

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: P208758

Luminaire Tested: **LDSQA6A15835D010TE LARL20NF 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208758
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29055)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQA6A15835D010TE LARL20NF 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1663.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 0.37 / 0.38 / 0.39
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

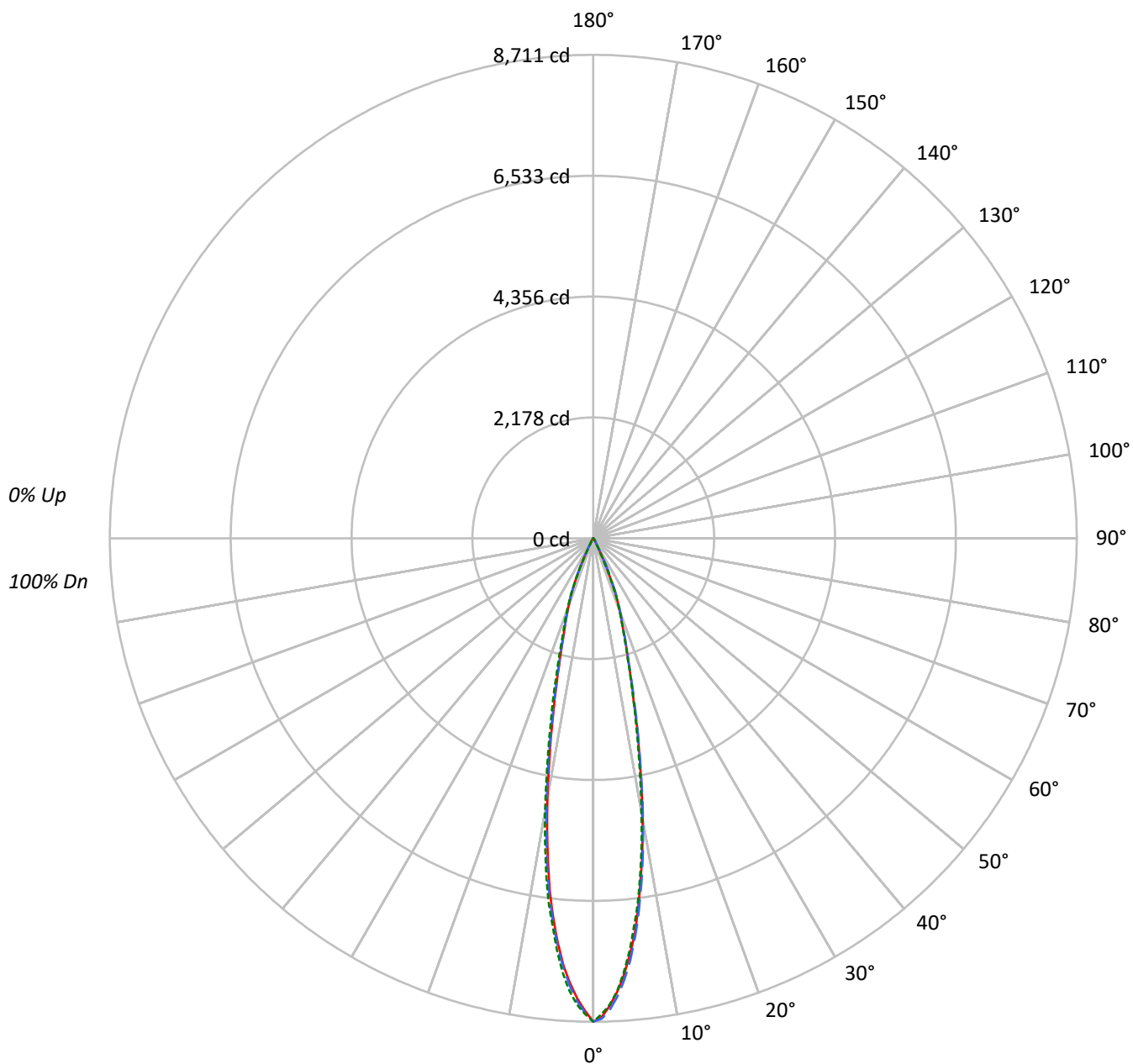
Input Watts (W): 21.79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	102	100	99	99	97			
2	112	108	105	103	110	107	104	102	103	101	100	101	99	97	98	97	95	94			
3	108	104	100	98	107	103	99	97	100	98	95	98	96	94	96	94	93	91			
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89			
5	102	97	93	90	101	96	92	89	94	91	89	93	90	88	91	89	87	86			
6	99	94	90	87	98	93	89	86	92	88	86	90	88	85	89	87	85	84			
7	97	91	87	84	96	90	86	84	89	86	83	88	85	83	87	85	83	82			
8	94	88	84	82	93	88	84	81	87	83	81	86	83	81	85	82	80	80			
9	92	86	82	79	91	85	82	79	85	81	79	84	81	79	83	80	78	78			
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	81	79	77	76			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	375049	375049	375049
5°	325936	322604	316782
10°	223920	218473	207525
15°	116607	115577	106453
20°	64838	63450	60027
25°	21449	19872	23312
30°	4748	4395	3923
35°	1777	1745	1561
40°	703	669	635
45°	219	219	219
50°	40	40	80
55°	45	0	45
60°	0	0	0
65°	0	0	0
70°	0	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°	636.2	38.3
10°-20°	737.4	44.3
20°-30°	256.3	15.4
30°-40°	27.3	1.6
40°-50°	5.2	0.3
50°-60°	0.5	0.0
60°-70°	0.0	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°	1629.9	98.0
0°-40°	1657.2	99.7
0°-60°	1663.0	100.0
0°-90°	1663.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1663.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8711	8711	8711	8711	8711	
5°	7541	7633	7464	7372	7330	641
15°	2616	2673	2593	2442	2388	753
25°	452	587	418	513	491	245
35°	34	48	33	43	30	26
45°	4	10	4	9	4	4
55°	1	1	0	1	1	0
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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	8710.8	8710.8	8710.8	8710.8	8710.8	8710.8	8710.8	8710.8	8710.8
1°	8630.7	8629.5	8660.3	8668.6	8574.9	8703.0	8550.6	8706.6	8518.5
2°	8436.6	8447.3	8500.1	8493.0	8411.1	8523.9	8344.7	8467.5	8298.4
3°	8190.4	8209.4	8270.5	8265.8	8170.2	8266.9	8077.1	8186.8	8027.8
4°	7889.0	7933.5	7984.5	7998.2	7852.8	7940.0	7755.5	7858.1	7706.8
5°	7541.3	7600.0	7632.7	7614.3	7464.2	7544.3	7372.2	7518.2	7329.5
6°	7148.5	7194.2	7218.5	7185.9	7019.8	7110.5	6949.7	7073.7	6889.2
7°	6681.0	6732.6	6752.2	6720.1	6605.0	6641.8	6481.0	6584.8	6412.2
8°	6161.8	6239.5	6242.5	6213.4	6094.1	6053.8	5961.8	6037.8	5874.0
9°	5652.1	5710.3	5709.1	5687.7	5556.0	5497.3	5407.7	5461.7	5316.3
10°	5121.7	5173.9	5156.1	5136.5	4997.1	4931.8	4845.8	4874.3	4746.7
11°	4559.8	4626.2	4597.8	4578.8	4439.9	4375.8	4289.8	4297.5	4185.4
12°	3992.0	4086.3	4052.5	4040.0	3911.9	3849.6	3771.8	3763.5	3657.3
13°	3515.5	3573.7	3540.4	3533.9	3421.2	3367.2	3242.0	3275.2	3178.5
14°	3007.0	3108.5	3078.8	3075.9	2983.3	2932.9	2817.2	2843.3	2759.0
15°	2616.0	2696.7	2673.0	2671.8	2592.9	2544.8	2442.2	2463.5	2388.2
16°	2260.0	2336.0	2318.8	2321.7	2251.7	2209.6	2120.6	2138.4	2077.9
17°	2012.0	2039.3	2023.3	2023.3	1965.1	1939.0	1862.5	1879.7	1832.2
18°	1765.2	1775.3	1785.3	1787.1	1736.1	1718.3	1654.2	1669.6	1630.5
19°	1562.8	1587.2	1593.1	1594.3	1549.2	1539.1	1483.9	1495.8	1463.8
20°	1415.1	1429.3	1431.1	1428.2	1384.8	1376.5	1327.3	1338.0	1310.1
21°	1244.2	1269.1	1263.8	1259.1	1214.0	1207.4	1165.9	1167.7	1140.4
22°	1053.8	1098.3	1092.3	1084.0	1022.9	1014.0	1003.3	999.2	973.1
23°	820.6	924.4	919.1	907.2	818.2	844.9	838.4	830.7	806.3
24°	629.5	751.8	748.8	730.4	612.3	678.8	671.7	665.1	646.1
25°	451.5	586.2	586.8	558.3	418.3	537.6	512.6	507.9	490.7
26°	322.8	436.1	439.1	398.1	256.9	388.0	370.2	363.7	350.1
27°	196.4	303.8	309.7	261.1	160.2	260.5	249.2	242.1	202.9
28°	135.3	198.2	205.3	161.4	125.2	173.8	160.2	151.9	118.1
29°	115.7	129.3	134.7	113.9	105.6	115.7	109.2	105.6	95.5
30°	95.5	98.5	100.9	94.3	88.4	91.4	88.4	85.4	78.9
32.5°	60.5	65.9	67.6	62.9	57.6	59.3	59.3	55.2	49.8
35°	33.8	42.1	47.5	41.5	33.2	39.8	42.7	36.8	29.7
37.5°	20.8	26.1	33.2	26.1	20.2	25.5	30.9	23.1	19.0
40°	12.5	16.0	23.7	16.0	11.9	15.4	21.4	14.2	11.3
42.5°	7.1	9.5	15.4	9.5	6.5	8.9	14.2	8.3	6.5
45°	3.6	5.3	9.5	5.3	3.6	5.3	8.9	4.7	3.6
47.5°	1.8	3.0	5.3	3.0	1.8	3.0	4.7	3.0	1.8
50°	0.6	1.2	3.0	1.2	0.6	1.2	3.0	1.2	1.2
52.5°	0.6	0.6	1.8	0.6	0.6	0.6	1.2	0.6	0.6
55°	0.6	0.6	0.6	0.6	0.0	0.6	0.6	0.6	0.6
57.5°	0.6	0.0	0.6	0.0	0.0	0.0	0.6	0.6	0.6
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0



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CANDELA DISTRIBUTION (continued):

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



(END OF REPORT)