

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: P282779

Luminaire Tested: **LDA2B209727D010 EU2B20NFL259727 2LBALPINSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282779  
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: LDA2B209727D010 EU2B20NFL259727 2LBALPINSQ1MW  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH NARROW FLOOD OPTIC AND 2in Adj SQ Pinhole w-lens, MW  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1178.2 lumens  
Efficiency: N/A  
Efficacy: 57.2 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

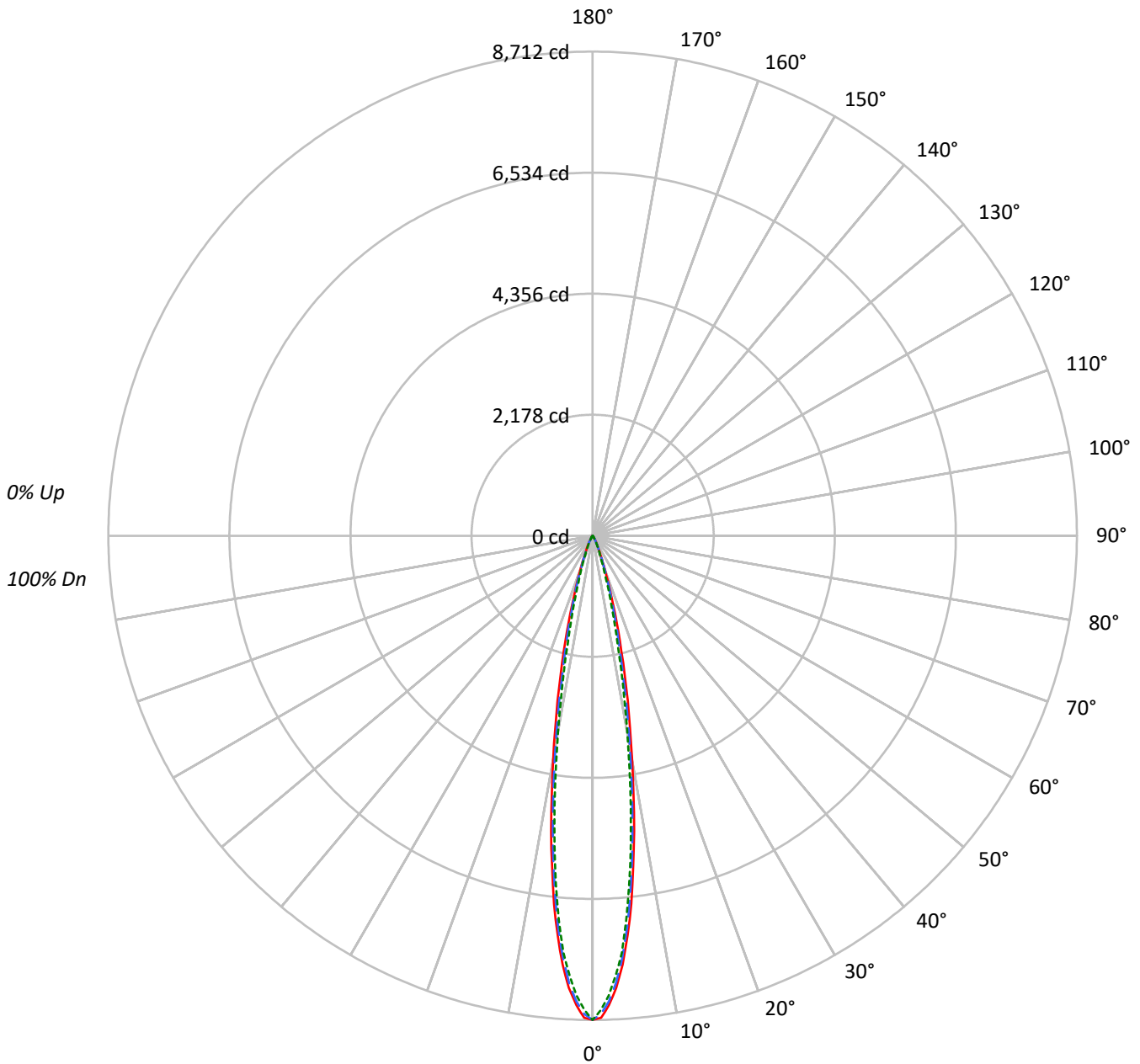
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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																			
1	115	113	112	110	113	111	110	108	107	106	105	104	103	102	100	100	99	97																			
2	112	109	106	104	110	107	105	103	104	102	100	101	100	98	99	97	96	95																			
3	109	105	101	99	107	103	100	98	101	99	97	99	97	95	97	95	94	92																			
4	106	101	98	95	105	100	97	94	98	96	93	96	94	92	95	93	91	90																			
5	103	98	94	92	102	97	94	91	96	93	91	94	92	90	93	91	89	88																			
6	101	95	92	89	100	95	91	89	93	90	88	92	90	88	91	89	87	86																			
7	99	93	89	87	98	92	89	86	91	88	86	90	88	86	89	87	85	84																			
8	96	91	87	85	96	90	87	84	89	86	84	88	86	84	88	85	83	83																			
9	94	89	85	83	94	88	85	82	87	84	82	87	84	82	86	84	82	81																			
10	93	87	83	81	92	86	83	81	86	83	81	85	82	80	85	82	80	79																			

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

	0°	45°	90°
0°	4298217	4298217	4298217
5°	3576570	3510999	3440130
10°	2048628	1922382	1794133
15°	911155	809257	678144
20°	330556	310815	246237
25°	126946	118508	102068
30°	54747	50930	45176
35°	25898	25898	21441
40°	13010	13396	10820
45°	7535	7047	6559
50°	5142	4605	4605
55°	4043	2925	3441
60°	3355	1973	2664
65°	2335	1518	2335
70°	1875	1010	1875
75°	1334	1334	1334
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	566.6	48.1
10°-20°	458.5	38.9
20°-30°	110.6	9.4
30°-40°	28.2	2.4
40°-50°	8.4	0.7
50°-60°	3.6	0.3
60°-70°	1.7	0.1
70°-80°	0.6	0.1
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°	1135.7	96.4
0°-40°	1163.9	98.8
0°-60°	1175.9	99.8
0°-90°	1178.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1178.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8712	8712	8712	8712	8712	
5°	7222	7155	7089	7028	6946	584
15°	1784	1742	1584	1427	1328	509
25°	233	234	218	198	188	120
35°	43	44	43	39	36	30
45°	11	11	10	9	9	9
55°	5	4	3	3	4	4
65°	2	2	1	1	2	2
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°	8712.1	8712.1	8712.1	8712.1	8712.1
1°	8673.1	8612.6	8605.2	8642.9	8532.0
2°	8451.4	8408.4	8383.5	8405.7	8280.0
3°	8147.0	8105.3	8060.3	8061.0	7920.6
4°	7732.4	7699.5	7623.6	7600.7	7519.4
5°	7221.8	7155.2	7089.4	7027.6	6946.3
6°	6657.4	6571.3	6477.3	6385.2	6301.9
7°	5993.5	5936.4	5812.1	5686.4	5615.9
8°	5369.3	5277.2	5132.1	4974.9	4915.1
9°	4698.0	4632.2	4465.6	4282.8	4223.0
10°	4089.3	4020.8	3837.3	3633.7	3581.3
11°	3518.2	3453.7	3262.8	3049.2	2993.4
12°	3035.0	2943.7	2724.6	2539.2	2484.7
13°	2554.0	2491.5	2283.8	2100.4	1994.9
14°	2144.8	2093.0	1904.9	1743.6	1632.1
15°	1783.9	1741.6	1584.4	1427.2	1327.7
16°	1463.4	1437.2	1312.9	1161.1	1079.8
17°	1187.3	1163.1	1083.8	944.0	875.5
18°	958.8	955.5	889.6	768.7	707.5
19°	788.8	787.5	727.0	625.6	575.2
20°	629.6	638.3	592.0	503.3	469.0
21°	513.3	518.0	481.1	413.9	383.0
22°	417.9	421.3	397.1	342.0	325.2
23°	342.7	344.7	324.5	283.5	268.8
24°	282.2	283.5	265.4	236.5	223.7
25°	233.2	234.5	217.7	197.5	187.5
26°	193.5	194.9	180.1	166.0	155.9
27°	160.6	163.3	148.5	139.8	129.0
28°	137.1	137.7	124.3	118.9	108.9
29°	112.2	116.2	104.8	100.1	92.7
30°	96.1	98.1	89.4	86.0	79.3
32.5°	63.8	65.2	61.1	58.5	53.1
35°	43.0	43.7	43.0	39.0	35.6
37.5°	29.6	29.6	30.2	25.5	24.2
40°	20.2	20.2	20.8	17.5	16.8
42.5°	14.8	14.8	14.1	12.1	12.1
45°	10.8	10.8	10.1	9.4	9.4
47.5°	8.7	8.1	7.4	7.4	7.4
50°	6.7	6.7	6.0	5.4	6.0
52.5°	5.4	5.4	4.7	4.7	4.7
55°	4.7	4.0	3.4	3.4	4.0
57.5°	3.4	3.4	2.7	2.7	3.4
60°	3.4	2.7	2.0	2.7	2.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
67.5°	2.0	1.3	1.3	1.3	1.3
70°	1.3	1.3	0.7	0.7	1.3
72.5°	0.7	0.7	0.7	0.7	0.7
75°	0.7	0.7	0.7	0.7	0.7
77.5°	0.7	0.7	0.0	0.0	0.7
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°	2.7	2.0	2.0	2.0	2.0
65°	2.0	2.0	1.3	1.3	2.0



(END OF REPORT)