

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: P182510

Luminaire Tested: **LDSQA4A18827D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182510
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26796)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A18827D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1870.2 lumens
Efficiency: N/A
Efficacy: 64.2 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

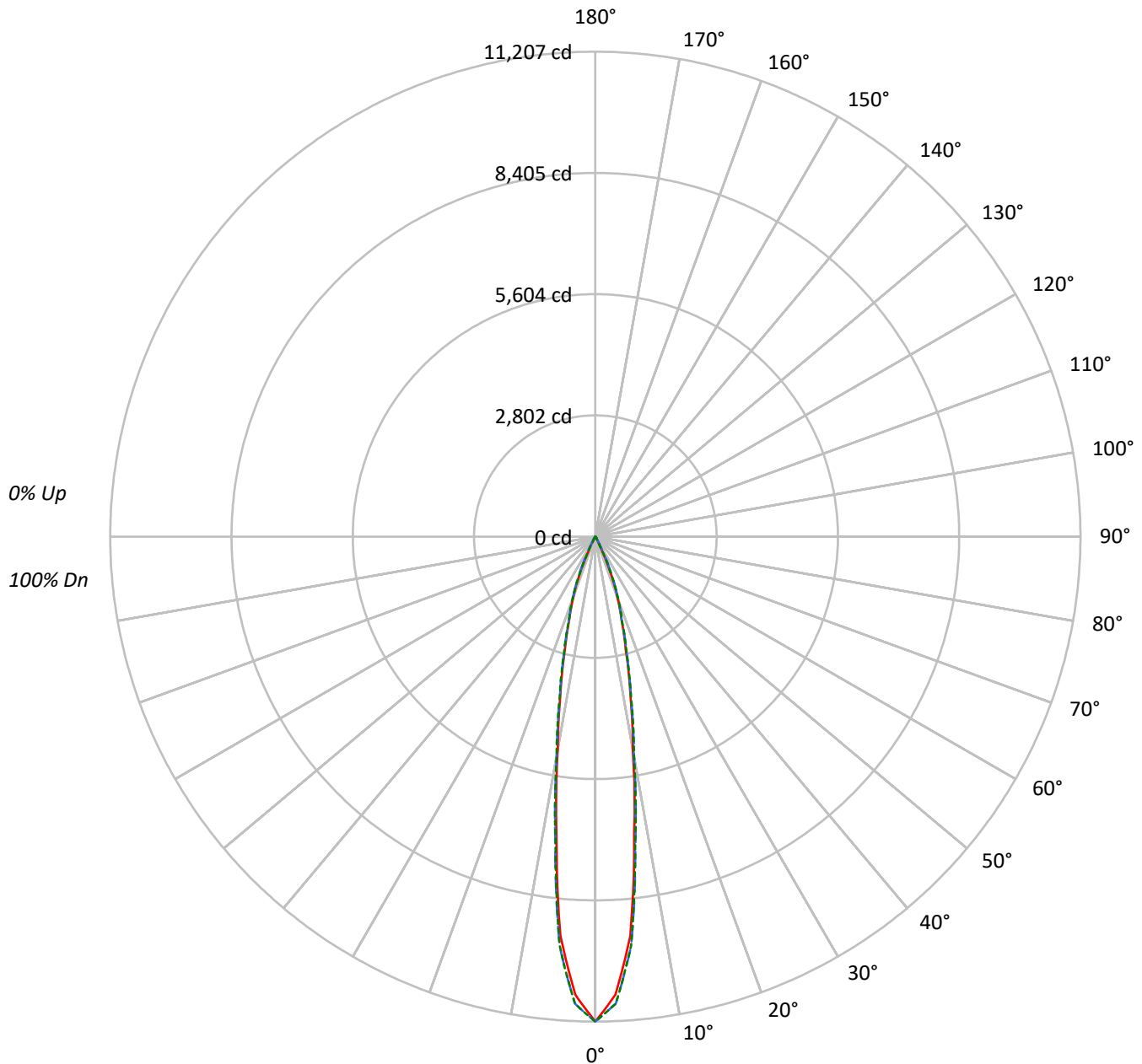
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97	97	97
2	112	108	105	103	110	107	104	102	103	101	100	101	99	98	98	97	96	94	94	94
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91	91	91
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89
5	102	97	93	90	101	96	92	90	94	91	89	93	90	88	92	89	87	86	86	86
6	100	94	90	87	98	93	89	87	92	89	86	91	88	86	89	87	85	84	84	84
7	97	91	87	84	96	90	87	84	89	86	84	88	85	83	87	85	83	82	82	82
8	95	88	85	82	94	88	84	82	87	84	81	86	83	81	85	83	81	80	80	80
9	92	86	82	80	92	86	82	80	85	82	79	84	81	79	84	81	79	78	78	78
10	90	84	80	78	89	84	80	78	83	80	77	82	79	77	82	79	77	76	76	76

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1085654	1085654	1085654
5°	900522	923832	922519
10°	490689	505179	507736
15°	272827	280649	282094
20°	153814	158185	160165
25°	46305	68217	46091
30°	8725	12495	8725
35°	3761	5807	3867
40°	1821	3048	1821
45°	1192	1589	918
50°	723	874	437
55°	490	490	321
60°	368	194	194
65°	229	229	229
70°	0	283	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	746.1	39.9
10°-20°	795.3	42.5
20°-30°	290.1	15.5
30°-40°	27.7	1.5
40°-50°	7.6	0.4
50°-60°	2.3	0.1
60°-70°	1.0	0.1
70°-80°	0.2	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°	1831.5	97.9
0°-40°	1859.1	99.4
0°-60°	1869.1	99.9
0°-90°	1870.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1870.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11207	11207	11207	11207	11207	
5°	9260	9494	9500	9401	9486	732
15°	2720	2785	2798	2792	2813	778
25°	433	627	638	632	431	250
35°	32	38	49	38	33	23
45°	9	9	12	9	7	7
55°	3	3	3	2	2	2
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°	11206.7	11206.7	11206.7	11206.7	11206.7
2.5°	10595.4	10818.7	10802.4	10752.3	10802.4
5°	9260.3	9494.2	9500.0	9400.8	9486.5
7.5°	6883.6	7064.6	7096.3	6999.1	7063.6
10°	4988.2	5150.0	5135.5	5116.3	5161.5
12.5°	3726.3	3808.1	3799.4	3820.6	3823.5
15°	2720.3	2784.8	2798.3	2792.5	2812.7
17.5°	2003.2	2037.8	2031.1	2041.7	2049.4
20°	1492.0	1546.9	1534.4	1544.0	1553.6
22.5°	989.6	1090.6	1078.1	1093.5	1084.9
25°	433.2	626.7	638.2	632.4	431.2
27.5°	132.8	224.3	287.8	219.5	132.8
30°	78.0	93.4	111.7	91.4	78.0
32.5°	49.1	58.7	70.3	57.8	48.1
35°	31.8	38.5	49.1	38.5	32.7
37.5°	21.2	26.0	34.7	26.0	22.1
40°	14.4	17.3	24.1	18.3	14.4
42.5°	10.6	12.5	16.4	12.5	9.6
45°	8.7	8.7	11.6	8.7	6.7
47.5°	6.7	6.7	7.7	5.8	4.8
50°	4.8	4.8	5.8	3.9	2.9
52.5°	2.9	3.9	3.9	2.9	1.9
55°	2.9	2.9	2.9	1.9	1.9
57.5°	1.9	1.9	1.9	1.0	1.0
60°	1.9	1.9	1.0	1.0	1.0
62.5°	1.0	1.0	1.0	1.0	1.0
65°	1.0	1.0	1.0	1.0	1.0
67.5°	1.0	1.0	1.0	1.0	1.0
70°	0.0	1.0	1.0	0.0	0.0
72.5°	0.0	1.0	0.0	0.0	0.0
75°	0.0	1.0	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)