

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: **LDA2B059027D010 EU2B05SP159027 2LBALSQC1MW**

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: LDA2B059027D010 EU2B05SP159027 2LBALSQC1MW  
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Cast Trim w/lens, MW  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 615.7 lumens  
Efficiency: N/A  
Efficacy: 88.0 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

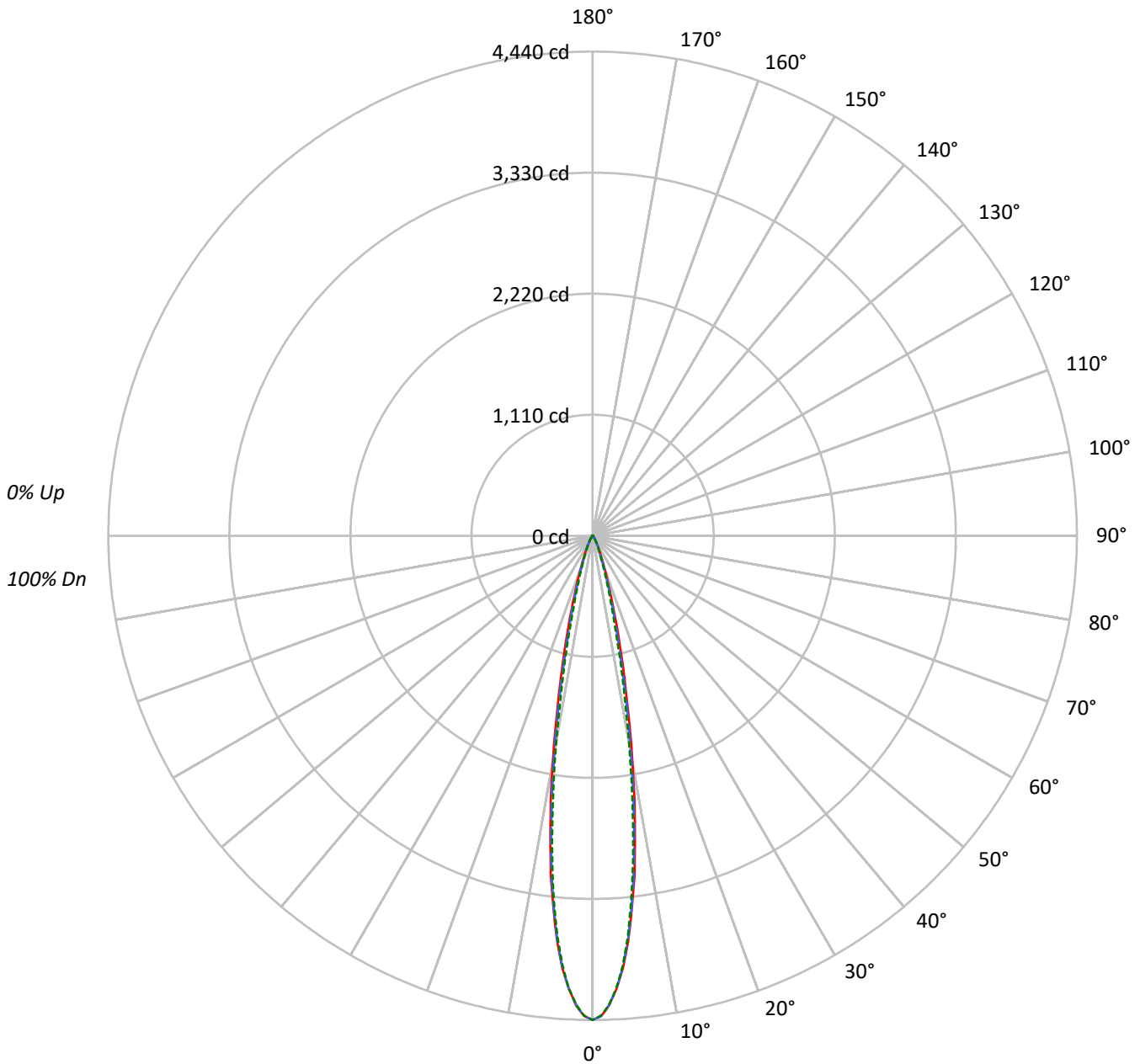
Input Watts (W): 7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P281778

CATALOG NUMBER: LDA2B059027D010 EU2B05SP159027 2LBALSQC1MW

### Luminous Intensity Polar Plot





TEST NUMBER: P281778

CATALOG NUMBER: LDA2B059027D010 EU2B05SP159027 2LBALSQC1MW

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

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

	0°	45°	90°
0°	2190773	2190773	2190773
5°	1850983	1841078	1827509
10°	1053546	1007155	955956
15°	436296	386445	340425
20°	165960	145327	133041
25°	73326	70441	62602
30°	33896	37485	29852
35°	17828	21020	16683
40°	7857	9017	5217
45°	3070	2372	3489
50°	1458	1689	2379
55°	0	1032	0
60°	0	0	592
65°	0	0	0
70°	0	433	0
75°	0	0	0
80°	1705	0	0
85°	17548	15850	6793



TEST NUMBER: P281778

CATALOG NUMBER: LDA2B059027D010 EU2B05SP159027 2LBALSQC1MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	296.9	48.2
10°-20°	227.0	36.9
20°-30°	63.1	10.3
30°-40°	20.5	3.3
40°-50°	4.5	0.7
50°-60°	1.4	0.2
60°-70°	0.8	0.1
70°-80°	0.5	0.1
80°-90°	1.0	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°	587.0	95.3
0°-40°	607.5	98.7
0°-60°	613.4	99.6
0°-90°	615.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	615.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4440	4440	4440	4440	4440	
5°	3738	3710	3718	3690	3690	302
15°	854	825	757	698	666	249
25°	135	136	129	122	115	68
35°	30	32	35	26	28	19
45°	4	6	3	3	5	4
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	



TEST NUMBER: P281778

CATALOG NUMBER: LDA2B059027D010 EU2B05SP159027 2LBALSQC1MW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4440.5	4440.5	4440.5	4440.5	4440.5
1°	4406.5	4390.0	4405.9	4396.5	4401.8
2°	4310.8	4290.2	4306.7	4293.6	4304.5
3°	4161.8	4145.9	4160.5	4144.0	4152.7
4°	3975.0	3952.0	3966.6	3944.5	3949.8
5°	3737.5	3710.0	3717.5	3689.8	3690.1
6°	3438.2	3419.2	3423.6	3380.2	3377.1
7°	3145.5	3100.6	3095.9	3046.3	3036.7
8°	2790.1	2749.3	2735.9	2677.6	2657.0
9°	2449.4	2398.5	2371.1	2303.5	2279.5
10°	2103.0	2051.6	2010.4	1934.1	1908.2
11°	1782.5	1736.1	1685.0	1603.3	1578.0
12°	1485.1	1448.7	1392.6	1313.7	1287.2
13°	1242.3	1200.2	1140.0	1066.8	1044.0
14°	1031.9	986.7	926.5	863.8	819.6
15°	854.2	824.6	756.6	698.3	666.5
16°	698.0	672.7	614.1	563.6	541.2
17°	572.4	552.1	502.2	462.6	443.9
18°	472.3	447.0	407.8	381.9	367.2
19°	383.1	363.5	334.8	314.9	300.2
20°	316.1	299.9	276.8	259.1	253.4
22.5°	204.2	201.4	186.4	176.8	172.1
25°	134.7	136.2	129.4	121.9	115.0
26°	115.0	116.0	109.7	105.4	96.6
27°	98.5	98.8	98.8	90.7	82.3
28°	80.4	83.9	80.7	77.0	68.9
29°	68.9	73.3	71.7	68.0	60.2
30°	59.5	62.7	65.8	59.9	52.4
32.5°	41.8	44.6	48.0	44.9	38.7
35°	29.6	32.1	34.9	26.5	27.7
37.5°	20.3	24.6	23.7	21.5	18.4
40°	12.2	12.8	14.0	15.0	8.1
42.5°	8.7	10.3	9.4	10.6	3.7
45°	4.4	6.2	3.4	3.4	5.0
47.5°	3.1	5.3	1.9	1.9	0.6
50°	1.9	4.1	2.2	0.9	3.1
52.5°	3.1	3.7	2.5	2.8	0.6
55°	0.0	1.9	1.2	0.6	0.0
57.5°	1.2	2.2	1.2	0.6	1.2
60°	0.0	0.0	0.0	0.3	0.6
62.5°	0.0	0.6	0.0	0.9	1.2
65°	0.0	1.2	0.0	0.0	0.0
67.5°	1.9	2.2	1.2	2.5	3.7



TEST NUMBER: P281778

CATALOG NUMBER: LDA2B059027D010 EU2B05SP159027 2LBALSQC1MW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	0.6	0.0
77.5°	0.0	3.1	0.9	0.9	1.2
80°	0.6	0.0	0.0	0.3	0.0
82.5°	0.0	2.5	0.3	1.2	1.9
85°	3.1	1.6	2.8	1.6	1.2
87.5°	0.0	0.3	0.6	0.3	0.0
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







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







70°	0.0	0.0	0.3	0.3	0.0
72.5°	0.6	0.0	0.0	0.0	0.0



(END OF REPORT)