

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: P182437

Luminaire Tested: **LDSQA4A13940D010TE LAR15SP 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182437
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26794)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A13940D010TE LAR15SP 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1479.5 lumens
Efficiency: N/A
Efficacy: 66.4 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

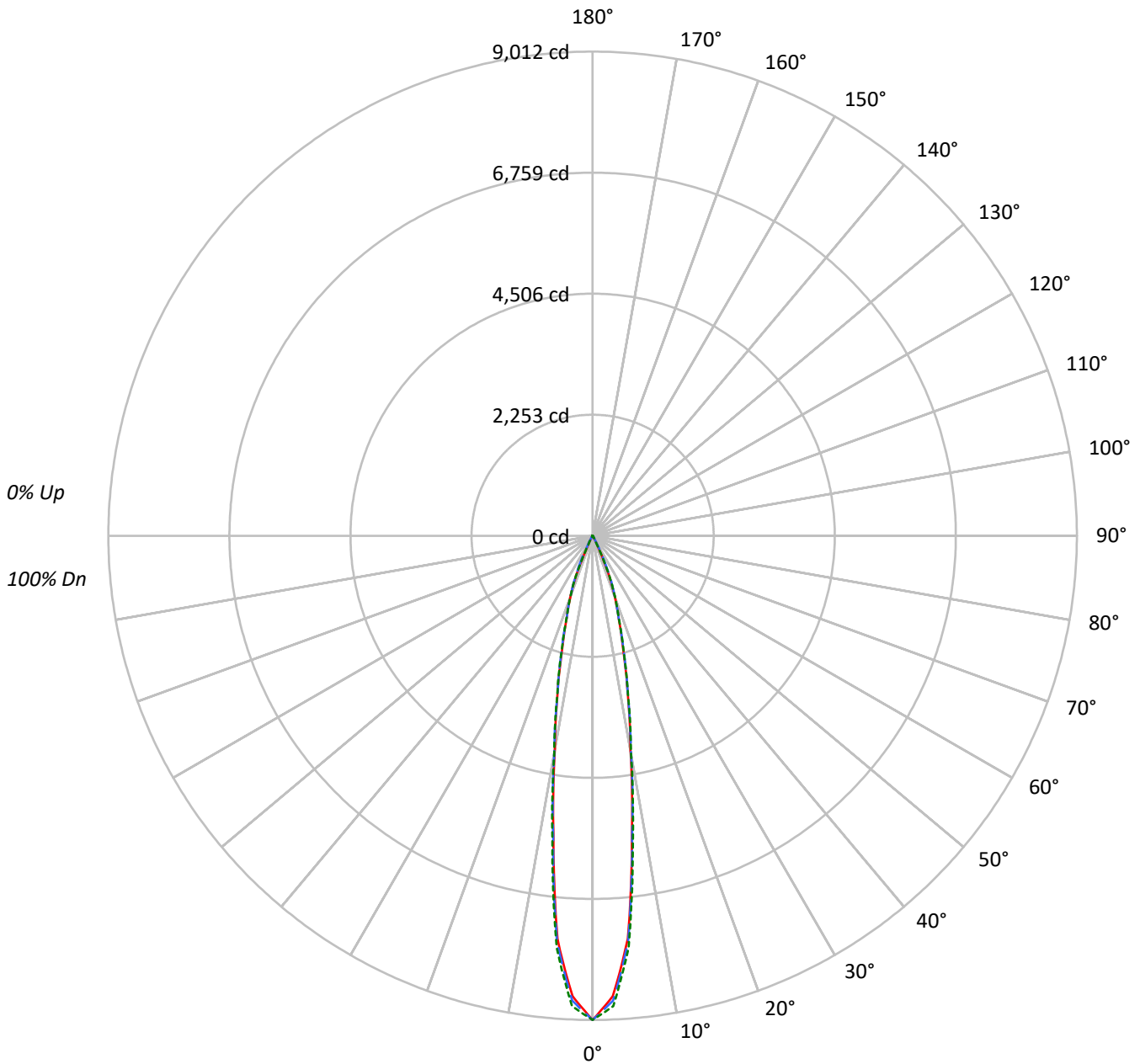
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97				97															
2	112	108	105	103	110	107	104	102	104	102	100	101	99	98	98	97	96	94				94															
3	108	104	101	98	107	103	100	97	100	98	96	98	96	94	96	94	93	92				92															
4	105	100	97	94	104	99	96	93	97	95	92	96	93	91	94	92	90	89				89															
5	103	97	93	90	101	96	93	90	95	92	89	93	91	89	92	90	88	87				87															
6	100	94	90	87	99	93	90	87	92	89	87	91	88	86	90	87	86	85				85															
7	97	91	88	85	96	91	87	85	90	87	84	89	86	84	88	85	83	82				82															
8	95	89	85	82	94	88	85	82	88	84	82	87	84	82	86	83	81	80				80															
9	93	87	83	80	92	86	83	80	85	82	80	85	82	80	84	81	79	79				79															
10	91	84	81	78	90	84	81	78	83	80	78	83	80	78	82	80	78	77				77															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	873012	873012	873012
5°	731733	737918	748654
10°	398093	404005	405540
15°	220133	223683	224536
20°	124660	125020	125752
25°	34012	53285	33414
30°	5459	8300	5302
35°	1845	3098	1750
40°	809	1252	809
45°	480	575	384
50°	316	316	211
55°	236	236	118
60°	136	136	136
65°	160	160	160
70°	198	198	198
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	600.7	40.6
10°-20°	635.2	42.9
20°-30°	223.5	15.1
30°-40°	15.0	1.0
40°-50°	3.1	0.2
50°-60°	1.0	0.1
60°-70°	0.7	0.0
70°-80°	0.3	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°	1459.4	98.6
0°-40°	1474.4	99.7
0°-60°	1478.5	99.9
0°-90°	1479.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1479.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9012	9012	9012	9012	9012	
5°	7525	7638	7588	7602	7699	594
15°	2195	2232	2230	2225	2239	629
25°	318	483	498	475	313	197
35°	16	19	26	19	15	12
45°	4	4	4	4	3	3
55°	1	1	1	1	1	1
65°	1	1	1	1	1	1
75°	0	1	0	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°	9011.7	9011.7	9011.7	9011.7	9011.7
2.5°	8578.9	8691.4	8663.1	8644.7	8762.8
5°	7524.6	7637.7	7588.2	7602.4	7698.6
7.5°	5594.1	5689.6	5638.7	5659.9	5733.4
10°	4046.9	4141.7	4107.0	4118.3	4122.6
12.5°	3017.3	3059.1	3031.5	3039.3	3053.4
15°	2194.9	2231.7	2230.3	2225.3	2238.8
17.5°	1610.8	1628.5	1610.8	1610.1	1619.3
20°	1209.2	1233.9	1212.7	1215.6	1219.8
22.5°	812.5	862.0	853.5	842.9	831.6
25°	318.2	483.0	498.5	475.2	312.6
27.5°	91.2	150.6	214.3	147.8	88.4
30°	48.8	58.0	74.2	56.6	47.4
32.5°	26.2	33.2	42.4	32.5	25.5
35°	15.6	19.1	26.2	19.1	14.8
37.5°	9.9	12.0	16.3	12.0	9.9
40°	6.4	7.8	9.9	7.8	6.4
42.5°	4.9	5.7	6.4	4.9	4.2
45°	3.5	3.5	4.2	3.5	2.8
47.5°	2.8	2.8	2.8	2.1	2.1
50°	2.1	2.1	2.1	1.4	1.4
52.5°	1.4	1.4	1.4	1.4	1.4
55°	1.4	1.4	1.4	0.7	0.7
57.5°	1.4	0.7	0.7	0.7	0.7
60°	0.7	0.7	0.7	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	0.0
70°	0.7	0.7	0.7	0.7	0.7
72.5°	0.7	0.7	0.7	0.0	0.0
75°	0.0	0.7	0.0	0.0	0.0
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)