

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: P282398

Luminaire Tested: **LDA2B209024D010 EU2B20NFL259024 2LBAPINSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282398  
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: LDA2B209024D010 EU2B20NFL259024 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: 1317.9 lumens  
Efficiency: N/A  
Efficacy: 64.0 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

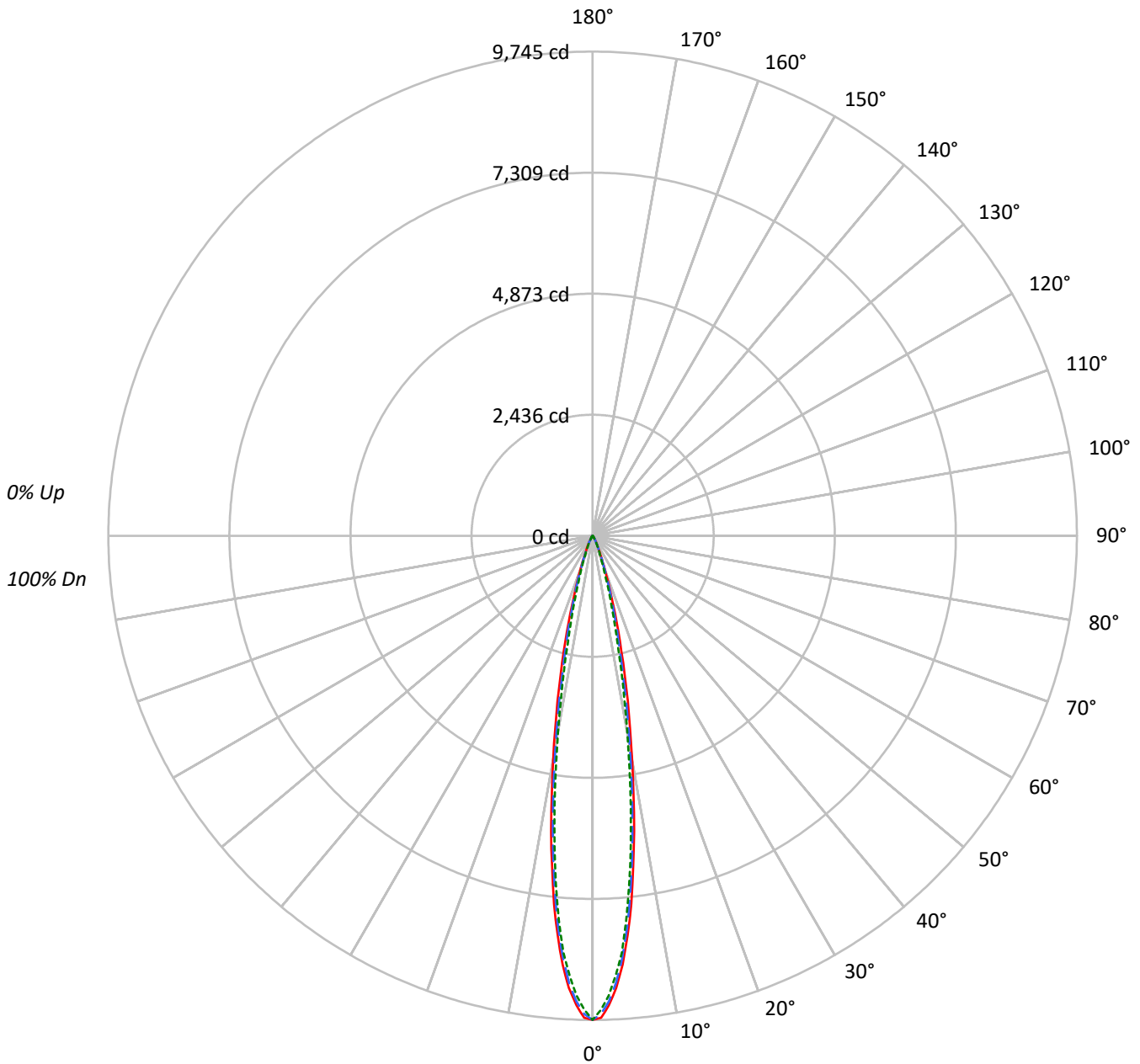
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P282398

CATALOG NUMBER: LDA2B209024D010 EU2B20NFL259024 2LBAPINSQ1MW

### Luminous Intensity Polar Plot





TEST NUMBER: P282398

CATALOG NUMBER: LDA2B209024D010 EU2B20NFL259024 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																			
1	115	113	112	110	113	111	110	108	107	106	105	104	103	102	100	100	99	97																			
2	112	109	106	104	110	107	105	103	104	102	100	101	100	98	99	97	96	95																			
3	109	105	101	99	107	103	100	98	101	99	97	99	97	95	97	95	94	92																			
4	106	101	98	95	105	100	97	94	98	96	93	96	94	92	95	93	91	90																			
5	103	98	94	92	102	97	94	91	96	93	91	94	92	90	93	91	89	88																			
6	101	95	92	89	100	95	91	89	93	90	88	92	90	88	91	89	87	86																			
7	99	93	89	87	98	92	89	86	91	88	86	90	88	86	89	87	85	84																			
8	96	91	87	84	96	90	87	84	89	86	84	88	86	84	88	85	83	83																			
9	94	89	85	83	94	88	85	82	87	84	82	87	84	82	86	84	82	81																			
10	93	87	83	81	92	86	83	81	86	83	81	85	82	80	85	82	80	79																			

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

	0°	45°	90°
0°	4807613	4807613	4807613
5°	4000451	3927105	3847817
10°	2291399	2150225	2006796
15°	1019182	905179	758538
20°	369722	347619	275428
25°	141970	132553	114153
30°	61241	56969	50531
35°	28970	28970	23971
40°	14491	15006	12108
45°	8373	7884	7326
50°	5757	5219	5219
55°	4559	3269	3871
60°	3750	2269	2960
65°	2685	1751	2685
70°	2164	1154	2164
75°	1525	1525	1525
80°	0	0	0
85°	0	0	0



TEST NUMBER: P282398

CATALOG NUMBER: LDA2B209024D010 EU2B20NFL259024 2LBAPINSQ1MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	633.8	48.1
10°-20°	512.9	38.9
20°-30°	123.7	9.4
30°-40°	31.5	2.4
40°-50°	9.4	0.7
50°-60°	4.0	0.3
60°-70°	2.0	0.1
70°-80°	0.7	0.1
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°	1270.4	96.4
0°-40°	1301.9	98.8
0°-60°	1315.3	99.8
0°-90°	1317.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1317.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9745	9745	9745	9745	9745	
5°	8078	8003	7930	7860	7770	653
15°	1995	1948	1772	1596	1485	569
25°	261	262	244	221	210	135
35°	48	49	48	44	40	33
45°	12	12	11	10	10	10
55°	5	4	4	4	4	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	0



TEST NUMBER: P282398

CATALOG NUMBER: LDA2B209024D010 EU2B20NFL259024 2LBAPINSQ1MW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9744.6	9744.6	9744.6	9744.6	9744.6
1°	9701.0	9633.4	9625.1	9667.2	9543.2
2°	9453.0	9404.9	9377.1	9401.9	9261.3
3°	9112.5	9065.9	9015.6	9016.3	8859.3
4°	8648.8	8612.0	8527.1	8501.5	8410.6
5°	8077.7	8003.3	7929.6	7860.5	7769.5
6°	7446.4	7350.2	7244.9	7142.0	7048.8
7°	6703.8	6639.9	6500.9	6360.4	6281.5
8°	6005.6	5902.7	5740.3	5564.5	5497.6
9°	5254.8	5181.2	4994.8	4790.4	4723.5
10°	4573.9	4497.3	4292.1	4064.4	4005.8
11°	3935.1	3863.0	3649.5	3410.5	3348.2
12°	3394.7	3292.5	3047.5	2840.1	2779.2
13°	2856.6	2786.7	2554.5	2349.3	2231.4
14°	2398.9	2341.1	2130.6	1950.3	1825.5
15°	1995.4	1948.0	1772.2	1596.3	1485.1
16°	1636.9	1607.6	1468.5	1298.7	1207.7
17°	1328.0	1300.9	1212.2	1055.9	979.3
18°	1072.5	1068.7	995.1	859.8	791.4
19°	882.3	880.8	813.2	699.7	643.3
20°	704.2	714.0	662.1	562.9	524.6
21°	574.2	579.4	538.1	463.0	428.4
22°	467.5	471.2	444.2	382.5	363.7
23°	383.3	385.5	363.0	317.2	300.6
24°	315.7	317.2	296.9	264.5	250.3
25°	260.8	262.3	243.5	221.0	209.7
26°	216.4	217.9	201.4	185.6	174.4
27°	179.6	182.6	166.1	156.3	144.3
28°	153.3	154.1	139.0	133.0	121.8
29°	125.5	130.0	117.2	112.0	103.7
30°	107.5	109.7	100.0	96.2	88.7
32.5°	71.4	72.9	68.4	65.4	59.4
35°	48.1	48.9	48.1	43.6	39.8
37.5°	33.1	33.1	33.8	28.6	27.1
40°	22.5	22.5	23.3	19.5	18.8
42.5°	16.5	16.5	15.8	13.5	13.5
45°	12.0	12.0	11.3	10.5	10.5
47.5°	9.8	9.0	8.3	8.3	8.3
50°	7.5	7.5	6.8	6.0	6.8
52.5°	6.0	6.0	5.3	5.3	5.3
55°	5.3	4.5	3.8	3.8	4.5
57.5°	3.8	3.8	3.0	3.0	3.8
60°	3.8	3.0	2.3	3.0	3.0



TEST NUMBER: P282398

CATALOG NUMBER: LDA2B209024D010 EU2B20NFL259024 2LBAPINSQ1MW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	2.3	1.5	1.5	1.5	1.5
70°	1.5	1.5	0.8	0.8	1.5
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°	3.0	2.3	2.3	2.3	2.3
65°	2.3	2.3	1.5	1.5	2.3



(END OF REPORT)