

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: P182607

Luminaire Tested: **LDSQA4A18830D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182607
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: LDSQA4A18830D010TE 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 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1934.2 lumens
Efficiency: N/A
Efficacy: 66.4 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

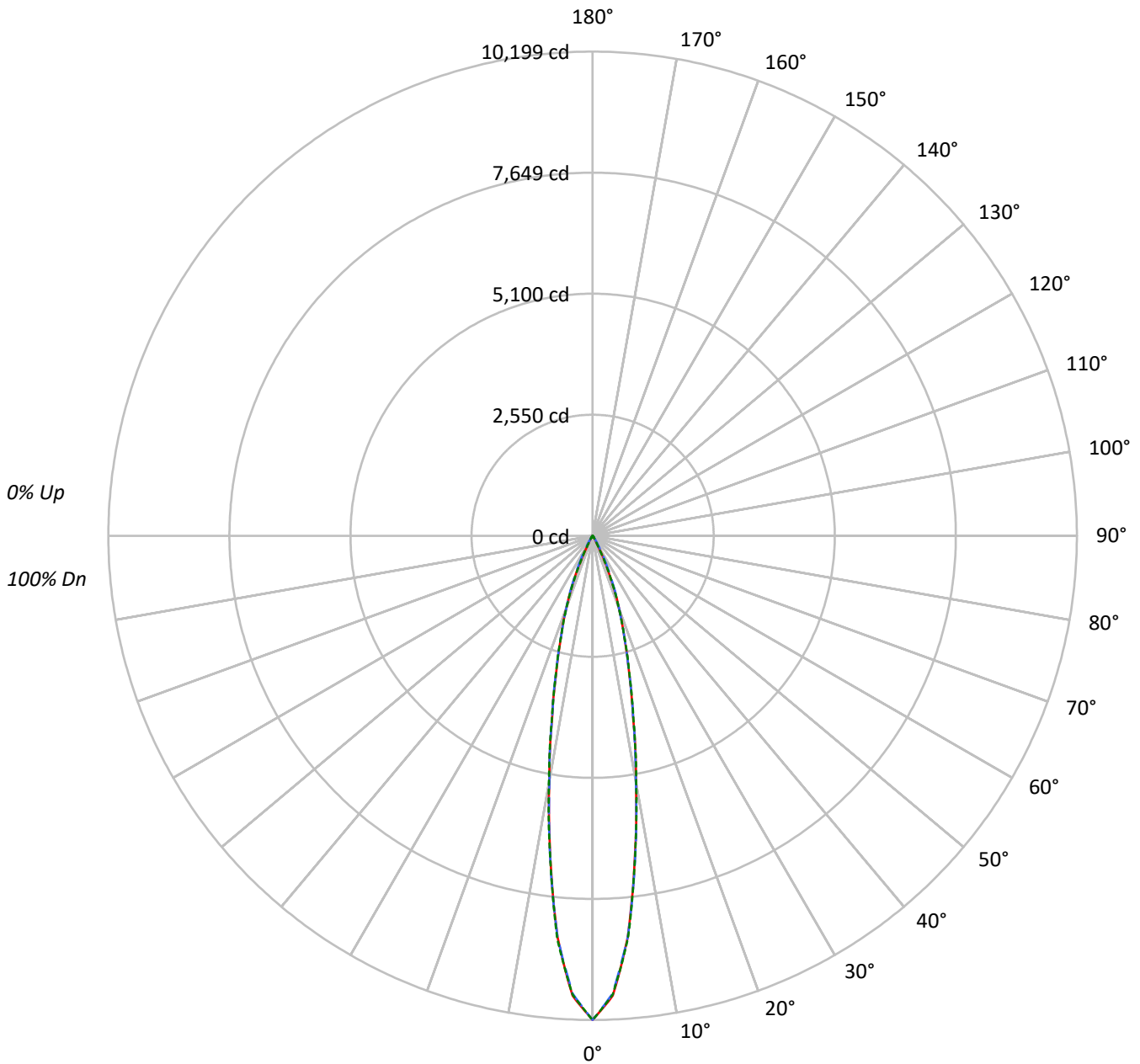
Input Watts (W): 29.12
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	75	81	78	75	80	77	75	74	74	74	74																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	988071	988071	988071
5°	824972	824972	828891
10°	516826	515665	520878
15°	294941	296616	297107
20°	166979	166474	165763
25°	62680	81055	64049
30°	12853	27138	12965
35°	5109	8822	4991
40°	2605	3844	2479
45°	1754	2014	1480
50°	1040	1040	738
55°	490	659	338
60°	388	388	194
65°	229	229	229
70°	283	283	283
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	704.8	36.4
10°-20°	838.2	43.3
20°-30°	334.2	17.3
30°-40°	42.2	2.2
40°-50°	10.4	0.5
50°-60°	3.1	0.2
60°-70°	1.1	0.1
70°-80°	0.4	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°	1877.2	97.0
0°-40°	1919.3	99.2
0°-60°	1932.8	99.9
0°-90°	1934.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1934.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10199	10199	10199	10199	10199	
5°	8483	8561	8483	8491	8524	703
15°	2941	2958	2958	2958	2962	836
25°	586	720	758	690	599	302
35°	43	52	75	50	42	31
45°	13	13	15	12	11	10
55°	3	3	4	3	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°	10199.4	10199.4	10199.4	10199.4	10199.4
2.5°	9698.4	9750.5	9650.3	9660.1	9672.9
5°	8483.4	8561.0	8483.4	8491.3	8523.7
7.5°	6826.4	6894.2	6850.0	6869.6	6834.3
10°	5253.9	5278.4	5242.1	5259.8	5295.1
12.5°	3950.5	3978.0	3951.5	3952.4	3968.2
15°	2940.8	2958.4	2957.5	2957.5	2962.4
17.5°	2196.2	2219.8	2194.3	2196.2	2202.1
20°	1619.7	1635.4	1614.8	1611.8	1607.9
22.5°	1105.0	1138.4	1151.2	1134.5	1081.4
25°	586.4	720.0	758.3	690.5	599.2
27.5°	235.7	358.5	443.0	350.7	256.4
30°	114.9	156.2	242.6	160.1	115.9
32.5°	67.8	84.5	132.6	83.5	66.8
35°	43.2	52.1	74.6	50.1	42.2
37.5°	28.5	34.4	46.2	33.4	27.5
40°	20.6	23.6	30.4	22.6	19.6
42.5°	15.7	16.7	20.6	16.7	14.7
45°	12.8	12.8	14.7	11.8	10.8
47.5°	9.8	9.8	9.8	8.8	6.9
50°	6.9	6.9	6.9	5.9	4.9
52.5°	4.9	4.9	4.9	3.9	2.9
55°	2.9	2.9	3.9	2.9	2.0
57.5°	2.9	2.0	2.9	2.0	2.0
60°	2.0	2.0	2.0	1.0	1.0
62.5°	1.0	1.0	1.0	1.0	1.0
65°	1.0	1.0	1.0	1.0	1.0
67.5°	1.0	1.0	1.0	1.0	1.0
70°	1.0	1.0	1.0	1.0	1.0
72.5°	1.0	1.0	1.0	1.0	0.0
75°	0.0	1.0	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)