

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: P208726

Luminaire Tested: **LDSQA6A15835D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208726
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29053)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A15835D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1431.0 lumens
Efficiency: N/A
Efficacy: 65.7 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.36
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

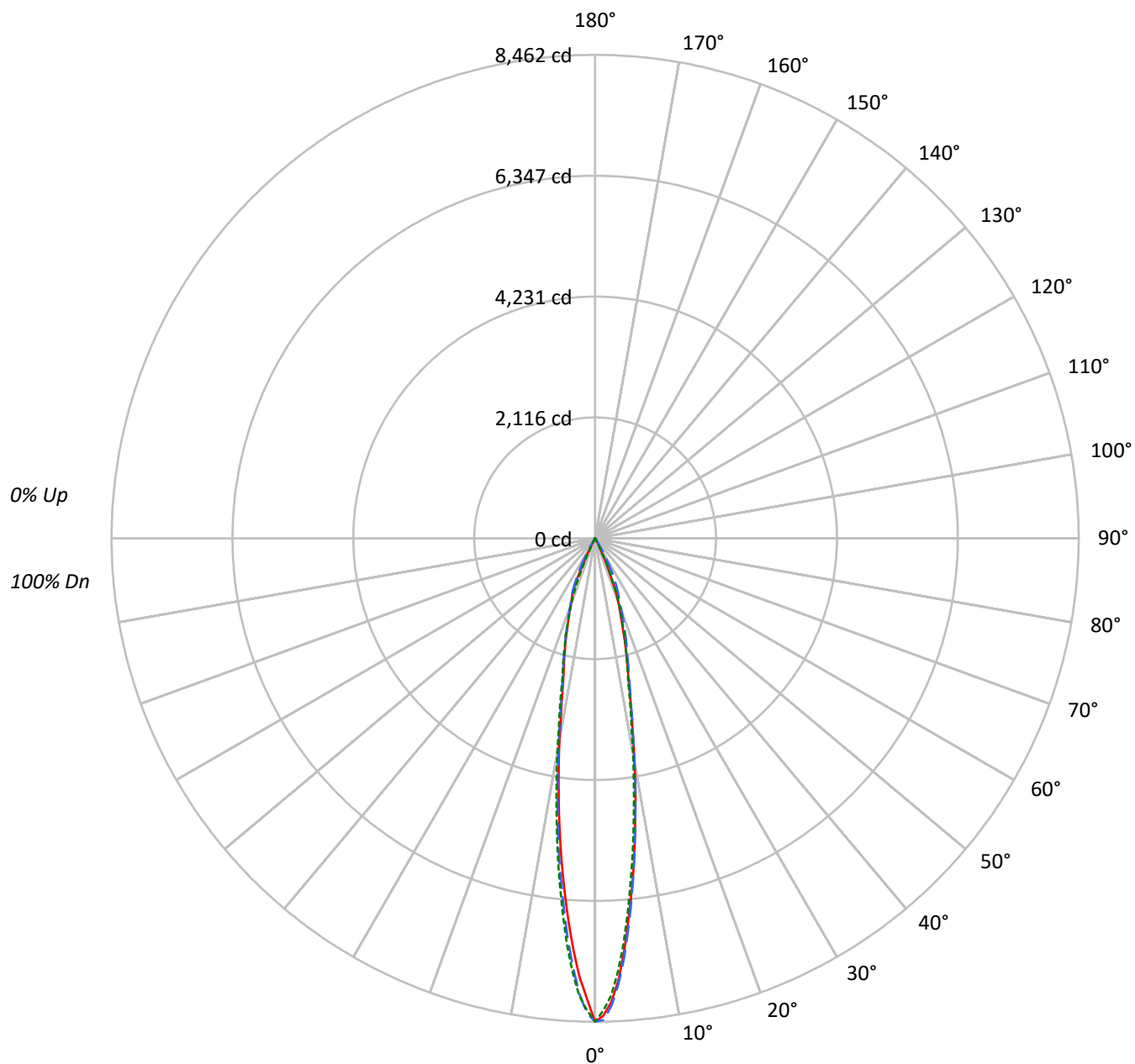
Input Watts (W): 21.79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	115	113	111	110	113	111	109	108	107	106	105	103	102	101	100	99	99	97	97	97
2	112	108	105	103	109	106	104	102	103	101	99	100	99	97	98	96	95	94	94	94
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	91	91
4	105	100	96	93	103	99	95	93	97	94	91	95	92	90	93	91	90	88	88	88
5	102	96	92	89	101	95	92	89	94	91	88	92	90	88	91	89	87	86	86	86
6	99	93	89	86	98	92	89	86	91	88	85	90	87	85	89	86	84	83	83	83
7	97	90	86	83	95	90	86	83	89	85	83	88	85	82	87	84	82	81	81	81
8	94	88	84	81	93	87	83	81	86	83	80	85	82	80	85	82	80	79	79	79
9	92	85	81	79	91	85	81	79	84	81	78	83	80	78	83	80	78	77	77	77
10	89	83	79	77	89	83	79	76	82	79	76	81	78	76	81	78	76	75	75	75

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	364320	364320	364320
5°	289622	283442	266647
10°	172558	166201	156368
15°	94284	94444	91480
20°	54020	55514	57063
25°	14262	14827	26637
30°	1949	1800	1740
35°	778	746	715
40°	298	298	298
45°	146	110	146
50°	80	40	121
55°	45	0	90
60°	52	0	0
65°	61	0	0
70°	76	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	537.3	37.5
10°-20°	604.7	42.3
20°-30°	269.3	18.8
30°-40°	16.4	1.1
40°-50°	2.7	0.2
50°-60°	0.5	0.0
60°-70°	0.1	0.0
70°-80°	0.0	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°	1411.3	98.6
0°-40°	1427.7	99.8
0°-60°	1430.9	100.0
0°-90°	1431.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1431.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8462	8462	8462	8462	8462	
5°	6701	6779	6558	6404	6170	551
15°	2115	2207	2119	2104	2052	596
25°	300	802	312	775	561	177
35°	15	24	14	24	14	11
45°	2	4	2	4	2	2
55°	1	1	0	1	1	1
65°	1	0	0	0	0	1
75°	0	0	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°	112.5°	135°	157.5°	180°
0°	8461.6	8461.6	8461.6	8461.6	8461.6	8461.6	8461.6	8461.6	8461.6
1°	8357.7	8434.3	8434.3	8415.9	8263.4	8376.7	8312.6	8243.8	8064.6
2°	8117.4	8195.1	8187.4	8117.4	8007.1	8053.9	7966.1	7880.7	7692.6
3°	7746.6	7830.2	7814.8	7741.8	7594.7	7623.2	7497.4	7432.7	7216.7
4°	7248.2	7354.4	7336.0	7255.3	7107.6	7105.8	6974.1	6905.8	6705.9
5°	6701.1	6812.1	6779.4	6713.0	6558.1	6530.2	6404.5	6355.8	6169.5
6°	6175.4	6244.9	6211.0	6155.9	5988.5	5971.3	5852.1	5810.5	5638.5
7°	5615.3	5663.4	5630.2	5587.4	5418.3	5395.8	5298.5	5265.9	5097.9
8°	5025.0	5093.8	5046.3	5019.6	4860.0	4829.2	4731.3	4709.3	4574.6
9°	4520.6	4543.8	4493.3	4413.2	4320.7	4289.2	4185.4	4164.0	4069.7
10°	3946.9	4018.7	3979.5	3910.7	3801.5	3825.2	3674.5	3656.7	3576.6
11°	3447.9	3523.2	3481.7	3420.0	3321.5	3335.1	3211.7	3137.0	3124.5
12°	3036.1	3070.5	3058.1	3008.2	2928.7	2932.9	2823.1	2763.2	2750.7
13°	2635.0	2696.7	2702.6	2661.7	2566.2	2610.1	2528.2	2479.5	2460.0
14°	2363.3	2410.1	2429.1	2427.9	2324.7	2363.3	2298.6	2259.4	2239.8
15°	2115.2	2176.4	2207.2	2205.4	2118.8	2158.0	2104.0	2073.1	2052.3
16°	1882.7	1966.3	2016.7	2008.4	1927.7	1968.1	1914.7	1884.4	1861.3
17°	1648.9	1764.0	1838.2	1822.1	1737.9	1788.9	1737.9	1711.8	1687.4
18°	1469.1	1563.4	1667.9	1633.5	1539.7	1619.2	1575.3	1554.5	1532.0
19°	1307.7	1372.4	1508.3	1447.1	1362.3	1452.5	1419.9	1403.2	1381.9
20°	1179.0	1234.7	1355.8	1283.4	1211.6	1285.2	1276.3	1263.2	1245.4
21°	1014.0	1120.2	1217.5	1150.5	1056.1	1160.0	1171.2	1164.1	1151.1
22°	802.8	993.8	1117.3	995.0	871.6	1068.6	1091.7	1086.4	1076.9
23°	624.8	844.9	1024.7	852.0	678.8	967.1	1001.5	998.0	966.5
24°	455.7	691.8	908.4	684.1	488.3	828.9	894.7	888.8	774.9
25°	300.2	538.7	802.2	513.2	312.1	670.5	774.9	764.8	560.7
26°	192.8	394.0	706.7	350.7	166.1	500.8	647.9	619.4	347.7
27°	92.6	274.7	589.8	206.5	80.7	334.0	519.8	456.3	167.9
28°	58.1	144.2	468.7	102.6	54.6	185.7	398.1	289.5	65.9
29°	47.5	71.2	347.1	58.1	44.5	85.4	285.4	141.2	45.7
30°	39.2	47.5	236.7	44.5	36.2	47.5	187.5	55.2	35.0
32.5°	24.9	29.7	54.6	27.9	23.7	27.3	44.5	26.7	22.0
35°	14.8	19.0	23.7	18.4	14.2	17.8	24.3	17.2	13.6
37.5°	8.9	11.3	15.4	11.3	8.9	11.3	15.4	11.3	8.3
40°	5.3	7.1	10.7	7.1	5.3	7.1	10.7	7.1	5.3
42.5°	3.6	4.2	7.1	4.2	3.0	4.2	7.1	4.7	3.6
45°	2.4	3.0	4.2	2.4	1.8	2.4	4.2	3.0	2.4
47.5°	1.8	1.8	2.4	1.2	1.2	1.8	3.0	2.4	1.8
50°	1.2	1.2	1.8	0.6	0.6	0.6	1.8	1.8	1.8
52.5°	0.6	0.6	0.6	0.0	0.0	0.0	1.2	1.2	1.2
55°	0.6	0.6	0.6	0.0	0.0	0.0	0.6	1.2	1.2
57.5°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	1.2	1.2
60°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	1.2	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°







62.5°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)