

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: P182528

Luminaire Tested: **LDSQA4A13835D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182528
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: LDSQA4A13835D010TE 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: 1559.6 lumens
Efficiency: N/A
Efficacy: 70.0 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

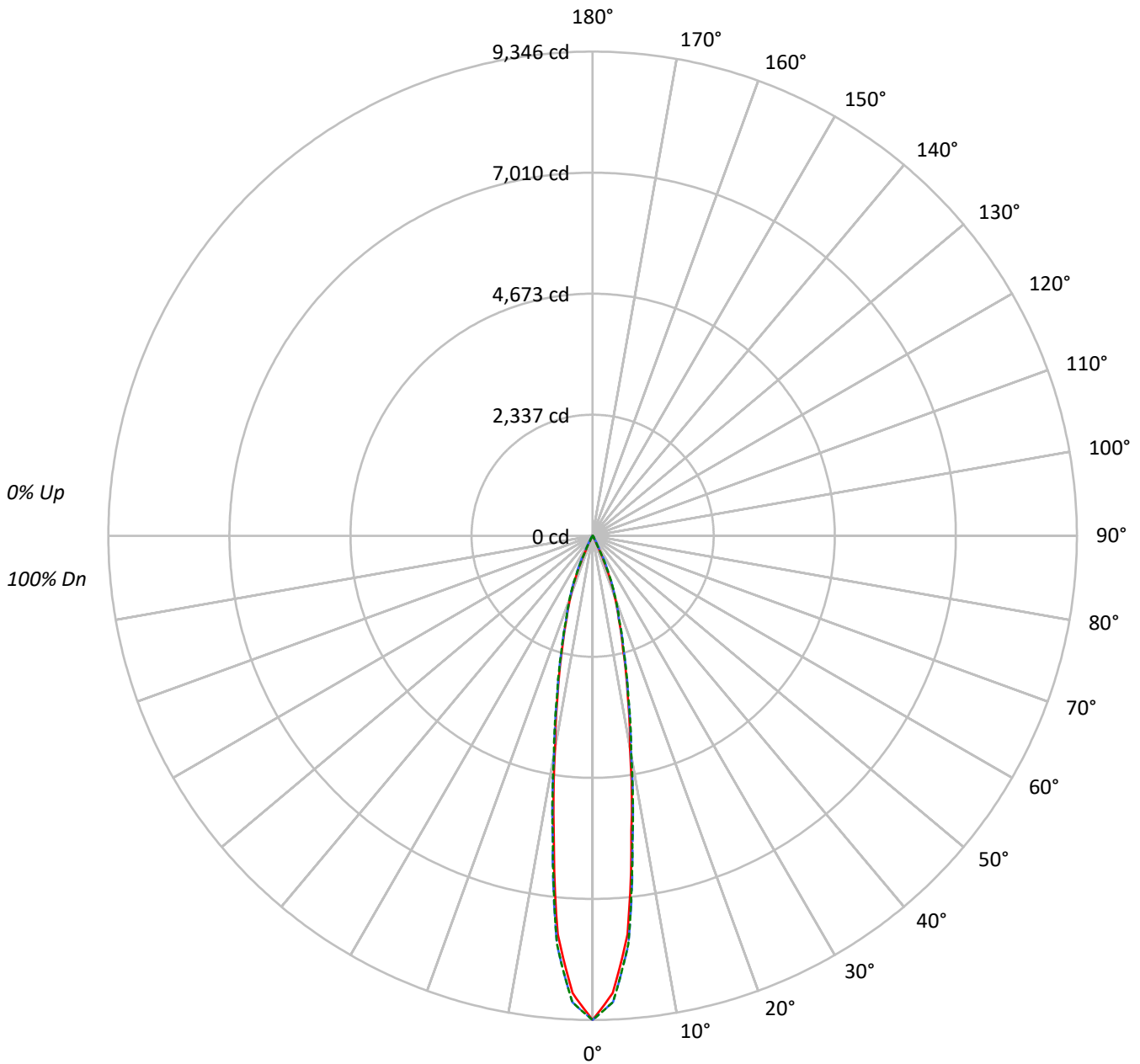
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	905359	905359	905359
5°	750968	770408	769319
10°	409199	421289	423414
15°	227524	234043	235247
20°	128278	131917	133567
25°	38609	56887	38438
30°	7271	10414	7271
35°	3134	4837	3229
40°	1518	2542	1518
45°	986	1315	767
50°	603	723	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°	622.2	39.9
10°-20°	663.2	42.5
20°-30°	241.9	15.5
30°-40°	23.1	1.5
40°-50°	6.3	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°	1527.3	97.9
0°-40°	1550.4	99.4
0°-60°	1558.6	99.9
0°-90°	1559.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1559.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9346	9346	9346	9346	9346	
5°	7722	7918	7922	7840	7911	610
15°	2269	2322	2334	2329	2346	649
25°	361	523	532	527	360	209
35°	26	32	41	32	27	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°	9345.6	9345.6	9345.6	9345.6	9345.6
2.5°	8835.8	9022.1	9008.4	8966.7	9008.4
5°	7722.4	7917.5	7922.3	7839.6	7911.1
7.5°	5740.4	5891.4	5917.9	5836.8	5890.6
10°	4159.8	4294.7	4282.7	4266.6	4304.3
12.5°	3107.4	3175.7	3168.4	3186.1	3188.5
15°	2268.6	2322.3	2333.6	2328.8	2345.6
17.5°	1670.5	1699.4	1693.8	1702.6	1709.0
20°	1244.3	1290.0	1279.6	1287.6	1295.6
22.5°	825.2	909.5	899.1	911.9	904.7
25°	361.2	522.6	532.2	527.4	359.6
27.5°	110.8	187.0	240.0	183.0	110.8
30°	65.0	77.9	93.1	76.3	65.0
32.5°	40.9	49.0	58.6	48.2	40.1
35°	26.5	32.1	40.9	32.1	27.3
37.5°	17.7	21.7	28.9	21.7	18.5
40°	12.0	14.4	20.1	15.3	12.0
42.5°	8.8	10.4	13.6	10.4	8.0
45°	7.2	7.2	9.6	7.2	5.6
47.5°	5.6	5.6	6.4	4.8	4.0
50°	4.0	4.0	4.8	3.2	2.4
52.5°	2.4	3.2	3.2	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)