

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: P1212833

Luminaire Tested: **LDA4A35950D010TE 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: P1212833
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: LDA4A35950D010TE 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

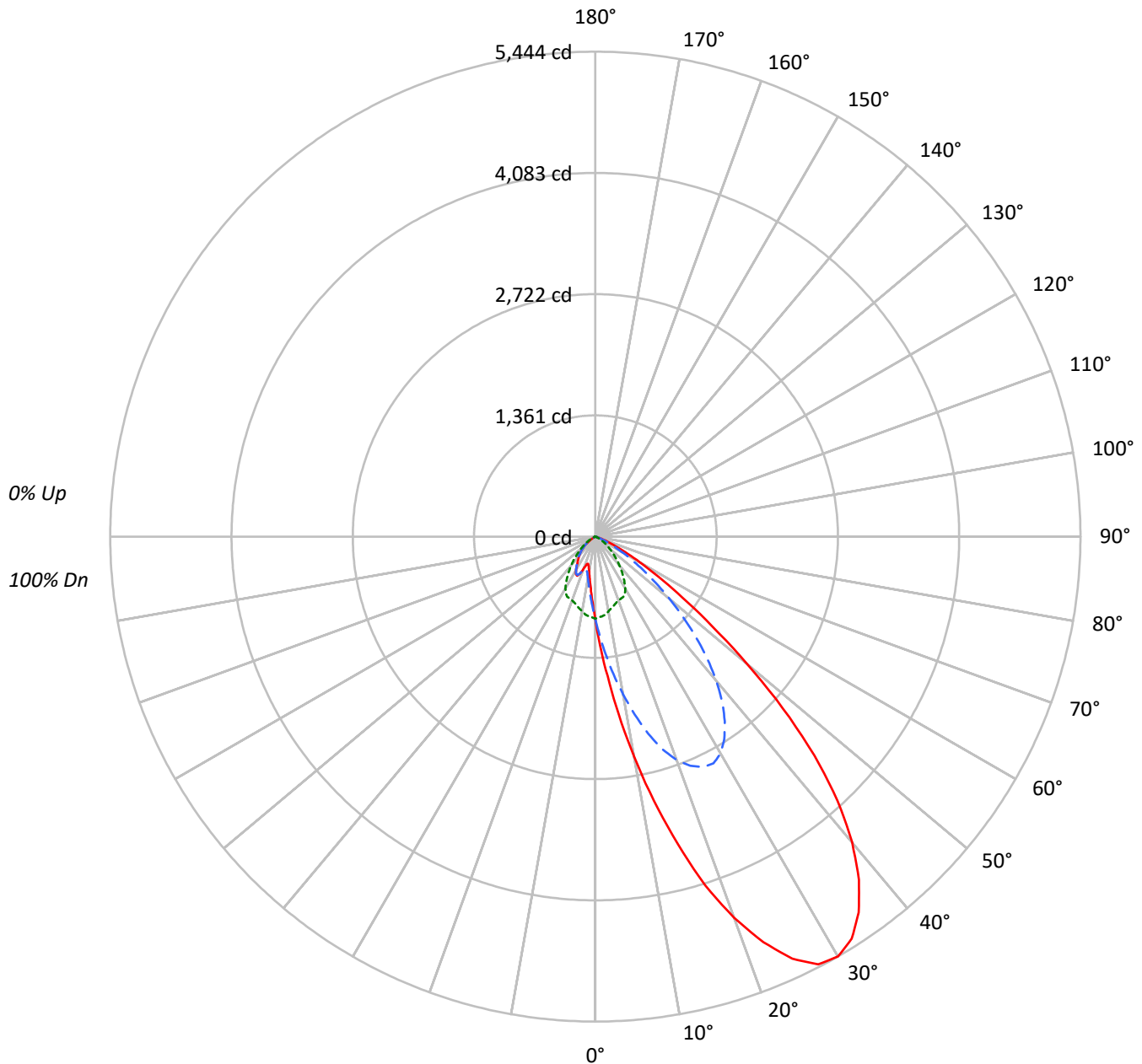
Lumens per Lamp: N/A
Luminaire Lumens: 3455.8 lumens
Efficiency: N/A
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	113823	113823	113823
5°	194256	111039	72507
10°	313973	106637	49523
15°	456158	102387	40276
20°	597398	100140	50208
25°	711460	101474	66184
30°	775346	95711	61557
35°	775458	81688	52055
40°	721691	67498	45246
45°	606169	52750	38830
50°	425482	39395	28592
55°	256077	28343	15806
60°	141255	18132	5871
65°	68120	8843	642
70°	27300	3101	793
75°	8245	2097	0
80°	3125	3125	0
85°	9057	6227	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	2.9
10°-20°	392.2	11.4
20°-30°	795.5	23.0
30°-40°	966.6	28.0
40°-50°	762.7	22.1
50°-60°	345.5	10.0
60°-70°	81.5	2.4
70°-80°	8.9	0.3
80°-90°	3.9	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°	1286.8	37.2
0°-40°	2253.3	65.2
0°-60°	3361.5	97.3
0°-90°	3455.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3455.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	923	923	923	923	923	
5°	1569	1320	897	657	586	179
15°	3572	2289	802	380	315	1039
25°	5228	2855	746	476	486	2392
35°	5150	2531	542	352	346	3180
45°	3475	1597	302	220	223	2629
55°	1191	653	132	88	74	1124
65°	233	138	30	6	2	263
75°	17	9	4	2	0	27
85°	6	6	4	2	0	6
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°	922.8	922.8	922.8	922.8	922.8	922.8	922.8	922.8	922.8	922.8	922.8
2.5°	1225.2	1195.0	1195.0	1173.3	1190.8	1156.2	1162.7	1160.5	1182.2	1175.6	1156.2
5°	1568.9	1542.9	1540.9	1512.7	1534.3	1489.0	1491.3	1484.6	1508.4	1484.6	1456.6
7.5°	2012.0	1966.5	1964.4	1931.9	1953.5	1895.2	1893.0	1880.2	1901.6	1856.4	1815.3
10°	2506.8	2442.0	2437.7	2398.8	2422.6	2346.9	2340.5	2318.9	2333.9	2262.6	2204.3
12.5°	3036.3	2965.0	2956.4	2915.3	2936.9	2846.1	2828.8	2800.8	2807.2	2703.5	2625.7
15°	3572.2	3511.7	3503.0	3459.8	3481.4	3369.1	3341.0	3306.4	3299.9	3161.7	3062.2
17.5°	4105.9	3982.8	4021.8	3978.5	3998.0	3866.2	3829.4	3786.2	3762.4	3591.7	3466.3
20°	4551.2	4445.3	4473.5	4434.5	4451.8	4300.4	4255.2	4201.1	4160.0	3954.7	3809.9
22.5°	4927.2	4817.0	4801.8	4801.8	4812.6	4648.4	4587.9	4527.3	4469.1	4224.9	4077.9
25°	5227.6	5106.6	5089.2	5085.0	5087.2	4914.2	4842.9	4775.9	4700.3	4432.4	4272.4
27.5°	5413.5	5285.9	5266.5	5264.3	5253.5	5076.3	4996.3	4922.9	4832.0	4557.6	4378.3
30°	5443.8	5327.0	5305.4	5305.4	5277.3	5104.4	5015.9	4938.0	4836.4	4559.8	4367.5
32.5°	5353.0	5234.0	5210.4	5212.4	5167.1	5005.1	4909.9	4830.0	4724.1	4451.8	4253.0
35°	5149.9	5035.3	5013.7	5015.9	4959.7	4808.3	4709.0	4631.1	4518.8	4259.4	4056.3
37.5°	4858.0	4750.1	4728.5	4732.7	4663.6	4527.3	4425.8	4352.3	4237.8	3998.0	3799.1
40°	4482.1	4378.3	4359.0	4360.9	4285.4	4166.4	4067.1	3998.0	3883.4	3669.4	3479.4
42.5°	4026.0	3926.6	3911.4	3909.5	3835.9	3727.8	3630.6	3572.2	3455.6	3284.7	3103.3
45°	3475.0	3390.7	3323.7	3369.1	3293.5	3207.0	3116.3	3068.7	2958.5	2837.4	2675.4
47.5°	2854.7	2781.4	2714.3	2757.6	2688.4	2623.5	2543.6	2513.4	2413.8	2351.3	2215.1
50°	2217.3	2154.6	2094.1	2130.8	2076.7	2033.6	1970.9	1955.7	1873.6	1865.0	1759.1
52.5°	1646.6	1601.4	1553.8	1581.9	1540.9	1512.7	1465.2	1460.8	1398.3	1419.7	1346.4
55°	1190.8	1158.4	1121.6	1143.2	1112.9	1095.6	1061.0	1063.2	1015.7	1048.1	996.3
57.5°	842.8	816.8	791.0	804.0	784.4	771.6	747.8	752.1	741.3	752.1	715.3
60°	572.6	557.6	538.0	548.8	531.6	525.2	510.0	512.2	486.3	520.8	494.9
62.5°	376.0	365.1	365.1	358.7	345.7	341.5	332.9	332.9	317.7	343.5	326.2
65°	233.4	229.1	226.9	222.6	213.9	211.7	205.3	205.3	194.5	213.9	200.9
67.5°	138.4	136.2	134.0	131.8	125.4	123.1	121.0	118.8	112.3	125.4	116.8
70°	75.7	75.7	73.5	71.3	66.9	66.9	64.9	64.9	60.5	66.9	60.5
72.5°	36.7	36.7	34.6	34.6	32.4	32.4	30.3	30.3	28.1	32.4	28.1
75°	17.3	17.3	15.2	15.2	15.2	15.2	13.0	13.0	13.0	15.2	13.0
77.5°	8.6	8.6	8.6	8.6	6.4	6.4	6.4	6.4	6.4	6.4	6.4
80°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	4.4	4.4
82.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
85°	6.4	6.4	6.4	6.4	8.6	6.4	8.6	8.6	8.6	8.6	8.6
87.5°	8.6	8.6	8.6	8.6	8.6	10.8	10.8	10.8	8.6	10.8	8.6
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°	922.8	922.8	922.8	922.8	922.8	922.8	922.8	922.8	922.8	922.8	922.8
2.5°	1162.7	1145.4	1151.9	1132.5	1117.3	1110.8	1110.8	1108.6	1007.1	905.5	834.2
5°	1454.3	1421.9	1426.4	1391.7	1376.6	1355.0	1348.5	1320.4	1100.0	896.8	758.6
7.5°	1800.1	1752.6	1724.5	1692.1	1672.7	1633.8	1614.2	1558.1	1186.4	879.5	685.0
10°	2171.8	2105.0	2059.5	2007.6	1988.2	1927.6	1890.8	1795.9	1262.0	851.4	615.9
12.5°	2573.8	2483.1	2400.9	2344.7	2321.1	2204.3	2180.5	2044.4	1331.2	825.4	559.6
15°	2986.7	2872.1	2768.4	2688.4	2658.1	2543.6	2470.1	2288.6	1391.7	801.8	516.6
17.5°	3354.0	3230.9	3105.4	3001.6	2958.5	2796.4	2727.3	2502.6	1437.2	777.9	492.8
20°	3680.2	3531.1	3399.3	3256.7	3207.0	3023.3	2911.0	2669.0	1463.0	762.9	494.9
22.5°	3928.8	3758.0	3606.8	3447.0	3384.3	3183.1	3055.7	2783.4	1471.6	752.1	510.0
25°	4110.4	3920.1	3751.6	3576.6	3503.0	3289.1	3148.7	2854.7	1469.6	745.6	516.6
27.5°	4203.3	4000.2	3818.6	3630.6	3550.7	3330.2	3179.0	2869.9	1439.4	719.7	516.6
30°	4190.3	3976.3	3786.2	3591.7	3505.2	3286.9	3131.3	2811.6	1374.5	672.0	479.8
32.5°	4075.7	3857.6	3663.1	3468.6	3382.1	3168.2	3012.5	2692.7	1281.5	609.4	430.0
35°	3885.6	3669.4	3477.1	3286.9	3200.6	2993.1	2841.8	2530.6	1175.6	542.5	384.6
37.5°	3637.1	3427.5	3241.7	3068.7	2969.2	2774.7	2627.9	2338.3	1058.9	481.9	345.7
40°	3328.0	3129.3	2954.2	2794.2	2688.4	2509.0	2374.9	2111.3	935.8	419.2	309.1
42.5°	2971.5	2785.5	2643.0	2483.1	2364.1	2206.5	2089.8	1860.6	810.4	363.2	270.2
45°	2567.2	2403.1	2280.0	2139.4	2016.2	1882.2	1782.9	1597.0	682.9	302.4	233.4
47.5°	2132.9	1996.8	1901.6	1785.1	1664.1	1555.9	1478.2	1329.0	561.8	252.8	198.8
50°	1705.2	1597.0	1527.9	1439.4	1329.0	1246.9	1186.4	1087.0	445.2	205.3	166.4
52.5°	1311.8	1234.1	1186.4	1121.6	1024.3	968.2	925.0	855.7	339.4	166.4	134.0
55°	978.8	922.8	892.5	847.1	762.9	723.9	695.9	652.6	252.8	131.8	103.8
57.5°	706.7	670.0	650.5	620.2	551.0	527.4	507.7	481.9	183.7	101.5	75.7
60°	492.8	466.8	456.0	436.5	380.3	365.1	339.4	339.4	129.6	73.5	51.9
62.5°	326.2	309.1	304.6	289.6	246.4	237.7	231.2	226.9	88.5	49.7	30.3
65°	203.1	190.1	188.0	179.3	149.0	144.8	138.4	138.4	56.3	30.3	15.2
67.5°	116.8	110.1	108.0	103.8	82.2	80.0	75.7	80.0	32.4	15.2	6.4
70°	62.7	56.3	56.3	54.1	41.1	38.9	36.7	38.9	17.3	8.6	4.4
72.5°	30.3	25.9	25.9	23.8	17.3	17.3	15.2	19.4	8.6	4.4	4.4
75°	13.0	13.0	10.8	10.8	6.4	6.4	6.4	8.6	4.4	4.4	4.4
77.5°	6.4	6.4	6.4	6.4	2.2	2.2	2.2	4.4	4.4	4.4	4.4
80°	4.4	4.4	4.4	4.4	0.0	0.0	0.0	4.4	4.4	4.4	4.4
82.5°	4.4	2.2	2.2	2.2	0.0	0.0	0.0	2.2	4.4	4.4	4.4
85°	6.4	6.4	6.4	6.4	4.4	4.4	4.4	6.4	4.4	4.4	4.4
87.5°	8.6	8.6	8.6	8.6	6.4	6.4	6.4	10.8	6.4	4.4	4.4
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°	922.8	922.8	922.8
2.5°	773.8	728.3	732.7
5°	657.0	592.1	585.6
7.5°	555.5	486.3	477.6
10°	475.5	406.2	395.4
12.5°	417.0	354.3	343.5
15°	380.3	324.1	315.4
17.5°	374.0	330.7	326.2
20°	399.8	378.1	382.5
22.5°	445.2	438.7	449.5
25°	475.5	473.3	486.3
27.5°	468.9	464.7	473.3
30°	434.4	427.9	432.2
32.5°	393.3	382.5	386.8
35°	352.4	343.5	345.7
37.5°	317.7	311.3	311.3
40°	287.5	281.0	281.0
42.5°	255.0	250.7	252.8
45°	220.4	218.3	222.6
47.5°	185.8	183.7	188.0
50°	153.4	149.0	149.0
52.5°	121.0	114.6	110.1
55°	88.5	77.7	73.5
57.5°	60.5	49.7	45.4
60°	34.6	28.1	23.8
62.5°	17.3	10.8	8.6
65°	6.4	4.4	2.2
67.5°	4.4	2.2	2.2
70°	4.4	2.2	2.2
72.5°	2.2	2.2	2.2
75°	2.2	2.2	0.0
77.5°	2.2	2.2	2.2
80°	2.2	2.2	0.0
82.5°	2.2	2.2	0.0
85°	2.2	2.2	0.0
87.5°	2.2	2.2	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)