

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: P563876

Luminaire Tested: **LD4C60D010 EX4C609030 4LBCSSQMMS**

Issue Date: 5/25/2022

Test Information

Test Method: LM-79-08
Report Number: P563876
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: LD4C60D010 EX4C609030 4LBCSSQMMS
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBCSSQ TRIM WITH MMS FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

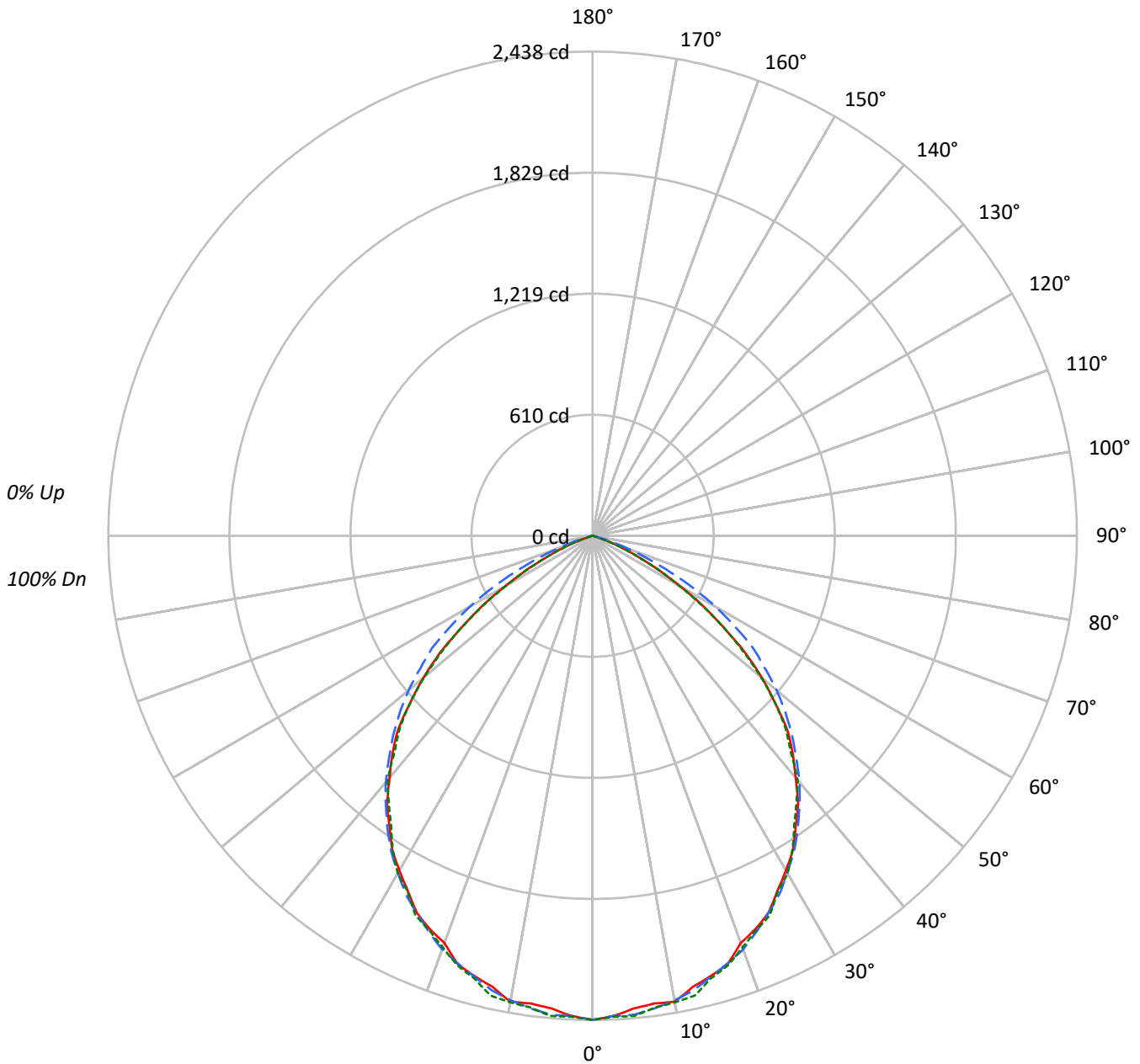
Lumens per Lamp: N/A
Luminaire Lumens: 5207.1 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	235201	235201	235201
5°	231402	234414	235083
10°	233402	232726	233735
15°	229314	229653	230342
20°	223979	227542	226474
25°	223010	223010	224489
30°	216793	218330	218731
35°	210022	212071	208396
40°	200184	204089	202350
45°	189455	193713	187559
50°	166847	181393	165812
55°	135134	166003	135706
60°	98882	137651	96894
65°	60069	98037	58494
70°	23444	52784	22456
75°	2572	14204	2572
80°	2000	2000	2000
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	230.1	4.4
10°-20°	651.1	12.5
20°-30°	966.1	18.6
30°-40°	1119.4	21.5
40°-50°	1073.2	20.6
50°-60°	789.1	15.2
60°-70°	340.8	6.5
70°-80°	36.8	0.7
80°-90°	0.5	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°	1847.2	35.5
0°-40°	2966.6	57.0
0°-60°	4828.9	92.7
0°-90°	5207.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5207.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2438	2438	2438	2438	2438	
5°	2389	2413	2420	2424	2427	228
15°	2296	2310	2299	2302	2306	647
25°	2095	2091	2095	2098	2109	959
35°	1783	1794	1800	1797	1769	1115
45°	1388	1392	1420	1399	1374	1055
55°	803	886	987	883	807	723
65°	263	329	429	326	256	271
75°	7	10	38	7	7	21
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°	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6
2.5°	2420.2	2447.9	2451.5	2434.1	2427.1	2416.8	2441.0	2423.8	2430.7	2423.8	2420.2
5°	2389.1	2420.2	2423.8	2423.8	2416.8	2413.3	2423.8	2420.2	2416.8	2409.8	2420.2
7.5°	2375.3	2392.6	2409.8	2389.1	2399.5	2396.0	2420.2	2409.8	2406.4	2406.4	2399.5
10°	2382.2	2378.7	2392.6	2371.7	2378.7	2371.7	2392.6	2392.6	2385.6	2378.7	2375.3
12.5°	2326.6	2354.4	2354.4	2351.0	2344.0	2333.7	2354.4	2368.3	2347.5	2347.5	2344.0
15°	2295.6	2302.5	2305.9	2305.9	2302.5	2309.5	2319.7	2305.9	2309.5	2292.1	2299.0
17.5°	2261.0	2247.2	2257.5	2250.6	2254.1	2261.0	2274.9	2274.9	2254.1	2250.6	2257.5
20°	2181.3	2222.9	2226.3	2205.6	2209.1	2209.1	2233.3	2212.5	2226.3	2209.1	2216.0
22.5°	2143.1	2170.9	2174.4	2146.7	2164.0	2143.1	2167.4	2136.2	2170.9	2146.7	2157.1
25°	2094.7	2091.4	2101.6	2087.8	2091.4	2091.4	2108.6	2094.7	2105.2	2091.4	2094.7
27.5°	2015.2	2042.8	2039.4	2025.6	2032.5	2029.0	2063.6	2025.6	2046.3	2029.0	2035.9
30°	1945.8	1970.1	1963.2	1949.4	1949.4	1938.9	1977.0	1966.6	1963.2	1963.2	1959.6
32.5°	1876.6	1880.1	1873.2	1876.6	1880.1	1866.3	1897.4	1883.5	1880.1	1883.5	1887.0
35°	1783.0	1783.0	1790.0	1779.7	1793.5	1793.5	1821.2	1803.9	1800.4	1790.0	1800.4
37.5°	1700.0	1689.7	1693.1	1693.1	1700.0	1707.0	1720.8	1713.9	1713.9	1703.5	1710.4
40°	1589.3	1582.4	1592.6	1592.6	1603.1	1603.1	1616.9	1610.0	1620.3	1620.3	1620.3
42.5°	1492.3	1492.3	1485.4	1495.8	1499.3	1495.8	1520.0	1516.5	1520.0	1513.1	1516.5
45°	1388.4	1388.4	1381.5	1378.1	1395.3	1391.9	1419.6	1409.1	1423.0	1416.0	1419.6
47.5°	1246.4	1263.8	1253.3	1263.8	1284.5	1288.1	1305.3	1298.4	1312.3	1301.9	1315.7
50°	1111.5	1111.5	1121.8	1135.7	1156.5	1159.9	1180.8	1194.6	1201.5	1204.9	1208.4
52.5°	969.5	966.0	976.4	993.7	1011.1	1024.9	1045.7	1066.4	1080.3	1101.0	1090.6
55°	803.3	810.2	820.6	841.4	869.1	886.3	903.7	931.3	955.7	966.0	986.8
57.5°	661.3	654.4	661.3	688.9	720.2	734.0	758.3	786.0	820.6	841.4	848.3
60°	512.4	515.9	522.8	547.2	571.3	592.0	602.5	647.4	678.7	699.4	713.3
62.5°	377.5	384.4	391.3	412.1	436.3	453.6	470.9	509.0	536.7	557.4	571.3
65°	263.1	266.6	277.0	287.4	311.7	328.9	342.7	373.9	401.6	419.0	429.4
67.5°	162.8	166.1	173.0	187.1	204.3	218.1	231.9	252.8	277.0	294.3	297.8
70°	83.1	86.6	90.0	100.4	114.3	121.3	131.5	148.9	166.1	179.9	187.1
72.5°	27.7	27.7	31.2	38.1	45.1	52.0	55.3	72.7	86.6	93.5	96.9
75°	6.9	6.9	6.9	6.9	6.9	10.5	10.5	20.8	27.7	34.6	38.1
77.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	6.9	6.9
80°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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°	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6	2437.6
2.5°	2437.6	2430.7	2427.1	2430.7	2430.7	2427.1	2437.6	2451.5	2468.6	2423.8
5°	2434.1	2427.1	2434.1	2413.3	2423.8	2416.8	2430.7	2427.1	2441.0	2427.1
7.5°	2423.8	2409.8	2413.3	2402.9	2416.8	2399.5	2409.8	2430.7	2416.8	2396.0
10°	2389.1	2382.2	2406.4	2371.7	2364.8	2378.7	2406.4	2385.6	2378.7	2385.6
12.5°	2354.4	2354.4	2364.8	2337.1	2340.6	2347.5	2361.3	2347.5	2354.4	2371.7
15°	2316.4	2309.5	2326.6	2305.9	2302.5	2295.6	2309.5	2309.5	2316.4	2305.9
17.5°	2271.3	2261.0	2261.0	2254.1	2250.6	2267.9	2274.9	2278.2	2281.8	2267.9
20°	2216.0	2212.5	2222.9	2212.5	2216.0	2219.4	2219.4	2212.5	2243.6	2205.6
22.5°	2157.1	2167.4	2153.6	2146.7	2153.6	2160.5	2160.5	2164.0	2157.1	2150.1
25°	2098.3	2105.2	2108.6	2087.8	2098.3	2087.8	2112.1	2115.5	2101.6	2108.6
27.5°	2046.3	2035.9	2032.5	2018.5	2025.6	2022.1	2025.6	2025.6	2046.3	2018.5
30°	1966.6	1956.3	1959.6	1949.4	1952.7	1949.4	1952.7	1952.7	1966.6	1963.2
32.5°	1890.5	1880.1	1883.5	1873.2	1873.2	1876.6	1869.7	1869.7	1880.1	1873.2
35°	1817.7	1793.5	1796.9	1793.5	1796.9	1783.0	1783.0	1779.7	1786.6	1769.2
37.5°	1713.9	1703.5	1700.0	1696.6	1700.0	1693.1	1700.0	1689.7	1700.0	1686.2
40°	1620.3	1613.4	1616.9	1596.2	1596.2	1599.5	1592.6	1589.3	1592.6	1606.5
42.5°	1526.9	1513.1	1506.2	1499.3	1502.7	1492.3	1488.9	1481.9	1488.9	1474.9
45°	1416.0	1416.0	1412.7	1395.3	1398.9	1398.9	1385.0	1371.2	1374.5	1374.5
47.5°	1315.7	1308.8	1305.3	1288.1	1284.5	1281.2	1267.2	1256.9	1256.9	1246.4
50°	1204.9	1198.0	1187.7	1170.3	1163.4	1142.6	1132.2	1118.4	1104.6	1104.6
52.5°	1101.0	1076.7	1062.9	1035.2	1024.9	1014.5	986.8	976.4	966.0	955.7
55°	976.4	955.7	928.0	896.8	882.9	865.5	837.9	817.1	803.3	806.7
57.5°	855.3	820.6	792.9	751.4	734.0	723.5	695.9	668.2	654.4	654.4
60°	706.3	678.7	644.0	605.9	592.0	574.8	540.0	522.8	512.4	502.1
62.5°	564.3	543.6	512.4	463.9	453.6	436.3	412.1	391.3	380.8	380.8
65°	422.4	401.6	373.9	339.3	325.5	311.7	290.9	270.1	259.7	256.2
67.5°	297.8	273.5	249.3	221.6	211.2	204.3	183.5	169.7	162.8	159.2
70°	179.9	166.1	148.9	128.2	117.7	110.8	96.9	86.6	83.1	79.6
72.5°	93.5	83.1	69.3	55.3	48.4	41.5	34.6	27.7	24.3	24.3
75°	34.6	27.7	17.4	10.5	6.9	6.9	6.9	6.9	6.9	6.9
77.5°	6.9	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
80°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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)