

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P#

Luminaire Tested: **LD4C20D010 EX4C209050 4LBSQLI**

Issue Date: 2/9/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P#
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209151)
Test Lab: INNOVATION CENTER
Issue Date: 2/9/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C20D010 EX4C209050 4LBSQLI
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

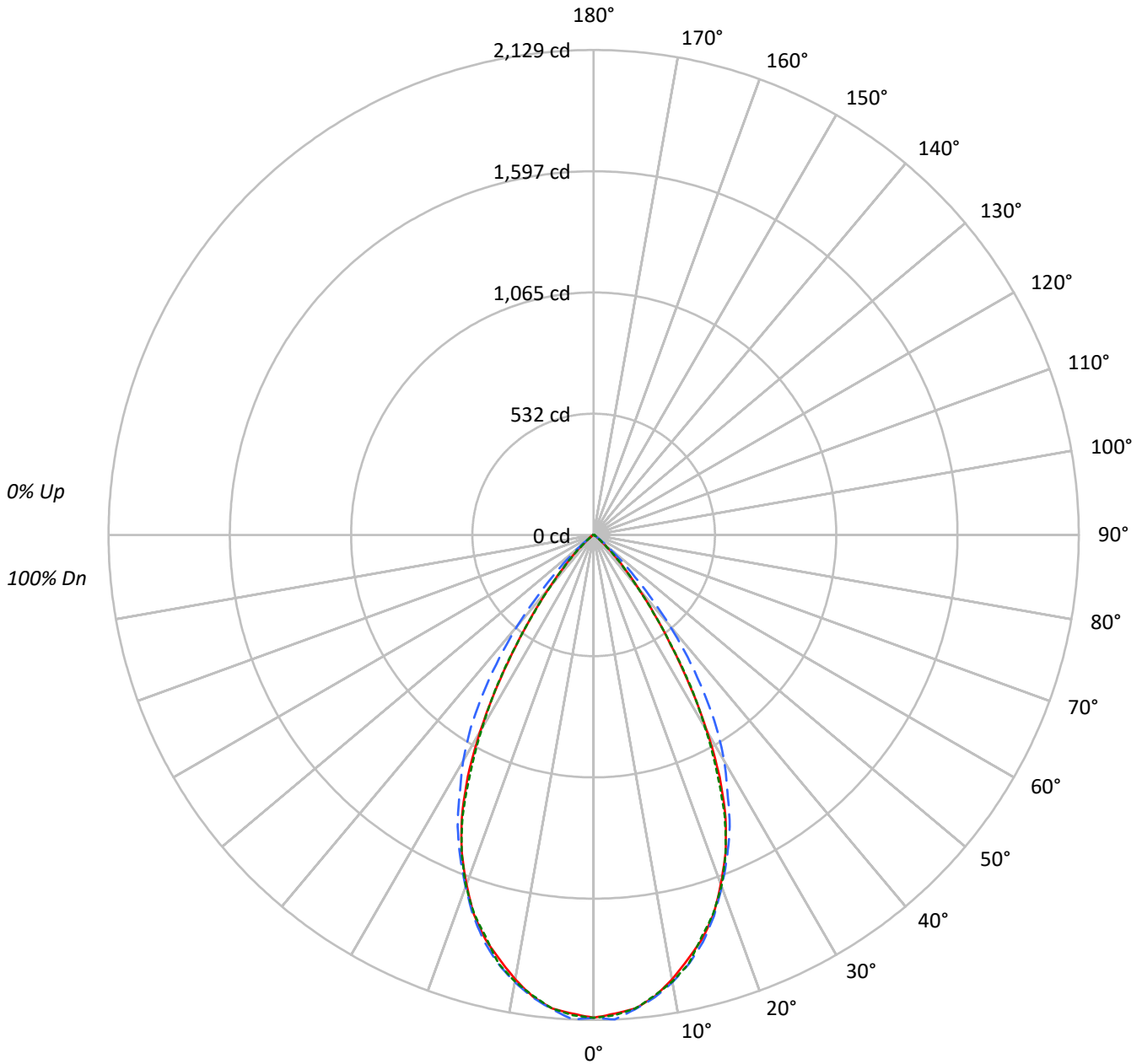
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1957.1 lumens
Efficiency: N/A
Efficacy: 89.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.9 / 0.94
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
Input Voltage (V):
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: 25 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	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93																			
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87																			
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80																			
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75																			
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69																			
6	87	78	72	68	86	77	71	67	76	71	67	74	70	66	73	69	66	64																			
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60																			
8	79	69	63	59	77	68	62	58	67	62	58	66	61	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°	204528	204528	204528
5°	202180	202442	202180
10°	194093	195289	195024
15°	183493	184841	182554
20°	167463	168705	168295
25°	145813	150401	144812
30°	110881	127538	109232
35°	69791	99145	70427
40°	37661	65473	36981
45°	17821	32340	17644
50°	6680	12129	6680
55°	3179	3852	2944
60°	2084	1833	2084
65°	1233	1233	1233
70°	762	1157	762
75°	522	522	522
80°	778	778	778
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.5	10.0
10°-20°	515.1	26.3
20°-30°	629.2	32.2
30°-40°	440.1	22.5
40°-50°	144.2	7.4
50°-60°	22.9	1.2
60°-70°	6.3	0.3
70°-80°	2.1	0.1
80°-90°	0.6	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°	1340.8	68.5
0°-40°	1780.9	91.0
0°-60°	1948.1	99.5
0°-90°	1957.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1957.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2120	2120	2120	2120	2120	
5°	2087	2088	2090	2077	2087	196
15°	1837	1844	1850	1838	1828	512
25°	1370	1390	1413	1387	1360	615
35°	592	700	842	689	598	378
45°	131	161	237	159	129	110
55°	19	20	23	20	18	19
65°	5	7	5	7	5	6
75°	1	1	1	1	1	2
85°	0	0	0	0	0	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2119.7	2119.7	2119.7	2119.7	2119.7	2119.7	2119.7	2119.7	2119.7	2119.7	2119.7
2.5°	2103.6	2118.4	2114.3	2123.8	2123.8	2113.0	2115.7	2119.7	2125.1	2129.2	2096.8
5°	2087.4	2100.9	2088.7	2102.2	2094.1	2082.0	2102.2	2091.4	2098.2	2090.1	2095.5
7.5°	2044.3	2065.9	2041.6	2057.8	2052.4	2045.7	2053.7	2051.0	2055.1	2048.3	2033.6
10°	1981.0	1998.6	1982.4	2005.3	1994.5	1987.8	1994.5	2001.2	1999.9	1993.2	2001.2
12.5°	1908.3	1928.5	1920.4	1933.9	1921.8	1921.8	1937.9	1933.9	1935.2	1929.9	1939.3
15°	1836.9	1851.8	1839.6	1857.2	1851.8	1836.9	1843.6	1843.6	1854.5	1850.4	1839.6
17.5°	1748.1	1760.2	1746.7	1750.8	1745.4	1742.7	1770.9	1752.1	1762.8	1754.8	1756.1
20°	1630.9	1636.3	1632.2	1643.0	1636.3	1644.4	1641.7	1639.0	1639.0	1643.0	1633.6
22.5°	1512.4	1512.4	1516.4	1519.1	1524.5	1516.4	1532.6	1519.1	1520.4	1529.9	1527.2
25°	1369.6	1365.6	1375.0	1388.5	1393.9	1387.1	1408.7	1397.9	1406.0	1412.7	1397.9
27.5°	1195.9	1195.9	1205.3	1228.2	1232.2	1240.3	1269.9	1269.9	1280.7	1271.3	1282.1
30°	995.2	1010.0	1022.1	1051.8	1061.2	1078.7	1109.7	1124.5	1148.8	1144.7	1139.3
32.5°	789.2	809.4	810.7	841.7	867.3	896.9	938.7	973.7	991.2	1003.3	989.8
35°	592.5	604.7	615.5	637.0	680.1	719.2	756.9	802.6	833.6	841.7	829.6
37.5°	433.7	436.4	447.1	467.3	499.6	537.4	583.1	632.9	665.3	677.4	663.9
40°	299.0	301.7	307.0	324.6	351.5	378.4	414.8	466.0	495.6	519.8	502.3
42.5°	200.6	203.3	208.7	222.2	237.0	262.6	290.9	323.2	351.5	362.3	352.8
45°	130.6	130.6	133.3	142.8	150.9	171.0	191.2	211.4	230.3	237.0	230.3
47.5°	76.8	78.1	80.8	87.5	96.9	105.0	119.9	133.3	138.7	144.1	141.4
50°	44.5	44.5	48.5	52.5	59.2	64.6	70.0	75.4	78.1	80.8	78.1
52.5°	24.2	25.6	26.9	28.3	31.0	36.4	40.4	40.4	41.8	43.1	41.8
55°	18.9	18.9	18.9	18.9	20.2	20.2	20.2	21.5	21.5	22.9	21.5
57.5°	13.5	13.5	13.5	14.8	14.8	14.8	13.5	13.5	13.5	13.5	13.5
60°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	9.5	9.5	9.5	9.5
62.5°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
65°	5.4	5.4	6.8	6.8	6.8	6.8	6.8	5.4	5.4	5.4	5.4
67.5°	4.1	4.1	4.1	4.1	5.4	5.4	4.1	4.1	4.1	4.1	4.1
70°	2.7	2.7	2.7	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
72.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
75°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2119.7	2119.7	2119.7	2119.7	2119.7	2119.7	2119.7	2119.7
2.5°	2119.7	2096.8	2099.5	2111.7	2104.9	2111.7	2110.3	2110.3
5°	2096.8	2090.1	2079.3	2075.3	2083.4	2100.9	2098.2	2087.4
7.5°	2053.7	2036.3	2048.3	2053.7	2047.0	2057.8	2063.2	2040.3
10°	2002.6	1995.9	1993.2	1995.9	1993.2	2003.9	1990.5	1990.5
12.5°	1929.9	1919.1	1919.1	1935.2	1925.8	1917.7	1928.5	1927.2
15°	1857.2	1835.6	1835.6	1840.9	1845.0	1839.6	1840.9	1827.5
17.5°	1749.4	1742.7	1733.2	1748.1	1752.1	1746.7	1750.8	1744.0
20°	1648.4	1648.4	1630.9	1637.6	1643.0	1647.1	1649.7	1639.0
22.5°	1519.1	1521.8	1509.7	1523.1	1527.2	1513.7	1516.4	1513.7
25°	1400.6	1399.3	1389.8	1384.4	1387.1	1381.7	1380.4	1360.2
27.5°	1269.9	1256.5	1236.3	1241.7	1218.8	1199.9	1199.9	1168.9
30°	1128.5	1105.7	1078.7	1051.8	1031.6	1010.0	997.9	980.4
32.5°	962.9	932.0	898.3	861.9	839.0	806.7	789.2	798.6
35°	798.6	752.8	707.0	670.7	635.6	616.8	595.2	597.9
37.5°	639.7	575.1	534.7	495.6	466.0	441.7	432.3	429.6
40°	467.3	416.1	375.7	347.4	327.3	308.4	297.6	293.6
42.5°	323.2	286.9	254.5	231.6	218.2	206.0	200.6	199.3
45°	210.1	188.6	167.0	150.9	140.1	132.0	130.6	129.3
47.5°	132.0	121.2	107.7	95.6	86.2	80.8	76.8	76.8
50°	75.4	71.4	64.6	57.9	52.5	49.8	45.8	44.5
52.5°	40.4	40.4	37.7	32.3	28.3	25.6	25.6	24.2
55°	21.5	21.5	20.2	20.2	18.9	18.9	18.9	17.5
57.5°	13.5	13.5	14.8	14.8	13.5	13.5	13.5	13.5
60°	9.5	10.8	10.8	10.8	10.8	10.8	10.8	10.8
62.5°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
65°	5.4	6.8	6.8	6.8	6.8	5.4	5.4	5.4
67.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
70°	4.1	4.1	4.1	4.1	4.1	2.7	2.7	2.7
72.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
75°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°









(END OF REPORT)