

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: P1191814

Luminaire Tested: **LDA4A30930D010TE 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: P1191814
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: LDA4A30930D010TE 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

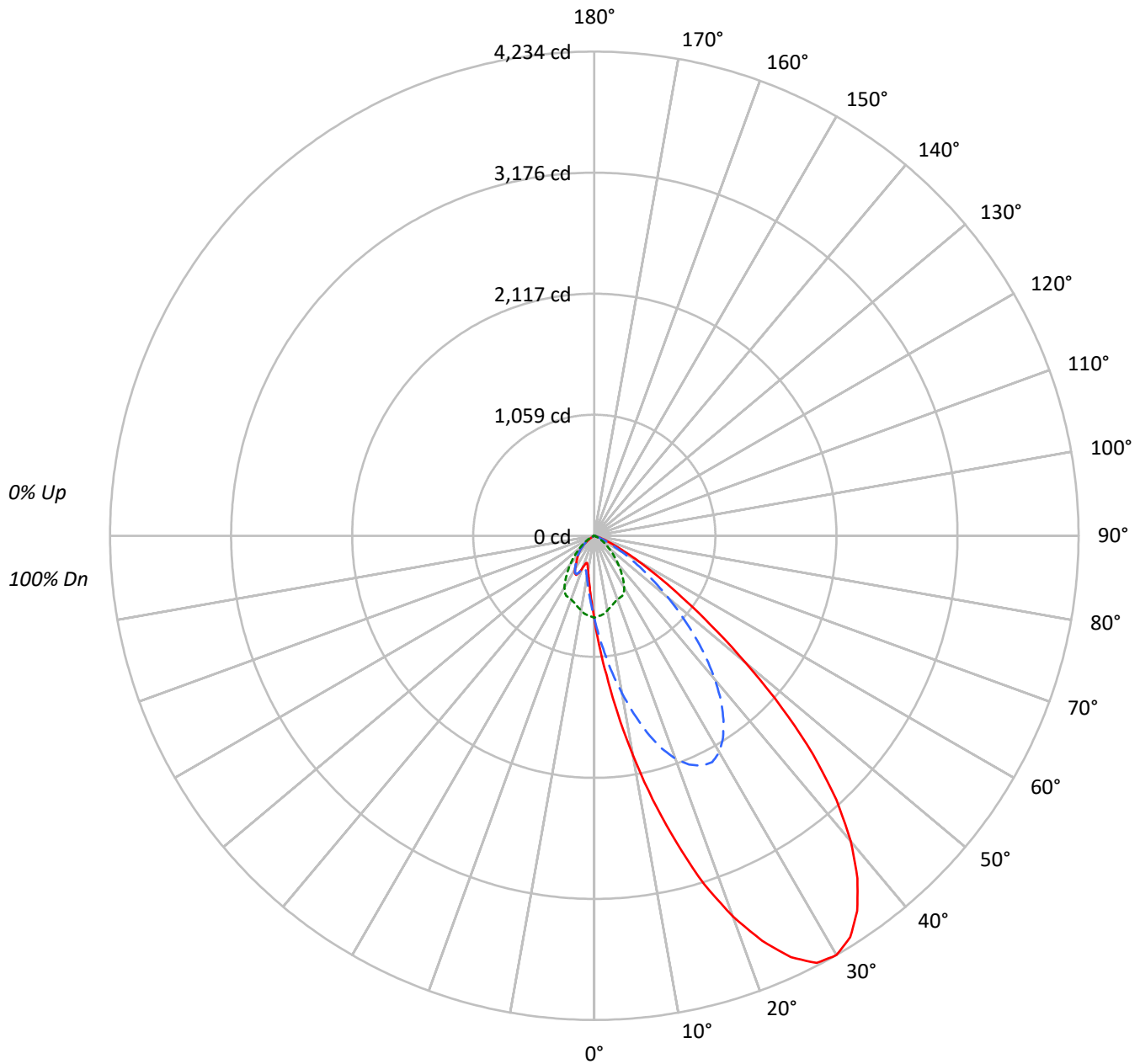
Lumens per Lamp: N/A
Luminaire Lumens: 2688.0 lumens
Efficiency: N/A
Efficacy: 68.2 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	88537	88537	88537
5°	151094	86375	56411
10°	244222	82952	38526
15°	354818	79632	31350
20°	464679	77891	39063
25°	553397	78936	51472
30°	603094	74447	47884
35°	603167	63544	40490
40°	561351	52507	35198
45°	471503	41045	30212
50°	330956	30645	22240
55°	199176	22042	12279
60°	109876	14086	4564
65°	52973	6859	496
70°	21206	2416	613
75°	6434	1573	0
80°	2344	2344	0
85°	7076	4670	0

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CATALOG NUMBER: LDA4A30930D010TE LAR35FL 4LLWW1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	2.9
10°-20°	305.1	11.4
20°-30°	618.7	23.0
30°-40°	751.8	28.0
40°-50°	593.2	22.1
50°-60°	268.7	10.0
60°-70°	63.4	2.4
70°-80°	6.8	0.3
80°-90°	3.0	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°	1000.9	37.2
0°-40°	1752.7	65.2
0°-60°	2614.7	97.3
0°-90°	2688.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2688.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	718	718	718	718	718	
5°	1220	1027	698	511	456	139
15°	2779	1780	624	296	246	809
25°	4066	2221	580	370	378	1861
35°	4006	1968	422	274	269	2473
45°	2703	1242	235	172	173	2045
55°	926	508	102	69	57	875
65°	182	108	24	5	2	204
75°	14	7	3	2	0	21
85°	5	5	3	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°	717.8	717.8	717.8	717.8	717.8	717.8	717.8	717.8	717.8	717.8	717.8
2.5°	953.1	929.6	929.6	912.8	926.2	899.3	904.3	902.7	919.5	914.5	899.3
5°	1220.3	1200.2	1198.6	1176.7	1193.4	1158.2	1159.8	1154.8	1173.3	1154.8	1133.0
7.5°	1565.0	1529.7	1527.9	1502.7	1519.6	1474.3	1472.5	1462.4	1479.3	1443.9	1412.0
10°	1949.9	1899.5	1896.1	1865.9	1884.3	1825.5	1820.5	1803.6	1815.5	1760.0	1714.6
12.5°	2361.8	2306.3	2299.6	2267.6	2284.4	2213.8	2200.4	2178.5	2183.6	2102.9	2042.4
15°	2778.6	2731.5	2724.8	2691.2	2708.1	2620.6	2598.7	2571.9	2566.8	2459.3	2381.9
17.5°	3193.9	3098.0	3128.3	3094.7	3109.8	3007.2	2978.7	2945.1	2926.6	2793.8	2696.3
20°	3540.1	3457.8	3479.5	3449.3	3462.8	3345.1	3309.8	3267.8	3235.9	3076.2	2963.6
22.5°	3832.6	3746.9	3735.2	3735.2	3743.5	3615.8	3568.7	3521.6	3476.3	3286.3	3172.0
25°	4066.2	3972.1	3958.6	3955.3	3957.0	3822.5	3767.1	3715.0	3656.2	3447.6	3323.2
27.5°	4210.8	4111.6	4096.6	4094.9	4086.4	3948.6	3886.3	3829.2	3758.7	3545.1	3405.7
30°	4234.4	4143.5	4126.8	4126.8	4104.9	3970.5	3901.5	3841.0	3761.9	3546.8	3397.2
32.5°	4163.7	4071.3	4052.8	4054.5	4019.2	3893.1	3819.2	3756.9	3674.6	3462.8	3308.2
35°	4005.7	3916.7	3899.8	3901.5	3857.8	3740.2	3662.9	3602.3	3514.9	3313.2	3155.2
37.5°	3778.8	3694.8	3677.9	3681.4	3627.5	3521.6	3442.6	3385.5	3296.3	3109.8	2955.1
40°	3486.3	3405.7	3390.5	3392.2	3333.4	3240.9	3163.6	3109.8	3020.7	2854.3	2706.3
42.5°	3131.6	3054.3	3042.6	3040.8	2983.7	2899.7	2824.0	2778.6	2687.9	2555.1	2413.9
45°	2703.0	2637.5	2585.4	2620.6	2561.8	2494.5	2423.9	2387.0	2301.3	2207.1	2081.0
47.5°	2220.6	2163.4	2111.3	2145.0	2091.2	2040.6	1978.5	1954.9	1877.6	1828.9	1723.0
50°	1724.7	1675.9	1628.8	1657.5	1615.4	1581.8	1533.1	1521.2	1457.4	1450.6	1368.3
52.5°	1280.9	1245.5	1208.6	1230.5	1198.6	1176.7	1139.8	1136.3	1087.5	1104.4	1047.3
55°	926.2	901.0	872.4	889.3	865.7	852.2	825.3	827.0	790.1	815.3	774.9
57.5°	655.5	635.4	615.2	625.3	610.2	600.1	581.6	585.0	576.5	585.0	556.4
60°	445.4	433.7	418.5	427.0	413.5	408.5	396.8	398.3	378.2	405.1	384.9
62.5°	292.4	284.1	284.1	279.1	268.9	265.6	258.9	258.9	247.1	267.2	253.8
65°	181.5	178.2	176.5	173.2	166.5	164.7	159.7	159.7	151.3	166.5	156.3
67.5°	107.6	105.9	104.2	102.5	97.5	95.8	94.2	92.5	87.5	97.5	90.7
70°	58.8	58.8	57.1	55.5	52.1	52.1	50.4	50.4	47.1	52.1	47.1
72.5°	28.6	28.6	26.9	26.9	25.2	25.2	23.5	23.5	21.9	25.2	21.9
75°	13.5	13.5	11.7	11.7	11.7	11.7	10.0	10.0	10.0	11.7	10.0
77.5°	6.7	6.7	6.7	6.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0
80°	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	3.3	3.3
82.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
85°	5.0	5.0	5.0	5.0	6.7	5.0	6.7	6.7	6.7	6.7	6.7
87.5°	6.7	6.7	6.7	6.7	6.7	8.4	8.4	8.4	6.7	8.4	6.7
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°	717.8	717.8	717.8	717.8	717.8	717.8	717.8	717.8	717.8	717.8	717.8
2.5°	904.3	890.9	896.0	880.8	869.1	864.0	864.0	862.4	783.4	704.4	648.8
5°	1131.3	1106.1	1109.4	1082.5	1070.8	1054.0	1048.9	1027.1	855.6	697.6	590.0
7.5°	1400.3	1363.3	1341.4	1316.2	1301.1	1270.9	1255.7	1212.0	922.9	684.2	532.9
10°	1689.4	1637.3	1601.9	1561.6	1546.5	1499.5	1470.8	1396.8	981.7	662.3	479.1
12.5°	2002.0	1931.4	1867.6	1823.8	1805.3	1714.6	1696.1	1590.2	1035.4	642.1	435.4
15°	2323.0	2234.0	2153.3	2091.2	2067.5	1978.5	1921.4	1780.1	1082.5	623.6	401.8
17.5°	2608.9	2513.1	2415.5	2334.9	2301.3	2175.2	2121.4	1946.6	1117.9	605.2	383.3
20°	2862.6	2746.7	2644.2	2533.2	2494.5	2351.7	2264.2	2076.0	1138.0	593.4	384.9
22.5°	3056.0	2923.2	2805.5	2681.2	2632.3	2476.0	2376.9	2165.0	1144.8	585.0	396.8
25°	3197.1	3049.3	2918.2	2782.1	2724.8	2558.5	2449.1	2220.6	1143.1	580.0	401.8
27.5°	3269.4	3111.4	2970.3	2824.0	2761.9	2590.4	2472.7	2232.3	1119.6	559.8	401.8
30°	3259.4	3092.9	2945.1	2793.8	2726.5	2556.8	2435.7	2186.9	1069.1	522.7	373.1
32.5°	3170.2	3000.5	2849.2	2697.9	2630.8	2464.3	2343.2	2094.5	996.8	474.1	334.5
35°	3022.4	2854.3	2704.6	2556.8	2489.5	2328.2	2210.5	1968.4	914.5	422.0	299.2
37.5°	2829.0	2666.0	2521.4	2387.0	2309.6	2158.3	2044.1	1818.8	823.7	374.9	268.9
40°	2588.7	2434.1	2297.8	2173.5	2091.2	1951.6	1847.4	1642.3	727.8	326.1	240.3
42.5°	2311.3	2166.7	2055.8	1931.4	1839.0	1716.3	1625.5	1447.3	630.4	282.4	210.1
45°	1997.0	1869.3	1773.4	1664.2	1568.3	1464.1	1386.8	1242.2	531.2	235.3	181.5
47.5°	1659.1	1553.3	1479.3	1388.5	1294.3	1210.3	1149.8	1033.8	437.0	196.7	154.6
50°	1326.3	1242.2	1188.4	1119.6	1033.8	969.9	922.9	845.5	346.2	159.7	129.4
52.5°	1020.4	959.8	922.9	872.4	796.8	753.0	719.4	665.7	263.9	129.4	104.2
55°	761.5	717.8	694.2	659.0	593.4	563.1	541.3	507.7	196.7	102.5	80.7
57.5°	549.6	521.1	506.0	482.5	428.7	410.2	395.0	374.9	142.8	79.0	58.8
60°	383.3	363.1	354.7	339.5	295.9	284.1	263.9	263.9	100.9	57.1	40.4
62.5°	253.8	240.3	237.0	225.3	191.7	184.9	179.9	176.5	69.0	38.6	23.5
65°	158.0	147.9	146.3	139.6	115.9	112.6	107.6	107.6	43.7	23.5	11.7
67.5°	90.7	85.7	84.0	80.7	63.8	62.3	58.8	62.3	25.2	11.7	5.0
70°	48.8	43.7	43.7	42.1	31.9	30.2	28.6	30.2	13.5	6.7	3.3
72.5°	23.5	20.2	20.2	18.5	13.5	13.5	11.7	15.2	6.7	3.3	3.3
75°	10.0	10.0	8.4	8.4	5.0	5.0	5.0	6.7	3.3	3.3	3.3
77.5°	5.0	5.0	5.0	5.0	1.7	1.7	1.7	3.3	3.3	3.3	3.3
80°	3.3	3.3	3.3	3.3	0.0	0.0	0.0	3.3	3.3	3.3	3.3
82.5°	3.3	1.7	1.7	1.7	0.0	0.0	0.0	1.7	3.3	3.3	3.3
85°	5.0	5.0	5.0	5.0	3.3	3.3	3.3	5.0	3.3	3.3	3.3
87.5°	6.7	6.7	6.7	6.7	5.0	5.0	5.0	8.4	5.0	3.3	3.3
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°	717.8	717.8	717.8
2.5°	601.7	566.5	569.8
5°	511.0	460.6	455.6
7.5°	432.0	378.2	371.4
10°	369.9	316.0	307.6
12.5°	324.5	275.7	267.2
15°	295.9	252.2	245.5
17.5°	290.8	257.2	253.8
20°	311.0	294.1	297.6
22.5°	346.2	341.2	349.7
25°	369.9	368.1	378.2
27.5°	364.7	361.4	368.1
30°	337.9	332.8	336.2
32.5°	305.9	297.6	300.9
35°	274.0	267.2	268.9
37.5°	247.1	242.0	242.0
40°	223.6	218.6	218.6
42.5°	198.4	194.9	196.7
45°	171.5	169.8	173.2
47.5°	144.6	142.8	146.3
50°	119.4	115.9	115.9
52.5°	94.2	89.0	85.7
55°	69.0	60.5	57.1
57.5°	47.1	38.6	35.3
60°	26.9	21.9	18.5
62.5°	13.5	8.4	6.7
65°	5.0	3.3	1.7
67.5°	3.3	1.7	1.7
70°	3.3	1.7	1.7
72.5°	1.7	1.7	1.7
75°	1.7	1.7	0.0
77.5°	1.7	1.7	1.7
80°	1.7	1.7	0.0
82.5°	1.7	1.7	0.0
85°	1.7	1.7	0.0
87.5°	1.7	1.7	0.0
90°	0.0	0.0	0.0

Classified

Scaled Data Report

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Peachtree City, GA 30269



— 0°-180° - - 45°-225° - - - 90°-270°

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Peachtree City, GA 30269

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(END OF REPORT)