

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: P182506

Luminaire Tested: **LDSQA4A28927D010TE LAR35FL 4LSQA1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182506  
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: LDSQA4A28927D010TE 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: 2488.7 lumens  
Efficiency: N/A  
Efficacy: 55.9 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

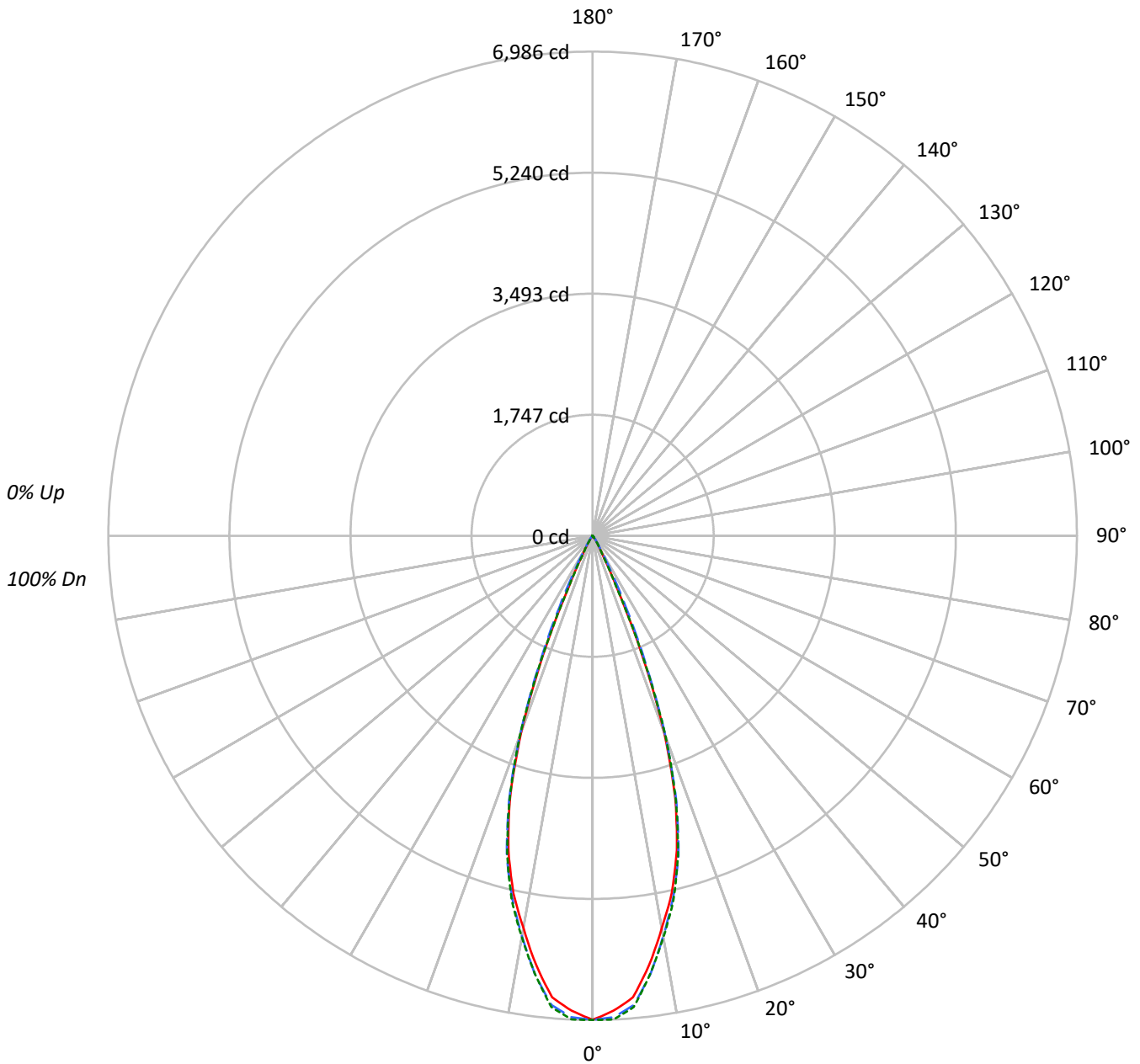
Input Watts (W): 44.49  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	676588	676588	676588
5°	650154	661065	663739
10°	565351	576910	578572
15°	470925	479741	477614
20°	309443	316433	316866
25°	85833	120668	84486
30°	20594	26153	20952
35°	5511	9508	5381
40°	2011	3617	1872
45°	1014	1302	863
50°	633	633	482
55°	355	355	186
60°	407	213	213
65°	252	252	252
70°	312	312	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	613.8	24.7
10°-20°	1272.6	51.1
20°-30°	543.5	21.8
30°-40°	48.0	1.9
40°-50°	7.1	0.3
50°-60°	2.0	0.1
60°-70°	1.1	0.0
70°-80°	0.5	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°	2429.9	97.6
0°-40°	2477.9	99.6
0°-60°	2487.1	99.9
0°-90°	2488.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2488.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6984	6984	6984	6984	6984	
5°	6686	6741	6798	6787	6825	606
15°	4696	4741	4783	4748	4762	1259
25°	803	1094	1129	1080	790	492
35°	47	58	80	57	46	39
45°	7	7	10	7	6	6
55°	2	2	2	2	1	2
65°	1	1	1	1	1	1
75°	0	1	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°	6984.1	6984.1	6984.1	6984.1	6984.1
2.5°	6861.3	6910.0	6953.4	6950.2	6986.2
5°	6685.7	6740.7	6797.9	6787.3	6825.4
7.5°	6247.7	6303.8	6377.8	6349.3	6374.6
10°	5747.2	5806.5	5864.7	5846.7	5881.6
12.5°	5278.5	5312.4	5354.7	5351.5	5388.6
15°	4695.5	4741.0	4783.4	4748.4	4762.2
17.5°	3965.5	3983.5	4015.2	3980.3	3989.8
20°	3001.6	3051.4	3069.4	3029.1	3073.6
22.5°	1878.0	1997.6	2007.1	1985.9	1919.3
25°	803.0	1094.0	1128.9	1080.3	790.4
27.5°	324.8	414.7	537.5	406.3	316.4
30°	184.1	200.0	233.8	196.8	187.3
32.5°	87.8	112.2	134.4	109.0	88.9
35°	46.6	58.2	80.4	57.1	45.5
37.5°	26.5	33.9	48.7	31.7	26.5
40°	15.9	20.1	28.6	19.0	14.8
42.5°	10.6	12.7	15.9	11.6	9.5
45°	7.4	7.4	9.5	7.4	6.3
47.5°	5.3	5.3	6.3	4.2	4.2
50°	4.2	4.2	4.2	3.2	3.2
52.5°	3.2	3.2	3.2	2.1	2.1
55°	2.1	2.1	2.1	2.1	1.1
57.5°	2.1	2.1	2.1	1.1	1.1
60°	2.1	2.1	1.1	1.1	1.1
62.5°	1.1	1.1	1.1	1.1	1.1
65°	1.1	1.1	1.1	1.1	1.1
67.5°	1.1	1.1	1.1	1.1	1.1
70°	1.1	1.1	1.1	1.1	0.0
72.5°	1.1	1.1	1.1	1.1	1.1
75°	0.0	1.1	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)