

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: P281778

Luminaire Tested: **LDA2B059035D010 EU2B05SP159035 2LBALSQC1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281778  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-5)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B059035D010 EU2B05SP159035 2LBALSQC1MMS  
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Cast Trim w/lens, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 666.9 lumens  
Efficiency: N/A  
Efficacy: 95.3 lumens/watt  
Spacing Criteria (0/90/45): 0.33 / 0.31 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

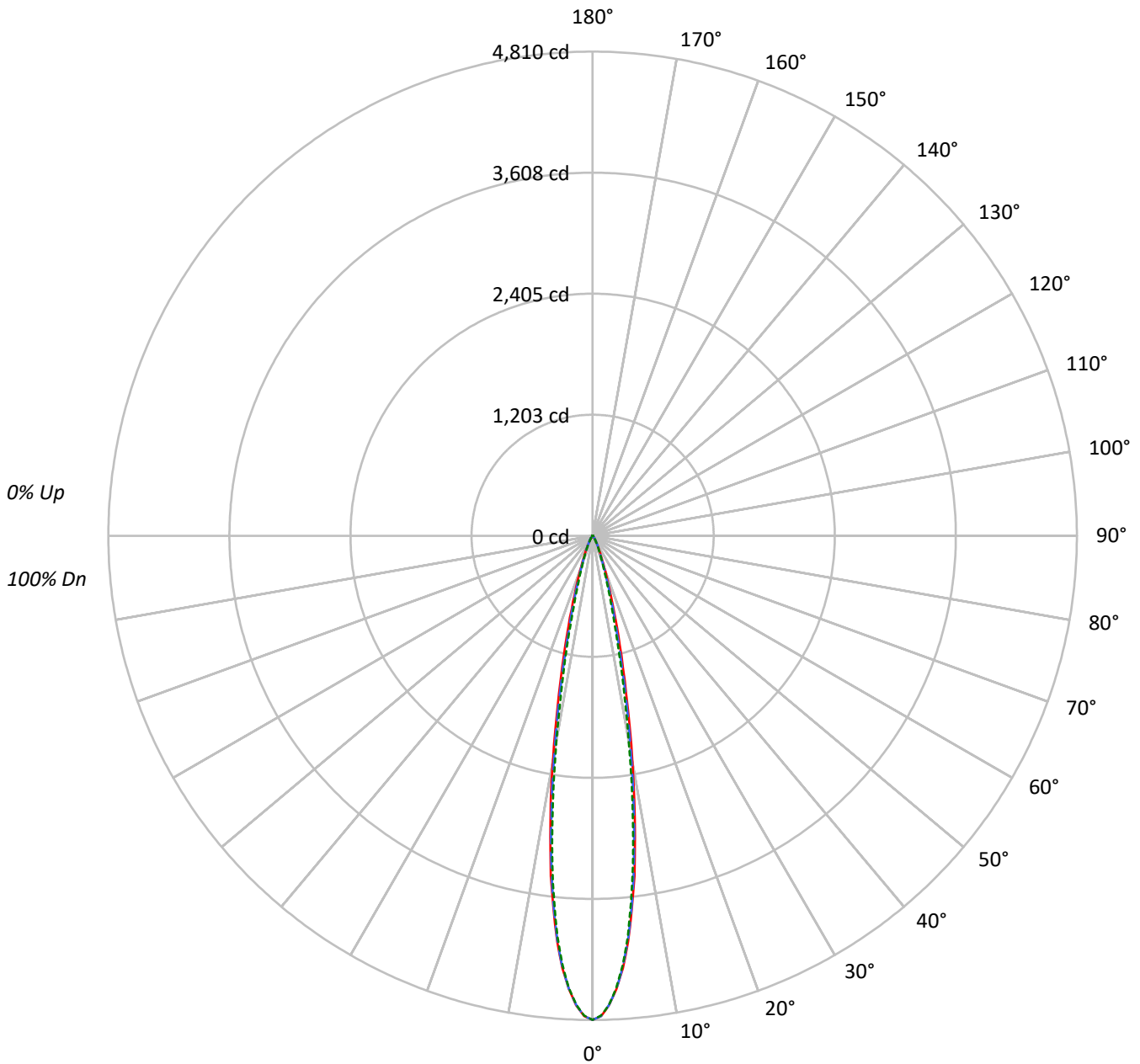
Input Watts (W): 7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	2372824	2372824	2372824
5°	2004807	1994109	1979401
10°	1141116	1090868	1035410
15°	472560	418572	368722
20°	179768	157402	144119
25°	79423	76265	67828
30°	36745	40562	32301
35°	19333	22766	18129
40°	8501	9789	5668
45°	3279	2582	3768
50°	1535	1842	2610
55°	0	1204	0
60°	0	0	691
65°	0	0	0
70°	0	433	0
75°	0	0	0
80°	1989	0	0
85°	19246	16982	7925



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	321.6	48.2
10°-20°	245.8	36.9
20°-30°	68.4	10.3
30°-40°	22.2	3.3
40°-50°	4.9	0.7
50°-60°	1.5	0.2
60°-70°	0.9	0.1
70°-80°	0.5	0.1
80°-90°	1.1	0.2
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°	635.8	95.3
0°-40°	658.0	98.7
0°-60°	664.4	99.6
0°-90°	666.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	666.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4810	4810	4810	4810	4810	
5°	4048	4018	4026	3996	3997	327
15°	925	893	820	756	722	270
25°	146	148	140	132	125	73
35°	32	35	38	29	30	21
45°	5	7	4	4	5	5
55°	0	2	1	1	0	1
65°	0	1	0	0	0	1
75°	0	0	0	1	0	0
85°	3	2	3	2	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4809.5	4809.5	4809.5	4809.5	4809.5
1°	4772.7	4754.8	4772.0	4761.9	4767.7
2°	4669.1	4646.8	4664.7	4650.5	4662.3
3°	4507.7	4490.4	4506.3	4488.4	4497.9
4°	4305.4	4280.4	4296.3	4272.3	4278.1
5°	4048.1	4018.4	4026.5	3996.5	3996.8
6°	3724.0	3703.4	3708.1	3661.2	3657.8
7°	3406.9	3358.3	3353.2	3299.5	3289.1
8°	3022.0	2977.8	2963.2	2900.1	2877.8
9°	2652.9	2597.9	2568.2	2494.9	2468.9
10°	2277.8	2222.1	2177.5	2094.8	2066.8
11°	1930.7	1880.4	1825.0	1736.5	1709.2
12°	1608.6	1569.1	1508.3	1422.9	1394.2
13°	1345.5	1300.0	1234.8	1155.4	1130.8
14°	1117.6	1068.7	1003.5	935.6	887.7
15°	925.2	893.1	819.5	756.3	721.9
16°	756.0	728.7	665.2	610.5	586.2
17°	619.9	598.0	544.0	501.1	480.8
18°	511.5	484.2	441.6	413.6	397.8
19°	415.0	393.7	362.6	341.0	325.2
20°	342.4	324.8	299.8	280.6	274.5
22.5°	221.2	218.1	201.9	191.4	186.4
25°	145.9	147.6	140.1	132.0	124.6
26°	124.6	125.6	118.9	114.1	104.7
27°	106.7	107.0	107.0	98.3	89.1
28°	87.1	90.8	87.5	83.4	74.6
29°	74.6	79.3	77.7	73.6	65.2
30°	64.5	67.9	71.2	64.8	56.7
32.5°	45.2	48.3	52.0	48.6	41.9
35°	32.1	34.8	37.8	28.7	30.1
37.5°	21.9	26.7	25.7	23.3	19.9
40°	13.2	13.8	15.2	16.2	8.8
42.5°	9.5	11.1	10.1	11.5	4.1
45°	4.7	6.8	3.7	3.7	5.4
47.5°	3.4	5.7	2.0	2.0	0.7
50°	2.0	4.4	2.4	1.0	3.4
52.5°	3.4	4.1	2.7	3.0	0.7
55°	0.0	2.0	1.4	0.7	0.0
57.5°	1.4	2.4	1.4	0.7	1.4
60°	0.0	0.0	0.0	0.3	0.7
62.5°	0.0	0.7	0.0	1.0	1.4
65°	0.0	1.4	0.0	0.0	0.0
67.5°	2.0	2.4	1.4	2.7	4.1



TEST NUMBER: P281778

CATALOG NUMBER: LDA2B059035D010 EU2B05SP159035 2LBALSQC1MMS

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	0.7	0.0
77.5°	0.0	3.4	1.0	1.0	1.4
80°	0.7	0.0	0.0	0.3	0.0
82.5°	0.0	2.7	0.3	1.4	2.0
85°	3.4	1.7	3.0	1.7	1.4
87.5°	0.0	0.3	0.7	0.3	0.0
90°	0.0	0.0	0.0	0.0	0.0



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







70°	0.0	0.0	0.3	0.3	0.0
72.5°	0.7	0.0	0.0	0.0	0.0



(END OF REPORT)