

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: P182561

Luminaire Tested: **LDSQA4A13840D010TE LAR25NF 4LSQAL1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P182561  
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: LDSQA4A13840D010TE LAR25NF 4LSQAL1H  
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 25° NARROW FLOOD  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1805.5 lumens  
Efficiency: N/A  
Efficacy: 81.1 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

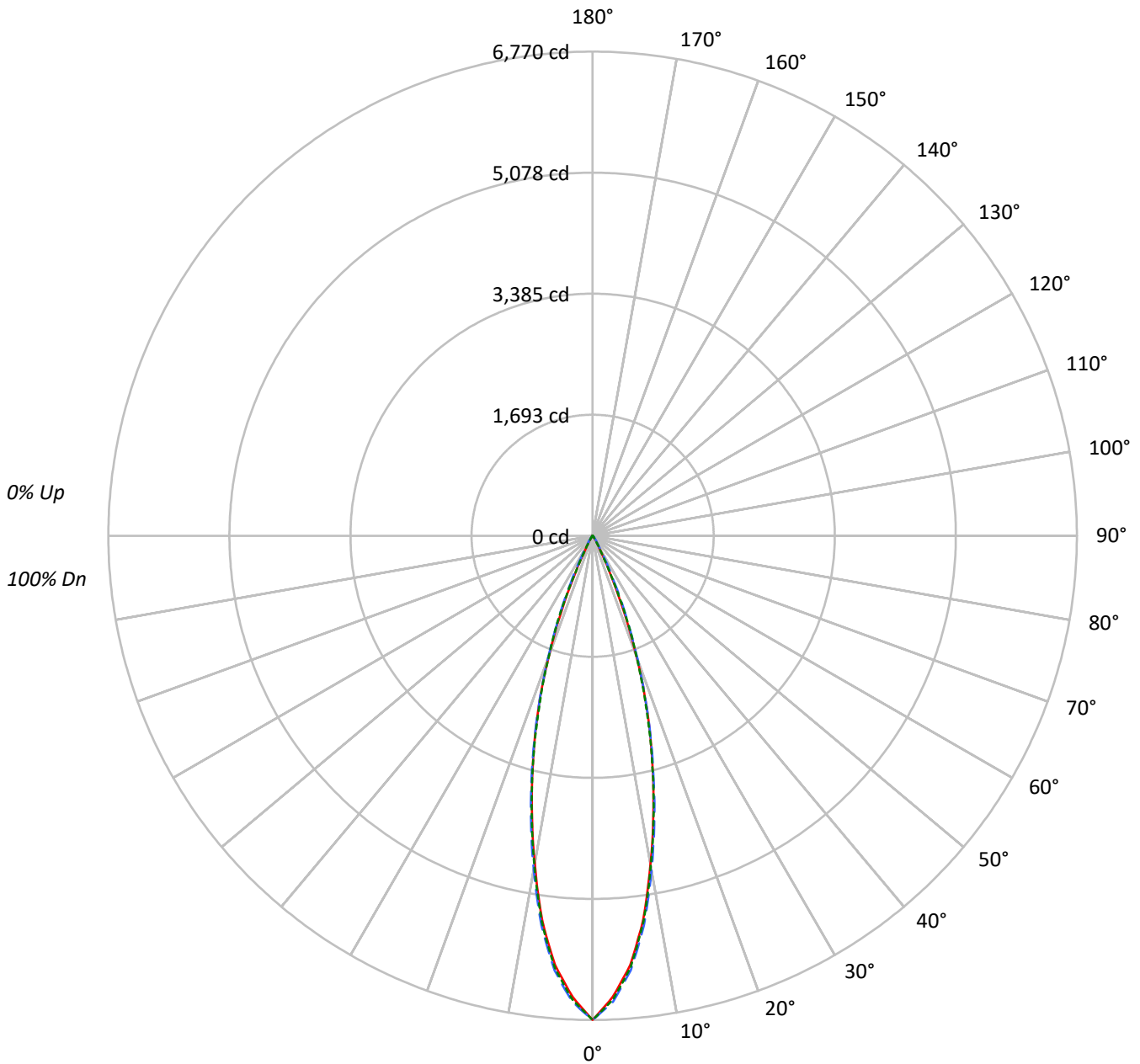
Input Watts (W): 22.27  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	655798	655798	655798
5°	585680	593052	589366
10°	458463	466657	460942
15°	321940	324307	320175
20°	184773	188598	184608
25°	58490	76940	60382
30°	15538	19307	14978
35°	5275	9556	5381
40°	2340	3832	2340
45°	1274	1726	1041
50°	769	889	512
55°	422	422	287
60°	329	329	155
65°	183	183	183
70°	227	227	227
75°	0	299	299
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	536.9	29.7
10°-20°	875.5	48.5
20°-30°	339.1	18.8
30°-40°	41.6	2.3
40°-50°	8.7	0.5
50°-60°	2.3	0.1
60°-70°	0.9	0.0
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°	1751.5	97.0
0°-40°	1793.1	99.3
0°-60°	1804.2	99.9
0°-90°	1805.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1805.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6770	6770	6770	6770	6770	
5°	6023	6110	6098	6062	6061	532
15°	3210	3253	3234	3210	3192	871
25°	547	685	720	707	565	307
35°	45	54	81	53	46	34
45°	9	10	13	9	8	8
55°	2	2	2	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°	6769.5	6769.5	6769.5	6769.5	6769.5
2.5°	6452.9	6543.0	6522.0	6479.9	6490.8
5°	6022.7	6110.3	6098.5	6061.5	6060.6
7.5°	5415.7	5501.6	5491.5	5446.9	5442.7
10°	4660.6	4738.9	4743.9	4679.1	4685.8
12.5°	3923.1	3987.1	3989.6	3945.0	3935.7
15°	3210.0	3253.0	3233.6	3210.0	3192.4
17.5°	2507.1	2516.3	2512.1	2477.6	2465.0
20°	1792.3	1832.7	1829.4	1799.9	1790.7
22.5°	1116.3	1189.6	1223.2	1196.3	1210.6
25°	547.2	685.3	719.8	707.2	564.9
27.5°	222.3	290.4	362.0	286.2	214.7
30°	138.9	151.5	172.6	145.6	133.9
32.5°	73.2	91.8	117.0	89.2	73.2
35°	44.6	53.9	80.8	53.0	45.5
37.5°	28.6	33.7	47.1	33.7	29.5
40°	18.5	21.9	30.3	21.9	18.5
42.5°	12.6	14.3	19.4	14.3	11.8
45°	9.3	10.1	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	2.5	1.7	1.7
57.5°	2.5	1.7	1.7	1.7	1.7
60°	1.7	1.7	1.7	0.8	0.8
62.5°	0.8	0.8	0.8	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	0.0
75°	0.0	0.8	0.8	0.8	0.8
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)