

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: P838518

Luminaire Tested: HCSQ630D010-HM63040927-61SQMW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838518
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: HCSQ630D010-HM63040927-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

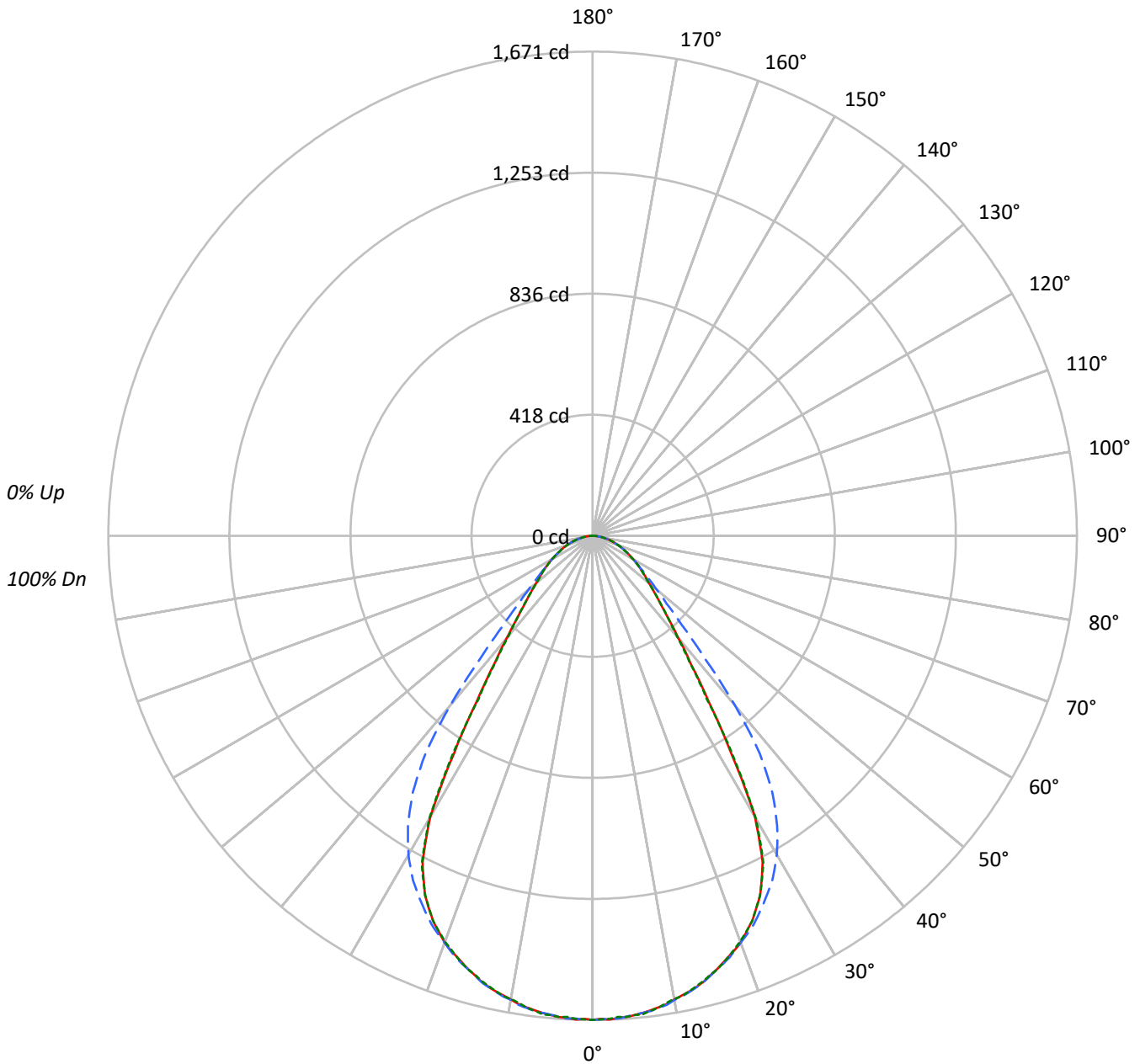
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2464.5 lumens
Efficiency: N/A
Efficacy: 87.4 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): 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									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°	71942	71942	71942
5°	71763	71711	71763
10°	71058	71110	70957
15°	70000	70053	69897
20°	68426	68476	68266
25°	65008	66395	64956
30°	55667	63214	56015
35°	36577	56829	36025
40°	25854	42856	25399
45°	20051	26378	20191
50°	17047	19237	16893
55°	15336	15779	15336
60°	13873	13873	13873
65°	12725	12613	12613
70°	11607	11607	11758
75°	10880	10497	10680
80°	9546	9546	9546
85°	8052	8052	8052

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 26378 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.5	6.4
10°-20°	442.4	17.9
20°-30°	630.4	25.6
30°-40°	537.5	21.8
40°-50°	297.4	12.1
50°-60°	187.3	7.6
60°-70°	124.4	5.0
70°-80°	68.3	2.8
80°-90°	19.4	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°	1230.3	49.9
0°-40°	1767.8	71.7
0°-60°	2252.4	91.4
0°-90°	2464.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2464.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1671	1671	1671	1671	1671	
5°	1660	1663	1659	1657	1660	157
15°	1570	1570	1572	1570	1568	442
25°	1368	1385	1398	1384	1367	618
35°	696	821	1081	822	685	452
45°	329	361	433	358	332	261
55°	204	208	210	207	204	184
65°	125	126	124	125	124	124
75°	65	64	63	64	64	69
85°	16	16	16	18	16	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1670.9	1670.9	1670.9	1670.9	1670.9
1°	1667.4	1669.7	1669.7	1668.5	1669.7
2°	1670.9	1667.4	1667.4	1667.4	1668.5
3°	1666.2	1668.5	1668.5	1665.0	1662.7
4°	1665.0	1663.9	1663.9	1667.4	1665.0
5°	1660.4	1662.7	1659.2	1656.8	1660.4
6°	1655.7	1656.8	1655.7	1656.8	1660.4
7°	1649.8	1653.3	1652.2	1651.0	1651.0
8°	1642.8	1647.5	1645.2	1645.2	1644.0
9°	1635.8	1637.0	1639.3	1639.3	1632.3
10°	1625.3	1628.8	1626.5	1627.7	1623.0
11°	1616.0	1620.7	1619.5	1617.1	1618.3
12°	1607.8	1610.1	1609.0	1605.5	1606.6
13°	1597.3	1599.6	1598.5	1598.5	1595.0
14°	1585.6	1583.3	1586.8	1584.5	1583.3
15°	1570.4	1570.4	1571.6	1570.4	1568.1
16°	1556.4	1557.6	1557.6	1556.4	1557.6
17°	1540.1	1544.8	1543.6	1541.3	1542.4
18°	1524.9	1528.4	1529.6	1528.4	1524.9
19°	1510.9	1513.2	1512.1	1507.4	1507.4
20°	1493.4	1494.5	1494.5	1492.2	1489.9
22.5°	1438.5	1446.7	1452.5	1447.8	1438.5
25°	1368.4	1384.8	1397.6	1383.6	1367.3
27.5°	1270.4	1303.1	1341.6	1306.6	1276.2
30°	1119.7	1194.5	1271.5	1201.5	1126.7
32.5°	890.9	1038.0	1185.1	1052.0	904.9
35°	695.9	820.8	1081.2	822.0	685.4
37.5°	555.8	644.5	948.1	638.7	549.9
40°	460.0	519.6	762.5	517.3	451.9
42.5°	384.1	429.7	571.0	425.0	384.1
45°	329.3	360.8	433.2	358.5	331.6
47.5°	288.4	308.3	346.8	307.1	288.4
50°	254.5	266.2	287.2	265.0	252.2
52.5°	227.7	234.7	242.9	232.4	225.3
55°	204.3	207.8	210.2	206.7	204.3
57.5°	182.1	184.5	183.3	182.1	181.0
60°	161.1	162.3	161.1	162.3	161.1
62.5°	142.4	143.6	141.3	142.4	141.3
65°	124.9	126.1	123.8	124.9	123.8
67.5°	108.6	108.6	108.6	108.6	107.4
70°	92.2	93.4	92.2	93.4	93.4
72.5°	78.2	78.2	77.1	78.2	78.2
75°	65.4	64.2	63.1	64.2	64.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	<i>28.0</i>	28.0	26.9	28.0	28.0
85°	<i>16.3</i>	16.3	16.3	17.5	16.3
87.5°	<i>8.2</i>	7.0	7.0	8.2	8.2
90°	<i>0.0</i>	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°	51.4	51.4	50.2	51.4	51.4
80°	38.5	39.7	38.5	39.7	38.5

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