

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: P281384

Luminaire Tested: **LDA2B209027D010 EU2B20SP159027 2LBALD1WHH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281384  
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: LDA2B209027D010 EU2B20SP159027 2LBALD1WHH  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in  
ADJ spun Refl w/lens Self-Flanged, WHH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1548.4 lumens  
Efficiency: N/A  
Efficacy: 75.2 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

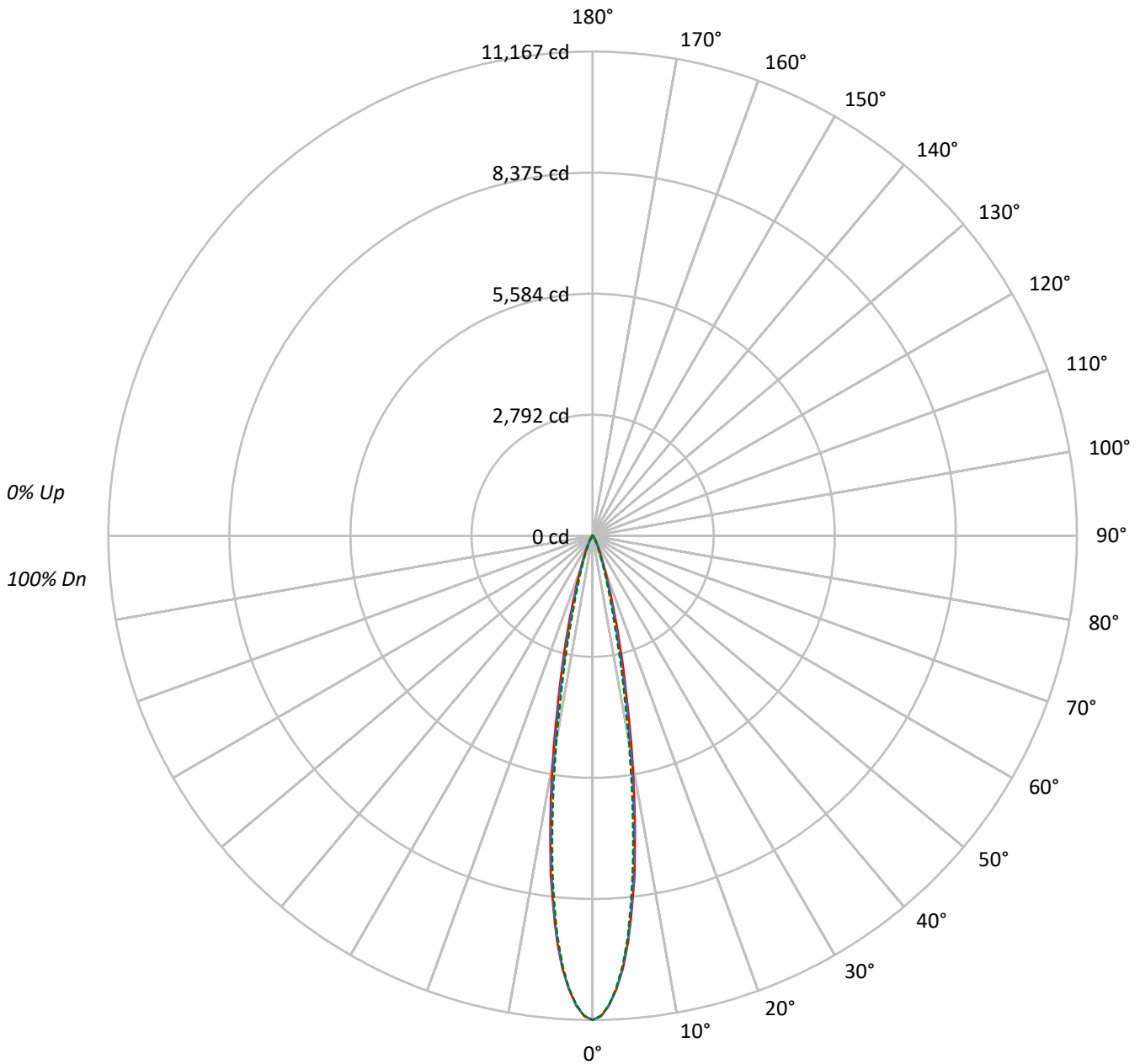
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

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

	0°	45°	90°
0°	5509519	5509519	5509519
5°	4654969	4630157	4595985
10°	2649544	2532918	2404068
15°	1097227	971885	856145
20°	417395	365522	334651
25°	184376	177136	157485
30°	85282	94226	75028
35°	44870	52880	42039
40°	19708	22735	13138
45°	7675	6000	8721
50°	3607	4221	5987
55°	0	2666	0
60°	0	0	1579
65°	0	0	0
70°	0	1154	0
75°	0	0	0
80°	4546	0	0
85°	44153	40191	17548



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	746.7	48.2
10°-20°	570.8	36.9
20°-30°	158.7	10.3
30°-40°	51.6	3.3
40°-50°	11.4	0.7
50°-60°	3.5	0.2
60°-70°	2.0	0.1
70°-80°	1.2	0.1
80°-90°	2.5	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°	1476.2	95.3
0°-40°	1527.8	98.7
0°-60°	1542.7	99.6
0°-90°	1548.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1548.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11167	11167	11167	11167	11167	
5°	9399	9330	9349	9279	9280	760
15°	2148	2074	1903	1756	1676	627
25°	339	343	325	306	289	170
35°	74	81	88	67	70	49
45°	11	16	9	9	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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	11167.3	11167.3	11167.3	11167.3	11167.3
1°	11081.8	11040.3	11080.2	11056.7	11070.0
2°	10841.1	10789.4	10830.9	10798.0	10825.4
3°	10466.4	10426.4	10463.2	10421.7	10443.6
4°	9996.8	9938.7	9975.6	9919.9	9933.2
5°	9399.3	9330.4	9349.2	9279.4	9280.2
6°	8646.7	8598.9	8609.9	8500.9	8493.0
7°	7910.5	7797.6	7785.9	7661.2	7636.9
8°	7016.8	6914.1	6880.4	6733.8	6682.0
9°	6159.9	6032.1	5963.1	5793.0	5732.6
10°	5288.8	5159.5	5056.0	4863.9	4798.8
11°	4482.9	4366.1	4237.5	4032.1	3968.6
12°	3735.0	3643.2	3502.1	3303.8	3237.1
13°	3124.2	3018.4	2867.1	2682.8	2625.6
14°	2595.0	2481.4	2330.0	2172.5	2061.1
15°	2148.2	2073.7	1902.8	1756.2	1676.2
16°	1755.4	1691.9	1544.5	1417.5	1361.0
17°	1439.4	1388.5	1263.0	1163.5	1116.4
18°	1187.8	1124.3	1025.5	960.4	923.5
19°	963.5	914.1	842.0	791.8	755.0
20°	795.0	754.2	696.2	651.5	637.4
22.5°	513.5	506.5	468.8	444.5	432.8
25°	338.7	342.6	325.4	306.5	289.3
26°	289.3	291.6	276.0	265.0	243.0
27°	247.7	248.5	248.5	228.1	207.0
28°	202.3	210.9	203.1	193.6	173.3
29°	173.3	184.2	180.3	170.9	151.3
30°	149.7	157.6	165.4	150.5	131.7
32.5°	105.1	112.1	120.7	112.9	97.2
35°	74.5	80.8	87.8	66.6	69.8
37.5°	51.0	61.9	59.6	54.1	46.3
40°	30.6	32.1	35.3	37.6	20.4
42.5°	22.0	25.9	23.5	26.7	9.4
45°	11.0	15.7	8.6	8.6	12.5
47.5°	7.8	13.3	4.7	4.7	1.6
50°	4.7	10.2	5.5	2.4	7.8
52.5°	7.8	9.4	6.3	7.1	1.6
55°	0.0	4.7	3.1	1.6	0.0
57.5°	3.1	5.5	3.1	1.6	3.1
60°	0.0	0.0	0.0	0.8	1.6
62.5°	0.0	1.6	0.0	2.4	3.1
65°	0.0	3.1	0.0	0.0	0.0
67.5°	4.7	5.5	3.1	6.3	9.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	1.6	0.0
77.5°	0.0	7.8	2.4	2.4	3.1
80°	1.6	0.0	0.0	0.8	0.0
82.5°	0.0	6.3	0.8	3.1	4.7
85°	7.8	3.9	7.1	3.9	3.1
87.5°	0.0	0.8	1.6	0.8	0.0
90°	0.0	0.0	0.0	0.0	0.0



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







70°	0.0	0.0	0.8	0.8	0.0
72.5°	1.6	0.0	0.0	0.0	0.0



(END OF REPORT)