

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: P838497

Luminaire Tested: HCSQ630D010-HM63040827-61SQMB

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838497
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ630D010-HM63040827-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

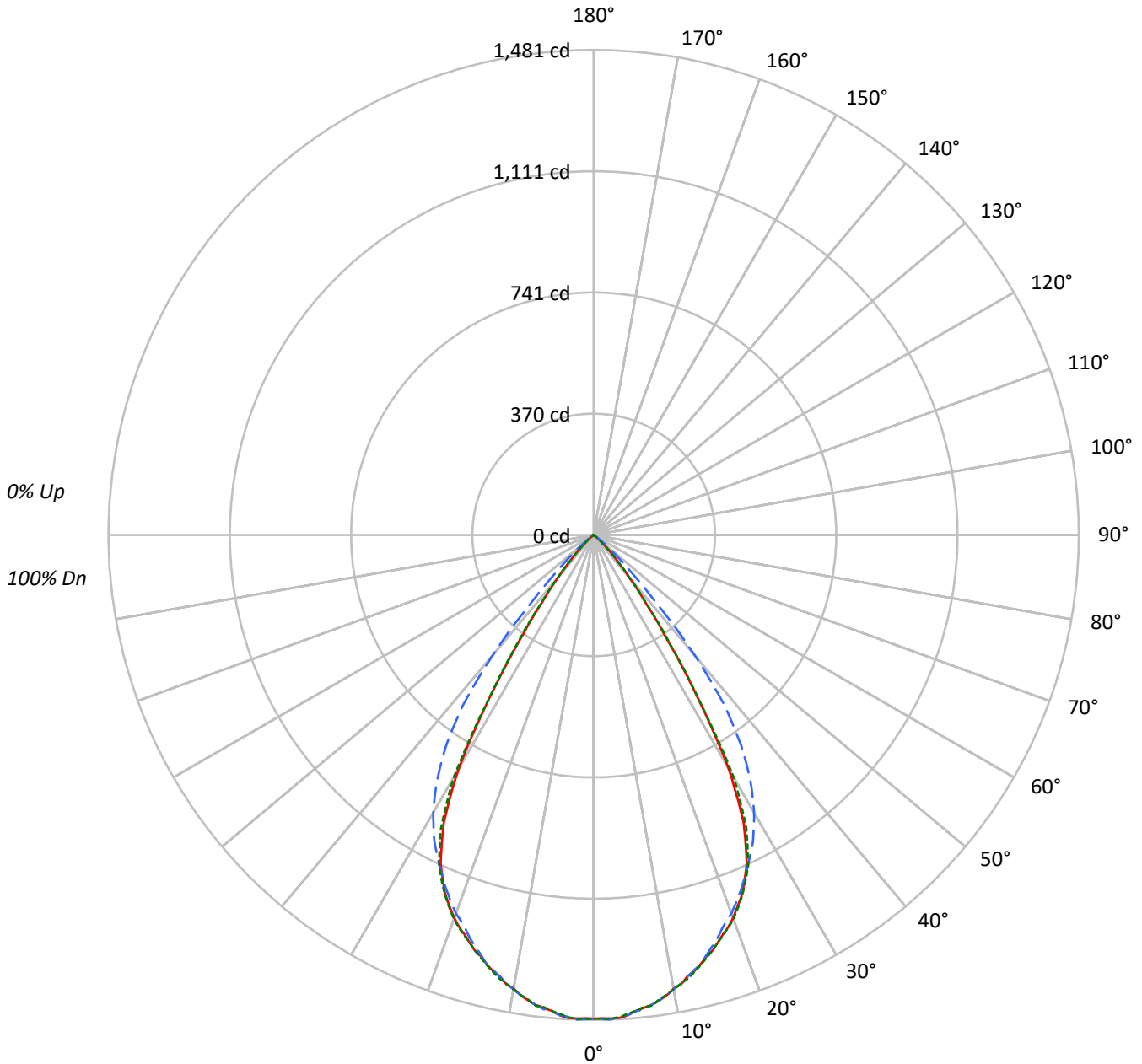
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1468.7 lumens
Efficiency: N/A
Efficacy: 52.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
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	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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93								
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87								
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81								
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75								
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70								
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65								
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60								
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56								
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53								
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	63615	63615	63615
5°	63080	63132	63080
10°	61501	61606	61606
15°	59382	59222	59543
20°	57026	56366	57191
25°	52514	52913	53027
30°	40936	48692	42488
35°	20756	41255	21513
40°	9442	26984	9442
45°	3653	10156	3580
50°	563	3215	563
55°	180	631	180
60°	103	103	103
65°	122	0	122
70°	0	0	151
75°	0	0	200
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10156 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.0	9.4
10°-20°	374.1	25.5
20°-30°	504.3	34.3
30°-40°	354.6	24.1
40°-50°	90.5	6.2
50°-60°	6.3	0.4
60°-70°	0.8	0.1
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	1016.4	69.2
0°-40°	1371.0	93.4
0°-60°	1467.8	99.9
0°-90°	1468.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1468.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1478	1478	1478	1478	1478	
5°	1460	1462	1461	1462	1460	138
15°	1332	1330	1329	1332	1336	375
25°	1105	1109	1114	1117	1116	494
35°	395	523	785	536	409	266
45°	60	90	167	91	59	52
55°	2	2	8	2	2	3
65°	1	1	0	1	1	1
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1477.5	1477.5	1477.5	1477.5	1477.5
1°	1476.3	1477.5	1478.7	1478.7	1477.5
2°	1477.5	1473.9	1481.1	1477.5	1478.7
3°	1477.5	1470.3	1473.9	1476.3	1475.1
4°	1471.5	1466.7	1470.3	1469.1	1466.7
5°	1459.5	1461.9	1460.7	1461.9	1459.5
6°	1452.3	1454.7	1457.1	1453.5	1449.9
7°	1446.3	1445.1	1446.3	1448.7	1448.7
8°	1435.5	1437.9	1435.5	1436.7	1433.1
9°	1423.5	1423.5	1423.5	1425.9	1422.3
10°	1406.7	1412.7	1409.1	1411.5	1409.1
11°	1398.3	1395.9	1395.9	1397.1	1395.9
12°	1377.9	1380.3	1379.1	1381.5	1385.1
13°	1367.1	1368.3	1363.5	1369.5	1369.5
14°	1350.3	1349.1	1351.5	1350.3	1352.7
15°	1332.2	1329.8	1328.6	1332.2	1335.8
16°	1319.0	1313.0	1309.4	1314.2	1319.0
17°	1299.8	1293.8	1289.0	1298.6	1299.8
18°	1280.6	1278.2	1266.2	1278.2	1284.2
19°	1265.0	1256.6	1245.8	1259.0	1266.2
20°	1244.6	1237.4	1230.2	1237.4	1248.2
22.5°	1185.8	1179.8	1173.8	1182.2	1188.2
25°	1105.4	1109.0	1113.8	1117.4	1116.2
27.5°	991.4	1023.8	1053.8	1034.6	1009.4
30°	823.4	905.0	979.4	918.2	854.6
32.5°	596.5	735.7	890.6	763.3	602.5
35°	394.9	523.3	784.9	536.5	409.3
37.5°	256.8	351.7	655.3	352.9	268.9
40°	168.0	229.2	480.1	234.0	168.0
42.5°	103.2	145.2	291.7	151.2	103.2
45°	60.0	90.0	166.8	91.2	58.8
47.5°	27.6	49.2	94.8	48.0	28.8
50°	8.4	21.6	48.0	21.6	8.4
52.5°	3.6	6.0	22.8	6.0	3.6
55°	2.4	2.4	8.4	2.4	2.4
57.5°	2.4	1.2	2.4	2.4	2.4
60°	1.2	1.2	1.2	1.2	1.2
62.5°	1.2	1.2	1.2	1.2	1.2
65°	1.2	1.2	0.0	1.2	1.2
67.5°	1.2	0.0	0.0	0.0	1.2
70°	0.0	0.0	0.0	0.0	1.2
72.5°	0.0	0.0	0.0	0.0	1.2
75°	0.0	0.0	0.0	0.0	1.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0

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