

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: P182536

Luminaire Tested: **LDSQA4A28835D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182536
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: LDSQA4A28835D010TE 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: 2661.3 lumens
Efficiency: N/A
Efficacy: 59.8 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

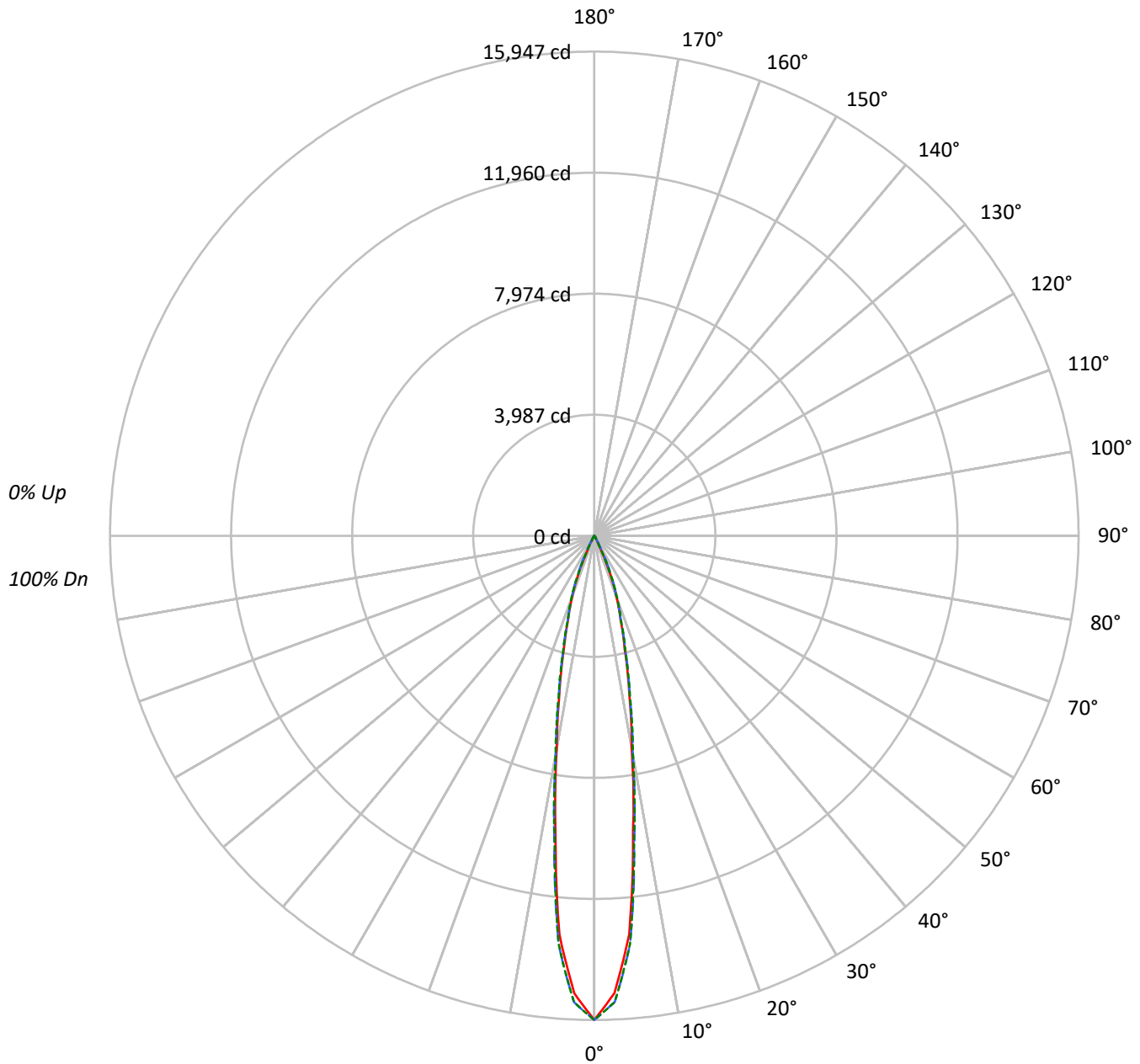
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1544892	1544892	1544892
5°	1281452	1314613	1312756
10°	698259	718877	722517
15°	388244	399366	401432
20°	218886	225103	227928
25°	65887	97078	65599
30°	12417	17775	12417
35°	5345	8267	5511
40°	2592	4325	2592
45°	1685	2247	1315
50°	1025	1236	618
55°	692	692	456
60°	523	271	271
65°	321	321	321
70°	0	397	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1061.7	39.9
10°-20°	1131.7	42.5
20°-30°	412.8	15.5
30°-40°	39.4	1.5
40°-50°	10.8	0.4
50°-60°	3.2	0.1
60°-70°	1.4	0.1
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°	2606.2	97.9
0°-40°	2645.6	99.4
0°-60°	2659.7	99.9
0°-90°	2661.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2661.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	15947	15947	15947	15947	15947	
5°	13178	13510	13518	13378	13499	1041
15°	3871	3963	3982	3974	4003	1107
25°	616	892	908	900	614	356
35°	45	55	70	55	47	32
45°	12	12	16	12	10	10
55°	4	4	4	3	3	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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	15947.2	15947.2	15947.2	15947.2	15947.2
2.5°	15077.4	15395.2	15371.9	15300.6	15371.9
5°	13177.5	13510.3	13518.5	13377.5	13499.4
7.5°	9795.4	10053.0	10098.2	9959.8	10051.6
10°	7098.3	7328.4	7307.9	7280.5	7344.9
12.5°	5302.5	5418.9	5406.6	5436.7	5440.8
15°	3871.1	3962.8	3982.0	3973.8	4002.6
17.5°	2850.6	2899.9	2890.3	2905.3	2916.3
20°	2123.2	2201.3	2183.5	2197.2	2210.9
22.5°	1408.2	1552.0	1534.2	1556.1	1543.8
25°	616.4	891.7	908.2	900.0	613.7
27.5°	189.0	319.2	409.6	312.3	189.0
30°	111.0	132.9	158.9	130.1	111.0
32.5°	69.9	83.6	100.0	82.2	68.5
35°	45.2	54.8	69.9	54.8	46.6
37.5°	30.1	37.0	49.3	37.0	31.5
40°	20.5	24.7	34.2	26.0	20.5
42.5°	15.1	17.8	23.3	17.8	13.7
45°	12.3	12.3	16.4	12.3	9.6
47.5°	9.6	9.6	11.0	8.2	6.8
50°	6.8	6.8	8.2	5.5	4.1
52.5°	4.1	5.5	5.5	4.1	2.7
55°	4.1	4.1	4.1	2.7	2.7
57.5°	2.7	2.7	2.7	1.4	1.4
60°	2.7	2.7	1.4	1.4	1.4
62.5°	1.4	1.4	1.4	1.4	1.4
65°	1.4	1.4	1.4	1.4	1.4
67.5°	1.4	1.4	1.4	1.4	1.4
70°	0.0	1.4	1.4	0.0	0.0
72.5°	0.0	1.4	0.0	0.0	0.0
75°	0.0	1.4	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)