

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: P837397

Luminaire Tested: HCSQ425D010-HM40525827-41SQMW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837397
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-HM40525827-41SQMW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

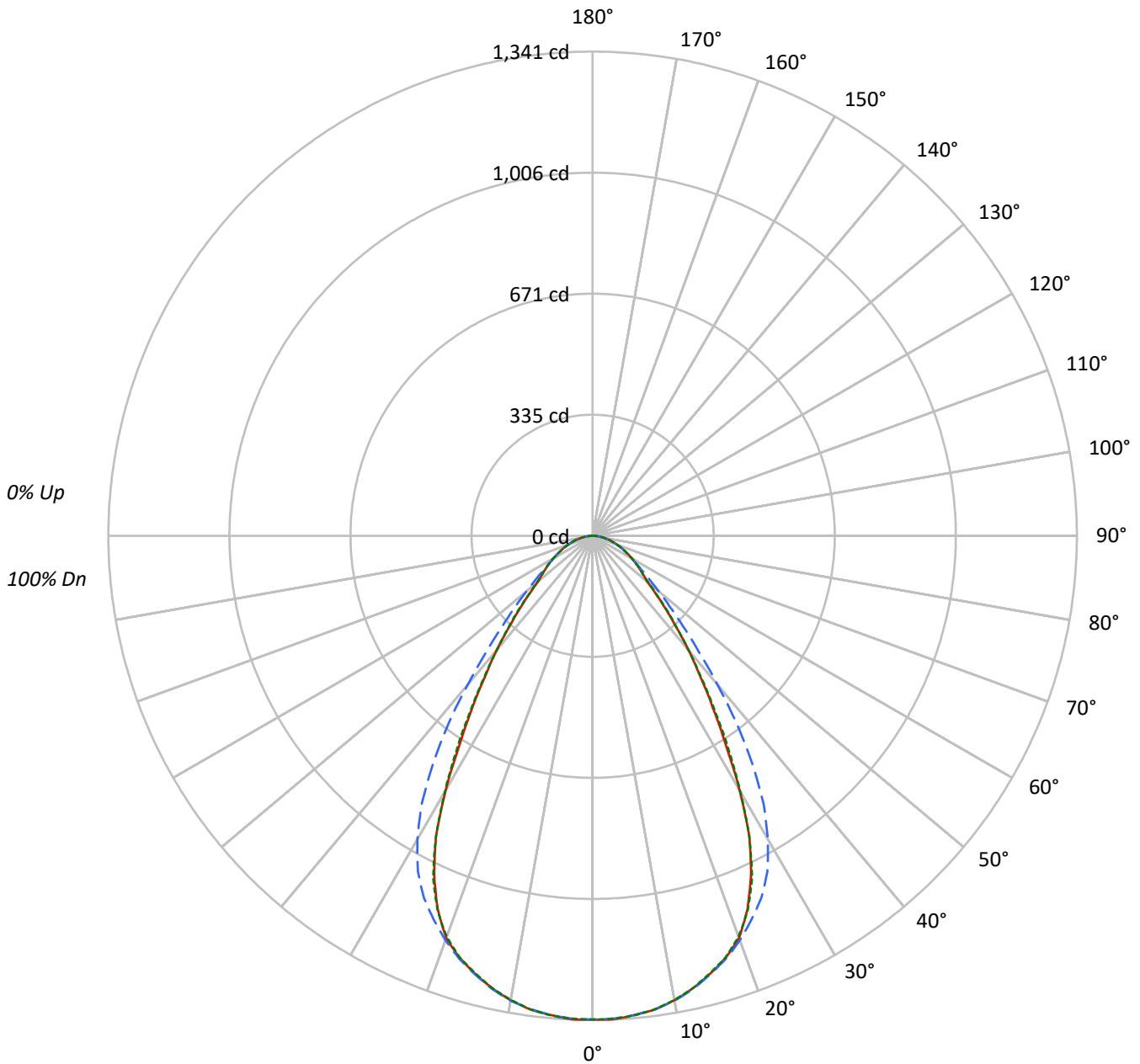
Lumens per Lamp: N/A
Luminaire Lumens: 1944.4 lumens
Efficiency: N/A
Efficacy: 70.2 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.07
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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°	129794	129794	129794
5°	129580	129580	129687
10°	128520	128628	128422
15°	126018	126128	125817
20°	122247	122886	121814
25°	110941	118178	111722
30°	91067	108540	91414
35°	68451	91110	69444
40°	52140	67935	52001
45°	38936	48211	39649
50°	29660	35930	30278
55°	26720	28138	26720
60°	24413	24199	24199
65°	22189	22189	22189
70°	20649	20337	20337
75°	19089	18715	19089
80°	17406	16848	17406
85°	15006	15006	15006

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 48211 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.4	6.5
10°-20°	353.7	18.2
20°-30°	486.5	25.0
30°-40°	414.2	21.3
40°-50°	250.2	12.9
50°-60°	147.4	7.6
60°-70°	96.7	5.0
70°-80°	53.6	2.8
80°-90°	15.7	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°	966.6	49.7
0°-40°	1380.8	71.0
0°-60°	1778.4	91.5
0°-90°	1944.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1944.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1340	1340	1340	1340	1340	
5°	1332	1334	1332	1332	1334	126
15°	1256	1260	1258	1256	1254	353
25°	1038	1070	1106	1072	1045	469
35°	579	637	770	655	587	366
45°	284	314	352	318	289	223
55°	158	161	167	161	158	142
65°	97	98	97	97	97	97
75°	51	51	50	50	51	54
85°	14	14	14	14	14	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1339.8	1339.8	1339.8	1339.8	1339.8
2.5°	1340.9	1337.8	1338.8	1337.8	1338.8
5°	1332.5	1333.6	1332.5	1331.5	1333.6
7.5°	1323.2	1322.1	1322.1	1321.1	1323.2
10°	1306.5	1304.4	1307.6	1305.5	1305.5
12.5°	1283.6	1286.7	1285.7	1285.7	1283.6
15°	1256.5	1259.7	1257.6	1256.5	1254.5
17.5°	1225.3	1227.4	1228.4	1224.3	1224.3
20°	1185.8	1189.9	1192.0	1184.7	1181.6
22.5°	1120.2	1138.9	1150.4	1137.9	1122.3
25°	1037.9	1070.2	1105.6	1072.3	1045.2
27.5°	939.0	984.8	1048.3	992.1	939.0
30°	814.1	881.8	970.3	889.1	817.2
32.5°	685.0	756.8	880.7	769.3	699.6
35°	578.8	637.1	770.4	654.8	587.2
37.5°	487.2	537.2	654.8	548.6	492.4
40°	412.3	451.8	537.2	457.0	411.2
42.5°	340.4	377.9	435.2	383.1	344.6
45°	284.2	314.4	351.9	317.5	289.4
47.5°	236.3	261.3	288.4	261.3	239.4
50°	196.8	216.5	238.4	216.5	200.9
52.5°	175.9	182.2	196.8	183.2	175.9
55°	158.2	161.4	166.6	161.4	158.2
57.5°	141.6	143.7	142.6	142.6	141.6
60°	126.0	127.0	124.9	126.0	124.9
62.5°	111.4	111.4	109.3	111.4	110.4
65°	96.8	97.9	96.8	96.8	96.8
67.5°	84.3	84.3	83.3	84.3	84.3
70°	72.9	72.9	71.8	72.9	71.8
72.5°	61.4	61.4	60.4	60.4	60.4
75°	51.0	51.0	50.0	50.0	51.0
77.5°	40.6	40.6	39.6	40.6	40.6
80°	31.2	31.2	30.2	31.2	31.2
82.5°	21.9	21.9	21.9	22.9	22.9
85°	13.5	13.5	13.5	13.5	13.5
87.5°	6.2	6.2	6.2	6.2	7.3
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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