

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: P182516

Luminaire Tested: **LDSQA4A18935D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182516
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: LDSQA4A18935D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1585.5 lumens
Efficiency: N/A
Efficacy: 54.4 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

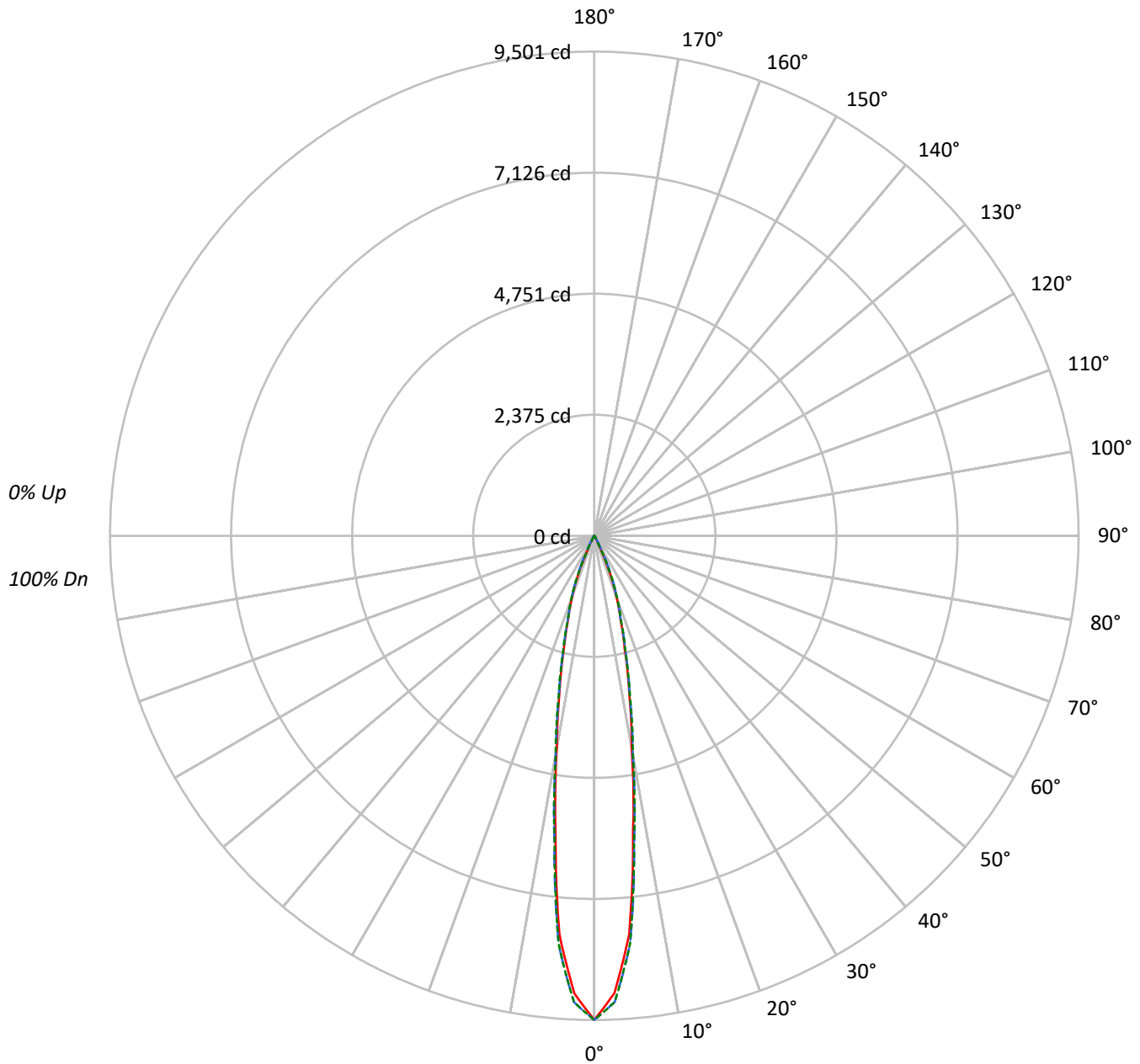
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					10
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°	920423	920423	920423
5°	763465	783225	782116
10°	416016	428293	430467
15°	231305	237935	239168
20°	130412	134113	135794
25°	39250	57838	39079
30°	7394	10593	7394
35°	3181	4920	3276
40°	1543	2580	1543
45°	1000	1343	781
50°	618	738	362
55°	405	405	270
60°	310	155	155
65°	183	183	183
70°	0	227	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	632.6	39.9
10°-20°	674.3	42.5
20°-30°	245.9	15.5
30°-40°	23.4	1.5
40°-50°	6.5	0.4
50°-60°	1.9	0.1
60°-70°	0.8	0.0
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°	1552.8	97.9
0°-40°	1576.2	99.4
0°-60°	1584.6	99.9
0°-90°	1585.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1585.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9501	9501	9501	9501	9501	
5°	7851	8049	8054	7970	8043	620
15°	2306	2361	2372	2368	2385	660
25°	367	531	541	536	366	212
35°	27	33	42	33	28	19
45°	7	7	10	7	6	6
55°	2	2	2	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°	9501.1	9501.1	9501.1	9501.1	9501.1
2.5°	8982.9	9172.2	9158.3	9115.9	9158.3
5°	7850.9	8049.2	8054.1	7970.1	8042.7
7.5°	5836.0	5989.4	6016.3	5933.9	5988.6
10°	4229.1	4366.2	4353.9	4337.6	4376.0
12.5°	3159.1	3228.5	3221.2	3239.1	3241.6
15°	2306.3	2361.0	2372.4	2367.5	2384.7
17.5°	1698.3	1727.7	1722.0	1731.0	1737.5
20°	1265.0	1311.5	1300.9	1309.0	1317.2
22.5°	839.0	924.6	914.0	927.1	919.8
25°	367.2	531.3	541.1	536.2	365.6
27.5°	112.6	190.2	244.0	186.1	112.6
30°	66.1	79.2	94.7	77.5	66.1
32.5°	41.6	49.8	59.6	49.0	40.8
35°	26.9	32.6	41.6	32.6	27.7
37.5°	18.0	22.0	29.4	22.0	18.8
40°	12.2	14.7	20.4	15.5	12.2
42.5°	9.0	10.6	13.9	10.6	8.2
45°	7.3	7.3	9.8	7.3	5.7
47.5°	5.7	5.7	6.5	4.9	4.1
50°	4.1	4.1	4.9	3.3	2.4
52.5°	2.4	3.3	3.3	2.4	1.6
55°	2.4	2.4	2.4	1.6	1.6
57.5°	1.6	1.6	1.6	0.8	0.8
60°	1.6	1.6	0.8	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°	0.0	0.8	0.8	0.0	0.0
72.5°	0.0	0.8	0.0	0.0	0.0
75°	0.0	0.8	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)