

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: P208746

Luminaire Tested: **LDSQA6A30935D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208746
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: LDSQA6A30935D010TE 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: 1968.2 lumens
Efficiency: N/A
Efficacy: 44.1 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

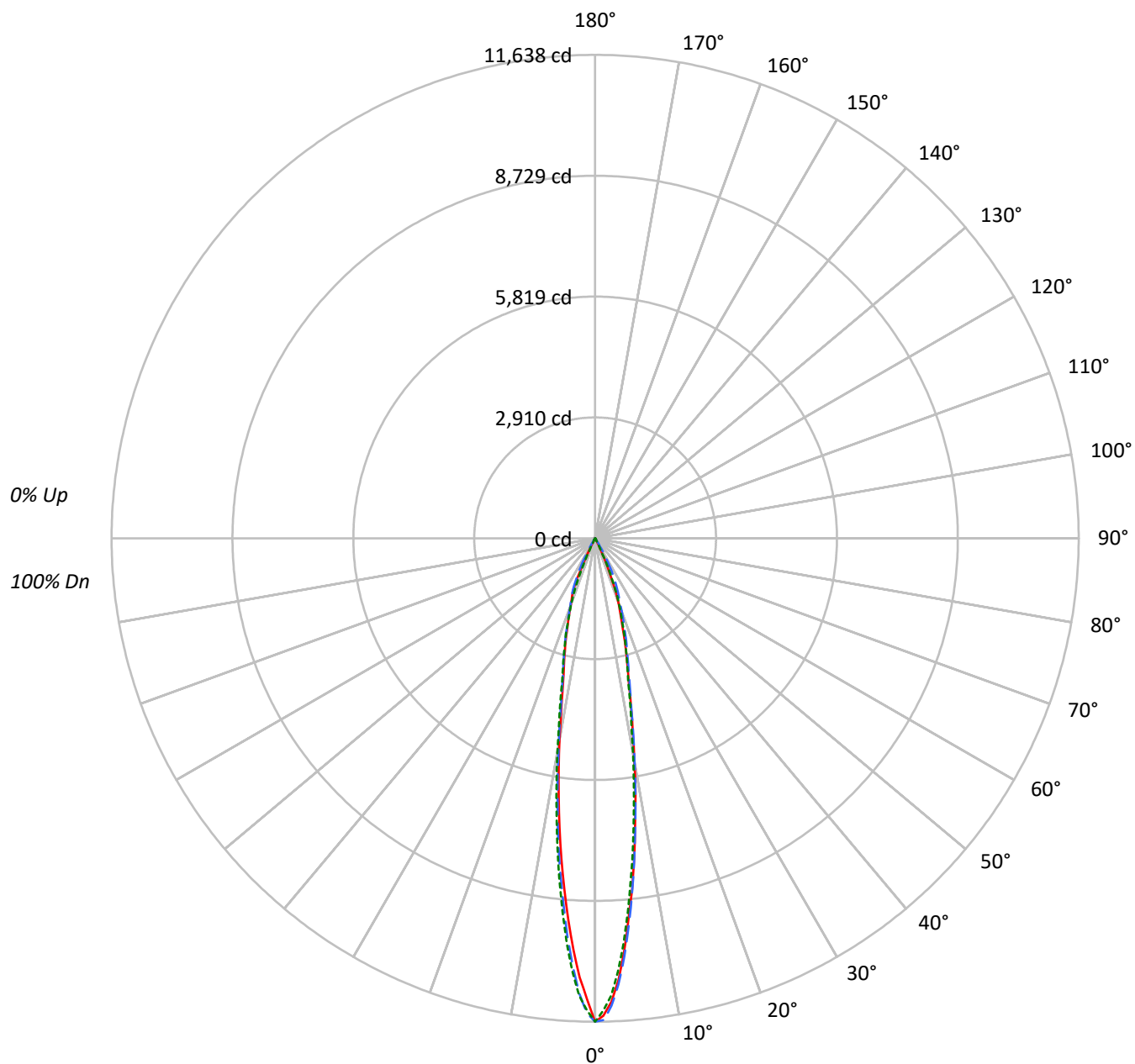
Input Watts (W): 44.62
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	501095	501095	501095
5°	398356	389854	366753
10°	237338	228598	215075
15°	129685	129903	125829
20°	74300	76357	78488
25°	19616	20395	36637
30°	2680	2476	2391
35°	1072	1030	988
40°	410	410	410
45°	201	146	201
50°	107	54	161
55°	60	0	120
60°	69	0	0
65°	82	0	0
70°	101	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°	739.1	37.6
10°-20°	831.7	42.3
20°-30°	370.4	18.8
30°-40°	22.6	1.1
40°-50°	3.6	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°	1941.2	98.6
0°-40°	1963.8	99.8
0°-60°	1968.0	100.0
0°-90°	1968.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1968.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	11638	11638	11638	11638	11638	
5°	9217	9325	9020	8809	8486	758
15°	2909	3036	2914	2894	2823	820
25°	413	1103	429	1066	771	243
35°	20	33	20	34	19	15
45°	3	6	2	6	3	3
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°	11638.3	11638.3	11638.3	11638.3	11638.3	11638.3	11638.3	11638.3	11638.3
1°	11495.4	11600.7	11600.7	11575.4	11365.7	11521.6	11433.4	11338.8	11092.3
2°	11164.9	11271.8	11261.2	11164.9	11013.1	11077.6	10956.8	10839.3	10580.6
3°	10654.9	10769.9	10748.7	10648.3	10445.9	10485.1	10312.1	10223.2	9926.1
4°	9969.4	10115.4	10090.1	9979.1	9775.9	9773.5	9592.3	9498.5	9223.4
5°	9216.9	9369.5	9324.6	9233.2	9020.2	8981.9	8808.9	8742.0	8485.7
6°	8493.9	8589.3	8542.8	8466.9	8236.8	8213.1	8049.1	7992.0	7755.3
7°	7723.5	7789.6	7743.9	7685.1	7452.5	7421.5	7287.7	7242.8	7011.8
8°	6911.5	7006.1	6940.8	6904.1	6684.6	6642.2	6507.5	6477.3	6292.1
9°	6217.8	6249.6	6180.2	6070.1	5942.8	5899.5	5756.7	5727.3	5597.6
10°	5428.6	5527.4	5473.5	5378.8	5228.7	5261.3	5054.0	5029.6	4919.4
11°	4742.3	4845.9	4788.8	4703.9	4568.5	4587.2	4417.5	4314.7	4297.5
12°	4175.9	4223.3	4206.1	4137.6	4028.2	4033.9	3883.0	3800.5	3783.4
13°	3624.3	3709.1	3717.3	3661.0	3529.6	3590.0	3477.4	3410.4	3383.5
14°	3250.5	3315.0	3341.1	3339.4	3197.4	3250.5	3161.5	3107.7	3080.7
15°	2909.4	2993.4	3035.9	3033.4	2914.3	2968.1	2893.9	2851.4	2822.9
16°	2589.5	2704.5	2773.9	2762.5	2651.5	2707.0	2633.5	2591.9	2560.1
17°	2267.9	2426.2	2528.2	2506.2	2390.3	2460.5	2390.3	2354.4	2321.0
18°	2020.6	2150.4	2294.0	2246.7	2117.8	2227.1	2166.7	2138.2	2107.1
19°	1798.7	1887.6	2074.5	1990.4	1873.7	1997.8	1952.9	1930.1	1900.7
20°	1621.6	1698.3	1864.8	1765.2	1666.5	1767.7	1755.4	1737.5	1713.0
21°	1394.7	1540.8	1674.6	1582.4	1452.6	1595.5	1611.0	1601.2	1583.2
22°	1104.2	1367.0	1536.7	1368.6	1198.8	1469.8	1501.6	1494.3	1481.2
23°	859.3	1162.1	1409.4	1171.9	933.6	1330.2	1377.6	1372.7	1329.4
24°	626.8	951.6	1249.4	941.0	671.6	1140.1	1230.7	1222.5	1065.8
25°	412.9	741.0	1103.4	705.9	429.3	922.2	1065.8	1051.9	771.2
26°	265.2	541.9	972.0	482.3	228.5	688.8	891.2	852.0	478.2
27°	127.3	377.8	811.2	284.0	111.0	459.5	714.9	627.6	231.0
28°	80.0	198.3	644.7	141.2	75.1	255.4	547.6	398.3	90.6
29°	65.3	97.9	477.4	80.0	61.2	117.5	392.5	194.2	62.8
30°	53.9	65.3	325.6	61.2	49.8	65.3	257.9	75.9	48.1
32.5°	34.3	40.8	75.1	38.4	32.6	37.5	61.2	36.7	30.2
35°	20.4	26.1	32.6	25.3	19.6	24.5	33.5	23.7	18.8
37.5°	12.2	15.5	21.2	15.5	12.2	15.5	21.2	15.5	11.4
40°	7.3	9.8	14.7	9.8	7.3	9.8	14.7	9.8	7.3
42.5°	4.9	5.7	9.8	5.7	4.1	5.7	9.8	6.5	4.9
45°	3.3	4.1	5.7	3.3	2.4	3.3	5.7	4.1	3.3
47.5°	2.4	2.4	3.3	1.6	1.6	2.4	4.1	3.3	2.4
50°	1.6	1.6	2.4	0.8	0.8	0.8	2.4	2.4	2.4
52.5°	0.8	0.8	0.8	0.0	0.0	0.0	1.6	1.6	1.6
55°	0.8	0.8	0.8	0.0	0.0	0.0	0.8	1.6	1.6
57.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	1.6	1.6
60°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	1.6	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.8	0.8	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°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)