

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: P838428

Luminaire Tested: HCSQ620D010-HM60525835-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838428
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ620D010-HM60525835-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

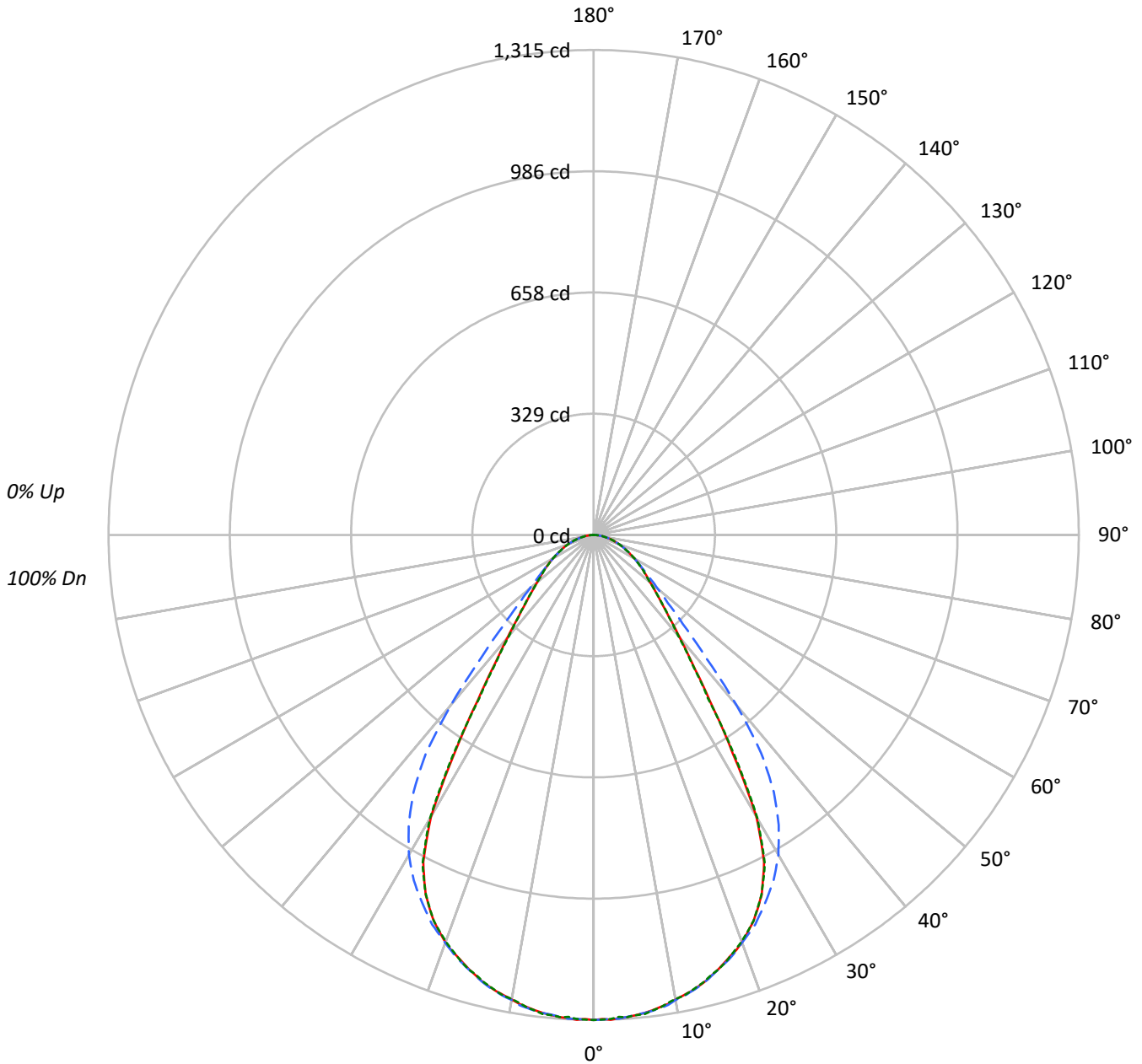
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1940.3 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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	77	84	79	75	82	78	74	79	76	73	71																			
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	80	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	51	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°	56635	56635	56635
5°	56497	56454	56497
10°	55944	55983	55861
15°	55112	55152	55027
20°	53869	53910	53741
25°	51179	52272	51136
30°	43825	49771	44103
35°	28798	44740	28362
40°	20358	33740	19992
45°	15783	20763	15898
50°	13423	15145	13303
55°	12078	12423	12078
60°	10928	10928	10928
65°	10025	9923	9923
70°	9139	9139	9253
75°	8567	8251	8418
80°	7513	7513	7513
85°	6373	6373	6373

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 20763 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	6.4
10°-20°	348.3	17.9
20°-30°	496.3	25.6
30°-40°	423.2	21.8
40°-50°	234.1	12.1
50°-60°	147.5	7.6
60°-70°	97.9	5.0
70°-80°	53.8	2.8
80°-90°	15.3	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°	968.6	49.9
0°-40°	1391.7	71.7
0°-60°	1773.3	91.4
0°-90°	1940.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1940.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1315	1315	1315	1315	1315	
5°	1307	1309	1306	1304	1307	124
15°	1236	1236	1237	1236	1234	348
25°	1077	1090	1100	1089	1076	487
35°	548	646	851	647	540	356
45°	259	284	341	282	261	205
55°	161	164	166	163	161	145
65°	98	99	97	98	97	98
75°	52	51	50	51	51	54
85°	13	13	13	14	13	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1315.4	1315.4	1315.4	1315.4	1315.4
1°	1312.7	1314.5	1314.5	1313.6	1314.5
2°	1315.4	1312.7	1312.7	1312.7	1313.6
3°	1311.8	1313.6	1313.6	1310.8	1309.0
4°	1310.8	1309.9	1309.9	1312.7	1310.8
5°	1307.2	1309.0	1306.2	1304.4	1307.2
6°	1303.5	1304.4	1303.5	1304.4	1307.2
7°	1298.9	1301.6	1300.7	1299.8	1299.8
8°	1293.4	1297.0	1295.2	1295.2	1294.3
9°	1287.9	1288.8	1290.6	1290.6	1285.1
10°	1279.6	1282.3	1280.5	1281.4	1277.7
11°	1272.2	1275.9	1275.0	1273.1	1274.1
12°	1265.8	1267.6	1266.7	1264.0	1264.9
13°	1257.5	1259.4	1258.4	1258.4	1255.7
14°	1248.3	1246.5	1249.2	1247.4	1246.5
15°	1236.4	1236.4	1237.3	1236.4	1234.5
16°	1225.3	1226.3	1226.3	1225.3	1226.3
17°	1212.5	1216.2	1215.2	1213.4	1214.3
18°	1200.5	1203.3	1204.2	1203.3	1200.5
19°	1189.5	1191.3	1190.4	1186.7	1186.7
20°	1175.7	1176.6	1176.6	1174.8	1172.9
22.5°	1132.5	1138.9	1143.5	1139.9	1132.5
25°	1077.3	1090.2	1100.3	1089.3	1076.4
27.5°	1000.1	1025.9	1056.2	1028.6	1004.7
30°	881.5	940.4	1001.1	945.9	887.1
32.5°	701.4	817.2	933.0	828.2	712.4
35°	547.9	646.2	851.2	647.1	539.6
37.5°	437.6	507.4	746.4	502.8	433.0
40°	362.2	409.1	600.3	407.2	355.7
42.5°	302.4	338.3	449.5	334.6	302.4
45°	259.2	284.0	341.0	282.2	261.1
47.5°	227.1	242.7	273.0	241.8	227.1
50°	200.4	209.6	226.1	208.7	198.6
52.5°	179.3	184.8	191.2	182.9	177.4
55°	160.9	163.6	165.5	162.7	160.9
57.5°	143.4	145.2	144.3	143.4	142.5
60°	126.9	127.8	126.9	127.8	126.9
62.5°	112.1	113.1	111.2	112.1	111.2
65°	98.4	99.3	97.4	98.4	97.4
67.5°	85.5	85.5	85.5	85.5	84.6
70°	72.6	73.5	72.6	73.5	73.5
72.5°	61.6	61.6	60.7	61.6	61.6
75°	51.5	50.6	49.6	50.6	50.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	22.1	22.1	21.1	22.1	22.1
85°	12.9	12.9	12.9	13.8	12.9
87.5°	6.4	5.5	5.5	6.4	6.4
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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77.5°	40.4	40.4	39.5	40.4	40.4
80°	30.3	31.3	30.3	31.3	30.3

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