

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 EX4C209040 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 EX4C209040 4LBSQLI
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQ TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

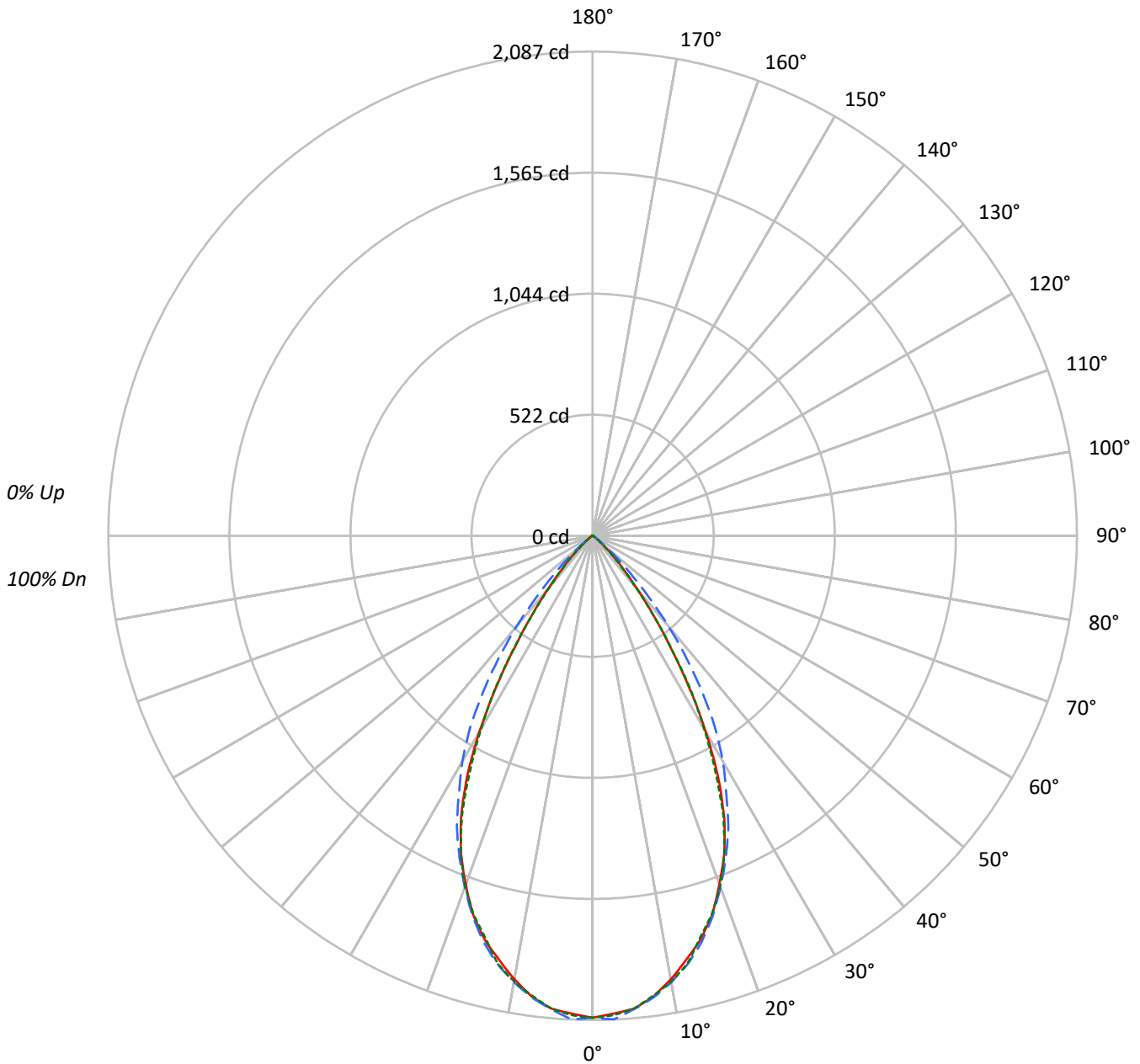
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1917.9 lumens
Efficiency: N/A
Efficacy: 88.0 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 (Ain): 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°	200456	200456	200456
5°	198151	198413	198151
10°	190223	191389	191134
15°	179837	181155	178918
20°	164126	165337	164937
25°	142906	147410	141927
30°	108675	124997	107059
35°	68401	97166	69026
40°	36905	64175	36238
45°	17466	31699	17289
50°	6545	11889	6545
55°	3112	3785	2893
60°	2046	1795	2046
65°	1210	1210	1210
70°	733	1128	733
75°	485	485	485
80°	722	722	722
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.6	10.0
10°-20°	504.8	26.3
20°-30°	616.7	32.2
30°-40°	431.3	22.5
40°-50°	141.3	7.4
50°-60°	22.5	1.2
60°-70°	6.1	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°	1314.1	68.5
0°-40°	1745.4	91.0
0°-60°	1909.2	99.5
0°-90°	1917.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1917.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2078	2078	2078	2078	2078	
5°	2046	2046	2048	2036	2046	192
15°	1800	1808	1814	1802	1791	502
25°	1342	1363	1385	1359	1333	603
35°	581	686	825	675	586	371
45°	128	158	232	156	127	107
55°	18	20	22	20	17	18
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°	2077.5	2077.5	2077.5	2077.5	2077.5	2077.5	2077.5	2077.5	2077.5	2077.5	2077.5
2.5°	2061.7	2076.2	2072.2	2081.5	2081.5	2070.9	2073.6	2077.5	2082.8	2086.8	2055.0
5°	2045.8	2059.0	2047.1	2060.3	2052.4	2040.5	2060.3	2049.8	2056.4	2048.5	2053.7
7.5°	2003.6	2024.7	2001.0	2016.8	2011.5	2004.9	2012.8	2010.2	2014.2	2007.5	1993.0
10°	1941.5	1958.7	1942.9	1965.3	1954.7	1948.2	1954.7	1961.4	1960.0	1953.4	1961.4
12.5°	1870.3	1890.1	1882.1	1895.3	1883.5	1883.5	1899.3	1895.3	1896.7	1891.4	1900.6
15°	1800.3	1814.9	1803.0	1820.1	1814.9	1800.3	1806.9	1806.9	1817.5	1813.5	1803.0
17.5°	1713.2	1725.1	1711.9	1715.9	1710.6	1707.9	1735.6	1717.2	1727.7	1719.8	1721.1
20°	1598.4	1603.7	1599.7	1610.2	1603.7	1611.6	1609.0	1606.3	1606.3	1610.2	1601.0
22.5°	1482.2	1482.2	1486.2	1488.8	1494.1	1486.2	1502.0	1488.8	1490.1	1499.4	1496.8
25°	1342.3	1338.4	1347.6	1360.8	1366.1	1359.5	1380.6	1370.0	1377.9	1384.6	1370.0
27.5°	1172.1	1172.1	1181.3	1203.8	1207.7	1215.6	1244.6	1244.6	1255.2	1246.0	1256.5
30°	975.4	989.9	1001.8	1030.8	1040.1	1057.2	1087.6	1102.1	1125.9	1121.9	1116.6
32.5°	773.5	793.3	794.6	824.9	850.0	879.0	920.0	954.3	971.4	983.3	970.1
35°	580.7	592.6	603.2	624.3	666.5	704.8	741.8	786.6	817.0	824.9	813.0
37.5°	425.0	427.7	438.2	458.0	489.7	526.7	571.5	620.3	652.0	663.9	650.7
40°	293.0	295.6	300.9	318.1	344.5	370.9	406.5	456.7	485.7	509.5	492.3
42.5°	196.6	199.3	204.6	217.8	232.3	257.4	285.1	316.8	344.5	355.1	345.8
45°	128.0	128.0	130.7	139.9	147.8	167.6	187.4	207.2	225.7	232.3	225.7
47.5°	75.2	76.5	79.2	85.8	95.0	102.9	117.5	130.7	135.9	141.2	138.6
50°	43.6	43.6	47.5	51.5	58.1	63.3	68.6	73.9	76.5	79.2	76.5
52.5°	23.8	25.1	26.4	27.7	30.4	35.7	39.6	39.6	40.9	42.2	40.9
55°	18.5	18.5	18.5	18.5	19.8	19.8	19.8	21.1	21.1	22.5	21.1
57.5°	13.2	13.2	13.2	14.5	14.5	14.5	13.2	13.2	13.2	13.2	13.2
60°	10.6	10.6	10.6	10.6	10.6	10.6	10.6	9.3	9.3	9.3	9.3
62.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
65°	5.3	5.3	6.6	6.6	6.6	6.6	6.6	5.3	5.3	5.3	5.3
67.5°	4.0	4.0	4.0	4.0	5.3	5.3	4.0	4.0	4.0	4.0	4.0
70°	2.6	2.6	2.6	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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°	2077.5	2077.5	2077.5	2077.5	2077.5	2077.5	2077.5	2077.5
2.5°	2077.5	2055.0	2057.7	2069.6	2063.0	2069.6	2068.3	2068.3
5°	2055.0	2048.5	2037.9	2033.9	2041.8	2059.0	2056.4	2045.8
7.5°	2012.8	1995.7	2007.5	2012.8	2006.2	2016.8	2022.1	1999.6
10°	1962.7	1956.1	1953.4	1956.1	1953.4	1964.0	1950.8	1950.8
12.5°	1891.4	1880.8	1880.8	1896.7	1887.4	1879.5	1890.1	1888.8
15°	1820.1	1799.0	1799.0	1804.3	1808.2	1803.0	1804.3	1791.1
17.5°	1714.5	1707.9	1698.7	1713.2	1717.2	1711.9	1715.9	1709.2
20°	1615.5	1615.5	1598.4	1605.0	1610.2	1614.2	1616.9	1606.3
22.5°	1488.8	1491.5	1479.6	1492.8	1496.8	1483.6	1486.2	1483.6
25°	1372.7	1371.4	1362.1	1356.8	1359.5	1354.2	1352.9	1333.1
27.5°	1244.6	1231.4	1211.7	1216.9	1194.5	1176.0	1176.0	1145.6
30°	1106.0	1083.6	1057.2	1030.8	1011.0	989.9	978.0	960.9
32.5°	943.7	913.4	880.4	844.7	822.3	790.6	773.5	782.7
35°	782.7	737.8	692.9	657.3	623.0	604.5	583.4	586.0
37.5°	626.9	563.6	524.0	485.7	456.7	432.9	423.7	421.0
40°	458.0	407.8	368.3	340.5	320.7	302.3	291.7	287.7
42.5°	316.8	281.2	249.4	227.0	213.8	201.9	196.6	195.4
45°	205.9	184.8	163.7	147.8	137.3	129.4	128.0	126.7
47.5°	129.4	118.8	105.6	93.7	84.5	79.2	75.2	75.2
50°	73.9	70.0	63.3	56.8	51.5	48.9	44.9	43.6
52.5°	39.6	39.6	36.9	31.7	27.7	25.1	25.1	23.8
55°	21.1	21.1	19.8	19.8	18.5	18.5	18.5	17.2
57.5°	13.2	13.2	14.5	14.5	13.2	13.2	13.2	13.2
60°	9.3	10.6	10.6	10.6	10.6	10.6	10.6	10.6
62.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
65°	5.3	6.6	6.6	6.6	6.6	5.3	5.3	5.3
67.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
70°	4.0	4.0	4.0	4.0	4.0	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)