

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: P182549

Luminaire Tested: **LDSQA4A18940D010TE LAR25NF 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182549  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26797)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDSQA4A18940D010TE LAR25NF 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 25° NARROW FLOOD  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1889.9 lumens  
Efficiency: N/A  
Efficacy: 64.9 lumens/watt  
Spacing Criteria (0/90/45): 0.48 / 0.48 / 0.5  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

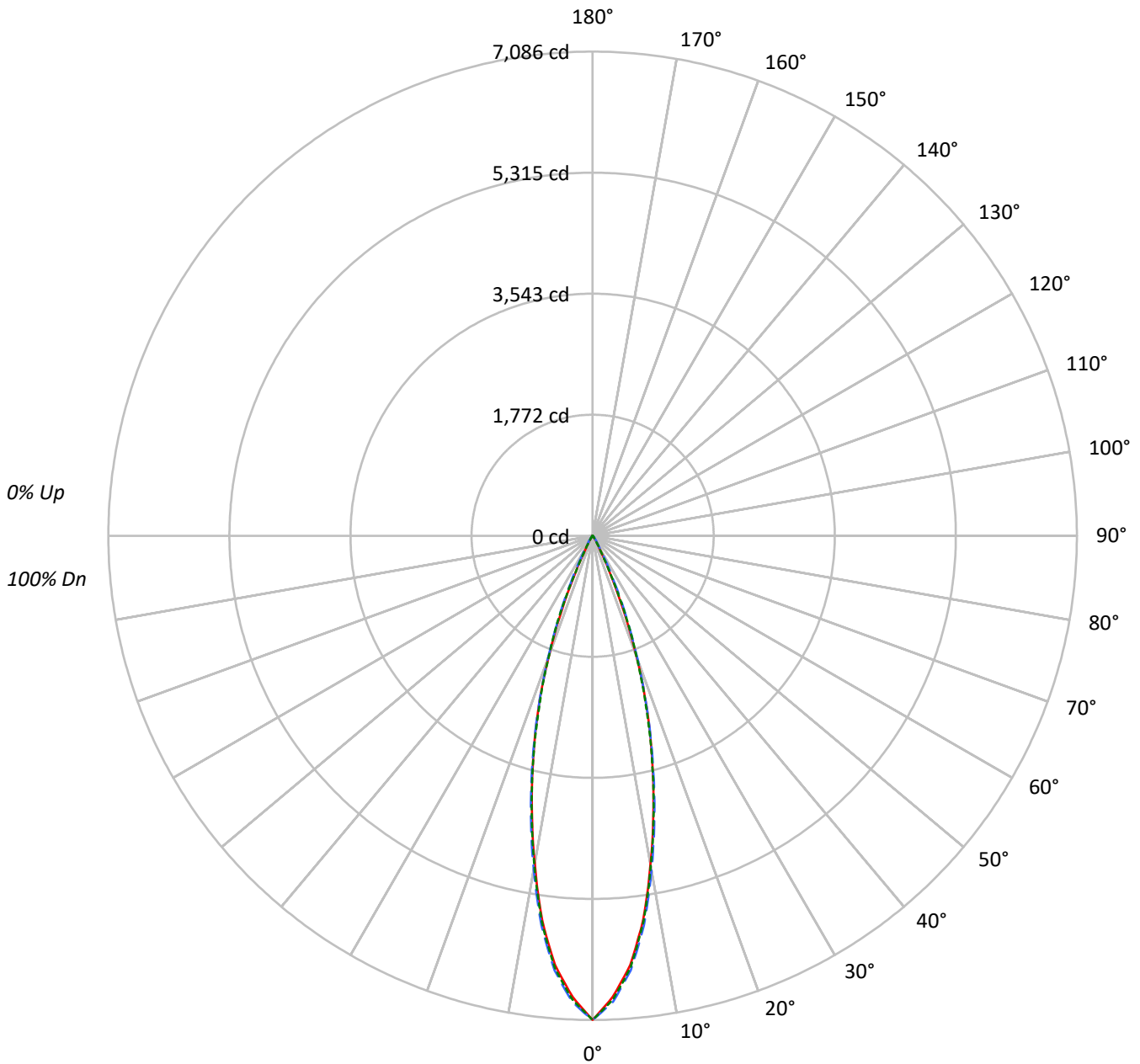
Input Watts (W): 29.12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				100															
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	98	96	96															
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	94	93	94	96	94	93															
3	107	103	99	96	106	101	98	95	99	96	94	97	94	92	95	93	91	90	91	93	91	90															
4	104	99	95	91	102	97	94	91	95	92	90	94	91	89	92	90	88	87	89	87	85	84															
5	101	95	91	87	99	94	90	87	92	89	86	91	88	86	89	87	85	84	87	84	82	81															
6	98	91	87	84	96	91	87	84	89	86	83	88	85	83	87	84	82	81	85	82	80	79															
7	95	88	84	81	94	88	84	81	87	83	80	85	82	80	85	82	80	79	82	79	77	76															
8	92	85	81	78	91	85	81	78	84	80	78	83	80	77	82	79	77	76	80	77	75	74															
9	89	83	78	76	89	82	78	76	81	78	75	81	77	75	80	77	75	74	78	75	73	72															
10	87	80	76	73	86	80	76	73	79	76	73	78	75	73	78	75	73	72				72															

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

	0°	45°	90°
0°	686440	686440	686440
5°	613055	620767	616906
10°	479888	488466	482485
15°	336994	339461	335128
20°	193412	197412	193227
25°	61227	80531	63204
30°	16265	20202	15672
35°	5523	10005	5629
40°	2453	4009	2453
45°	1329	1808	1082
50°	799	934	527
55°	439	439	304
60°	349	349	174
65°	206	206	206
70°	255	255	255
75°	0	337	337
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	562.0	29.7
10°-20°	916.4	48.5
20°-30°	354.9	18.8
30°-40°	43.5	2.3
40°-50°	9.1	0.5
50°-60°	2.5	0.1
60°-70°	1.0	0.1
70°-80°	0.5	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°	1833.4	97.0
0°-40°	1876.9	99.3
0°-60°	1888.5	99.9
0°-90°	1889.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1889.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7086	7086	7086	7086	7086	
5°	6304	6396	6384	6345	6344	557
15°	3360	3405	3385	3360	3342	911
25°	573	717	753	740	591	321
35°	47	56	85	56	48	36
45°	10	11	13	10	8	8
55°	3	3	3	2	2	3
65°	1	1	1	1	1	1
75°	0	1	1	1	1	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°	7085.8	7085.8	7085.8	7085.8	7085.8
2.5°	6754.5	6848.8	6826.7	6782.7	6794.1
5°	6304.2	6395.8	6383.5	6344.7	6343.8
7.5°	5668.8	5758.7	5748.1	5701.4	5697.0
10°	4878.4	4960.3	4965.6	4897.8	4904.8
12.5°	4106.4	4173.4	4176.1	4129.4	4119.7
15°	3360.1	3405.0	3384.7	3360.1	3341.5
17.5°	2624.2	2633.9	2629.5	2593.4	2580.2
20°	1876.1	1918.4	1914.9	1884.0	1874.3
22.5°	1168.5	1245.1	1280.4	1252.2	1267.2
25°	572.8	717.3	753.4	740.2	591.3
27.5°	232.6	304.0	378.9	299.6	224.7
30°	145.4	158.6	180.6	152.4	140.1
32.5°	76.7	96.1	122.5	93.4	76.7
35°	46.7	56.4	84.6	55.5	47.6
37.5°	30.0	35.2	49.3	35.2	30.8
40°	19.4	22.9	31.7	22.9	19.4
42.5°	13.2	15.0	20.3	15.0	12.3
45°	9.7	10.6	13.2	9.7	7.9
47.5°	7.0	7.9	8.8	6.2	5.3
50°	5.3	5.3	6.2	4.4	3.5
52.5°	3.5	4.4	4.4	2.6	2.6
55°	2.6	2.6	2.6	1.8	1.8
57.5°	2.6	1.8	1.8	1.8	1.8
60°	1.8	1.8	1.8	0.9	0.9
62.5°	0.9	0.9	0.9	0.9	0.9
65°	0.9	0.9	0.9	0.9	0.9
67.5°	0.9	0.9	0.9	0.9	0.9
70°	0.9	0.9	0.9	0.9	0.9
72.5°	0.9	0.9	0.9	0.9	0.0
75°	0.0	0.9	0.9	0.9	0.9
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)