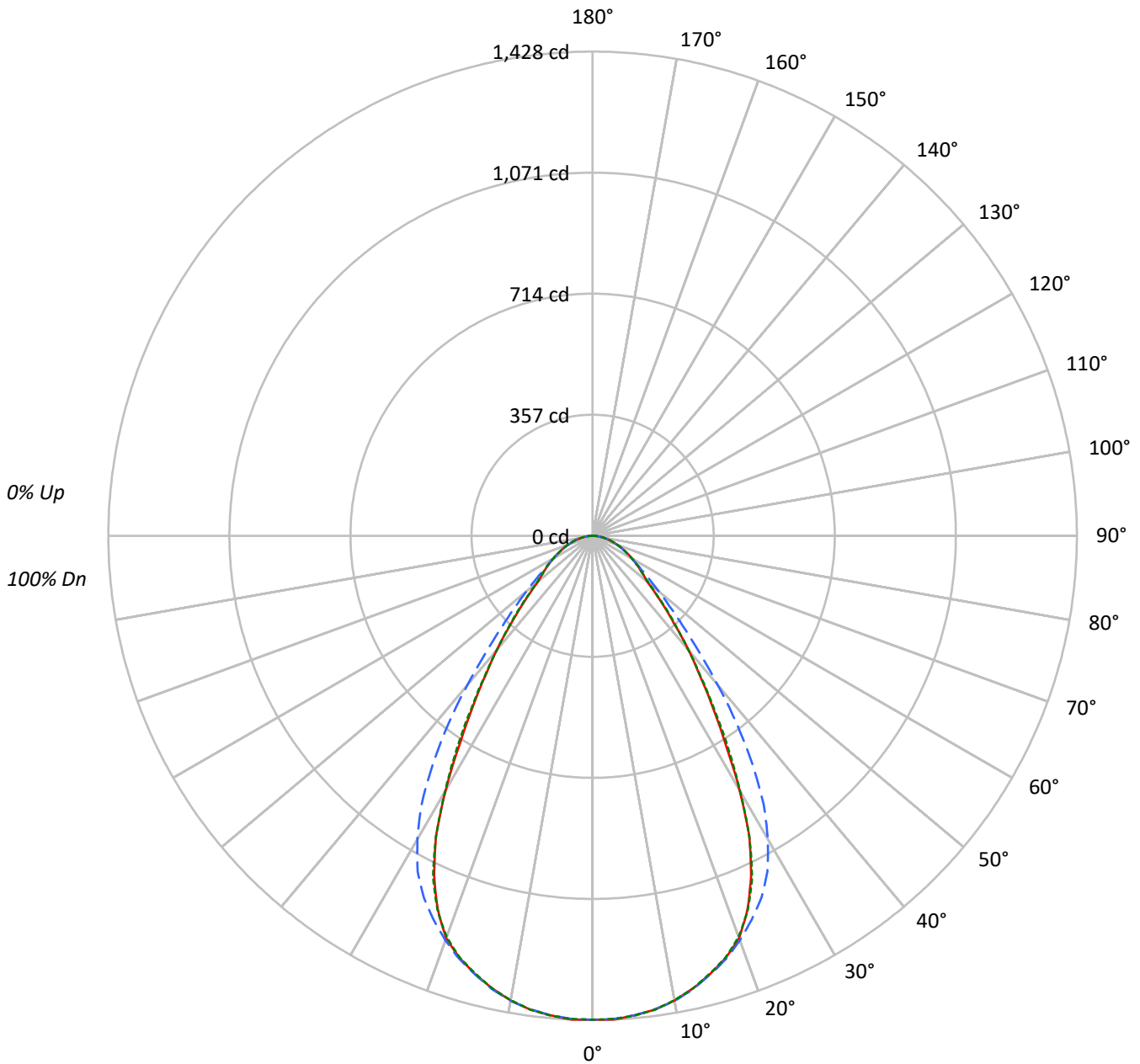
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2071.1 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.07
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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79																			
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71																			
4	91	81	74	69	89	80	73	68	77	72	67	75	70	66	73	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41																			
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	138261	138261	138261
5°	138030	138030	138137
10°	136901	137010	136793
15°	134232	134352	134011
20°	130206	130897	129752
25°	118178	125885	119001
30°	97007	115609	97376
35°	72921	97047	73962
40°	55529	72361	55390
45°	41471	51349	42238
50°	31589	38266	32252
55°	28476	29962	28476
60°	26001	25788	25788
65°	23633	23633	23633
70°	21980	21668	21668
75°	20324	19913	20324
80°	18578	17964	18578
85°	16006	16006	16006

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 51349 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.6	6.5
10°-20°	376.8	18.2
20°-30°	518.2	25.0
30°-40°	441.2	21.3
40°-50°	266.5	12.9
50°-60°	157.1	7.6
60°-70°	103.0	5.0
70°-80°	57.1	2.8
80°-90°	16.7	0.8
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°	1029.6	49.7
0°-40°	1470.8	71.0
0°-60°	1894.3	91.5
0°-90°	2071.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2071.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1427	1427	1427	1427	1427	
5°	1419	1420	1419	1418	1420	135
15°	1338	1342	1340	1338	1336	376
25°	1106	1140	1178	1142	1113	500
35°	617	679	821	698	625	390
45°	303	335	375	338	308	238
55°	169	172	177	172	169	152
65°	103	104	103	103	103	103
75°	54	54	53	53	54	58
85°	14	14	14	14	14	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1427.2	1427.2	1427.2	1427.2	1427.2
2.5°	1428.3	1424.9	1426.1	1424.9	1426.1
5°	1419.4	1420.5	1419.4	1418.3	1420.5
7.5°	1409.4	1408.3	1408.3	1407.2	1409.4
10°	1391.7	1389.5	1392.8	1390.6	1390.6
12.5°	1367.3	1370.6	1369.5	1369.5	1367.3
15°	1338.4	1341.8	1339.6	1338.4	1336.2
17.5°	1305.2	1307.4	1308.5	1304.1	1304.1
20°	1263.0	1267.5	1269.7	1261.9	1258.6
22.5°	1193.2	1213.1	1225.3	1212.0	1195.4
25°	1105.6	1140.0	1177.7	1142.2	1113.3
27.5°	1000.2	1049.0	1116.7	1056.8	1000.2
30°	867.2	939.2	1033.5	947.0	870.5
32.5°	729.7	806.2	938.1	819.5	745.2
35°	616.6	678.7	820.6	697.5	625.4
37.5°	519.0	572.2	697.5	584.4	524.5
40°	439.1	481.3	572.2	486.8	438.0
42.5°	362.6	402.5	463.5	408.1	367.0
45°	302.7	334.9	374.8	338.2	308.3
47.5°	251.7	278.3	307.2	278.3	255.0
50°	209.6	230.7	253.9	230.7	214.0
52.5°	187.4	194.1	209.6	195.2	187.4
55°	168.6	171.9	177.4	171.9	168.6
57.5°	150.8	153.0	151.9	151.9	150.8
60°	134.2	135.3	133.1	134.2	133.1
62.5°	118.7	118.7	116.4	118.7	117.5
65°	103.1	104.2	103.1	103.1	103.1
67.5°	89.8	89.8	88.7	89.8	89.8
70°	77.6	77.6	76.5	77.6	76.5
72.5°	65.4	65.4	64.3	64.3	64.3
75°	54.3	54.3	53.2	53.2	54.3
77.5°	43.2	43.2	42.1	43.2	43.2
80°	33.3	33.3	32.2	33.3	33.3
82.5°	23.3	23.3	23.3	24.4	24.4
85°	14.4	14.4	14.4	14.4	14.4
87.5°	6.7	6.7	6.7	6.7	7.8
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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