

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: P1212815

Luminaire Tested: **LDA4A30950D010TE 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: P1212815
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: LDA4A30950D010TE LAR35FL 4LLWW1
Description: PORTFOLIO 4" Lensed Wall Wash, Self-flanged, 35° Flood Optic, at 30° tilt
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

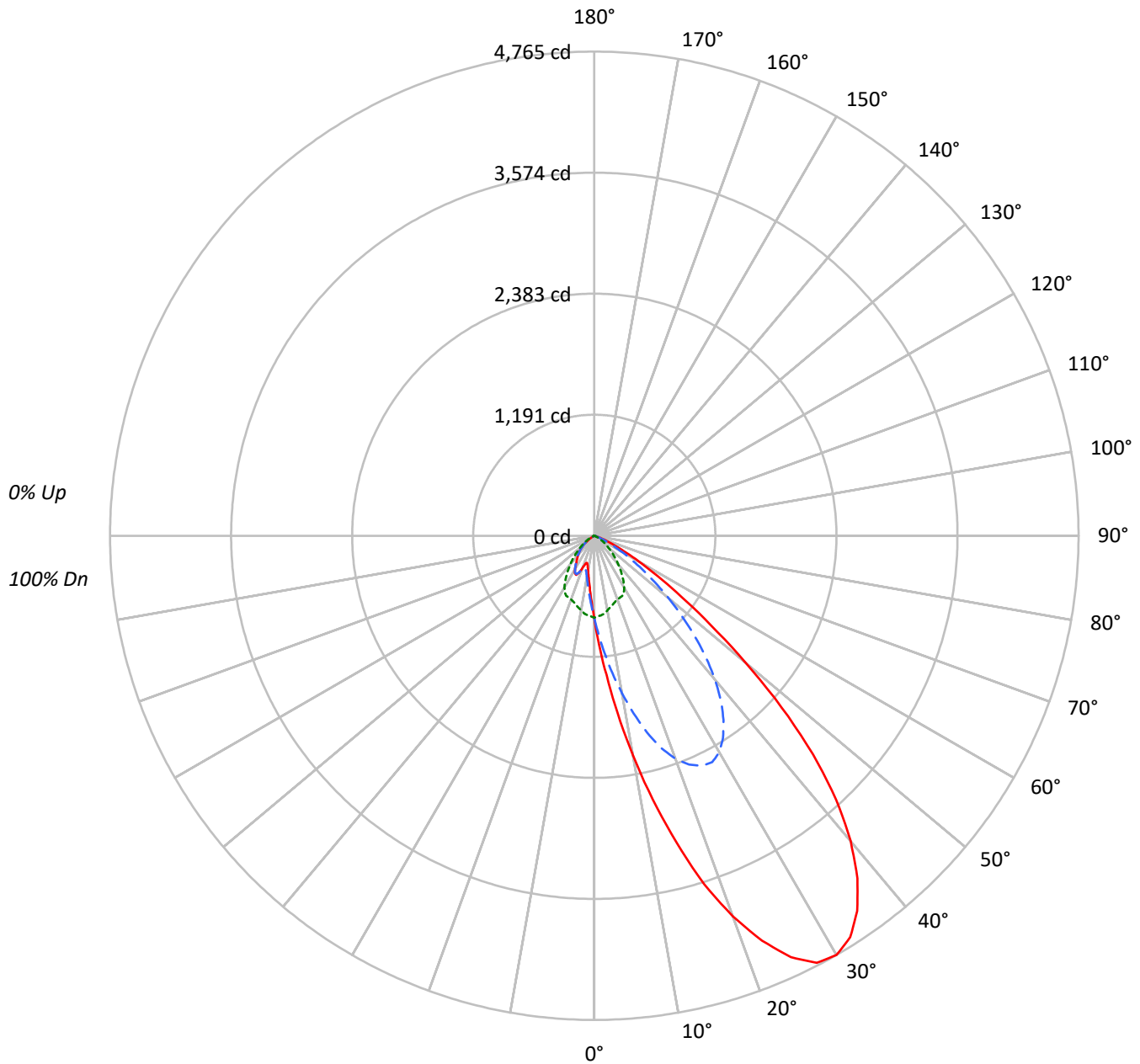
Lumens per Lamp: N/A
Luminaire Lumens: 3024.8 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	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°	99626	99626	99626
5°	170038	97184	63468
10°	274820	93348	43348
15°	399270	89618	35257
20°	522894	87657	43960
25°	622738	88817	57936
30°	678652	83776	53894
35°	678757	71494	45565
40°	631683	59077	39610
45°	530568	46191	33980
50°	372404	34483	25023
55°	224143	24795	13849
60°	123666	15887	5131
65°	59627	7734	555
70°	23874	2741	685
75°	7196	1811	0
80°	2699	2699	0
85°	7925	5378	0

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	2.9
10°-20°	343.3	11.4
20°-30°	696.3	23.0
30°-40°	846.0	28.0
40°-50°	667.6	22.1
50°-60°	302.4	10.0
60°-70°	71.4	2.4
70°-80°	7.7	0.3
80°-90°	3.4	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°	1126.3	37.2
0°-40°	1972.3	65.2
0°-60°	2942.3	97.3
0°-90°	3024.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3024.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	808	808	808	808	808	
5°	1373	1156	785	575	513	157
15°	3127	2003	702	333	276	910
25°	4576	2499	653	416	426	2094
35°	4508	2215	475	308	303	2783
45°	3042	1398	265	193	195	2301
55°	1042	571	115	78	64	984
65°	204	121	26	6	2	230
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°	807.7	807.7	807.7	807.7	807.7	807.7	807.7	807.7	807.7	807.7	807.7
2.5°	1072.4	1045.9	1045.9	1027.0	1042.3	1011.9	1017.7	1015.8	1034.7	1029.0	1011.9
5°	1373.3	1350.5	1348.8	1324.0	1343.0	1303.3	1305.2	1299.5	1320.3	1299.5	1274.9
7.5°	1761.0	1721.3	1719.3	1690.9	1709.9	1658.9	1656.9	1645.7	1664.5	1624.9	1588.9
10°	2194.2	2137.5	2133.7	2099.7	2120.5	2054.2	2048.6	2029.7	2042.9	1980.5	1929.4
12.5°	2657.6	2595.2	2587.7	2551.7	2570.6	2491.1	2476.0	2451.5	2457.1	2366.3	2298.3
15°	3126.7	3073.7	3066.2	3028.3	3047.2	2948.9	2924.4	2894.0	2888.4	2767.4	2680.3
17.5°	3593.9	3486.1	3520.2	3482.3	3499.4	3384.1	3351.8	3314.1	3293.2	3143.8	3034.1
20°	3983.6	3890.8	3915.6	3881.4	3896.7	3764.2	3724.4	3677.1	3641.2	3461.5	3334.8
22.5°	4312.7	4216.3	4203.0	4203.0	4212.4	4068.7	4015.8	3962.8	3911.8	3698.0	3569.4
25°	4575.7	4469.8	4454.5	4450.9	4452.8	4301.3	4238.9	4180.4	4114.0	3879.6	3739.6
27.5°	4738.3	4626.8	4609.7	4607.8	4598.4	4443.3	4373.2	4309.0	4229.5	3989.2	3832.3
30°	4764.9	4662.6	4643.7	4643.7	4619.2	4467.8	4390.4	4322.1	4233.3	3991.2	3822.8
32.5°	4685.4	4581.3	4560.6	4562.4	4522.8	4380.9	4297.6	4227.7	4134.9	3896.7	3722.6
35°	4507.7	4407.3	4388.4	4390.4	4341.1	4208.8	4121.7	4053.6	3955.2	3728.2	3550.5
37.5°	4252.2	4157.7	4138.8	4142.4	4082.0	3962.8	3873.9	3809.5	3709.3	3499.4	3325.3
40°	3923.1	3832.3	3815.3	3817.1	3751.0	3646.9	3559.9	3499.4	3399.1	3211.8	3045.4
42.5°	3523.9	3437.0	3423.7	3421.9	3357.5	3262.9	3177.8	3126.7	3024.6	2875.1	2716.3
45°	3041.6	2967.8	2909.3	2948.9	2882.8	2807.1	2727.6	2686.1	2589.5	2483.6	2341.8
47.5°	2498.7	2434.4	2375.8	2413.6	2353.1	2296.3	2226.4	2199.9	2112.8	2058.1	1938.9
50°	1940.7	1885.9	1833.0	1865.0	1817.7	1780.0	1725.2	1711.8	1640.0	1632.4	1539.7
52.5°	1441.3	1401.7	1360.0	1384.7	1348.8	1324.0	1282.4	1278.6	1223.9	1242.7	1178.5
55°	1042.3	1013.9	981.8	1000.6	974.1	959.0	928.7	930.6	889.1	917.5	872.0
57.5°	737.8	715.0	692.3	703.8	686.6	675.3	654.5	658.3	648.9	658.3	626.1
60°	501.3	488.1	470.9	480.4	465.3	459.7	446.4	448.3	425.7	455.8	433.2
62.5°	329.1	319.6	319.6	314.0	302.6	298.9	291.4	291.4	278.1	300.7	285.6
65°	204.3	200.5	198.6	194.8	187.2	185.3	179.7	179.7	170.2	187.2	175.9
67.5°	121.2	119.2	117.3	115.3	109.7	107.8	105.9	104.0	98.4	109.7	102.2
70°	66.2	66.2	64.4	62.4	58.6	58.6	56.8	56.8	52.9	58.6	52.9
72.5°	32.1	32.1	30.4	30.4	28.4	28.4	26.5	26.5	24.5	28.4	24.5
75°	15.1	15.1	13.3	13.3	13.3	13.3	11.3	11.3	11.3	13.3	11.3
77.5°	7.6	7.6	7.6	7.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
80°	3.8	3.8	3.8	3.8	3.8	1.9	1.9	1.9	1.9	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°	5.6	5.6	5.6	5.6	7.6	5.6	7.6	7.6	7.6	7.6	7.6
87.5°	7.6	7.6	7.6	7.6	7.6	9.5	9.5	9.5	7.6	9.5	7.6
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°	807.7	807.7	807.7	807.7	807.7	807.7	807.7	807.7	807.7	807.7	807.7
2.5°	1017.7	1002.5	1008.3	991.2	977.9	972.3	972.3	970.4	881.5	792.6	730.2
5°	1273.0	1244.6	1248.4	1218.2	1204.9	1186.0	1180.3	1155.8	962.8	784.9	663.9
7.5°	1575.6	1534.0	1509.5	1481.1	1464.1	1430.1	1412.9	1363.9	1038.4	769.8	599.6
10°	1901.0	1842.5	1802.6	1757.3	1740.2	1687.3	1655.1	1572.0	1104.7	745.3	539.1
12.5°	2252.8	2173.4	2101.5	2052.3	2031.6	1929.4	1908.5	1789.4	1165.2	722.5	489.8
15°	2614.1	2513.9	2423.1	2353.1	2326.7	2226.4	2162.1	2003.2	1218.2	701.8	452.1
17.5°	2935.7	2827.9	2718.1	2627.4	2589.5	2447.6	2387.1	2190.4	1257.9	681.0	431.3
20°	3221.3	3090.8	2975.3	2850.5	2807.1	2646.3	2547.9	2336.2	1280.6	667.8	433.2
22.5°	3438.9	3289.4	3157.0	3017.0	2962.2	2786.2	2674.7	2436.3	1288.1	658.3	446.4
25°	3597.8	3431.2	3283.7	3130.5	3066.2	2878.9	2756.0	2498.7	1286.3	652.6	452.1
27.5°	3679.1	3501.3	3342.4	3177.8	3107.8	2914.9	2782.5	2512.0	1259.9	629.9	452.1
30°	3667.7	3480.5	3314.1	3143.8	3068.1	2877.1	2740.8	2461.0	1203.1	588.2	419.8
32.5°	3567.4	3376.5	3206.2	3036.0	2960.3	2773.1	2636.8	2356.8	1121.7	533.5	376.4
35°	3401.0	3211.8	3043.6	2877.1	2801.4	2619.8	2487.5	2215.0	1029.0	474.8	336.6
37.5°	3183.4	3000.1	2837.3	2686.1	2599.0	2428.7	2300.2	2046.7	927.0	421.8	302.6
40°	2912.9	2739.0	2585.8	2445.8	2353.1	2196.1	2078.8	1848.1	819.1	366.9	270.5
42.5°	2600.8	2438.2	2313.4	2173.4	2069.3	1931.3	1829.2	1628.5	709.4	317.8	236.5
45°	2247.1	2103.5	1995.7	1872.6	1764.8	1647.5	1560.5	1397.9	597.7	264.8	204.3
47.5°	1867.0	1747.8	1664.5	1562.5	1456.5	1361.9	1293.9	1163.2	491.8	221.3	174.1
50°	1492.5	1397.9	1337.3	1259.9	1163.2	1091.4	1038.4	951.5	389.7	179.7	145.7
52.5°	1148.2	1080.1	1038.4	981.8	896.6	847.5	809.6	749.0	297.0	145.7	117.3
55°	856.9	807.7	781.2	741.4	667.8	633.7	609.0	571.2	221.3	115.3	90.8
57.5°	618.5	586.5	569.4	542.8	482.4	461.6	444.5	421.8	160.8	88.9	66.2
60°	431.3	408.5	399.2	382.0	332.9	319.6	297.0	297.0	113.5	64.4	45.4
62.5°	285.6	270.5	266.7	253.6	215.6	208.1	202.4	198.6	77.5	43.5	26.5
65°	177.7	166.4	164.6	156.9	130.4	126.8	121.2	121.2	49.3	26.5	13.3
67.5°	102.2	96.4	94.5	90.8	71.9	70.0	66.2	70.0	28.4	13.3	5.6
70°	54.9	49.3	49.3	47.3	36.0	34.0	32.1	34.0	15.1	7.6	3.8
72.5°	26.5	22.7	22.7	20.8	15.1	15.1	13.3	17.1	7.6	3.8	3.8
75°	11.3	11.3	9.5	9.5	5.6	5.6	5.6	7.6	3.8	3.8	3.8
77.5°	5.6	5.6	5.6	5.6	1.9	1.9	1.9	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	1.9	1.9	1.9	0.0	0.0	0.0	1.9	3.8	3.8	3.8
85°	5.6	5.6	5.6	5.6	3.8	3.8	3.8	5.6	3.8	3.8	3.8
87.5°	7.6	7.6	7.6	7.6	5.6	5.6	5.6	9.5	5.6	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°	807.7	807.7	807.7
2.5°	677.2	637.4	641.3
5°	575.0	518.2	512.6
7.5°	486.2	425.7	418.0
10°	416.2	355.6	346.1
12.5°	365.0	310.1	300.7
15°	332.9	283.7	276.1
17.5°	327.3	289.4	285.6
20°	350.0	331.0	334.9
22.5°	389.7	384.0	393.4
25°	416.2	414.2	425.7
27.5°	410.4	406.7	414.2
30°	380.2	374.5	378.4
32.5°	344.3	334.9	338.5
35°	308.4	300.7	302.6
37.5°	278.1	272.5	272.5
40°	251.6	246.0	246.0
42.5°	223.2	219.4	221.3
45°	192.9	191.0	194.8
47.5°	162.7	160.8	164.6
50°	134.3	130.4	130.4
52.5°	105.9	100.3	96.4
55°	77.5	68.0	64.4
57.5°	52.9	43.5	39.8
60°	30.4	24.5	20.8
62.5°	15.1	9.5	7.6
65°	5.6	3.8	1.9
67.5°	3.8	1.9	1.9
70°	3.8	1.9	1.9
72.5°	1.9	1.9	1.9
75°	1.9	1.9	0.0
77.5°	1.9	1.9	1.9
80°	1.9	1.9	0.0
82.5°	1.9	1.9	0.0
85°	1.9	1.9	0.0
87.5°	1.9	1.9	0.0
90°	0.0	0.0	0.0

Classified

Scaled Data Report

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— 0°-180° - - 45°-225° - - - 90°-270°

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(END OF REPORT)