

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: P182593

Luminaire Tested: **LDSQA4A13840D010TE LAR35FL 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182593  
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: LDSQA4A13840D010TE 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: 1838.3 lumens  
Efficiency: N/A  
Efficacy: 82.5 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

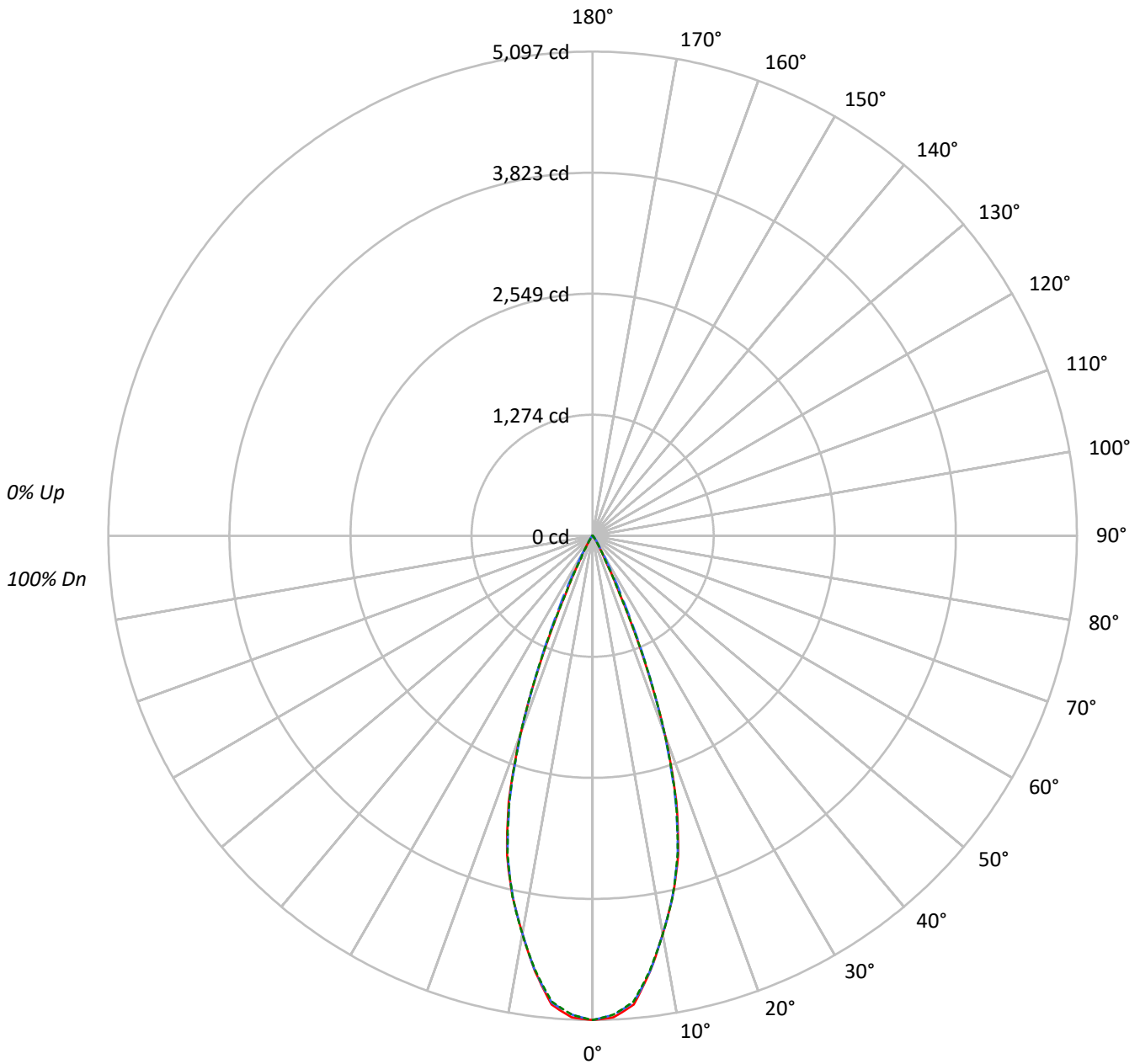
Input Watts (W): 22.27  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	86	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°	493803	493803	493803
5°	481851	479722	478827
10°	418446	418357	418859
15°	349029	347174	347003
20°	228938	227123	229113
25°	70002	88548	69735
30°	17518	21187	17137
35°	5677	8763	5570
40°	2656	4148	2340
45°	1384	1726	1041
50°	769	889	512
55°	422	574	287
60°	329	329	329
65°	183	183	183
70°	227	227	227
75°	0	299	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	447.8	24.4
10°-20°	927.9	50.5
20°-30°	405.2	22.0
30°-40°	44.2	2.4
40°-50°	9.1	0.5
50°-60°	2.5	0.1
60°-70°	1.0	0.1
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°	1780.9	96.9
0°-40°	1825.1	99.3
0°-60°	1836.7	99.9
0°-90°	1838.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1838.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5097	5097	5097	5097	5097	
5°	4955	4942	4933	4946	4924	449
15°	3480	3465	3462	3467	3460	931
25°	655	807	828	815	652	379
35°	48	57	74	56	47	38
45°	10	11	13	9	8	8
55°	2	2	3	2	2	3
65°	1	1	1	1	1	1
75°	0	1	1	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°	5097.3	5097.3	5097.3	5097.3	5097.3
2.5°	5074.5	5056.0	5045.9	5067.8	5045.9
5°	4955.0	4941.5	4933.1	4945.7	4923.9
7.5°	4627.5	4614.1	4625.9	4625.9	4614.9
10°	4253.8	4246.2	4252.9	4270.6	4258.0
12.5°	3890.9	3885.0	3887.6	3906.1	3891.8
15°	3480.1	3465.0	3461.6	3466.7	3459.9
17.5°	2932.9	2910.2	2895.9	2907.7	2911.0
20°	2220.7	2220.7	2203.1	2213.2	2222.4
22.5°	1420.2	1453.0	1456.4	1454.7	1448.8
25°	654.9	807.3	828.4	814.9	652.4
27.5°	265.2	327.5	407.4	337.6	255.9
30°	156.6	165.0	189.4	162.5	153.2
32.5°	82.5	99.3	116.2	98.5	80.0
35°	48.0	57.2	74.1	56.4	47.1
37.5°	31.1	36.2	49.7	36.2	29.5
40°	21.0	23.6	32.8	22.7	18.5
42.5°	14.3	16.0	21.0	14.3	11.8
45°	10.1	10.9	12.6	9.3	7.6
47.5°	6.7	7.6	8.4	5.9	5.1
50°	5.1	5.1	5.9	4.2	3.4
52.5°	3.4	4.2	4.2	2.5	2.5
55°	2.5	2.5	3.4	1.7	1.7
57.5°	2.5	2.5	2.5	1.7	1.7
60°	1.7	1.7	1.7	1.7	1.7
62.5°	0.8	1.7	1.7	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	0.8
72.5°	0.8	0.8	0.8	0.8	0.8
75°	0.0	0.8	0.8	0.0	0.0
77.5°	0.0	0.8	0.8	0.8	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)