

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: P1191832

Luminaire Tested: **LDA4A30935D010TE LAR35FL 4LLWW1**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P1191832
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: LDA4A30935D010TE LAR35FL 4LLWW1
Description: PORTFOLIO 4" Lensed Wall Wash, Self-flanged, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

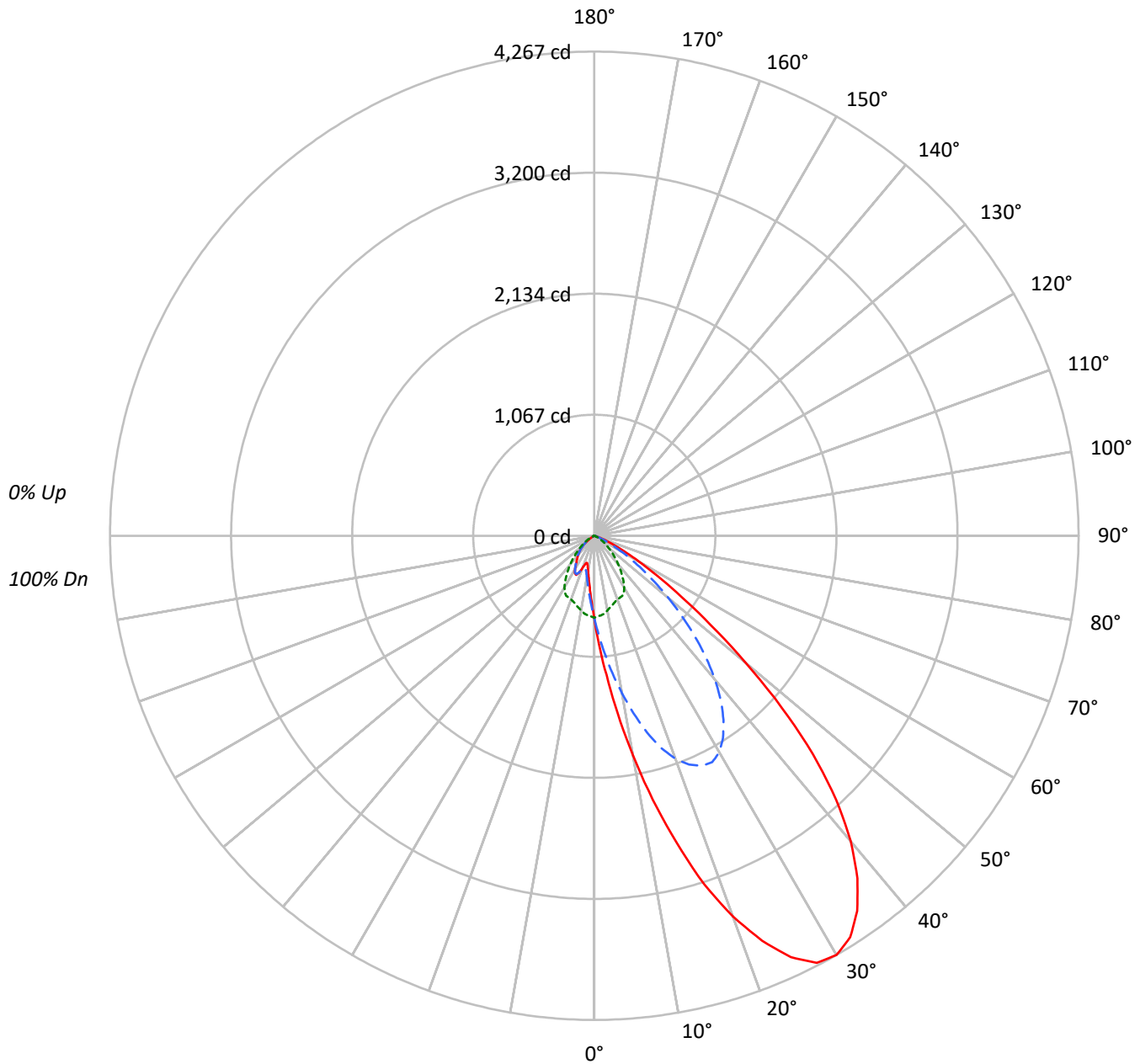
Lumens per Lamp: N/A
Luminaire Lumens: 2708.8 lumens
Efficiency: N/A
Efficacy: 68.8 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



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					0
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°	89216	89216	89216
5°	152270	87043	56832
10°	246101	83591	38827
15°	357564	80257	31579
20°	468276	78481	39352
25°	557670	79549	51880
30°	607751	75031	48269
35°	607835	64010	40821
40°	565699	52910	35472
45°	475149	41376	30439
50°	333527	30875	22432
55°	200703	22214	12387
60°	110740	14209	4588
65°	53381	6917	496
70°	21350	2416	613
75°	6481	1620	0
80°	2415	2415	0
85°	7218	4812	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.6	2.9
10°-20°	307.5	11.4
20°-30°	623.5	23.0
30°-40°	757.7	28.0
40°-50°	597.8	22.1
50°-60°	270.8	10.0
60°-70°	63.9	2.4
70°-80°	6.9	0.3
80°-90°	3.1	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°	1008.6	37.2
0°-40°	1766.3	65.2
0°-60°	2634.9	97.3
0°-90°	2708.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2708.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	723	723	723	723	723	
5°	1230	1035	703	515	459	140
15°	2800	1794	628	298	247	815
25°	4098	2238	584	373	381	1875
35°	4037	1984	425	276	271	2493
45°	2724	1252	237	173	174	2061
55°	933	512	103	70	58	881
65°	183	108	24	5	2	206
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°	723.3	723.3	723.3	723.3	723.3	723.3	723.3	723.3	723.3	723.3	723.3
2.5°	960.5	936.8	936.8	919.9	933.3	906.3	911.3	909.6	926.6	921.5	906.3
5°	1229.8	1209.5	1207.8	1185.8	1202.7	1167.2	1168.8	1163.8	1182.4	1163.8	1141.7
7.5°	1577.0	1541.5	1539.8	1514.4	1531.4	1485.6	1483.9	1473.7	1490.6	1455.1	1422.9
10°	1964.9	1914.1	1910.7	1880.2	1899.0	1839.6	1834.6	1817.6	1829.5	1773.5	1727.8
12.5°	2380.0	2324.1	2317.4	2285.2	2302.1	2231.0	2217.4	2195.4	2200.5	2119.1	2058.2
15°	2800.1	2752.6	2745.9	2712.0	2728.9	2640.9	2618.9	2591.7	2586.7	2478.3	2400.3
17.5°	3218.5	3122.0	3152.4	3118.5	3133.8	3030.4	3001.7	2967.8	2949.2	2815.3	2717.2
20°	3567.5	3484.4	3506.5	3476.0	3489.6	3371.0	3335.4	3293.0	3260.9	3099.9	2986.4
22.5°	3862.2	3775.8	3763.9	3763.9	3772.4	3643.6	3596.3	3548.8	3503.0	3311.6	3196.5
25°	4097.6	4002.8	3989.2	3985.9	3987.5	3852.0	3796.1	3743.6	3684.4	3474.3	3349.0
27.5°	4243.4	4143.4	4128.1	4126.5	4117.9	3979.1	3916.4	3858.8	3787.7	3572.5	3431.9
30°	4267.1	4175.6	4158.7	4158.7	4136.7	4001.1	3931.7	3870.6	3791.1	3574.3	3423.5
32.5°	4195.9	4102.8	4084.2	4085.8	4050.3	3923.1	3848.6	3786.0	3703.0	3489.6	3333.7
35°	4036.7	3946.9	3930.0	3931.7	3887.7	3769.1	3691.1	3630.2	3542.1	3338.8	3179.6
37.5°	3808.0	3723.3	3706.4	3709.7	3655.5	3548.8	3469.3	3411.6	3321.8	3133.8	2977.9
40°	3513.3	3431.9	3416.8	3418.3	3359.1	3266.0	3188.0	3133.8	3044.0	2876.4	2727.3
42.5°	3155.9	3077.9	3066.0	3064.3	3006.8	2922.0	2845.9	2800.1	2708.6	2574.8	2432.5
45°	2723.9	2657.8	2605.3	2640.9	2581.6	2513.8	2442.7	2405.3	2319.1	2224.1	2097.1
47.5°	2237.7	2180.1	2127.6	2161.5	2107.3	2056.5	1993.8	1970.1	1892.1	1843.1	1736.3
50°	1738.1	1688.9	1641.4	1670.3	1627.9	1594.0	1544.8	1533.1	1468.7	1461.9	1378.9
52.5°	1290.8	1255.2	1218.0	1240.0	1207.8	1185.8	1148.5	1145.2	1096.0	1113.0	1055.3
55°	933.3	908.0	879.1	896.1	872.4	858.8	831.8	833.5	796.2	821.6	780.9
57.5°	660.7	640.4	619.9	630.1	614.9	604.8	586.2	589.5	581.0	589.5	560.7
60°	448.9	437.0	421.8	430.3	416.7	411.7	399.8	401.5	381.2	408.2	387.9
62.5°	294.8	286.2	286.2	281.2	271.1	267.6	260.9	260.9	249.0	269.3	255.8
65°	182.9	179.5	177.8	174.5	167.6	166.1	160.9	160.9	152.5	167.6	157.5
67.5°	108.4	106.7	105.0	103.3	98.3	96.6	94.8	93.1	88.1	98.3	91.5
70°	59.2	59.2	57.6	55.9	52.5	52.5	50.8	50.8	47.5	52.5	47.5
72.5°	28.8	28.8	27.0	27.0	25.5	25.5	23.7	23.7	22.0	25.5	22.0
75°	13.6	13.6	11.9	11.9	11.9	11.9	10.2	10.2	10.2	11.9	10.2
77.5°	6.7	6.7	6.7	6.7	5.1	5.1	5.1	5.1	5.1	5.1	5.1
80°	3.4	3.4	3.4	3.4	3.4	1.7	1.7	1.7	1.7	3.4	3.4
82.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
85°	5.1	5.1	5.1	5.1	6.7	5.1	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°	723.3	723.3	723.3	723.3	723.3	723.3	723.3	723.3	723.3	723.3	723.3
2.5°	911.3	897.9	902.9	887.7	875.8	870.7	870.7	869.0	789.4	709.8	653.8
5°	1140.0	1114.6	1118.0	1091.0	1079.1	1062.1	1057.1	1035.0	862.2	703.0	594.6
7.5°	1411.1	1373.7	1351.7	1326.4	1311.1	1280.6	1265.3	1221.4	930.0	689.4	537.0
10°	1702.4	1649.9	1614.3	1573.7	1558.4	1511.1	1482.2	1407.6	989.3	667.4	482.8
12.5°	2017.6	1946.3	1882.0	1837.9	1819.3	1727.8	1709.2	1602.5	1043.5	647.1	438.7
15°	2341.0	2251.3	2169.9	2107.3	2083.5	1993.8	1936.2	1793.9	1091.0	628.5	404.8
17.5°	2629.1	2532.5	2434.2	2352.9	2319.1	2191.9	2137.7	1961.6	1126.4	609.8	386.2
20°	2884.8	2767.9	2664.5	2552.8	2513.8	2369.9	2281.8	2092.1	1146.7	597.9	387.9
22.5°	3079.6	2945.7	2827.2	2701.9	2652.8	2495.2	2395.2	2181.8	1153.6	589.5	399.8
25°	3221.9	3072.8	2940.7	2803.4	2745.9	2578.1	2468.1	2237.7	1151.9	584.5	404.8
27.5°	3294.8	3135.6	2993.2	2845.9	2783.1	2610.3	2491.7	2249.6	1128.1	564.1	404.8
30°	3284.6	3116.8	2967.8	2815.3	2747.6	2576.6	2454.5	2203.8	1077.4	526.8	376.0
32.5°	3194.8	3023.7	2871.2	2718.7	2651.1	2483.3	2361.4	2110.7	1004.6	477.7	337.1
35°	3045.7	2876.4	2725.6	2576.6	2508.8	2346.1	2227.5	1983.7	921.5	425.1	301.5
37.5°	2850.9	2686.6	2540.9	2405.3	2327.5	2175.0	2059.9	1832.9	830.1	377.8	271.1
40°	2608.7	2452.8	2315.7	2190.2	2107.3	1966.6	1861.7	1655.0	733.5	328.6	242.2
42.5°	2329.2	2183.5	2071.6	1946.3	1853.2	1729.5	1638.1	1458.4	635.2	284.6	211.7
45°	2012.4	1883.7	1787.1	1677.0	1580.4	1475.4	1397.5	1251.9	535.3	237.2	182.9
47.5°	1672.0	1565.3	1490.6	1399.2	1304.4	1219.7	1158.6	1041.8	440.4	198.2	155.9
50°	1336.6	1251.9	1197.7	1128.1	1041.8	977.4	930.0	852.1	349.0	160.9	130.5
52.5°	1028.2	967.2	930.0	879.1	802.9	758.8	725.1	670.8	265.9	130.5	105.0
55°	767.4	723.3	699.6	664.0	597.9	567.4	545.4	511.5	198.2	103.3	81.3
57.5°	554.0	525.1	509.9	486.2	432.0	413.4	398.1	377.8	144.0	79.7	59.2
60°	386.2	365.9	357.5	342.2	298.1	286.2	265.9	265.9	101.7	57.6	40.6
62.5°	255.8	242.2	238.9	227.0	193.1	186.4	181.2	177.8	69.5	38.9	23.7
65°	159.2	149.0	147.3	140.6	116.9	113.4	108.4	108.4	44.1	23.7	11.9
67.5°	91.5	86.4	84.7	81.3	64.4	62.7	59.2	62.7	25.5	11.9	5.1
70°	49.1	44.1	44.1	42.3	32.2	30.5	28.8	30.5	13.6	6.7	3.4
72.5°	23.7	20.3	20.3	18.6	13.6	13.6	11.9	15.3	6.7	3.4	3.4
75°	10.2	10.2	8.4	8.4	5.1	5.1	5.1	6.7	3.4	3.4	3.4
77.5°	5.1	5.1	5.1	5.1	1.7	1.7	1.7	3.4	3.4	3.4	3.4
80°	3.4	3.4	3.4	3.4	0.0	0.0	0.0	3.4	3.4	3.4	3.4
82.5°	3.4	1.7	1.7	1.7	0.0	0.0	0.0	1.7	3.4	3.4	3.4
85°	5.1	5.1	5.1	5.1	3.4	3.4	3.4	5.1	3.4	3.4	3.4
87.5°	6.7	6.7	6.7	6.7	5.1	5.1	5.1	8.4	5.1	3.4	3.4
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°	723.3	723.3	723.3
2.5°	606.5	570.9	574.3
5°	514.9	464.2	459.0
7.5°	435.4	381.2	374.3
10°	372.6	318.4	310.0
12.5°	327.0	277.8	269.3
15°	298.1	254.0	247.3
17.5°	293.1	259.2	255.8
20°	313.4	296.4	299.8
22.5°	349.0	343.9	352.3
25°	372.6	371.0	381.2
27.5°	367.6	364.2	371.0
30°	340.4	335.4	338.9
32.5°	308.3	299.8	303.2
35°	276.1	269.3	271.1
37.5°	249.0	243.9	243.9
40°	225.3	220.3	220.3
42.5°	199.8	196.5	198.2
45°	172.8	171.1	174.5
47.5°	145.6	144.0	147.3
50°	120.3	116.9	116.9
52.5°	94.8	89.8	86.4
55°	69.5	60.9	57.6
57.5°	47.5	38.9	35.6
60°	27.0	22.0	18.6
62.5°	13.6	8.4	6.7
65°	5.1	3.4	1.7
67.5°	3.4	1.7	1.7
70°	3.4	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

Cooper Lighting Solutions Photometric Lab

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Peachtree City, GA 30269



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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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(END OF REPORT)