

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: P208737

Luminaire Tested: **LDSQA6A20930D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208737
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: LDSQA6A20930D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1401.2 lumens
Efficiency: N/A
Efficacy: 48.6 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

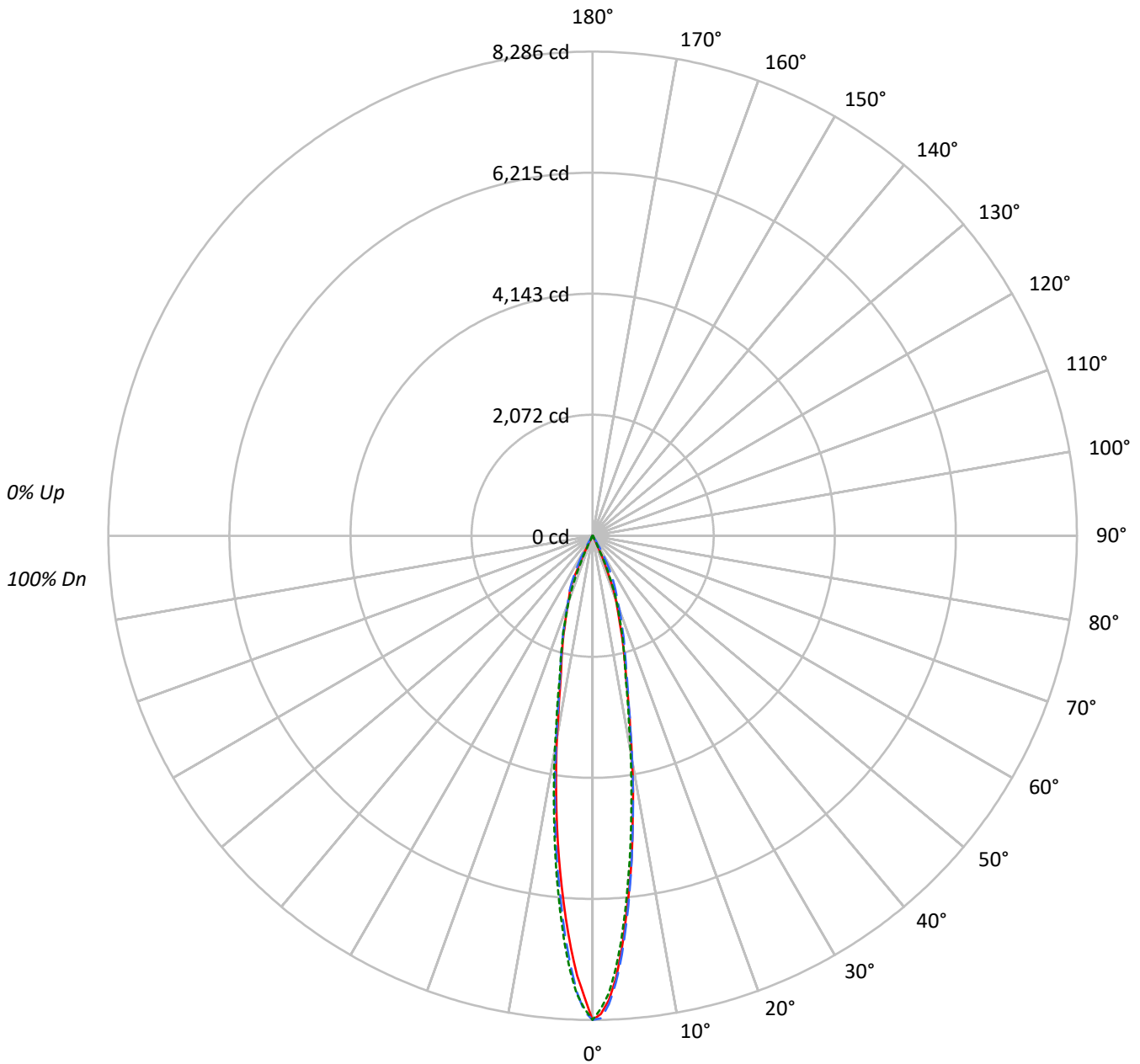
Input Watts (W): 28.81
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	356738	356738	356738
5°	283597	277547	261097
10°	168964	162743	153116
15°	92323	92479	89577
20°	52893	54360	55876
25°	13967	14518	26081
30°	1904	1760	1705
35°	762	731	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°	526.2	37.5
10°-20°	592.1	42.3
20°-30°	263.7	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°	1382.0	98.6
0°-40°	1398.0	99.8
0°-60°	1401.1	100.0
0°-90°	1401.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1401.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8286	8286	8286	8286	8286	
5°	6562	6638	6422	6271	6041	539
15°	2071	2161	2075	2060	2010	584
25°	294	786	306	759	549	173
35°	14	23	14	24	13	10
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°	8285.5	8285.5	8285.5	8285.5	8285.5	8285.5	8285.5	8285.5	8285.5
1°	8183.8	8258.8	8258.8	8240.8	8091.4	8202.4	8139.7	8072.3	7896.8
2°	7948.5	8024.6	8017.1	7948.5	7840.5	7886.4	7800.4	7716.7	7532.5
3°	7585.4	7667.3	7652.2	7580.7	7436.7	7464.6	7341.4	7278.1	7066.6
4°	7097.4	7201.4	7183.4	7104.3	6959.7	6957.9	6828.9	6762.1	6566.3
5°	6561.7	6670.3	6638.4	6573.3	6421.7	6394.4	6271.2	6223.6	6041.1
6°	6046.9	6114.9	6081.8	6027.8	5863.9	5847.1	5730.3	5689.6	5521.1
7°	5498.5	5545.5	5513.0	5471.2	5305.6	5283.5	5188.2	5156.3	4991.9
8°	4920.4	4987.8	4941.3	4915.2	4758.9	4728.7	4632.8	4611.3	4479.4
9°	4426.6	4449.2	4399.8	4321.4	4230.8	4200.0	4098.3	4077.4	3985.0
10°	3864.7	3935.0	3896.7	3829.3	3722.4	3745.6	3598.1	3580.6	3502.2
11°	3376.1	3449.9	3409.2	3348.8	3252.4	3265.7	3144.9	3071.7	3059.5
12°	2972.9	3006.6	2994.4	2945.6	2867.8	2871.8	2764.3	2705.7	2693.5
13°	2580.2	2640.6	2646.4	2606.3	2512.8	2555.8	2475.6	2428.0	2408.8
14°	2314.1	2360.0	2378.6	2377.4	2276.3	2314.1	2250.8	2212.4	2193.2
15°	2071.2	2131.1	2161.3	2159.5	2074.7	2113.1	2060.2	2030.0	2009.6
16°	1843.5	1925.4	1974.8	1966.6	1887.6	1927.1	1874.9	1845.2	1822.6
17°	1614.6	1727.3	1799.9	1784.2	1701.7	1751.7	1701.7	1676.2	1652.3
18°	1438.5	1530.9	1633.2	1599.5	1507.7	1585.5	1542.5	1522.2	1500.1
19°	1280.5	1343.8	1476.9	1417.0	1334.0	1422.3	1390.3	1374.0	1353.1
20°	1154.4	1209.0	1327.6	1256.7	1186.4	1258.4	1249.7	1236.9	1219.5
21°	992.9	1096.9	1192.2	1126.5	1034.2	1135.8	1146.9	1139.9	1127.1
22°	786.1	973.2	1094.0	974.3	853.5	1046.4	1069.0	1063.8	1054.5
23°	611.8	827.3	1003.4	834.3	664.7	947.0	980.7	977.2	946.4
24°	446.2	677.4	889.5	669.9	478.2	811.6	876.1	870.3	758.8
25°	294.0	527.5	785.5	502.6	305.6	656.5	758.8	748.9	549.0
26°	188.8	385.8	692.0	343.4	162.7	490.4	634.4	606.6	340.5
27°	90.6	269.0	577.5	202.2	79.0	327.1	508.9	446.8	164.4
28°	56.9	141.2	459.0	100.5	53.5	181.8	389.8	283.5	64.5
29°	46.5	69.7	339.9	56.9	43.6	83.7	279.5	138.3	44.7
30°	38.3	46.5	231.8	43.6	35.4	46.5	183.6	54.0	34.3
32.5°	24.4	29.0	53.5	27.3	23.2	26.7	43.6	26.1	21.5
35°	14.5	18.6	23.2	18.0	13.9	17.4	23.8	16.8	13.4
37.5°	8.7	11.0	15.1	11.0	8.7	11.0	15.1	11.0	8.1
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	4.6	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)