

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: P182483

Luminaire Tested: **LDSQA4A18930D010TE LAR35FL 4LSQA1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182483  
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: LDSQA4A18930D010TE LAR35FL 4LSQA1H  
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,  
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: 1901.0 lumens  
Efficiency: N/A  
Efficacy: 65.3 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

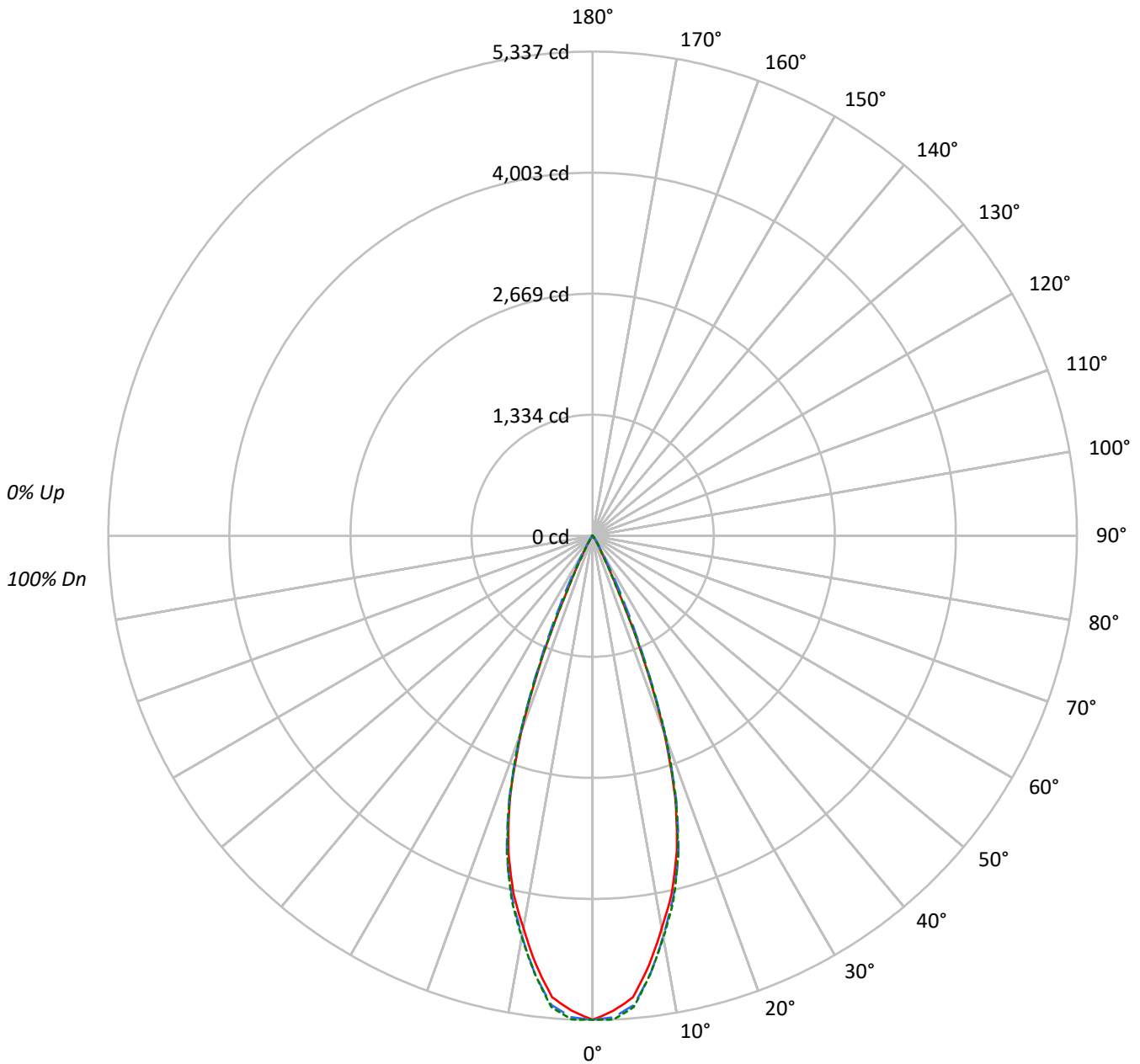
Input Watts (W): 29.12  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	516840	516840	516840
5°	496652	504986	507028
10°	431873	440697	441976
15°	359740	366470	364855
20°	236392	241721	242051
25°	65566	92182	64530
30°	15728	19979	16007
35°	4210	7261	4116
40°	1530	2757	1429
45°	781	1000	658
50°	482	482	362
55°	270	270	135
60°	310	155	155
65°	183	183	183
70°	227	227	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	468.9	24.7
10°-20°	972.1	51.1
20°-30°	415.2	21.8
30°-40°	36.7	1.9
40°-50°	5.5	0.3
50°-60°	1.5	0.1
60°-70°	0.8	0.0
70°-80°	0.4	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°	1856.2	97.6
0°-40°	1892.9	99.6
0°-60°	1899.8	99.9
0°-90°	1901.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1901.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5335	5335	5335	5335	5335	
5°	5107	5149	5193	5185	5214	463
15°	3587	3622	3654	3627	3638	962
25°	613	836	862	825	604	376
35°	36	44	61	44	35	30
45°	6	6	7	6	5	5
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°	5335.1	5335.1	5335.1	5335.1	5335.1
2.5°	5241.4	5278.6	5311.7	5309.3	5336.8
5°	5107.2	5149.2	5192.9	5184.8	5213.9
7.5°	4772.6	4815.4	4872.0	4850.2	4869.6
10°	4390.3	4435.6	4480.0	4466.3	4493.0
12.5°	4032.3	4058.1	4090.5	4088.0	4116.3
15°	3586.9	3621.7	3654.0	3627.3	3637.9
17.5°	3029.3	3043.0	3067.2	3040.6	3047.8
20°	2293.0	2330.9	2344.7	2314.0	2347.9
22.5°	1434.6	1525.9	1533.2	1517.1	1466.1
25°	613.4	835.7	862.4	825.2	603.7
27.5°	248.1	316.8	410.6	310.4	241.7
30°	140.6	152.8	178.6	150.3	143.1
32.5°	67.1	85.7	102.6	83.2	67.9
35°	35.6	44.5	61.4	43.6	34.8
37.5°	20.2	25.9	37.2	24.2	20.2
40°	12.1	15.4	21.8	14.5	11.3
42.5°	8.1	9.7	12.1	8.9	7.3
45°	5.7	5.7	7.3	5.7	4.8
47.5°	4.0	4.0	4.8	3.2	3.2
50°	3.2	3.2	3.2	2.4	2.4
52.5°	2.4	2.4	2.4	1.6	1.6
55°	1.6	1.6	1.6	1.6	0.8
57.5°	1.6	1.6	1.6	0.8	0.8
60°	1.6	1.6	0.8	0.8	0.8
62.5°	0.8	0.8	0.8	0.8	0.8
65°	0.8	0.8	0.8	0.8	0.8
67.5°	0.8	0.8	0.8	0.8	0.8
70°	0.8	0.8	0.8	0.8	0.0
72.5°	0.8	0.8	0.8	0.8	0.8
75°	0.0	0.8	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)