

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: P182565

Luminaire Tested: **LDSQA4A13940D010TE LAR25NF 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182565
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: LDSQA4A13940D010TE 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: 1517.0 lumens
Efficiency: N/A
Efficacy: 68.1 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

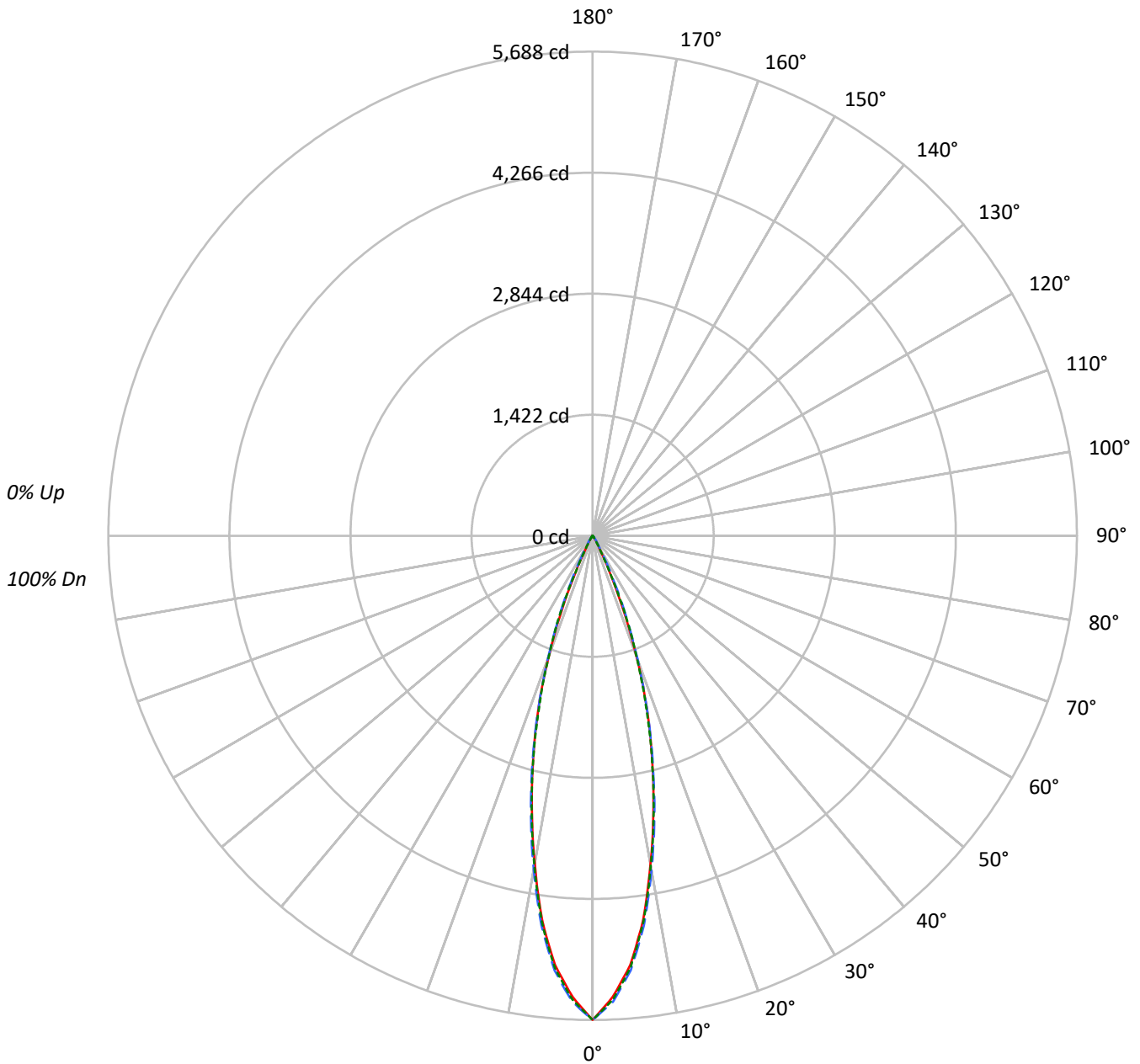
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	96	96	96	96	96		
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	94	93	93	93	93	93	93	93		
3	107	103	99	96	106	101	98	95	99	96	94	97	94	92	95	93	91	90	90	90	90	90	90	90		
4	104	99	95	91	102	97	94	91	95	92	90	94	91	89	92	90	88	87	87	87	87	87	87	87		
5	101	95	91	87	99	94	90	87	92	89	86	91	88	86	89	87	85	84	84	84	84	84	84	84		
6	98	91	87	84	97	91	87	84	89	86	83	88	85	83	87	84	82	81	81	81	81	81	81	81		
7	95	88	84	81	94	88	84	81	87	83	80	85	82	80	85	82	80	79	79	79	79	79	79	79		
8	92	85	81	78	91	85	81	78	84	80	78	83	80	77	82	79	77	76	76	76	76	76	76	76		
9	89	83	78	76	89	82	78	76	81	78	75	81	77	75	80	77	75	74	74	74	74	74	74	74		
10	87	80	76	73	86	80	76	73	79	76	73	78	75	73	78	75	73	72	72	72	72	72	72	72		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	550989	550989	550989
5°	492082	498266	495174
10°	385187	392083	387282
15°	270490	272476	269005
20°	155247	158453	155103
25°	49148	64647	50730
30°	13054	16220	12584
35°	4435	8030	4518
40°	1973	3225	1973
45°	1069	1452	877
50°	633	754	422
55°	355	355	236
60°	271	271	136
65°	160	160	160
70°	198	198	198
75°	0	262	262
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	451.1	29.7
10°-20°	735.6	48.5
20°-30°	284.9	18.8
30°-40°	34.9	2.3
40°-50°	7.3	0.5
50°-60°	2.0	0.1
60°-70°	0.7	0.0
70°-80°	0.4	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°	1471.6	97.0
0°-40°	1506.5	99.3
0°-60°	1515.8	99.9
0°-90°	1517.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1517.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5688	5688	5688	5688	5688	
5°	5060	5134	5124	5093	5092	447
15°	2697	2733	2717	2697	2682	731
25°	460	576	605	594	475	258
35°	38	45	68	45	38	29
45°	8	8	11	8	6	6
55°	2	2	2	1	1	2
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°	5687.6	5687.6	5687.6	5687.6	5687.6
2.5°	5421.6	5497.3	5479.6	5444.3	5453.5
5°	5060.2	5133.7	5123.8	5092.7	5092.0
7.5°	4550.2	4622.3	4613.9	4576.4	4572.8
10°	3915.7	3981.5	3985.8	3931.3	3937.0
12.5°	3296.1	3349.9	3352.0	3314.5	3306.7
15°	2697.0	2733.1	2716.8	2697.0	2682.2
17.5°	2106.4	2114.2	2110.6	2081.6	2071.0
20°	1505.9	1539.8	1537.0	1512.3	1504.5
22.5°	937.9	999.4	1027.7	1005.1	1017.1
25°	459.8	575.8	604.8	594.2	474.6
27.5°	186.7	244.0	304.1	240.5	180.4
30°	116.7	127.3	145.0	122.4	112.5
32.5°	61.5	77.1	98.3	75.0	61.5
35°	37.5	45.3	67.9	44.6	38.2
37.5°	24.0	28.3	39.6	28.3	24.8
40°	15.6	18.4	25.5	18.4	15.6
42.5°	10.6	12.0	16.3	12.0	9.9
45°	7.8	8.5	10.6	7.8	6.4
47.5°	5.7	6.4	7.1	5.0	4.2
50°	4.2	4.2	5.0	3.5	2.8
52.5°	2.8	3.5	3.5	2.1	2.1
55°	2.1	2.1	2.1	1.4	1.4
57.5°	2.1	1.4	1.4	1.4	1.4
60°	1.4	1.4	1.4	0.7	0.7
62.5°	0.7	0.7	0.7	0.7	0.7
65°	0.7	0.7	0.7	0.7	0.7
67.5°	0.7	0.7	0.7	0.7	0.7
70°	0.7	0.7	0.7	0.7	0.7
72.5°	0.7	0.7	0.7	0.7	0.0
75°	0.0	0.7	0.7	0.7	0.7
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)