

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: P1191904

Luminaire Tested: **LDA4A35930D010TE LAR35FL 4LLWW1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P1191904
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: LDA4A35930D010TE LAR35FL 4LLWW1
Description: PORTFOLIO 4" Lensed Wall Wash, Self-flanged, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

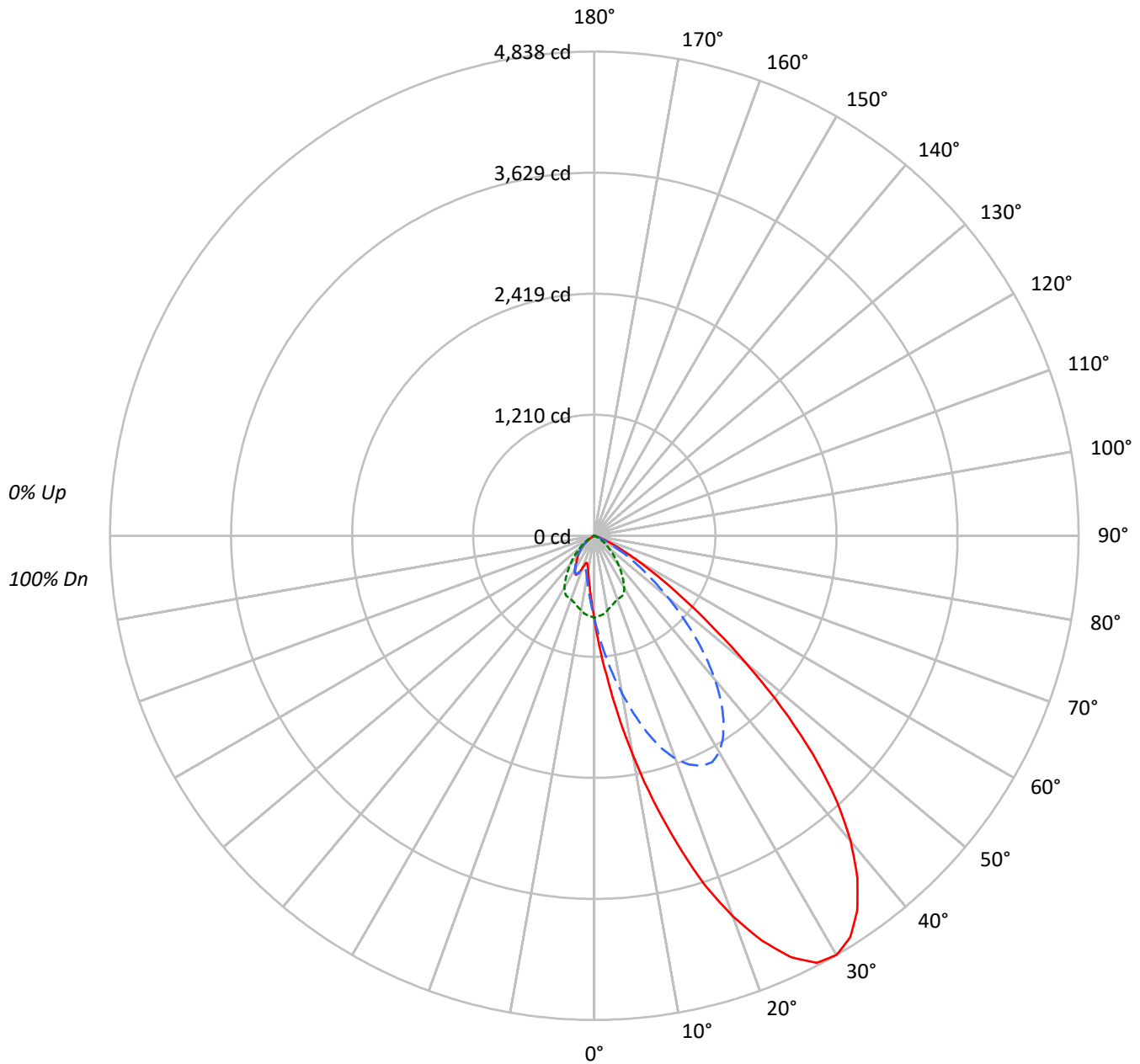
Lumens per Lamp: N/A
Luminaire Lumens: 3071.0 lumens
Efficiency: N/A
Efficacy: 65.2 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 47.1
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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CATALOG NUMBER: LDA4A35930D010TE 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°	101156	101156	101156
5°	172625	98682	64447
10°	279016	94763	44012
15°	405373	90984	35806
20°	530888	88995	44629
25°	632251	90178	58794
30°	689020	85058	54706
35°	689102	72593	46272
40°	641328	59979	40206
45°	538697	46889	34521
50°	378123	35020	25426
55°	227562	25182	14043
60°	125541	16109	5205
65°	60532	7822	584
70°	24235	2777	721
75°	7339	1811	0
80°	2699	2699	0
85°	8067	5378	0

Classified

Scaled Data Report

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.0	2.9
10°-20°	348.6	11.4
20°-30°	706.9	23.0
30°-40°	859.0	28.0
40°-50°	677.8	22.1
50°-60°	307.0	10.0
60°-70°	72.5	2.4
70°-80°	7.8	0.3
80°-90°	3.5	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°	1143.5	37.2
0°-40°	2002.4	65.2
0°-60°	2987.2	97.3
0°-90°	3071.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3071.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	820	820	820	820	820	
5°	1394	1174	797	584	520	159
15°	3174	2034	712	338	280	924
25°	4646	2537	663	422	432	2126
35°	4576	2249	482	313	307	2826
45°	3088	1419	269	196	198	2337
55°	1058	580	117	79	65	999
65°	207	123	27	6	2	234
75°	15	8	4	2	0	24
85°	6	6	4	2	0	5
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°	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1
2.5°	1088.9	1062.1	1062.1	1042.8	1058.2	1027.4	1033.2	1031.3	1050.5	1044.8	1027.4
5°	1394.2	1371.2	1369.4	1344.3	1363.5	1323.2	1325.1	1319.3	1340.4	1319.3	1294.5
7.5°	1788.0	1747.6	1745.6	1716.9	1736.1	1684.3	1682.3	1670.7	1690.0	1649.6	1613.2
10°	2227.7	2170.1	2166.2	2131.7	2152.8	2085.6	2079.9	2060.6	2074.2	2010.7	1958.9
12.5°	2698.3	2634.9	2627.2	2590.7	2609.9	2529.2	2513.9	2488.9	2494.7	2402.5	2333.3
15°	3174.5	3120.7	3113.0	3074.6	3093.9	2994.0	2969.0	2938.4	2932.5	2809.7	2721.2
17.5°	3648.9	3539.3	3574.0	3535.6	3552.9	3435.7	3403.1	3364.7	3343.6	3191.8	3080.5
20°	4044.5	3950.4	3975.3	3940.8	3956.2	3821.8	3781.4	3733.4	3697.0	3514.5	3385.8
22.5°	4378.7	4280.8	4267.4	4267.4	4276.8	4131.0	4077.2	4023.4	3971.5	3754.5	3623.9
25°	4645.6	4538.0	4522.6	4518.9	4520.8	4367.1	4303.8	4244.3	4177.1	3938.8	3796.7
27.5°	4810.8	4697.4	4680.3	4678.3	4668.7	4511.2	4440.0	4374.8	4294.2	4050.2	3890.9
30°	4837.7	4733.9	4714.8	4714.8	4689.7	4536.2	4457.4	4388.2	4297.9	4052.2	3881.3
32.5°	4757.0	4651.3	4630.2	4632.2	4591.8	4447.7	4363.3	4292.2	4198.2	3956.2	3779.6
35°	4576.4	4474.7	4455.4	4457.4	4407.5	4273.1	4184.8	4115.6	4015.7	3785.3	3604.8
37.5°	4317.2	4221.2	4202.0	4205.9	4144.4	4023.4	3933.1	3867.9	3766.0	3552.9	3376.1
40°	3983.0	3890.9	3873.6	3875.5	3808.3	3702.7	3614.4	3552.9	3451.0	3261.0	3091.9
42.5°	3577.8	3489.5	3476.1	3474.1	3408.8	3312.9	3226.4	3174.5	3070.8	2919.1	2757.9
45°	3088.2	3013.3	2953.8	2994.0	2926.8	2849.9	2769.3	2727.1	2629.2	2521.6	2377.5
47.5°	2536.9	2471.7	2412.2	2450.6	2389.1	2331.4	2260.4	2233.4	2145.1	2089.5	1968.5
50°	1970.5	1914.7	1860.9	1893.6	1845.5	1807.1	1751.5	1738.0	1665.0	1657.3	1563.3
52.5°	1463.4	1423.0	1380.8	1405.8	1369.4	1344.3	1302.1	1298.2	1242.5	1261.8	1196.5
55°	1058.2	1029.4	996.7	1016.0	989.0	973.6	942.9	944.9	902.7	931.4	885.3
57.5°	748.9	725.9	702.8	714.4	697.1	685.7	664.4	668.3	658.7	668.3	635.6
60°	508.9	495.5	478.2	487.8	472.4	466.7	453.3	455.1	432.0	462.8	439.7
62.5°	334.1	324.6	324.6	318.9	307.3	303.5	295.8	295.8	282.2	305.3	289.9
65°	207.4	203.6	201.6	197.9	190.2	188.2	182.5	182.5	172.8	190.2	178.6
67.5°	123.0	121.0	119.0	117.1	111.4	109.4	107.6	105.6	99.9	111.4	103.7
70°	67.2	67.2	65.3	63.4	59.5	59.5	57.6	57.6	53.8	59.5	53.8
72.5°	32.7	32.7	30.7	30.7	28.8	28.8	26.8	26.8	25.0	28.8	25.0
75°	15.4	15.4	13.4	13.4	13.4	13.4	11.5	11.5	11.5	13.4	11.5
77.5°	7.7	7.7	7.7	7.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
80°	3.8	3.8	3.8	3.8	3.8	2.0	2.0	2.0	2.0	3.8	3.8
82.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
85°	5.7	5.7	5.7	5.7	7.7	5.7	7.7	7.7	7.7	7.7	7.7
87.5°	7.7	7.7	7.7	7.7	7.7	9.6	9.6	9.6	7.7	9.6	7.7
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°	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1	820.1
2.5°	1033.2	1017.8	1023.7	1006.3	992.9	987.0	987.0	985.2	895.0	804.7	741.3
5°	1292.5	1263.7	1267.5	1236.7	1223.3	1204.2	1198.3	1173.5	977.6	797.0	674.1
7.5°	1599.8	1557.6	1532.6	1503.8	1486.4	1451.9	1434.6	1384.7	1054.4	781.6	608.8
10°	1930.1	1870.6	1830.2	1784.1	1766.9	1713.1	1680.4	1595.8	1121.6	756.6	547.3
12.5°	2287.2	2206.6	2133.7	2083.6	2062.5	1958.9	1937.8	1816.8	1182.9	733.6	497.4
15°	2654.0	2552.3	2460.1	2389.1	2362.1	2260.4	2195.2	2033.8	1236.7	712.5	459.0
17.5°	2980.6	2871.2	2759.7	2667.6	2629.2	2485.1	2423.6	2223.9	1277.1	691.4	437.9
20°	3270.5	3138.1	3021.0	2894.1	2849.9	2686.7	2586.8	2371.8	1300.2	678.0	439.7
22.5°	3491.4	3339.7	3205.3	3063.2	3007.4	2828.8	2715.5	2473.5	1307.9	668.3	453.3
25°	3652.7	3483.7	3334.0	3178.4	3113.0	2923.0	2798.1	2536.9	1305.9	662.6	459.0
27.5°	3735.3	3554.7	3393.5	3226.4	3155.4	2959.5	2825.1	2550.3	1279.1	639.5	459.0
30°	3723.8	3533.6	3364.7	3191.8	3115.0	2921.1	2782.7	2498.5	1221.4	597.2	426.3
32.5°	3621.9	3428.0	3255.1	3082.3	3005.6	2815.4	2677.1	2392.9	1138.8	541.6	382.2
35°	3453.0	3261.0	3090.0	2921.1	2844.2	2659.9	2525.5	2248.8	1044.8	482.1	341.8
37.5°	3232.1	3045.8	2880.7	2727.1	2638.7	2465.8	2335.3	2077.9	941.1	428.3	307.3
40°	2957.5	2780.9	2625.2	2483.1	2389.1	2229.7	2110.6	1876.3	831.5	372.5	274.6
42.5°	2640.6	2475.5	2348.7	2206.6	2101.0	1960.8	1857.2	1653.6	720.2	322.6	240.1
45°	2281.5	2135.6	2026.1	1901.3	1791.8	1672.7	1584.4	1419.2	606.8	268.8	207.4
47.5°	1895.4	1774.6	1690.0	1586.4	1478.8	1382.8	1313.6	1181.1	499.2	224.7	176.6
50°	1515.2	1419.2	1357.8	1279.1	1181.1	1108.1	1054.4	965.9	395.6	182.5	147.8
52.5°	1165.8	1096.6	1054.4	996.7	910.3	860.3	821.9	760.6	301.5	147.8	119.0
55°	870.0	820.1	793.1	752.9	678.0	643.3	618.4	580.0	224.7	117.1	92.2
57.5°	627.9	595.4	578.1	551.2	489.8	468.7	451.3	428.3	163.2	90.3	67.2
60°	437.9	414.9	405.2	387.9	338.0	324.6	301.5	301.5	115.3	65.3	46.1
62.5°	289.9	274.6	270.8	257.4	219.0	211.3	205.5	201.6	78.8	44.2	26.8
65°	180.5	168.9	167.1	159.4	132.5	128.7	123.0	123.0	49.9	26.8	13.4
67.5°	103.7	98.0	96.0	92.2	72.9	71.1	67.2	71.1	28.8	13.4	5.7
70°	55.8	49.9	49.9	48.1	36.5	34.5	32.7	34.5	15.4	7.7	3.8
72.5°	26.8	23.1	23.1	21.1	15.4	15.4	13.4	17.3	7.7	3.8	3.8
75°	11.5	11.5	9.6	9.6	5.7	5.7	5.7	7.7	3.8	3.8	3.8
77.5°	5.7	5.7	5.7	5.7	2.0	2.0	2.0	3.8	3.8	3.8	3.8
80°	3.8	3.8	3.8	3.8	0.0	0.0	0.0	3.8	3.8	3.8	3.8
82.5°	3.8	2.0	2.0	2.0	0.0	0.0	0.0	2.0	3.8	3.8	3.8
85°	5.7	5.7	5.7	5.7	3.8	3.8	3.8	5.7	3.8	3.8	3.8
87.5°	7.7	7.7	7.7	7.7	5.7	5.7	5.7	9.6	5.7	3.8	3.8
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°	820.1	820.1	820.1
2.5°	687.5	647.2	651.0
5°	583.8	526.2	520.5
7.5°	493.5	432.0	424.4
10°	422.5	361.1	351.4
12.5°	370.7	315.0	305.3
15°	338.0	288.1	280.4
17.5°	332.3	293.9	289.9
20°	355.3	336.0	340.0
22.5°	395.6	389.8	399.5
25°	422.5	420.6	432.0
27.5°	416.7	412.9	420.6
30°	386.1	380.2	384.1
32.5°	349.5	340.0	343.7
35°	313.0	305.3	307.3
37.5°	282.2	276.5	276.5
40°	255.4	249.7	249.7
42.5°	226.6	222.7	224.7
45°	195.9	193.9	197.9
47.5°	165.2	163.2	167.1
50°	136.4	132.5	132.5
52.5°	107.6	101.7	98.0
55°	78.8	69.2	65.3
57.5°	53.8	44.2	40.4
60°	30.7	25.0	21.1
62.5°	15.4	9.6	7.7
65°	5.7	3.8	2.0
67.5°	3.8	2.0	2.0
70°	3.8	2.0	2.0
72.5°	2.0	2.0	2.0
75°	2.0	2.0	0.0
77.5°	2.0	2.0	2.0
80°	2.0	2.0	0.0
82.5°	2.0	2.0	0.0
85°	2.0	2.0	0.0
87.5°	2.0	2.0	0.0
90°	0.0	0.0	0.0

Classified

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— 0°-180° - - 45°-225° - - - 90°-270°

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(END OF REPORT)