

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: P1191796

Luminaire Tested: **LDA4A30927D010TE LAR35FL 4LLWW1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P1191796
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: LDA4A30927D010TE LAR35FL 4LLWW1
Description: PORTFOLIO 4" Lensed Wall Wash, Self-flanged, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

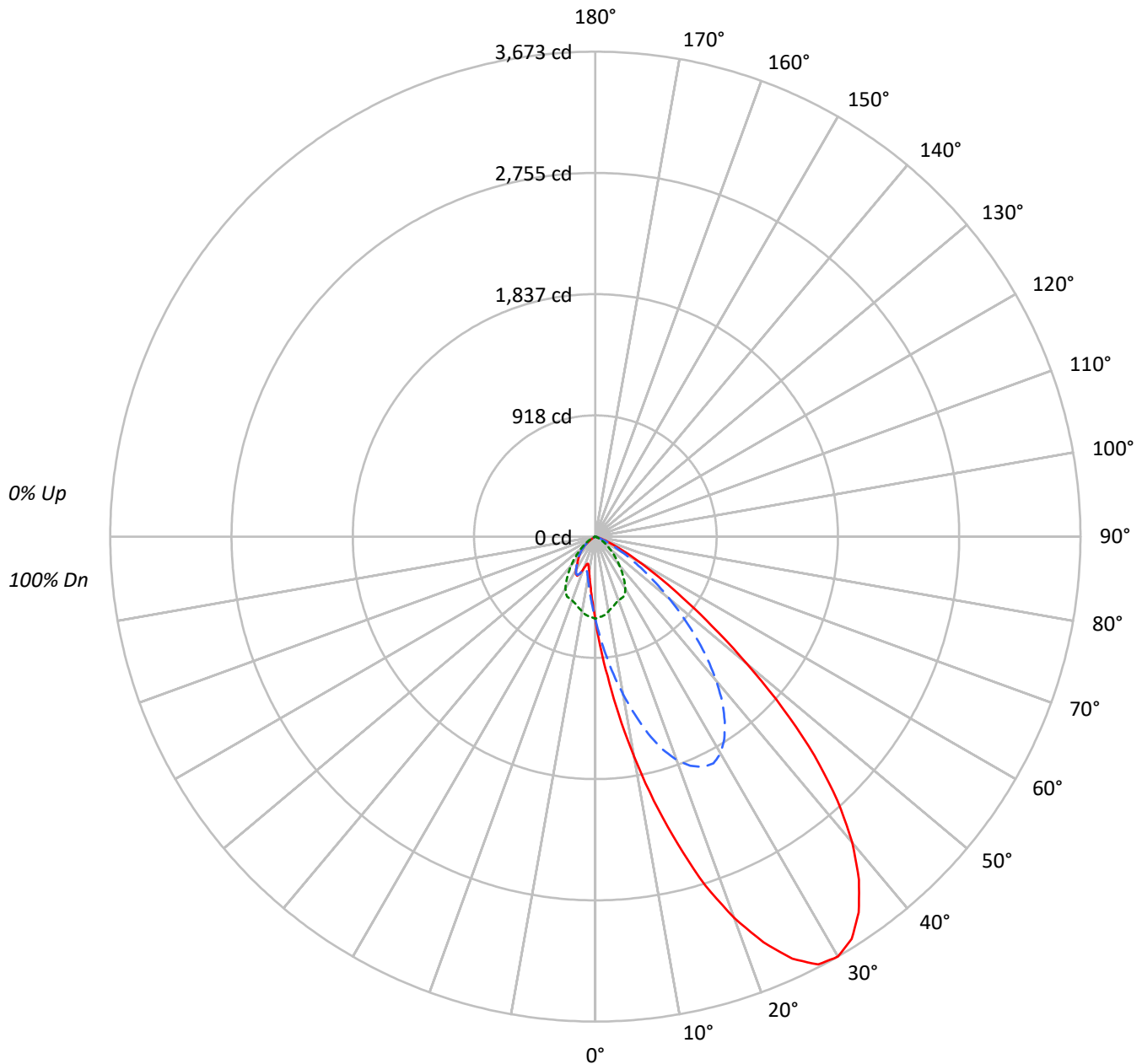
Lumens per Lamp: N/A
Luminaire Lumens: 2331.8 lumens
Efficiency: N/A
Efficacy: 59.2 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 39.4
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

TEST NUMBER: P1191796

CATALOG NUMBER: LDA4A30927D010TE LAR35FL 4LLWW1

Luminous Intensity Polar Plot



Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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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°	76807	76807	76807
5°	131072	74934	48932
10°	211858	71968	33416
15°	307813	69097	27187
20°	403118	67574	33879
25°	480068	68470	44640
30°	523178	64591	41532
35°	523241	55111	35130
40°	486978	45552	30513
45°	409020	35620	26200
50°	287108	26577	19304
55°	172790	19118	10666
60°	95346	12236	3972
65°	45968	5954	438
70°	18393	2092	541
75°	5528	1382	0
80°	2060	2060	0
85°	6227	4104	0



TEST NUMBER: P1191796

CATALOG NUMBER: LDA4A30927D010TE LAR35FL 4LLWW1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	2.9
10°-20°	264.7	11.4
20°-30°	536.8	23.0
30°-40°	652.2	28.0
40°-50°	514.6	22.1
50°-60°	233.1	10.0
60°-70°	55.0	2.4
70°-80°	6.0	0.3
80°-90°	2.6	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°	868.3	37.2
0°-40°	1520.5	65.2
0°-60°	2268.2	97.3
0°-90°	2331.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2331.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	623	623	623	623	623	
5°	1059	891	605	443	395	121
15°	2410	1544	541	257	213	701
25°	3527	1926	503	321	328	1614
35°	3475	1708	366	238	233	2146
45°	2345	1078	204	149	150	1774
55°	804	440	89	60	50	759
65°	158	93	20	4	2	177
75°	12	6	3	2	0	18
85°	4	4	3	2	0	4
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°	622.7	622.7	622.7	622.7	622.7	622.7	622.7	622.7	622.7	622.7	622.7
2.5°	826.8	806.4	806.4	791.8	803.5	780.2	784.5	783.1	797.6	793.3	780.2
5°	1058.6	1041.2	1039.8	1020.8	1035.3	1004.7	1006.1	1001.8	1017.9	1001.8	982.8
7.5°	1357.7	1327.1	1325.5	1303.7	1318.2	1278.9	1277.5	1268.6	1283.3	1252.7	1225.0
10°	1691.5	1647.8	1644.9	1618.7	1634.6	1583.6	1579.3	1564.7	1574.9	1526.8	1487.4
12.5°	2048.8	2000.7	1994.9	1967.2	1981.7	1920.5	1908.9	1889.9	1894.2	1824.2	1771.7
15°	2410.5	2369.6	2363.8	2334.6	2349.2	2273.4	2254.5	2231.1	2226.8	2133.4	2066.4
17.5°	2770.7	2687.5	2713.7	2684.6	2697.8	2608.7	2583.9	2554.8	2538.8	2423.5	2339.0
20°	3071.1	2999.6	3018.6	2992.3	3003.9	2902.0	2871.2	2834.8	2807.1	2668.6	2570.9
22.5°	3324.8	3250.4	3240.1	3240.1	3247.5	3136.6	3095.8	3055.0	3015.7	2850.9	2751.7
25°	3527.4	3445.8	3434.2	3431.3	3432.7	3316.0	3267.8	3222.7	3171.7	2990.9	2883.0
27.5°	3652.9	3566.9	3553.7	3552.2	3545.0	3425.3	3371.4	3321.9	3260.6	3075.4	2954.5
30°	3673.3	3594.6	3579.9	3579.9	3561.1	3444.3	3384.6	3332.1	3263.5	3076.9	2947.1
32.5°	3612.1	3531.9	3515.8	3517.3	3486.7	3377.3	3313.1	3259.1	3187.7	3003.9	2869.8
35°	3474.9	3397.6	3383.1	3384.6	3346.6	3244.6	3177.5	3125.0	3049.2	2874.1	2737.1
37.5°	3278.1	3205.2	3190.7	3193.6	3146.9	3055.0	2986.5	2936.9	2859.6	2697.8	2563.6
40°	3024.4	2954.5	2941.3	2942.7	2891.7	2811.5	2744.5	2697.8	2620.5	2476.0	2347.7
42.5°	2716.6	2649.6	2639.5	2637.9	2588.4	2515.5	2449.8	2410.5	2331.7	2216.5	2094.1
45°	2344.8	2288.0	2242.7	2273.4	2222.4	2164.0	2102.8	2070.7	1996.3	1914.7	1805.3
47.5°	1926.3	1876.7	1831.6	1860.7	1814.0	1770.2	1716.3	1696.0	1628.8	1586.5	1494.7
50°	1496.2	1453.8	1413.1	1437.9	1401.3	1372.2	1330.0	1319.7	1264.3	1258.5	1187.0
52.5°	1111.1	1080.5	1048.5	1067.5	1039.8	1020.8	988.7	985.8	943.5	958.0	908.5
55°	803.5	781.6	756.8	771.4	751.0	739.3	716.0	717.4	685.4	707.3	672.3
57.5°	568.8	551.2	533.7	542.5	529.3	520.6	504.5	507.4	500.2	507.4	482.6
60°	386.5	376.2	363.1	370.4	358.8	354.3	344.1	345.6	328.0	351.4	334.0
62.5°	253.8	246.4	246.4	242.0	233.3	230.4	224.6	224.6	214.3	231.9	220.1
65°	157.5	154.6	153.1	150.2	144.3	142.8	138.5	138.5	131.2	144.3	135.6
67.5°	93.4	91.8	90.4	88.9	84.5	83.1	81.6	80.2	75.8	84.5	78.7
70°	51.0	51.0	49.6	48.1	45.2	45.2	43.8	43.8	40.9	45.2	40.9
72.5°	24.8	24.8	23.3	23.3	21.9	21.9	20.4	20.4	19.0	21.9	19.0
75°	11.6	11.6	10.2	10.2	10.2	10.2	8.7	8.7	8.7	10.2	8.7
77.5°	5.8	5.8	5.8	5.8	4.4	4.4	4.4	4.4	4.4	4.4	4.4
80°	2.9	2.9	2.9	2.9	2.9	1.5	1.5	1.5	1.5	2.9	2.9
82.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
85°	4.4	4.4	4.4	4.4	5.8	4.4	5.8	5.8	5.8	5.8	5.8
87.5°	5.8	5.8	5.8	5.8	5.8	7.3	7.3	7.3	5.8	7.3	5.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1191796

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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°	622.7	622.7	622.7	622.7	622.7	622.7	622.7	622.7	622.7	622.7	622.7
2.5°	784.5	772.8	777.3	764.1	753.9	749.6	749.6	748.0	679.6	611.0	562.8
5°	981.3	959.6	962.5	939.1	928.8	914.3	910.0	891.0	742.2	605.2	511.8
7.5°	1214.7	1182.6	1163.6	1141.7	1128.7	1102.4	1089.2	1051.4	800.5	593.6	462.3
10°	1465.6	1420.3	1389.7	1354.8	1341.6	1300.8	1276.0	1211.8	851.6	574.6	415.6
12.5°	1736.7	1675.5	1620.1	1582.2	1566.2	1487.4	1471.4	1379.6	898.2	557.0	377.6
15°	2015.3	1938.0	1868.0	1814.0	1793.6	1716.3	1666.7	1544.3	939.1	541.1	348.5
17.5°	2263.2	2180.1	2095.5	2025.5	1996.3	1887.0	1840.3	1688.6	969.7	525.0	332.5
20°	2483.4	2382.8	2293.8	2197.6	2164.0	2040.1	1964.3	1801.0	987.3	514.8	334.0
22.5°	2651.1	2535.9	2433.8	2325.9	2283.6	2148.0	2062.0	1878.3	993.1	507.4	344.1
25°	2773.6	2645.3	2531.4	2413.4	2363.8	2219.5	2124.7	1926.3	991.6	503.1	348.5
27.5°	2836.3	2699.2	2576.7	2449.8	2395.8	2247.2	2145.1	1936.6	971.2	485.5	348.5
30°	2827.6	2683.1	2554.8	2423.5	2365.2	2217.9	2112.9	1897.1	927.4	453.5	323.7
32.5°	2750.3	2602.9	2471.7	2340.5	2282.2	2137.7	2032.7	1816.9	864.7	411.3	290.2
35°	2621.9	2476.0	2346.3	2217.9	2159.6	2019.7	1917.6	1707.6	793.3	366.0	259.6
37.5°	2454.2	2312.8	2187.3	2070.7	2003.6	1872.3	1773.3	1577.8	714.5	325.1	233.3
40°	2245.7	2111.5	1993.4	1885.5	1814.0	1692.9	1602.6	1424.7	631.4	282.9	208.5
42.5°	2005.0	1879.7	1783.4	1675.5	1595.3	1488.9	1410.2	1255.6	546.9	244.9	182.3
45°	1732.4	1621.6	1538.5	1443.7	1360.6	1270.1	1203.1	1077.6	460.9	204.2	157.5
47.5°	1439.3	1347.4	1283.3	1204.5	1122.9	1049.9	997.4	896.8	379.1	170.5	134.1
50°	1150.6	1077.6	1030.9	971.2	896.8	841.4	800.5	733.5	300.3	138.5	112.2
52.5°	885.2	832.7	800.5	756.8	691.2	653.3	624.2	577.5	229.0	112.2	90.4
55°	660.6	622.7	602.3	571.7	514.8	488.6	469.6	440.4	170.5	88.9	70.0
57.5°	476.8	452.0	439.0	418.5	371.8	355.9	342.7	325.1	124.0	68.6	51.0
60°	332.5	315.0	307.7	294.5	256.7	246.4	229.0	229.0	87.5	49.6	35.0
62.5°	220.1	208.5	205.6	195.3	166.2	160.4	156.0	153.1	59.8	33.5	20.4
65°	137.0	128.3	126.9	121.1	100.6	97.7	93.4	93.4	37.9	20.4	10.2
67.5°	78.7	74.4	72.9	70.0	55.4	53.9	51.0	53.9	21.9	10.2	4.4
70°	42.3	37.9	37.9	36.4	27.7	26.2	24.8	26.2	11.6	5.8	2.9
72.5°	20.4	17.5	17.5	16.1	11.6	11.6	10.2	13.1	5.8	2.9	2.9
75°	8.7	8.7	7.3	7.3	4.4	4.4	4.4	5.8	2.9	2.9	2.9
77.5°	4.4	4.4	4.4	4.4	1.5	1.5	1.5	2.9	2.9	2.9	2.9
80°	2.9	2.9	2.9	2.9	0.0	0.0	0.0	2.9	2.9	2.9	2.9
82.5°	2.9	1.5	1.5	1.5	0.0	0.0	0.0	1.5	2.9	2.9	2.9
85°	4.4	4.4	4.4	4.4	2.9	2.9	2.9	4.4	2.9	2.9	2.9
87.5°	5.8	5.8	5.8	5.8	4.4	4.4	4.4	7.3	4.4	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	622.7	622.7	622.7
2.5°	522.1	491.5	494.4
5°	443.3	399.5	395.2
7.5°	374.7	328.0	322.2
10°	320.8	274.1	266.8
12.5°	281.5	239.1	231.9
15°	256.7	218.7	212.9
17.5°	252.3	223.0	220.1
20°	269.7	255.2	258.1
22.5°	300.3	296.0	303.4
25°	320.8	319.3	328.0
27.5°	316.4	313.5	319.3
30°	293.1	288.7	291.6
32.5°	265.4	258.1	261.0
35°	237.7	231.9	233.3
37.5°	214.3	210.0	210.0
40°	193.9	189.5	189.5
42.5°	172.1	169.1	170.5
45°	148.8	147.3	150.2
47.5°	125.4	124.0	126.9
50°	103.5	100.6	100.6
52.5°	81.6	77.3	74.4
55°	59.8	52.5	49.6
57.5°	40.9	33.5	30.6
60°	23.3	19.0	16.1
62.5°	11.6	7.3	5.8
65°	4.4	2.9	1.5
67.5°	2.9	1.5	1.5
70°	2.9	1.5	1.5
72.5°	1.5	1.5	1.5
75°	1.5	1.5	0.0
77.5°	1.5	1.5	1.5
80°	1.5	1.5	0.0
82.5°	1.5	1.5	0.0
85°	1.5	1.5	0.0
87.5°	1.5	1.5	0.0
90°	0.0	0.0	0.0

Classified

Scaled Data Report

Cooper Lighting Solutions Photometric Lab

1121 Highway 74 South

Peachtree City, GA 30269



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Peachtree City, GA 30269

Scaled Data Report



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1121 Highway 74 South

Peachtree City, GA 30269



— 0°-180° - - 45°-225° - - - 90°-270°

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Peachtree City, GA 30269

Scaled Data Report



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(END OF REPORT)