

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: P1191850

Luminaire Tested: **LDA4A30940D010TE 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: P1191850
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: LDA4A30940D010TE LAR35FL 4LLWW1
Description: PORTFOLIO 4" Lensed Wall Wash, Self-flanged, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

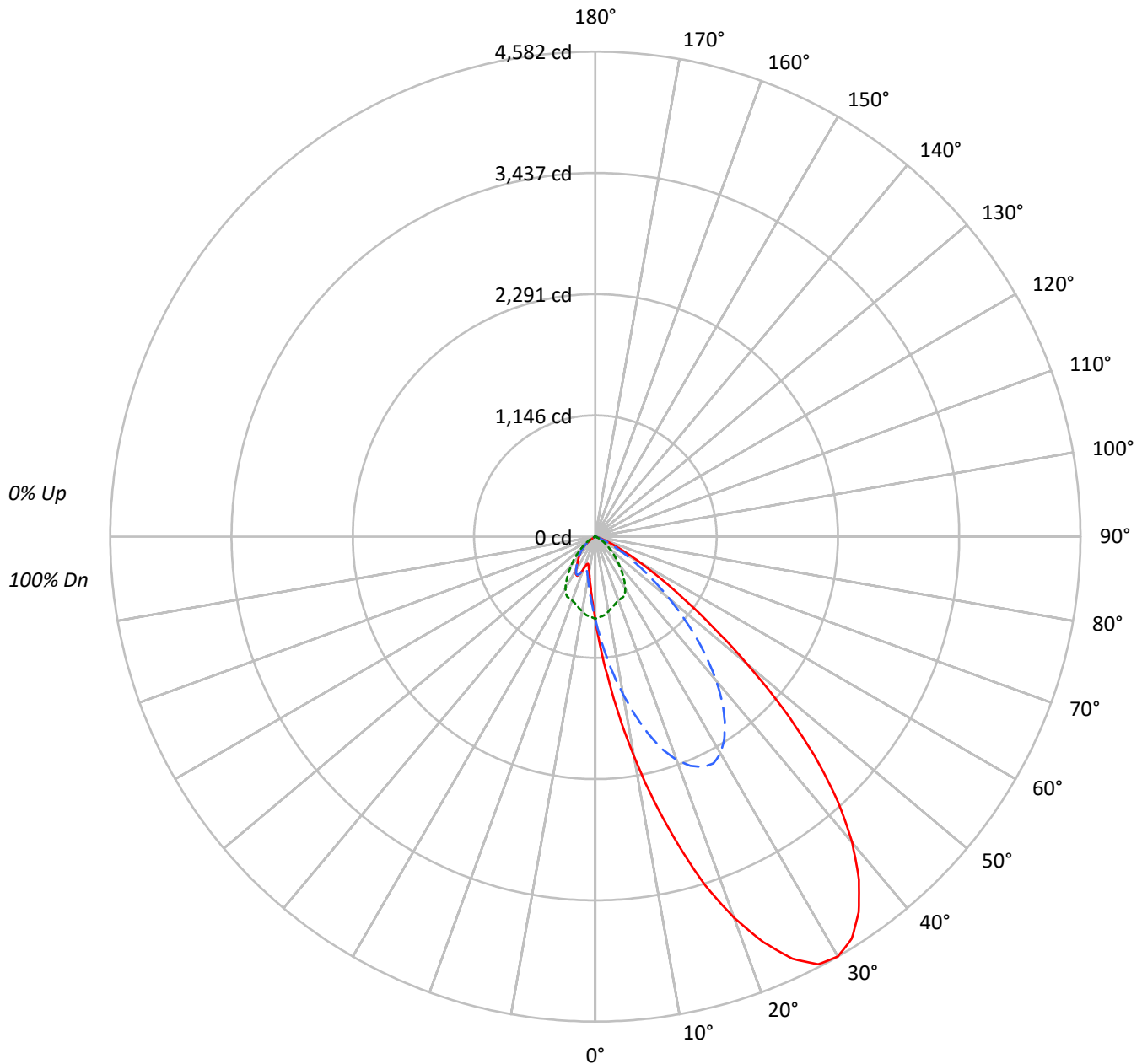
Lumens per Lamp: N/A
Luminaire Lumens: 2908.5 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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



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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	74	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	65	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°	95790	95790	95790
5°	163500	93445	61029
10°	264249	89753	41683
15°	383908	86170	33903
20°	502785	84283	42266
25°	598785	85401	55704
30°	652545	80557	51815
35°	652647	68738	43818
40°	607386	56807	38080
45°	510159	44412	32672
50°	358089	33159	24063
55°	215520	23849	13311
60°	118905	15270	4934
65°	57321	7442	525
70°	22973	2633	649
75°	6910	1763	0
80°	2628	2628	0
85°	7642	5236	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	2.9
10°-20°	330.1	11.4
20°-30°	669.5	23.0
30°-40°	813.5	28.0
40°-50°	641.9	22.1
50°-60°	290.8	10.0
60°-70°	68.6	2.4
70°-80°	7.4	0.3
80°-90°	3.3	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°	1083.0	37.2
0°-40°	1896.5	65.2
0°-60°	2829.1	97.3
0°-90°	2908.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2908.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	777	777	777	777	777	
5°	1320	1111	755	553	493	151
15°	3006	1926	675	320	266	875
25°	4400	2403	628	400	409	2013
35°	4334	2130	456	296	291	2676
45°	2925	1344	255	186	187	2213
55°	1002	549	111	74	62	946
65°	196	116	26	5	2	221
75°	14	7	4	2	0	23
85°	5	5	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°	776.6	776.6	776.6	776.6	776.6	776.6	776.6	776.6	776.6	776.6	776.6
2.5°	1031.2	1005.7	1005.7	987.5	1002.2	973.0	978.6	976.7	994.9	989.4	973.0
5°	1320.5	1298.6	1296.9	1273.1	1291.3	1253.2	1255.0	1249.5	1269.5	1249.5	1225.9
7.5°	1693.3	1655.1	1653.2	1625.9	1644.1	1595.1	1593.2	1582.4	1600.5	1562.4	1527.8
10°	2109.8	2055.3	2051.6	2018.9	2038.9	1975.2	1969.8	1951.6	1964.3	1904.3	1855.2
12.5°	2555.4	2495.4	2488.2	2453.6	2471.7	2395.3	2380.8	2357.2	2362.6	2275.3	2209.9
15°	3006.4	2955.5	2948.3	2911.8	2930.0	2835.5	2811.9	2782.7	2777.3	2661.0	2577.2
17.5°	3455.7	3352.0	3384.8	3348.4	3364.8	3253.9	3222.9	3186.6	3166.5	3022.9	2917.4
20°	3830.4	3741.2	3765.0	3732.1	3746.8	3619.4	3581.2	3535.7	3501.2	3328.4	3206.5
22.5°	4146.8	4054.1	4041.3	4041.3	4050.4	3912.2	3861.3	3810.4	3761.3	3555.8	3432.1
25°	4399.7	4297.9	4283.2	4279.7	4281.5	4135.9	4075.9	4019.6	3955.8	3730.4	3595.8
27.5°	4556.1	4448.8	4432.4	4430.6	4421.5	4272.4	4205.0	4143.3	4066.8	3835.8	3684.9
30°	4581.6	4483.3	4465.1	4465.1	4441.5	4296.0	4221.5	4155.9	4070.5	3837.7	3675.8
32.5°	4505.2	4405.1	4385.2	4386.9	4348.8	4212.4	4132.3	4065.1	3975.9	3746.8	3579.4
35°	4334.3	4237.8	4219.6	4221.5	4174.1	4046.9	3963.2	3897.7	3803.1	3584.8	3413.9
37.5°	4088.7	3997.8	3979.6	3983.1	3925.0	3810.4	3724.9	3663.0	3566.6	3364.8	3197.4
40°	3772.2	3684.9	3668.6	3670.3	3606.7	3506.6	3423.0	3364.8	3268.4	3088.3	2928.3
42.5°	3388.4	3304.8	3292.0	3290.3	3228.4	3137.4	3055.6	3006.4	2908.3	2764.5	2611.8
45°	2924.6	2853.7	2797.4	2835.5	2771.9	2699.1	2622.7	2582.8	2489.9	2388.1	2251.7
47.5°	2402.6	2340.8	2284.4	2320.8	2262.6	2208.0	2140.8	2115.3	2031.5	1978.9	1864.3
50°	1866.1	1813.4	1762.5	1793.3	1747.8	1711.5	1658.8	1646.0	1576.9	1569.6	1480.5
52.5°	1385.9	1347.8	1307.7	1331.4	1296.9	1273.1	1233.1	1229.4	1176.8	1194.9	1133.2
55°	1002.2	974.9	944.0	962.1	936.6	922.1	893.0	894.8	854.9	882.2	838.5
57.5°	709.4	687.5	665.7	676.7	660.2	649.3	629.3	633.0	623.9	633.0	602.0
60°	482.0	469.3	452.8	461.9	447.4	442.0	429.2	431.1	409.3	438.3	416.5
62.5°	316.4	307.3	307.3	301.9	291.0	287.4	280.2	280.2	267.4	289.1	274.6
65°	196.4	192.8	191.0	187.3	180.0	178.2	172.8	172.8	163.7	180.0	169.1
67.5°	116.5	114.6	112.8	110.9	105.5	103.7	101.8	100.0	94.6	105.5	98.3
70°	63.7	63.7	61.9	60.0	56.3	56.3	54.6	54.6	50.9	56.3	50.9
72.5°	30.9	30.9	29.2	29.2	27.3	27.3	25.5	25.5	23.6	27.3	23.6
75°	14.5	14.5	12.8	12.8	12.8	12.8	10.9	10.9	10.9	12.8	10.9
77.5°	7.3	7.3	7.3	7.3	5.4	5.4	5.4	5.4	5.4	5.4	5.4
80°	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	3.7	3.7
82.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
85°	5.4	5.4	5.4	5.4	7.3	5.4	7.3	7.3	7.3	7.3	7.3
87.5°	7.3	7.3	7.3	7.3	7.3	9.1	9.1	9.1	7.3	9.1	7.3
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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
0°	776.6	776.6	776.6	776.6	776.6	776.6	776.6	776.6	776.6	776.6	776.6
2.5°	978.6	963.9	969.5	953.1	940.3	934.9	934.9	933.1	847.6	762.1	702.1
5°	1224.0	1196.7	1200.4	1171.3	1158.6	1140.4	1134.9	1111.3	925.8	754.7	638.4
7.5°	1515.0	1475.0	1451.4	1424.1	1407.8	1375.1	1358.6	1311.4	998.5	740.2	576.5
10°	1827.9	1771.6	1733.3	1689.7	1673.3	1622.4	1591.4	1511.5	1062.2	716.6	518.4
12.5°	2166.2	2089.8	2020.7	1973.4	1953.5	1855.2	1835.1	1720.6	1120.4	694.7	471.0
15°	2513.6	2417.2	2329.9	2262.6	2237.2	2140.8	2078.9	1926.2	1171.3	674.8	434.7
17.5°	2822.8	2719.1	2613.6	2526.3	2489.9	2353.5	2295.3	2106.2	1209.5	654.8	414.7
20°	3097.4	2971.9	2860.9	2740.9	2699.1	2544.5	2449.9	2246.3	1231.3	642.1	416.5
22.5°	3306.6	3162.9	3035.6	2901.0	2848.3	2679.0	2571.8	2342.6	1238.6	633.0	429.2
25°	3459.4	3299.2	3157.4	3010.1	2948.3	2768.2	2650.0	2402.6	1236.8	627.5	434.7
27.5°	3537.6	3366.6	3213.8	3055.6	2988.3	2802.8	2675.5	2415.4	1211.4	605.7	434.7
30°	3526.6	3346.6	3186.6	3022.9	2950.1	2766.4	2635.4	2366.3	1156.8	565.6	403.7
32.5°	3430.2	3246.6	3082.9	2919.2	2846.4	2666.4	2535.4	2266.2	1078.6	513.0	361.9
35°	3270.2	3088.3	2926.5	2766.4	2693.7	2519.0	2391.8	2129.8	989.4	456.5	323.7
37.5°	3061.0	2884.7	2728.2	2582.8	2499.0	2335.3	2211.7	1968.0	891.3	405.6	291.0
40°	2800.9	2633.7	2486.3	2351.7	2262.6	2111.6	1998.8	1777.0	787.6	352.8	260.1
42.5°	2500.8	2344.4	2224.4	2089.8	1989.7	1857.0	1758.8	1565.9	682.1	305.6	227.4
45°	2160.7	2022.6	1918.9	1800.6	1696.9	1584.1	1500.5	1344.1	574.7	254.6	196.4
47.5°	1795.2	1680.6	1600.5	1502.4	1400.5	1309.5	1244.1	1118.5	472.9	212.8	167.4
50°	1435.1	1344.1	1285.9	1211.4	1118.5	1049.4	998.5	914.9	374.7	172.8	140.1
52.5°	1104.0	1038.6	998.5	944.0	862.1	814.9	778.5	720.2	285.6	140.1	112.8
55°	823.9	776.6	751.2	712.9	642.1	609.3	585.6	549.2	212.8	110.9	87.3
57.5°	594.7	563.9	547.5	521.9	463.8	443.8	427.4	405.6	154.6	85.5	63.7
60°	414.7	392.8	383.8	367.3	320.1	307.3	285.6	285.6	109.1	61.9	43.7
62.5°	274.6	260.1	256.4	243.8	207.3	200.1	194.6	191.0	74.5	41.8	25.5
65°	170.9	160.0	158.3	150.9	125.4	121.9	116.5	116.5	47.4	25.5	12.8
67.5°	98.3	92.7	90.9	87.3	69.1	67.3	63.7	67.3	27.3	12.8	5.4
70°	52.8	47.4	47.4	45.5	34.6	32.7	30.9	32.7	14.5	7.3	3.7
72.5°	25.5	21.8	21.8	20.0	14.5	14.5	12.8	16.4	7.3	3.7	3.7
75°	10.9	10.9	9.1	9.1	5.4	5.4	5.4	7.3	3.7	3.7	3.7
77.5°	5.4	5.4	5.4	5.4	1.8	1.8	1.8	3.7	3.7	3.7	3.7
80°	3.7	3.7	3.7	3.7	0.0	0.0	0.0	3.7	3.7	3.7	3.7
82.5°	3.7	1.8	1.8	1.8	0.0	0.0	0.0	1.8	3.7	3.7	3.7
85°	5.4	5.4	5.4	5.4	3.7	3.7	3.7	5.4	3.7	3.7	3.7
87.5°	7.3	7.3	7.3	7.3	5.4	5.4	5.4	9.1	5.4	3.7	3.7
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):

	135°	157.5°	180°
0°	776.6	776.6	776.6
2.5°	651.2	612.9	616.6
5°	552.9	498.3	492.9
7.5°	467.5	409.3	401.9
10°	400.2	341.9	332.8
12.5°	351.0	298.2	289.1
15°	320.1	272.8	265.5
17.5°	314.7	278.3	274.6
20°	336.5	318.3	322.0
22.5°	374.7	369.2	378.3
25°	400.2	398.3	409.3
27.5°	394.6	391.1	398.3
30°	365.6	360.1	363.8
32.5°	331.1	322.0	325.5
35°	296.5	289.1	291.0
37.5°	267.4	262.0	262.0
40°	241.9	236.5	236.5
42.5°	214.6	211.0	212.8
45°	185.5	183.7	187.3
47.5°	156.4	154.6	158.3
50°	129.1	125.4	125.4
52.5°	101.8	96.4	92.7
55°	74.5	65.4	61.9
57.5°	50.9	41.8	38.3
60°	29.2	23.6	20.0
62.5°	14.5	9.1	7.3
65°	5.4	3.7	1.8
67.5°	3.7	1.8	1.8
70°	3.7	1.8	1.8
72.5°	1.8	1.8	1.8
75°	1.8	1.8	0.0
77.5°	1.8	1.8	1.8
80°	1.8	1.8	0.0
82.5°	1.8	1.8	0.0
85°	1.8	1.8	0.0
87.5°	1.8	1.8	0.0
90°	0.0	0.0	0.0

Classified

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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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(END OF REPORT)