

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: P838503

Luminaire Tested: HCSQ630D010-HM63040830-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838503
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-HM63040830-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

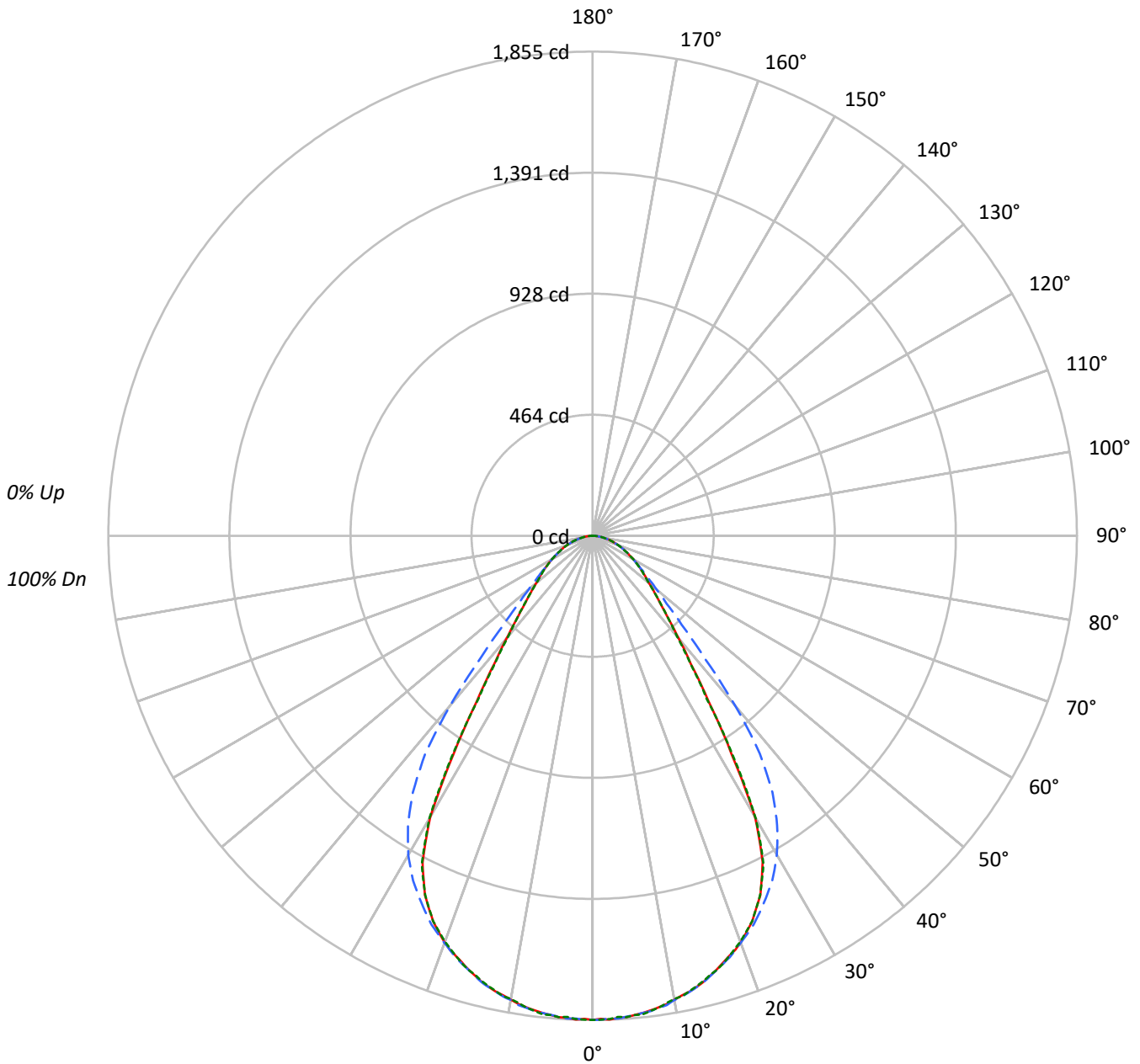
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2736.4 lumens
Efficiency: N/A
Efficacy: 97.0 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°	79873	79873	79873
5°	79676	79620	79676
10°	78897	78954	78783
15°	77725	77783	77609
20°	75972	76032	75794
25°	72182	73721	72120
30°	61807	70190	62195
35°	40614	63100	39999
40°	28710	47578	28198
45°	22261	29288	22420
50°	18929	21361	18755
55°	17032	17520	17032
60°	15405	15405	15405
65°	14131	13998	13998
70°	12891	12891	13054
75°	12077	11645	11861
80°	10612	10612	10612
85°	8942	8942	8942

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 29288 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.9	6.4
10°-20°	491.2	17.9
20°-30°	699.9	25.6
30°-40°	596.8	21.8
40°-50°	330.2	12.1
50°-60°	208.0	7.6
60°-70°	138.1	5.0
70°-80°	75.9	2.8
80°-90°	21.6	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°	1366.0	49.9
0°-40°	1962.7	71.7
0°-60°	2500.9	91.4
0°-90°	2736.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2736.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1855	1855	1855	1855	1855	
5°	1844	1846	1842	1840	1844	175
15°	1744	1744	1745	1744	1741	491
25°	1519	1538	1552	1536	1518	686
35°	773	911	1200	913	761	502
45°	366	401	481	398	368	290
55°	227	231	233	230	227	204
65°	139	140	137	139	137	138
75°	73	71	70	71	71	76
85°	18	18	18	19	18	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1855.1	1855.1	1855.1	1855.1	1855.1
1°	1851.3	1853.8	1853.8	1852.6	1853.8
2°	1855.1	1851.3	1851.3	1851.3	1852.6
3°	1850.0	1852.6	1852.6	1848.7	1846.1
4°	1848.7	1847.4	1847.4	1851.3	1848.7
5°	1843.5	1846.1	1842.2	1839.6	1843.5
6°	1838.3	1839.6	1838.3	1839.6	1843.5
7°	1831.8	1835.7	1834.4	1833.1	1833.1
8°	1824.0	1829.2	1826.6	1826.6	1825.3
9°	1816.3	1817.5	1820.1	1820.1	1812.4
10°	1804.6	1808.5	1805.9	1807.2	1802.0
11°	1794.2	1799.4	1798.1	1795.5	1796.8
12°	1785.1	1787.7	1786.4	1782.5	1783.8
13°	1773.5	1776.1	1774.8	1774.8	1770.9
14°	1760.5	1757.9	1761.8	1759.2	1757.9
15°	1743.7	1743.7	1745.0	1743.7	1741.1
16°	1728.1	1729.4	1729.4	1728.1	1729.4
17°	1709.9	1715.1	1713.8	1711.2	1712.5
18°	1693.1	1697.0	1698.3	1697.0	1693.1
19°	1677.5	1680.1	1678.8	1673.6	1673.6
20°	1658.1	1659.4	1659.4	1656.8	1654.2
22.5°	1597.2	1606.2	1612.7	1607.5	1597.2
25°	1519.4	1537.5	1551.8	1536.2	1518.1
27.5°	1410.5	1446.8	1489.6	1450.7	1417.0
30°	1243.2	1326.2	1411.8	1334.0	1251.0
32.5°	989.2	1152.5	1315.8	1168.1	1004.7
35°	772.7	911.4	1200.5	912.7	761.0
37.5°	617.1	715.6	1052.7	709.1	610.6
40°	510.8	576.9	846.5	574.3	501.7
42.5°	426.5	477.1	633.9	471.9	426.5
45°	365.6	400.6	481.0	398.0	368.2
47.5°	320.2	342.2	385.0	341.0	320.2
50°	282.6	295.6	318.9	294.3	280.0
52.5°	252.8	260.6	269.7	258.0	250.2
55°	226.9	230.8	233.4	229.5	226.9
57.5°	202.2	204.8	203.5	202.2	200.9
60°	178.9	180.2	178.9	180.2	178.9
62.5°	158.2	159.5	156.9	158.2	156.9
65°	138.7	140.0	137.4	138.7	137.4
67.5°	120.6	120.6	120.6	120.6	119.3
70°	102.4	103.7	102.4	103.7	103.7
72.5°	86.9	86.9	85.6	86.9	86.9
75°	72.6	71.3	70.0	71.3	71.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	<i>31.1</i>	31.1	29.8	31.1	31.1
85°	<i>18.1</i>	18.1	18.1	19.4	18.1
87.5°	<i>9.1</i>	7.8	7.8	9.1	9.1
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°	57.0	57.0	55.7	57.0	57.0
80°	42.8	44.1	42.8	44.1	42.8

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