

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: P838507

Luminaire Tested: HCSQ630D010-HM63040835-61SQMB

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838507
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-HM63040835-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

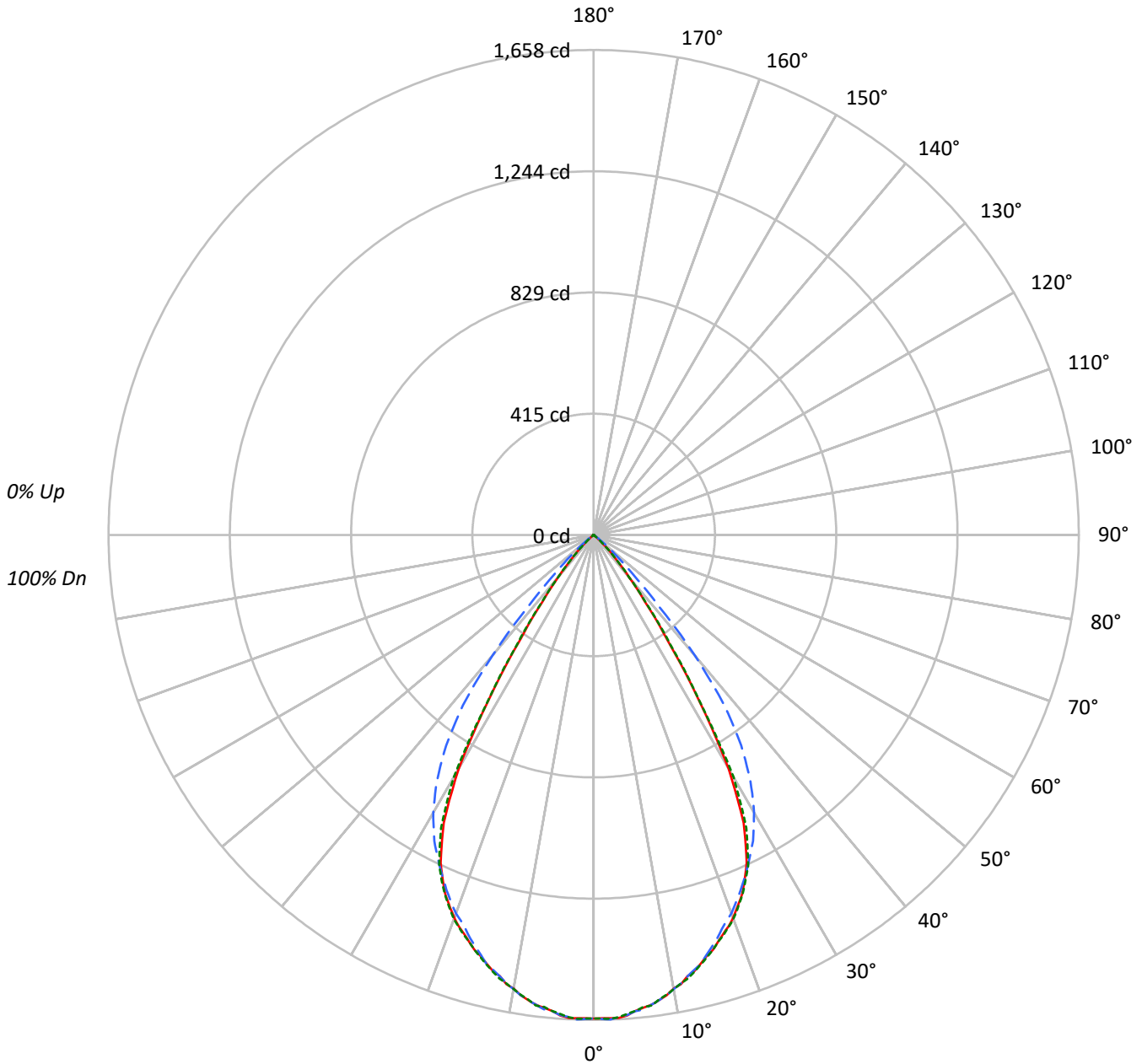
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1643.8 lumens
Efficiency: N/A
Efficacy: 58.3 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°	71197	71197	71197
5°	70600	70656	70600
10°	68833	68951	68951
15°	66465	66287	66643
20°	63826	63088	64014
25°	58775	59222	59350
30°	45814	54499	47554
35°	23232	46175	24078
40°	10572	30199	10572
45°	4092	11368	4007
50°	630	3597	630
55°	203	706	203
60°	112	112	112
65°	132	0	132
70°	0	0	164
75°	0	0	216
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 11368 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.4	9.4
10°-20°	418.8	25.5
20°-30°	564.5	34.3
30°-40°	396.9	24.1
40°-50°	101.3	6.2
50°-60°	7.0	0.4
60°-70°	0.8	0.0
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°	1137.6	69.2
0°-40°	1534.5	93.4
0°-60°	1642.9	99.9
0°-90°	1643.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1643.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1654	1654	1654	1654	1654	
5°	1634	1636	1635	1636	1634	154
15°	1491	1488	1487	1491	1495	420
25°	1237	1241	1247	1251	1249	553
35°	442	586	878	600	458	297
45°	67	101	187	102	66	59
55°	3	3	9	3	3	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°	1653.6	1653.6	1653.6	1653.6	1653.6
1°	1652.3	1653.6	1655.0	1655.0	1653.6
2°	1653.6	1649.6	1657.7	1653.6	1655.0
3°	1653.6	1645.6	1649.6	1652.3	1651.0
4°	1646.9	1641.6	1645.6	1644.2	1641.6
5°	1633.5	1636.2	1634.8	1636.2	1633.5
6°	1625.4	1628.1	1630.8	1626.8	1622.7
7°	1618.7	1617.4	1618.7	1621.4	1621.4
8°	1606.6	1609.3	1606.6	1608.0	1603.9
9°	1593.2	1593.2	1593.2	1595.9	1591.9
10°	1574.4	1581.1	1577.1	1579.8	1577.1
11°	1565.0	1562.3	1562.3	1563.6	1562.3
12°	1542.1	1544.8	1543.5	1546.2	1550.2
13°	1530.1	1531.4	1526.0	1532.7	1532.7
14°	1511.3	1509.9	1512.6	1511.3	1513.9
15°	1491.1	1488.4	1487.1	1491.1	1495.1
16°	1476.3	1469.6	1465.6	1471.0	1476.3
17°	1454.8	1448.1	1442.7	1453.5	1454.8
18°	1433.3	1430.7	1417.2	1430.7	1437.4
19°	1415.9	1406.5	1394.4	1409.2	1417.2
20°	1393.0	1385.0	1376.9	1385.0	1397.1
22.5°	1327.2	1320.5	1313.8	1323.2	1329.9
25°	1237.2	1241.2	1246.6	1250.6	1249.3
27.5°	1109.6	1145.9	1179.4	1158.0	1129.7
30°	921.5	1012.9	1096.2	1027.7	956.5
32.5°	667.6	823.5	996.8	854.4	674.4
35°	442.0	585.7	878.5	600.5	458.1
37.5°	287.5	393.6	733.5	394.9	300.9
40°	188.1	256.6	537.3	262.0	188.1
42.5°	115.5	162.5	326.4	169.3	115.5
45°	67.2	100.8	186.7	102.1	65.8
47.5°	30.9	55.1	106.1	53.7	32.2
50°	9.4	24.2	53.7	24.2	9.4
52.5°	4.0	6.7	25.5	6.7	4.0
55°	2.7	2.7	9.4	2.7	2.7
57.5°	2.7	1.3	2.7	2.7	2.7
60°	1.3	1.3	1.3	1.3	1.3
62.5°	1.3	1.3	1.3	1.3	1.3
65°	1.3	1.3	0.0	1.3	1.3
67.5°	1.3	0.0	0.0	0.0	1.3
70°	0.0	0.0	0.0	0.0	1.3
72.5°	0.0	0.0	0.0	0.0	1.3
75°	0.0	0.0	0.0	0.0	1.3



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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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