

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: P182633

Luminaire Tested: **LDSQA4A28840D010TE LAR15SP 4LSQA1H-LSF-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P182633
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: LDSQA4A28840D010TE 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 / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2828.1 lumens
Efficiency: N/A
Efficacy: 63.6 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

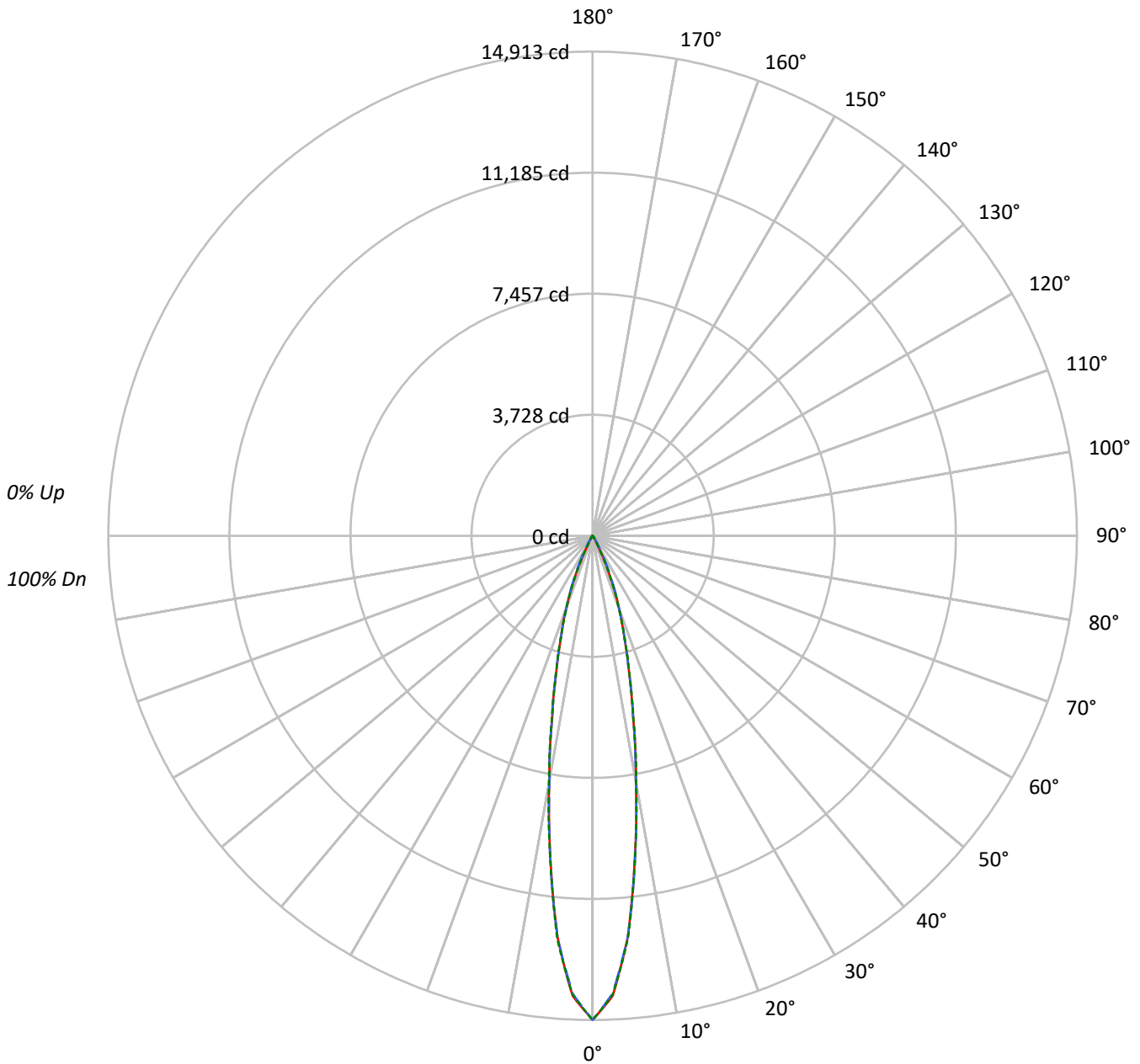
Input Watts (W): 44.49
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									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°	1444732	1444732	1444732
5°	1206262	1206262	1211990
10°	755687	753995	761629
15°	431249	433696	434418
20°	244154	243412	242371
25°	91648	118509	93647
30°	18793	39677	18961
35°	7474	12903	7309
40°	3819	5628	3629
45°	2562	2946	2165
50°	1522	1522	1085
55°	726	963	490
60°	562	562	271
65°	321	321	321
70°	397	397	397
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1030.5	36.4
10°-20°	1225.6	43.3
20°-30°	488.6	17.3
30°-40°	61.6	2.2
40°-50°	15.2	0.5
50°-60°	4.5	0.2
60°-70°	1.5	0.1
70°-80°	0.6	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°	2744.7	97.1
0°-40°	2806.4	99.2
0°-60°	2826.0	99.9
0°-90°	2828.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2828.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	14913	14913	14913	14913	14913	
5°	12404	12518	12404	12416	12463	1028
15°	4300	4326	4324	4324	4332	1222
25°	857	1053	1109	1010	876	441
35°	63	76	109	73	62	46
45°	19	19	22	17	16	15
55°	4	4	6	4	3	5
65°	1	1	1	1	1	2
75°	0	1	0	0	0	1
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°	14913.3	14913.3	14913.3	14913.3	14913.3
2.5°	14180.9	14257.0	14110.5	14124.8	14143.5
5°	12404.3	12517.8	12404.3	12415.8	12463.2
7.5°	9981.5	10080.6	10015.9	10044.7	9993.0
10°	7682.1	7718.0	7664.9	7690.8	7742.5
12.5°	5776.3	5816.5	5777.8	5779.2	5802.2
15°	4299.9	4325.8	4324.3	4324.3	4331.5
17.5°	3211.3	3245.8	3208.4	3211.3	3219.9
20°	2368.3	2391.2	2361.1	2356.8	2351.0
22.5°	1615.7	1664.5	1683.2	1658.8	1581.2
25°	857.4	1052.7	1108.7	1009.6	876.1
27.5°	344.7	524.2	647.7	512.7	374.8
30°	168.0	228.4	354.7	234.1	169.5
32.5°	99.1	123.5	193.9	122.1	97.7
35°	63.2	76.1	109.1	73.2	61.8
37.5°	41.6	50.3	67.5	48.8	40.2
40°	30.2	34.5	44.5	33.0	28.7
42.5°	23.0	24.4	30.2	24.4	21.5
45°	18.7	18.7	21.5	17.2	15.8
47.5°	14.4	14.4	14.4	12.9	10.1
50°	10.1	10.1	10.1	8.6	7.2
52.5°	7.2	7.2	7.2	5.7	4.3
55°	4.3	4.3	5.7	4.3	2.9
57.5°	4.3	2.9	4.3	2.9	2.9
60°	2.9	2.9	2.9	1.4	1.4
62.5°	1.4	1.4	1.4	1.4	1.4
65°	1.4	1.4	1.4	1.4	1.4
67.5°	1.4	1.4	1.4	1.4	1.4
70°	1.4	1.4	1.4	1.4	1.4
72.5°	1.4	1.4	1.4	1.4	0.0
75°	0.0	1.4	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)