

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: P182538

Luminaire Tested: **LDSQA4A28927D010TE LAR15SP 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182538
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: LDSQA4A28927D010TE LAR15SP 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2055.9 lumens
Efficiency: N/A
Efficacy: 46.2 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

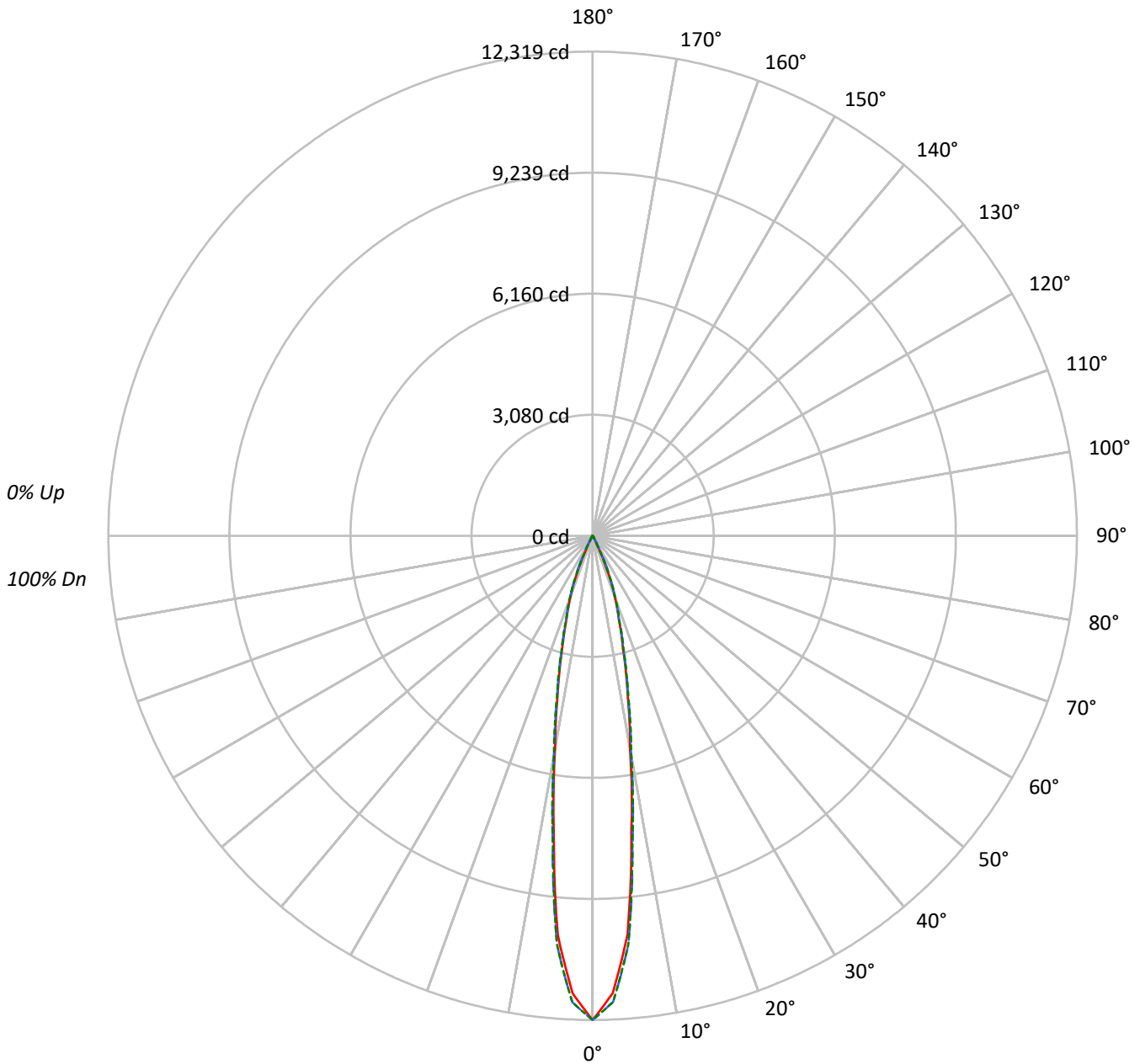
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1193447	1193447	1193447
5°	989930	1015554	1014115
10°	539411	555337	558151
15°	299916	308511	310105
20°	169093	173886	176072
25°	50901	74994	50677
30°	9587	13725	9587
35°	4127	6386	4257
40°	2011	3351	2011
45°	1302	1740	1014
50°	799	949	482
55°	540	540	355
60°	407	213	213
65°	252	252	252
70°	0	312	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	820.2	39.9
10°-20°	874.3	42.5
20°-30°	318.9	15.5
30°-40°	30.4	1.5
40°-50°	8.4	0.4
50°-60°	2.5	0.1
60°-70°	1.1	0.1
70°-80°	0.2	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°	2013.3	97.9
0°-40°	2043.7	99.4
0°-60°	2054.6	99.9
0°-90°	2055.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2055.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	12319	12319	12319	12319	12319	
5°	10180	10437	10443	10334	10428	804
15°	2990	3061	3076	3070	3092	855
25°	476	689	702	695	474	275
35°	35	42	54	42	36	25
45°	10	10	13	10	7	7
55°	3	3	3	2	2	3
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°	12319.4	12319.4	12319.4	12319.4	12319.4
2.5°	11647.4	11892.9	11875.0	11819.9	11875.0
5°	10179.7	10436.9	10443.2	10334.2	10428.4
7.5°	7567.1	7766.0	7800.9	7694.1	7765.0
10°	5483.5	5661.3	5645.4	5624.3	5674.0
12.5°	4096.2	4186.2	4176.7	4199.9	4203.1
15°	2990.4	3061.3	3076.1	3069.8	3092.0
17.5°	2202.1	2240.2	2232.8	2244.4	2252.9
20°	1640.2	1700.5	1686.7	1697.3	1707.9
22.5°	1087.8	1198.9	1185.2	1202.1	1192.6
25°	476.2	688.9	701.6	695.2	474.1
27.5°	146.0	246.6	316.4	241.3	146.0
30°	85.7	102.6	122.7	100.5	85.7
32.5°	54.0	64.5	77.2	63.5	52.9
35°	34.9	42.3	54.0	42.3	36.0
37.5°	23.3	28.6	38.1	28.6	24.3
40°	15.9	19.0	26.5	20.1	15.9
42.5°	11.6	13.8	18.0	13.8	10.6
45°	9.5	9.5	12.7	9.5	7.4
47.5°	7.4	7.4	8.5	6.3	5.3
50°	5.3	5.3	6.3	4.2	3.2
52.5°	3.2	4.2	4.2	3.2	2.1
55°	3.2	3.2	3.2	2.1	2.1
57.5°	2.1	2.1	2.1	1.1	1.1
60°	2.1	2.1	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	1.1
70°	0.0	1.1	1.1	0.0	0.0
72.5°	0.0	1.1	0.0	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)