

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: P283794

Luminaire Tested: **LDA2B20D2WD010 EU2B20FL40D2W 2LBALPINSQ1MB**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P283794  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-951-15)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B20D2WD010 EU2B20FL40D2W 2LBALPINSQ1MB  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH FLOOD OPTIC AND 2in Adj SQ Pinhole w-lens, MB  
  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1198.7 lumens  
Efficiency: N/A  
Efficacy: 58.2 lumens/watt  
Spacing Criteria (0/90/45): 0.55 / 0.55 / 0.55  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

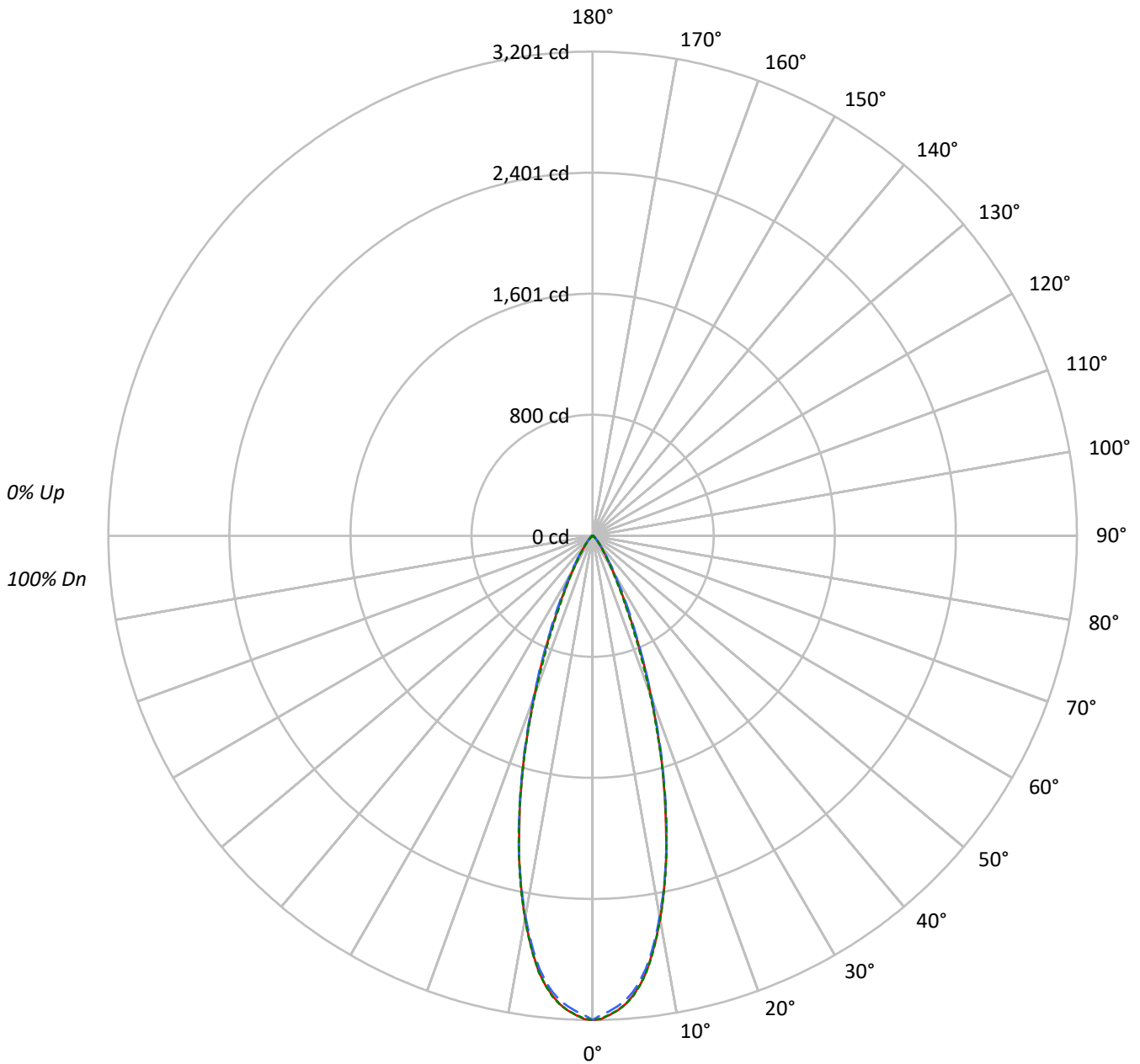
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P283794

CATALOG NUMBER: LDA2B20D2WD010 EU2B20FL40D2W 2LBALPINSQ1MB

### Luminous Intensity Polar Plot





TEST NUMBER: P283794

CATALOG NUMBER: LDA2B20D2WD010 EU2B20FL40D2W 2LBALPINSQ1MB

**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	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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95			
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90			
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86			
4	101	95	90	87	100	94	90	86	92	88	85	90	87	84	88	86	83	82			
5	98	91	86	82	96	90	85	82	88	84	81	86	83	80	85	82	80	79			
6	94	87	82	78	93	86	81	78	84	80	77	83	80	77	82	79	76	75			
7	91	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72			
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69			
9	84	77	72	69	83	76	72	68	75	71	68	74	71	68	74	70	68	67			
10	82	74	69	66	81	73	69	66	73	69	66	72	68	65	71	68	65	64			

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

	0°	45°	90°
0°	1579300	1579300	1579300
5°	1511393	1500101	1513770
10°	1287650	1279584	1289003
15°	949054	955234	952169
20°	592490	603411	579417
25°	306042	328361	290691
30°	146751	168171	139858
35°	75767	83838	70889
40°	42442	44632	40252
45°	25816	25816	24839
50°	13432	16502	13432
55°	6967	11010	7483
60°	7992	7992	7992
65°	8639	8639	8639
70°	10674	9665	10674
75°	10293	10293	10293
80°	9660	9660	9660
85°	7359	7359	7359



TEST NUMBER: P283794

CATALOG NUMBER: LDA2B20D2WD010 EU2B20FL40D2W 2LBALPINSQ1MB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	275.3	23.0
10°-20°	505.8	42.2
20°-30°	274.2	22.9
30°-40°	88.0	7.3
40°-50°	30.0	2.5
50°-60°	10.5	0.9
60°-70°	7.7	0.6
70°-80°	5.6	0.5
80°-90°	1.6	0.1
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°	1055.3	88.0
0°-40°	1143.3	95.4
0°-60°	1183.8	98.8
0°-90°	1198.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1198.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3201	3201	3201	3201	3201	
5°	3052	3033	3029	3059	3057	276
15°	1858	1874	1870	1879	1864	504
25°	562	588	603	562	534	269
35°	126	131	139	126	118	85
45°	37	38	37	37	36	29
55°	8	10	13	10	9	9
65°	7	8	7	8	7	8
75°	5	5	5	5	5	6
85°	1	1	1	1	1	2
90°	0	0	0	0	0	



TEST NUMBER: P283794

CATALOG NUMBER: LDA2B20D2WD010 EU2B20FL40D2W 2LBALPINSQ1MB

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3201.1	3201.1	3201.1	3201.1	3201.1
1°	3195.8	3172.9	3169.5	3199.1	3192.4
2°	3170.2	3148.7	3145.3	3174.9	3168.9
3°	3142.0	3122.5	3115.7	3146.7	3142.6
4°	3104.3	3086.1	3080.1	3111.0	3107.7
5°	3051.8	3033.0	3029.0	3059.2	3056.6
6°	2987.3	2971.8	2964.4	2994.7	2989.3
7°	2906.6	2892.5	2884.4	2906.6	2909.3
8°	2801.7	2794.9	2785.5	2807.7	2807.7
9°	2690.0	2684.0	2673.9	2694.1	2694.1
10°	2570.3	2566.3	2554.2	2573.0	2573.0
11°	2439.2	2437.2	2428.4	2443.9	2443.9
12°	2301.3	2306.0	2298.0	2311.4	2306.7
13°	2163.5	2161.4	2162.1	2172.2	2164.8
14°	2007.4	2019.5	2021.6	2027.6	2016.2
15°	1858.1	1873.6	1870.2	1879.0	1864.2
16°	1705.5	1723.0	1722.3	1724.3	1710.2
17°	1562.9	1573.0	1573.7	1571.7	1554.2
18°	1410.9	1425.0	1425.0	1421.7	1400.8
19°	1262.3	1273.1	1280.5	1273.1	1248.9
20°	1128.5	1135.9	1149.3	1130.5	1103.6
21°	1000.0	1006.7	1018.2	996.0	966.4
22°	877.0	885.7	896.5	870.9	840.0
23°	762.0	782.1	786.2	751.2	725.0
24°	656.4	679.2	686.0	650.3	622.7
25°	562.2	587.8	603.2	561.5	534.0
26°	480.8	505.7	524.6	482.9	456.6
27°	409.6	435.8	455.3	416.3	391.4
28°	348.4	373.9	394.1	357.8	334.2
29°	302.6	317.4	337.6	307.3	285.8
30°	257.6	273.7	295.2	264.3	245.5
32.5°	176.9	185.6	202.4	183.6	168.8
35°	125.8	131.1	139.2	126.4	117.7
37.5°	89.4	92.1	96.8	89.4	84.7
40°	65.9	67.3	69.3	65.2	62.5
42.5°	49.1	49.8	49.8	48.4	47.1
45°	37.0	37.7	37.0	37.0	35.6
47.5°	26.9	28.9	28.2	28.2	26.2
50°	17.5	21.5	21.5	20.8	17.5
52.5°	10.8	14.8	16.8	14.8	11.4
55°	8.1	10.1	12.8	10.1	8.7
57.5°	8.1	8.1	9.4	8.1	8.1
60°	8.1	8.1	8.1	8.1	8.1



TEST NUMBER: P283794

CATALOG NUMBER: LDA2B20D2WD010 EU2B20FL40D2W 2LBALPINSQ1MB

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	7.4	7.4	7.4	7.4	7.4
70°	7.4	7.4	6.7	7.4	7.4
72.5°	6.7	6.7	6.1	6.7	6.1
75°	5.4	5.4	5.4	5.4	5.4
77.5°	4.0	4.0	4.0	4.0	4.0
80°	3.4	3.4	3.4	3.4	3.4
82.5°	2.0	2.0	2.0	2.7	2.0
85°	1.3	1.3	1.3	1.3	1.3
87.5°	0.7	0.7	0.7	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







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







62.5°	8.1	8.1	8.1	8.1	8.1
65°	7.4	8.1	7.4	8.1	7.4



(END OF REPORT)