

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: P208757

Luminaire Tested: **LDSQA6A15830D010TE LARL20NF 6LSQA1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P208757
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: LDSQA6A15830D010TE LARL20NF 6LSQA1H
Description: PORTFOLIO 6" SQUARE ADJUSTABLE REFLECTOR, ANGLE-CUT TRIM,
SELF-FLANGED, 20° NARROW FLOOD
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1633.6 lumens
Efficiency: N/A
Efficacy: 75.0 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

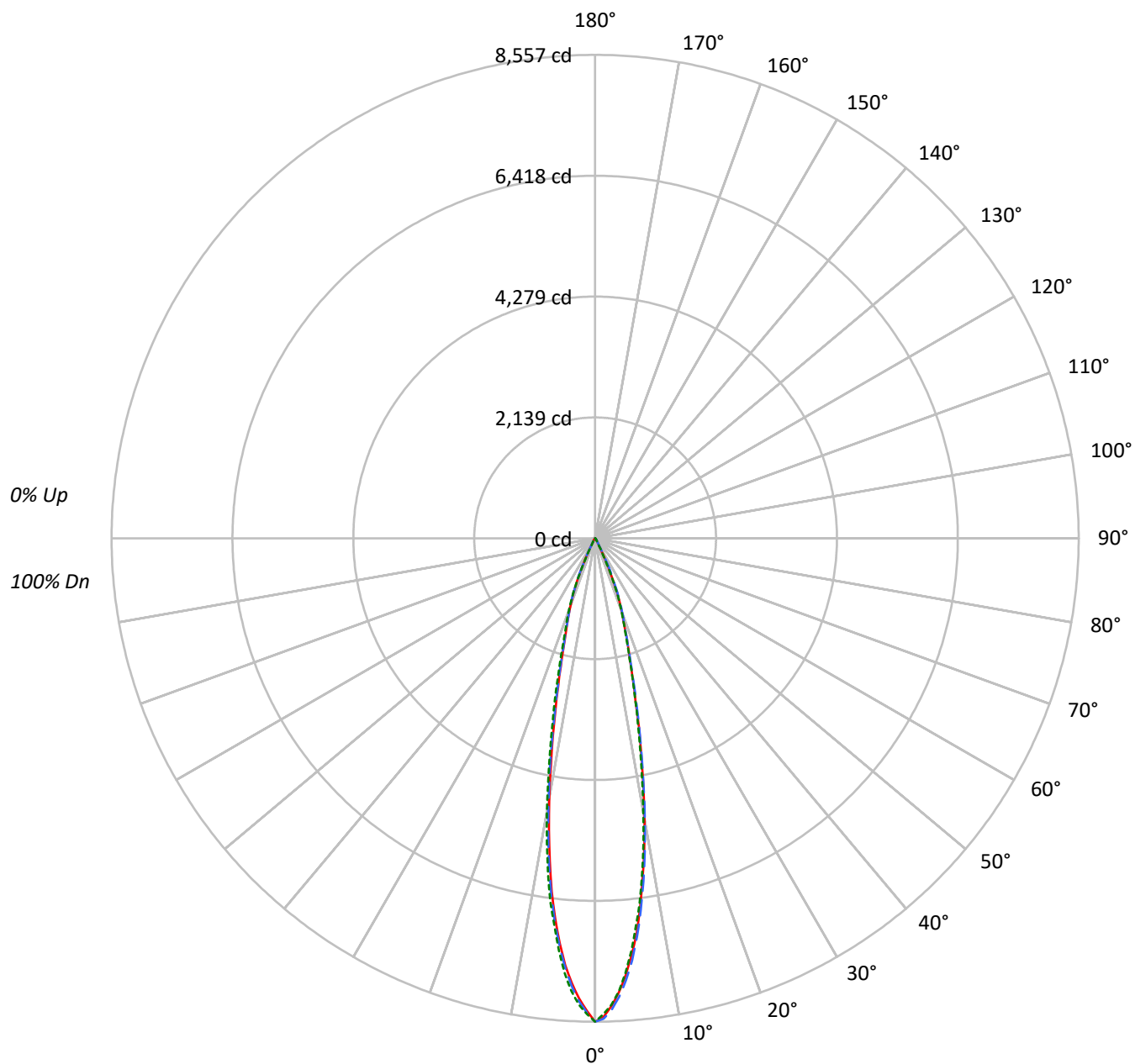
Input Watts (W): 21.79
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
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		
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°	368423	368423	368423
5°	320179	316903	311185
10°	219963	214612	203857
15°	114548	113536	104572
20°	63693	62332	58964
25°	21074	19520	22898
30°	4663	4315	3853
35°	1745	1713	1530
40°	686	658	624
45°	213	213	213
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°	625.0	38.3
10°-20°	724.4	44.3
20°-30°	251.7	15.4
30°-40°	26.8	1.6
40°-50°	5.1	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°	1601.1	98.0
0°-40°	1627.9	99.7
0°-60°	1633.6	100.0
0°-90°	1633.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1633.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8557	8557	8557	8557	8557	
5°	7408	7498	7332	7242	7200	630
15°	2570	2626	2547	2399	2346	739
25°	444	576	411	504	482	240
35°	33	47	33	42	29	25
45°	4	9	4	9	4	3
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°	8556.9	8556.9	8556.9	8556.9	8556.9	8556.9	8556.9	8556.9	8556.9
1°	8478.2	8477.0	8507.3	8515.5	8423.4	8549.3	8399.5	8552.8	8368.0
2°	8287.6	8298.1	8350.0	8343.0	8262.5	8373.3	8197.3	8317.9	8151.8
3°	8045.7	8064.4	8124.4	8119.7	8025.9	8120.9	7934.4	8042.2	7886.0
4°	7749.6	7793.3	7843.5	7856.9	7714.1	7799.8	7618.5	7719.3	7570.7
5°	7408.1	7465.8	7497.8	7479.8	7332.3	7411.0	7242.0	7385.3	7200.0
6°	7022.2	7067.1	7091.0	7058.9	6895.7	6984.9	6827.0	6948.8	6767.5
7°	6562.9	6613.6	6632.9	6601.4	6488.3	6524.5	6366.5	6468.5	6298.9
8°	6052.9	6129.3	6132.2	6103.6	5986.5	5946.9	5856.5	5931.1	5770.3
9°	5552.3	5609.4	5608.2	5587.2	5457.8	5400.1	5312.1	5365.2	5222.4
10°	5031.2	5082.5	5065.0	5045.8	4908.8	4844.7	4760.2	4788.1	4662.8
11°	4479.2	4544.5	4516.5	4497.9	4361.5	4298.6	4214.0	4221.6	4111.5
12°	3921.4	4014.1	3980.9	3968.7	3842.8	3781.6	3705.2	3697.0	3592.7
13°	3453.4	3510.5	3477.9	3471.5	3360.7	3307.7	3184.7	3217.4	3122.4
14°	2953.9	3053.6	3024.4	3021.5	2930.6	2881.0	2767.4	2793.0	2710.3
15°	2569.8	2649.1	2625.8	2624.6	2547.1	2499.9	2399.0	2420.0	2346.0
16°	2220.1	2294.7	2277.8	2280.7	2211.9	2170.5	2083.1	2100.6	2041.2
17°	1976.5	2003.3	1987.5	1987.5	1930.4	1904.8	1829.6	1846.5	1799.9
18°	1734.0	1743.9	1753.8	1755.6	1705.4	1687.9	1625.0	1640.2	1601.7
19°	1535.2	1559.1	1565.0	1566.1	1521.8	1511.9	1457.7	1469.4	1437.9
20°	1390.1	1404.1	1405.8	1402.9	1360.4	1352.2	1303.8	1314.3	1286.9
21°	1222.2	1246.7	1241.5	1236.8	1192.5	1186.1	1145.3	1147.1	1120.2
22°	1035.1	1078.9	1073.0	1064.9	1004.8	996.1	985.6	981.5	955.9
23°	806.1	908.1	902.8	891.2	803.8	830.0	823.6	816.0	792.1
24°	618.4	738.5	735.6	717.5	601.5	666.8	659.8	653.4	634.7
25°	443.6	575.9	576.4	548.5	410.9	528.1	503.6	498.9	482.0
26°	317.1	428.4	431.3	391.1	252.4	381.2	363.7	357.3	343.9
27°	192.9	298.4	304.2	256.5	157.4	255.9	244.8	237.8	199.3
28°	132.9	194.7	201.7	158.5	123.0	170.8	157.4	149.2	116.0
29°	113.7	127.1	132.3	111.9	103.7	113.7	107.2	103.7	93.8
30°	93.8	96.8	99.1	92.7	86.8	89.8	86.8	83.9	77.5
32.5°	59.5	64.7	66.4	61.8	56.5	58.3	58.3	54.2	49.0
35°	33.2	41.4	46.6	40.8	32.6	39.1	42.0	36.1	29.1
37.5°	20.4	25.6	32.6	25.6	19.8	25.1	30.3	22.7	18.7
40°	12.2	15.7	23.3	15.7	11.7	15.2	21.0	14.0	11.1
42.5°	7.0	9.3	15.2	9.3	6.4	8.7	14.0	8.2	6.4
45°	3.5	5.2	9.3	5.2	3.5	5.2	8.7	4.7	3.5
47.5°	1.7	2.9	5.2	2.9	1.7	2.9	4.7	2.9	1.7
50°	0.6	1.2	2.9	1.2	0.6	1.2	2.9	1.2	1.2
52.5°	0.6	0.6	1.7	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)