

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: P208725

Luminaire Tested: **LDSQA6A15830D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208725
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: LDSQA6A15830D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1405.7 lumens
Efficiency: N/A
Efficacy: 64.5 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

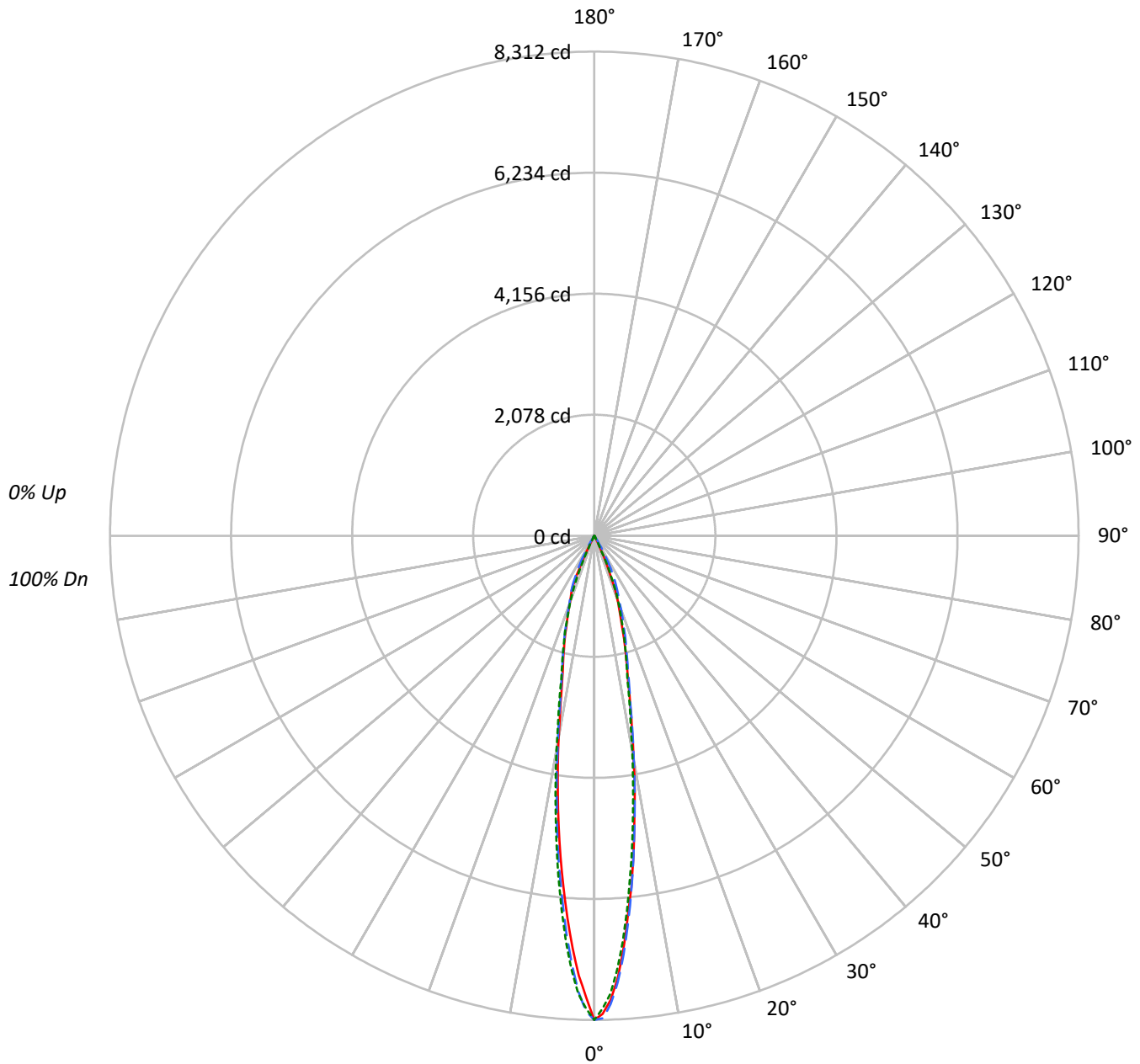
Input Watts (W): 21.79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	357883	357883	357883
5°	284509	278437	261936
10°	169506	163263	153605
15°	92621	92777	89867
20°	53063	54534	56055
25°	14010	14566	26167
30°	1914	1770	1710
35°	767	736	704
40°	292	292	292
45°	140	104	140
50°	80	40	114
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°	527.9	37.5
10°-20°	594.0	42.3
20°-30°	264.5	18.8
30°-40°	16.1	1.1
40°-50°	2.6	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°	1386.4	98.6
0°-40°	1402.5	99.8
0°-60°	1405.6	100.0
0°-90°	1405.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1405.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8312	8312	8312	8312	8312	
5°	6583	6660	6442	6291	6060	541
15°	2078	2168	2081	2067	2016	586
25°	295	788	307	761	551	174
35°	15	23	14	24	13	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	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	8312.1	8312.1	8312.1	8312.1	8312.1	8312.1	8312.1	8312.1	8312.1
1°	8210.1	8285.3	8285.3	8267.2	8117.4	8228.7	8165.8	8098.2	7922.2
2°	7974.0	8050.4	8042.8	7974.0	7865.6	7911.7	7825.4	7741.5	7556.7
3°	7609.7	7691.9	7676.8	7605.1	7460.5	7488.5	7364.9	7301.4	7089.3
4°	7120.1	7224.5	7206.4	7127.1	6982.0	6980.3	6850.9	6783.8	6587.4
5°	6582.8	6691.7	6659.7	6594.4	6442.3	6414.9	6291.3	6243.5	6060.5
6°	6066.3	6134.5	6101.3	6047.1	5882.7	5865.8	5748.7	5707.9	5538.9
7°	5516.1	5563.3	5530.7	5488.7	5322.6	5300.5	5204.9	5172.8	5007.9
8°	4936.2	5003.8	4957.2	4930.9	4774.2	4743.8	4647.7	4626.1	4493.8
9°	4440.8	4463.5	4414.0	4335.3	4244.3	4213.5	4111.5	4090.5	3997.8
10°	3877.1	3947.7	3909.2	3841.6	3734.3	3757.7	3609.6	3592.1	3513.4
11°	3387.0	3461.0	3420.2	3359.6	3262.8	3276.2	3155.0	3081.5	3069.3
12°	2982.5	3016.3	3004.0	2955.1	2877.0	2881.0	2773.2	2714.4	2702.1
13°	2588.5	2649.1	2654.9	2614.7	2520.8	2564.0	2483.5	2435.7	2416.5
14°	2321.5	2367.6	2386.2	2385.0	2283.6	2321.5	2258.0	2219.5	2200.3
15°	2077.9	2137.9	2168.2	2166.5	2081.4	2119.8	2066.8	2036.5	2016.1
16°	1849.4	1931.6	1981.1	1973.0	1893.7	1933.3	1880.9	1851.1	1828.4
17°	1619.8	1732.8	1805.7	1789.9	1707.2	1757.3	1707.2	1681.5	1657.6
18°	1443.1	1535.8	1638.4	1604.6	1512.5	1590.6	1547.5	1527.1	1504.9
19°	1284.6	1348.1	1481.6	1421.6	1338.2	1426.8	1394.8	1378.4	1357.5
20°	1158.1	1212.9	1331.8	1260.7	1190.2	1262.5	1253.7	1240.9	1223.4
21°	996.1	1100.4	1196.0	1130.2	1037.5	1139.5	1150.6	1143.6	1130.7
22°	788.6	976.3	1097.5	977.4	856.2	1049.7	1072.5	1067.2	1057.9
23°	613.7	830.0	1006.6	837.0	666.8	950.1	983.9	980.4	949.5
24°	447.6	679.6	892.3	672.0	479.7	814.2	878.9	873.1	761.2
25°	294.9	529.2	788.0	504.2	306.6	658.6	761.2	751.3	550.8
26°	189.4	387.0	694.2	344.5	163.2	491.9	636.5	608.5	341.6
27°	90.9	269.9	579.4	202.8	79.3	328.1	510.6	448.2	164.9
28°	57.1	141.6	460.5	100.8	53.6	182.4	391.1	284.4	64.7
29°	46.6	69.9	341.0	57.1	43.7	83.9	280.4	138.7	44.9
30°	38.5	46.6	232.6	43.7	35.6	46.6	184.2	54.2	34.4
32.5°	24.5	29.1	53.6	27.4	23.3	26.8	43.7	26.2	21.6
35°	14.6	18.7	23.3	18.1	14.0	17.5	23.9	16.9	13.4
37.5°	8.7	11.1	15.2	11.1	8.7	11.1	15.2	11.1	8.2
40°	5.2	7.0	10.5	7.0	5.2	7.0	10.5	7.0	5.2
42.5°	3.5	4.1	7.0	4.1	2.9	4.1	7.0	4.7	3.5
45°	2.3	2.9	4.1	2.3	1.7	2.3	4.1	2.9	2.3
47.5°	1.7	1.7	2.3	1.2	1.2	1.7	2.9	2.3	1.7
50°	1.2	1.2	1.7	0.6	0.6	0.6	1.7	1.7	1.7
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)