

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: P208731

Luminaire Tested: **LDSQA6A15940D010TE LARL15SP 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208731
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: LDSQA6A15940D010TE LARL15SP 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 15° SPOT
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1260.8 lumens
Efficiency: N/A
Efficacy: 57.9 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

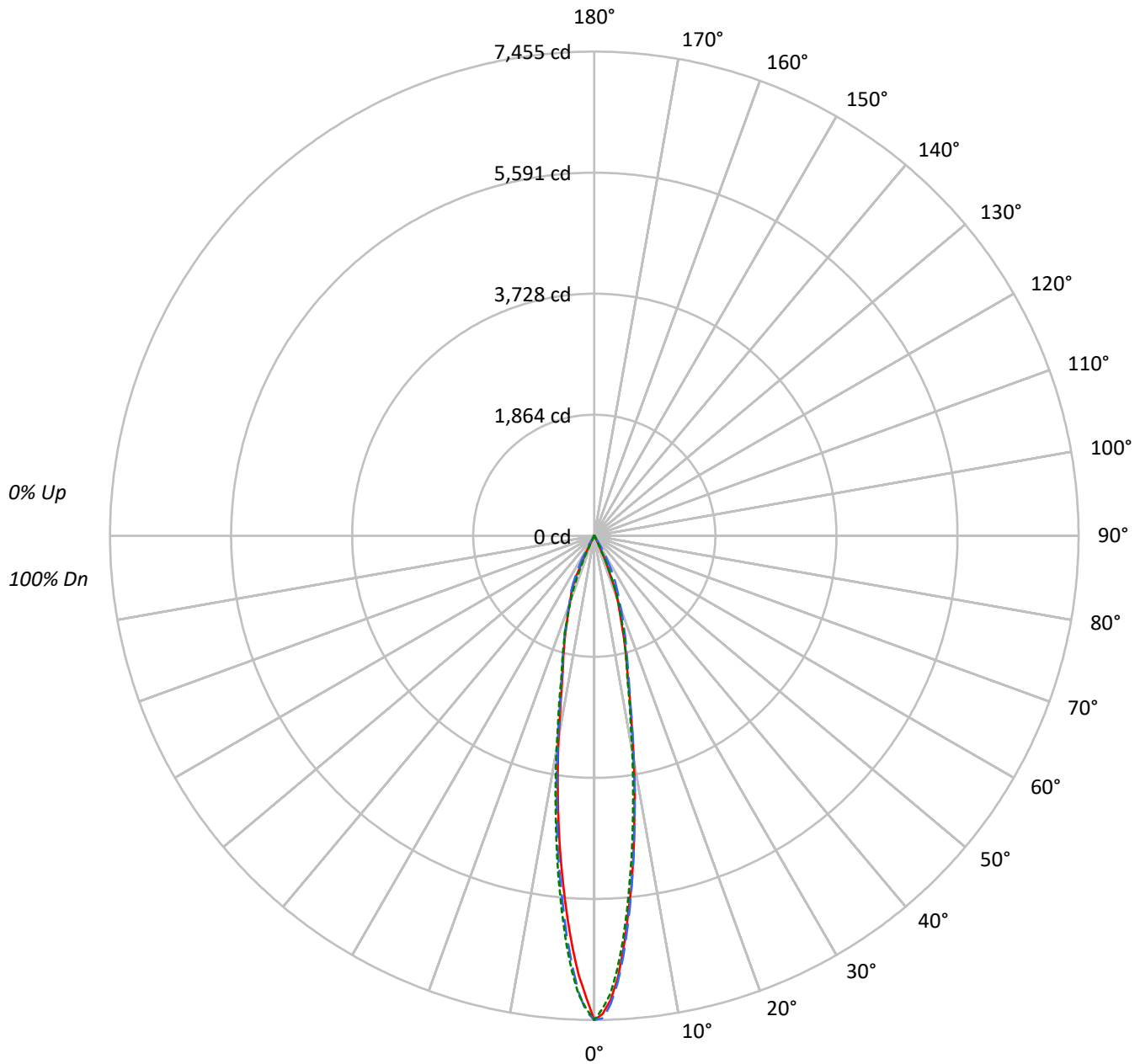
Input Watts (W): 21.79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	320997	320997	320997
5°	255185	249739	234940
10°	152036	146440	137774
15°	83073	83216	80604
20°	47597	48912	50277
25°	12566	13064	23468
30°	1715	1586	1531
35°	689	657	631
40°	264	264	264
45°	128	97	128
50°	67	33	107
55°	38	0	75
60°	43	0	0
65°	51	0	0
70°	63	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°	473.5	37.6
10°-20°	532.8	42.3
20°-30°	237.3	18.8
30°-40°	14.5	1.1
40°-50°	2.3	0.2
50°-60°	0.4	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°	1243.5	98.6
0°-40°	1258.0	99.8
0°-60°	1260.7	100.0
0°-90°	1260.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1260.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	7455	7455	7455	7455	7455	
5°	5904	5973	5778	5643	5436	485
15°	1864	1945	1867	1854	1808	525
25°	264	707	275	683	494	156
35°	13	21	12	21	12	9
45°	2	4	2	4	2	2
55°	0	0	0	0	1	1
65°	0	0	0	0	0	0
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°	7455.4	7455.4	7455.4	7455.4	7455.4	7455.4	7455.4	7455.4	7455.4
1°	7363.9	7431.3	7431.3	7415.1	7280.8	7380.6	7324.2	7263.5	7105.7
2°	7152.2	7220.7	7213.9	7152.2	7054.9	7096.2	7018.9	6943.6	6777.9
3°	6825.4	6899.2	6885.6	6821.3	6691.6	6716.7	6605.9	6548.9	6358.6
4°	6386.3	6479.9	6463.7	6392.6	6262.4	6260.8	6144.8	6084.7	5908.5
5°	5904.3	6002.1	5973.3	5914.8	5778.3	5753.7	5642.9	5600.0	5435.9
6°	5441.1	5502.3	5472.5	5423.9	5276.4	5261.3	5156.2	5119.6	4968.0
7°	4947.6	4990.0	4960.7	4923.0	4774.0	4754.2	4668.4	4639.7	4491.7
8°	4427.4	4488.1	4446.3	4422.7	4282.1	4254.9	4168.7	4149.3	4030.6
9°	3983.1	4003.5	3959.0	3888.5	3806.9	3779.2	3687.7	3668.9	3585.8
10°	3477.5	3540.8	3506.3	3445.7	3349.5	3370.4	3237.6	3221.9	3151.3
11°	3037.9	3104.3	3067.7	3013.3	2926.5	2938.6	2829.8	2763.9	2753.0
12°	2675.1	2705.4	2694.4	2650.5	2580.5	2584.1	2487.4	2434.6	2423.6
13°	2321.7	2376.0	2381.3	2345.2	2261.0	2299.7	2227.6	2184.7	2167.5
14°	2082.2	2123.5	2140.3	2139.2	2048.3	2082.2	2025.3	1990.8	1973.5
15°	1863.7	1917.6	1944.7	1943.2	1866.9	1901.4	1853.8	1826.6	1808.3
16°	1658.8	1732.5	1776.9	1769.6	1698.5	1734.1	1687.0	1660.4	1640.0
17°	1452.8	1554.2	1619.6	1605.5	1531.2	1576.2	1531.2	1508.2	1486.8
18°	1294.4	1377.5	1469.5	1439.2	1356.6	1426.7	1388.0	1369.7	1349.8
19°	1152.2	1209.2	1328.9	1275.1	1200.3	1279.8	1251.0	1236.4	1217.6
20°	1038.8	1087.9	1194.6	1130.8	1067.5	1132.3	1124.5	1113.0	1097.3
21°	893.4	987.0	1072.7	1013.7	930.6	1022.0	1032.0	1025.7	1014.2
22°	707.3	875.7	984.4	876.7	768.0	941.5	961.9	957.2	948.8
23°	550.5	744.4	902.8	750.7	598.1	852.1	882.5	879.3	851.6
24°	401.5	609.6	800.4	602.8	430.2	730.3	788.4	783.1	682.8
25°	264.5	474.7	706.8	452.2	275.0	590.7	682.8	673.9	494.0
26°	169.9	347.1	622.6	309.0	146.4	441.2	570.9	545.8	306.4
27°	81.6	242.0	519.6	181.9	71.1	294.3	458.0	402.0	147.9
28°	51.2	127.0	413.0	90.4	48.1	163.6	350.8	255.1	58.0
29°	41.8	62.7	305.8	51.2	39.2	75.3	251.5	124.4	40.3
30°	34.5	41.8	208.6	39.2	31.9	41.8	165.2	48.6	30.8
32.5°	22.0	26.1	48.1	24.6	20.9	24.0	39.2	23.5	19.3
35°	13.1	16.7	20.9	16.2	12.5	15.7	21.4	15.2	12.0
37.5°	7.8	9.9	13.6	9.9	7.8	9.9	13.6	9.9	7.3
40°	4.7	6.3	9.4	6.3	4.7	6.3	9.4	6.3	4.7
42.5°	3.1	3.7	6.3	3.7	2.6	3.7	6.3	4.2	3.1
45°	2.1	2.6	3.7	2.1	1.6	2.1	3.7	2.6	2.1
47.5°	1.6	1.6	2.1	1.0	1.0	1.6	2.6	2.1	1.6
50°	1.0	1.0	1.6	0.5	0.5	0.5	1.6	1.6	1.6
52.5°	0.5	0.5	0.5	0.0	0.0	0.0	1.0	1.0	1.0
55°	0.5	0.5	0.5	0.0	0.0	0.0	0.5	1.0	1.0
57.5°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	1.0	1.0
60°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	1.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.5	0.5	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°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0



(END OF REPORT)