

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: P1191580

Luminaire Tested: **LDA4A15940D010TE 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: P1191580
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: LDA4A15940D010TE 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

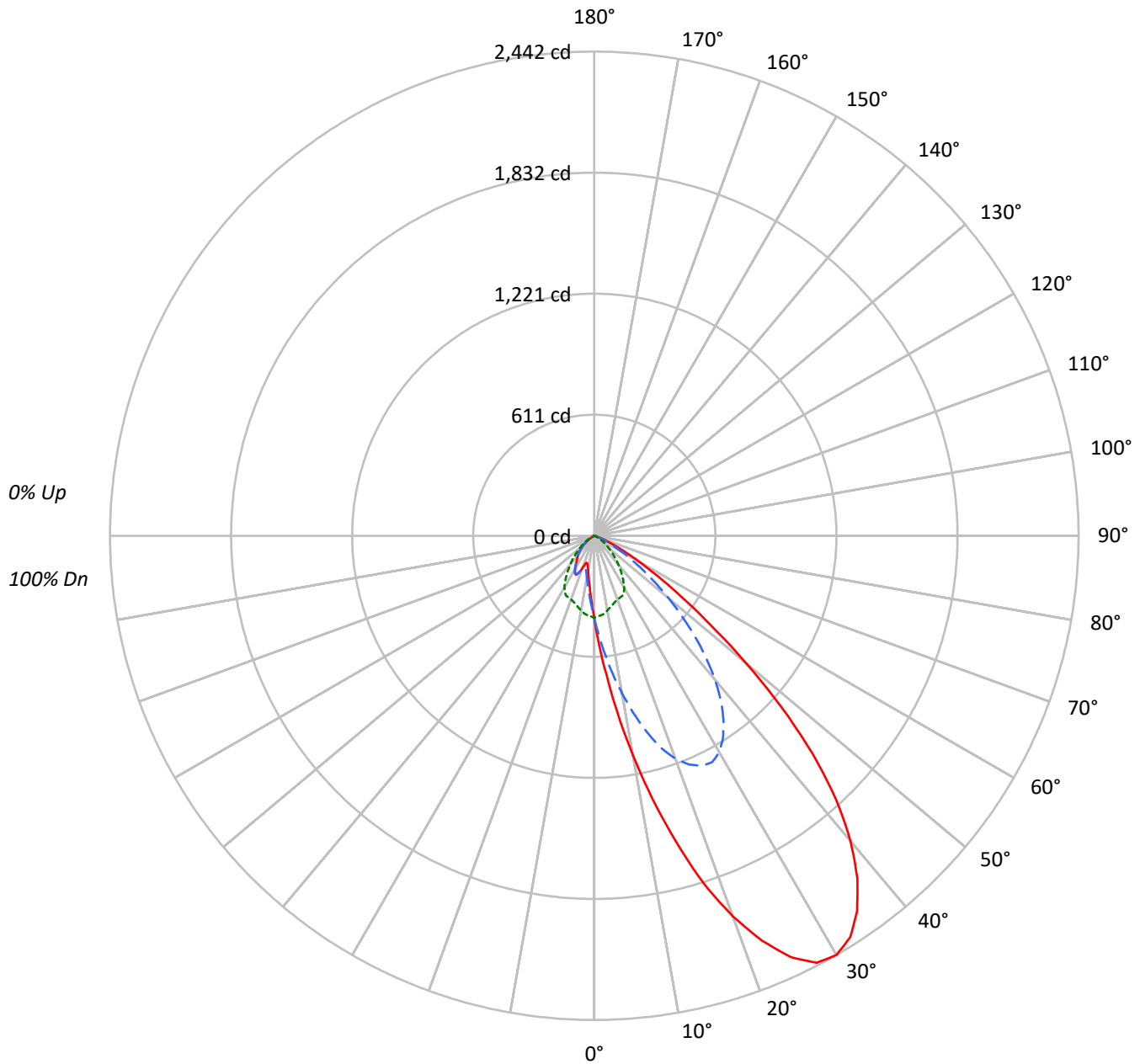
Lumens per Lamp: N/A
Luminaire Lumens: 1550.0 lumens
Efficiency: N/A
Efficacy: 76.0 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 20.4
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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CATALOG NUMBER: LDA4A15940D010TE LAR35FL 4LLWW1

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	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°	51053	51053	51053
5°	87117	49811	32514
10°	140817	47845	22219
15°	204609	45920	18069
20°	267958	44905	22511
25°	319120	45511	29669
30°	347750	42942	27617
35°	347818	36635	23339
40°	323691	30271	20288
45°	271878	23671	17409
50°	190836	17654	12818
55°	114856	12731	7097
60°	63375	8141	2615
65°	30558	3969	292
70°	12262	1370	361
75°	3717	905	0
80°	1350	1350	0
85°	4104	2689	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.4	2.9
10°-20°	175.9	11.4
20°-30°	356.8	23.0
30°-40°	433.5	28.0
40°-50°	342.1	22.1
50°-60°	155.0	10.0
60°-70°	36.6	2.4
70°-80°	3.9	0.3
80°-90°	1.7	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°	577.1	37.2
0°-40°	1010.7	65.2
0°-60°	1507.7	97.3
0°-90°	1550.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1550.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	414	414	414	414	414	
5°	704	592	402	295	263	80
15°	1602	1026	360	171	142	466
25°	2345	1280	334	213	218	1073
35°	2310	1135	243	158	155	1426
45°	1559	716	136	99	100	1179
55°	534	293	59	40	33	504
65°	105	62	14	3	1	118
75°	8	4	2	1	0	12
85°	3	3	2	1	0	3
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°	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9
2.5°	549.5	536.0	536.0	526.4	534.1	518.6	521.5	520.5	530.2	527.3	518.6
5°	703.6	692.0	691.1	678.5	688.2	667.8	668.9	665.9	676.5	665.9	653.3
7.5°	902.5	882.0	881.0	866.6	876.3	850.1	849.1	843.3	853.0	832.6	814.2
10°	1124.3	1095.3	1093.4	1075.9	1086.5	1052.6	1049.7	1040.0	1046.9	1014.8	988.6
12.5°	1361.9	1329.8	1326.0	1307.6	1317.3	1276.5	1268.9	1256.2	1259.0	1212.5	1177.6
15°	1602.3	1575.1	1571.2	1551.8	1561.5	1511.2	1498.5	1483.0	1480.1	1418.0	1373.5
17.5°	1841.6	1786.4	1803.8	1784.5	1793.2	1734.0	1717.6	1698.1	1687.5	1611.0	1554.7
20°	2041.4	1993.8	2006.5	1989.0	1996.8	1928.9	1908.6	1884.3	1865.9	1773.8	1708.9
22.5°	2210.1	2160.6	2153.7	2153.7	2158.6	2085.0	2057.9	2030.7	2004.6	1894.9	1829.1
25°	2344.8	2290.4	2282.7	2280.7	2281.8	2204.2	2172.1	2142.1	2108.2	1988.1	1916.3
27.5°	2428.1	2370.8	2362.1	2361.1	2356.4	2276.9	2241.0	2208.0	2167.4	2044.2	1963.8
30°	2441.6	2389.4	2379.6	2379.6	2367.0	2289.4	2249.7	2214.8	2169.3	2045.2	1958.9
32.5°	2401.0	2347.6	2337.0	2338.0	2317.6	2244.8	2202.3	2166.4	2118.8	1996.8	1907.6
35°	2309.9	2258.5	2248.8	2249.7	2224.5	2156.7	2112.1	2077.2	2026.8	1910.5	1819.4
37.5°	2179.0	2130.6	2120.9	2122.8	2091.7	2030.7	1985.1	1952.2	1900.8	1793.2	1704.0
40°	2010.3	1963.8	1955.1	1956.0	1922.1	1868.7	1824.1	1793.2	1741.8	1645.9	1560.5
42.5°	1805.7	1761.1	1754.5	1753.5	1720.5	1672.0	1628.5	1602.3	1549.9	1473.3	1391.9
45°	1558.6	1520.9	1490.7	1511.2	1477.2	1438.4	1397.7	1376.5	1327.0	1272.7	1200.0
47.5°	1280.5	1247.5	1217.5	1236.8	1205.7	1176.7	1140.8	1127.3	1082.7	1054.6	993.5
50°	994.5	966.4	939.3	955.8	931.5	912.1	884.0	877.2	840.4	836.5	789.0
52.5°	738.5	718.2	697.0	709.5	691.1	678.5	657.1	655.2	627.1	636.8	603.8
55°	534.1	519.5	503.0	512.7	499.2	491.5	475.9	476.9	455.6	470.0	446.9
57.5°	378.0	366.4	354.8	360.5	351.8	346.1	335.3	337.4	332.5	337.4	320.9
60°	256.9	250.1	241.4	246.1	238.5	235.5	228.8	229.8	218.0	233.6	222.0
62.5°	168.7	163.8	163.8	160.9	155.0	153.1	149.3	149.3	142.5	154.1	146.3
65°	104.7	102.7	101.7	99.8	96.0	95.0	92.0	92.0	87.3	96.0	90.1
67.5°	62.0	61.1	60.1	59.2	56.2	55.2	54.3	53.3	50.5	56.2	52.4
70°	34.0	34.0	33.0	32.0	30.0	30.0	29.0	29.0	27.1	30.0	27.1
72.5°	16.5	16.5	15.5	15.5	14.6	14.6	13.6	13.6	12.5	14.6	12.5
75°	7.8	7.8	6.8	6.8	6.8	6.8	5.9	5.9	5.9	6.8	5.9
77.5°	3.8	3.8	3.8	3.8	2.9	2.9	2.9	2.9	2.9	2.9	2.9
80°	1.9	1.9	1.9	1.9	1.9	1.0	1.0	1.0	1.0	1.9	1.9
82.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
85°	2.9	2.9	2.9	2.9	3.8	2.9	3.8	3.8	3.8	3.8	3.8
87.5°	3.8	3.8	3.8	3.8	3.8	4.9	4.9	4.9	3.8	4.9	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):

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	67.5°	90°	112.5°
0°	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9	413.9
2.5°	521.5	513.7	516.7	508.0	501.1	498.3	498.3	497.2	451.6	406.1	374.2
5°	652.4	637.8	639.7	624.3	617.5	607.8	604.8	592.2	493.4	402.3	340.2
7.5°	807.4	786.1	773.5	759.0	750.3	732.8	724.1	698.9	532.1	394.5	307.2
10°	974.2	944.0	923.7	900.4	891.7	864.5	848.2	805.5	566.0	382.0	276.3
12.5°	1154.5	1113.7	1076.9	1051.6	1041.0	988.6	978.0	916.9	597.1	370.2	251.0
15°	1339.5	1288.2	1241.6	1205.7	1192.2	1140.8	1108.0	1026.4	624.3	359.6	231.7
17.5°	1504.4	1449.1	1392.8	1346.3	1327.0	1254.3	1223.2	1122.4	644.6	349.0	221.0
20°	1650.7	1583.9	1524.7	1460.7	1438.4	1356.0	1305.7	1197.1	656.2	342.1	222.0
22.5°	1762.2	1685.6	1617.7	1546.0	1517.9	1427.7	1370.6	1248.4	660.1	337.4	228.8
25°	1843.6	1758.3	1682.7	1604.2	1571.2	1475.3	1412.3	1280.5	659.2	334.4	231.7
27.5°	1885.2	1794.1	1712.7	1628.5	1592.6	1493.7	1425.8	1287.3	645.5	322.8	231.7
30°	1879.5	1783.5	1698.1	1611.0	1572.1	1474.2	1404.5	1261.1	616.5	301.5	215.2
32.5°	1828.1	1730.2	1642.9	1555.8	1516.9	1420.9	1351.2	1207.8	574.8	273.3	193.0
35°	1742.7	1645.9	1559.6	1474.2	1435.5	1342.5	1274.6	1135.1	527.3	243.3	172.5
37.5°	1631.3	1537.2	1453.9	1376.5	1331.9	1244.6	1178.6	1048.8	475.0	216.1	155.0
40°	1492.6	1403.6	1325.0	1253.3	1205.7	1125.4	1065.3	947.0	419.7	188.0	138.5
42.5°	1332.8	1249.4	1185.4	1113.7	1060.4	989.6	937.4	834.5	363.5	162.8	121.2
45°	1151.5	1077.8	1022.6	959.6	904.4	844.2	799.6	716.3	306.3	135.7	104.7
47.5°	956.7	895.6	853.0	800.6	746.3	697.9	663.0	596.0	252.0	113.5	89.2
50°	764.7	716.3	685.2	645.5	596.0	559.2	532.1	487.5	199.6	92.0	74.6
52.5°	588.4	553.5	532.1	503.0	459.4	434.2	414.8	383.9	152.2	74.6	60.1
55°	439.1	413.9	400.4	379.9	342.1	324.7	312.1	292.8	113.5	59.2	46.5
57.5°	316.9	300.5	291.8	278.2	247.2	236.5	227.7	216.1	82.4	45.5	34.0
60°	221.0	209.3	204.5	195.8	170.6	163.8	152.2	152.2	58.1	33.0	23.3
62.5°	146.3	138.5	136.6	129.8	110.5	106.6	103.8	101.7	39.7	22.2	13.6
65°	91.1	85.4	84.3	80.5	66.8	64.9	62.0	62.0	25.2	13.6	6.8
67.5°	52.4	49.5	48.4	46.5	36.8	35.9	34.0	35.9	14.6	6.8	2.9
70°	28.1	25.2	25.2	24.3	18.4	17.5	16.5	17.5	7.8	3.8	1.9
72.5°	13.6	11.6	11.6	10.6	7.8	7.8	6.8	8.7	3.8	1.9	1.9
75°	5.9	5.9	4.9	4.9	2.9	2.9	2.9	3.8	1.9	1.9	1.9
77.5°	2.9	2.9	2.9	2.9	1.0	1.0	1.0	1.9	1.9	1.9	1.9
80°	1.9	1.9	1.9	1.9	0.0	0.0	0.0	1.9	1.9	1.9	1.9
82.5°	1.9	1.0	1.0	1.0	0.0	0.0	0.0	1.0	1.9	1.9	1.9
85°	2.9	2.9	2.9	2.9	1.9	1.9	1.9	2.9	1.9	1.9	1.9
87.5°	3.8	3.8	3.8	3.8	2.9	2.9	2.9	4.9	2.9	1.9	1.9
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°	413.9	413.9	413.9
2.5°	347.0	326.6	328.6
5°	294.7	265.6	262.6
7.5°	249.1	218.0	214.2
10°	213.3	182.2	177.4
12.5°	187.1	159.0	154.1
15°	170.6	145.4	141.5
17.5°	167.7	148.4	146.3
20°	179.3	169.6	171.5
22.5°	199.6	196.8	201.5
25°	213.3	212.3	218.0
27.5°	210.3	208.4	212.3
30°	194.9	191.9	193.9
32.5°	176.5	171.5	173.5
35°	158.0	154.1	155.0
37.5°	142.5	139.6	139.6
40°	128.9	126.0	126.0
42.5°	114.4	112.5	113.5
45°	98.9	97.9	99.8
47.5°	83.3	82.4	84.3
50°	68.9	66.8	66.8
52.5°	54.3	51.4	49.5
55°	39.7	34.9	33.0
57.5°	27.1	22.2	20.3
60°	15.5	12.5	10.6
62.5°	7.8	4.9	3.8
65°	2.9	1.9	1.0
67.5°	1.9	1.0	1.0
70°	1.9	1.0	1.0
72.5°	1.0	1.0	1.0
75°	1.0	1.0	0.0
77.5°	1.0	1.0	1.0
80°	1.0	1.0	0.0
82.5°	1.0	1.0	0.0
85°	1.0	1.0	0.0
87.5°	1.0	1.0	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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— 0°-180° - - 45°-225° - - - 90°-270°

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