

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: P182440

Luminaire Tested: **LDSQA4A28835D010TE LAR15SP 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182440
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: LDSQA4A28835D010TE LAR15SP 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
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: 2865.4 lumens
Efficiency: N/A
Efficacy: 64.4 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

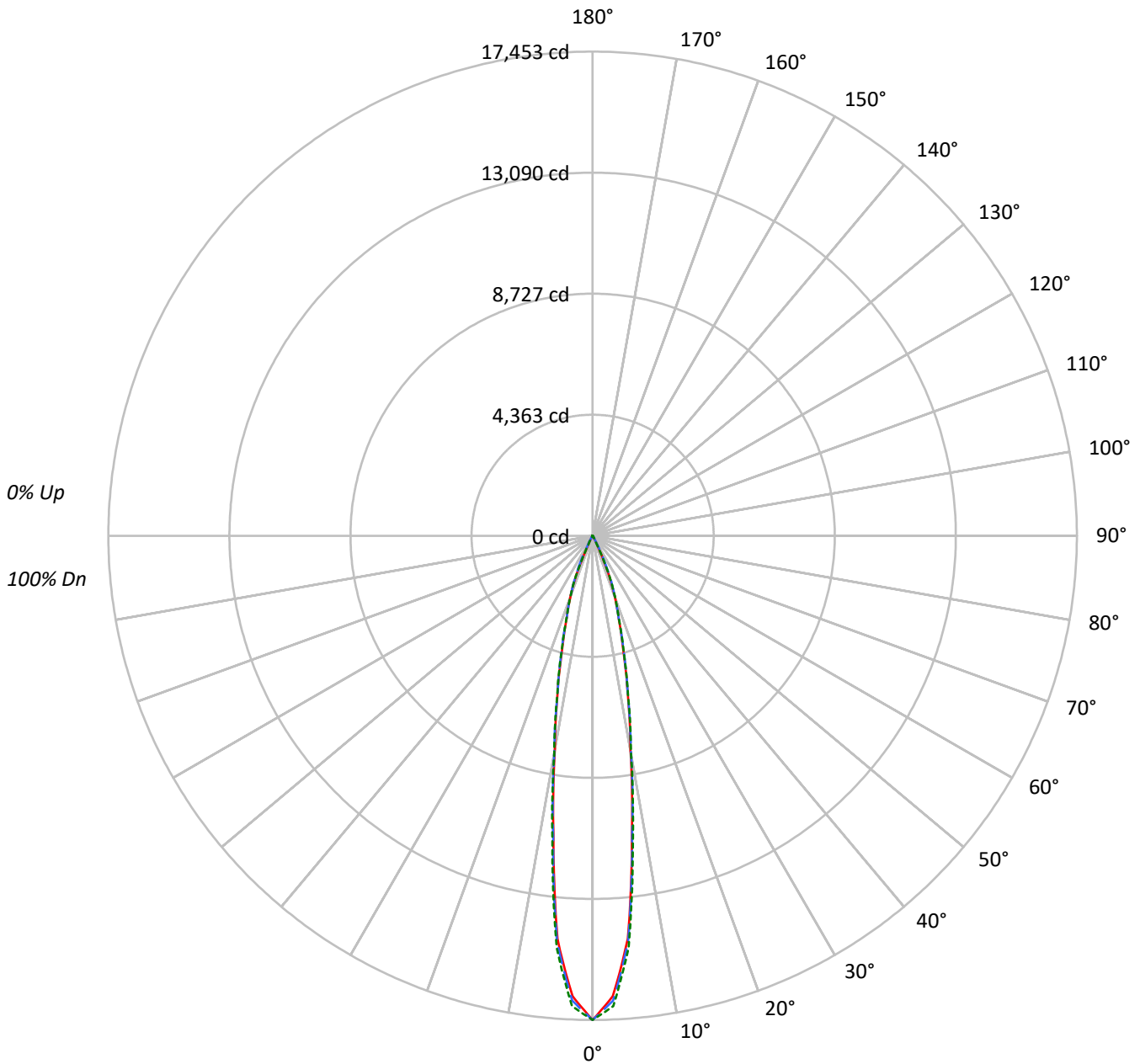
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1690757	1690757	1690757
5°	1417139	1429129	1449901
10°	770984	782434	785405
15°	426335	433205	434850
20°	241422	242134	243546
25°	65876	103202	64701
30°	10571	16086	10269
35°	3560	5996	3406
40°	1555	2428	1555
45°	932	1123	754
50°	618	618	407
55°	456	456	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°	1163.3	40.6
10°-20°	1230.2	42.9
20°-30°	432.8	15.1
30°-40°	29.2	1.0
40°-50°	6.1	0.2
50°-60°	2.0	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°	2826.3	98.6
0°-40°	2855.5	99.7
0°-60°	2863.5	99.9
0°-90°	2865.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2865.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	17453	17453	17453	17453	17453	
5°	14573	14792	14696	14724	14910	1150
15°	4251	4322	4319	4310	4336	1218
25°	616	935	966	920	605	381
35°	30	37	51	37	29	23
45°	7	7	8	7	6	6
55°	3	3	3	1	1	2
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°	17452.9	17452.9	17452.9	17452.9	17452.9
2.5°	16614.7	16832.5	16777.7	16742.1	16970.8
5°	14572.8	14791.9	14696.1	14723.5	14909.7
7.5°	10834.1	11019.0	10920.4	10961.4	11103.9
10°	7837.6	8021.1	7954.0	7975.9	7984.2
12.5°	5843.6	5924.4	5871.0	5886.1	5913.5
15°	4250.9	4322.1	4319.4	4309.8	4335.8
17.5°	3119.7	3153.9	3119.7	3118.3	3136.1
20°	2341.8	2389.8	2348.7	2354.2	2362.4
22.5°	1573.6	1669.4	1653.0	1632.4	1610.5
25°	616.3	935.4	965.5	920.3	605.3
27.5°	176.7	291.7	415.0	286.2	171.2
30°	94.5	112.3	143.8	109.6	91.8
32.5°	50.7	64.4	82.2	63.0	49.3
35°	30.1	37.0	50.7	37.0	28.8
37.5°	19.2	23.3	31.5	23.3	19.2
40°	12.3	15.1	19.2	15.1	12.3
42.5°	9.6	11.0	12.3	9.6	8.2
45°	6.8	6.8	8.2	6.8	5.5
47.5°	5.5	5.5	5.5	4.1	4.1
50°	4.1	4.1	4.1	2.7	2.7
52.5°	2.7	2.7	2.7	2.7	2.7
55°	2.7	2.7	2.7	1.4	1.4
57.5°	2.7	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)