

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: P281778

Luminaire Tested: **LDA2B20D2WD010 EU2B20SP15D2W 2LBAPINSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B20D2WD010 EU2B20SP15D2W 2LBAPINSQ1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ PinHole, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1498.4 lumens  
Efficiency: N/A  
Efficacy: 72.7 lumens/watt  
Spacing Criteria (0/90/45): 0.33 / 0.31 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

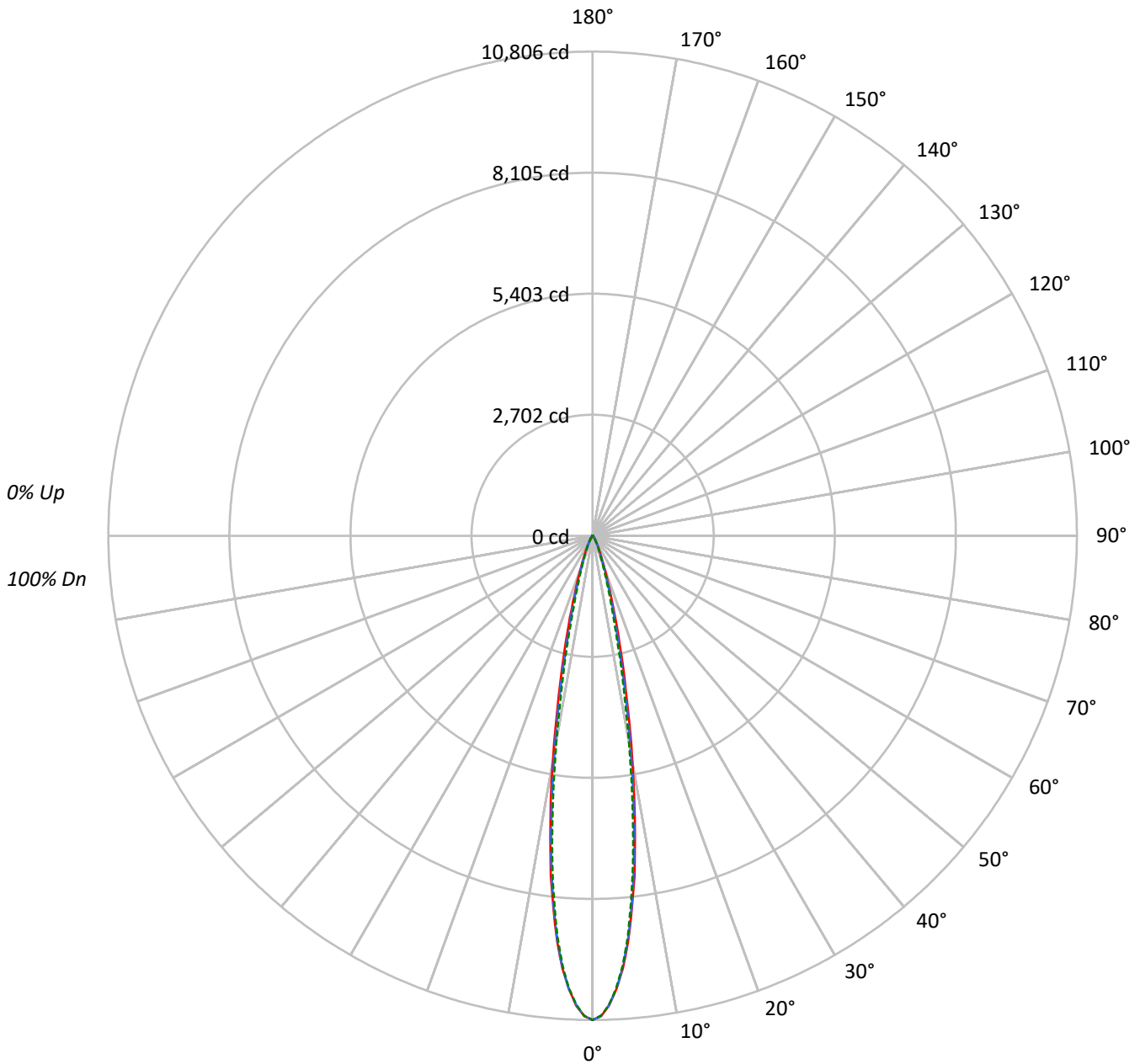
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P281778

CATALOG NUMBER: LDA2B20D2WD010 EU2B20SP15D2W 2LBAPINSQ1MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P281778

CATALOG NUMBER: LDA2B20D2WD010 EU2B20SP15D2W 2LBAPINSQ1MMS

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

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

	0°	45°	90°
0°	5331366	5331366	5331366
5°	4504464	4480444	4447362
10°	2563878	2451009	2326367
15°	1061729	940422	828462
20°	403901	353709	323835
25°	178388	171366	152368
30°	82547	91207	72635
35°	43425	51194	40654
40°	19064	21962	12688
45°	7396	5791	8442
50°	3531	4068	5833
55°	0	2580	0
60°	0	0	1480
65°	0	0	0
70°	0	1154	0
75°	0	0	0
80°	4262	0	0
85°	43021	38493	16982



TEST NUMBER: P281778

CATALOG NUMBER: LDA2B20D2WD010 EU2B20SP15D2W 2LBAPINSQ1MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	722.5	48.2
10°-20°	552.4	36.9
20°-30°	153.6	10.3
30°-40°	49.9	3.3
40°-50°	11.0	0.7
50°-60°	3.4	0.2
60°-70°	2.0	0.1
70°-80°	1.2	0.1
80°-90°	2.4	0.2
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°	1428.5	95.3
0°-40°	1478.4	98.7
0°-60°	1492.8	99.6
0°-90°	1498.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1498.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10806	10806	10806	10806	10806	
5°	9095	9029	9047	8979	8980	735
15°	2079	2007	1841	1699	1622	607
25°	328	332	315	297	280	164
35°	72	78	85	64	68	47
45°	11	15	8	8	12	11
55°	0	5	3	2	0	3
65°	0	3	0	0	0	2
75°	0	0	0	2	0	1
85°	8	4	7	4	3	2
90°	0	0	0	0	0	



TEST NUMBER: P281778

CATALOG NUMBER: LDA2B20D2WD010 EU2B20SP15D2W 2LBAPINSQ1MMS

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10806.2	10806.2	10806.2	10806.2	10806.2
1°	10723.5	10683.3	10722.0	10699.2	10712.1
2°	10490.6	10440.5	10480.7	10448.9	10475.4
3°	10128.0	10089.3	10124.9	10084.7	10106.0
4°	9673.5	9617.4	9653.1	9599.2	9612.1
5°	9095.4	9028.7	9046.9	8979.4	8980.1
6°	8367.1	8320.9	8331.5	8226.0	8218.4
7°	7654.8	7545.5	7534.1	7413.5	7390.0
8°	6789.9	6690.5	6657.9	6516.0	6466.0
9°	5960.7	5837.0	5770.3	5605.7	5547.2
10°	5117.8	4992.7	4892.5	4706.7	4643.7
11°	4338.0	4224.9	4100.5	3901.7	3840.3
12°	3614.2	3525.4	3388.9	3196.9	3132.5
13°	3023.2	2920.8	2774.4	2596.1	2540.7
14°	2511.1	2401.1	2254.7	2102.2	1994.5
15°	2078.7	2006.6	1841.2	1699.4	1622.0
16°	1698.6	1637.2	1494.5	1371.6	1317.0
17°	1392.9	1343.6	1222.2	1125.8	1080.3
18°	1149.4	1087.9	992.3	929.3	893.7
19°	932.4	884.6	814.8	766.2	730.6
20°	769.3	729.8	673.7	630.4	616.8
22.5°	496.9	490.1	453.7	430.2	418.8
25°	327.7	331.5	314.8	296.6	279.9
26°	279.9	282.2	267.0	256.4	235.2
27°	239.7	240.5	240.5	220.8	200.3
28°	195.7	204.1	196.5	187.4	167.7
29°	167.7	178.3	174.5	165.4	146.4
30°	144.9	152.5	160.1	145.7	127.5
32.5°	101.7	108.5	116.8	109.2	94.1
35°	72.1	78.1	85.0	64.5	67.5
37.5°	49.3	59.9	57.7	52.3	44.8
40°	29.6	31.1	34.1	36.4	19.7
42.5°	21.2	25.0	22.8	25.8	9.1
45°	10.6	15.2	8.3	8.3	12.1
47.5°	7.6	12.9	4.6	4.6	1.5
50°	4.6	9.9	5.3	2.3	7.6
52.5°	7.6	9.1	6.1	6.8	1.5
55°	0.0	4.6	3.0	1.5	0.0
57.5°	3.0	5.3	3.0	1.5	3.0
60°	0.0	0.0	0.0	0.8	1.5
62.5°	0.0	1.5	0.0	2.3	3.0
65°	0.0	3.0	0.0	0.0	0.0
67.5°	4.6	5.3	3.0	6.1	9.1



TEST NUMBER: P281778

CATALOG NUMBER: LDA2B20D2WD010 EU2B20SP15D2W 2LBAPINSQ1MMS

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	1.5	0.0
77.5°	0.0	7.6	2.3	2.3	3.0
80°	1.5	0.0	0.0	0.8	0.0
82.5°	0.0	6.1	0.8	3.0	4.6
85°	7.6	3.8	6.8	3.8	3.0
87.5°	0.0	0.8	1.5	0.8	0.0
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







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







70°	0.0	0.0	0.8	0.8	0.0
72.5°	1.5	0.0	0.0	0.0	0.0



(END OF REPORT)