

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: P182532

Luminaire Tested: **LDSQA4A13935D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182532
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26796)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A13935D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, 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: 1272.7 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.32 / 0.36
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

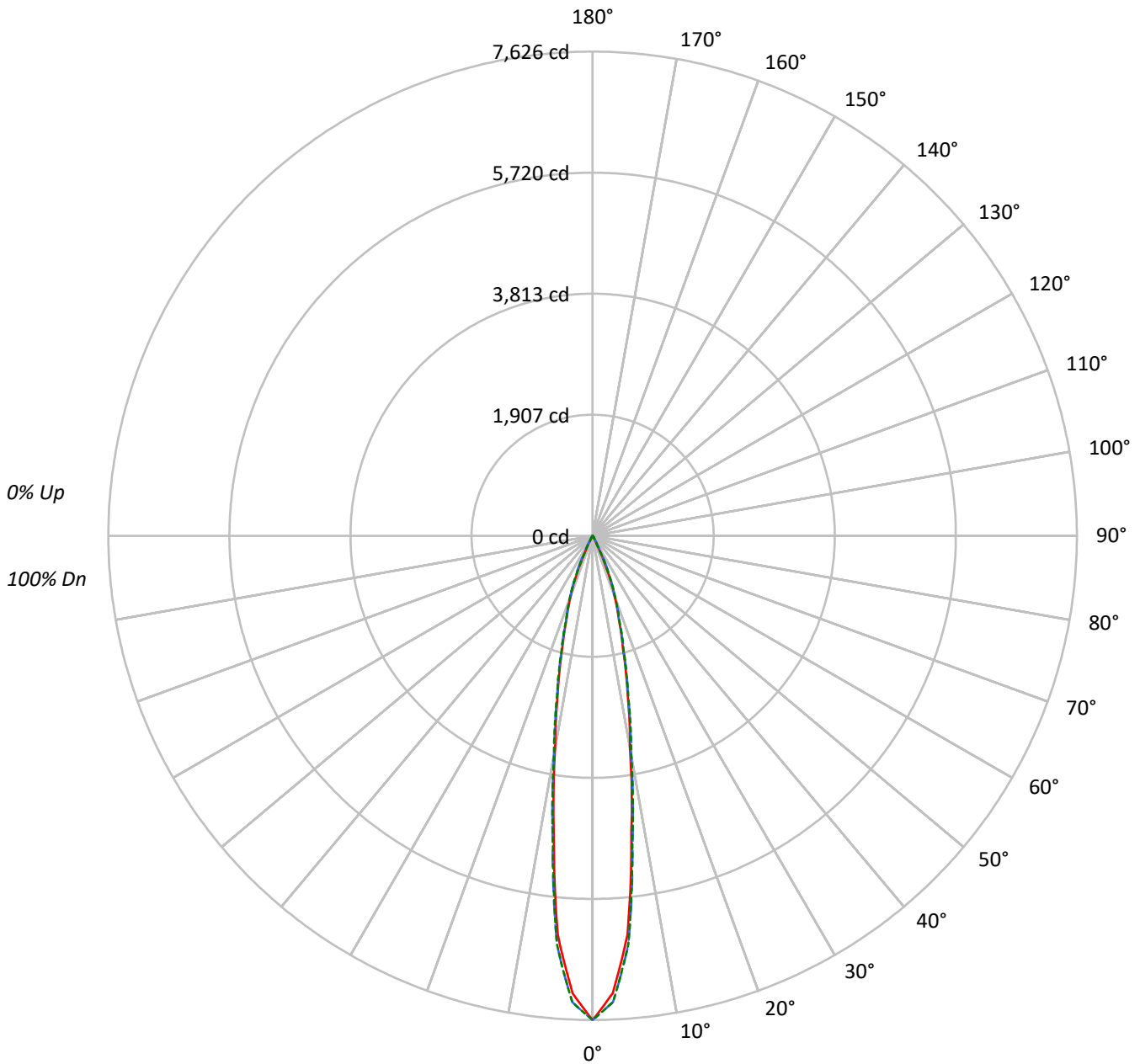
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	100	100	100	100	100		
1	115	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97	97	97	97	97	97	97		
2	112	108	105	103	110	107	104	102	103	101	100	101	99	98	98	97	96	94	94	94	94	94	94	94		
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91	91	91	91	91	91	91		
4	105	100	96	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89	89	89	89	89	89	89		
5	102	97	93	90	101	96	92	90	94	91	89	93	90	88	92	89	87	86	86	86	86	86	86	86		
6	100	94	90	87	98	93	89	87	92	89	86	91	88	86	89	87	85	84	84	84	84	84	84	84		
7	97	91	87	84	96	90	87	84	89	86	84	88	85	83	87	85	83	82	82	82	82	82	82	82		
8	95	88	85	82	94	88	84	82	87	84	81	86	83	81	85	83	81	80	80	80	80	80	80	80		
9	92	86	82	80	92	86	82	80	85	82	79	84	81	79	84	81	79	78	78	78	78	78	78	78		
10	90	84	80	78	89	84	80	78	83	80	77	82	79	77	82	79	77	76	76	76	76	76	76	76		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	738801	738801	738801
5°	612812	628673	627788
10°	333917	343783	345524
15°	185662	190988	191970
20°	104670	107649	109000
25°	31511	46422	31372
30°	5940	8502	5940
35°	2554	3950	2637
40°	1239	2074	1239
45°	808	1082	630
50°	497	588	301
55°	338	338	220
60°	252	136	136
65°	160	160	160
70°	0	198	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	507.7	39.9
10°-20°	541.2	42.5
20°-30°	197.4	15.5
30°-40°	18.8	1.5
40°-50°	5.2	0.4
50°-60°	1.6	0.1
60°-70°	0.7	0.1
70°-80°	0.1	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°	1246.4	97.9
0°-40°	1265.2	99.4
0°-60°	1271.9	99.9
0°-90°	1272.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1272.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7626	7626	7626	7626	7626	
5°	6302	6461	6465	6397	6456	498
15°	1851	1895	1904	1900	1914	530
25°	295	426	434	430	294	170
35°	22	26	33	26	22	15
45°	6	6	8	6	5	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°	7626.3	7626.3	7626.3	7626.3	7626.3
2.5°	7210.3	7362.3	7351.1	7317.1	7351.1
5°	6301.7	6460.9	6464.8	6397.4	6455.7
7.5°	4684.4	4807.5	4829.1	4763.0	4806.9
10°	3394.5	3504.6	3494.8	3481.7	3512.5
12.5°	2535.8	2591.4	2585.5	2599.9	2601.9
15°	1851.2	1895.1	1904.3	1900.3	1914.1
17.5°	1363.2	1386.8	1382.2	1389.4	1394.6
20°	1015.3	1052.7	1044.2	1050.7	1057.3
22.5°	673.4	742.2	733.7	744.2	738.3
25°	294.8	426.4	434.3	430.4	293.5
27.5°	90.4	152.6	195.9	149.4	90.4
30°	53.1	63.5	76.0	62.2	53.1
32.5°	33.4	40.0	47.8	39.3	32.8
35°	21.6	26.2	33.4	26.2	22.3
37.5°	14.4	17.7	23.6	17.7	15.1
40°	9.8	11.8	16.4	12.4	9.8
42.5°	7.2	8.5	11.1	8.5	6.6
45°	5.9	5.9	7.9	5.9	4.6
47.5°	4.6	4.6	5.2	3.9	3.3
50°	3.3	3.3	3.9	2.6	2.0
52.5°	2.0	2.6	2.6	2.0	1.3
55°	2.0	2.0	2.0	1.3	1.3
57.5°	1.3	1.3	1.3	0.7	0.7
60°	1.3	1.3	0.7	0.7	0.7
62.5°	0.7	0.7	0.7	0.7	0.7
65°	0.7	0.7	0.7	0.7	0.7
67.5°	0.7	0.7	0.7	0.7	0.7
70°	0.0	0.7	0.7	0.0	0.0
72.5°	0.0	0.7	0.0	0.0	0.0
75°	0.0	0.7	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)