

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: P182612

Luminaire Tested: **LDSQA4A18935D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182612
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26829)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA4A18935D010TE LAR15SP 4LSQA1H-LSF-20
Description: PORTFOLIO 4" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT WITH SOLITE LENS
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1606.7 lumens
Efficiency: N/A
Efficacy: 55.2 lumens/watt
Spacing Criteria (0/90/45): 0.35 / 0.35 / 0.39
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

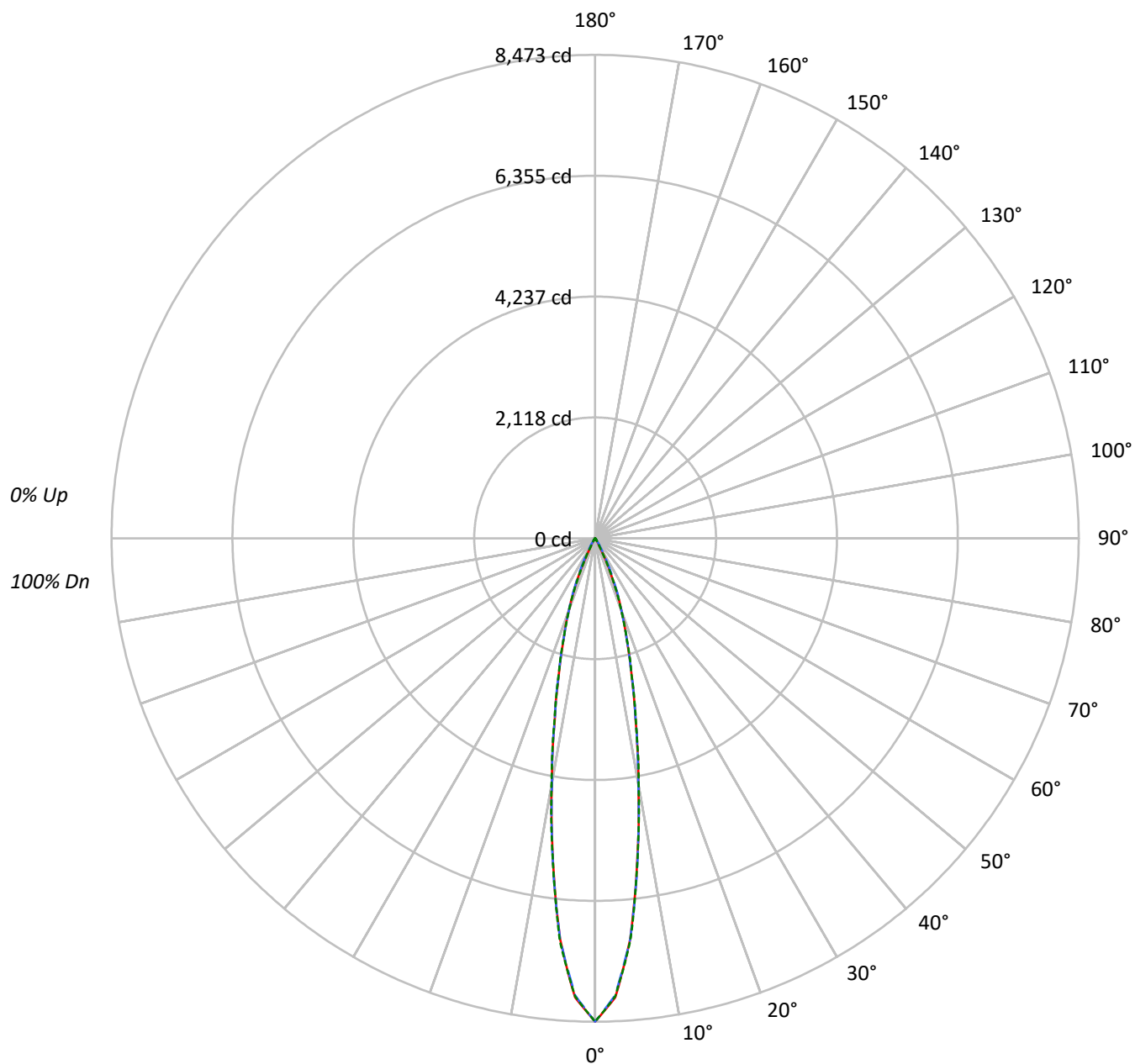
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	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			100
1	115	113	111	109	113	111	109	108		107	106	104			103	102	101			97
2	111	108	105	102	109	106	104	101		103	101	99			100	99	97			94
3	108	103	100	97	106	102	99	96		100	97	95			97	95	93			91
4	105	99	96	93	103	98	95	92		96	93	91			95	92	90			88
5	102	96	92	89	100	95	91	89		93	90	88			92	89	87			85
6	99	93	89	86	98	92	88	85		91	87	85			89	87	84			83
7	96	90	86	83	95	89	85	83		88	85	82			87	84	82			80
8	94	87	83	80	93	87	83	80		86	82	80			85	82	80			78
9	91	85	81	78	90	84	80	78		83	80	78			83	80	77			76
10	89	82	78	76	88	82	78	76		81	78	76			81	78	75			74

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	820787	820787	820787
5°	685308	685308	688566
10°	429326	428362	432700
15°	245005	246399	246801
20°	138711	138289	137701
25°	52066	67330	53199
30°	10683	22540	10772
35°	4246	7332	4151
40°	2162	3199	2061
45°	1452	1671	1233
50°	859	859	618
55°	405	557	270
60°	310	310	155
65°	183	183	183
70°	227	227	227
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	585.4	36.4
10°-20°	696.3	43.3
20°-30°	277.6	17.3
30°-40°	35.0	2.2
40°-50°	8.6	0.5
50°-60°	2.5	0.2
60°-70°	0.9	0.1
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°	1559.4	97.1
0°-40°	1594.4	99.2
0°-60°	1605.5	99.9
0°-90°	1606.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1606.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8473	8473	8473	8473	8473	
5°	7047	7112	7047	7054	7081	584
15°	2443	2458	2457	2457	2461	694
25°	487	598	630	574	498	251
35°	36	43	62	42	35	26
45°	11	11	12	10	9	8
55°	2	2	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°	8472.6	8472.6	8472.6	8472.6	8472.6
2.5°	8056.5	8099.7	8016.5	8024.7	8035.3
5°	7047.2	7111.7	7047.2	7053.7	7080.7
7.5°	5670.7	5727.0	5690.3	5706.6	5677.2
10°	4364.4	4384.8	4354.6	4369.3	4398.7
12.5°	3281.7	3304.5	3282.5	3283.3	3296.4
15°	2442.9	2457.6	2456.8	2456.8	2460.8
17.5°	1824.4	1844.0	1822.8	1824.4	1829.3
20°	1345.5	1358.5	1341.4	1338.9	1335.7
22.5°	917.9	945.7	956.3	942.4	898.3
25°	487.1	598.1	629.9	573.6	497.7
27.5°	195.8	297.8	368.0	291.3	213.0
30°	95.5	129.7	201.5	133.0	96.3
32.5°	56.3	70.2	110.2	69.4	55.5
35°	35.9	43.2	62.0	41.6	35.1
37.5°	23.7	28.6	38.3	27.7	22.8
40°	17.1	19.6	25.3	18.8	16.3
42.5°	13.1	13.9	17.1	13.9	12.2
45°	10.6	10.6	12.2	9.8	9.0
47.5°	8.2	8.2	8.2	7.3	5.7
50°	5.7	5.7	5.7	4.9	4.1
52.5°	4.1	4.1	4.1	3.3	2.4
55°	2.4	2.4	3.3	2.4	1.6
57.5°	2.4	1.6	2.4	1.6	1.6
60°	1.6	1.6	1.6	0.8	0.8
62.5°	0.8	0.8	0.8	0.8	0.8
65°	0.8	0.8	0.8	0.8	0.8
67.5°	0.8	0.8	0.8	0.8	0.8
70°	0.8	0.8	0.8	0.8	0.8
72.5°	0.8	0.8	0.8	0.8	0.0
75°	0.0	0.8	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)