

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: P282446

Luminaire Tested: **LDA2B20D2WD010 EU2B20NFL25D2W 2LBAPINSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282446  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-951-26)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B20D2WD010 EU2B20NFL25D2W 2LBAPINSQ1MW  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH NARROW FLOOD OPTIC AND 2in Adj SQ PinHole, MW  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1374.1 lumens  
Efficiency: N/A  
Efficacy: 66.7 lumens/watt  
Spacing Criteria (0/90/45): 0.33 / 0.3 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

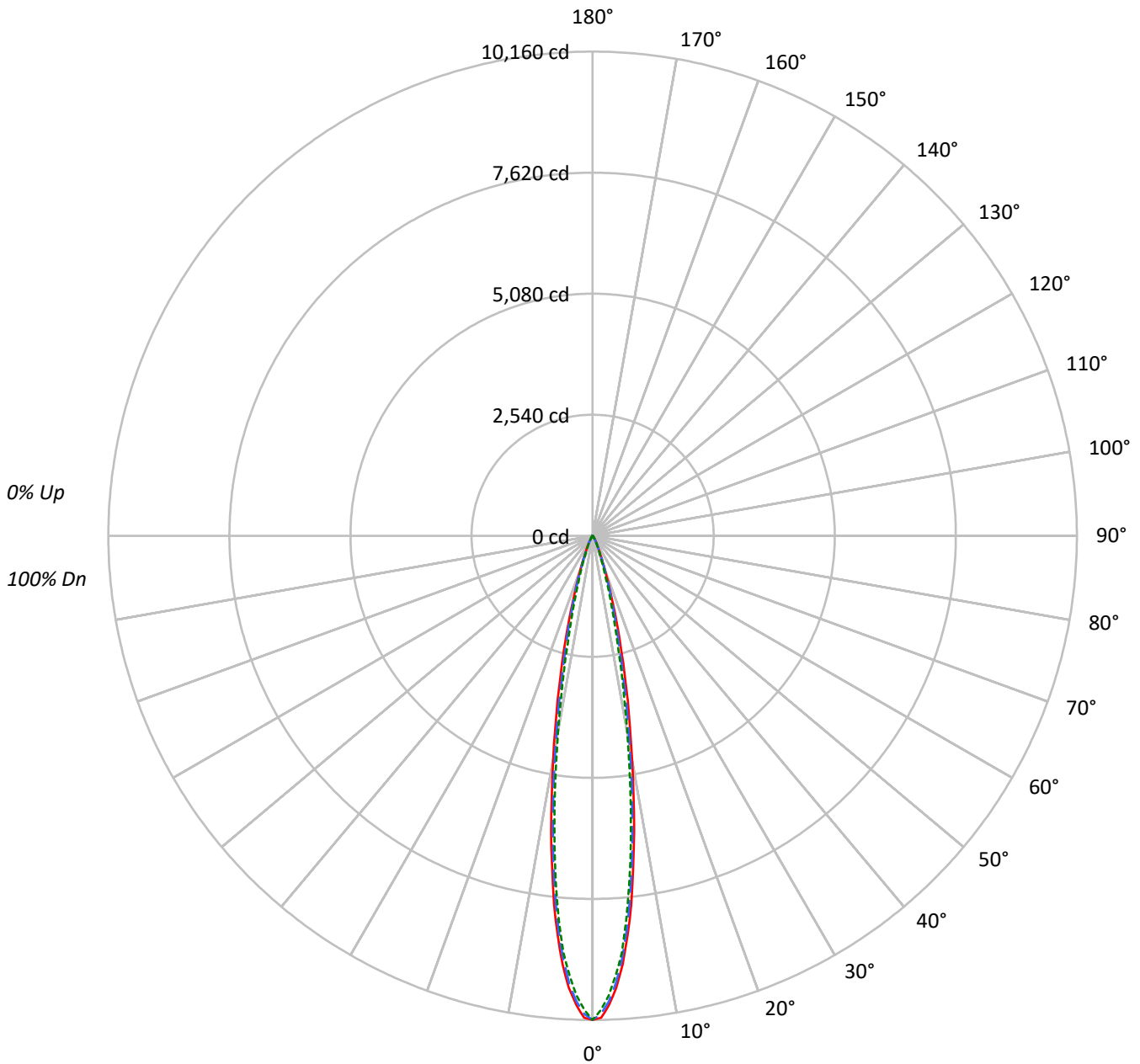
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P282446

CATALOG NUMBER: LDA2B20D2WD010 EU2B20NFL25D2W 2LBAPINSQ1MW

### Luminous Intensity Polar Plot





TEST NUMBER: P282446

CATALOG NUMBER: LDA2B20D2WD010 EU2B20NFL25D2W 2LBAPINSQ1MW

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	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				100															
1	115	113	112	110	113	111	110	108	107	106	105	104	103	102	100	100	99	97				97															
2	112	109	106	104	110	107	105	103	104	102	100	101	100	98	99	97	96	95				95															
3	109	105	101	99	107	103	100	98	101	99	97	99	97	95	97	95	94	92				92															
4	106	101	98	95	105	100	97	94	98	96	93	96	94	92	95	93	91	90				90															
5	103	98	94	92	102	97	94	91	96	93	91	94	92	90	93	91	89	88				88															
6	101	95	92	89	100	95	91	89	93	90	88	92	90	88	91	89	87	86				86															
7	99	93	89	87	98	92	89	86	91	88	86	90	88	86	89	87	85	84				84															
8	96	91	87	85	96	90	87	84	89	86	84	88	86	84	88	85	83	83				83															
9	94	89	85	83	94	88	85	82	87	84	82	87	84	82	86	84	82	81				81															
10	93	87	83	81	92	86	83	81	86	83	81	85	82	80	85	82	80	79				79															

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5012704	5012704	5012704
5°	4171064	4094598	4011941
10°	2389139	2241953	2092363
15°	1062648	943742	790870
20°	385473	362477	287188
25°	148013	138214	118998
30°	63862	59361	52696
35°	30235	30235	24995
40°	15135	15650	12623
45°	8721	8233	7675
50°	5987	5449	5449
55°	4731	3355	4043
60°	3848	2368	3059
65°	2802	1868	2802
70°	2308	1154	2308
75°	1525	1525	1525
80°	0	0	0
85°	0	0	0



TEST NUMBER: P282446

CATALOG NUMBER: LDA2B20D2WD010 EU2B20NFL25D2W 2LBAPINSQ1MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	660.8	48.1
10°-20°	534.8	38.9
20°-30°	129.0	9.4
30°-40°	32.9	2.4
40°-50°	9.8	0.7
50°-60°	4.2	0.3
60°-70°	2.0	0.1
70°-80°	0.7	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°	1324.5	96.4
0°-40°	1357.4	98.8
0°-60°	1371.4	99.8
0°-90°	1374.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1374.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10160	10160	10160	10160	10160	
5°	8422	8345	8268	8196	8101	681
15°	2080	2031	1848	1664	1548	593
25°	272	274	254	230	219	140
35°	50	51	50	45	42	35
45°	12	12	12	11	11	11
55°	6	5	4	4	5	5
65°	2	2	2	2	2	3
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P282446

CATALOG NUMBER: LDA2B20D2WD010 EU2B20NFL25D2W 2LBAPINSQ1MW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10160.3	10160.3	10160.3	10160.3	10160.3
1°	10114.8	10044.3	10035.7	10079.5	9950.2
2°	9856.2	9806.1	9777.1	9802.9	9656.4
3°	9501.2	9452.7	9400.2	9400.9	9237.2
4°	9017.8	8979.4	8890.8	8864.2	8769.3
5°	8422.2	8344.6	8267.8	8195.7	8100.9
6°	7764.0	7663.7	7554.0	7446.6	7349.5
7°	6989.8	6923.2	6778.2	6631.7	6549.4
8°	6261.8	6154.5	5985.2	5801.8	5732.1
9°	5479.0	5402.2	5207.9	4994.7	4925.0
10°	4769.0	4689.1	4475.2	4237.7	4176.6
11°	4103.0	4027.7	3805.2	3556.0	3491.0
12°	3539.6	3433.0	3177.5	2961.3	2897.8
13°	2978.5	2905.6	2663.5	2449.6	2326.5
14°	2501.3	2440.9	2221.5	2033.5	1903.4
15°	2080.5	2031.1	1847.7	1664.4	1548.4
16°	1706.7	1676.1	1531.2	1354.1	1259.3
17°	1384.6	1356.4	1264.0	1101.0	1021.0
18°	1118.2	1114.3	1037.5	896.4	825.1
19°	920.0	918.4	847.9	729.5	670.8
20°	734.2	744.4	690.4	586.9	547.0
21°	598.7	604.2	561.1	482.7	446.7
22°	487.4	491.3	463.1	398.9	379.3
23°	399.6	402.0	378.5	330.7	313.4
24°	329.1	330.7	309.5	275.8	260.9
25°	271.9	273.5	253.9	230.4	218.6
26°	225.7	227.2	210.0	193.6	181.8
27°	187.3	190.4	173.2	163.0	150.5
28°	159.9	160.6	145.0	138.7	126.9
29°	130.9	135.6	122.2	116.8	108.1
30°	112.1	114.4	104.2	100.3	92.5
32.5°	74.4	76.0	71.3	68.2	61.9
35°	50.2	50.9	50.2	45.4	41.5
37.5°	34.5	34.5	35.3	29.8	28.2
40°	23.5	23.5	24.3	20.4	19.6
42.5°	17.2	17.2	16.5	14.1	14.1
45°	12.5	12.5	11.8	11.0	11.0
47.5°	10.2	9.4	8.6	8.6	8.6
50°	7.8	7.8	7.1	6.3	7.1
52.5°	6.3	6.3	5.5	5.5	5.5
55°	5.5	4.7	3.9	3.9	4.7
57.5°	3.9	3.9	3.1	3.1	3.9
60°	3.9	3.1	2.4	3.1	3.1



TEST NUMBER: P282446

CATALOG NUMBER: LDA2B20D2WD010 EU2B20NFL25D2W 2LBAPINSQ1MW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	2.4	1.6	1.6	1.6	1.6
70°	1.6	1.6	0.8	0.8	1.6
72.5°	0.8	0.8	0.8	0.8	0.8
75°	0.8	0.8	0.8	0.8	0.8
77.5°	0.8	0.8	0.0	0.0	0.8
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°    - - 45°-225°    - - - - 90°-270°







62.5°	3.1	2.4	2.4	2.4	2.4
65°	2.4	2.4	1.6	1.6	2.4



(END OF REPORT)