

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: P182611

Luminaire Tested: **LDSQA4A18930D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182611
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: LDSQA4A18930D010TE 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 / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1591.5 lumens
Efficiency: N/A
Efficacy: 54.7 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

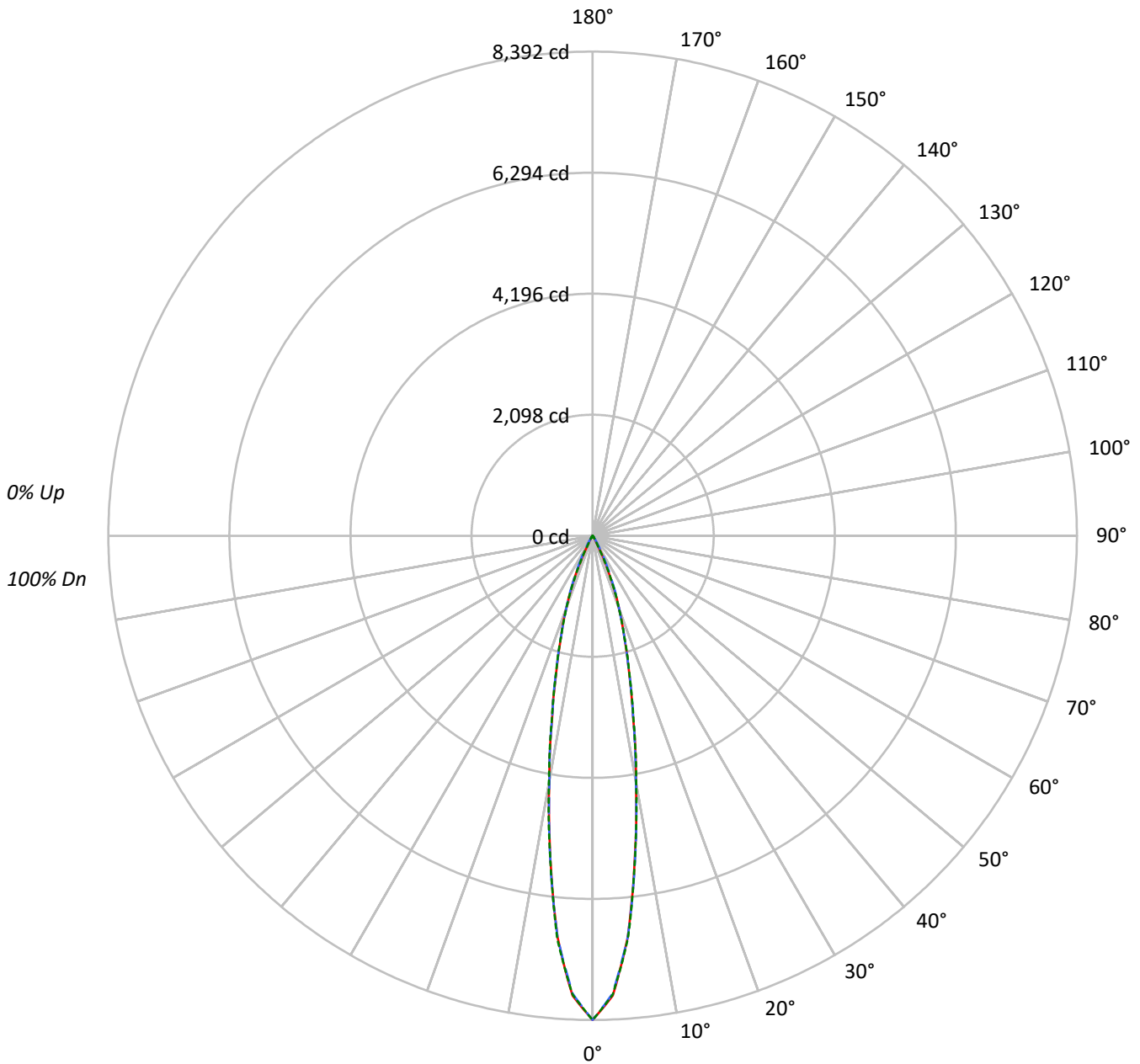
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	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	76	81	78	75	80	77	75	74	74	74	74																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	812988	812988	812988
5°	678793	678793	682021
10°	425243	424289	428588
15°	242679	244053	244464
20°	137392	136969	136392
25°	51575	66689	52697
30°	10582	22328	10672
35°	4210	7261	4116
40°	2150	3174	2049
45°	1439	1658	1219
50°	859	859	603
55°	405	540	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°	579.9	36.4
10°-20°	689.7	43.3
20°-30°	275.0	17.3
30°-40°	34.7	2.2
40°-50°	8.5	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°	1544.5	97.1
0°-40°	1579.2	99.2
0°-60°	1590.3	99.9
0°-90°	1591.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1591.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8392	8392	8392	8392	8392	
5°	6980	7044	6980	6987	7013	578
15°	2420	2434	2433	2433	2438	688
25°	482	592	624	568	493	248
35°	36	43	61	41	35	26
45°	10	10	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°	8392.1	8392.1	8392.1	8392.1	8392.1
2.5°	7979.9	8022.8	7940.3	7948.4	7958.9
5°	6980.2	7044.1	6980.2	6986.7	7013.4
7.5°	5616.8	5672.6	5636.2	5652.4	5623.3
10°	4322.9	4343.1	4313.2	4327.8	4356.9
12.5°	3250.5	3273.1	3251.3	3252.1	3265.0
15°	2419.7	2434.2	2433.4	2433.4	2437.5
17.5°	1807.1	1826.5	1805.5	1807.1	1811.9
20°	1332.7	1345.6	1328.6	1326.2	1323.0
22.5°	909.2	936.7	947.2	933.4	889.8
25°	482.5	592.4	623.9	568.1	493.0
27.5°	194.0	295.0	364.5	288.5	210.9
30°	94.6	128.5	199.6	131.7	95.4
32.5°	55.8	69.5	109.1	68.7	55.0
35°	35.6	42.8	61.4	41.2	34.8
37.5°	23.4	28.3	38.0	27.5	22.6
40°	17.0	19.4	25.1	18.6	16.2
42.5°	12.9	13.7	17.0	13.7	12.1
45°	10.5	10.5	12.1	9.7	8.9
47.5°	8.1	8.1	8.1	7.3	5.7
50°	5.7	5.7	5.7	4.8	4.0
52.5°	4.0	4.0	4.0	3.2	2.4
55°	2.4	2.4	3.2	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)