

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: P282772

Luminaire Tested: **LDA2B209035D010 EU2B20NFL259035 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282772  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1809-951-26)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B209035D010 EU2B20NFL259035 2LBALPINSQ1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH NARROW FLOOD OPTIC AND 2in Adj SQ Pinhole w-lens, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1421.7 lumens  
Efficiency: N/A  
Efficacy: 69.0 lumens/watt  
Spacing Criteria (0/90/45): 0.33 / 0.3 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

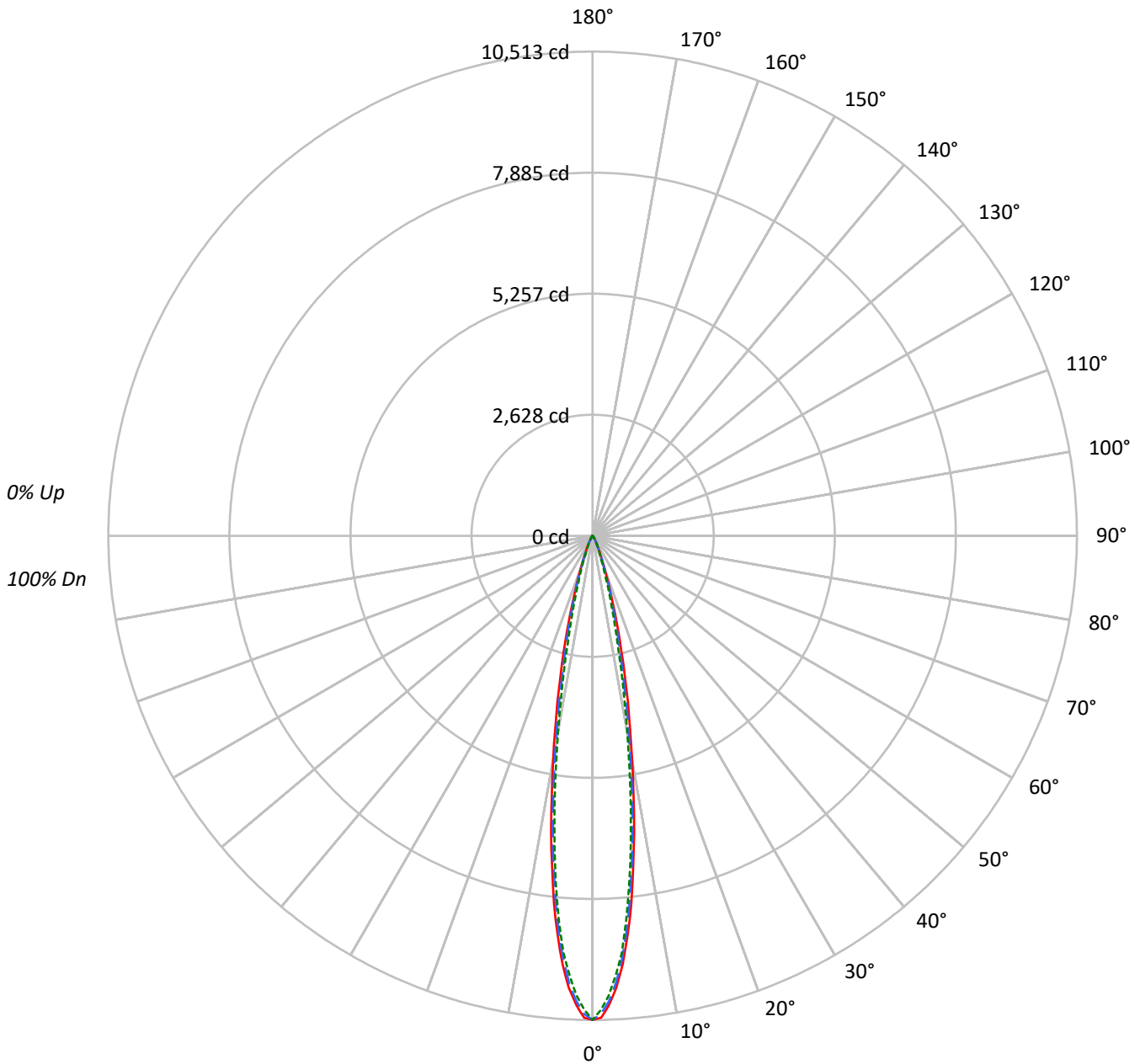
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	5186663	5186663	5186663
5°	4315824	4236733	4151204
10°	2472100	2319754	2165004
15°	1099525	976533	818349
20°	398861	375025	297111
25°	153130	143005	123135
30°	66027	61412	54519
35°	31259	31259	25898
40°	15650	16165	13074
45°	9070	8512	7954
50°	6217	5603	5603
55°	4903	3527	4215
60°	4046	2368	3158
65°	2802	1868	2802
70°	2308	1154	2308
75°	1525	1525	1525
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	683.8	48.1
10°-20°	553.3	38.9
20°-30°	133.4	9.4
30°-40°	34.0	2.4
40°-50°	10.1	0.7
50°-60°	4.3	0.3
60°-70°	2.1	0.1
70°-80°	0.7	0.0
80°-90°	0.0	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°	1370.5	96.4
0°-40°	1404.5	98.8
0°-60°	1419.0	99.8
0°-90°	1421.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1421.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10513	10513	10513	10513	10513	
5°	8714	8634	8555	8480	8382	705
15°	2153	2102	1912	1722	1602	614
25°	281	283	263	238	226	145
35°	52	53	52	47	43	36
45°	13	13	12	11	11	11
55°	6	5	4	4	5	5
65°	2	2	2	2	2	3
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10512.9	10512.9	10512.9	10512.9	10512.9
1°	10465.9	10392.9	10384.0	10429.4	10295.6
2°	10198.3	10146.4	10116.4	10143.2	9991.5
3°	9831.0	9780.7	9726.4	9727.2	9557.8
4°	9330.7	9291.0	9199.4	9171.8	9073.7
5°	8714.5	8634.3	8554.8	8480.2	8382.1
6°	8033.5	7929.7	7816.2	7705.1	7604.5
7°	7232.4	7163.5	7013.5	6861.8	6776.7
8°	6479.1	6368.1	6192.9	6003.2	5931.0
9°	5669.1	5589.7	5388.6	5168.1	5095.9
10°	4934.6	4851.9	4630.5	4384.8	4321.6
11°	4245.4	4167.5	3937.3	3679.4	3612.1
12°	3662.4	3552.1	3287.8	3064.0	2998.4
13°	3081.9	3006.5	2755.9	2534.6	2407.3
14°	2588.1	2525.7	2298.6	2104.0	1969.4
15°	2152.7	2101.6	1911.9	1722.1	1602.2
16°	1765.9	1734.3	1584.3	1401.1	1303.0
17°	1432.7	1403.5	1307.8	1139.2	1056.5
18°	1157.0	1153.0	1073.5	927.6	853.8
19°	951.9	950.3	877.3	754.9	694.0
20°	759.7	770.3	714.3	607.3	565.9
21°	619.5	625.1	580.5	499.5	462.2
22°	504.3	508.4	479.2	412.7	392.4
23°	413.5	415.9	391.6	342.2	324.3
24°	340.5	342.2	320.3	285.4	270.0
25°	281.3	283.0	262.7	238.4	226.2
26°	233.5	235.1	217.3	200.3	188.1
27°	193.8	197.0	179.2	168.6	155.7
28°	165.4	166.2	150.0	143.5	131.4
29°	135.4	140.3	126.5	120.8	111.9
30°	115.9	118.4	107.8	103.8	95.7
32.5°	77.0	78.6	73.8	70.5	64.1
35°	51.9	52.7	51.9	47.0	43.0
37.5°	35.7	35.7	36.5	30.8	29.2
40°	24.3	24.3	25.1	21.1	20.3
42.5°	17.8	17.8	17.0	14.6	14.6
45°	13.0	13.0	12.2	11.4	11.4
47.5°	10.5	9.7	8.9	8.9	8.9
50°	8.1	8.1	7.3	6.5	7.3
52.5°	6.5	6.5	5.7	5.7	5.7
55°	5.7	4.9	4.1	4.1	4.9
57.5°	4.1	4.1	3.2	3.2	4.1
60°	4.1	3.2	2.4	3.2	3.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	2.4	1.6	1.6	1.6	1.6
70°	1.6	1.6	0.8	0.8	1.6
72.5°	0.8	0.8	0.8	0.8	0.8
75°	0.8	0.8	0.8	0.8	0.8
77.5°	0.8	0.8	0.0	0.0	0.8
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0



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







62.5°	3.2	2.4	2.4	2.4	2.4
65°	2.4	2.4	1.6	1.6	2.4



(END OF REPORT)