

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: P182628

Luminaire Tested: **LDSQA4A13935D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182628
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: LDSQA4A13935D010TE 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: 1289.8 lumens
Efficiency: N/A
Efficacy: 57.9 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

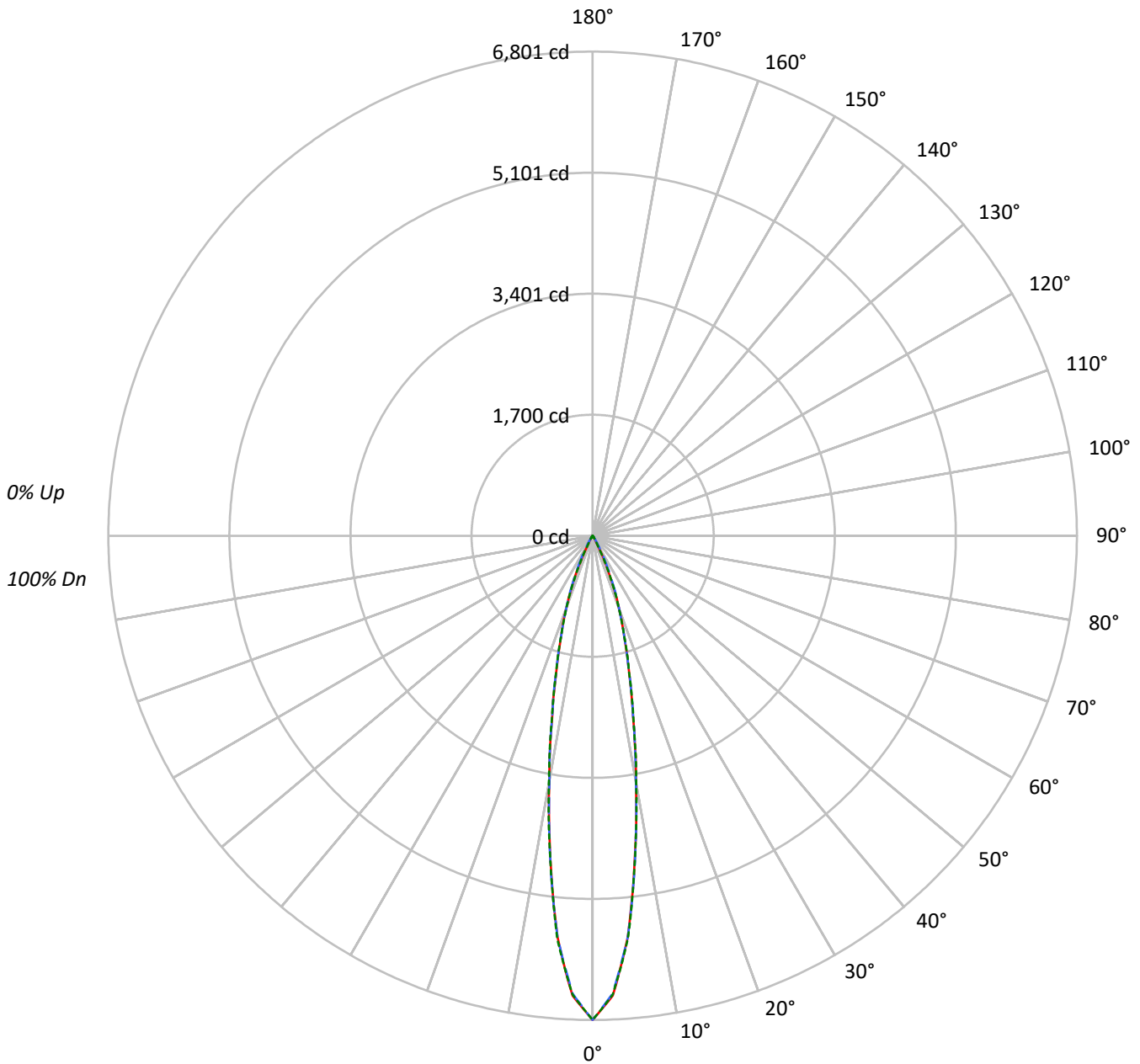
Input Watts (W): 22.27
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	108	107	106	104	103	102	101	100	99	98	97	97	97	97																
2	111	108	105	102	109	106	104	101	103	101	99	100	99	97	98	96	95	94	94	94	94																
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	93	92	91	91	91	91																
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88	88	88	88																
5	102	96	92	89	100	95	91	88	93	90	88	92	89	87	91	88	86	85	85	85	85																
6	99	93	89	86	98	92	88	85	91	87	85	89	87	84	88	86	84	83	83	83	83																
7	96	90	86	83	95	89	85	83	88	85	82	87	84	82	86	83	81	80	80	80	80																
8	94	87	83	80	93	87	83	80	86	82	80	85	82	80	84	81	79	78	78	78	78																
9	91	85	81	78	90	84	80	78	83	80	78	83	80	77	82	79	77	76	76	76	76																
10	89	82	78	76	88	82	78	76	81	78	75	81	78	75	80	77	75	74	74	74	74																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	658821	658821	658821
5°	550079	550079	552685
10°	344609	343832	347315
15°	196654	197777	198108
20°	111340	111000	110526
25°	41794	54044	42703
30°	8569	18099	8647
35°	3406	5890	3335
40°	1745	2567	1657
45°	1165	1343	986
50°	693	693	497
55°	338	439	220
60°	252	252	136
65°	160	160	160
70°	198	198	198
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	469.9	36.4
10°-20°	558.9	43.3
20°-30°	222.8	17.3
30°-40°	28.1	2.2
40°-50°	6.9	0.5
50°-60°	2.0	0.2
60°-70°	0.7	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°	1251.6	97.0
0°-40°	1279.8	99.2
0°-60°	1288.7	99.9
0°-90°	1289.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1289.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6801	6801	6801	6801	6801	
5°	5657	5708	5657	5662	5683	469
15°	1961	1973	1972	1972	1975	557
25°	391	480	506	460	400	201
35°	29	35	50	33	28	21
45°	8	8	10	8	7	7
55°	2	2	3	2	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°	6800.7	6800.7	6800.7	6800.7	6800.7
2.5°	6466.7	6501.4	6434.6	6441.2	6449.7
5°	5656.6	5708.3	5656.6	5661.8	5683.4
7.5°	4551.7	4596.9	4567.4	4580.5	4557.0
10°	3503.2	3519.6	3495.3	3507.1	3530.7
12.5°	2634.1	2652.4	2634.8	2635.4	2645.9
15°	1960.8	1972.6	1972.0	1972.0	1975.3
17.5°	1464.4	1480.1	1463.1	1464.4	1468.3
20°	1080.0	1090.4	1076.7	1074.7	1072.1
22.5°	736.8	759.1	767.6	756.4	721.1
25°	391.0	480.1	505.6	460.4	399.5
27.5°	157.2	239.0	295.4	233.8	170.9
30°	76.6	104.1	161.8	106.8	77.3
32.5°	45.2	56.3	88.4	55.7	44.5
35°	28.8	34.7	49.8	33.4	28.2
37.5°	19.0	22.9	30.8	22.3	18.3
40°	13.8	15.7	20.3	15.1	13.1
42.5°	10.5	11.1	13.8	11.1	9.8
45°	8.5	8.5	9.8	7.9	7.2
47.5°	6.5	6.5	6.5	5.9	4.6
50°	4.6	4.6	4.6	3.9	3.3
52.5°	3.3	3.3	3.3	2.6	2.0
55°	2.0	2.0	2.6	2.0	1.3
57.5°	2.0	1.3	2.0	1.3	1.3
60°	1.3	1.3	1.3	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°	0.7	0.7	0.7	0.7	0.7
72.5°	0.7	0.7	0.7	0.7	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)