

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: P1212794

Luminaire Tested: **LDA4A25950D010TE LAR35FL 4LAL1 30° Tilt**

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: P1212794
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26106)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA4A25950D010TE LAR35FL 4LAL1 30° Tilt
Description: PORTFOLIO 4" Lensed Adjustable, Self-flanged, 35° Flood Optic, at 30° tilt. --- 27.9W
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

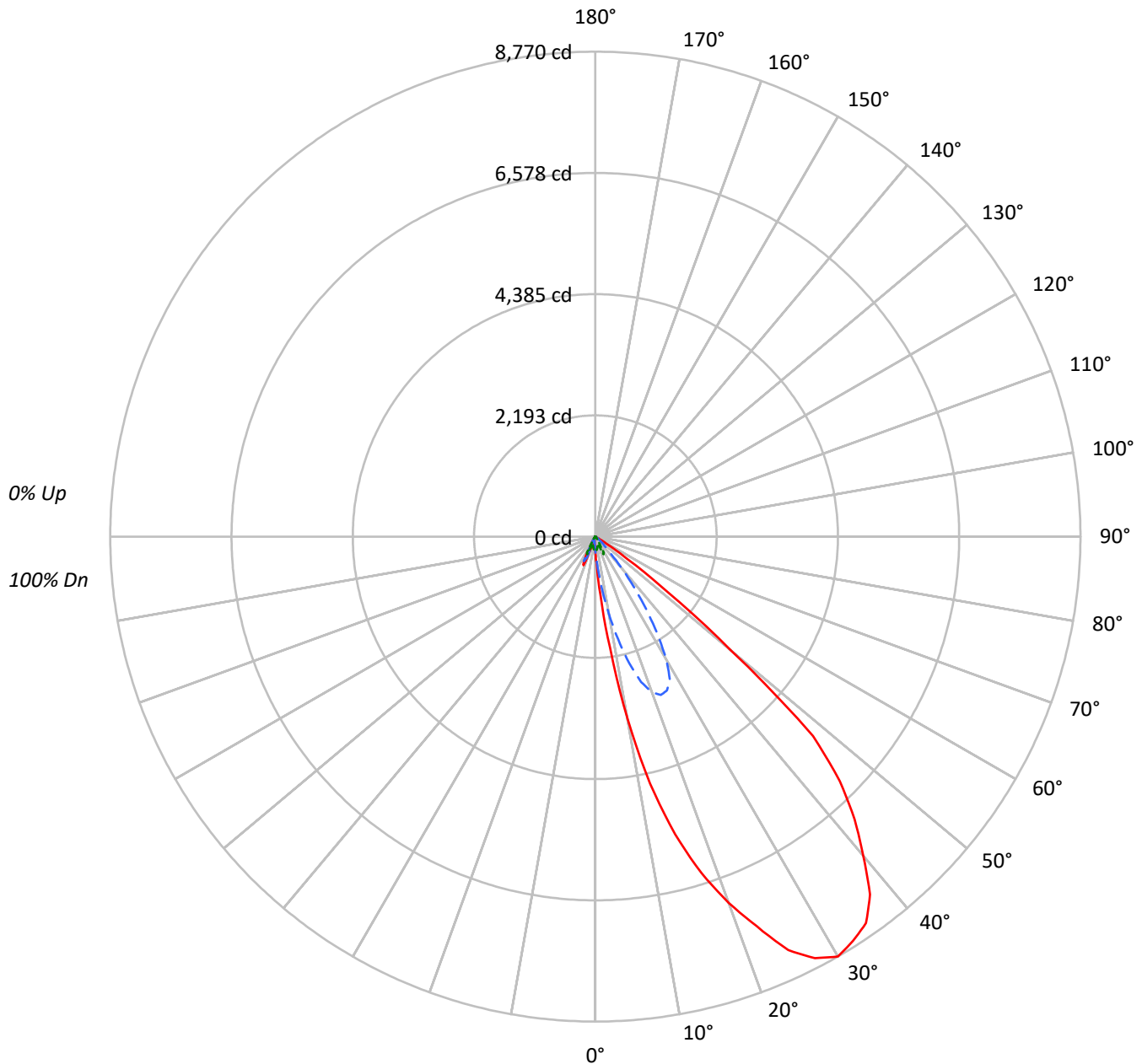
Lumens per Lamp: N/A
Luminaire Lumens: 3187.4 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 2.71 / 1.11 / 1.33
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	109	106	103	110	107	104	102	103	101	99	99	97	96	95	94	93	91		
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82		
3	98	90	84	79	96	89	83	79	86	81	77	84	79	76	81	78	75	73		
4	91	82	75	70	89	81	75	70	79	73	69	77	72	68	75	70	67	65		
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58		
6	79	68	61	56	78	67	60	55	66	60	55	64	59	55	63	58	54	52		
7	74	62	55	50	72	62	55	50	60	54	49	59	53	49	58	53	49	47		
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42		
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38		
10	60	48	41	37	59	48	41	37	47	41	36	46	40	36	45	40	36	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	32329	32329	32329
5°	130169	30521	14288
10°	419670	25601	8204
15°	711910	20304	6372
20°	925277	18219	19243
25°	1122840	47988	68157
30°	1249044	16892	18003
35°	1284815	10089	8462
40°	1213145	4267	3011
45°	1090301	2442	820
50°	613631	1497	0
55°	152296	1011	0
60°	23485	1159	0
65°	5458	1372	0
70°	1118	1695	0
75°	0	2240	0
80°	0	4404	0
85°	0	8774	2264



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	1.7
10°-20°	391.2	12.3
20°-30°	903.6	28.3
30°-40°	1013.5	31.8
40°-50°	707.2	22.2
50°-60°	105.6	3.3
60°-70°	6.9	0.2
70°-80°	3.5	0.1
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°	1347.4	42.3
0°-40°	2360.9	74.1
0°-60°	3173.7	99.6
0°-90°	3187.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3187.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	262	262	262	262	262	
5°	1051	615	246	144	115	174
15°	5575	2373	159	61	50	1593
25°	8250	3067	353	491	501	3772
35°	8533	1594	67	56	56	5249
45°	6250	240	14	8	5	4586
55°	708	31	5	3	0	931
65°	19	5	5	3	0	29
75°	0	3	5	5	0	1
85°	0	3	6	5	2	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°
0°	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1
2.5°	477.3	472.7	460.2	457.0	468.0	458.6	463.2	472.7	463.2	452.4	463.2
5°	1051.3	1077.9	1051.3	1046.8	1065.4	1048.2	1056.0	1073.2	1049.8	1027.9	1043.5
7.5°	2029.4	2046.6	1971.7	1998.3	1992.0	1996.7	2001.3	2001.3	1987.2	1948.3	1970.2
10°	3350.7	3363.0	3263.3	3297.6	3252.4	3297.6	3289.8	3255.5	3263.3	3210.3	3238.4
12.5°	4576.6	4617.3	4517.4	4550.2	4495.6	4547.1	4526.8	4517.4	4437.9	4437.9	4467.5
15°	5575.0	5667.1	5576.6	5610.9	5548.6	5620.4	5564.2	5589.1	5517.3	5428.5	5506.5
17.5°	6383.0	6473.6	6389.3	6431.5	6373.7	6429.9	6364.4	6417.4	6325.4	6261.4	6314.4
20°	7049.1	7116.3	7016.5	7075.6	7007.0	7063.2	6991.4	7061.6	6954.1	6907.2	6938.5
22.5°	7629.4	7656.0	7604.4	7704.3	7570.2	7629.4	7543.6	7615.4	7487.5	7428.2	7436.0
25°	8250.3	8309.6	8211.2	8248.7	8155.1	8195.7	8098.9	8166.1	8006.9	7922.6	7905.6
27.5°	8595.0	8679.2	8592.0	8634.1	8538.8	8573.1	8476.4	8573.1	8410.9	8328.3	8309.6
30°	8769.7	8810.4	8754.2	8782.3	8674.5	8691.7	8592.0	8696.4	8534.2	8460.8	8451.5
32.5°	8668.4	8749.4	8676.2	8712.0	8612.2	8629.3	8532.6	8644.9	8482.7	8415.6	8382.8
35°	8532.6	8615.3	8546.6	8584.2	8492.1	8504.5	8401.5	8499.9	8312.6	8230.0	8159.8
37.5°	8156.6	8234.6	8176.9	8189.5	8100.5	8091.1	7980.3	8063.0	7880.5	7810.3	7763.6
40°	7534.3	7604.4	7557.7	7584.2	7495.3	7475.0	7400.1	7476.6	7334.6	7283.1	7217.6
42.5°	6938.5	6996.2	6952.5	6994.5	6894.7	6868.3	6801.1	6897.9	6737.1	6695.0	6648.3
45°	6250.4	6286.4	6252.1	6287.9	6192.7	6150.6	6089.8	6172.4	6014.9	5975.9	5874.6
47.5°	5341.0	5302.1	5295.9	5330.2	5211.5	5124.3	5068.1	5174.2	4946.4	4870.0	4752.9
50°	3197.8	3263.3	3291.4	3268.0	3186.8	3066.6	2976.3	3105.8	2984.1	2796.9	2609.7
52.5°	1647.3	1573.9	1589.5	1597.3	1500.6	1464.7	1435.1	1464.7	1369.6	1321.2	1202.8
55°	708.2	673.9	686.4	691.0	672.4	628.7	613.0	631.7	588.1	569.3	520.9
57.5°	262.1	262.1	254.3	257.4	251.1	235.6	232.4	240.2	226.2	221.5	202.8
60°	95.2	95.2	95.2	95.2	87.4	85.8	85.8	88.9	84.2	82.7	76.4
62.5°	40.6	42.1	38.9	40.6	38.9	37.4	38.9	37.4	37.4	35.9	35.9
65°	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	17.2	17.2
67.5°	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	7.8	7.8	7.8
70°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
72.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	11°	12°	13°	14°	15°	17.5°	20°	22.5°	45°	67.5°	90°
0°	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1	262.1
2.5°	449.2	447.7	454.0	447.7	436.8	430.6	438.4	422.8	361.9	301.0	255.8
5°	1015.5	1007.7	996.8	999.9	973.3	951.5	951.5	909.4	614.6	349.3	246.5
7.5°	1924.8	1906.2	1826.7	1884.4	1828.2	1784.5	1754.8	1669.0	993.6	400.9	227.8
10°	3179.1	3146.3	3090.2	3101.1	3009.0	2935.7	2846.9	2703.3	1429.0	446.2	204.4
12.5°	4416.0	4383.3	4233.5	4319.3	4196.1	4124.4	3974.7	3806.2	1898.4	468.0	182.5
15°	5465.8	5437.7	5274.0	5355.1	5203.8	5136.7	4943.3	4756.1	2372.7	460.2	159.0
17.5°	6281.7	6277.0	6088.3	6169.4	6002.4	5947.9	5721.7	5537.6	2756.3	425.9	143.5
20°	6910.4	6899.4	6709.0	6790.3	6607.7	6554.6	6267.7	6074.2	2999.7	379.0	138.8
22.5°	7406.3	7384.5	7180.3	7250.5	7046.1	6977.4	6660.7	6459.5	3099.5	349.3	171.6
25°	7852.4	7813.5	7581.1	7635.7	7411.0	7425.1	6949.3	6727.9	3066.6	393.0	352.6
27.5°	8245.6	8175.4	7941.4	7956.9	7693.4	7556.1	7147.4	6902.5	2917.0	438.4	327.6
30°	8392.3	8323.6	8075.6	8084.9	7810.3	7617.0	7180.3	6907.2	2558.2	274.6	118.6
32.5°	8311.1	8236.3	7977.3	7980.3	7698.1	7501.5	7066.4	6765.2	2080.8	180.9	90.5
35°	8075.6	7997.6	7740.2	7752.6	7479.7	7284.7	6858.8	6537.5	1594.2	143.5	67.0
37.5°	7677.8	7623.2	7378.3	7400.1	7167.7	6960.3	6528.2	6180.3	1124.8	102.9	42.1
40°	7166.2	7124.1	6886.9	6921.2	6668.5	6476.6	6013.4	5635.9	700.4	70.2	26.5
42.5°	6567.1	6521.9	6287.9	6314.4	6099.2	5824.6	5352.0	4924.5	366.6	49.9	18.7
45°	5819.9	5766.9	5529.8	5543.8	5289.5	4968.3	4478.4	4100.9	240.2	34.3	14.0
47.5°	4645.4	4550.2	4241.3	4228.8	4021.4	3495.8	2800.0	2266.6	159.0	23.4	9.4
50°	2553.5	2455.2	2183.9	2154.3	1923.3	1578.6	1166.9	907.8	92.0	15.6	7.8
52.5°	1162.1	1110.7	984.4	964.0	865.7	717.5	552.2	454.0	52.9	10.8	6.2
55°	503.9	485.1	432.1	428.9	383.8	332.3	265.1	224.6	31.2	7.8	4.7
57.5°	198.1	191.9	180.9	173.1	156.0	138.8	115.4	96.7	20.3	6.2	4.7
60°	74.9	73.3	67.0	68.6	62.4	59.3	51.5	43.7	12.5	4.7	4.7
62.5°	34.3	34.3	32.8	32.8	31.2	28.1	24.9	23.4	7.8	4.7	4.7
65°	17.2	17.2	15.6	15.6	15.6	14.0	12.5	12.5	4.7	4.7	4.7
67.5°	7.8	7.8	7.8	7.8	7.8	6.2	6.2	6.2	3.1	4.7	4.7
70°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	4.7	4.7
72.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	4.7	4.7
75°	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6	3.1	4.7	4.7
77.5°	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	3.1	4.7	6.2
80°	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	3.1	4.7	6.2
82.5°	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6	3.1	4.7	6.2
85°	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6	3.1	4.7	6.2
87.5°	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6	3.1	4.7	6.2
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):

	112.5°	135°	157.5°	180°
0°	262.1	262.1	262.1	262.1
2.5°	220.0	194.9	173.1	168.5
5°	180.9	143.5	120.1	115.4
7.5°	146.6	104.5	87.4	84.2
10°	120.1	84.2	68.6	65.5
12.5°	99.8	68.6	54.6	51.5
15°	85.8	60.8	49.9	49.9
17.5°	82.7	67.0	64.0	65.5
20°	107.6	121.7	145.0	146.6
22.5°	249.6	405.6	536.6	561.5
25°	449.2	491.3	478.9	500.8
27.5°	237.0	185.6	188.8	193.4
30°	102.9	113.9	120.1	126.4
32.5°	85.8	88.9	90.5	95.2
35°	56.2	56.2	54.6	56.2
37.5°	34.3	32.8	31.2	31.2
40°	21.8	20.3	18.7	18.7
42.5°	15.6	12.5	10.8	10.8
45°	10.8	7.8	6.2	4.7
47.5°	7.8	4.7	3.1	1.6
50°	6.2	4.7	1.6	0.0
52.5°	4.7	3.1	1.6	0.0
55°	4.7	3.1	0.0	0.0
57.5°	4.7	3.1	0.0	0.0
60°	4.7	3.1	0.0	0.0
62.5°	4.7	3.1	0.0	0.0
65°	4.7	3.1	1.6	0.0
67.5°	4.7	3.1	1.6	0.0
70°	4.7	3.1	1.6	0.0
72.5°	4.7	3.1	1.6	0.0
75°	4.7	4.7	1.6	0.0
77.5°	6.2	4.7	1.6	0.0
80°	6.2	4.7	1.6	0.0
82.5°	6.2	4.7	1.6	0.0
85°	6.2	4.7	1.6	1.6
87.5°	6.2	4.7	1.6	0.0
90°	0.0	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)