

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: P182601

Luminaire Tested: **LDSQA4A28840D010TE LAR35FL 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182601  
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: LDSQA4A28840D010TE LAR35FL 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 35° FLOOD  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3136.9 lumens  
Efficiency: N/A  
Efficacy: 70.5 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

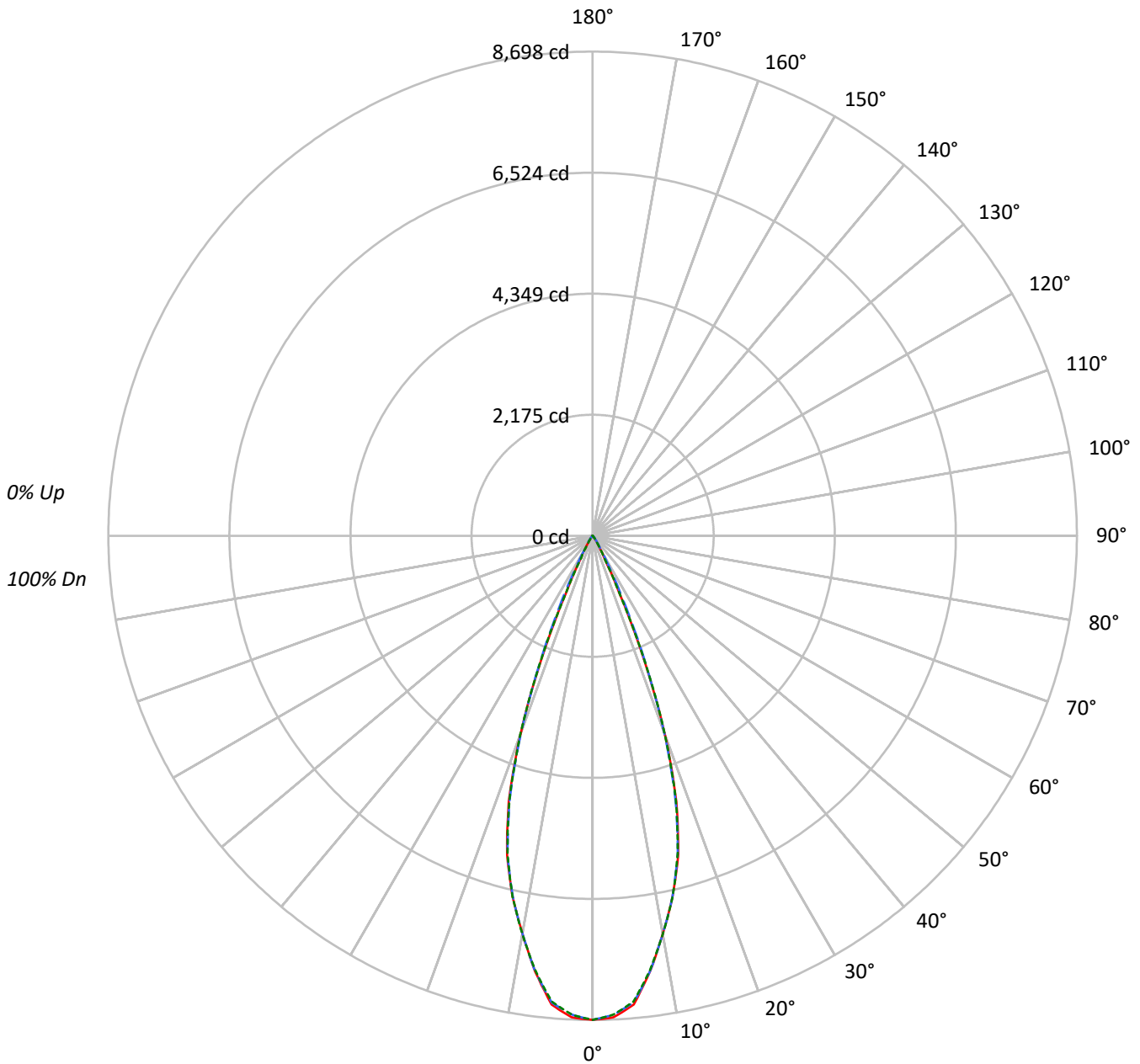
Input Watts (W): 44.49  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	85	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°	842613	842613	842613
5°	822230	818593	817057
10°	714028	713880	714736
15°	595579	592410	592129
20°	390670	387556	390958
25°	119460	151089	119001
30°	29890	36154	29241
35°	9686	14948	9508
40°	4540	7082	3996
45°	2356	2946	1767
50°	1296	1522	859
55°	726	963	490
60°	562	562	562
65°	321	321	321
70°	397	397	397
75°	0	524	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	764.1	24.4
10°-20°	1583.3	50.5
20°-30°	691.4	22.0
30°-40°	75.5	2.4
40°-50°	15.6	0.5
50°-60°	4.3	0.1
60°-70°	1.8	0.1
70°-80°	1.0	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°	3038.8	96.9
0°-40°	3114.3	99.3
0°-60°	3134.2	99.9
0°-90°	3136.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3136.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8698	8698	8698	8698	8698	
5°	8455	8432	8418	8439	8402	765
15°	5938	5913	5907	5916	5904	1589
25°	1118	1378	1414	1390	1113	647
35°	82	98	126	96	80	65
45°	17	19	22	16	13	14
55°	4	4	6	3	3	4
65°	1	1	1	1	1	2
75°	0	1	1	0	0	1
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°	8697.9	8697.9	8697.9	8697.9	8697.9
2.5°	8659.1	8627.5	8610.3	8647.7	8610.3
5°	8455.2	8432.2	8417.8	8439.4	8402.0
7.5°	7896.4	7873.4	7893.5	7893.5	7874.8
10°	7258.6	7245.6	7257.1	7287.3	7265.8
12.5°	6639.4	6629.4	6633.7	6665.3	6640.9
15°	5938.4	5912.6	5906.8	5915.5	5904.0
17.5°	5004.7	4965.9	4941.5	4961.6	4967.4
20°	3789.5	3789.5	3759.3	3776.5	3792.3
22.5°	2423.4	2479.4	2485.1	2482.2	2472.2
25°	1117.6	1377.6	1413.5	1390.5	1113.3
27.5°	452.5	558.8	695.3	576.0	436.7
30°	267.2	281.6	323.2	277.2	261.4
32.5°	140.8	169.5	198.2	168.1	136.5
35°	81.9	97.7	126.4	96.2	80.4
37.5°	53.2	61.8	84.8	61.8	50.3
40°	35.9	40.2	56.0	38.8	31.6
42.5°	24.4	27.3	35.9	24.4	20.1
45°	17.2	18.7	21.5	15.8	12.9
47.5°	11.5	12.9	14.4	10.1	8.6
50°	8.6	8.6	10.1	7.2	5.7
52.5°	5.7	7.2	7.2	4.3	4.3
55°	4.3	4.3	5.7	2.9	2.9
57.5°	4.3	4.3	4.3	2.9	2.9
60°	2.9	2.9	2.9	2.9	2.9
62.5°	1.4	2.9	2.9	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	1.4
72.5°	1.4	1.4	1.4	1.4	1.4
75°	0.0	1.4	1.4	0.0	0.0
77.5°	0.0	1.4	1.4	1.4	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)