

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: P838433

Luminaire Tested: HCSQ620D010-HM60525840-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838433
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-HM60525840-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

Summary

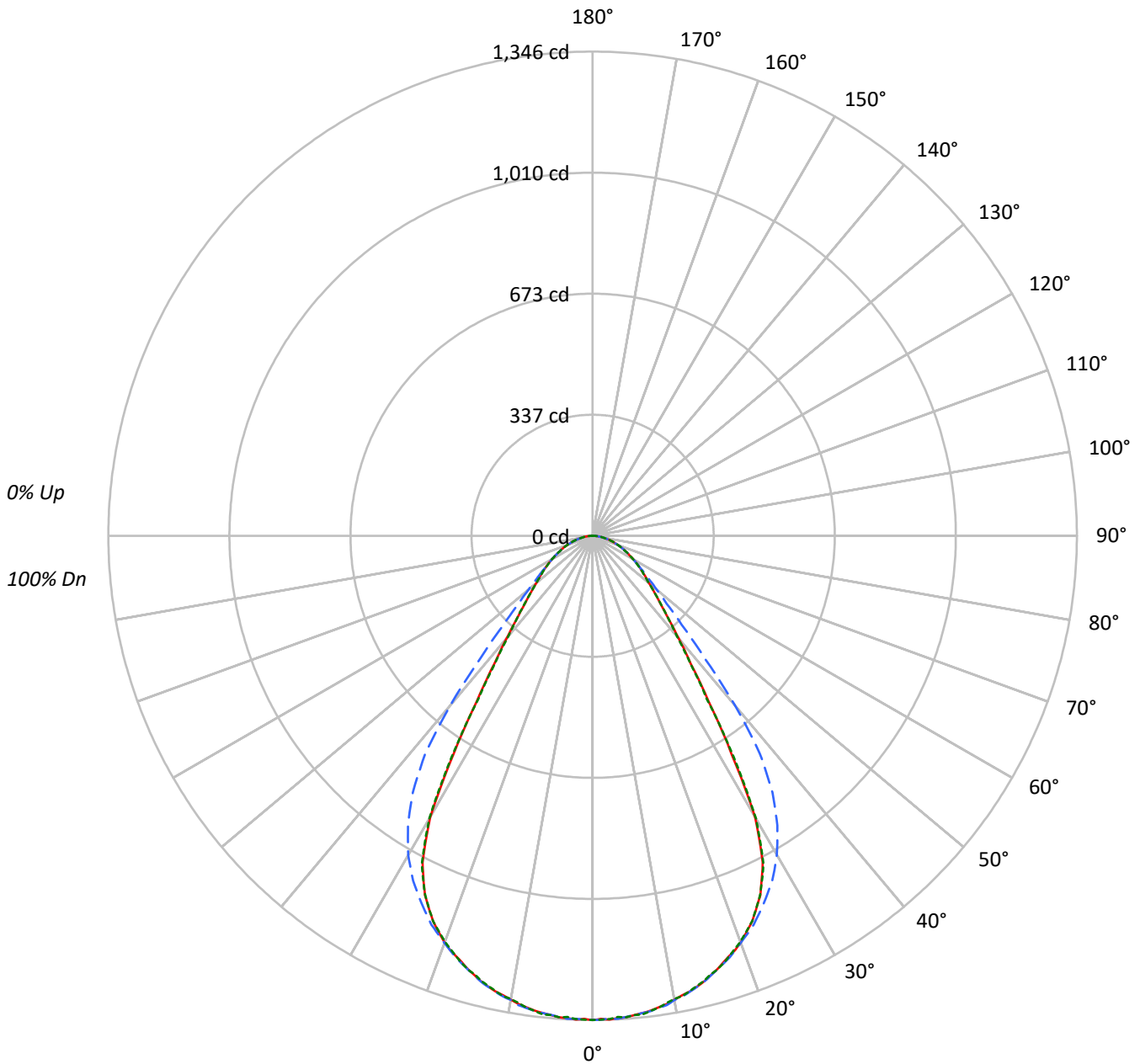
Lumens per Lamp: N/A
Luminaire Lumens: 1985.8 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: HCSQ620D010-HM60525840-61SQMW

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	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°	57966	57966	57966
5°	57820	57781	57820
10°	57256	57295	57172
15°	56405	56445	56320
20°	55134	55175	55001
25°	52381	53497	52338
30°	44854	50934	45138
35°	29471	45791	29024
40°	20835	34527	20464
45°	16154	21251	16270
50°	13738	15500	13611
55°	12356	12709	12356
60°	11177	11177	11177
65°	10259	10157	10157
70°	9353	9353	9479
75°	8767	8451	8601
80°	7686	7686	7686
85°	6521	6521	6521

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 21251 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.9	6.4
10°-20°	356.4	17.9
20°-30°	507.9	25.6
30°-40°	433.1	21.8
40°-50°	239.6	12.1
50°-60°	150.9	7.6
60°-70°	100.2	5.0
70°-80°	55.0	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°	991.3	49.9
0°-40°	1424.3	71.7
0°-60°	1814.8	91.4
0°-90°	1985.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1985.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1346	1346	1346	1346	1346	
5°	1338	1340	1337	1335	1338	127
15°	1265	1265	1266	1265	1264	356
25°	1103	1116	1126	1115	1102	498
35°	561	661	871	662	552	365
45°	265	291	349	289	267	210
55°	165	168	169	166	165	148
65°	101	102	100	101	100	100
75°	53	52	51	52	52	55
85°	13	13	13	14	13	16
90°	0	0	0	0	0	



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CATALOG NUMBER: HCSQ620D010-HM60525840-61SQMW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1346.3	1346.3	1346.3	1346.3	1346.3
1°	1343.4	1345.3	1345.3	1344.4	1345.3
2°	1346.3	1343.4	1343.4	1343.4	1344.4
3°	1342.5	1344.4	1344.4	1341.6	1339.7
4°	1341.6	1340.6	1340.6	1343.4	1341.6
5°	1337.8	1339.7	1336.9	1335.0	1337.8
6°	1334.0	1335.0	1334.0	1335.0	1337.8
7°	1329.3	1332.1	1331.2	1330.3	1330.3
8°	1323.7	1327.4	1325.6	1325.6	1324.6
9°	1318.0	1319.0	1320.9	1320.9	1315.2
10°	1309.6	1312.4	1310.5	1311.5	1307.7
11°	1302.0	1305.8	1304.9	1303.0	1303.9
12°	1295.5	1297.3	1296.4	1293.6	1294.5
13°	1287.0	1288.9	1287.9	1287.9	1285.1
14°	1277.6	1275.7	1278.5	1276.6	1275.7
15°	1265.4	1265.4	1266.3	1265.4	1263.5
16°	1254.1	1255.0	1255.0	1254.1	1255.0
17°	1240.9	1244.7	1243.7	1241.8	1242.8
18°	1228.7	1231.5	1232.4	1231.5	1228.7
19°	1217.4	1219.3	1218.3	1214.6	1214.6
20°	1203.3	1204.2	1204.2	1202.3	1200.4
22.5°	1159.0	1165.6	1170.3	1166.6	1159.0
25°	1102.6	1115.8	1126.1	1114.8	1101.7
27.5°	1023.6	1049.9	1081.0	1052.7	1028.3
30°	902.2	962.4	1024.5	968.1	907.9
32.5°	717.8	836.4	954.9	847.6	729.1
35°	560.7	661.4	871.2	662.3	552.2
37.5°	447.8	519.3	763.9	514.6	443.1
40°	370.7	418.6	614.3	416.8	364.1
42.5°	309.5	346.2	460.0	342.4	309.5
45°	265.3	290.7	349.0	288.8	267.2
47.5°	232.4	248.4	279.4	247.4	232.4
50°	205.1	214.5	231.4	213.6	203.2
52.5°	183.5	189.1	195.7	187.2	181.6
55°	164.6	167.5	169.3	166.5	164.6
57.5°	146.8	148.6	147.7	146.8	145.8
60°	129.8	130.8	129.8	130.8	129.8
62.5°	114.8	115.7	113.8	114.8	113.8
65°	100.7	101.6	99.7	100.7	99.7
67.5°	87.5	87.5	87.5	87.5	86.6
70°	74.3	75.3	74.3	75.3	75.3
72.5°	63.0	63.0	62.1	63.0	63.0
75°	52.7	51.7	50.8	51.7	51.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	22.6	22.6	21.6	22.6	22.6
85°	13.2	13.2	13.2	14.1	13.2
87.5°	6.6	5.6	5.6	6.6	6.6
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°	41.4	41.4	40.5	41.4	41.4
80°	31.0	32.0	31.0	32.0	31.0

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(END OF REPORT)