

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: P208730

Luminaire Tested: **LDSQA6A15935D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208730
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: LDSQA6A15935D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1167.8 lumens
Efficiency: N/A
Efficacy: 53.6 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

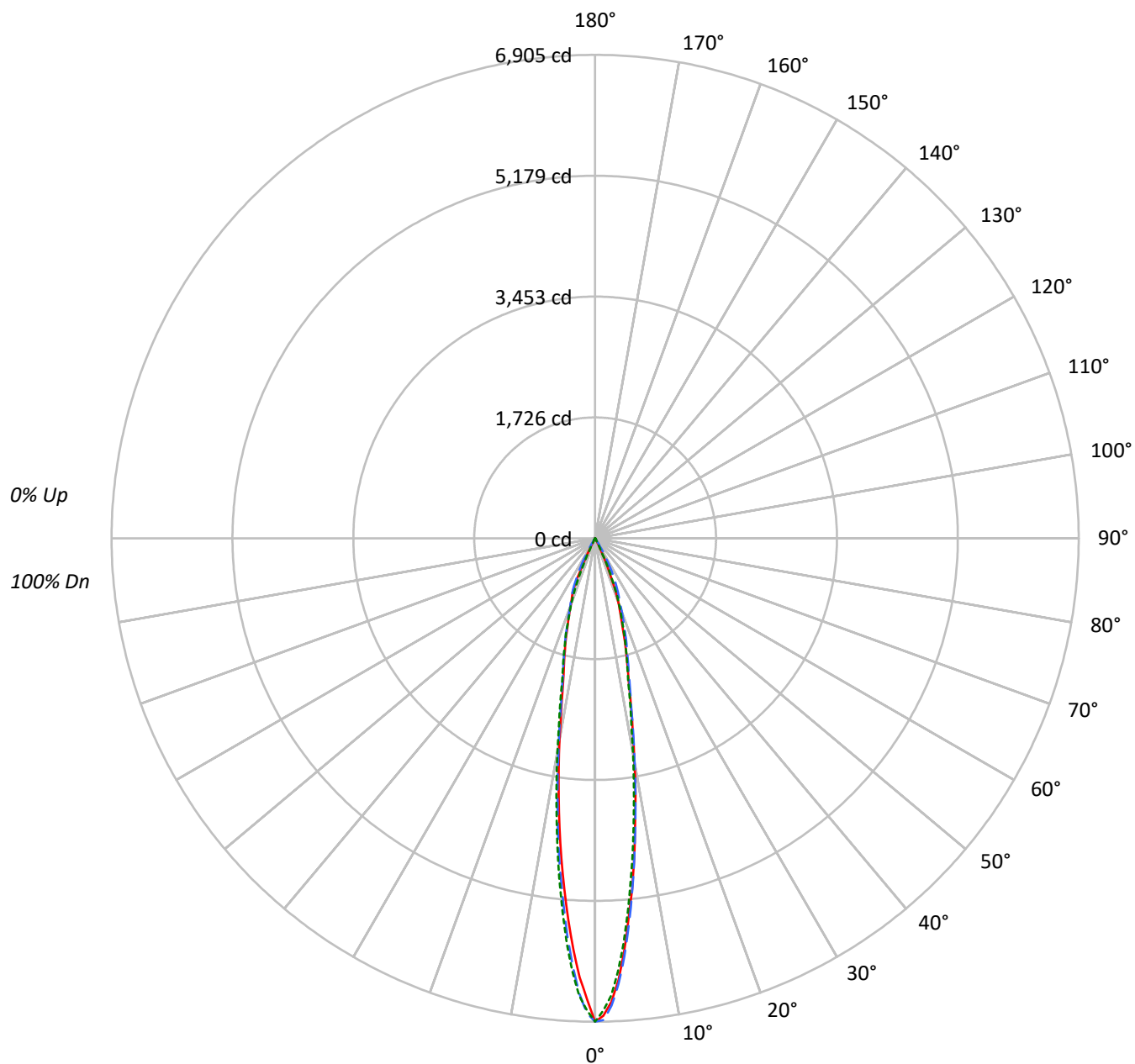
Input Watts (W): 21.79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
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°	297295	297295	297295
5°	236341	231297	217592
10°	140813	135623	127601
15°	76940	77069	74653
20°	44082	45301	46566
25°	11639	12100	21734
30°	1591	1467	1422
35°	636	610	583
40°	247	247	247
45°	116	91	116
50°	67	33	100
55°	38	0	75
60°	43	0	0
65°	51	0	0
70°	63	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°	438.5	37.5
10°-20°	493.5	42.3
20°-30°	219.7	18.8
30°-40°	13.4	1.1
40°-50°	2.2	0.2
50°-60°	0.4	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°	1151.7	98.6
0°-40°	1165.1	99.8
0°-60°	1167.6	100.0
0°-90°	1167.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1167.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6905	6905	6905	6905	6905	
5°	5468	5532	5352	5226	5034	449
15°	1726	1801	1729	1717	1675	487
25°	245	655	255	632	458	144
35°	12	19	12	20	11	9
45°	2	3	2	3	2	2
55°	0	0	0	0	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
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°	112.5°	135°	157.5°	180°
0°	6904.9	6904.9	6904.9	6904.9	6904.9	6904.9	6904.9	6904.9	6904.9
1°	6820.1	6882.6	6882.6	6867.6	6743.2	6835.6	6783.3	6727.2	6581.0
2°	6624.0	6687.5	6681.2	6624.0	6534.0	6572.2	6500.6	6430.9	6277.4
3°	6321.4	6389.7	6377.1	6317.6	6197.5	6220.7	6118.1	6065.3	5889.1
4°	5914.7	6001.4	5986.4	5920.5	5800.0	5798.5	5691.0	5635.4	5472.2
5°	5468.3	5558.9	5532.2	5478.0	5351.6	5328.9	5226.2	5186.5	5034.5
6°	5039.3	5096.0	5068.4	5023.3	4886.8	4872.8	4775.4	4741.6	4601.1
7°	4582.3	4621.5	4594.4	4559.5	4421.5	4403.1	4323.7	4297.1	4160.1
8°	4100.5	4156.7	4117.9	4096.1	3965.9	3940.7	3860.8	3842.9	3733.0
9°	3689.0	3707.8	3666.7	3601.3	3525.8	3500.1	3415.4	3398.0	3321.0
10°	3220.8	3279.3	3247.4	3191.2	3102.1	3121.5	2998.5	2984.0	2918.6
11°	2813.6	2875.1	2841.2	2790.8	2710.4	2721.6	2620.9	2559.9	2549.7
12°	2477.5	2505.6	2495.5	2454.8	2389.9	2393.3	2303.7	2254.8	2244.7
13°	2150.2	2200.6	2205.4	2172.0	2094.1	2129.9	2063.1	2023.4	2007.4
14°	1928.5	1966.7	1982.2	1981.3	1897.0	1928.5	1875.7	1843.8	1827.8
15°	1726.1	1776.0	1801.1	1799.7	1729.0	1761.0	1716.9	1691.7	1674.8
16°	1536.3	1604.6	1645.7	1638.9	1573.1	1606.0	1562.4	1537.8	1518.9
17°	1345.5	1439.5	1500.0	1486.9	1418.2	1459.8	1418.2	1396.9	1377.0
18°	1198.8	1275.8	1361.0	1332.9	1256.4	1321.3	1285.5	1268.5	1250.1
19°	1067.1	1119.9	1230.8	1180.9	1111.7	1185.3	1158.6	1145.1	1127.7
20°	962.1	1007.6	1106.3	1047.3	988.7	1048.7	1041.5	1030.8	1016.3
21°	827.5	914.1	993.5	938.8	861.8	946.6	955.8	950.0	939.3
22°	655.1	811.0	911.7	812.0	711.3	872.0	890.9	886.5	878.8
23°	509.8	689.5	836.2	695.3	553.9	789.2	817.3	814.4	788.7
24°	371.8	564.6	741.3	558.3	398.5	676.4	730.1	725.3	632.3
25°	245.0	439.6	654.6	418.8	254.7	547.1	632.3	624.1	457.5
26°	157.4	321.5	576.7	286.1	135.6	408.6	528.7	505.5	283.7
27°	75.5	224.2	481.3	168.5	65.8	272.6	424.1	372.3	137.0
28°	47.4	117.7	382.5	83.8	44.5	151.5	324.9	236.3	53.7
29°	38.7	58.1	283.2	47.4	36.3	69.7	232.9	115.2	37.3
30°	32.0	38.7	193.2	36.3	29.5	38.7	153.0	45.0	28.6
32.5°	20.3	24.2	44.5	22.8	19.4	22.3	36.3	21.8	17.9
35°	12.1	15.5	19.4	15.0	11.6	14.5	19.9	14.0	11.1
37.5°	7.3	9.2	12.6	9.2	7.3	9.2	12.6	9.2	6.8
40°	4.4	5.8	8.7	5.8	4.4	5.8	8.7	5.8	4.4
42.5°	2.9	3.4	5.8	3.4	2.4	3.4	5.8	3.9	2.9
45°	1.9	2.4	3.4	1.9	1.5	1.9	3.4	2.4	1.9
47.5°	1.5	1.5	1.9	1.0	1.0	1.5	2.4	1.9	1.5
50°	1.0	1.0	1.5	0.5	0.5	0.5	1.5	1.5	1.5
52.5°	0.5	0.5	0.5	0.0	0.0	0.0	1.0	1.0	1.0
55°	0.5	0.5	0.5	0.0	0.0	0.0	0.5	1.0	1.0
57.5°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	1.0	1.0
60°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	1.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.5	0.5	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°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)