

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: P182587

Luminaire Tested: **LDSQA4A09930D010TE LAR35FL 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182587  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26798)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQA4A09930D010TE LAR35FL 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 35° FLOOD  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 956.7 lumens  
Efficiency: N/A  
Efficacy: 69.1 lumens/watt  
Spacing Criteria (0/90/45): 0.63 / 0.63 / 0.57  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

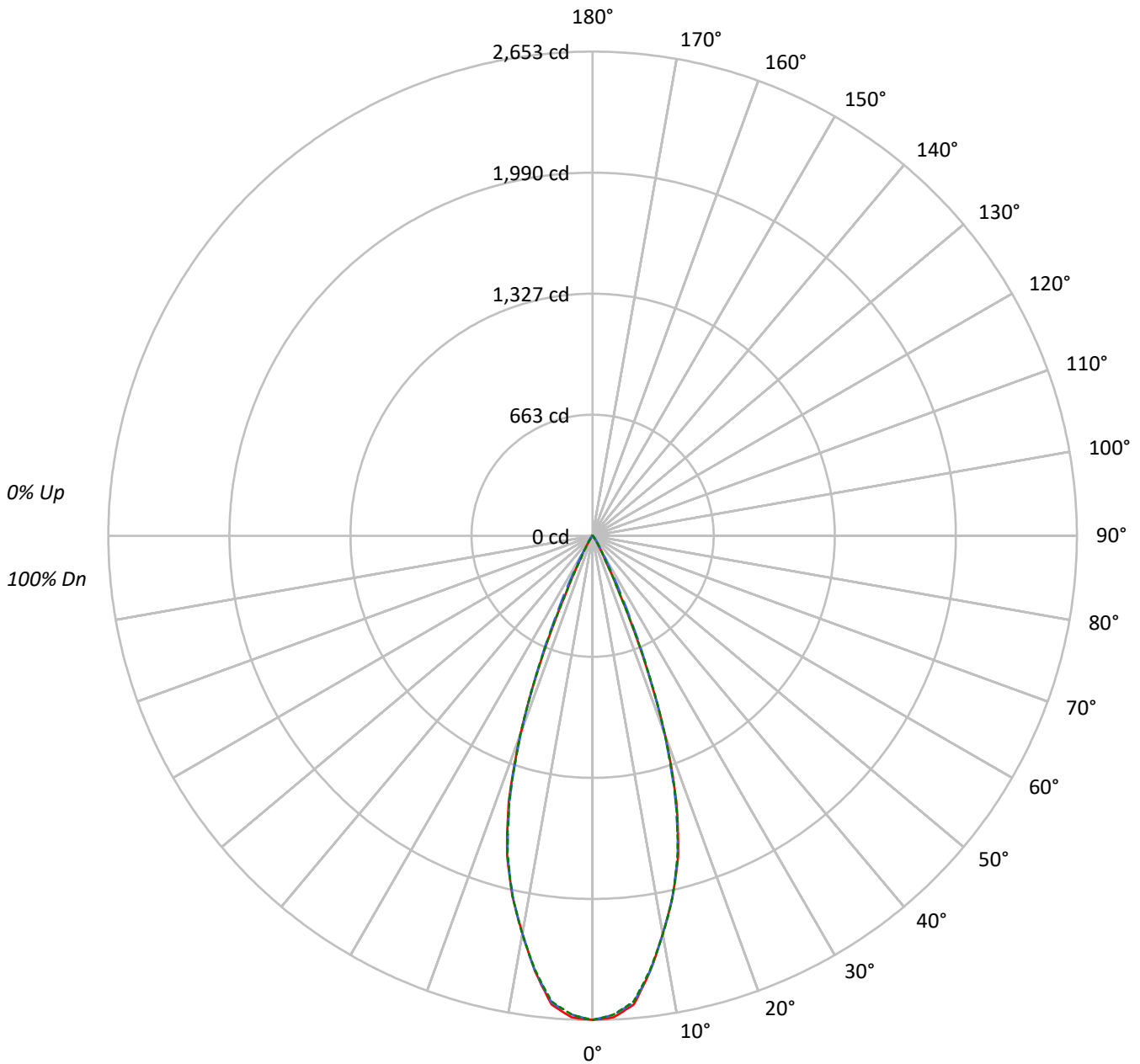
Input Watts (W): 13.84  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	115	113	111	109	112	110	109	107	106	105	104	103	102	101	99	99	98	96																			
2	111	107	104	101	109	105	102	100	102	100	98	99	97	96	97	95	94	92																			
3	107	102	98	95	105	101	97	94	98	95	93	96	94	92	94	92	90	89																			
4	103	98	93	90	102	97	93	90	95	91	89	93	90	88	91	89	87	86																			
5	100	94	89	86	98	93	89	86	91	88	85	90	87	84	88	86	84	82																			
6	97	90	86	82	95	89	85	82	88	84	82	87	83	81	86	83	81	79																			
7	94	87	82	79	92	86	82	79	85	81	78	84	81	78	83	80	78	77																			
8	91	84	79	76	90	83	79	76	82	78	76	81	78	75	80	77	75	74																			
9	88	81	76	73	87	80	76	73	79	76	73	79	75	73	78	75	73	72																			
10	85	78	74	71	84	78	74	71	77	73	71	76	73	70	76	72	70	69																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	257001	257001	257001
5°	250777	249668	249201
10°	217781	217732	217998
15°	181650	180688	180597
20°	119155	118206	119247
25°	36439	46080	36300
30°	9117	11030	8915
35°	2957	4565	2897
40°	1391	2162	1214
45°	726	904	534
50°	392	467	271
55°	220	304	152
60°	174	174	174
65°	92	92	92
70°	113	113	113
75°	0	150	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	233.0	24.4
10°-20°	482.9	50.5
20°-30°	210.9	22.0
30°-40°	23.0	2.4
40°-50°	4.8	0.5
50°-60°	1.3	0.1
60°-70°	0.5	0.1
70°-80°	0.3	0.0
80°-90°	0.0	0.0
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°	926.8	96.9
0°-40°	949.9	99.3
0°-60°	955.9	99.9
0°-90°	956.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	956.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2653	2653	2653	2653	2653	
5°	2579	2572	2567	2574	2563	233
15°	1811	1803	1802	1804	1801	485
25°	341	420	431	424	340	197
35°	25	30	39	29	24	20
45°	5	6	7	5	4	4
55°	1	1	2	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2652.9	2652.9	2652.9	2652.9	2652.9
2.5°	2641.1	2631.4	2626.2	2637.5	2626.2
5°	2578.8	2571.8	2567.4	2574.0	2562.6
7.5°	2408.4	2401.4	2407.5	2407.5	2401.8
10°	2213.9	2209.9	2213.4	2222.6	2216.1
12.5°	2025.0	2022.0	2023.3	2032.9	2025.5
15°	1811.2	1803.3	1801.6	1804.2	1800.7
17.5°	1526.4	1514.6	1507.2	1513.3	1515.1
20°	1155.8	1155.8	1146.6	1151.8	1156.7
22.5°	739.1	756.2	758.0	757.1	754.0
25°	340.9	420.2	431.1	424.1	339.6
27.5°	138.0	170.4	212.1	175.7	133.2
30°	81.5	85.9	98.6	84.6	79.7
32.5°	42.9	51.7	60.5	51.3	41.6
35°	25.0	29.8	38.6	29.4	24.5
37.5°	16.2	18.8	25.8	18.8	15.3
40°	11.0	12.3	17.1	11.8	9.6
42.5°	7.4	8.3	11.0	7.4	6.1
45°	5.3	5.7	6.6	4.8	3.9
47.5°	3.5	3.9	4.4	3.1	2.6
50°	2.6	2.6	3.1	2.2	1.8
52.5°	1.8	2.2	2.2	1.3	1.3
55°	1.3	1.3	1.8	0.9	0.9
57.5°	1.3	1.3	1.3	0.9	0.9
60°	0.9	0.9	0.9	0.9	0.9
62.5°	0.4	0.9	0.9	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.4
67.5°	0.4	0.4	0.4	0.4	0.4
70°	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4
75°	0.0	0.4	0.4	0.0	0.0
77.5°	0.0	0.4	0.4	0.4	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)