

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: P563832

Luminaire Tested: **LD4C40D010 EX4C409030 4LBCSSQMW**

Issue Date: 5/25/2022

Test Information

Test Method: LM-79-08
Report Number: P563832
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P209253)
Test Lab: INNOVATION CENTER
Issue Date: 5/25/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C40D010 EX4C409030 4LBCSSQMW
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MW FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

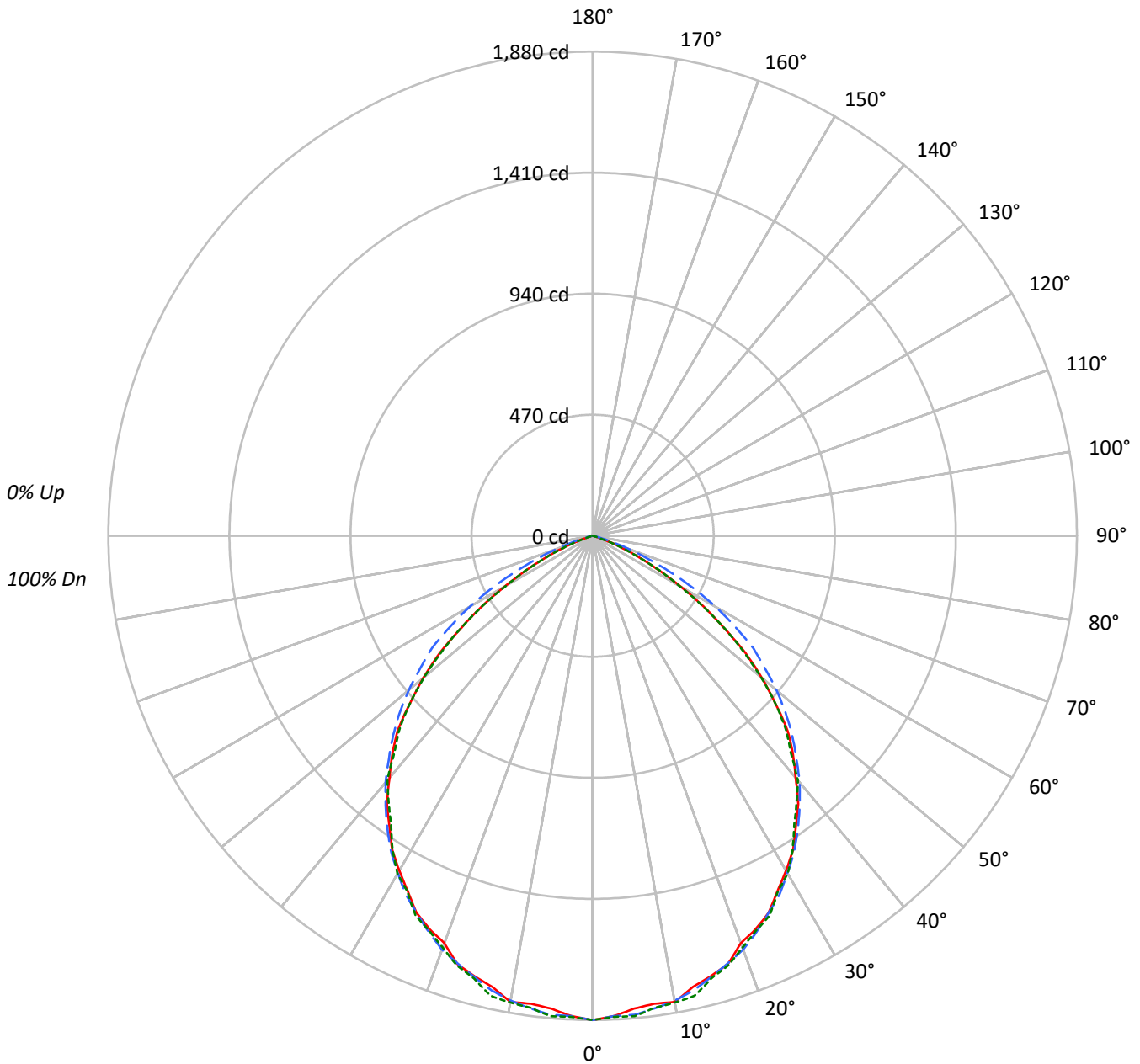
Lumens per Lamp: N/A
Luminaire Lumens: 4016.9 lumens
Efficiency: N/A
Efficacy: 85.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 47
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				20				
RC	80				70				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			100
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89			89
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77			77
3	95	86	79	74	93	85	78	73	82	76	72	79	74	71	77	73	69	67			67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59			59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52			52
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46			46
7	70	58	50	44	68	57	49	44	55	49	44	54	48	43	53	47	43	41			41
8	65	53	45	40	64	52	45	39	51	44	39	50	44	39	49	43	39	37			37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33			33
10	57	45	38	33	56	44	37	33	44	37	32	43	37	32	42	36	32	31			31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	181438	181438	181438
5°	178518	180843	181356
10°	180063	179534	180308
15°	176900	177170	177699
20°	172792	175534	174712
25°	172035	172035	173174
30°	167246	168438	168739
35°	162034	163612	160773
40°	154424	157447	156111
45°	146144	149433	144684
50°	128719	139933	127909
55°	104248	128068	104702
60°	76284	106176	74740
65°	46347	75617	45114
70°	18084	40681	17322
75°	1976	10960	1976
80°	1500	1500	1500
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.5	4.4
10°-20°	502.3	12.5
20°-30°	745.3	18.6
30°-40°	863.5	21.5
40°-50°	827.9	20.6
50°-60°	608.8	15.2
60°-70°	262.9	6.5
70°-80°	28.4	0.7
80°-90°	0.4	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°	1425.0	35.5
0°-40°	2288.6	57.0
0°-60°	3725.3	92.7
0°-90°	4016.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4016.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1880	1880	1880	1880	1880	
5°	1843	1862	1867	1870	1872	176
15°	1771	1782	1774	1776	1779	499
25°	1616	1613	1616	1619	1627	740
35°	1376	1384	1389	1386	1365	860
45°	1071	1074	1095	1079	1060	814
55°	620	684	761	681	622	558
65°	203	254	331	251	198	209
75°	5	8	29	5	5	16
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4
2.5°	1867.1	1888.4	1891.1	1877.8	1872.4	1864.4	1883.0	1869.7	1875.1	1869.7	1867.1
5°	1843.1	1867.1	1869.7	1869.7	1864.4	1861.7	1869.7	1867.1	1864.4	1859.0	1867.1
7.5°	1832.4	1845.7	1859.0	1843.1	1851.0	1848.5	1867.1	1859.0	1856.4	1856.4	1851.0
10°	1837.8	1835.0	1845.7	1829.6	1835.0	1829.6	1845.7	1845.7	1840.3	1835.0	1832.4
12.5°	1794.8	1816.2	1816.2	1813.7	1808.3	1800.2	1816.2	1827.1	1810.9	1810.9	1808.3
15°	1770.9	1776.2	1778.9	1778.9	1776.2	1781.6	1789.6	1778.9	1781.6	1768.2	1773.6
17.5°	1744.2	1733.5	1741.5	1736.2	1738.9	1744.2	1754.9	1754.9	1738.9	1736.2	1741.5
20°	1682.8	1714.8	1717.5	1701.5	1704.1	1704.1	1722.8	1706.9	1717.5	1704.1	1709.5
22.5°	1653.4	1674.7	1677.5	1656.1	1669.3	1653.4	1672.1	1648.0	1674.7	1656.1	1664.0
25°	1615.9	1613.4	1621.3	1610.6	1613.4	1613.4	1626.6	1615.9	1624.1	1613.4	1615.9
27.5°	1554.6	1575.9	1573.2	1562.5	1567.9	1565.3	1592.0	1562.5	1578.6	1565.3	1570.7
30°	1501.1	1519.8	1514.5	1503.8	1503.8	1495.8	1525.2	1517.2	1514.5	1514.5	1511.8
32.5°	1447.7	1450.4	1445.0	1447.7	1450.4	1439.7	1463.8	1453.1	1450.4	1453.1	1455.7
35°	1375.6	1375.6	1380.8	1372.9	1383.6	1383.6	1405.0	1391.5	1389.0	1380.8	1389.0
37.5°	1311.5	1303.5	1306.1	1306.1	1311.5	1316.8	1327.4	1322.2	1322.2	1314.2	1319.5
40°	1226.0	1220.6	1228.7	1228.7	1236.7	1236.7	1247.4	1242.0	1250.0	1250.0	1250.0
42.5°	1151.3	1151.3	1145.9	1153.9	1156.6	1153.9	1172.6	1169.9	1172.6	1167.2	1169.9
45°	1071.0	1071.0	1065.7	1063.1	1076.4	1073.8	1095.1	1087.1	1097.8	1092.4	1095.1
47.5°	961.6	974.9	966.8	974.9	991.0	993.7	1006.9	1001.6	1012.3	1004.4	1015.1
50°	857.5	857.5	865.4	876.1	892.1	894.8	910.9	921.6	926.9	929.5	932.2
52.5°	747.9	745.2	753.2	766.6	780.0	790.7	806.6	822.7	833.4	849.4	841.3
55°	619.7	625.0	633.1	649.1	670.4	683.8	697.2	718.6	737.3	745.2	761.3
57.5°	510.1	504.8	510.1	531.5	555.6	566.3	585.0	606.4	633.1	649.1	654.5
60°	395.3	398.0	403.3	422.0	440.8	456.7	464.8	499.4	523.6	539.5	550.2
62.5°	291.2	296.5	301.9	317.9	336.5	349.9	363.2	392.6	414.0	430.1	440.8
65°	203.0	205.7	213.7	221.6	240.4	253.7	264.4	288.5	309.8	323.3	331.2
67.5°	125.5	128.2	133.5	144.2	157.6	168.2	178.9	195.0	213.7	227.0	229.7
70°	64.1	66.8	69.4	77.5	88.2	93.5	101.4	114.8	128.2	138.8	144.2
72.5°	21.4	21.4	24.1	29.4	34.8	40.1	42.7	56.1	66.8	72.1	74.8
75°	5.3	5.3	5.3	5.3	5.3	8.0	8.0	16.0	21.4	26.7	29.4
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	5.3	5.3
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	0.0	0.0	0.0	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	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4	1880.4
2.5°	1880.4	1875.1	1872.4	1875.1	1875.1	1872.4	1880.4	1891.1	1904.4	1869.7
5°	1877.8	1872.4	1877.8	1861.7	1869.7	1864.4	1875.1	1872.4	1883.0	1872.4
7.5°	1869.7	1859.0	1861.7	1853.7	1864.4	1851.0	1859.0	1875.1	1864.4	1848.5
10°	1843.1	1837.8	1856.4	1829.6	1824.3	1835.0	1856.4	1840.3	1835.0	1840.3
12.5°	1816.2	1816.2	1824.3	1803.0	1805.5	1810.9	1821.6	1810.9	1816.2	1829.6
15°	1786.9	1781.6	1794.8	1778.9	1776.2	1770.9	1781.6	1781.6	1786.9	1778.9
17.5°	1752.2	1744.2	1744.2	1738.9	1736.2	1749.6	1754.9	1757.5	1760.3	1749.6
20°	1709.5	1706.9	1714.8	1706.9	1709.5	1712.2	1712.2	1706.9	1730.9	1701.5
22.5°	1664.0	1672.1	1661.4	1656.1	1661.4	1666.8	1666.8	1669.3	1664.0	1658.6
25°	1618.7	1624.1	1626.6	1610.6	1618.7	1610.6	1629.4	1632.0	1621.3	1626.6
27.5°	1578.6	1570.7	1567.9	1557.2	1562.5	1560.0	1562.5	1562.5	1578.6	1557.2
30°	1517.2	1509.1	1511.8	1503.8	1506.5	1503.8	1506.5	1506.5	1517.2	1514.5
32.5°	1458.4	1450.4	1453.1	1445.0	1445.0	1447.7	1442.4	1442.4	1450.4	1445.0
35°	1402.2	1383.6	1386.2	1383.6	1386.2	1375.6	1375.6	1372.9	1378.3	1364.9
37.5°	1322.2	1314.2	1311.5	1308.8	1311.5	1306.1	1311.5	1303.5	1311.5	1300.8
40°	1250.0	1244.6	1247.4	1231.3	1231.3	1234.0	1228.7	1226.0	1228.7	1239.4
42.5°	1177.9	1167.2	1161.9	1156.6	1159.2	1151.3	1148.5	1143.2	1148.5	1137.8
45°	1092.4	1092.4	1089.8	1076.4	1079.1	1079.1	1068.5	1057.8	1060.3	1060.3
47.5°	1015.1	1009.7	1006.9	993.7	991.0	988.3	977.5	969.6	969.6	961.6
50°	929.5	924.1	916.2	902.8	897.5	881.4	873.5	862.8	852.1	852.1
52.5°	849.4	830.6	820.0	798.6	790.7	782.6	761.3	753.2	745.2	737.3
55°	753.2	737.3	715.9	691.8	681.1	667.7	646.3	630.4	619.7	622.4
57.5°	659.8	633.1	611.7	579.7	566.3	558.2	536.9	515.5	504.8	504.8
60°	544.9	523.6	496.8	467.4	456.7	443.4	416.6	403.3	395.3	387.3
62.5°	435.4	419.4	395.3	357.9	349.9	336.5	317.9	301.9	293.8	293.8
65°	325.8	309.8	288.5	261.7	251.0	240.4	224.4	208.3	200.3	197.6
67.5°	229.7	211.0	192.4	171.0	163.0	157.6	141.6	130.9	125.5	122.8
70°	138.8	128.2	114.8	98.9	90.7	85.4	74.8	66.8	64.1	61.4
72.5°	72.1	64.1	53.4	42.7	37.3	32.0	26.7	21.4	18.7	18.7
75°	26.7	21.4	13.4	8.0	5.3	5.3	5.3	5.3	5.3	5.3
77.5°	5.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	0.0	0.0	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	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	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)