

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: P840222

Luminaire Tested: **LD4C60D010 EU4609035 4LBCSSQMMS**

Issue Date: 5/25/2022

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: P840222  
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 EU4609035 4LBCSSQMMS  
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS  
AND 4LBCSSQ TRIM WITH MMS FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

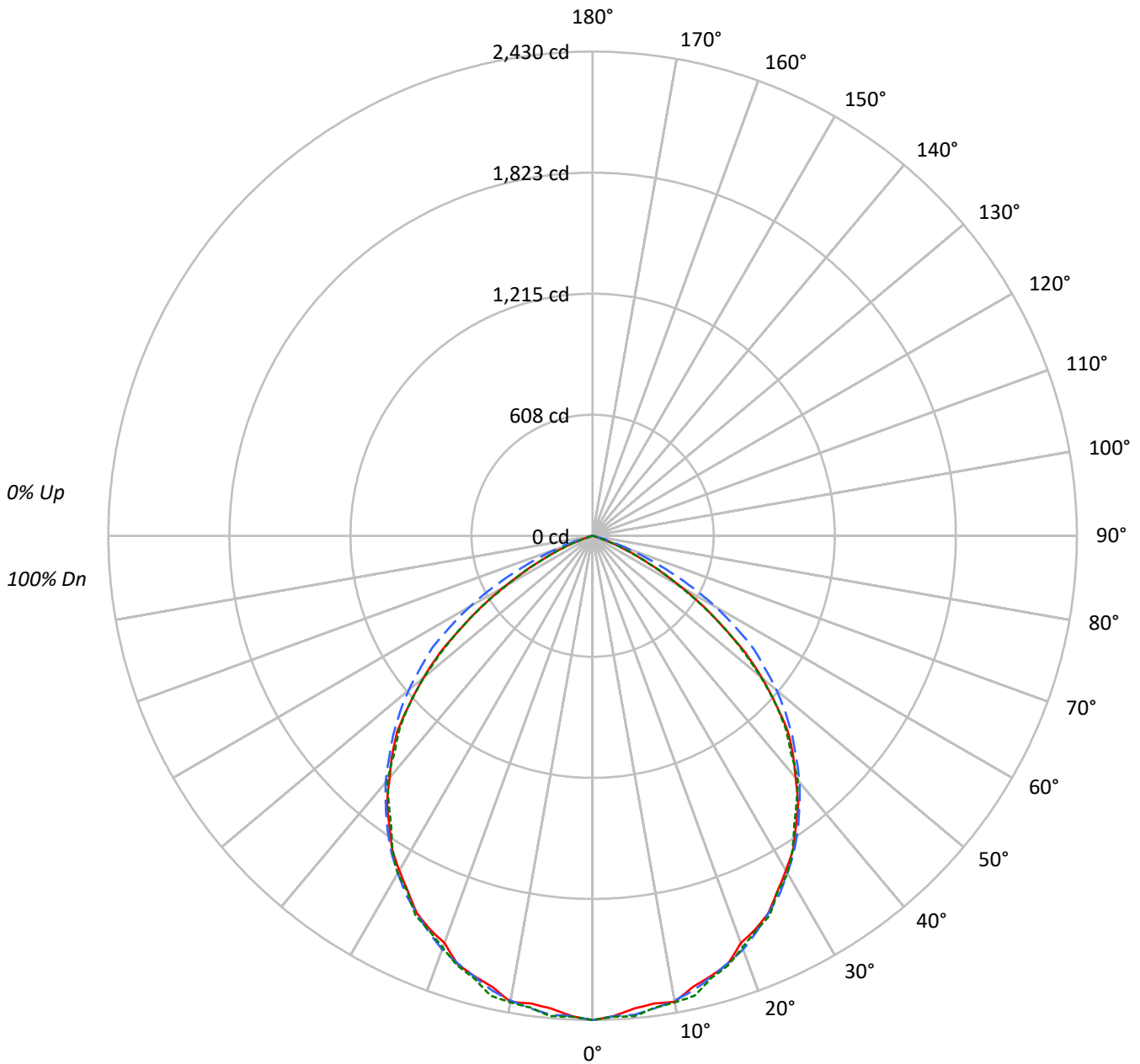
Lumens per Lamp: N/A  
Luminaire Lumens: 5191.0 lumens  
Efficiency: N/A  
Efficacy: 72.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.2 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	234478	234478	234478
5°	230695	233688	234356
10°	232687	232010	233010
15°	228604	228944	229633
20°	223291	226833	225776
25°	222328	222328	223797
30°	216124	217662	218063
35°	209386	211423	207760
40°	199567	203471	201733
45°	188869	193112	186986
50°	166337	180838	165301
55°	134713	165481	135302
60°	98573	137227	96585
65°	59909	97718	58334
70°	23359	52614	22400
75°	2572	14167	2572
80°	1945	1945	1945
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	229.4	4.4
10°-20°	649.1	12.5
20°-30°	963.1	18.6
30°-40°	1115.9	21.5
40°-50°	1069.9	20.6
50°-60°	786.7	15.2
60°-70°	339.8	6.5
70°-80°	36.7	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°	1841.5	35.5
0°-40°	2957.5	57.0
0°-60°	4814.1	92.7
0°-90°	5191.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5191.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2430	2430	2430	2430	2430	
5°	2382	2406	2413	2416	2420	227
15°	2288	2302	2292	2295	2299	645
25°	2088	2085	2088	2092	2102	956
35°	1778	1788	1795	1791	1764	1112
45°	1384	1388	1415	1394	1370	1052
55°	801	884	984	880	804	721
65°	262	328	428	324	256	270
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°	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1
2.5°	2412.7	2440.4	2443.9	2426.5	2419.6	2409.4	2433.5	2416.3	2423.2	2416.3	2412.7
5°	2381.8	2412.7	2416.3	2416.3	2409.4	2405.8	2416.3	2412.7	2409.4	2402.5	2412.7
7.5°	2368.0	2385.1	2402.5	2381.8	2392.0	2388.7	2412.7	2402.5	2398.9	2398.9	2392.0
10°	2374.9	2371.3	2385.1	2364.4	2371.3	2364.4	2385.1	2385.1	2378.2	2371.3	2368.0
12.5°	2319.5	2347.1	2347.1	2343.7	2336.8	2326.4	2347.1	2361.1	2340.2	2340.2	2336.8
15°	2288.5	2295.4	2298.8	2298.8	2295.4	2302.3	2312.6	2298.8	2302.3	2285.0	2291.9
17.5°	2254.0	2240.2	2250.5	2243.6	2247.1	2254.0	2267.8	2267.8	2247.1	2243.6	2250.5
20°	2174.6	2216.0	2219.5	2198.8	2202.2	2202.2	2226.4	2205.7	2219.5	2202.2	2209.1
22.5°	2136.6	2164.2	2167.7	2140.1	2157.3	2136.6	2160.8	2129.7	2164.2	2140.1	2150.4
25°	2088.3	2084.9	2095.2	2081.4	2084.9	2084.9	2102.1	2088.3	2098.7	2084.9	2088.3
27.5°	2009.0	2036.6	2033.1	2019.3	2026.2	2022.8	2057.3	2019.3	2040.0	2022.8	2029.7
30°	1939.8	1964.1	1957.2	1943.4	1943.4	1932.9	1971.0	1960.5	1957.2	1957.2	1953.6
32.5°	1870.8	1874.3	1867.4	1870.8	1874.3	1860.5	1891.5	1877.7	1874.3	1877.7	1881.2
35°	1777.6	1777.6	1784.5	1774.2	1788.0	1788.0	1815.6	1798.3	1794.9	1784.5	1794.9
37.5°	1694.8	1684.5	1687.9	1687.9	1694.8	1701.7	1715.5	1708.6	1708.6	1698.3	1705.2
40°	1584.4	1577.5	1587.8	1587.8	1598.2	1598.2	1612.0	1605.1	1615.4	1615.4	1615.4
42.5°	1487.8	1487.8	1480.9	1491.1	1494.7	1491.1	1515.4	1511.8	1515.4	1508.5	1511.8
45°	1384.1	1384.1	1377.2	1373.8	1391.0	1387.6	1415.2	1404.8	1418.6	1411.7	1415.2
47.5°	1242.6	1259.9	1249.5	1259.9	1280.6	1284.1	1301.3	1294.4	1308.2	1297.9	1311.7
50°	1108.1	1108.1	1118.4	1132.2	1152.9	1156.4	1177.1	1190.9	1197.8	1201.2	1204.7
52.5°	966.5	963.0	973.4	990.6	1007.9	1021.7	1042.4	1063.1	1076.9	1097.7	1087.2
55°	800.8	807.7	818.1	838.8	866.4	883.6	900.9	928.5	952.7	963.0	983.7
57.5°	659.2	652.3	659.2	686.8	718.0	731.8	756.0	783.6	818.1	838.8	845.7
60°	510.8	514.3	521.2	545.4	569.5	590.2	600.6	645.4	676.6	697.3	711.1
62.5°	376.3	383.2	390.1	410.8	434.9	452.2	469.4	507.4	535.0	555.7	569.5
65°	262.4	265.8	276.2	286.5	310.7	327.9	341.7	372.8	400.4	417.7	428.0
67.5°	162.2	165.6	172.5	186.5	203.6	217.4	231.2	252.0	276.2	293.4	296.9
70°	82.8	86.3	89.7	100.1	113.9	120.8	131.1	148.4	165.6	179.4	186.5
72.5°	27.6	27.6	31.1	38.0	44.9	51.8	55.2	72.5	86.3	93.2	96.6
75°	6.9	6.9	6.9	6.9	6.9	10.4	10.4	20.7	27.6	34.5	38.0
77.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	6.9	6.9
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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°	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1	2430.1
2.5°	2430.1	2423.2	2419.6	2423.2	2423.2	2419.6	2430.1	2443.9	2461.1	2416.3
5°	2426.5	2419.6	2426.5	2405.8	2416.3	2409.4	2423.2	2419.6	2433.5	2419.6
7.5°	2416.3	2402.5	2405.8	2395.6	2409.4	2392.0	2402.5	2423.2	2409.4	2388.7
10°	2381.8	2374.9	2398.9	2364.4	2357.5	2371.3	2398.9	2378.2	2371.3	2378.2
12.5°	2347.1	2347.1	2357.5	2329.9	2333.3	2340.2	2354.0	2340.2	2347.1	2364.4
15°	2309.2	2302.3	2319.5	2298.8	2295.4	2288.5	2302.3	2302.3	2309.2	2298.8
17.5°	2264.3	2254.0	2254.0	2247.1	2243.6	2260.9	2267.8	2271.2	2274.7	2260.9
20°	2209.1	2205.7	2216.0	2205.7	2209.1	2212.6	2212.6	2205.7	2236.7	2198.8
22.5°	2150.4	2160.8	2147.0	2140.1	2147.0	2153.9	2153.9	2157.3	2150.4	2143.5
25°	2091.8	2098.7	2102.1	2081.4	2091.8	2081.4	2105.6	2109.0	2095.2	2102.1
27.5°	2040.0	2029.7	2026.2	2012.4	2019.3	2015.9	2019.3	2019.3	2040.0	2012.4
30°	1960.5	1950.3	1953.6	1943.4	1946.7	1943.4	1946.7	1946.7	1960.5	1957.2
32.5°	1884.6	1874.3	1877.7	1867.4	1867.4	1870.8	1863.9	1863.9	1874.3	1867.4
35°	1812.1	1788.0	1791.4	1788.0	1791.4	1777.6	1777.6	1774.2	1781.1	1763.8
37.5°	1708.6	1698.3	1694.8	1691.4	1694.8	1687.9	1694.8	1684.5	1694.8	1681.0
40°	1615.4	1608.5	1612.0	1591.3	1591.3	1594.7	1587.8	1584.4	1587.8	1601.6
42.5°	1522.3	1508.5	1501.6	1494.7	1498.0	1487.8	1484.2	1477.3	1484.2	1470.4
45°	1411.7	1411.7	1408.3	1391.0	1394.5	1394.5	1380.7	1366.9	1370.3	1370.3
47.5°	1311.7	1304.8	1301.3	1284.1	1280.6	1277.2	1263.3	1253.0	1253.0	1242.6
50°	1201.2	1194.3	1184.0	1166.7	1159.8	1139.1	1128.8	1115.0	1101.2	1101.2
52.5°	1097.7	1073.4	1059.6	1032.0	1021.7	1011.3	983.7	973.4	963.0	952.7
55°	973.4	952.7	925.1	894.0	880.2	862.9	835.3	814.6	800.8	804.3
57.5°	852.6	818.1	790.5	749.1	731.8	721.3	693.7	666.1	652.3	652.3
60°	704.2	676.6	642.1	604.0	590.2	573.0	538.4	521.2	510.8	500.5
62.5°	562.6	541.9	510.8	462.5	452.2	434.9	410.8	390.1	379.7	379.7
65°	421.1	400.4	372.8	338.3	324.5	310.7	290.0	269.3	258.9	255.5
67.5°	296.9	272.7	248.6	221.0	210.5	203.6	182.9	169.1	162.2	158.7
70°	179.4	165.6	148.4	127.7	117.3	110.4	96.6	86.3	82.8	79.4
72.5°	93.2	82.8	69.0	55.2	48.3	41.4	34.5	27.6	24.2	24.2
75°	34.5	27.6	17.3	10.4	6.9	6.9	6.9	6.9	6.9	6.9
77.5°	6.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
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)