

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: P182616

Luminaire Tested: **LDSQA4A09835D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182616
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26829)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A09835D010TE LAR15SP 4LSQA1H-LSF-20
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT WITH SOLITE LENS
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1067.2 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 0.35 / 0.35 / 0.39
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

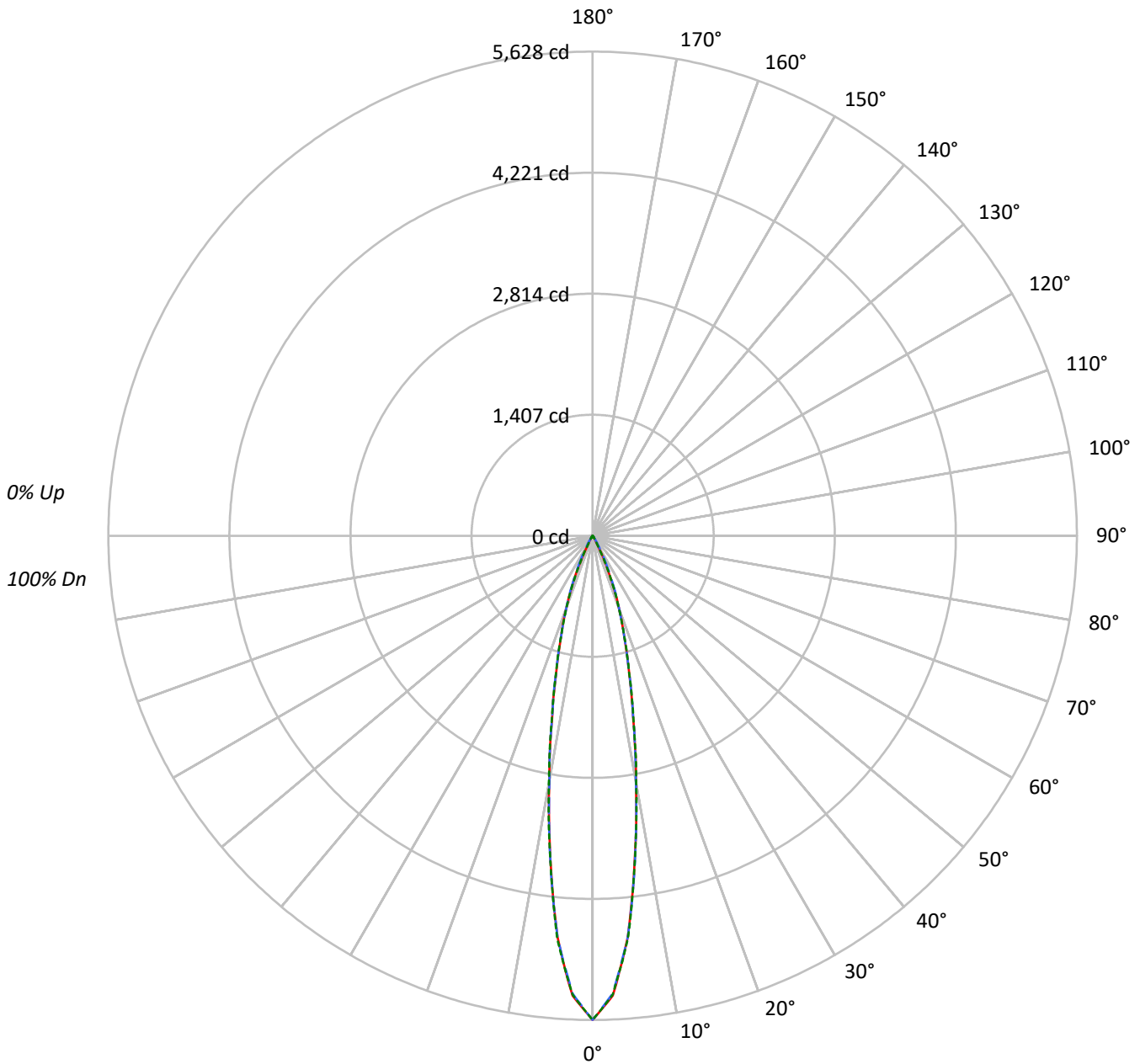
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100															
1	115	113	111	109	113	111	109	108	107	106	104	103	102	101	100	99	98	97	97	97	97																
2	111	108	105	102	109	106	104	101	103	101	99	100	99	97	98	96	95	94	94	94	94																
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	93	92	91	91	91	91																
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88	88	88	88																
5	102	96	92	89	100	95	91	89	93	90	88	92	89	87	91	88	86	85	85	85	85																
6	99	93	89	86	98	92	88	85	91	87	85	89	87	84	88	86	84	83	83	83	83																
7	96	90	86	83	95	89	85	83	88	85	82	87	84	82	86	83	81	80	80	80	80																
8	94	87	83	80	93	87	83	80	86	82	80	85	82	80	84	81	79	78	78	78	78																
9	91	85	81	78	90	84	80	78	83	80	78	83	80	77	82	79	77	76	76	76	76																
10	89	82	78	76	88	82	78	76	81	78	76	81	78	75	80	77	75	74	74	74	74																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	545166	545166	545166
5°	455187	455187	457345
10°	285164	284525	287397
15°	162735	163658	163929
20°	92134	91856	91464
25°	34579	44723	35338
30°	7092	14978	7148
35°	2815	4872	2756
40°	1442	2125	1366
45°	959	1110	822
50°	573	573	407
55°	270	372	186
60°	213	213	97
65°	115	115	115
70°	142	142	142
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	388.9	36.4
10°-20°	462.5	43.3
20°-30°	184.4	17.3
30°-40°	23.3	2.2
40°-50°	5.7	0.5
50°-60°	1.7	0.2
60°-70°	0.5	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°	1035.7	97.1
0°-40°	1059.0	99.2
0°-60°	1066.4	99.9
0°-90°	1067.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1067.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5628	5628	5628	5628	5628	
5°	4681	4724	4681	4685	4703	388
15°	1623	1632	1632	1632	1634	461
25°	324	397	418	381	331	166
35°	24	29	41	28	23	17
45°	7	7	8	6	6	5
55°	2	2	2	2	1	2
65°	0	0	0	0	0	1
75°	0	0	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°	5627.5	5627.5	5627.5	5627.5	5627.5
2.5°	5351.2	5379.9	5324.6	5330.0	5337.1
5°	4680.8	4723.6	4680.8	4685.1	4703.0
7.5°	3766.5	3803.9	3779.5	3790.4	3770.8
10°	2898.9	2912.4	2892.4	2902.1	2921.6
12.5°	2179.7	2194.9	2180.2	2180.8	2189.5
15°	1622.6	1632.3	1631.8	1631.8	1634.5
17.5°	1211.8	1224.8	1210.7	1211.8	1215.0
20°	893.7	902.3	891.0	889.3	887.2
22.5°	609.7	628.1	635.2	625.9	596.7
25°	323.5	397.2	418.4	381.0	330.6
27.5°	130.1	197.8	244.4	193.5	141.4
30°	63.4	86.2	133.9	88.3	63.9
32.5°	37.4	46.6	73.2	46.1	36.9
35°	23.8	28.7	41.2	27.6	23.3
37.5°	15.7	19.0	25.5	18.4	15.2
40°	11.4	13.0	16.8	12.5	10.8
42.5°	8.7	9.2	11.4	9.2	8.1
45°	7.0	7.0	8.1	6.5	6.0
47.5°	5.4	5.4	5.4	4.9	3.8
50°	3.8	3.8	3.8	3.3	2.7
52.5°	2.7	2.7	2.7	2.2	1.6
55°	1.6	1.6	2.2	1.6	1.1
57.5°	1.6	1.1	1.6	1.1	1.1
60°	1.1	1.1	1.1	0.5	0.5
62.5°	0.5	0.5	0.5	0.5	0.5
65°	0.5	0.5	0.5	0.5	0.5
67.5°	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.0
75°	0.0	0.5	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)