

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: P281594

Luminaire Tested: **LDA2B209035D010 EU2B20SP159035 2LBASQC1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281594  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-6)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B209035D010 EU2B20SP159035 2LBASQC1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Cast Trim, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1677.1 lumens  
Efficiency: N/A  
Efficacy: 81.4 lumens/watt  
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.29  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

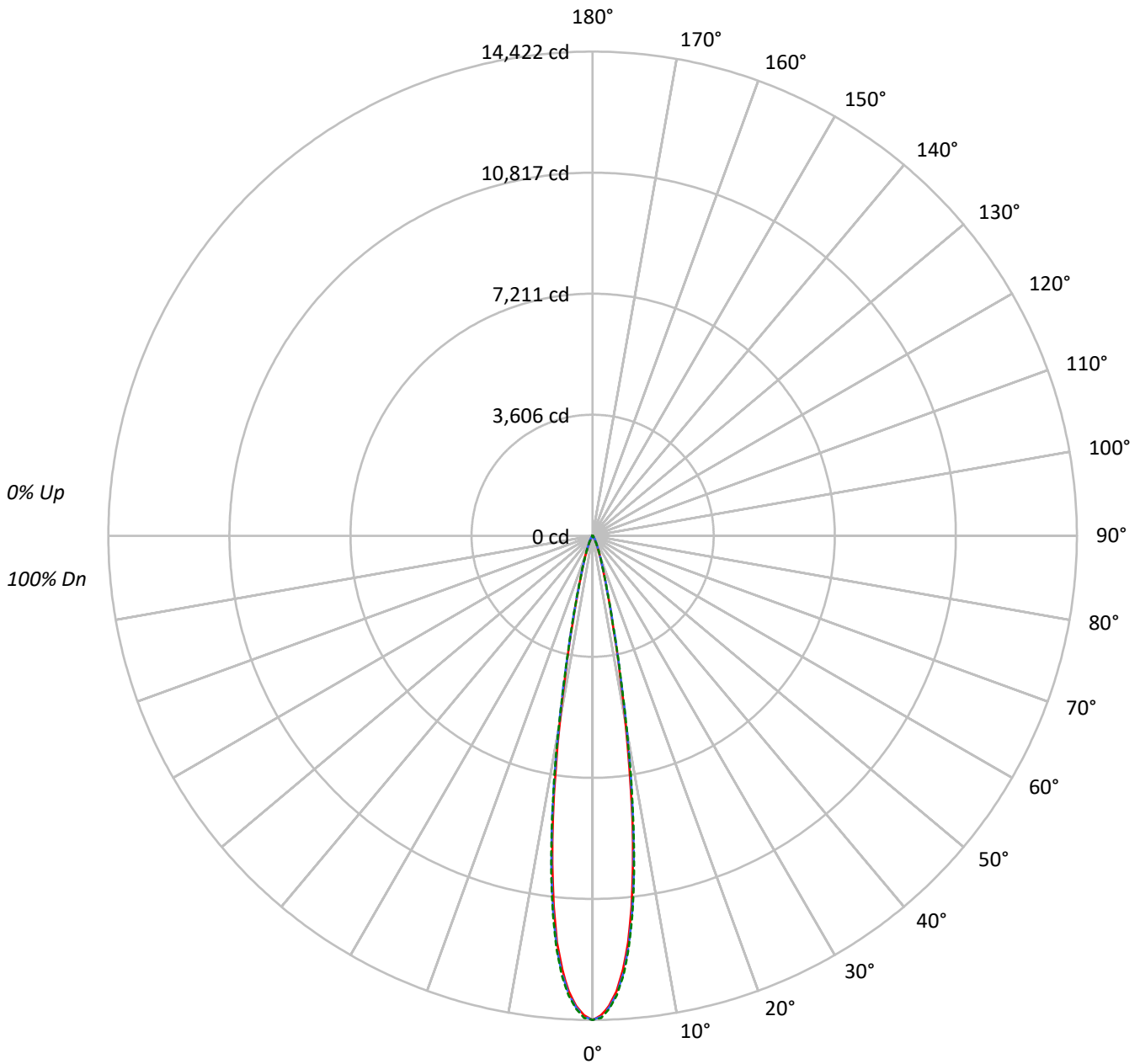
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	116	114	112	111	113	112	110	109	108	107	106	104	103	102	101	100	99	98	98	98	98																
2	113	109	107	105	111	108	105	103	105	103	101	102	100	99	99	98	97	96	96	96	96																
3	110	106	103	100	108	104	102	99	102	100	98	100	98	96	98	96	95	94	94	94	94																
4	107	103	99	97	106	102	99	96	100	97	95	98	96	94	96	95	93	92	92	92	92																
5	105	100	96	94	103	99	96	93	98	95	93	96	94	92	95	93	91	90	90	90	90																
6	103	97	94	91	101	97	94	91	96	93	91	94	92	90	93	91	90	89	89	89	89																
7	100	95	92	89	100	95	91	89	94	91	89	93	90	88	92	90	88	87	87	87	87																
8	99	93	90	88	98	93	90	87	92	89	87	91	89	87	90	88	86	86	86	86	86																
9	97	91	88	86	96	91	88	86	90	88	86	90	87	85	89	87	85	84	84	84	84																
10	95	90	87	84	94	89	86	84	89	86	84	88	86	84	88	85	84	83	83	83	83																

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

	0°	45°	90°
0°	7115313	7115313	7115313
5°	6022295	6085240	6111736
10°	2816118	2922825	2928486
15°	824836	836839	836430
20°	331238	331658	332078
25°	147686	162656	151224
30°	62722	86250	57196
35°	28789	39992	26802
40°	9403	15650	8372
45°	0	5652	0
50°	0	0	0
55°	2752	1376	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	4546	0	0
85°	9057	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	953.1	56.8
10°-20°	540.2	32.2
20°-30°	141.1	8.4
30°-40°	36.4	2.2
40°-50°	3.6	0.2
50°-60°	1.1	0.1
60°-70°	0.2	0.0
70°-80°	1.2	0.1
80°-90°	0.3	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°	1634.4	97.5
0°-40°	1670.8	99.6
0°-60°	1675.5	99.9
0°-90°	1677.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1677.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	14422	14422	14422	14422	14422	
5°	12160	12269	12287	12210	12341	941
15°	1615	1637	1638	1620	1638	530
25°	271	294	299	285	278	135
35°	48	51	66	45	44	33
45°	0	3	8	1	0	3
55°	3	4	2	1	0	2
65°	0	0	0	0	0	1
75°	0	1	0	0	0	3
85°	2	0	0	0	0	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	14422.1	14422.1	14422.1	14422.1	14422.1
1°	14286.9	14343.6	14326.5	14306.3	14363.0
2°	14011.5	14066.6	14061.7	14035.0	14101.4
3°	13587.1	13664.1	13664.1	13624.4	13707.0
4°	12954.6	13072.1	13083.4	13027.5	13130.4
5°	12160.2	12268.7	12287.3	12209.6	12340.8
6°	11083.8	11232.0	11274.2	11184.3	11318.7
7°	9847.2	10002.7	10066.6	9966.2	10116.9
8°	8513.3	8625.1	8702.0	8587.0	8740.1
9°	7020.7	7181.9	7252.4	7140.6	7289.6
10°	5621.3	5769.5	5834.3	5807.6	5845.6
11°	4366.0	4497.2	4540.9	4504.5	4522.3
12°	3418.4	3471.1	3499.4	3475.1	3487.3
13°	2595.6	2666.1	2679.0	2668.5	2674.2
14°	2027.1	2061.1	2075.7	2070.8	2073.3
15°	1614.9	1636.7	1638.4	1619.7	1637.6
16°	1300.6	1317.7	1324.9	1305.5	1329.0
17°	1065.8	1079.6	1087.7	1068.2	1077.9
18°	877.1	887.6	899.0	881.9	896.5
19°	736.2	742.6	743.5	738.6	742.6
20°	630.9	627.6	631.7	622.8	632.5
22.5°	415.5	423.6	433.3	422.8	426.8
25°	271.3	294.0	298.8	285.1	277.8
26°	223.5	252.7	265.6	243.8	220.3
27°	185.5	206.5	223.5	194.4	175.7
28°	162.8	180.6	197.6	170.1	148.2
29°	136.1	153.9	183.0	151.4	137.7
30°	110.1	123.1	151.4	115.0	100.4
32.5°	62.4	72.9	98.0	68.0	55.9
35°	47.8	51.0	66.4	45.4	44.5
37.5°	41.3	37.3	51.8	37.3	30.0
40°	14.6	21.9	24.3	16.2	13.0
42.5°	6.5	6.5	10.5	3.2	3.2
45°	0.0	3.2	8.1	0.8	0.0
47.5°	0.0	0.0	1.6	0.0	0.0
50°	0.0	1.6	0.0	0.0	0.0
52.5°	1.6	0.0	0.0	0.0	0.0
55°	3.2	4.0	1.6	0.8	0.0
57.5°	4.9	4.0	1.6	1.6	1.6
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	1.6	0.8	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.8	0.0	0.0	0.0
77.5°	8.1	1.6	2.4	1.6	3.2
80°	1.6	0.0	0.0	0.0	0.0
82.5°	3.2	0.0	0.0	0.0	0.0
85°	1.6	0.0	0.0	0.0	0.0
87.5°	0.0	0.8	0.0	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	0.0	0.0	0.0
72.5°	3.2	2.4	0.0	0.0	3.2



(END OF REPORT)