

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: P1191742

Luminaire Tested: **LDA4A25935D010TE 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: P1191742
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: LDA4A25935D010TE 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

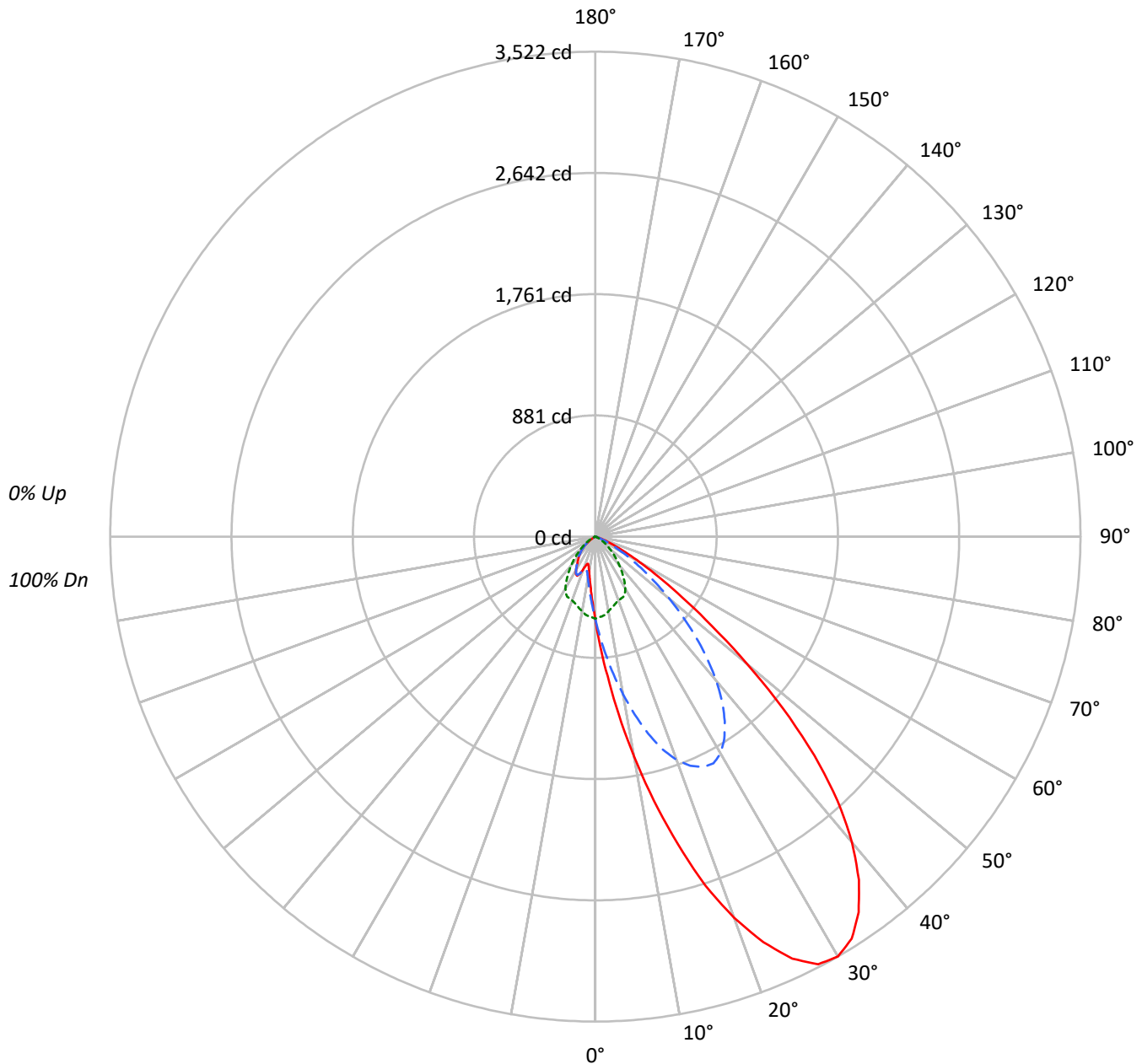
Lumens per Lamp: N/A
Luminaire Lumens: 2235.5 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Spacing Criteria (0/90/45): 2.19 / 1.11 / 1.55
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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	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°	73637	73637	73637
5°	125674	71839	46902
10°	203103	68987	32039
15°	295095	66236	26063
20°	386461	64765	32474
25°	460239	65640	42816
30°	501558	61927	39823
35°	501633	52822	33684
40°	466851	43668	29273
45°	392117	34137	25119
50°	275249	25483	18498
55°	165650	18322	10236
60°	91374	11743	3774
65°	44071	5720	409
70°	17635	2020	505
75°	5338	1334	0
80°	1989	1989	0
85°	5944	3963	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	2.9
10°-20°	253.7	11.4
20°-30°	514.6	23.0
30°-40°	625.3	28.0
40°-50°	493.4	22.1
50°-60°	223.5	10.0
60°-70°	52.7	2.4
70°-80°	5.7	0.3
80°-90°	2.5	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°	832.4	37.2
0°-40°	1457.6	65.2
0°-60°	2174.5	97.3
0°-90°	2235.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2235.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	597	597	597	597	597	
5°	1015	854	580	425	379	116
15°	2311	1480	519	246	204	672
25°	3382	1847	482	308	315	1548
35°	3331	1637	351	228	224	2057
45°	2248	1033	196	143	144	1701
55°	770	422	85	57	48	727
65°	151	90	20	4	1	170
75°	11	6	3	1	0	17
85°	4	4	3	1	0	4
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°	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
2.5°	792.7	773.1	773.1	759.1	770.3	747.9	752.1	750.7	764.7	760.5	747.9
5°	1015.0	998.2	996.8	978.6	992.5	963.2	964.6	960.4	975.8	960.4	942.2
7.5°	1301.5	1272.2	1270.8	1249.8	1263.8	1226.0	1224.6	1216.2	1230.2	1200.9	1174.3
10°	1621.6	1579.7	1576.9	1551.7	1567.2	1518.2	1514.1	1500.0	1509.8	1463.7	1425.9
12.5°	1964.2	1918.0	1912.5	1885.9	1899.8	1841.2	1829.9	1811.8	1816.0	1748.8	1698.6
15°	2310.9	2271.7	2266.1	2238.1	2252.1	2179.5	2161.3	2138.9	2134.7	2045.3	1980.9
17.5°	2656.1	2576.5	2601.6	2573.6	2586.3	2500.9	2477.2	2449.2	2433.9	2323.4	2242.4
20°	2944.2	2875.6	2893.8	2868.6	2879.8	2782.0	2752.6	2717.6	2691.1	2558.3	2464.6
22.5°	3187.4	3116.1	3106.3	3106.3	3113.2	3007.0	2967.9	2928.7	2890.9	2733.0	2638.0
25°	3381.7	3303.4	3292.2	3289.5	3290.8	3179.0	3132.8	3089.5	3040.6	2867.2	2763.8
27.5°	3501.9	3419.4	3406.8	3405.5	3398.4	3283.8	3232.1	3184.5	3125.9	2948.3	2832.3
30°	3521.5	3446.0	3432.1	3432.1	3413.9	3302.0	3244.7	3194.3	3128.7	2949.7	2825.3
32.5°	3462.8	3385.9	3370.6	3371.9	3342.6	3237.6	3176.1	3124.4	3056.0	2879.8	2751.2
35°	3331.4	3257.2	3243.3	3244.7	3208.4	3110.5	3046.2	2995.9	2923.2	2755.4	2624.0
37.5°	3142.6	3072.7	3058.8	3061.5	3016.8	2928.7	2863.1	2815.5	2741.4	2586.3	2457.6
40°	2899.4	2832.3	2819.8	2821.1	2772.2	2695.3	2631.0	2586.3	2512.1	2373.8	2250.8
42.5°	2604.4	2540.1	2530.3	2528.9	2481.4	2411.4	2348.6	2310.9	2235.3	2124.9	2007.5
45°	2247.9	2193.4	2150.1	2179.5	2130.5	2074.5	2015.9	1985.1	1913.9	1835.5	1730.7
47.5°	1846.7	1799.1	1755.8	1783.8	1739.1	1697.1	1645.4	1625.8	1561.5	1521.0	1433.0
50°	1434.4	1393.8	1354.6	1378.4	1343.5	1315.5	1274.9	1265.2	1212.1	1206.4	1138.0
52.5°	1065.2	1035.9	1005.2	1023.3	996.8	978.6	947.8	945.1	904.5	918.5	870.9
55°	770.3	749.4	725.5	739.6	720.0	708.7	686.4	687.8	657.0	678.1	644.4
57.5°	545.2	528.5	511.6	520.0	507.5	499.1	483.7	486.5	479.5	486.5	462.7
60°	370.4	360.6	348.1	355.1	343.9	339.7	329.9	331.4	314.6	336.9	320.1
62.5°	243.3	236.2	236.2	232.1	223.7	220.9	215.3	215.3	205.5	222.3	211.1
65°	151.0	148.2	146.7	144.0	138.4	137.0	132.8	132.8	125.8	138.4	130.0
67.5°	89.5	88.1	86.6	85.2	81.1	79.7	78.3	76.9	72.7	81.1	75.5
70°	48.9	48.9	47.6	46.2	43.3	43.3	41.9	41.9	39.2	43.3	39.2
72.5°	23.7	23.7	22.3	22.3	21.0	21.0	19.6	19.6	18.2	21.0	18.2
75°	11.2	11.2	9.8	9.8	9.8	9.8	8.4	8.4	8.4	9.8	8.4
77.5°	5.6	5.6	5.6	5.6	4.2	4.2	4.2	4.2	4.2	4.2	4.2
80°	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	2.8	2.8
82.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
85°	4.2	4.2	4.2	4.2	5.6	4.2	5.6	5.6	5.6	5.6	5.6
87.5°	5.6	5.6	5.6	5.6	5.6	7.0	7.0	7.0	5.6	7.0	5.6
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°	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0	597.0
2.5°	752.1	741.0	745.1	732.6	722.8	718.5	718.5	717.1	651.5	585.7	539.6
5°	940.8	919.8	922.6	900.3	890.5	876.5	872.4	854.2	711.6	580.2	490.7
7.5°	1164.5	1133.7	1115.5	1094.6	1082.0	1056.9	1044.2	1008.0	767.5	569.0	443.1
10°	1405.0	1361.7	1332.3	1298.7	1286.1	1247.0	1223.2	1161.7	816.4	550.8	398.4
12.5°	1665.0	1606.2	1553.1	1516.8	1501.4	1425.9	1410.5	1322.5	861.1	534.0	362.0
15°	1931.9	1857.9	1790.8	1739.1	1719.5	1645.4	1597.9	1480.4	900.3	518.7	334.1
17.5°	2169.7	2090.0	2008.9	1941.7	1913.9	1808.9	1764.2	1618.9	929.6	503.2	318.7
20°	2380.7	2284.3	2199.0	2106.8	2074.5	1955.8	1883.1	1726.5	946.4	493.4	320.1
22.5°	2541.5	2431.0	2333.2	2229.8	2189.3	2059.2	1976.7	1800.6	952.0	486.5	329.9
25°	2659.0	2535.9	2426.9	2313.6	2266.1	2127.7	2036.9	1846.7	950.6	482.3	334.1
27.5°	2719.1	2587.7	2470.2	2348.6	2296.8	2154.2	2056.4	1856.5	931.0	465.6	334.1
30°	2710.7	2572.2	2449.2	2323.4	2267.5	2126.4	2025.7	1818.7	889.1	434.8	310.3
32.5°	2636.6	2495.4	2369.5	2243.7	2187.9	2049.4	1948.8	1741.9	829.0	394.3	278.2
35°	2513.5	2373.8	2249.4	2126.4	2070.4	1936.2	1838.3	1637.1	760.5	350.8	248.8
37.5°	2352.8	2217.1	2097.0	1985.1	1920.8	1795.0	1700.0	1512.6	685.0	311.8	223.7
40°	2152.9	2024.2	1911.0	1807.5	1739.1	1623.0	1536.4	1365.8	605.3	271.2	199.9
42.5°	1922.3	1802.0	1709.7	1606.2	1529.4	1427.3	1351.9	1203.6	524.2	234.9	174.7
45°	1660.8	1554.5	1474.9	1384.0	1304.3	1217.6	1153.3	1033.1	441.7	195.7	151.0
47.5°	1379.8	1291.8	1230.2	1154.7	1076.5	1006.6	956.2	859.7	363.5	163.6	128.7
50°	1103.0	1033.1	988.4	931.0	859.7	806.6	767.5	703.2	288.0	132.8	107.7
52.5°	848.5	798.2	767.5	725.5	662.6	626.2	598.4	553.6	219.4	107.7	86.6
55°	633.3	597.0	577.4	548.0	493.4	468.3	450.1	422.1	163.6	85.2	67.1
57.5°	457.2	433.3	420.8	401.2	356.5	341.1	328.5	311.8	118.9	65.7	48.9
60°	318.7	302.0	295.0	282.4	246.0	236.2	219.4	219.4	83.9	47.6	33.5
62.5°	211.1	199.9	197.1	187.3	159.4	153.8	149.6	146.7	57.4	32.1	19.6
65°	131.4	123.0	121.6	116.0	96.4	93.6	89.5	89.5	36.4	19.6	9.8
67.5°	75.5	71.3	69.9	67.1	53.1	51.7	48.9	51.7	21.0	9.8	4.2
70°	40.5	36.4	36.4	34.9	26.6	25.1	23.7	25.1	11.2	5.6	2.8
72.5°	19.6	16.8	16.8	15.3	11.2	11.2	9.8	12.6	5.6	2.8	2.8
75°	8.4	8.4	7.0	7.0	4.2	4.2	4.2	5.6	2.8	2.8	2.8
77.5°	4.2	4.2	4.2	4.2	1.4	1.4	1.4	2.8	2.8	2.8	2.8
80°	2.8	2.8	2.8	2.8	0.0	0.0	0.0	2.8	2.8	2.8	2.8
82.5°	2.8	1.4	1.4	1.4	0.0	0.0	0.0	1.4	2.8	2.8	2.8
85°	4.2	4.2	4.2	4.2	2.8	2.8	2.8	4.2	2.8	2.8	2.8
87.5°	5.6	5.6	5.6	5.6	4.2	4.2	4.2	7.0	4.2	2.8	2.8
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°	597.0	597.0	597.0
2.5°	500.5	471.1	474.0
5°	425.0	383.1	378.8
7.5°	359.3	314.6	308.9
10°	307.5	262.8	255.8
12.5°	269.8	229.2	222.3
15°	246.0	209.7	204.1
17.5°	241.9	213.9	211.1
20°	258.6	244.6	247.4
22.5°	288.0	283.8	290.7
25°	307.5	306.2	314.6
27.5°	303.4	300.5	306.2
30°	281.0	276.8	279.6
32.5°	254.4	247.4	250.3
35°	227.8	222.3	223.7
37.5°	205.5	201.3	201.3
40°	185.9	181.8	181.8
42.5°	164.9	162.2	163.6
45°	142.6	141.2	144.0
47.5°	120.2	118.9	121.6
50°	99.3	96.4	96.4
52.5°	78.3	74.1	71.3
55°	57.4	50.3	47.6
57.5°	39.2	32.1	29.4
60°	22.3	18.2	15.3
62.5°	11.2	7.0	5.6
65°	4.2	2.8	1.4
67.5°	2.8	1.4	1.4
70°	2.8	1.4	1.4
72.5°	1.4	1.4	1.4
75°	1.4	1.4	0.0
77.5°	1.4	1.4	1.4
80°	1.4	1.4	0.0
82.5°	1.4	1.4	0.0
85°	1.4	1.4	0.0
87.5°	1.4	1.4	0.0
90°	0.0	0.0	0.0

Classified

Scaled Data Report

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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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