

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: P182504

Luminaire Tested: **LDSQA4A28835D010TE LAR35FL 4LSQA1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182504  
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: LDSQA4A28835D010TE LAR35FL 4LSQA1H  
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,  
SELF-FLANGED, 35° FLOOD  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3221.5 lumens  
Efficiency: N/A  
Efficacy: 72.4 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

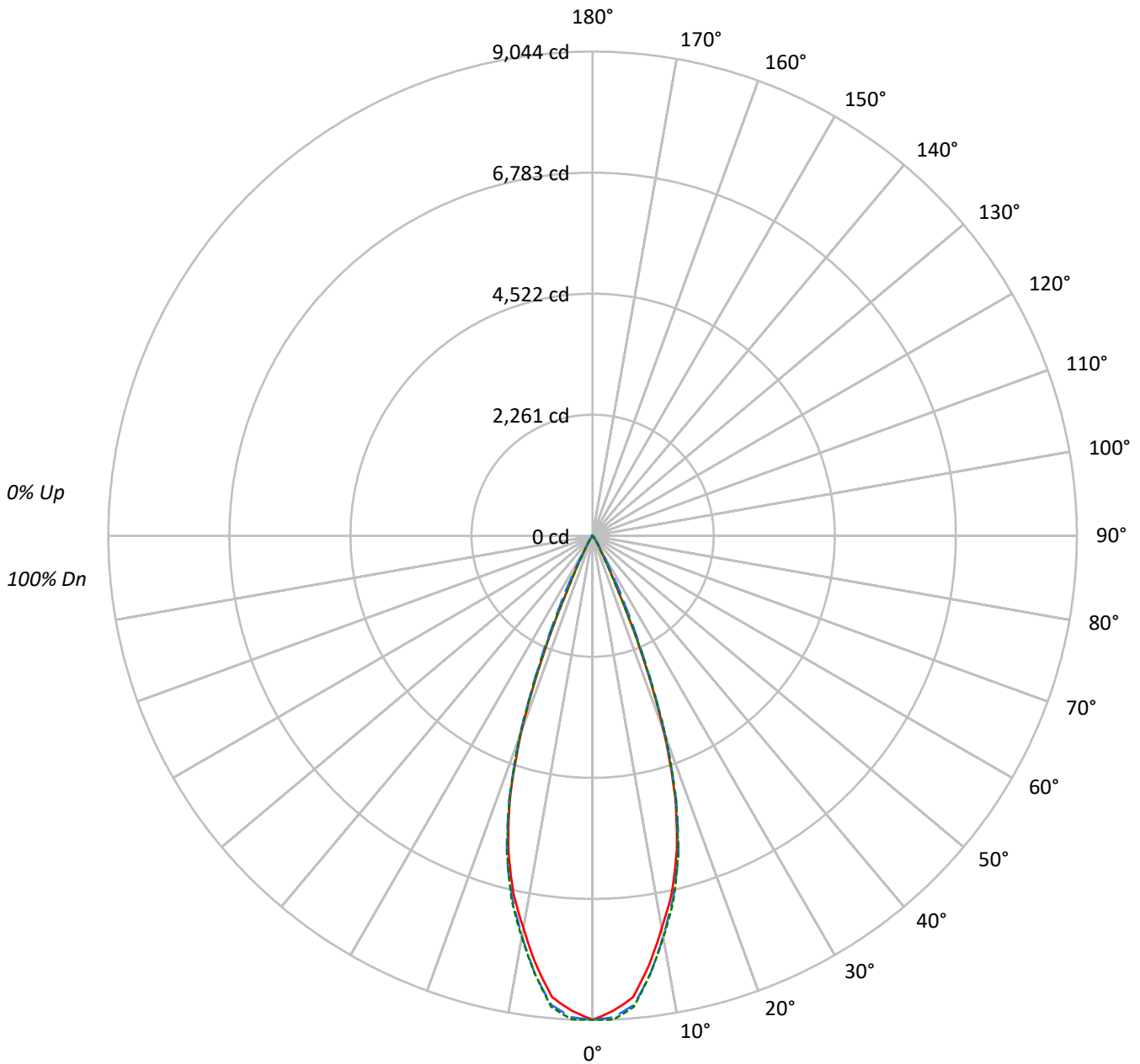
Input Watts (W): 44.49  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	875822	875822	875822
5°	841611	855731	859193
10°	731842	746795	748949
15°	609610	621013	618265
20°	400577	409608	410175
25°	111112	156209	109359
30°	26657	33861	27115
35°	7131	12311	6966
40°	2592	4679	2428
45°	1315	1685	1123
50°	829	829	618
55°	456	456	236
60°	523	271	271
65°	321	321	321
70°	397	397	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	794.5	24.7
10°-20°	1647.4	51.1
20°-30°	703.6	21.8
30°-40°	62.1	1.9
40°-50°	9.3	0.3
50°-60°	2.6	0.1
60°-70°	1.4	0.0
70°-80°	0.6	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°	3145.4	97.6
0°-40°	3207.6	99.6
0°-60°	3219.4	99.9
0°-90°	3221.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3221.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9041	9041	9041	9041	9041	
5°	8654	8726	8800	8786	8835	784
15°	6078	6137	6192	6147	6165	1630
25°	1040	1416	1461	1398	1023	637
35°	60	75	104	74	59	51
45°	10	10	12	10	8	8
55°	3	3	3	3	1	3
65°	1	1	1	1	1	2
75°	0	1	0	0	0	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9040.7	9040.7	9040.7	9040.7	9040.7
2.5°	8881.9	8944.9	9001.0	8996.9	9043.5
5°	8654.5	8725.7	8799.7	8786.0	8835.3
7.5°	8087.5	8160.1	8255.9	8219.0	8251.8
10°	7439.7	7516.4	7591.7	7568.4	7613.6
12.5°	6832.9	6876.8	6931.5	6927.4	6975.4
15°	6078.3	6137.2	6192.0	6146.8	6164.6
17.5°	5133.3	5156.5	5197.6	5152.4	5164.8
20°	3885.6	3949.9	3973.2	3921.2	3978.7
22.5°	2431.0	2585.8	2598.1	2570.7	2484.5
25°	1039.5	1416.2	1461.4	1398.4	1023.1
27.5°	420.5	536.9	695.8	525.9	409.5
30°	238.3	258.9	302.7	254.7	242.4
32.5°	113.7	145.2	173.9	141.1	115.0
35°	60.3	75.3	104.1	74.0	58.9
37.5°	34.2	43.8	63.0	41.1	34.2
40°	20.5	26.0	37.0	24.7	19.2
42.5°	13.7	16.4	20.5	15.1	12.3
45°	9.6	9.6	12.3	9.6	8.2
47.5°	6.8	6.8	8.2	5.5	5.5
50°	5.5	5.5	5.5	4.1	4.1
52.5°	4.1	4.1	4.1	2.7	2.7
55°	2.7	2.7	2.7	2.7	1.4
57.5°	2.7	2.7	2.7	1.4	1.4
60°	2.7	2.7	1.4	1.4	1.4
62.5°	1.4	1.4	1.4	1.4	1.4
65°	1.4	1.4	1.4	1.4	1.4
67.5°	1.4	1.4	1.4	1.4	1.4
70°	1.4	1.4	1.4	1.4	0.0
72.5°	1.4	1.4	1.4	1.4	1.4
75°	0.0	1.4	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)