

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 EX4C209030 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 EX4C209030 4LBSQLI
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

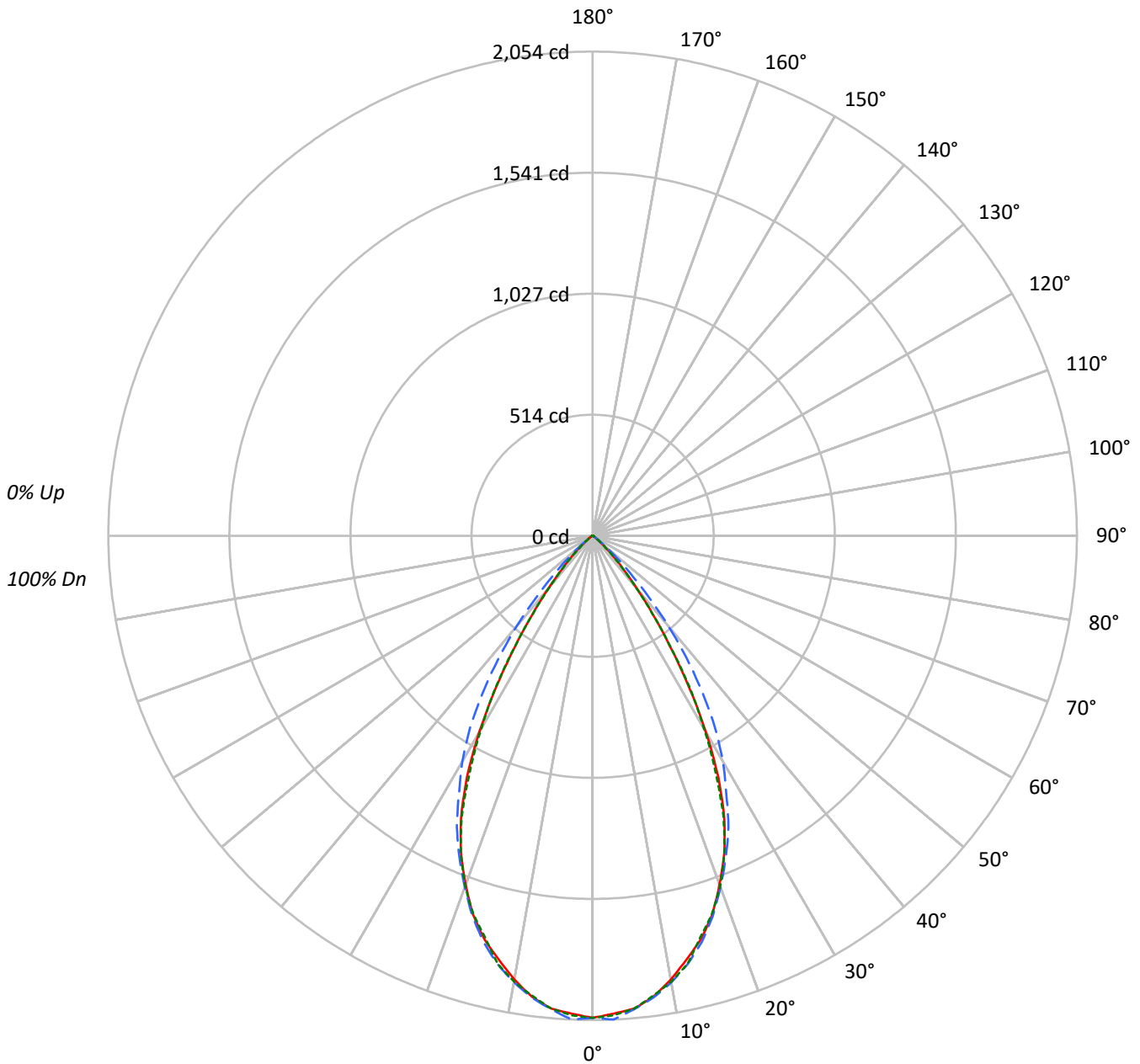
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1888.0 lumens
Efficiency: N/A
Efficacy: 86.6 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°	197320	197320	197320
5°	195052	195303	195052
10°	187254	188401	188146
15°	177030	178328	176111
20°	161559	162760	162360
25°	140671	145099	139702
30°	106970	123036	105388
35°	67341	95646	67942
40°	36326	63168	35671
45°	17193	31207	17016
50°	6440	11694	6440
55°	3062	3718	2843
60°	2007	1756	2007
65°	1187	1187	1187
70°	733	1100	733
75°	485	485	485
80°	722	722	722
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.6	10.0
10°-20°	496.9	26.3
20°-30°	607.0	32.2
30°-40°	424.6	22.5
40°-50°	139.1	7.4
50°-60°	22.1	1.2
60°-70°	6.0	0.3
70°-80°	2.0	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°	1293.5	68.5
0°-40°	1718.1	91.0
0°-60°	1879.4	99.5
0°-90°	1888.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1888.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2045	2045	2045	2045	2045	
5°	2014	2014	2016	2004	2014	189
15°	1772	1779	1785	1773	1763	494
25°	1321	1341	1363	1338	1312	594
35°	572	675	812	665	577	365
45°	126	155	229	153	125	106
55°	18	20	22	20	17	18
65°	5	6	5	6	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°	2045.0	2045.0	2045.0	2045.0	2045.0	2045.0	2045.0	2045.0	2045.0	2045.0	2045.0
2.5°	2029.4	2043.7	2039.8	2048.9	2048.9	2038.5	2041.1	2045.0	2050.2	2054.1	2022.9
5°	2013.8	2026.8	2015.1	2028.1	2020.3	2008.6	2028.1	2017.7	2024.2	2016.4	2021.6
7.5°	1972.3	1993.0	1969.7	1985.2	1980.0	1973.5	1981.3	1978.7	1982.6	1976.1	1961.9
10°	1911.2	1928.1	1912.5	1934.6	1924.2	1917.7	1924.2	1930.7	1929.4	1922.9	1930.7
12.5°	1841.0	1860.5	1852.7	1865.7	1854.0	1854.0	1869.6	1865.7	1867.0	1861.8	1870.9
15°	1772.2	1786.5	1774.8	1791.7	1786.5	1772.2	1778.6	1778.6	1789.1	1785.2	1774.8
17.5°	1686.4	1698.1	1685.1	1689.0	1683.8	1681.2	1708.5	1690.3	1700.7	1692.9	1694.2
20°	1573.4	1578.6	1574.7	1585.1	1578.6	1586.4	1583.8	1581.2	1581.2	1585.1	1576.0
22.5°	1459.0	1459.0	1463.0	1465.6	1470.7	1463.0	1478.5	1465.6	1466.8	1475.9	1473.3
25°	1321.3	1317.4	1326.5	1339.5	1344.7	1338.2	1359.0	1348.6	1356.4	1362.9	1348.6
27.5°	1153.7	1153.7	1162.8	1184.9	1188.8	1196.6	1225.2	1225.2	1235.6	1226.5	1236.9
30°	960.1	974.4	986.1	1014.7	1023.8	1040.7	1070.6	1084.9	1108.3	1104.3	1099.1
32.5°	761.4	780.9	782.1	812.0	836.7	865.3	905.6	939.3	956.3	967.9	954.9
35°	571.7	583.4	593.8	614.5	656.1	693.8	730.2	774.3	804.2	812.0	800.3
37.5°	418.4	421.0	431.4	450.8	482.0	518.4	562.6	610.6	641.8	653.5	640.5
40°	288.4	291.0	296.2	313.1	339.1	365.1	400.2	449.5	478.1	501.5	484.6
42.5°	193.6	196.2	201.4	214.4	228.7	253.3	280.6	311.8	339.1	349.5	340.4
45°	126.0	126.0	128.6	137.7	145.5	165.0	184.5	204.0	222.2	228.7	222.2
47.5°	74.1	75.3	77.9	84.5	93.5	101.3	115.6	128.6	133.8	139.0	136.4
50°	42.9	42.9	46.8	50.7	57.2	62.4	67.5	72.7	75.3	77.9	75.3
52.5°	23.4	24.7	26.0	27.3	29.9	35.1	39.0	39.0	40.3	41.6	40.3
55°	18.2	18.2	18.2	18.2	19.5	19.5	19.5	20.8	20.8	22.1	20.8
57.5°	13.0	13.0	13.0	14.3	14.3	14.3	13.0	13.0	13.0	13.0	13.0
60°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	9.1	9.1	9.1	9.1
62.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
65°	5.2	5.2	6.5	6.5	6.5	6.5	6.5	5.2	5.2	5.2	5.2
67.5°	3.9	3.9	3.9	3.9	5.2	5.2	3.9	3.9	3.9	3.9	3.9
70°	2.6	2.6	2.6	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
72.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
75°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
77.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	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°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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°	2045.0	2045.0	2045.0	2045.0	2045.0	2045.0	2045.0	2045.0
2.5°	2045.0	2022.9	2025.5	2037.2	2030.7	2037.2	2035.9	2035.9
5°	2022.9	2016.4	2006.0	2002.1	2009.9	2026.8	2024.2	2013.8
7.5°	1981.3	1964.5	1976.1	1981.3	1974.9	1985.2	1990.4	1968.3
10°	1932.0	1925.5	1922.9	1925.5	1922.9	1933.3	1920.3	1920.3
12.5°	1861.8	1851.4	1851.4	1867.0	1857.9	1850.1	1860.5	1859.2
15°	1791.7	1770.8	1770.8	1776.0	1780.0	1774.8	1776.0	1763.0
17.5°	1687.7	1681.2	1672.1	1686.4	1690.3	1685.1	1689.0	1682.5
20°	1590.3	1590.3	1573.4	1579.9	1585.1	1589.0	1591.6	1581.2
22.5°	1465.6	1468.2	1456.4	1469.4	1473.3	1460.4	1463.0	1460.4
25°	1351.2	1349.9	1340.8	1335.6	1338.2	1333.0	1331.7	1312.2
27.5°	1225.2	1212.2	1192.7	1197.9	1175.8	1157.6	1157.6	1127.7
30°	1088.7	1066.7	1040.7	1014.7	995.2	974.4	962.7	945.9
32.5°	928.9	899.1	866.6	831.5	809.4	778.3	761.4	770.5
35°	770.5	726.3	682.1	647.0	613.2	595.0	574.2	576.8
37.5°	617.1	554.8	515.8	478.1	449.5	426.2	417.0	414.5
40°	450.8	401.5	362.5	335.2	315.7	297.5	287.2	283.2
42.5°	311.8	276.8	245.5	223.5	210.5	198.8	193.6	192.3
45°	202.7	181.9	161.1	145.5	135.1	127.4	126.0	124.7
47.5°	127.4	116.9	103.9	92.3	83.1	77.9	74.1	74.1
50°	72.7	68.9	62.4	55.9	50.7	48.1	44.2	42.9
52.5°	39.0	39.0	36.4	31.2	27.3	24.7	24.7	23.4
55°	20.8	20.8	19.5	19.5	18.2	18.2	18.2	16.9
57.5°	13.0	13.0	14.3	14.3	13.0	13.0	13.0	13.0
60°	9.1	10.4	10.4	10.4	10.4	10.4	10.4	10.4
62.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
65°	5.2	6.5	6.5	6.5	6.5	5.2	5.2	5.2
67.5°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
70°	3.9	3.9	3.9	3.9	3.9	2.6	2.6	2.6
72.5°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
75°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
77.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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)