

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: P282595

Luminaire Tested: **LDA2B209024D010 EU2B20SP159024 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282595  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-7)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B209024D010 EU2B20SP159024 2LBALPINSQ1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Pinhole w-lens, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1437.1 lumens  
Efficiency: N/A  
Efficacy: 69.8 lumens/watt  
Spacing Criteria (0/90/45): 0.32 / 0.3 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

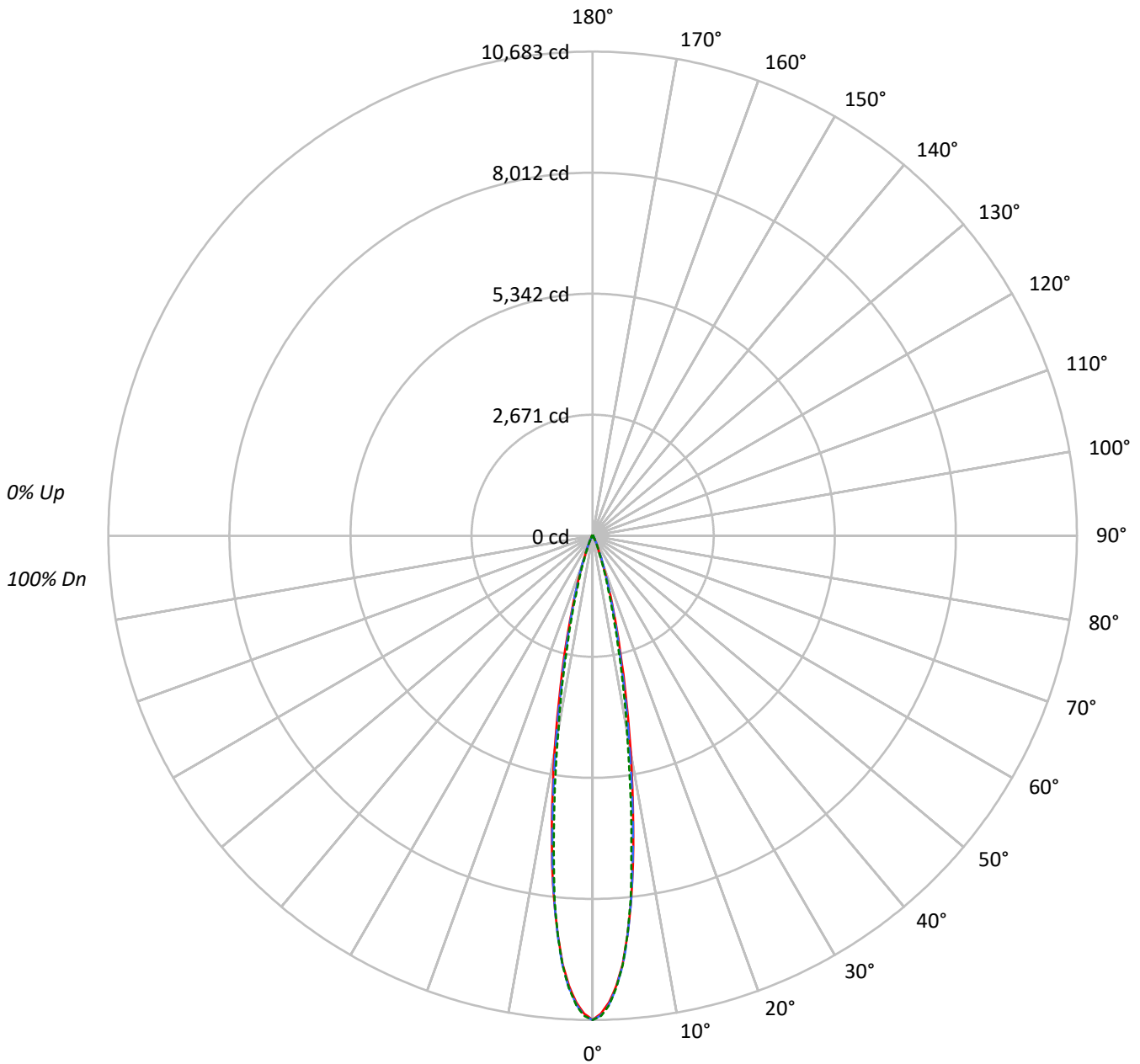
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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				100															
1	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	98	96	96															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	96	94	92	94															
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	96	94	92	91															
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	94	92	90	89															
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	92	89	88	87															
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	90	88	86	85															
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	88	86	84	83															
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	87	84	82	81															
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	85	82	81	80															
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	78	84	81	79	78															

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

	0°	45°	90°
0°	5270584	5270584	5270584
5°	4372480	4386694	4370054
10°	2420049	2332579	2172919
15°	979649	936949	831935
20°	328193	347986	281728
25°	124877	125313	118617
30°	56000	55089	53209
35°	27163	24152	19273
40°	17969	22670	15843
45°	4605	7466	6838
50°	1228	1919	2533
55°	11268	9892	15483
60°	16182	12926	21017
65°	7705	20079	19145
70°	7068	5914	7068
75°	3050	7815	21921
80°	37219	51141	46595
85°	0	23209	27737



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	699.7	48.7
10°-20°	530.0	36.9
20°-30°	120.5	8.4
30°-40°	35.6	2.5
40°-50°	11.9	0.8
50°-60°	10.4	0.7
60°-70°	12.6	0.9
70°-80°	8.0	0.6
80°-90°	8.4	0.6
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°	1350.1	94.0
0°-40°	1385.8	96.4
0°-60°	1408.1	98.0
0°-90°	1437.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1437.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10683	10683	10683	10683	10683	
5°	8829	8898	8858	8742	8824	708
15°	1918	1944	1834	1662	1629	557
25°	229	247	230	228	218	120
35°	45	50	40	47	32	35
45°	7	19	11	19	10	10
55°	13	19	12	17	18	5
65°	7	14	17	16	16	7
75°	2	6	4	7	12	4
85°	0	0	4	4	5	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10683.0	10683.0	10683.0	10683.0	10683.0
1°	10545.4	10588.0	10583.9	10566.7	10597.0
2°	10302.8	10354.5	10349.5	10311.9	10365.9
3°	9947.3	9993.1	9985.8	9931.7	9990.7
4°	9472.1	9524.5	9504.0	9422.9	9498.3
5°	8828.9	8898.5	8857.6	8742.1	8824.0
6°	8116.1	8175.1	8110.4	7957.2	8037.4
7°	7318.1	7355.0	7269.8	7073.1	7019.0
8°	6447.2	6495.5	6376.7	6147.3	6088.3
9°	5614.7	5631.1	5486.9	5242.8	5168.2
10°	4830.7	4818.4	4656.1	4408.7	4337.4
11°	4087.5	4071.2	3899.9	3671.3	3694.3
12°	3411.6	3443.6	3244.5	3037.2	3041.3
13°	2856.1	2859.4	2688.2	2490.7	2479.2
14°	2338.3	2368.6	2222.0	2045.0	2012.2
15°	1918.0	1944.2	1834.4	1662.4	1628.8
16°	1535.4	1568.2	1489.5	1333.8	1289.6
17°	1236.3	1278.1	1226.5	1096.2	1045.4
18°	988.9	1020.9	1008.6	874.2	832.4
19°	780.8	825.0	828.3	716.1	666.1
20°	625.1	665.3	662.8	576.0	536.6
22.5°	358.9	380.2	381.0	340.0	317.1
25°	229.4	246.6	230.2	227.8	217.9
26°	199.1	213.0	195.0	195.0	186.0
27°	161.4	173.7	156.5	163.9	151.6
28°	136.0	149.1	134.4	132.7	131.1
29°	113.1	125.4	106.5	114.7	109.8
30°	98.3	107.3	96.7	109.0	93.4
32.5°	76.2	83.6	64.7	81.9	61.4
35°	45.1	50.0	40.1	46.7	32.0
37.5°	46.7	48.3	43.4	48.3	45.1
40°	27.9	28.7	35.2	35.2	24.6
42.5°	26.2	25.4	15.6	24.6	19.7
45°	6.6	18.8	10.7	18.8	9.8
47.5°	4.9	6.6	6.6	13.1	13.1
50°	1.6	6.6	2.5	4.9	3.3
52.5°	0.0	15.6	3.3	11.5	9.8
55°	13.1	18.8	11.5	17.2	18.0
57.5°	1.6	13.1	6.6	13.9	9.8
60°	16.4	22.1	13.1	23.8	21.3
62.5°	1.6	14.7	17.2	13.1	11.5
65°	6.6	13.9	17.2	16.4	16.4
67.5°	8.2	13.9	10.7	10.7	14.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	1.6	5.7	4.1	7.4	11.5
77.5°	1.6	6.6	5.7	13.1	9.8
80°	13.1	14.7	18.0	23.8	16.4
82.5°	11.5	11.5	18.0	13.1	9.8
85°	0.0	0.0	4.1	4.1	4.9
87.5°	0.0	3.3	8.2	6.6	11.5
90°	0.0	0.0	0.0	0.0	0.0



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







70°	4.9	1.6	4.1	4.1	4.9
72.5°	1.6	7.4	6.6	4.1	8.2



(END OF REPORT)