

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: P182444

Luminaire Tested: **LDSQA4A28935D010TE LAR15SP 4LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182444
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: LDSQA4A28935D010TE LAR15SP 4LSQA1H
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2338.2 lumens
Efficiency: N/A
Efficacy: 52.6 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

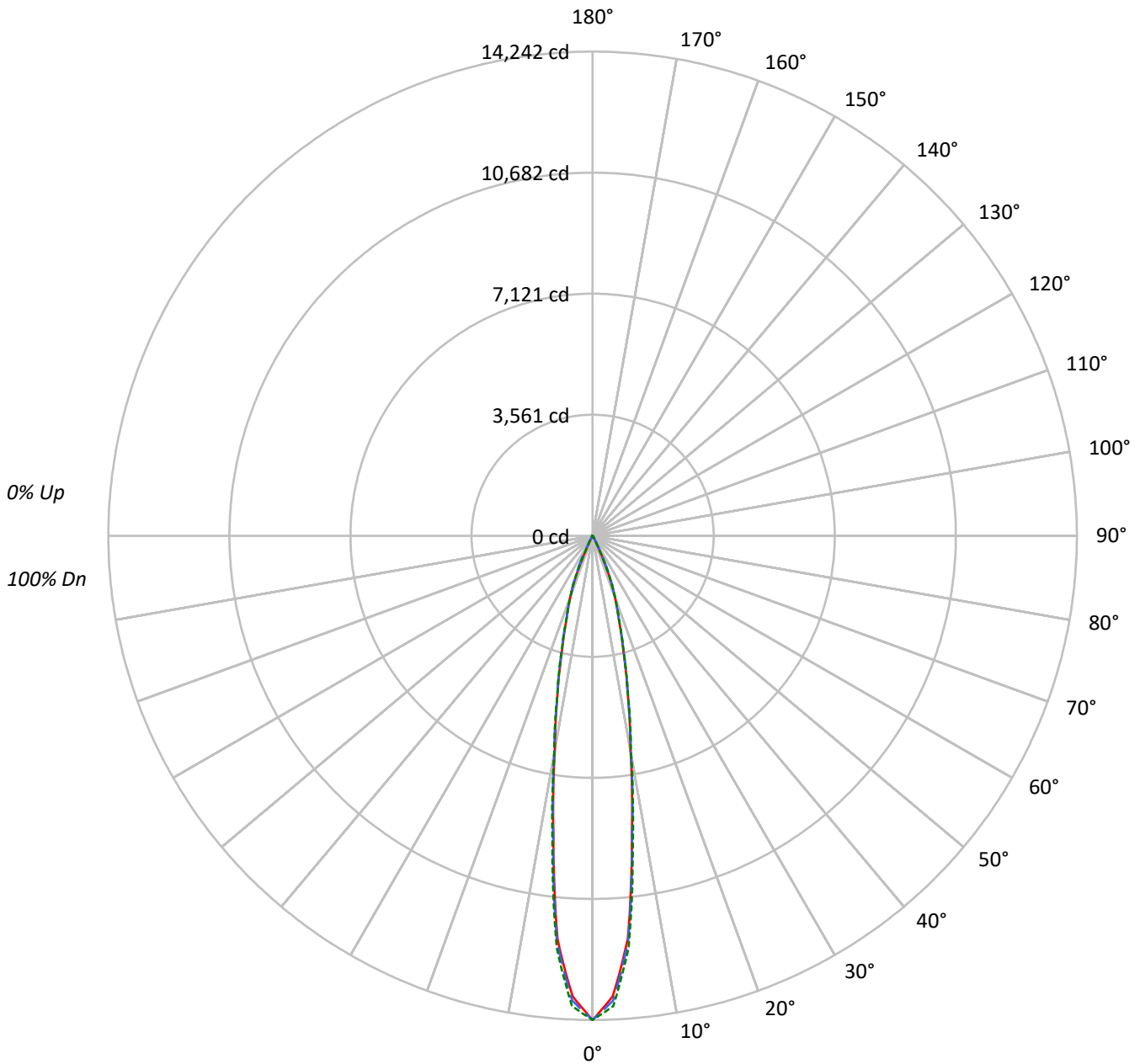
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	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°	1379700	1379700	1379700
5°	1156424	1166207	1183157
10°	629144	638489	640909
15°	347906	353502	354856
20°	197010	197587	198742
25°	53755	84219	52804
30°	8625	13121	8378
35°	2909	4884	2779
40°	1277	1973	1277
45°	767	918	617
50°	512	512	332
55°	372	372	186
60°	213	213	213
65°	252	252	252
70°	312	312	312
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	949.3	40.6
10°-20°	1003.9	42.9
20°-30°	353.2	15.1
30°-40°	23.8	1.0
40°-50°	5.0	0.2
50°-60°	1.6	0.1
60°-70°	1.1	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°	2306.4	98.6
0°-40°	2330.2	99.7
0°-60°	2336.7	99.9
0°-90°	2338.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2338.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	14242	14242	14242	14242	14242	
5°	11892	12071	11992	12015	12167	938
15°	3469	3527	3525	3517	3538	994
25°	503	763	788	751	494	311
35°	25	30	41	30	24	19
45°	6	6	7	6	4	5
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°	14242.0	14242.0	14242.0	14242.0	14242.0
2.5°	13558.1	13735.8	13691.1	13662.0	13848.6
5°	11891.8	12070.6	11992.4	12014.7	12166.7
7.5°	8840.9	8991.8	8911.3	8944.8	9061.1
10°	6395.7	6545.5	6490.7	6508.6	6515.3
12.5°	4768.6	4834.5	4790.9	4803.2	4825.6
15°	3468.9	3527.0	3524.7	3516.9	3538.2
17.5°	2545.8	2573.7	2545.8	2544.7	2559.2
20°	1911.0	1950.1	1916.6	1921.1	1927.8
22.5°	1284.1	1362.3	1348.9	1332.1	1314.2
25°	502.9	763.3	787.9	751.0	494.0
27.5°	144.2	238.0	338.6	233.6	139.7
30°	77.1	91.6	117.3	89.4	74.9
32.5°	41.3	52.5	67.1	51.4	40.2
35°	24.6	30.2	41.3	30.2	23.5
37.5°	15.6	19.0	25.7	19.0	15.6
40°	10.1	12.3	15.6	12.3	10.1
42.5°	7.8	8.9	10.1	7.8	6.7
45°	5.6	5.6	6.7	5.6	4.5
47.5°	4.5	4.5	4.5	3.4	3.4
50°	3.4	3.4	3.4	2.2	2.2
52.5°	2.2	2.2	2.2	2.2	2.2
55°	2.2	2.2	2.2	1.1	1.1
57.5°	2.2	1.1	1.1	1.1	1.1
60°	1.1	1.1	1.1	1.1	1.1
62.5°	1.1	1.1	1.1	1.1	1.1
65°	1.1	1.1	1.1	1.1	1.1
67.5°	1.1	1.1	1.1	1.1	0.0
70°	1.1	1.1	1.1	1.1	1.1
72.5°	1.1	1.1	1.1	0.0	0.0
75°	0.0	1.1	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)