

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P1212761

Luminaire Tested: **LDA4A15950D010TE LAR35FL 4LLWW1**

Issue Date: 3/3/2020

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-41-14
Report Number: P1212761
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26103)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA4A15950D010TE LAR35FL 4LLWW1
Description: PORTFOLIO 4" Lensed Wall Wash, Self-flanged, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

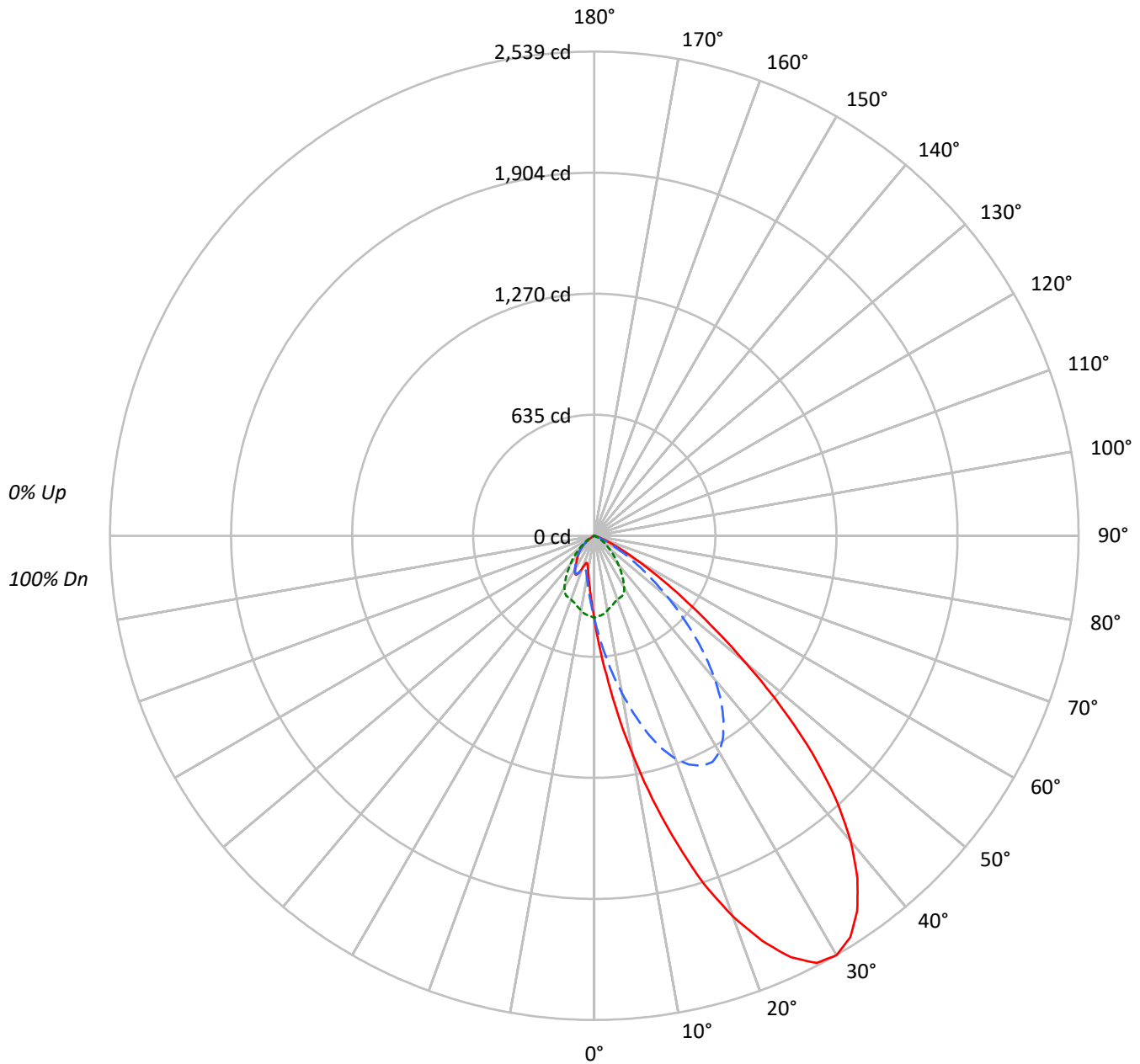
Lumens per Lamp: N/A
Luminaire Lumens: 1612.0 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 20.4
Input Voltage (V): NR
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					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90		
2	104	98	92	88	102	96	91	87	93	89	85	89	86	83	87	84	81	80		
3	97	88	82	76	94	87	81	76	84	79	75	81	77	73	79	75	72	70		
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	67	64	62		
5	83	72	64	59	81	71	64	59	69	63	58	67	62	57	65	61	57	55		
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49		
7	72	60	52	46	70	59	52	46	57	51	46	56	50	46	55	50	45	44		
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39		
9	62	50	43	38	61	50	42	37	49	42	37	47	41	37	47	41	37	35		
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	53100	53100	53100
5°	90597	51805	33814
10°	146453	49761	23108
15°	212794	47759	18797
20°	278682	46703	23417
25°	331886	47334	30853
30°	361666	44665	28728
35°	361732	38096	24273
40°	336637	31479	21093
45°	282745	24613	18107
50°	198474	18364	13336
55°	119458	13247	7376
60°	65916	8462	2714
65°	31784	4115	292
70°	12767	1443	361
75°	3860	953	0
80°	1421	1421	0
85°	4246	2830	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.2	2.9
10°-20°	183.0	11.4
20°-30°	371.1	23.0
30°-40°	450.9	28.0
40°-50°	355.8	22.1
50°-60°	161.2	10.0
60°-70°	38.0	2.4
70°-80°	4.1	0.3
80°-90°	1.8	0.1
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°	600.2	37.2
0°-40°	1051.1	65.2
0°-60°	1568.0	97.3
0°-90°	1612.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1612.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	430	430	430	430	430	
5°	732	616	418	306	273	84
15°	1666	1068	374	177	147	485
25°	2439	1332	348	222	227	1116
35°	2402	1180	253	164	161	1483
45°	1621	745	141	103	104	1226
55°	556	304	62	41	34	524
65°	109	64	14	3	1	123
75°	8	4	2	1	0	13
85°	3	3	2	1	0	3
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	430.5	430.5	430.5	430.5	430.5	430.5	430.5	430.5	430.5	430.5	430.5
2.5°	571.5	557.4	557.4	547.5	555.5	539.3	542.4	541.3	551.4	548.4	539.3
5°	731.7	719.7	718.7	705.6	715.7	694.5	695.7	692.5	703.6	692.5	679.4
7.5°	938.6	917.3	916.2	901.3	911.4	884.1	883.1	877.0	887.1	865.9	846.8
10°	1169.3	1139.1	1137.1	1118.9	1130.0	1094.7	1091.7	1081.6	1088.8	1055.4	1028.1
12.5°	1416.4	1383.0	1379.0	1359.9	1370.0	1327.6	1319.7	1306.4	1309.4	1261.0	1224.7
15°	1666.4	1638.1	1634.0	1613.9	1624.0	1571.6	1558.4	1542.3	1539.3	1474.7	1428.4
17.5°	1915.3	1857.9	1876.0	1855.9	1864.9	1803.4	1786.3	1766.0	1755.0	1675.4	1616.9
20°	2123.1	2073.6	2086.8	2068.6	2076.7	2006.1	1984.9	1959.7	1940.5	1844.8	1777.3
22.5°	2298.5	2247.0	2239.8	2239.8	2244.9	2168.4	2140.2	2111.9	2084.8	1970.7	1902.3
25°	2438.6	2382.0	2374.0	2371.9	2373.1	2292.4	2259.0	2227.8	2192.5	2067.6	1993.0
27.5°	2525.2	2465.6	2456.6	2455.5	2450.7	2368.0	2330.6	2296.3	2254.1	2126.0	2042.4
30°	2539.3	2485.0	2474.8	2474.8	2461.7	2381.0	2339.7	2303.4	2256.1	2127.0	2037.3
32.5°	2497.0	2441.5	2430.5	2431.5	2410.3	2334.6	2290.4	2253.1	2203.6	2076.7	1983.9
35°	2402.3	2348.8	2338.8	2339.7	2313.5	2243.0	2196.6	2160.3	2107.9	1986.9	1892.2
37.5°	2266.2	2215.8	2205.7	2207.7	2175.4	2111.9	2064.5	2030.3	1976.8	1864.9	1772.2
40°	2090.7	2042.4	2033.3	2034.2	1999.0	1943.4	1897.1	1864.9	1811.5	1711.7	1622.9
42.5°	1877.9	1831.5	1824.7	1823.6	1789.3	1738.9	1693.6	1666.4	1611.9	1532.2	1447.6
45°	1620.9	1581.7	1550.3	1571.6	1536.3	1495.9	1453.6	1431.6	1380.1	1323.6	1248.0
47.5°	1331.7	1297.4	1266.2	1286.3	1253.9	1223.8	1186.4	1172.4	1126.0	1096.8	1033.2
50°	1034.3	1005.1	976.9	994.0	968.8	948.6	919.4	912.3	874.0	870.0	820.6
52.5°	768.0	746.9	724.9	737.9	718.7	705.6	683.4	681.4	652.2	662.3	628.0
55°	555.5	540.3	523.1	533.2	519.2	511.2	494.9	496.0	473.8	488.8	464.8
57.5°	393.1	381.1	369.0	374.9	365.9	359.9	348.7	350.9	345.8	350.9	333.7
60°	267.2	260.1	251.1	255.9	248.0	244.9	238.0	239.0	226.7	242.9	230.9
62.5°	175.4	170.4	170.4	167.3	161.2	159.2	155.3	155.3	148.2	160.3	152.2
65°	108.9	106.8	105.8	103.8	99.8	98.8	95.7	95.7	90.8	99.8	93.7
67.5°	64.5	63.5	62.5	61.6	58.4	57.4	56.5	55.4	52.5	58.4	54.5
70°	35.4	35.4	34.3	33.3	31.2	31.2	30.2	30.2	28.2	31.2	28.2
72.5°	17.2	17.2	16.1	16.1	15.2	15.2	14.1	14.1	13.0	15.2	13.0
75°	8.1	8.1	7.1	7.1	7.1	7.1	6.1	6.1	6.1	7.1	6.1
77.5°	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
80°	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	2.0	2.0
82.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
85°	3.0	3.0	3.0	3.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0
87.5°	4.0	4.0	4.0	4.0	4.0	5.1	5.1	5.1	4.0	5.1	4.0
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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
0°	430.5	430.5	430.5	430.5	430.5	430.5	430.5	430.5	430.5	430.5	430.5
2.5°	542.4	534.2	537.4	528.3	521.1	518.2	518.2	517.1	469.7	422.3	389.2
5°	678.5	663.3	665.3	649.3	642.2	632.1	629.0	615.9	513.1	418.4	353.8
7.5°	839.7	817.5	804.4	789.4	780.3	762.1	753.1	726.9	553.4	410.3	319.5
10°	1013.2	981.8	960.6	936.4	927.4	899.1	882.1	837.7	588.6	397.3	287.4
12.5°	1200.7	1158.2	1120.0	1093.7	1082.6	1028.1	1017.1	953.6	621.0	385.0	261.0
15°	1393.1	1339.7	1291.3	1253.9	1239.9	1186.4	1152.3	1067.5	649.3	374.0	241.0
17.5°	1564.6	1507.1	1448.5	1400.2	1380.1	1304.5	1272.1	1167.3	670.4	363.0	229.8
20°	1716.7	1647.3	1585.7	1519.1	1495.9	1410.2	1357.9	1245.0	682.4	355.8	230.9
22.5°	1832.7	1753.0	1682.4	1607.8	1578.6	1484.8	1425.4	1298.3	686.5	350.9	238.0
25°	1917.3	1828.6	1750.0	1668.4	1634.0	1534.3	1468.8	1331.7	685.6	347.8	241.0
27.5°	1960.6	1865.9	1781.2	1693.6	1656.3	1553.4	1482.8	1338.8	671.3	335.7	241.0
30°	1954.7	1854.8	1766.0	1675.4	1635.0	1533.2	1460.7	1311.5	641.2	313.6	223.8
32.5°	1901.2	1799.4	1708.6	1618.0	1577.6	1477.7	1405.2	1256.1	597.8	284.2	200.7
35°	1812.4	1711.7	1622.0	1533.2	1492.9	1396.2	1325.6	1180.5	548.4	253.0	179.4
37.5°	1696.6	1598.7	1512.1	1431.6	1385.2	1294.4	1225.7	1090.8	494.0	224.7	161.2
40°	1552.3	1459.7	1378.0	1303.4	1253.9	1170.4	1107.9	984.9	436.5	195.5	144.0
42.5°	1386.1	1299.4	1232.8	1158.2	1102.8	1029.2	974.9	867.9	378.0	169.3	126.0
45°	1197.6	1120.9	1063.5	998.0	940.6	878.0	831.6	745.0	318.6	141.1	108.9
47.5°	995.0	931.4	887.1	832.6	776.2	725.8	689.5	619.8	262.1	118.0	92.8
50°	795.3	745.0	712.6	671.3	619.8	581.6	553.4	507.0	207.6	95.7	77.6
52.5°	611.9	575.6	553.4	523.1	477.8	451.6	431.4	399.3	158.3	77.6	62.5
55°	456.7	430.5	416.4	395.1	355.8	337.7	324.6	304.5	118.0	61.6	48.4
57.5°	329.6	312.5	303.5	289.3	257.1	246.0	236.8	224.7	85.7	47.3	35.4
60°	229.8	217.7	212.7	203.6	177.4	170.4	158.3	158.3	60.4	34.3	24.2
62.5°	152.2	144.0	142.1	135.0	114.9	110.9	108.0	105.8	41.3	23.1	14.1
65°	94.7	88.8	87.7	83.7	69.5	67.5	64.5	64.5	26.2	14.1	7.1
67.5°	54.5	51.5	50.3	48.4	38.3	37.3	35.4	37.3	15.2	7.1	3.0
70°	29.2	26.2	26.2	25.3	19.1	18.2	17.2	18.2	8.1	4.0	2.0
72.5°	14.1	12.1	12.1	11.0	8.1	8.1	7.1	9.0	4.0	2.0	2.0
75°	6.1	6.1	5.1	5.1	3.0	3.0	3.0	4.0	2.0	2.0	2.0
77.5°	3.0	3.0	3.0	3.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0
80°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0
82.5°	2.0	1.0	1.0	1.0	0.0	0.0	0.0	1.0	2.0	2.0	2.0
85°	3.0	3.0	3.0	3.0	2.0	2.0	2.0	3.0	2.0	2.0	2.0
87.5°	4.0	4.0	4.0	4.0	3.0	3.0	3.0	5.1	3.0	2.0	2.0
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):

	135°	157.5°	180°
0°	430.5	430.5	430.5
2.5°	360.9	339.7	341.7
5°	306.5	276.2	273.1
7.5°	259.1	226.7	222.8
10°	221.8	189.5	184.5
12.5°	194.6	165.4	160.3
15°	177.4	151.2	147.2
17.5°	174.4	154.3	152.2
20°	186.5	176.4	178.4
22.5°	207.6	204.7	209.6
25°	221.8	220.8	226.7
27.5°	218.7	216.7	220.8
30°	202.7	199.6	201.7
32.5°	183.6	178.4	180.4
35°	164.3	160.3	161.2
37.5°	148.2	145.2	145.2
40°	134.1	131.0	131.0
42.5°	119.0	117.0	118.0
45°	102.9	101.8	103.8
47.5°	86.6	85.7	87.7
50°	71.7	69.5	69.5
52.5°	56.5	53.5	51.5
55°	41.3	36.3	34.3
57.5°	28.2	23.1	21.1
60°	16.1	13.0	11.0
62.5°	8.1	5.1	4.0
65°	3.0	2.0	1.0
67.5°	2.0	1.0	1.0
70°	2.0	1.0	1.0
72.5°	1.0	1.0	1.0
75°	1.0	1.0	0.0
77.5°	1.0	1.0	1.0
80°	1.0	1.0	0.0
82.5°	1.0	1.0	0.0
85°	1.0	1.0	0.0
87.5°	1.0	1.0	0.0
90°	0.0	0.0	0.0

Classified

Scaled Data Report

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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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