

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: P208734

Luminaire Tested: **LDSQA6A20835D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208734
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: LDSQA6A20835D010TE 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: 1733.6 lumens
Efficiency: N/A
Efficacy: 60.2 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

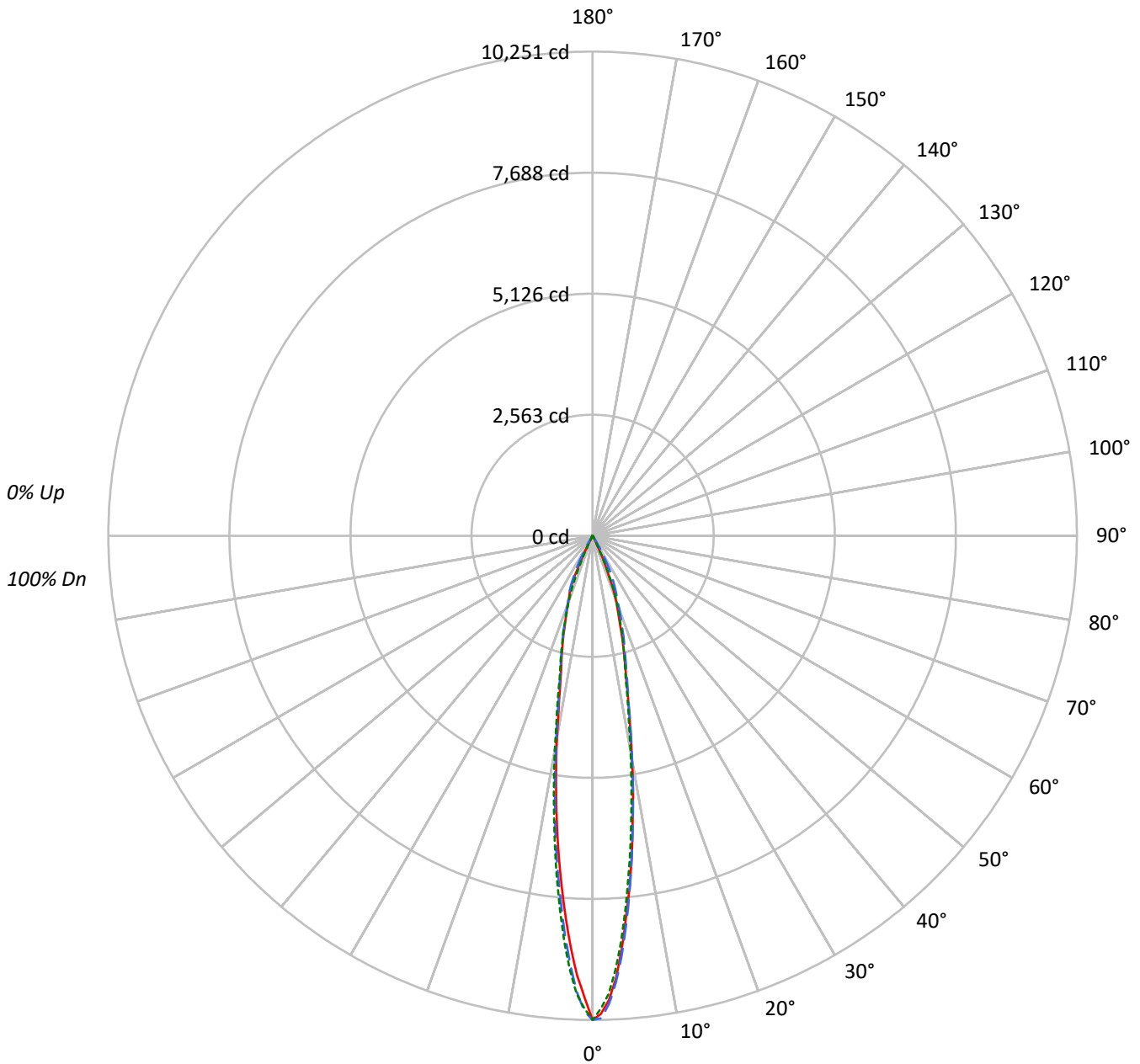
Input Watts (W): 28.81
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	441359	441359	441359
5°	350870	343380	323032
10°	209047	201347	189438
15°	114222	114418	110826
20°	65443	67253	69132
25°	17278	17962	32271
30°	2357	2178	2108
35°	946	909	867
40°	365	365	365
45°	177	134	177
50°	94	47	147
55°	53	0	105
60°	60	0	0
65°	71	0	0
70°	88	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°	651.0	37.6
10°-20°	732.6	42.3
20°-30°	326.2	18.8
30°-40°	19.9	1.1
40°-50°	3.2	0.2
50°-60°	0.6	0.0
60°-70°	0.2	0.0
70°-80°	0.1	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°	1709.8	98.6
0°-40°	1729.7	99.8
0°-60°	1733.4	100.0
0°-90°	1733.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1733.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	10251	10251	10251	10251	10251	
5°	8118	8213	7945	7759	7474	667
15°	2562	2674	2567	2549	2486	722
25°	364	972	378	939	679	214
35°	18	29	17	30	16	13
45°	3	5	2	5	3	3
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°	10250.9	10250.9	10250.9	10250.9	10250.9	10250.9	10250.9	10250.9	10250.9
1°	10125.1	10217.8	10217.8	10195.5	10010.8	10148.1	10070.4	9987.1	9770.0
2°	9834.0	9928.1	9918.8	9834.0	9700.3	9757.1	9650.7	9547.2	9319.3
3°	9384.7	9486.1	9467.4	9379.0	9200.7	9235.2	9082.8	9004.5	8742.8
4°	8780.9	8909.6	8887.3	8789.5	8610.6	8608.4	8448.8	8366.2	8123.9
5°	8118.2	8252.6	8213.1	8132.6	7944.9	7911.2	7758.8	7699.8	7474.1
6°	7481.3	7565.4	7524.4	7457.6	7254.9	7234.0	7089.6	7039.3	6830.8
7°	6802.8	6861.0	6820.7	6769.0	6564.1	6536.8	6418.9	6379.4	6176.0
8°	6087.6	6170.9	6113.4	6081.1	5887.7	5850.3	5731.7	5705.2	5542.0
9°	5476.6	5504.6	5443.5	5346.5	5234.3	5196.2	5070.4	5044.6	4930.3
10°	4781.5	4868.5	4821.0	4737.6	4605.4	4634.1	4451.6	4430.0	4333.0
11°	4177.0	4268.3	4217.9	4143.2	4023.9	4040.4	3890.9	3800.3	3785.2
12°	3678.1	3719.8	3704.7	3644.3	3548.0	3553.0	3420.1	3347.5	3332.4
13°	3192.2	3267.0	3274.2	3224.6	3108.8	3162.0	3062.8	3003.9	2980.2
14°	2863.0	2919.8	2942.8	2941.3	2816.3	2863.0	2784.6	2737.2	2713.5
15°	2562.5	2636.6	2674.0	2671.8	2566.9	2614.3	2548.9	2511.5	2486.3
16°	2280.8	2382.1	2443.2	2433.2	2335.4	2384.3	2319.6	2282.9	2254.9
17°	1997.6	2137.0	2226.9	2207.4	2105.4	2167.2	2105.4	2073.8	2044.3
18°	1779.8	1894.0	2020.6	1978.9	1865.3	1961.6	1908.4	1883.3	1856.0
19°	1584.2	1662.6	1827.2	1753.2	1650.4	1759.6	1720.1	1700.0	1674.1
20°	1428.3	1495.8	1642.5	1554.8	1467.8	1556.9	1546.1	1530.3	1508.8
21°	1228.4	1357.1	1475.0	1393.8	1279.5	1405.3	1418.9	1410.3	1394.5
22°	972.5	1204.0	1353.5	1205.4	1055.9	1294.6	1322.6	1316.1	1304.6
23°	756.9	1023.6	1241.4	1032.2	822.3	1171.7	1213.3	1209.0	1170.9
24°	552.0	838.1	1100.5	828.8	591.6	1004.2	1084.0	1076.8	938.8
25°	363.7	652.7	971.8	621.8	378.1	812.2	938.8	926.5	679.3
26°	233.6	477.3	856.1	424.8	201.3	606.7	784.9	750.4	421.2
27°	112.1	332.8	714.5	250.1	97.8	404.7	629.7	552.8	203.4
28°	70.4	174.7	567.9	124.4	66.1	225.0	482.3	350.8	79.8
29°	57.5	86.3	420.5	70.4	53.9	103.5	345.7	171.1	55.3
30°	47.4	57.5	286.8	53.9	43.8	57.5	227.1	66.8	42.4
32.5°	30.2	35.9	66.1	33.8	28.8	33.1	53.9	32.3	26.6
35°	18.0	23.0	28.8	22.3	17.3	21.6	29.5	20.8	16.5
37.5°	10.8	13.7	18.7	13.7	10.8	13.7	18.7	13.7	10.1
40°	6.5	8.6	12.9	8.6	6.5	8.6	12.9	8.6	6.5
42.5°	4.3	5.0	8.6	5.0	3.6	5.0	8.6	5.8	4.3
45°	2.9	3.6	5.0	2.9	2.2	2.9	5.0	3.6	2.9
47.5°	2.2	2.2	2.9	1.4	1.4	2.2	3.6	2.9	2.2
50°	1.4	1.4	2.2	0.7	0.7	0.7	2.2	2.2	2.2
52.5°	0.7	0.7	0.7	0.0	0.0	0.0	1.4	1.4	1.4
55°	0.7	0.7	0.7	0.0	0.0	0.0	0.7	1.4	1.4
57.5°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	1.4	1.4
60°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	1.4	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.7	0.7	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°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)