

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: P282770

Luminaire Tested: **LDA2B209035D010 EU2B20NFL259035 2LBALPINSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282770  
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 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: 1418.3 lumens  
Efficiency: N/A  
Efficacy: 68.8 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

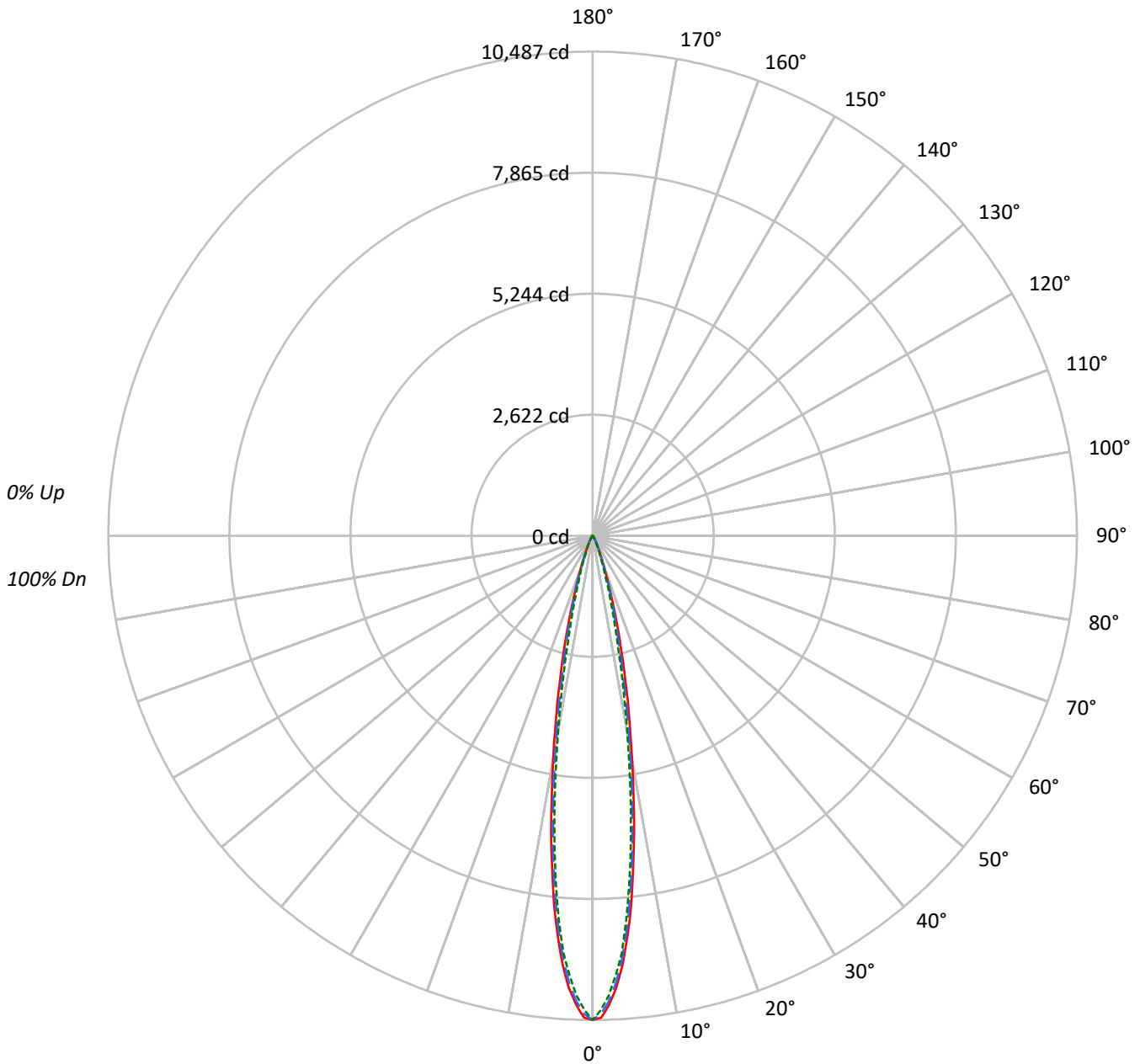
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5173984	5173984	5173984
5°	4305325	4226383	4141052
10°	2466038	2314093	2159693
15°	1096818	974132	816306
20°	397916	374133	296429
25°	152803	142678	122863
30°	65913	61298	54348
35°	31198	31198	25838
40°	15650	16165	13010
45°	9001	8442	7884
50°	6217	5603	5603
55°	4903	3441	4215
60°	3947	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°	682.1	48.1
10°-20°	552.0	38.9
20°-30°	133.1	9.4
30°-40°	33.9	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°	1367.2	96.4
0°-40°	1401.1	98.8
0°-60°	1415.5	99.8
0°-90°	1418.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1418.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10487	10487	10487	10487	10487	
5°	8693	8613	8534	8460	8362	703
15°	2147	2096	1907	1718	1598	612
25°	281	282	262	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°	10487.2	10487.2	10487.2	10487.2	10487.2
1°	10440.3	10367.5	10358.6	10403.9	10270.5
2°	10173.4	10121.6	10091.7	10118.4	9967.2
3°	9807.0	9756.9	9702.7	9703.5	9534.4
4°	9308.0	9268.3	9176.9	9149.4	9051.6
5°	8693.3	8613.2	8533.9	8459.5	8361.6
6°	8013.8	7910.3	7797.1	7686.3	7586.0
7°	7214.7	7146.0	6996.3	6845.1	6760.2
8°	6463.3	6352.5	6177.8	5988.5	5916.6
9°	5655.3	5576.0	5375.5	5155.5	5083.5
10°	4922.5	4840.0	4619.2	4374.1	4311.0
11°	4235.0	4157.4	3927.7	3670.5	3603.3
12°	3653.5	3543.5	3279.8	3056.6	2991.0
13°	3074.3	2999.1	2749.2	2528.4	2401.4
14°	2581.8	2519.5	2293.0	2098.9	1964.6
15°	2147.4	2096.5	1907.2	1717.9	1598.2
16°	1761.6	1730.1	1580.4	1397.7	1299.8
17°	1429.2	1400.1	1304.6	1136.4	1053.9
18°	1154.2	1150.2	1070.9	925.3	851.7
19°	949.6	947.9	875.1	753.0	692.4
20°	757.9	768.4	712.6	605.8	564.6
21°	617.9	623.6	579.1	498.2	461.0
22°	503.1	507.1	478.0	411.7	391.5
23°	412.5	414.9	390.7	341.3	323.5
24°	339.7	341.3	319.5	284.7	269.3
25°	280.7	282.3	262.1	237.8	225.7
26°	232.9	234.6	216.8	199.8	187.6
27°	193.3	196.5	178.8	168.2	155.3
28°	165.0	165.8	149.6	143.2	131.0
29°	135.1	139.9	126.2	120.5	111.6
30°	115.7	118.1	107.6	103.5	95.4
32.5°	76.8	78.5	73.6	70.4	63.9
35°	51.8	52.6	51.8	46.9	42.9
37.5°	35.6	35.6	36.4	30.7	29.1
40°	24.3	24.3	25.1	21.0	20.2
42.5°	17.8	17.8	17.0	14.6	14.6
45°	12.9	12.9	12.1	11.3	11.3
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	4.0	4.0	4.9
57.5°	4.0	4.0	3.2	3.2	4.0
60°	4.0	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)