

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: P838440

Luminaire Tested: HCSQ620D010-HM60525930-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838440
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-HM60525930-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

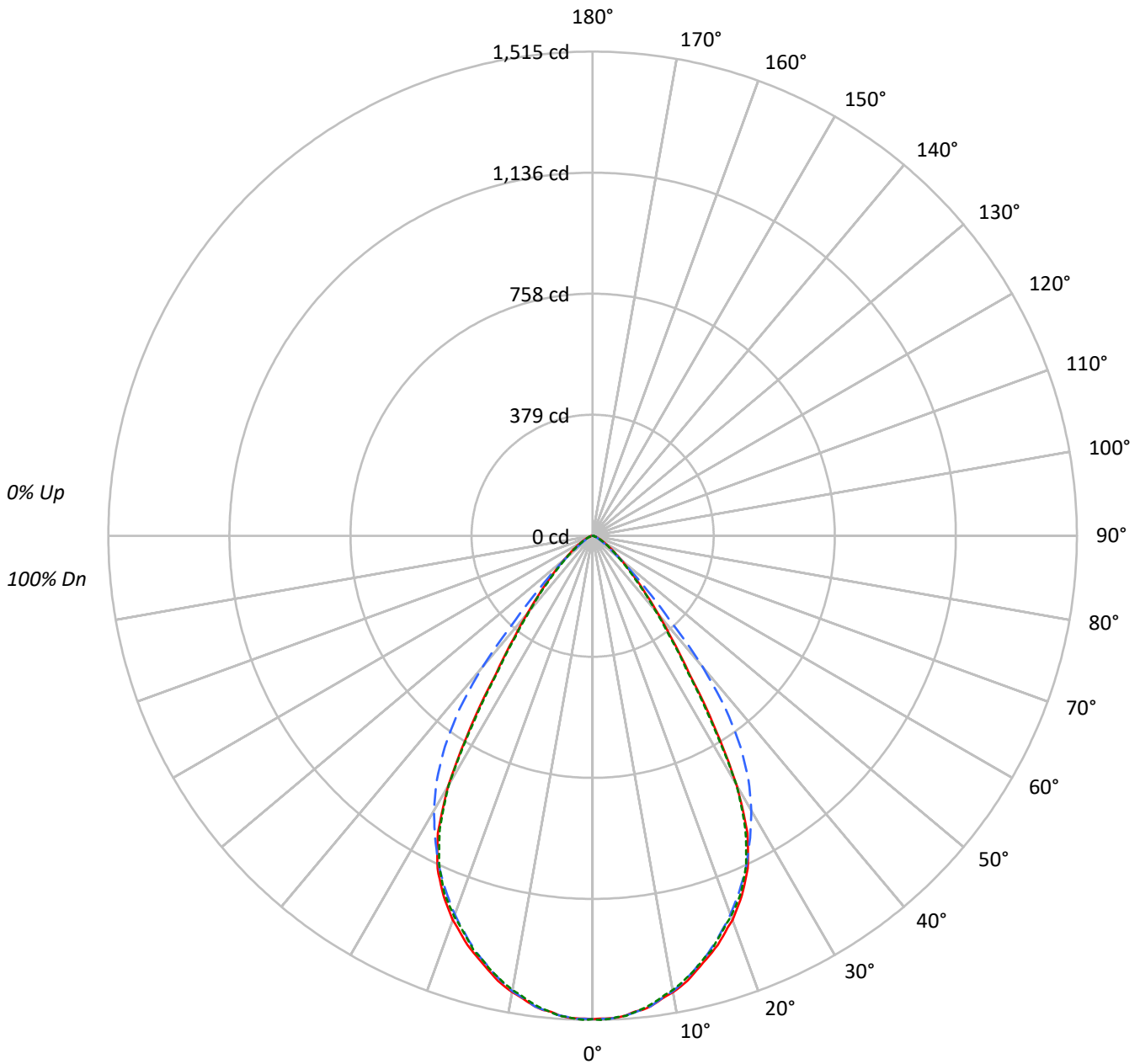
Lumens per Lamp: N/A
Luminaire Lumens: 1701.2 lumens
Efficiency: N/A
Efficacy: 85.1 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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									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°	65126	65126	65126
5°	64614	64722	64683
10°	63381	63232	63083
15°	61138	60804	60764
20°	58621	57773	58043
25°	54561	54082	53963
30°	44834	49339	44710
35°	27689	42375	27032
40°	17778	30036	17165
45°	11593	14559	11033
50°	7696	7248	7194
55°	5225	3776	4849
60°	3539	2308	3255
65°	2476	1712	2221
70°	1586	1271	1473
75°	1115	981	981
80°	843	620	620
85°	395	840	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 14559 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.3	8.3
10°-20°	383.4	22.5
20°-30°	517.6	30.4
30°-40°	403.9	23.7
40°-50°	169.2	9.9
50°-60°	57.4	3.4
60°-70°	20.5	1.2
70°-80°	6.7	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°	1042.2	61.3
0°-40°	1446.1	85.0
0°-60°	1672.7	98.3
0°-90°	1701.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1701.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1513	1513	1513	1513	1513	
5°	1495	1497	1498	1495	1497	141
15°	1372	1368	1364	1362	1363	386
25°	1148	1144	1138	1138	1136	517
35°	527	618	806	617	514	346
45°	190	204	239	195	181	153
55°	70	64	50	60	65	64
65°	24	20	17	19	22	25
75°	7	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°	1512.6	1512.6	1512.6	1512.6	1512.6
1°	1510.9	1513.4	1511.7	1512.6	1515.1
2°	1510.9	1510.9	1512.6	1511.7	1512.6
3°	1509.2	1509.2	1507.5	1507.5	1507.5
4°	1504.2	1504.2	1504.2	1502.5	1505.9
5°	1495.0	1496.6	1497.5	1495.0	1496.6
6°	1491.6	1492.4	1490.8	1489.9	1488.2
7°	1484.1	1481.5	1484.1	1478.2	1479.0
8°	1471.5	1471.5	1469.8	1468.1	1466.4
9°	1459.7	1459.7	1458.0	1455.5	1453.9
10°	1449.7	1447.1	1446.3	1443.8	1442.9
11°	1437.9	1432.9	1432.0	1429.5	1429.5
12°	1423.7	1421.1	1415.3	1414.4	1414.4
13°	1406.0	1403.5	1399.3	1396.0	1399.3
14°	1389.3	1387.6	1380.0	1382.5	1381.7
15°	1371.6	1368.3	1364.1	1362.4	1363.2
16°	1355.7	1349.8	1344.0	1344.8	1349.8
17°	1338.9	1330.5	1324.7	1323.8	1326.3
18°	1317.9	1311.2	1302.0	1305.4	1305.4
19°	1297.0	1287.7	1281.9	1281.0	1284.4
20°	1279.4	1265.1	1260.9	1260.1	1266.8
22.5°	1219.0	1204.7	1201.3	1204.7	1211.4
25°	1148.5	1143.5	1138.4	1138.4	1135.9
27.5°	1048.7	1060.4	1066.3	1054.5	1035.2
30°	901.8	951.3	992.4	945.5	899.3
32.5°	710.6	812.9	907.7	810.4	693.8
35°	526.8	618.3	806.2	617.4	514.3
37.5°	406.0	464.8	685.4	457.2	394.3
40°	316.3	350.7	534.4	346.5	305.4
42.5°	245.8	267.6	355.7	262.6	237.4
45°	190.4	203.9	239.1	194.6	181.2
47.5°	148.5	154.4	163.6	147.7	140.1
50°	114.9	114.9	108.2	110.7	107.4
52.5°	88.9	85.6	73.0	80.5	82.2
55°	69.6	63.8	50.3	60.4	64.6
57.5°	52.9	47.0	36.1	44.5	48.7
60°	41.1	35.2	26.8	33.6	37.8
62.5°	31.9	26.8	21.0	25.2	28.5
65°	24.3	20.1	16.8	19.3	21.8
67.5°	18.5	15.1	12.6	14.3	16.8
70°	12.6	11.7	10.1	10.9	11.7
72.5°	9.2	8.4	7.6	7.6	8.4
75°	6.7	5.9	5.9	5.9	5.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.7	1.7	1.7	1.7	1.7
85°	0.8	0.8	1.7	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°	4.2	4.2	4.2	4.2	4.2
80°	3.4	3.4	2.5	2.5	2.5

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(END OF REPORT)