

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: **LDA2B209050D010 EU2B20SP159050 2LBAPINSQ1MW**

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: LDA2B209050D010 EU2B20SP159050 2LBAPINSQ1MW  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ PinHole, MW  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1759.6 lumens  
Efficiency: N/A  
Efficacy: 85.4 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

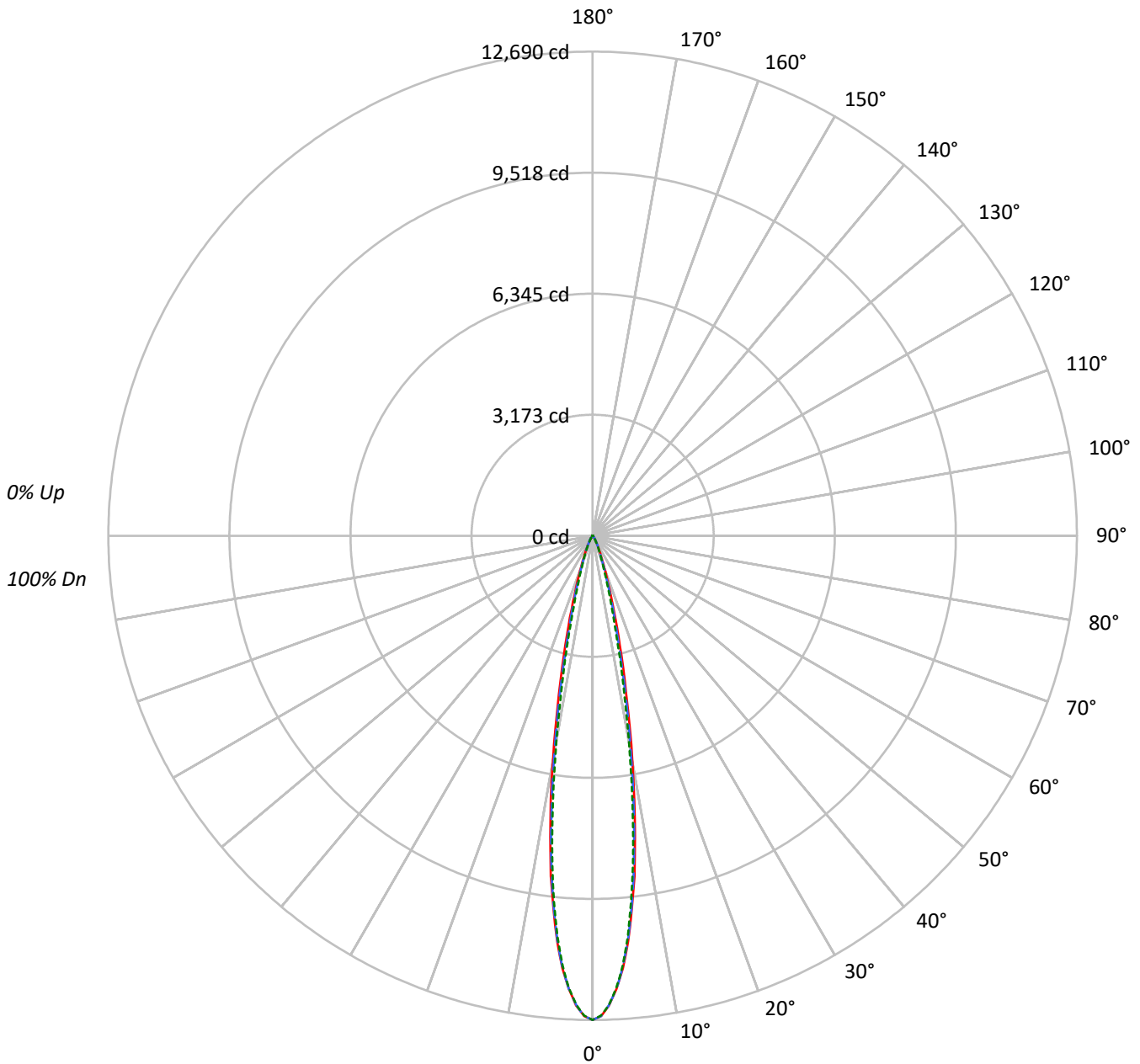
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6261008	6261008	6261008
5°	5289924	5261695	5222868
10°	3010996	2878439	2732004
15°	1246881	1104429	972907
20°	474307	415400	380275
25°	209526	201252	178987
30°	96960	107101	85282
35°	50953	60108	47761
40°	22348	25826	14942
45°	8721	6838	9977
50°	4068	4759	6831
55°	0	3097	0
60°	0	0	1776
65°	0	0	0
70°	0	1298	0
75°	0	0	0
80°	5114	0	0
85°	50380	45286	20378



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	848.5	48.2
10°-20°	648.7	36.9
20°-30°	180.4	10.3
30°-40°	58.6	3.3
40°-50°	12.9	0.7
50°-60°	4.0	0.2
60°-70°	2.3	0.1
70°-80°	1.4	0.1
80°-90°	2.9	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°	1677.6	95.3
0°-40°	1736.2	98.7
0°-60°	1753.1	99.6
0°-90°	1759.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1759.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	12690	12690	12690	12690	12690	
5°	10681	10603	10624	10545	10546	863
15°	2441	2356	2162	1996	1905	713
25°	385	389	370	348	329	193
35°	85	92	100	76	79	56
45°	12	18	10	10	14	13
55°	0	5	4	2	0	3
65°	0	4	0	0	0	3
75°	0	0	0	2	0	1
85°	9	4	8	4	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	12690.5	12690.5	12690.5	12690.5	12690.5
1°	12593.4	12546.2	12591.6	12564.9	12580.0
2°	12319.9	12261.1	12308.3	12270.9	12302.1
3°	11894.0	11848.6	11890.5	11843.2	11868.2
4°	11360.3	11294.4	11336.3	11273.0	11288.2
5°	10681.4	10603.0	10624.4	10545.1	10546.0
6°	9826.1	9771.8	9784.3	9660.4	9651.5
7°	8989.6	8861.3	8847.9	8706.2	8678.6
8°	7973.9	7857.2	7818.9	7652.3	7593.5
9°	7000.1	6854.9	6776.5	6583.1	6514.5
10°	6010.3	5863.3	5745.7	5527.4	5453.4
11°	5094.4	4961.6	4815.5	4582.1	4509.9
12°	4244.4	4140.2	3979.8	3754.4	3678.7
13°	3550.4	3430.1	3258.2	3048.8	2983.7
14°	2949.0	2819.8	2647.9	2468.8	2342.3
15°	2441.2	2356.5	2162.3	1995.7	1904.8
16°	1994.8	1922.6	1755.1	1610.8	1546.7
17°	1635.8	1577.9	1435.3	1322.2	1268.7
18°	1349.8	1277.6	1165.3	1091.4	1049.5
19°	1095.0	1038.8	956.9	899.8	858.0
20°	903.4	857.1	791.2	740.4	724.3
22.5°	583.6	575.5	532.8	505.2	491.8
25°	384.9	389.3	369.7	348.4	328.8
26°	328.8	331.4	313.6	301.1	276.2
27°	281.5	282.4	282.4	259.3	235.2
28°	229.9	239.7	230.8	220.1	196.9
29°	196.9	209.4	204.9	194.2	172.0
30°	170.2	179.1	188.0	171.1	149.7
32.5°	119.4	127.4	137.2	128.3	110.5
35°	84.6	91.8	99.8	75.7	79.3
37.5°	57.9	70.4	67.7	61.5	52.6
40°	34.7	36.5	40.1	42.8	23.2
42.5°	24.9	29.4	26.7	30.3	10.7
45°	12.5	17.8	9.8	9.8	14.3
47.5°	8.9	15.1	5.3	5.3	1.8
50°	5.3	11.6	6.2	2.7	8.9
52.5°	8.9	10.7	7.1	8.0	1.8
55°	0.0	5.3	3.6	1.8	0.0
57.5°	3.6	6.2	3.6	1.8	3.6
60°	0.0	0.0	0.0	0.9	1.8
62.5°	0.0	1.8	0.0	2.7	3.6
65°	0.0	3.6	0.0	0.0	0.0
67.5°	5.3	6.2	3.6	7.1	10.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	1.8	0.0
77.5°	0.0	8.9	2.7	2.7	3.6
80°	1.8	0.0	0.0	0.9	0.0
82.5°	0.0	7.1	0.9	3.6	5.3
85°	8.9	4.5	8.0	4.5	3.6
87.5°	0.0	0.9	1.8	0.9	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	0.9	0.9	0.0
72.5°	1.8	0.0	0.0	0.0	0.0



(END OF REPORT)