

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: P838453

Luminaire Tested: HCSQ620D010-HM60525940-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838453
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-HM60525940-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

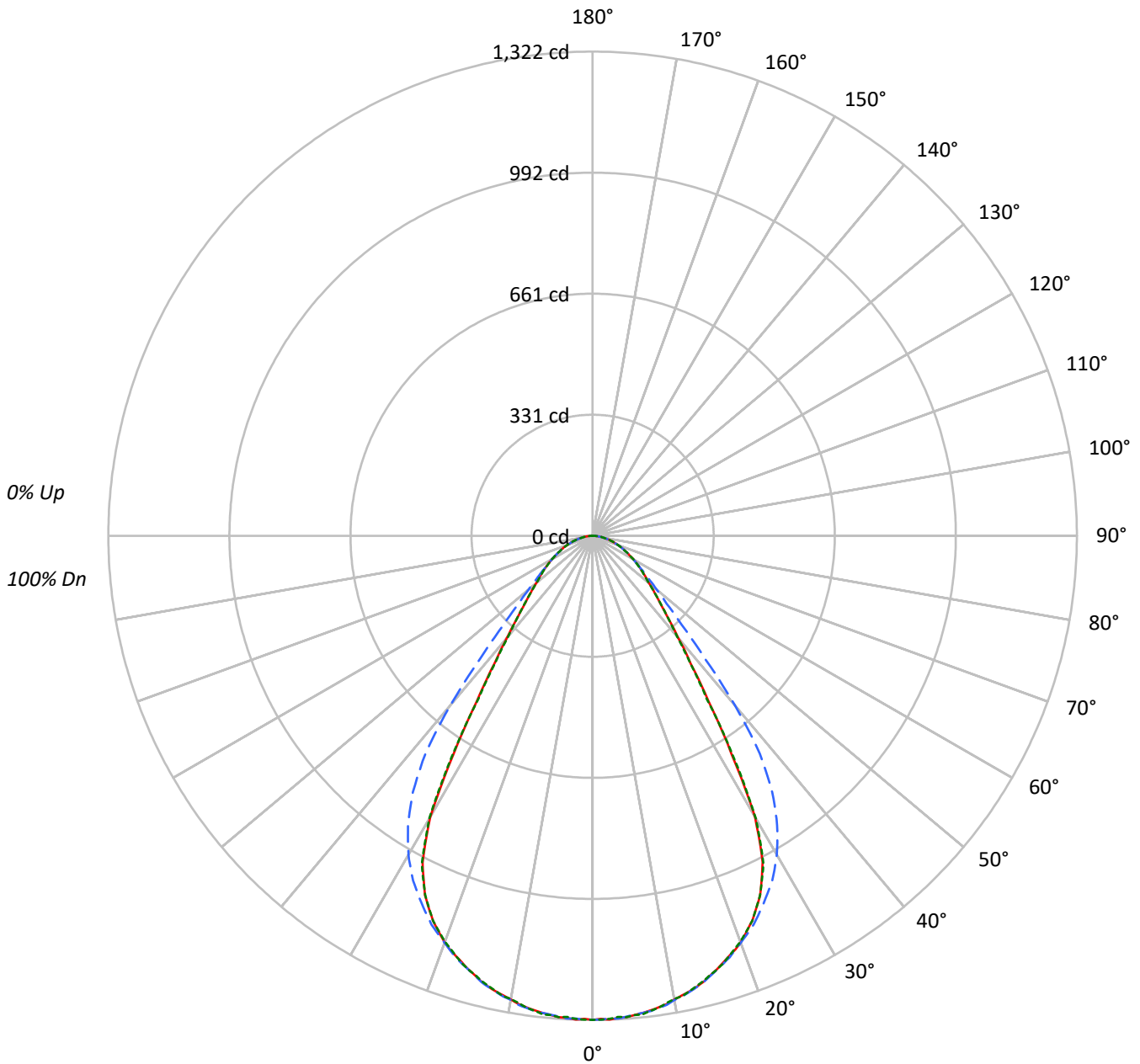
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1949.9 lumens
Efficiency: N/A
Efficacy: 97.5 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

TEST NUMBER: P838453
CATALOG NUMBER: HCSQ620D010-HM60525940-61SQMW

Luminous Intensity Polar Plot





TEST NUMBER: P838453

CATALOG NUMBER: HCSQ620D010-HM60525940-61SQMW

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°	56920	56920	56920
5°	56778	56735	56778
10°	56219	56263	56141
15°	55384	55424	55304
20°	54140	54181	54011
25°	51435	52533	51393
30°	44044	50015	44322
35°	28940	44961	28504
40°	20459	33903	20093
45°	15862	20867	15978
50°	13490	15225	13363
55°	12138	12483	12138
60°	10979	10979	10979
65°	10066	9974	9974
70°	9190	9190	9303
75°	8601	8301	8451
80°	7562	7562	7562
85°	6373	6373	6373

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 20867 cd/sqm



TEST NUMBER: P838453

CATALOG NUMBER: HCSQ620D010-HM60525940-61SQMW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.6	6.4
10°-20°	350.0	17.9
20°-30°	498.7	25.6
30°-40°	425.3	21.8
40°-50°	235.3	12.1
50°-60°	148.2	7.6
60°-70°	98.4	5.0
70°-80°	54.1	2.8
80°-90°	15.4	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°	973.4	49.9
0°-40°	1398.6	71.7
0°-60°	1782.1	91.4
0°-90°	1949.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1949.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1322	1322	1322	1322	1322	
5°	1314	1316	1313	1311	1314	125
15°	1242	1242	1243	1242	1241	350
25°	1083	1096	1106	1095	1082	489
35°	551	649	855	650	542	358
45°	260	286	343	284	262	207
55°	162	164	166	164	162	145
65°	99	100	98	99	98	98
75°	52	51	50	51	51	54
85°	13	13	13	14	13	15
90°	0	0	0	0	0	



TEST NUMBER: P838453

CATALOG NUMBER: HCSQ620D010-HM60525940-61SQMW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1322.0	1322.0	1322.0	1322.0	1322.0
1°	1319.2	1321.0	1321.0	1320.1	1321.0
2°	1322.0	1319.2	1319.2	1319.2	1320.1
3°	1318.3	1320.1	1320.1	1317.4	1315.5
4°	1317.4	1316.4	1316.4	1319.2	1317.4
5°	1313.7	1315.5	1312.7	1310.9	1313.7
6°	1310.0	1310.9	1310.0	1310.9	1313.7
7°	1305.3	1308.1	1307.2	1306.3	1306.3
8°	1299.8	1303.5	1301.6	1301.6	1300.7
9°	1294.3	1295.2	1297.0	1297.0	1291.5
10°	1285.9	1288.7	1286.9	1287.8	1284.1
11°	1278.6	1282.2	1281.3	1279.5	1280.4
12°	1272.1	1273.9	1273.0	1270.2	1271.2
13°	1263.8	1265.6	1264.7	1264.7	1261.9
14°	1254.5	1252.7	1255.5	1253.6	1252.7
15°	1242.5	1242.5	1243.4	1242.5	1240.7
16°	1231.4	1232.4	1232.4	1231.4	1232.4
17°	1218.5	1222.2	1221.3	1219.4	1220.4
18°	1206.5	1209.3	1210.2	1209.3	1206.5
19°	1195.4	1197.3	1196.3	1192.6	1192.6
20°	1181.6	1182.5	1182.5	1180.6	1178.8
22.5°	1138.1	1144.6	1149.2	1145.5	1138.1
25°	1082.7	1095.6	1105.8	1094.7	1081.8
27.5°	1005.1	1031.0	1061.5	1033.7	1009.7
30°	885.9	945.1	1006.0	950.6	891.5
32.5°	704.9	821.3	937.7	832.4	716.0
35°	550.6	649.4	855.4	650.4	542.3
37.5°	439.7	509.9	750.1	505.3	435.1
40°	364.0	411.1	603.2	409.2	357.5
42.5°	303.9	340.0	451.7	336.3	303.9
45°	260.5	285.5	342.7	283.6	262.4
47.5°	228.2	243.9	274.4	243.0	228.2
50°	201.4	210.6	227.3	209.7	199.5
52.5°	180.1	185.7	192.2	183.8	178.3
55°	161.7	164.4	166.3	163.5	161.7
57.5°	144.1	146.0	145.0	144.1	143.2
60°	127.5	128.4	127.5	128.4	127.5
62.5°	112.7	113.6	111.8	112.7	111.8
65°	98.8	99.8	97.9	98.8	97.9
67.5°	85.9	85.9	85.9	85.9	85.0
70°	73.0	73.9	73.0	73.9	73.9
72.5°	61.9	61.9	61.0	61.9	61.9
75°	51.7	50.8	49.9	50.8	50.8



TEST NUMBER: P838453

CATALOG NUMBER: HCSQ620D010-HM60525940-61SQMW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	22.2	22.2	21.2	22.2	22.2
85°	12.9	12.9	12.9	13.9	12.9
87.5°	6.5	5.5	5.5	6.5	6.5
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



Report Generated By 670245859 / DESKTOP-T8S5UU9

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

Scaled Data Report





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

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

Scaled Data Report



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

Scaled Data Report





77.5°	40.6	40.6	39.7	40.6	40.6
80°	30.5	31.4	30.5	31.4	30.5

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

Scaled Data Report



(END OF REPORT)