

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: P838435

Luminaire Tested: HCSQ620D010-HM60525927-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838435
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ620D010-HM60525927-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

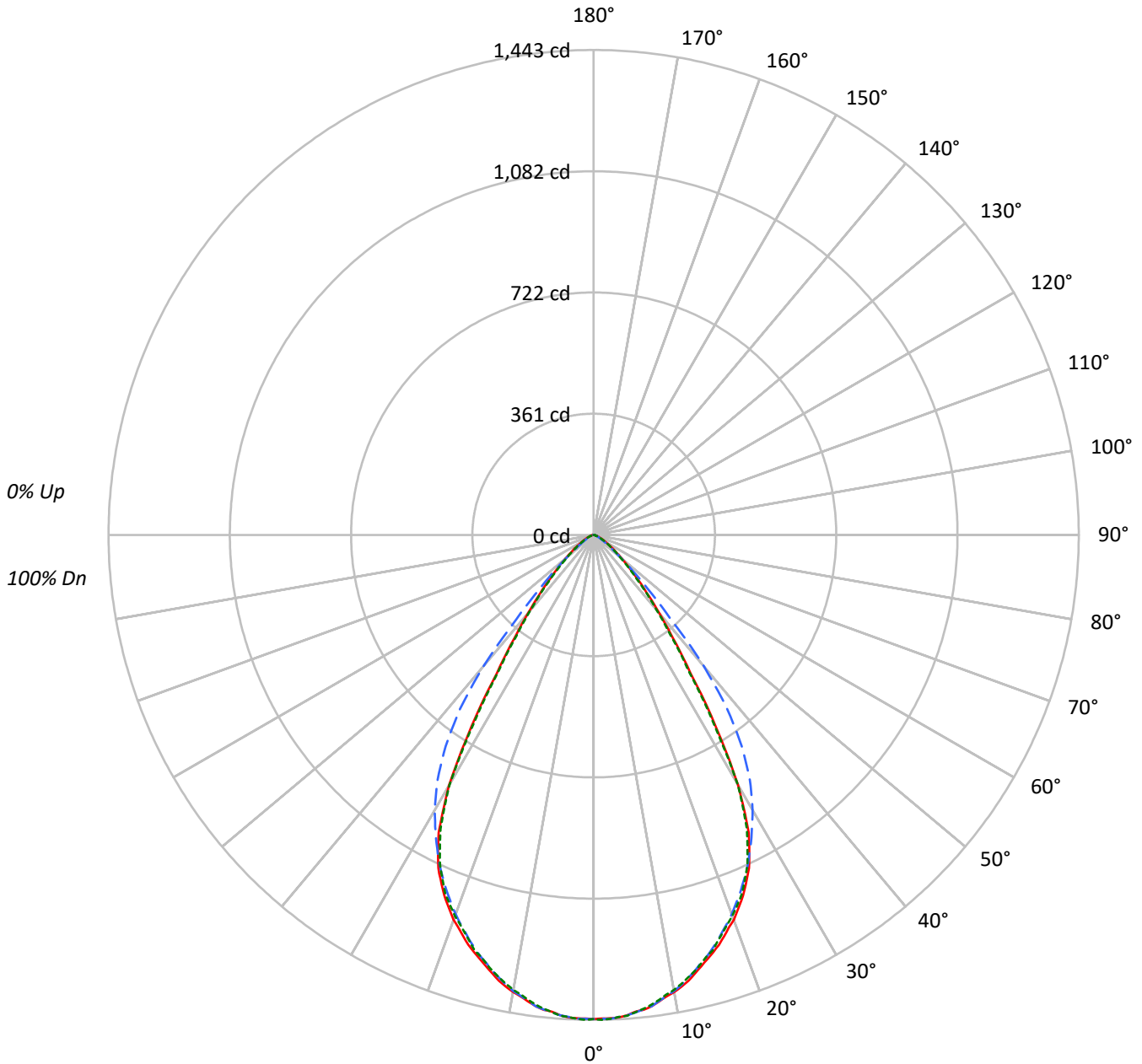
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1620.4 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
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					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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92								
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85								
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78								
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71								
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66								
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61								
7	80	70	63	59	78	69	63	59	68	62	58	67	62	58	65	61	58	56								
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52								
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48								
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	62035	62035	62035
5°	61545	61649	61615
10°	60368	60228	60089
15°	58237	57916	57880
20°	55835	55028	55285
25°	51972	51516	51402
30°	42706	46997	42587
35°	26375	40362	25745
40°	16935	28608	16350
45°	11045	13865	10510
50°	7335	6906	6852
55°	4977	3596	4617
60°	3376	2204	3100
65°	2364	1630	2119
70°	1511	1209	1410
75°	1065	932	932
80°	793	595	595
85°	395	790	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 13865 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.6	8.3
10°-20°	365.2	22.5
20°-30°	493.0	30.4
30°-40°	384.7	23.7
40°-50°	161.2	9.9
50°-60°	54.6	3.4
60°-70°	19.5	1.2
70°-80°	6.3	0.4
80°-90°	1.3	0.1
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°	992.7	61.3
0°-40°	1377.5	85.0
0°-60°	1593.3	98.3
0°-90°	1620.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1620.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1424	1426	1426	1424	1426	135
15°	1306	1303	1299	1298	1298	367
25°	1094	1089	1084	1084	1082	492
35°	502	589	768	588	490	330
45°	181	194	228	185	173	146
55°	66	61	48	58	62	61
65°	23	19	16	18	21	24
75°	6	6	6	6	6	7
85°	1	1	2	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1440.8	1440.8	1440.8	1440.8	1440.8
1°	1439.2	1441.6	1440.0	1440.8	1443.2
2°	1439.2	1439.2	1440.8	1440.0	1440.8
3°	1437.6	1437.6	1436.0	1436.0	1436.0
4°	1432.8	1432.8	1432.8	1431.2	1434.4
5°	1424.0	1425.6	1426.4	1424.0	1425.6
6°	1420.8	1421.6	1420.0	1419.2	1417.6
7°	1413.6	1411.2	1413.6	1408.0	1408.8
8°	1401.6	1401.6	1400.0	1398.4	1396.8
9°	1390.4	1390.4	1388.8	1386.4	1384.8
10°	1380.8	1378.4	1377.6	1375.2	1374.4
11°	1369.7	1364.9	1364.1	1361.7	1361.7
12°	1356.1	1353.7	1348.1	1347.3	1347.3
13°	1339.3	1336.9	1332.9	1329.7	1332.9
14°	1323.3	1321.7	1314.5	1316.9	1316.1
15°	1306.5	1303.3	1299.3	1297.7	1298.5
16°	1291.3	1285.7	1280.2	1281.0	1285.7
17°	1275.4	1267.4	1261.8	1261.0	1263.4
18°	1255.4	1249.0	1240.2	1243.4	1243.4
19°	1235.4	1226.6	1221.0	1220.2	1223.4
20°	1218.6	1205.0	1201.0	1200.2	1206.6
22.5°	1161.1	1147.5	1144.3	1147.5	1153.9
25°	1094.0	1089.2	1084.4	1084.4	1082.0
27.5°	998.9	1010.1	1015.7	1004.5	986.1
30°	859.0	906.2	945.3	900.6	856.6
32.5°	676.8	774.3	864.6	771.9	660.9
35°	501.8	588.9	767.9	588.1	489.8
37.5°	386.8	442.7	652.9	435.5	375.6
40°	301.3	334.0	509.0	330.0	290.9
42.5°	234.1	254.9	338.8	250.1	226.1
45°	181.4	194.2	227.7	185.4	172.6
47.5°	141.4	147.0	155.8	140.6	133.4
50°	109.5	109.5	103.1	105.5	102.3
52.5°	84.7	81.5	69.5	76.7	78.3
55°	66.3	60.7	47.9	57.5	61.5
57.5°	50.3	44.7	34.4	42.4	46.3
60°	39.2	33.6	25.6	32.0	36.0
62.5°	30.4	25.6	20.0	24.0	27.2
65°	23.2	19.2	16.0	18.4	20.8
67.5°	17.6	14.4	12.0	13.6	16.0
70°	12.0	11.2	9.6	10.4	11.2
72.5°	8.8	8.0	7.2	7.2	8.0
75°	6.4	5.6	5.6	5.6	5.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.6	1.6	1.6	1.6	1.6
85°	0.8	0.8	1.6	0.8	0.8
87.5°	0.8	0.8	0.8	0.8	0.8
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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77.5°	4.0	4.0	4.0	4.0	4.0
80°	3.2	3.2	2.4	2.4	2.4

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Scaled Data Report



(END OF REPORT)