

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: P182551

Luminaire Tested: **LDSQA4A09830D010TE LAR25NF 4LSQAL1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182551
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26797)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A09830D010TE LAR25NF 4LSQAL1H
Description: PORTFOLIO 4" SQUARE LENSED ADJUSTABLE, SELF-FLANGED, 25° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1142.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 0.48 / 0.48 / 0.5
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

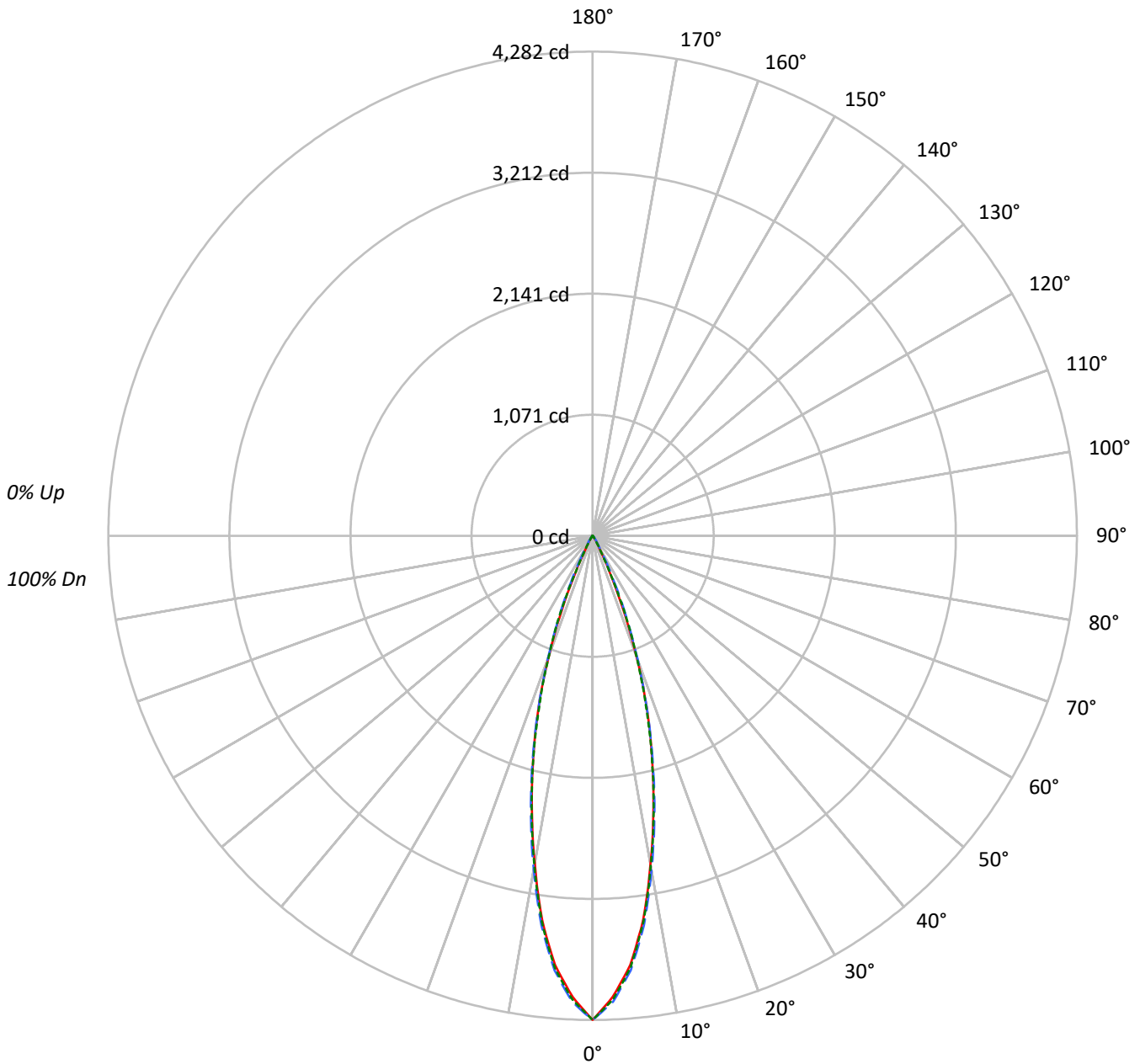
Input Watts (W): 13.84
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	98	96	96															
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	94	93	96	94	94	93															
3	107	103	99	96	106	101	98	95	99	96	94	97	94	92	95	93	91	90	95	93	91	90															
4	104	99	95	91	102	97	94	91	95	92	90	94	91	89	92	90	88	87	92	90	88	87															
5	101	95	91	87	99	94	90	87	92	89	86	91	88	86	89	87	85	84	89	87	85	84															
6	98	91	87	84	97	91	87	84	89	86	83	88	85	83	87	84	82	81	87	84	82	81															
7	95	88	84	81	94	88	84	81	87	83	80	85	82	80	85	82	80	79	85	82	80	79															
8	92	85	81	78	91	85	81	78	84	80	78	83	80	77	82	79	77	76	82	79	77	76															
9	89	83	78	76	89	82	78	76	81	78	75	81	77	75	80	77	75	74	80	77	75	74															
10	87	80	76	73	86	80	76	73	79	76	73	78	75	73	78	75	73	72	78	75	73	72															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	414811	414811	414811
5°	370466	375124	372791
10°	289994	295179	291559
15°	203645	205139	202521
20°	116876	119289	116763
25°	36995	48667	38192
30°	9833	12215	9475
35°	3335	6043	3406
40°	1480	2428	1480
45°	808	1096	658
50°	482	558	316
55°	270	270	186
60°	213	213	97
65°	115	115	115
70°	142	142	142
75°	0	187	187
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.6	29.7
10°-20°	553.8	48.5
20°-30°	214.5	18.8
30°-40°	26.3	2.3
40°-50°	5.5	0.5
50°-60°	1.5	0.1
60°-70°	0.5	0.0
70°-80°	0.3	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°	1107.9	97.0
0°-40°	1134.2	99.3
0°-60°	1141.2	99.9
0°-90°	1142.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1142.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4282	4282	4282	4282	4282	
5°	3810	3865	3858	3834	3834	337
15°	2030	2058	2045	2030	2019	551
25°	346	434	455	447	357	194
35°	28	34	51	34	29	22
45°	6	6	8	6	5	5
55°	2	2	2	1	1	2
65°	0	0	0	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4281.9	4281.9	4281.9	4281.9	4281.9
2.5°	4081.7	4138.7	4125.3	4098.7	4105.6
5°	3809.6	3864.9	3857.5	3834.1	3833.5
7.5°	3425.6	3479.9	3473.6	3445.3	3442.7
10°	2948.0	2997.5	3000.7	2959.7	2963.9
12.5°	2481.5	2522.0	2523.6	2495.3	2489.5
15°	2030.5	2057.6	2045.4	2030.5	2019.3
17.5°	1585.8	1591.7	1589.0	1567.2	1559.2
20°	1133.7	1159.3	1157.1	1138.5	1132.6
22.5°	706.1	752.4	773.7	756.7	765.7
25°	346.1	433.5	455.3	447.3	357.3
27.5°	140.6	183.7	229.0	181.1	135.8
30°	87.9	95.9	109.2	92.1	84.7
32.5°	46.3	58.0	74.0	56.4	46.3
35°	28.2	34.1	51.1	33.5	28.8
37.5°	18.1	21.3	29.8	21.3	18.6
40°	11.7	13.8	19.2	13.8	11.7
42.5°	8.0	9.1	12.2	9.1	7.5
45°	5.9	6.4	8.0	5.9	4.8
47.5°	4.3	4.8	5.3	3.7	3.2
50°	3.2	3.2	3.7	2.7	2.1
52.5°	2.1	2.7	2.7	1.6	1.6
55°	1.6	1.6	1.6	1.1	1.1
57.5°	1.6	1.1	1.1	1.1	1.1
60°	1.1	1.1	1.1	0.5	0.5
62.5°	0.5	0.5	0.5	0.5	0.5
65°	0.5	0.5	0.5	0.5	0.5
67.5°	0.5	0.5	0.5	0.5	0.5
70°	0.5	0.5	0.5	0.5	0.5
72.5°	0.5	0.5	0.5	0.5	0.0
75°	0.0	0.5	0.5	0.5	0.5
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)