

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: P182602

Luminaire Tested: **LDSQA4A28927D010TE LAR35FL 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182602  
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: LDSQA4A28927D010TE LAR35FL 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 35° FLOOD  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2310.9 lumens  
Efficiency: N/A  
Efficacy: 51.9 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

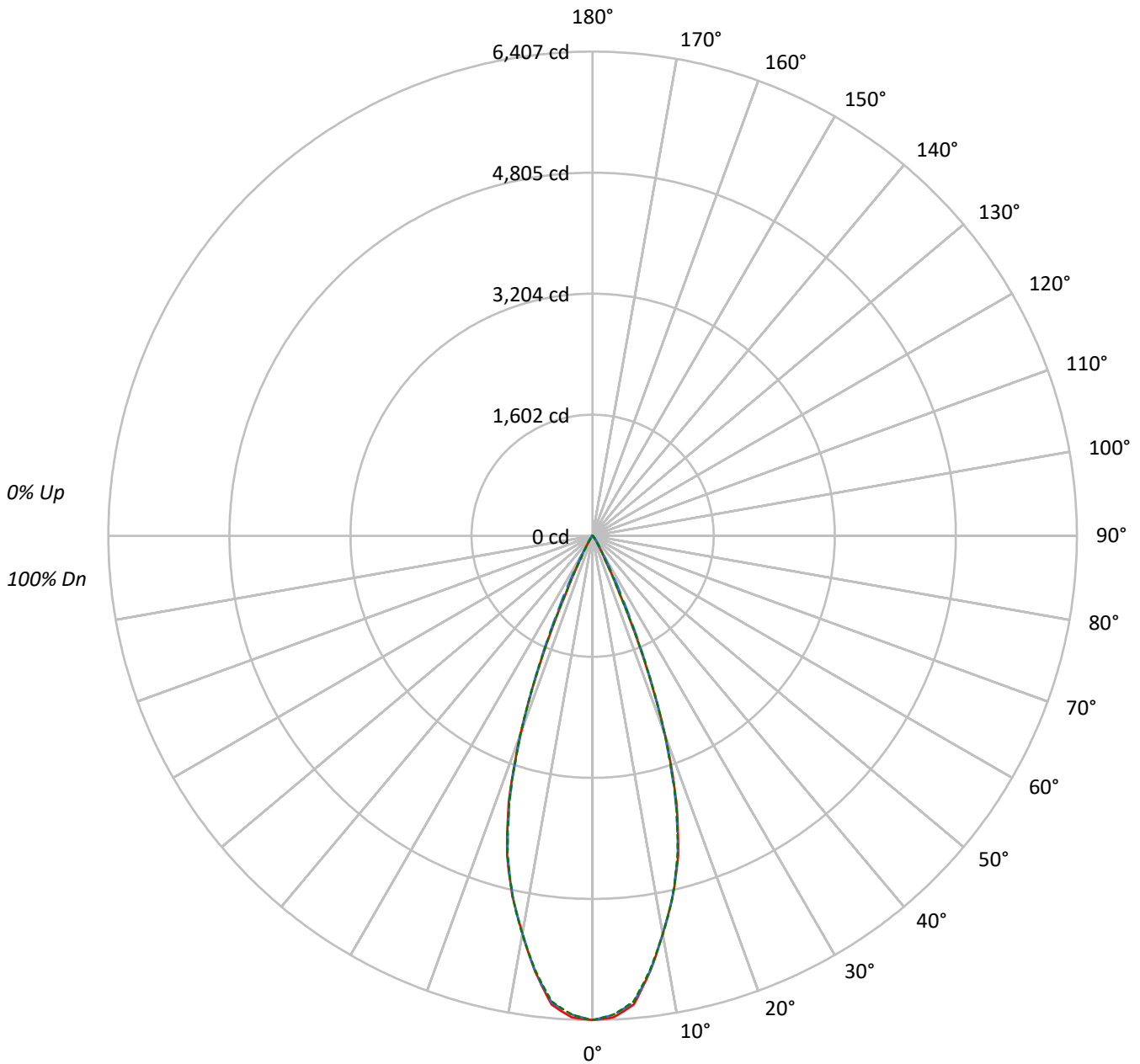
Input Watts (W): 44.49  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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									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	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°	620710	620710	620710
5°	605693	603019	601881
10°	525984	525876	526505
15°	438731	436404	436184
20°	287783	285495	288000
25°	88003	111305	87661
30°	22014	26634	21545
35°	7131	11010	7013
40°	3351	5223	2947
45°	1740	2178	1302
50°	949	1115	633
55°	540	709	355
60°	407	407	407
65°	252	252	252
70°	312	312	312
75°	0	412	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	562.9	24.4
10°-20°	1166.3	50.5
20°-30°	509.3	22.0
30°-40°	55.6	2.4
40°-50°	11.5	0.5
50°-60°	3.2	0.1
60°-70°	1.3	0.1
70°-80°	0.8	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°	2238.5	96.9
0°-40°	2294.1	99.3
0°-60°	2308.8	99.9
0°-90°	2310.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2310.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6407	6407	6407	6407	6407	
5°	6228	6212	6201	6217	6189	564
15°	4374	4356	4351	4358	4349	1170
25°	823	1015	1041	1024	820	476
35°	60	72	93	71	59	48
45°	13	14	16	12	10	11
55°	3	3	4	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°	6407.3	6407.3	6407.3	6407.3	6407.3
2.5°	6378.7	6355.5	6342.8	6370.3	6342.8
5°	6228.5	6211.5	6201.0	6216.8	6189.3
7.5°	5816.8	5799.9	5814.7	5814.7	5801.0
10°	5347.0	5337.5	5345.9	5368.2	5352.3
12.5°	4890.9	4883.5	4886.7	4910.0	4892.0
15°	4374.5	4355.5	4351.3	4357.6	4349.1
17.5°	3686.7	3658.1	3640.2	3655.0	3659.2
20°	2791.5	2791.5	2769.3	2782.0	2793.6
22.5°	1785.2	1826.4	1830.7	1828.5	1821.1
25°	823.3	1014.8	1041.3	1024.3	820.1
27.5°	333.3	411.6	512.2	424.3	321.7
30°	196.8	207.4	238.1	204.2	192.6
32.5°	103.7	124.9	146.0	123.8	100.5
35°	60.3	72.0	93.1	70.9	59.3
37.5°	39.2	45.5	62.4	45.5	37.0
40°	26.5	29.6	41.3	28.6	23.3
42.5°	18.0	20.1	26.5	18.0	14.8
45°	12.7	13.8	15.9	11.6	9.5
47.5°	8.5	9.5	10.6	7.4	6.3
50°	6.3	6.3	7.4	5.3	4.2
52.5°	4.2	5.3	5.3	3.2	3.2
55°	3.2	3.2	4.2	2.1	2.1
57.5°	3.2	3.2	3.2	2.1	2.1
60°	2.1	2.1	2.1	2.1	2.1
62.5°	1.1	2.1	2.1	1.1	1.1
65°	1.1	1.1	1.1	1.1	1.1
67.5°	1.1	1.1	1.1	1.1	1.1
70°	1.1	1.1	1.1	1.1	1.1
72.5°	1.1	1.1	1.1	1.1	1.1
75°	0.0	1.1	1.1	0.0	0.0
77.5°	0.0	1.1	1.1	1.1	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)