

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: P182441

Luminaire Tested: **LDSQA4A28840D010TE LAR15SP 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182441
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26794)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A28840D010TE LAR15SP 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3004.8 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 0.32 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

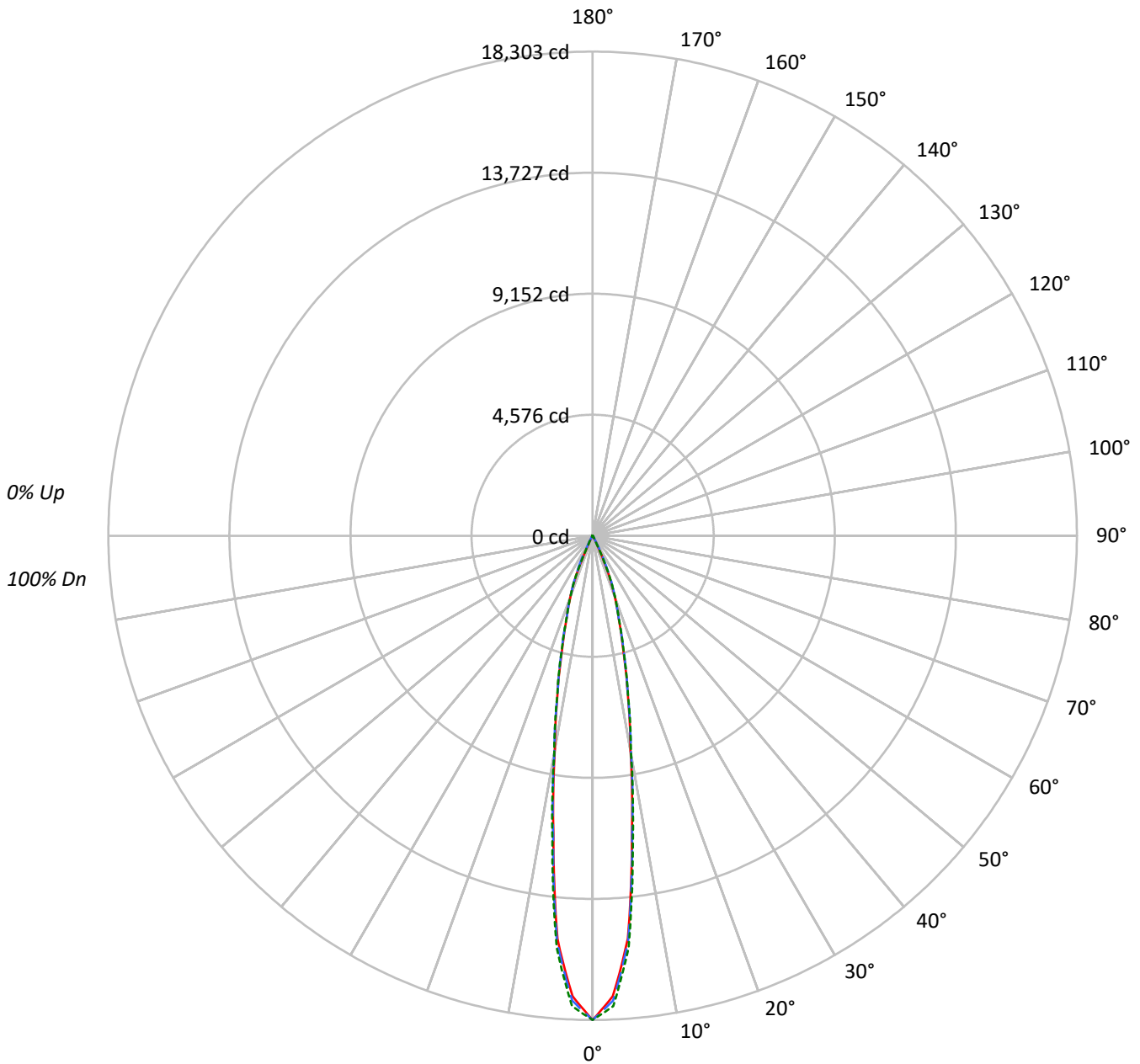
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1773072	1773072	1773072
5°	1486135	1498708	1520491
10°	808522	820533	823641
15°	447095	454296	456021
20°	253185	253917	255402
25°	69083	108226	67854
30°	11086	16869	10761
35°	3737	6280	3572
40°	1631	2542	1631
45°	986	1178	781
50°	648	648	437
55°	490	490	236
60°	271	271	271
65°	321	321	321
70°	397	397	397
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1220.0	40.6
10°-20°	1290.1	42.9
20°-30°	453.9	15.1
30°-40°	30.6	1.0
40°-50°	6.4	0.2
50°-60°	2.1	0.1
60°-70°	1.3	0.0
70°-80°	0.5	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°	2964.0	98.6
0°-40°	2994.5	99.7
0°-60°	3003.0	99.9
0°-90°	3004.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3004.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	18303	18303	18303	18303	18303	
5°	15282	15512	15412	15440	15636	1206
15°	4458	4533	4530	4520	4547	1277
25°	646	981	1012	965	635	400
35°	32	39	53	39	30	24
45°	7	7	9	7	6	6
55°	3	3	3	1	1	3
65°	1	1	1	1	1	1
75°	0	1	0	0	0	1
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°	18302.6	18302.6	18302.6	18302.6	18302.6
2.5°	17423.6	17652.0	17594.5	17557.2	17797.0
5°	15282.3	15512.1	15411.6	15440.3	15635.6
7.5°	11361.6	11555.4	11452.0	11495.1	11644.5
10°	8219.2	8411.7	8341.3	8364.3	8372.9
12.5°	6128.1	6212.9	6156.9	6172.7	6201.4
15°	4457.9	4532.6	4529.7	4519.6	4546.9
17.5°	3271.6	3307.5	3271.6	3270.2	3288.8
20°	2455.9	2506.1	2463.0	2468.8	2477.4
22.5°	1650.2	1750.7	1733.5	1711.9	1688.9
25°	646.3	980.9	1012.5	965.1	634.8
27.5°	185.3	305.9	435.2	300.2	179.5
30°	99.1	117.8	150.8	114.9	96.2
32.5°	53.1	67.5	86.2	66.1	51.7
35°	31.6	38.8	53.1	38.8	30.2
37.5°	20.1	24.4	33.0	24.4	20.1
40°	12.9	15.8	20.1	15.8	12.9
42.5°	10.1	11.5	12.9	10.1	8.6
45°	7.2	7.2	8.6	7.2	5.7
47.5°	5.7	5.7	5.7	4.3	4.3
50°	4.3	4.3	4.3	2.9	2.9
52.5°	2.9	2.9	2.9	2.9	2.9
55°	2.9	2.9	2.9	1.4	1.4
57.5°	2.9	1.4	1.4	1.4	1.4
60°	1.4	1.4	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	0.0
70°	1.4	1.4	1.4	1.4	1.4
72.5°	1.4	1.4	1.4	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)