

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 EX4C209035 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 EX4C209035 4LBSQLI  
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS  
AND 4LBSQ TRIM WITH LI FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

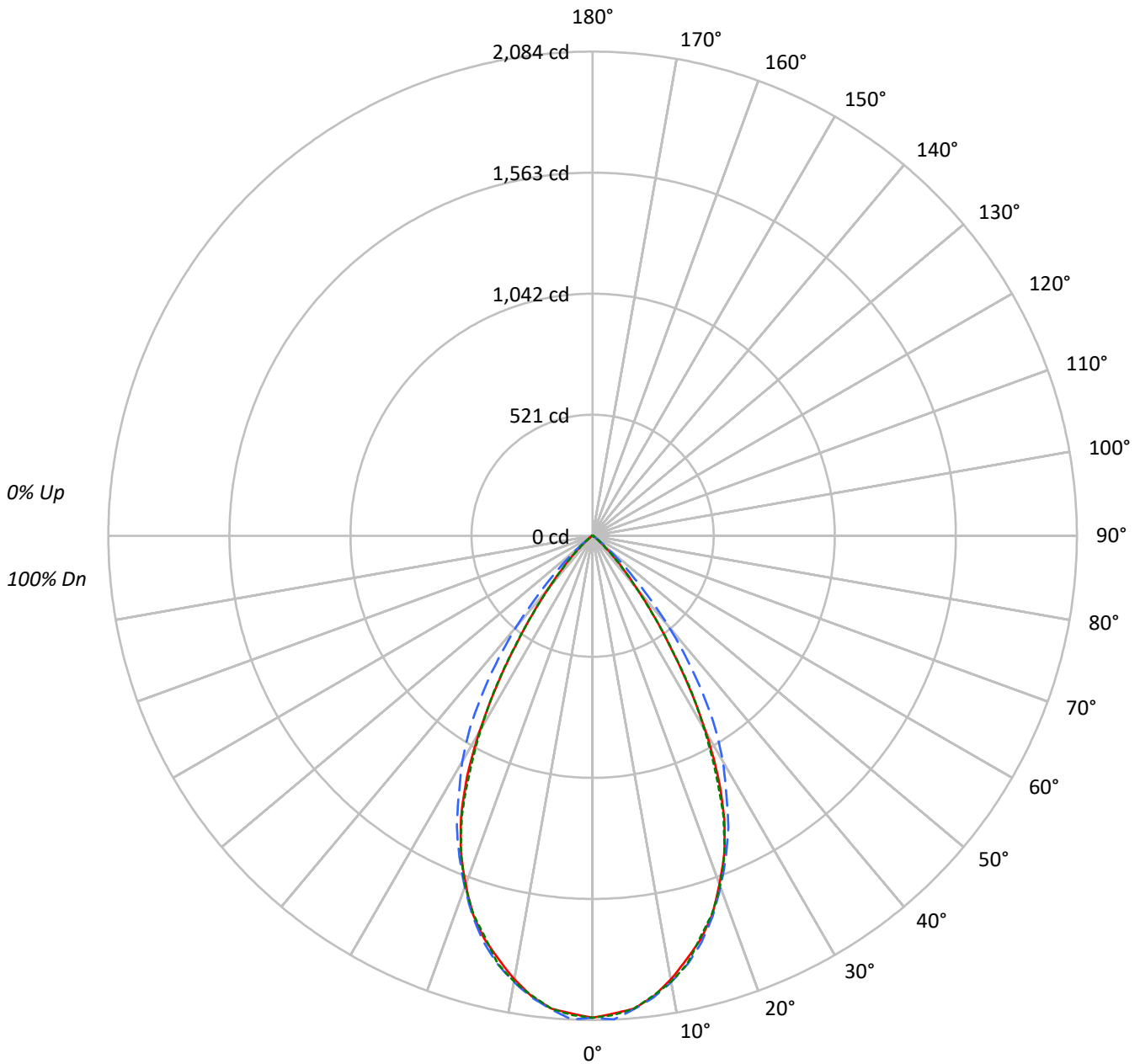
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1914.9 lumens  
Efficiency: N/A  
Efficacy: 87.8 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 (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°	200137	200137	200137
5°	197841	198103	197841
10°	189929	191095	190840
15°	179557	180876	178638
20°	163869	165081	164680
25°	142683	147175	141703
30°	108508	124797	106892
35°	68295	97025	68920
40°	36843	64074	36188
45°	17439	31644	17262
50°	6530	11874	6530
55°	3095	3768	2893
60°	2026	1775	2026
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°	192.3	10.0
10°-20°	504.0	26.3
20°-30°	615.7	32.2
30°-40°	430.6	22.5
40°-50°	141.1	7.4
50°-60°	22.4	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°	1312.0	68.5
0°-40°	1742.7	91.0
0°-60°	1906.3	99.5
0°-90°	1914.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1914.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2074	2074	2074	2074	2074	
5°	2043	2043	2045	2033	2043	192
15°	1798	1805	1811	1799	1788	501
25°	1340	1361	1382	1357	1331	602
35°	580	685	824	674	585	370
45°	128	158	232	156	126	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°	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2
2.5°	2058.4	2073.0	2069.0	2078.2	2078.2	2067.7	2070.3	2074.2	2079.5	2083.5	2051.8
5°	2042.6	2055.8	2043.9	2057.1	2049.2	2037.4	2057.1	2046.5	2053.2	2045.3	2050.5
7.5°	2000.5	2021.5	1997.8	2013.6	2008.4	2001.8	2009.7	2007.0	2011.0	2004.4	1989.9
10°	1938.5	1955.7	1939.9	1962.2	1951.7	1945.1	1951.7	1958.3	1957.0	1950.4	1958.3
12.5°	1867.4	1887.1	1879.2	1892.4	1880.5	1880.5	1896.3	1892.4	1893.7	1888.4	1897.6
15°	1797.5	1812.0	1800.1	1817.3	1812.0	1797.5	1804.1	1804.1	1814.7	1810.7	1800.1
17.5°	1710.5	1722.4	1709.2	1713.2	1707.9	1705.3	1732.9	1714.5	1725.0	1717.1	1718.5
20°	1595.9	1601.2	1597.2	1607.7	1601.2	1609.1	1606.4	1603.8	1603.8	1607.7	1598.5
22.5°	1479.9	1479.9	1483.9	1486.5	1491.8	1483.9	1499.7	1486.5	1487.8	1497.1	1494.4
25°	1340.2	1336.3	1345.5	1358.7	1364.0	1357.3	1378.4	1367.9	1375.8	1382.4	1367.9
27.5°	1170.2	1170.2	1179.4	1201.9	1205.8	1213.7	1242.7	1242.7	1253.2	1244.0	1254.6
30°	973.9	988.4	1000.2	1029.2	1038.4	1055.6	1085.9	1100.4	1124.1	1120.1	1114.9
32.5°	772.2	792.0	793.3	823.7	848.7	877.6	918.5	952.8	969.9	981.8	968.6
35°	579.8	591.7	602.3	623.3	665.5	703.7	740.6	785.4	815.7	823.7	811.8
37.5°	424.4	427.0	437.5	457.3	488.9	525.8	570.6	619.4	651.0	662.9	649.7
40°	292.5	295.2	300.5	317.6	344.0	370.3	405.9	456.0	485.0	508.7	491.5
42.5°	196.3	199.0	204.2	217.4	231.9	256.9	284.6	316.3	344.0	354.5	345.3
45°	127.8	127.8	130.5	139.7	147.6	167.4	187.1	206.9	225.3	231.9	225.3
47.5°	75.1	76.4	79.1	85.7	94.9	102.8	117.3	130.5	135.7	141.0	138.4
50°	43.5	43.5	47.4	51.4	58.0	63.2	68.5	73.8	76.4	79.1	76.4
52.5°	23.7	25.1	26.4	27.7	30.3	35.6	39.5	39.5	40.9	42.2	40.9
55°	18.4	18.4	18.4	18.4	19.8	19.8	19.8	21.1	21.1	22.4	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°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	9.2	9.2	9.2	9.2
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°	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2	2074.2
2.5°	2074.2	2051.8	2054.5	2066.3	2059.7	2066.3	2065.0	2065.0
5°	2051.8	2045.3	2034.7	2030.7	2038.6	2055.8	2053.2	2042.6
7.5°	2009.7	1992.6	2004.4	2009.7	2003.1	2013.6	2018.9	1996.5
10°	1959.6	1953.0	1950.4	1953.0	1950.4	1960.9	1947.8	1947.8
12.5°	1888.4	1877.9	1877.9	1893.7	1884.5	1876.6	1887.1	1885.8
15°	1817.3	1796.2	1796.2	1801.4	1805.4	1800.1	1801.4	1788.3
17.5°	1711.8	1705.3	1696.0	1710.5	1714.5	1709.2	1713.2	1706.6
20°	1613.0	1613.0	1595.9	1602.5	1607.7	1611.7	1614.3	1603.8
22.5°	1486.5	1489.1	1477.3	1490.4	1494.4	1481.2	1483.9	1481.2
25°	1370.5	1369.2	1360.0	1354.7	1357.3	1352.1	1350.8	1331.0
27.5°	1242.7	1229.5	1209.8	1215.0	1192.6	1174.2	1174.2	1143.8
30°	1104.3	1081.9	1055.6	1029.2	1009.5	988.4	976.5	959.4
32.5°	942.2	912.0	879.0	843.4	821.0	789.4	772.2	781.5
35°	781.5	736.6	691.8	656.3	622.0	603.5	582.5	585.1
37.5°	626.0	562.7	523.2	485.0	456.0	432.3	423.0	420.4
40°	457.3	407.2	367.7	340.0	320.2	301.8	291.3	287.3
42.5°	316.3	280.7	249.0	226.7	213.5	201.6	196.3	195.0
45°	205.6	184.5	163.4	147.6	137.1	129.2	127.8	126.5
47.5°	129.2	118.6	105.4	93.6	84.3	79.1	75.1	75.1
50°	73.8	69.9	63.2	56.7	51.4	48.8	44.8	43.5
52.5°	39.5	39.5	36.9	31.6	27.7	25.1	25.1	23.7
55°	21.1	21.1	19.8	19.8	18.4	18.4	18.4	17.2
57.5°	13.2	13.2	14.5	14.5	13.2	13.2	13.2	13.2
60°	9.2	10.5	10.5	10.5	10.5	10.5	10.5	10.5
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)