

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: P182591

Luminaire Tested: **LDSQA4A13830D010TE LAR35FL 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182591  
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: LDSQA4A13830D010TE LAR35FL 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 35° FLOOD  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1722.1 lumens  
Efficiency: N/A  
Efficacy: 77.3 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

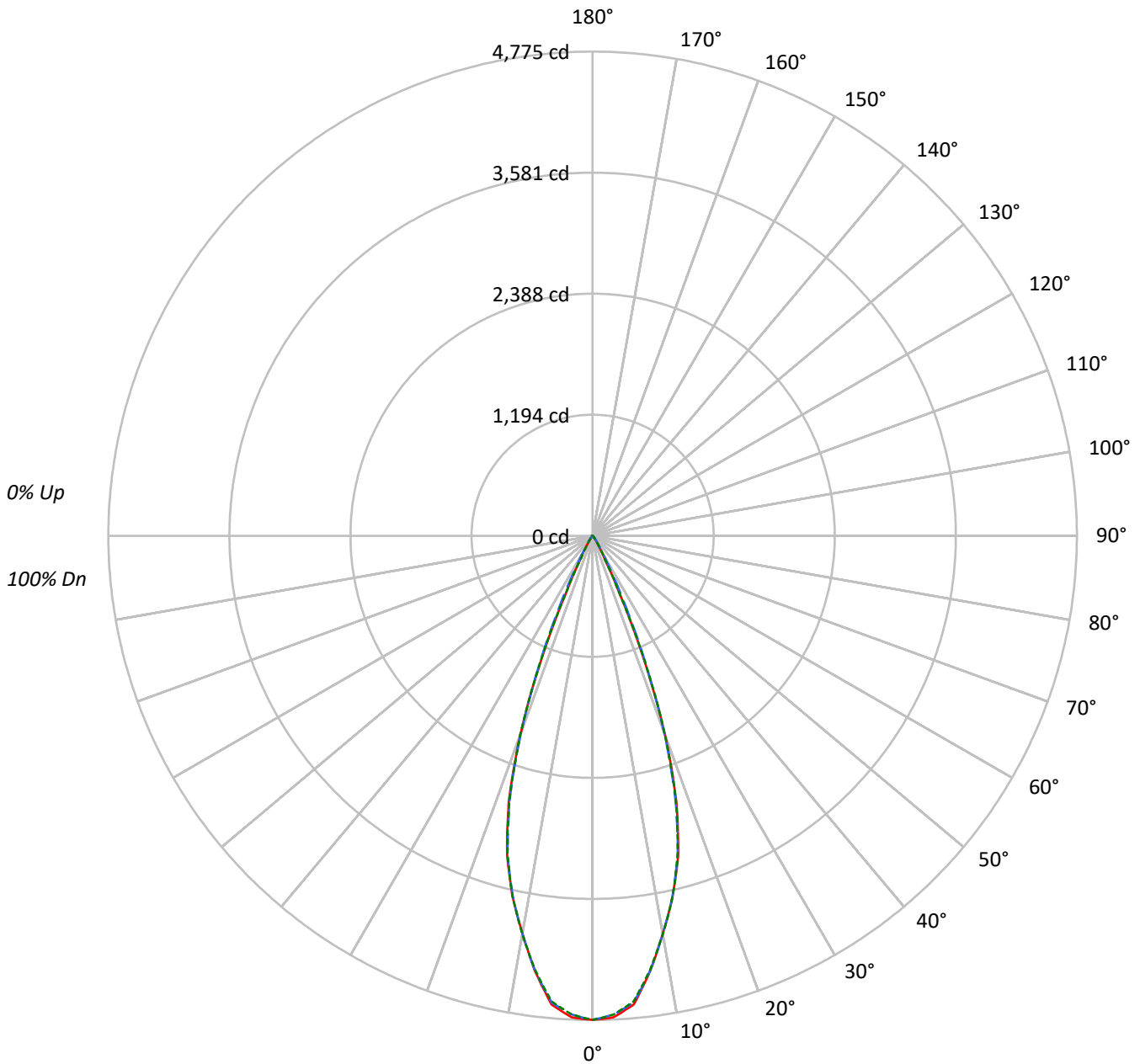
Input Watts (W): 22.27  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									20																	
RC	80									70									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	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	73	71	77	73	71	76	73	70	76	72	70	69																																				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	462561	462561	462561
5°	451365	449371	448525
10°	391965	391886	392358
15°	326945	325210	325049
20°	214453	212752	214618
25°	65577	82936	65321
30°	16410	19844	16052
35°	5310	8207	5227
40°	2491	3895	2188
45°	1302	1617	973
50°	708	829	482
55°	405	540	270
60°	310	310	310
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°	419.5	24.4
10°-20°	869.2	50.5
20°-30°	379.6	22.0
30°-40°	41.4	2.4
40°-50°	8.6	0.5
50°-60°	2.4	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°	1668.2	96.9
0°-40°	1709.6	99.3
0°-60°	1720.5	99.9
0°-90°	1722.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1722.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4775	4775	4775	4775	4775	
5°	4642	4629	4621	4633	4612	420
15°	3260	3246	3243	3247	3241	872
25°	614	756	776	763	611	355
35°	45	54	69	53	44	35
45°	10	10	12	9	7	8
55°	2	2	3	2	2	2
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°	4774.8	4774.8	4774.8	4774.8	4774.8
2.5°	4753.5	4736.1	4726.7	4747.2	4726.7
5°	4641.5	4628.9	4621.0	4632.8	4612.3
7.5°	4334.8	4322.1	4333.2	4333.2	4322.9
10°	3984.6	3977.5	3983.8	4000.4	3988.6
12.5°	3644.8	3639.2	3641.6	3658.9	3645.5
15°	3259.9	3245.7	3242.6	3247.3	3241.0
17.5°	2747.4	2726.1	2712.7	2723.7	2726.9
20°	2080.2	2080.2	2063.7	2073.1	2081.8
22.5°	1330.3	1361.1	1364.2	1362.6	1357.1
25°	613.5	756.2	775.9	763.3	611.1
27.5°	248.4	306.8	381.7	316.2	239.7
30°	146.7	154.6	177.4	152.2	143.5
32.5°	77.3	93.1	108.8	92.3	74.9
35°	44.9	53.6	69.4	52.8	44.2
37.5°	29.2	33.9	46.5	33.9	27.6
40°	19.7	22.1	30.8	21.3	17.3
42.5°	13.4	15.0	19.7	13.4	11.0
45°	9.5	10.3	11.8	8.7	7.1
47.5°	6.3	7.1	7.9	5.5	4.7
50°	4.7	4.7	5.5	3.9	3.2
52.5°	3.2	3.9	3.9	2.4	2.4
55°	2.4	2.4	3.2	1.6	1.6
57.5°	2.4	2.4	2.4	1.6	1.6
60°	1.6	1.6	1.6	1.6	1.6
62.5°	0.8	1.6	1.6	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)