

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: P1219616

Luminaire Tested: **LDSQA6A35950D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

**Test Information**

Test Method: LM-41-14
Report Number: P1219616
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: LDSQA6A35950D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

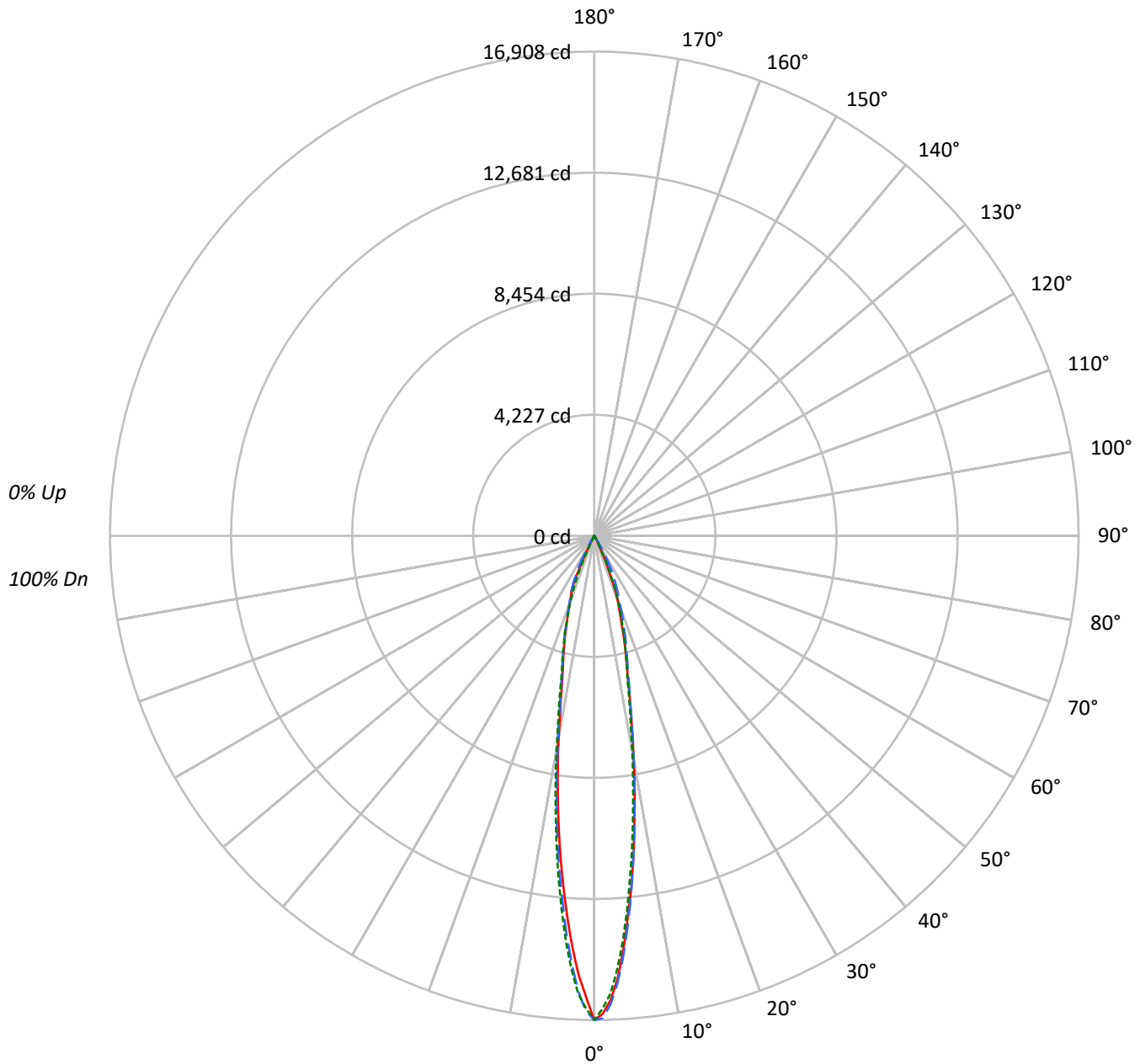
Lumens per Lamp: N/A
Luminaire Lumens: 2859.4 lumens
Efficiency: N/A
Efficacy: 59.9 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.36
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 47.7
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	115	113	111	110	113	111	109	108	107	106	105		103	102	101		100
2	112	108	105	103	109	106	104	102	103	101	99		100	99	97		98
3	108	104	100	97	106	102	99	97	100	97	95		98	95	94		96
4	105	100	96	93	103	99	95	93	97	94	91		95	92	90		93
5	102	96	92	89	101	95	92	89	94	91	88		92	90	88		91
6	99	93	89	86	98	92	89	86	91	88	85		90	87	85		89
7	97	90	86	83	95	90	86	83	89	85	83		88	85	82		87
8	94	88	84	81	93	87	83	81	86	83	80		85	82	80		85
9	92	85	81	79	91	85	81	79	84	81	78		83	80	78		83
10	89	83	79	77	89	83	79	76	82	79	76		81	78	76		81

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	727972	727972	727972
5°	578717	566374	532809
10°	344797	332105	312457
15°	188399	188715	182800
20°	107936	110928	114025
25°	28504	29625	53226
30°	3888	3594	3480
35°	1551	1498	1440
40°	601	601	601
45°	286	213	286
50°	161	74	234
55°	83	0	180
60°	95	0	0
65°	112	0	0
70°	138	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°	1073.7	37.6
10°-20°	1208.3	42.3
20°-30°	538.1	18.8
30°-40°	32.8	1.1
40°-50°	5.3	0.2
50°-60°	0.9	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°	2820.1	98.6
0°-40°	2852.9	99.8
0°-60°	2859.1	100.0
0°-90°	2859.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2859.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	16908	16908	16908	16908	16908	
5°	13390	13546	13104	12797	12328	1101
15°	4227	4410	4234	4204	4101	1192
25°	600	1603	624	1548	1120	354
35°	30	47	28	49	27	21
45°	5	8	4	8	5	4
55°	1	1	0	1	2	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°	16907.7	16907.7	16907.7	16907.7	16907.7	16907.7	16907.7	16907.7	16907.7
1°	16700.3	16853.2	16853.2	16816.6	16511.8	16738.3	16610.3	16472.7	16114.6
2°	16220.2	16375.5	16359.9	16220.2	15999.6	16093.2	15917.8	15747.1	15371.2
3°	15479.2	15646.4	15615.5	15469.7	15175.6	15232.5	14981.2	14851.9	14420.4
4°	14483.2	14695.4	14658.7	14497.5	14202.3	14198.7	13935.6	13799.0	13399.6
5°	13390.0	13611.8	13546.5	13413.8	13104.4	13048.6	12797.4	12700.1	12327.8
6°	12339.7	12478.3	12410.8	12300.5	11966.2	11931.7	11693.4	11610.6	11266.6
7°	11220.4	11316.4	11250.2	11164.8	10826.9	10781.8	10587.3	10522.1	10186.7
8°	10040.9	10178.3	10083.5	10030.2	9711.2	9649.6	9454.0	9410.1	9141.0
9°	9033.1	9079.4	8978.5	8818.5	8633.5	8570.7	8363.2	8320.5	8132.0
10°	7886.5	8030.2	7951.8	7814.2	7596.2	7643.6	7342.4	7306.8	7146.8
11°	6889.5	7040.1	6957.1	6833.7	6637.0	6664.3	6417.6	6268.2	6243.3
12°	6066.7	6135.5	6110.6	6011.0	5852.1	5860.5	5641.1	5521.3	5496.4
13°	5265.2	5388.6	5400.3	5318.6	5127.8	5215.4	5051.8	4954.7	4915.5
14°	4722.3	4815.9	4853.9	4851.5	4645.2	4722.3	4593.0	4514.7	4475.5
15°	4226.6	4348.9	4410.4	4406.9	4233.7	4311.9	4204.1	4142.5	4101.0
16°	3762.0	3929.1	4029.9	4013.2	3852.1	3932.7	3826.0	3765.5	3719.2
17°	3294.7	3524.8	3673.1	3641.0	3472.6	3574.6	3472.6	3420.6	3371.9
18°	2935.5	3124.0	3332.7	3264.0	3076.6	3235.5	3147.8	3106.2	3061.2
19°	2613.1	2742.3	3013.7	2891.7	2722.1	2902.3	2837.2	2803.8	2761.2
20°	2355.7	2467.3	2709.2	2564.4	2421.0	2568.0	2550.2	2524.2	2488.6
21°	2026.2	2238.4	2432.9	2298.8	2110.3	2318.0	2340.4	2326.2	2300.2
22°	1604.1	1985.8	2232.6	1988.3	1741.7	2135.2	2181.4	2170.8	2151.9
23°	1248.4	1688.3	2047.6	1702.6	1356.3	1932.4	2001.4	1994.2	1931.4
24°	910.5	1382.5	1815.1	1367.0	975.7	1656.3	1788.0	1776.0	1548.4
25°	600.0	1076.6	1603.0	1025.4	623.6	1339.8	1548.4	1528.3	1120.4
26°	385.2	787.2	1412.0	700.6	331.9	1000.6	1294.7	1237.8	694.7
27°	184.9	548.9	1178.4	412.6	161.2	667.6	1038.5	911.7	335.5
28°	116.3	288.1	936.5	205.2	109.1	371.1	795.6	578.7	131.6
29°	95.0	142.3	693.6	116.3	88.9	170.8	570.2	282.2	91.3
30°	78.2	95.0	473.1	88.9	72.3	95.0	374.6	110.2	70.0
32.5°	49.8	59.4	109.1	55.7	47.3	54.5	88.9	53.4	43.8
35°	29.5	38.0	47.3	36.7	28.5	35.6	48.7	34.4	27.4
37.5°	17.8	22.5	30.9	22.5	17.8	22.5	30.9	22.5	16.6
40°	10.7	14.2	21.3	14.2	10.7	14.2	21.3	14.2	10.7
42.5°	7.1	8.2	14.2	8.2	6.0	8.2	14.2	9.6	7.1
45°	4.7	6.0	8.2	4.7	3.5	4.7	8.2	6.0	4.7
47.5°	3.5	3.5	4.7	2.4	2.4	3.5	6.0	4.7	3.5
50°	2.4	2.4	3.5	1.1	1.1	1.1	3.5	3.5	3.5
52.5°	1.1	1.1	1.1	0.0	0.0	0.0	2.4	2.4	2.4
55°	1.1	1.1	1.1	0.0	0.0	0.0	1.1	2.4	2.4
57.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	2.4	2.4
60°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	2.4	0.0

Classified

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	1.1	1.1	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°

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62.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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