

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: P182415

Luminaire Tested: **LDSQA4A18830D010TE LAR15SP 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182415
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: LDSQA4A18830D010TE LAR15SP 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2055.1 lumens
Efficiency: N/A
Efficacy: 70.6 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

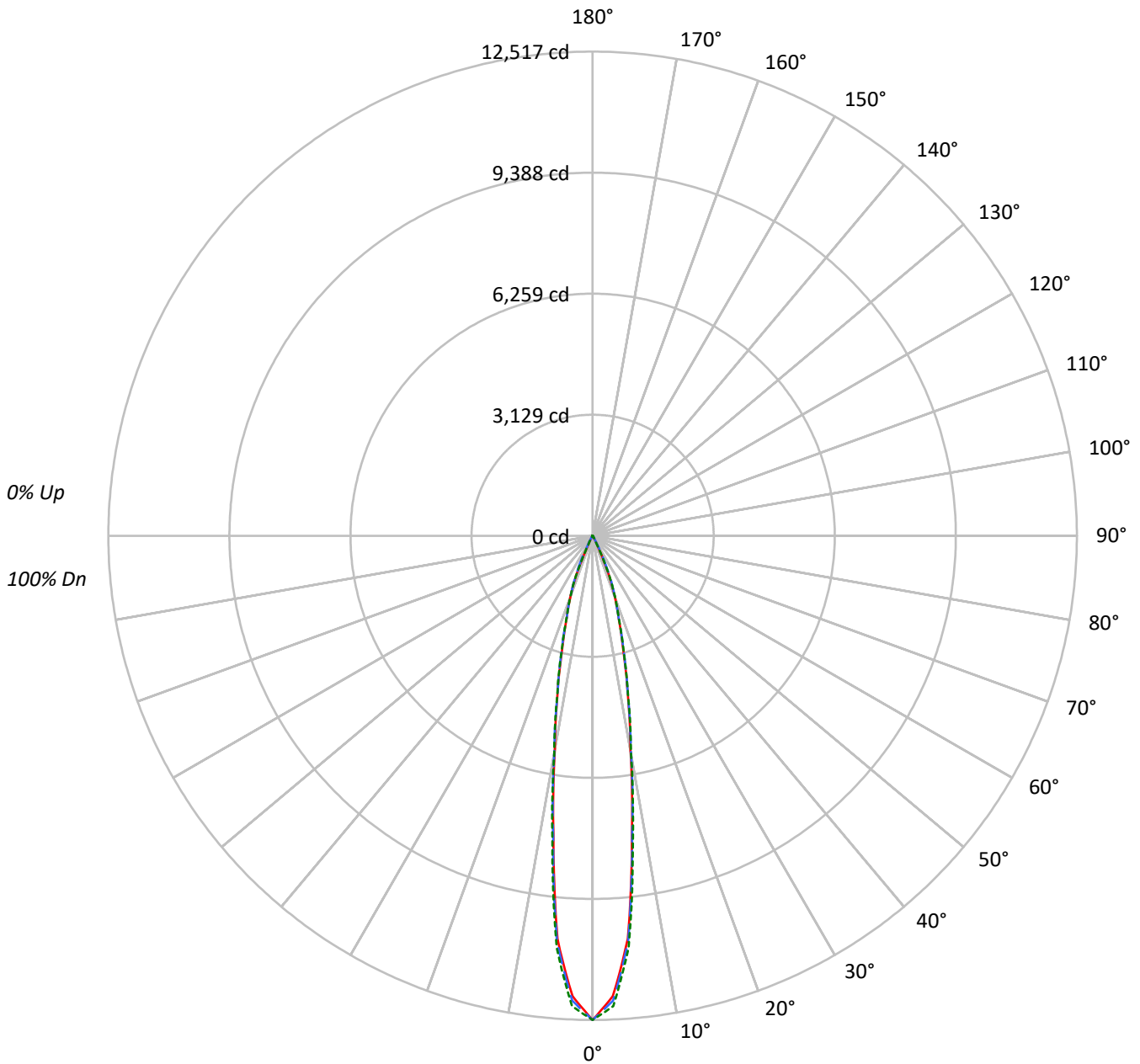
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1212619	1212619	1212619
5°	1016381	1024977	1039875
10°	552957	561171	563295
15°	305773	310697	311881
20°	173154	173660	174670
25°	47245	74021	46401
30°	7584	11533	7361
35°	2554	4293	2436
40°	1113	1745	1113
45°	671	808	534
50°	437	437	301
55°	338	338	169
60°	194	194	194
65°	229	229	229
70°	283	283	283
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	834.4	40.6
10°-20°	882.3	42.9
20°-30°	310.4	15.1
30°-40°	20.9	1.0
40°-50°	4.3	0.2
50°-60°	1.5	0.1
60°-70°	1.0	0.0
70°-80°	0.4	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°	2027.1	98.6
0°-40°	2048.0	99.7
0°-60°	2053.8	99.9
0°-90°	2055.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2055.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	12517	12517	12517	12517	12517	
5°	10452	10609	10540	10560	10693	825
15°	3049	3100	3098	3091	3110	874
25°	442	671	692	660	434	274
35°	22	26	36	26	21	17
45°	5	5	6	5	4	4
55°	2	2	2	1	1	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°	12517.3	12517.3	12517.3	12517.3	12517.3
2.5°	11916.2	12072.4	12033.1	12007.5	12171.6
5°	10451.7	10608.9	10540.1	10559.8	10693.3
7.5°	7770.3	7902.9	7832.2	7861.6	7963.8
10°	5621.2	5752.8	5704.7	5720.4	5726.3
12.5°	4191.1	4249.0	4210.7	4221.5	4241.2
15°	3048.8	3099.9	3097.9	3091.0	3109.7
17.5°	2237.5	2262.0	2237.5	2236.5	2249.3
20°	1679.6	1714.0	1684.5	1688.4	1694.3
22.5°	1128.6	1197.3	1185.5	1170.8	1155.1
25°	442.0	670.9	692.5	660.0	434.1
27.5°	126.7	209.2	297.6	205.3	122.8
30°	67.8	80.5	103.1	78.6	65.8
32.5°	36.3	46.2	58.9	45.2	35.4
35°	21.6	26.5	36.3	26.5	20.6
37.5°	13.8	16.7	22.6	16.7	13.8
40°	8.8	10.8	13.8	10.8	8.8
42.5°	6.9	7.9	8.8	6.9	5.9
45°	4.9	4.9	5.9	4.9	3.9
47.5°	3.9	3.9	3.9	2.9	2.9
50°	2.9	2.9	2.9	2.0	2.0
52.5°	2.0	2.0	2.0	2.0	2.0
55°	2.0	2.0	2.0	1.0	1.0
57.5°	2.0	1.0	1.0	1.0	1.0
60°	1.0	1.0	1.0	1.0	1.0
62.5°	1.0	1.0	1.0	1.0	1.0
65°	1.0	1.0	1.0	1.0	1.0
67.5°	1.0	1.0	1.0	1.0	0.0
70°	1.0	1.0	1.0	1.0	1.0
72.5°	1.0	1.0	1.0	0.0	0.0
75°	0.0	1.0	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)