

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: P182490

Luminaire Tested: **LDSQA4A09927D010TE LAR35FL 4LSQA1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182490  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26795)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQA4A09927D010TE LAR35FL 4LSQA1H  
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,  
SELF-FLANGED, 35° FLOOD  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 984.8 lumens  
Efficiency: N/A  
Efficacy: 71.2 lumens/watt  
Spacing Criteria (0/90/45): 0.62 / 0.63 / 0.57  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

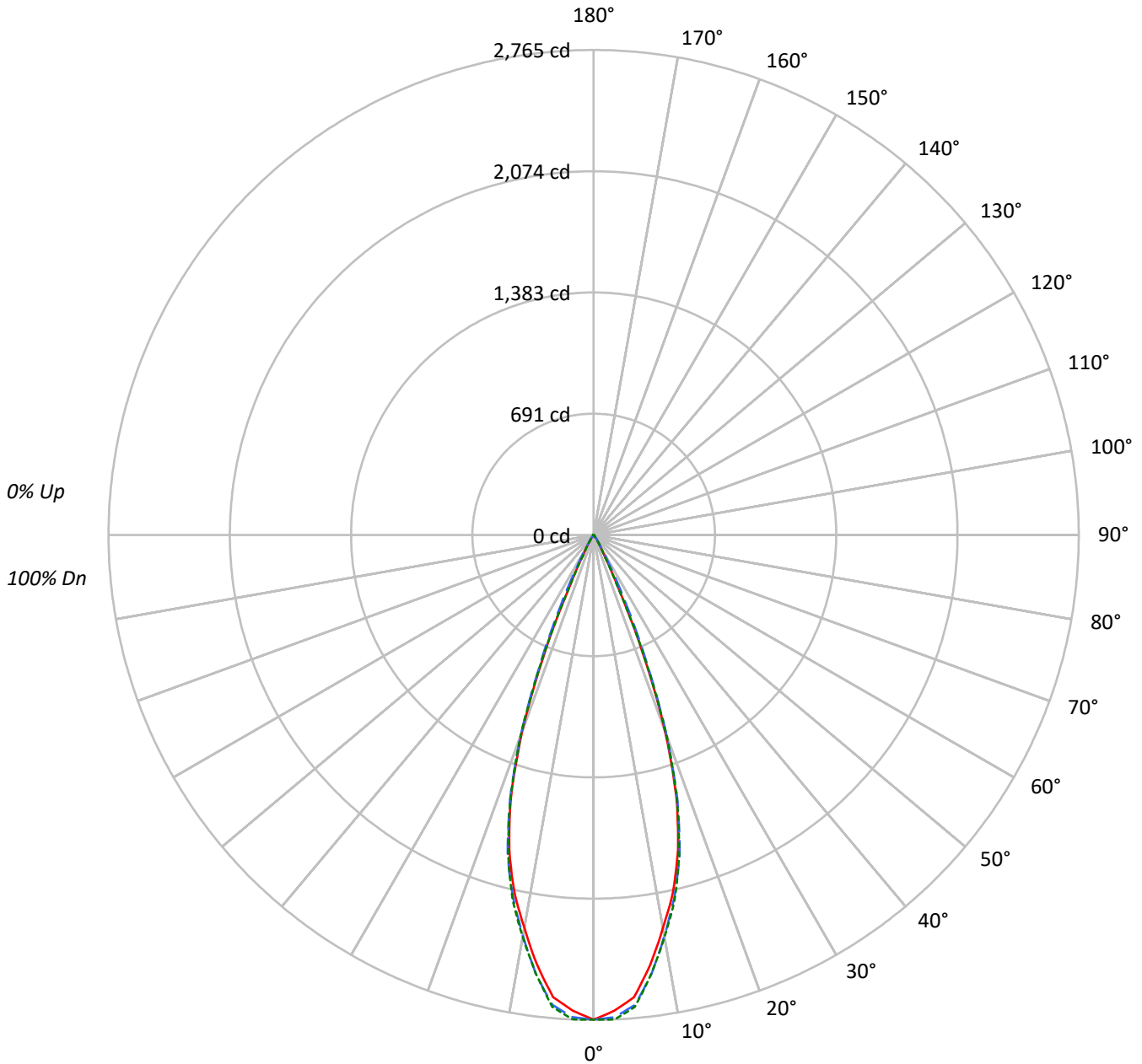
Input Watts (W): 13.84  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	107	105	104	103	102	101	99	99	98	96																			
2	111	107	104	101	109	105	103	100	102	100	98	99	98	96	97	95	94	93																			
3	107	102	98	95	105	101	97	95	98	96	93	96	94	92	94	92	90	89																			
4	103	98	94	91	102	97	93	90	95	92	89	93	90	88	91	89	87	86																			
5	100	94	90	86	99	93	89	86	91	88	85	90	87	85	88	86	84	83																			
6	97	90	86	83	96	90	85	82	88	85	82	87	84	81	86	83	81	80																			
7	94	87	83	79	93	86	82	79	85	82	79	84	81	79	83	80	78	77																			
8	91	84	80	77	90	83	79	76	82	79	76	82	78	76	81	78	76	74																			
9	88	81	77	74	87	81	77	74	80	76	73	79	76	73	78	75	73	72																			
10	86	78	74	71	85	78	74	71	77	74	71	77	73	71	76	73	71	70																			

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

	0°	45°	90°
0°	267735	267735	267735
5°	257282	261600	262650
10°	223723	228297	228956
15°	186354	189844	189002
20°	122453	125216	125392
25°	33970	47748	33435
30°	8155	10347	8289
35°	2176	3761	2129
40°	797	1429	746
45°	397	521	343
50°	256	256	196
55°	135	135	68
60°	155	78	78
65°	92	92	92
70°	113	113	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	242.9	24.7
10°-20°	503.6	51.1
20°-30°	215.1	21.8
30°-40°	19.0	1.9
40°-50°	2.8	0.3
50°-60°	0.8	0.1
60°-70°	0.4	0.0
70°-80°	0.2	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°	961.6	97.6
0°-40°	980.6	99.6
0°-60°	984.2	99.9
0°-90°	984.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	984.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2764	2764	2764	2764	2764	
5°	2646	2668	2690	2686	2701	240
15°	1858	1876	1893	1879	1884	498
25°	318	433	447	428	313	195
35°	18	23	32	23	18	15
45°	3	3	4	3	2	3
55°	1	1	1	1	0	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°	2763.7	2763.7	2763.7	2763.7	2763.7
2.5°	2715.2	2734.4	2751.6	2750.4	2764.6
5°	2645.7	2667.5	2690.1	2685.9	2700.9
7.5°	2472.3	2494.5	2523.8	2512.5	2522.6
10°	2274.3	2297.8	2320.8	2313.7	2327.5
12.5°	2088.8	2102.2	2119.0	2117.7	2132.4
15°	1858.1	1876.1	1892.9	1879.1	1884.5
17.5°	1569.2	1576.4	1588.9	1575.1	1578.9
20°	1187.8	1207.5	1214.6	1198.7	1216.3
22.5°	743.2	790.5	794.2	785.9	759.5
25°	317.8	432.9	446.7	427.5	312.8
27.5°	128.5	164.1	212.7	160.8	125.2
30°	72.9	79.1	92.5	77.9	74.1
32.5°	34.8	44.4	53.2	43.1	35.2
35°	18.4	23.0	31.8	22.6	18.0
37.5°	10.5	13.4	19.3	12.6	10.5
40°	6.3	8.0	11.3	7.5	5.9
42.5°	4.2	5.0	6.3	4.6	3.8
45°	2.9	2.9	3.8	2.9	2.5
47.5°	2.1	2.1	2.5	1.7	1.7
50°	1.7	1.7	1.7	1.3	1.3
52.5°	1.3	1.3	1.3	0.8	0.8
55°	0.8	0.8	0.8	0.8	0.4
57.5°	0.8	0.8	0.8	0.4	0.4
60°	0.8	0.8	0.4	0.4	0.4
62.5°	0.4	0.4	0.4	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	0.0
72.5°	0.4	0.4	0.4	0.4	0.4
75°	0.0	0.4	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	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)