

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: P182512

Luminaire Tested: **LDSQA4A18835D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182512
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: LDSQA4A18835D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1943.0 lumens
Efficiency: N/A
Efficacy: 66.7 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

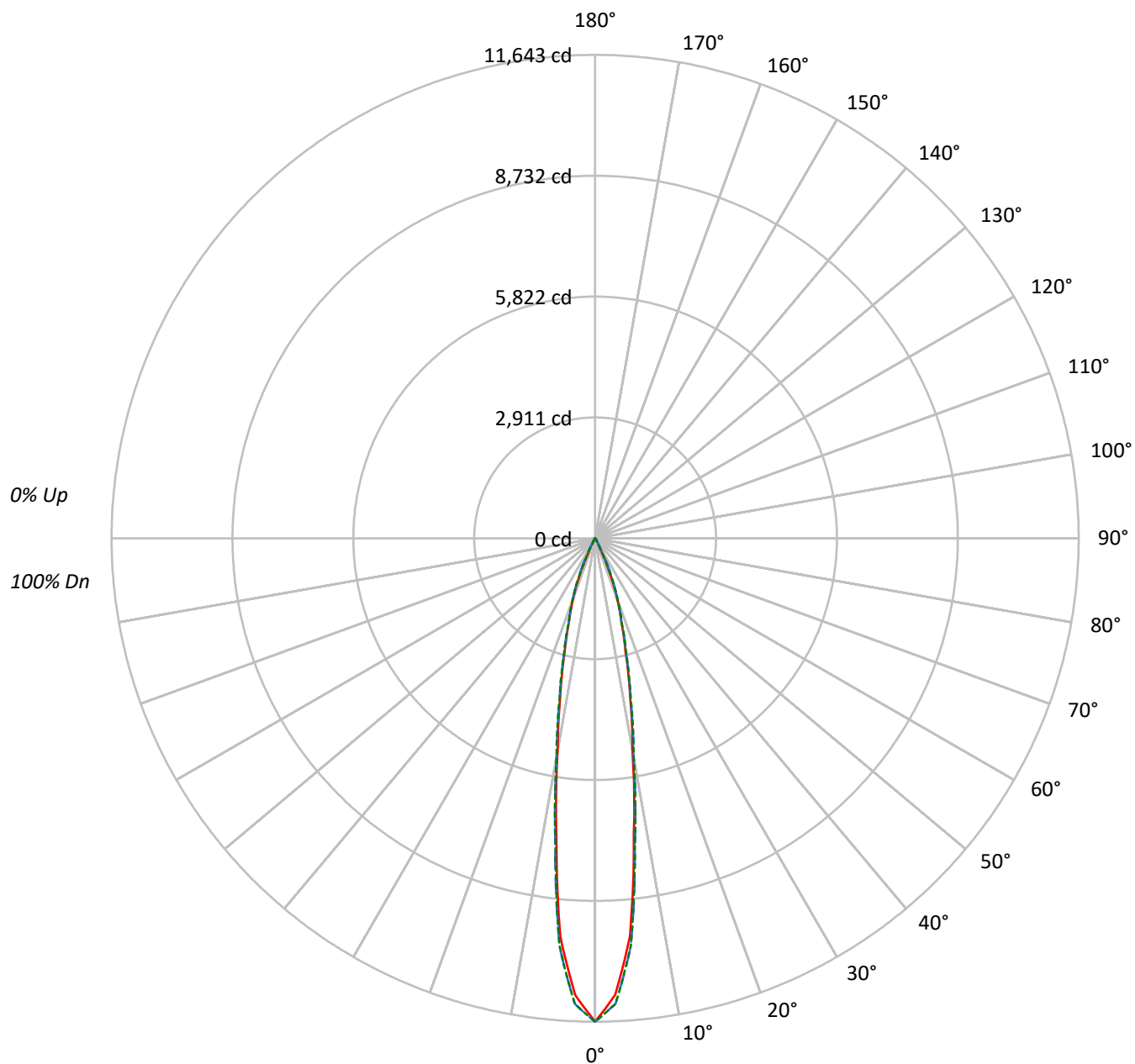
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1127930	1127930	1127930
5°	935589	959803	958442
10°	509802	524853	527509
15°	283458	291581	293086
20°	159804	164350	166412
25°	48101	70879	47887
30°	9061	12976	9061
35°	3903	6031	4021
40°	1897	3162	1897
45°	1233	1644	959
50°	754	904	452
55°	507	507	338
60°	388	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°	775.2	39.9
10°-20°	826.3	42.5
20°-30°	301.4	15.5
30°-40°	28.7	1.5
40°-50°	7.9	0.4
50°-60°	2.4	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°	1902.8	97.9
0°-40°	1931.6	99.4
0°-60°	1941.8	99.9
0°-90°	1943.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1943.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	11643	11643	11643	11643	11643	
5°	9621	9864	9870	9767	9856	760
15°	2826	2893	2907	2901	2922	809
25°	450	651	663	657	448	260
35°	33	40	51	40	34	23
45°	9	9	12	9	7	7
55°	3	3	3	2	2	3
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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	11643.1	11643.1	11643.1	11643.1	11643.1
2.5°	11008.0	11240.1	11223.1	11171.1	11223.1
5°	9620.9	9863.9	9869.9	9766.9	9855.9
7.5°	7151.7	7339.7	7372.7	7271.7	7338.7
10°	5182.5	5350.5	5335.5	5315.5	5362.5
12.5°	3871.4	3956.4	3947.4	3969.4	3972.4
15°	2826.3	2893.3	2907.3	2901.3	2922.3
17.5°	2081.2	2117.2	2110.2	2121.2	2129.2
20°	1550.1	1607.2	1594.2	1604.2	1614.2
22.5°	1028.1	1133.1	1120.1	1136.1	1127.1
25°	450.0	651.1	663.1	657.1	448.0
27.5°	138.0	233.0	299.0	228.0	138.0
30°	81.0	97.0	116.0	95.0	81.0
32.5°	51.0	61.0	73.0	60.0	50.0
35°	33.0	40.0	51.0	40.0	34.0
37.5°	22.0	27.0	36.0	27.0	23.0
40°	15.0	18.0	25.0	19.0	15.0
42.5°	11.0	13.0	17.0	13.0	10.0
45°	9.0	9.0	12.0	9.0	7.0
47.5°	7.0	7.0	8.0	6.0	5.0
50°	5.0	5.0	6.0	4.0	3.0
52.5°	3.0	4.0	4.0	3.0	2.0
55°	3.0	3.0	3.0	2.0	2.0
57.5°	2.0	2.0	2.0	1.0	1.0
60°	2.0	2.0	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)