

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: P282604

Luminaire Tested: **LDA2B209035D010 EU2B20SP159035 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282604  
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: LDA2B209035D010 EU2B20SP159035 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: 1677.1 lumens  
Efficiency: N/A  
Efficacy: 81.4 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

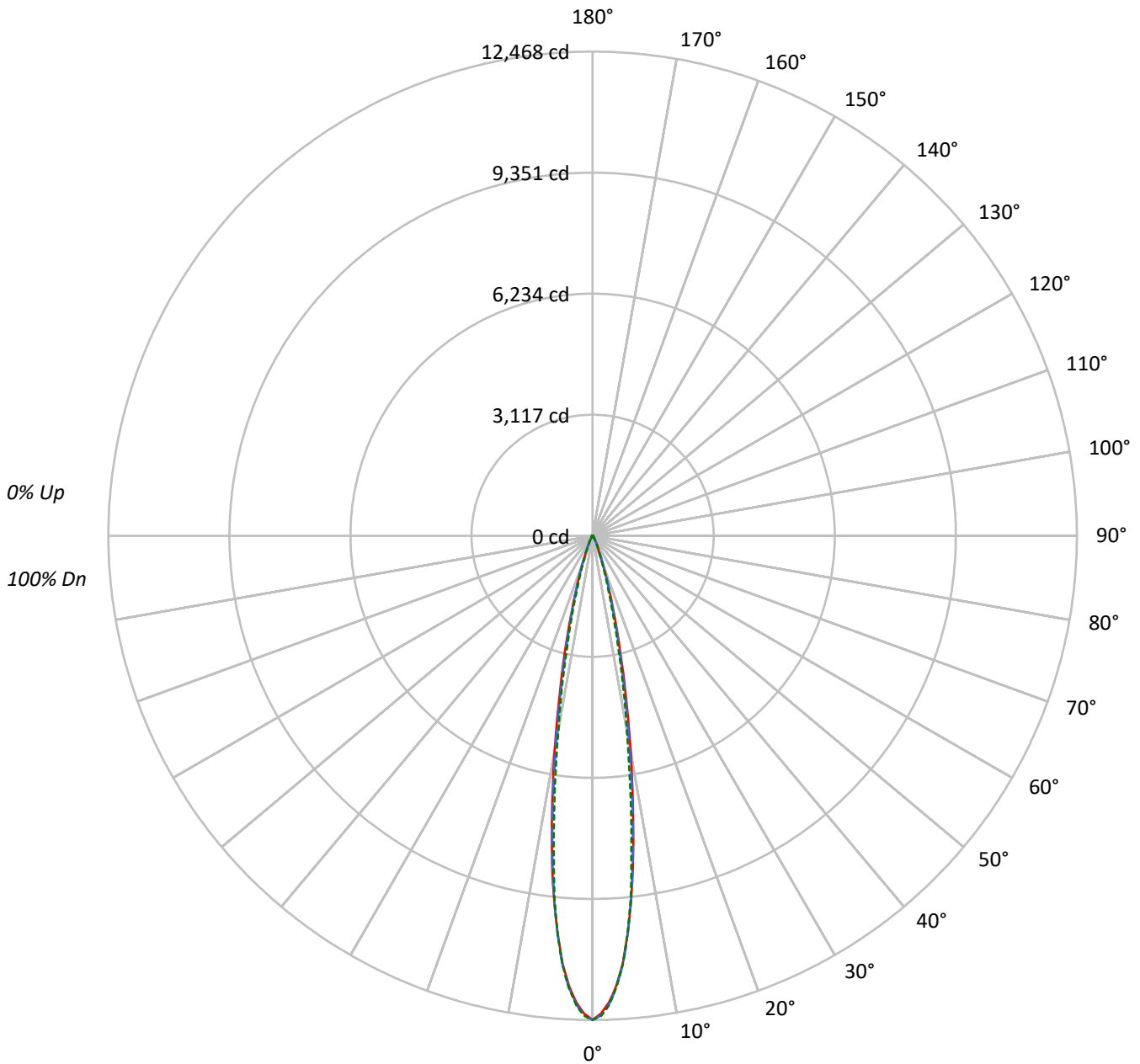
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6151037	6151037	6151037
5°	5102870	5119461	5100047
10°	2824284	2722235	2535924
15°	1143298	1093498	970915
20°	383058	406107	328823
25°	145726	146271	138432
30°	65343	64260	62096
35°	31680	28247	22465
40°	20931	26470	18484
45°	5303	8652	8024
50°	1458	2226	2917
55°	13160	11526	18063
60°	18846	15097	24569
65°	8872	23465	22297
70°	8222	6924	8222
75°	3622	9150	25543
80°	43470	59664	54266
85°	0	27171	32266



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	816.6	48.7
10°-20°	618.5	36.9
20°-30°	140.6	8.4
30°-40°	41.6	2.5
40°-50°	13.8	0.8
50°-60°	12.2	0.7
60°-70°	14.7	0.9
70°-80°	9.4	0.6
80°-90°	9.8	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°	1575.7	94.0
0°-40°	1617.2	96.4
0°-60°	1643.3	98.0
0°-90°	1677.1	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°	12468	12468	12468	12468	12468	
5°	10304	10385	10337	10202	10298	826
15°	2238	2269	2141	1940	1901	650
25°	268	288	269	266	254	140
35°	53	58	47	54	37	41
45°	8	22	12	22	12	11
55°	15	22	13	20	21	6
65°	8	16	20	19	19	8
75°	2	7	5	9	13	4
85°	0	0	5	5	6	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	12467.6	12467.6	12467.6	12467.6	12467.6
1°	12306.9	12356.7	12351.9	12331.8	12367.2
2°	12023.9	12084.1	12078.4	12034.4	12097.5
3°	11608.9	11662.5	11653.9	11590.8	11659.6
4°	11054.3	11115.5	11091.6	10997.0	11084.9
5°	10303.7	10385.0	10337.2	10202.4	10298.0
6°	9471.9	9540.7	9465.2	9286.4	9380.1
7°	8540.6	8583.6	8484.1	8254.7	8191.6
8°	7524.1	7580.6	7441.9	7174.2	7105.3
9°	6552.7	6571.8	6403.5	6118.6	6031.6
10°	5637.6	5623.3	5433.9	5145.2	5062.0
11°	4770.4	4751.2	4551.4	4284.6	4311.4
12°	3981.5	4018.8	3786.5	3544.5	3549.3
13°	3333.2	3337.1	3137.2	2906.8	2893.4
14°	2728.9	2764.3	2593.1	2386.6	2348.4
15°	2238.4	2269.0	2140.9	1940.1	1900.9
16°	1791.9	1830.1	1738.3	1556.7	1505.0
17°	1442.9	1491.6	1431.4	1279.4	1220.1
18°	1154.1	1191.4	1177.1	1020.2	971.5
19°	911.2	962.9	966.7	835.7	777.4
20°	729.6	776.4	773.5	672.2	626.3
22.5°	418.8	443.7	444.6	396.8	370.0
25°	267.7	287.8	268.7	265.8	254.3
26°	232.4	248.6	227.6	227.6	217.1
27°	188.4	202.7	182.6	191.2	176.9
28°	158.7	174.0	156.8	154.9	153.0
29°	132.0	146.3	124.3	133.9	128.1
30°	114.7	125.3	112.8	127.2	109.0
32.5°	88.9	97.5	75.5	95.6	71.7
35°	52.6	58.3	46.9	54.5	37.3
37.5°	54.5	56.4	50.7	56.4	52.6
40°	32.5	33.5	41.1	41.1	28.7
42.5°	30.6	29.6	18.2	28.7	22.9
45°	7.6	22.0	12.4	22.0	11.5
47.5°	5.7	7.6	7.6	15.3	15.3
50°	1.9	7.6	2.9	5.7	3.8
52.5°	0.0	18.2	3.8	13.4	11.5
55°	15.3	22.0	13.4	20.1	21.0
57.5°	1.9	15.3	7.6	16.3	11.5
60°	19.1	25.8	15.3	27.7	24.9
62.5°	1.9	17.2	20.1	15.3	13.4
65°	7.6	16.3	20.1	19.1	19.1
67.5°	9.6	16.3	12.4	12.4	17.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	1.9	6.7	4.8	8.6	13.4
77.5°	1.9	7.6	6.7	15.3	11.5
80°	15.3	17.2	21.0	27.7	19.1
82.5°	13.4	13.4	21.0	15.3	11.5
85°	0.0	0.0	4.8	4.8	5.7
87.5°	0.0	3.8	9.6	7.6	13.4
90°	0.0	0.0	0.0	0.0	0.0



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







70°	5.7	1.9	4.8	4.8	5.7
72.5°	1.9	8.6	7.6	4.8	9.6



(END OF REPORT)