

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: P281158

Luminaire Tested: **LDA2B109027D010 EU2B10SP159027 2LBALD1WMH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281158  
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: LDA2B109027D010 EU2B10SP159027 2LBALD1WMH  
Description: PORTFOLIO 2IN ADJ 1000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in  
ADJ spun Refl w/lens Self-Flanged, WMH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 836.4 lumens  
Efficiency: N/A  
Efficacy: 83.6 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

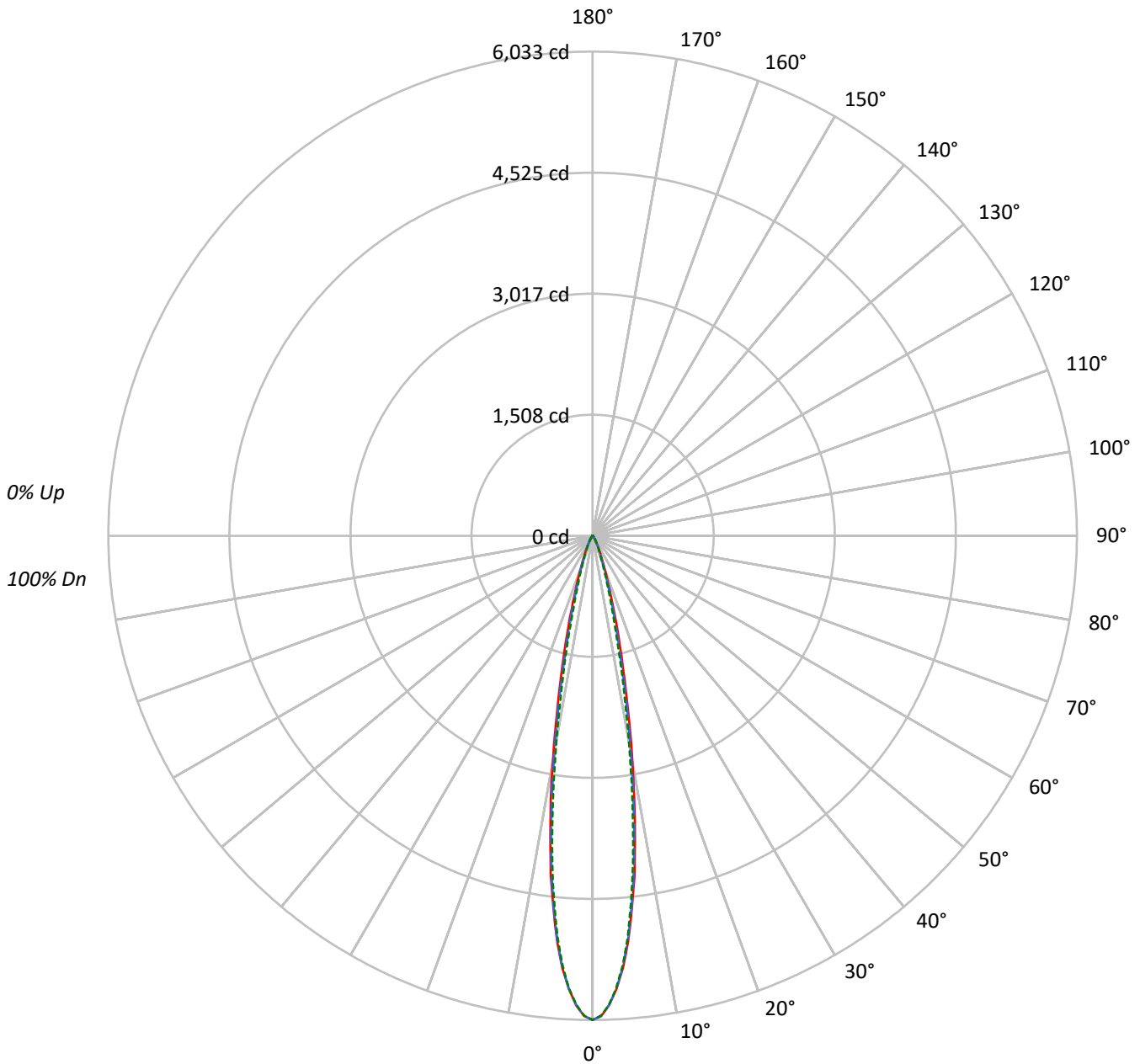
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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																			
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°	2976254	2976254	2976254
5°	2514663	2501242	2482769
10°	1431329	1368307	1298722
15°	592693	525016	462498
20°	225498	197462	180766
25°	99619	95699	85084
30°	46088	50930	40562
35°	24212	28548	22706
40°	10627	12301	7084
45°	4117	3279	4744
50°	1919	2303	3224
55°	0	1462	0
60°	0	0	789
65°	0	0	0
70°	0	577	0
75°	0	0	0
80°	2273	0	0
85°	23775	21511	9623



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	403.4	48.2
10°-20°	308.4	36.9
20°-30°	85.8	10.3
30°-40°	27.9	3.3
40°-50°	6.1	0.7
50°-60°	1.9	0.2
60°-70°	1.1	0.1
70°-80°	0.6	0.1
80°-90°	1.3	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°	797.5	95.3
0°-40°	825.3	98.7
0°-60°	833.4	99.6
0°-90°	836.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	836.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6033	6033	6033	6033	6033	
5°	5078	5040	5050	5013	5013	410
15°	1160	1120	1028	949	906	339
25°	183	185	176	166	156	92
35°	40	44	47	36	38	26
45°	6	8	5	5	7	6
55°	0	2	2	1	0	2
65°	0	2	0	0	0	1
75°	0	0	0	1	0	0
85°	4	2	4	2	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	6032.6	6032.6	6032.6	6032.6	6032.6
1°	5986.5	5964.0	5985.6	5972.9	5980.1
2°	5856.4	5828.5	5850.9	5833.2	5848.0
3°	5654.0	5632.4	5652.3	5629.9	5641.7
4°	5400.3	5369.0	5388.9	5358.8	5366.0
5°	5077.6	5040.3	5050.5	5012.8	5013.2
6°	4671.0	4645.2	4651.1	4592.2	4588.0
7°	4273.3	4212.3	4206.0	4138.6	4125.5
8°	3790.5	3735.0	3716.8	3637.6	3609.7
9°	3327.6	3258.6	3221.3	3129.4	3096.8
10°	2857.1	2787.2	2731.3	2627.5	2592.4
11°	2421.7	2358.6	2289.1	2178.2	2143.9
12°	2017.7	1968.1	1891.9	1784.7	1748.7
13°	1687.7	1630.6	1548.8	1449.3	1418.4
14°	1401.9	1340.4	1258.7	1173.6	1113.4
15°	1160.4	1120.2	1027.9	948.7	905.5
16°	948.3	914.0	834.3	765.7	735.2
17°	777.6	750.1	682.3	628.5	603.1
18°	641.6	607.3	554.0	518.8	498.9
19°	520.5	493.8	454.9	427.8	407.9
20°	429.5	407.4	376.1	351.9	344.3
22.5°	277.4	273.6	253.3	240.1	233.8
25°	183.0	185.1	175.8	165.6	156.3
26°	156.3	157.5	149.1	143.2	131.3
27°	133.8	134.3	134.3	123.2	111.8
28°	109.3	113.9	109.7	104.6	93.6
29°	93.6	99.5	97.4	92.3	81.7
30°	80.9	85.1	89.4	81.3	71.2
32.5°	56.8	60.6	65.2	61.0	52.5
35°	40.2	43.6	47.4	36.0	37.7
37.5°	27.5	33.5	32.2	29.2	25.0
40°	16.5	17.4	19.1	20.3	11.0
42.5°	11.9	14.0	12.7	14.4	5.1
45°	5.9	8.5	4.7	4.7	6.8
47.5°	4.2	7.2	2.5	2.5	0.8
50°	2.5	5.5	3.0	1.3	4.2
52.5°	4.2	5.1	3.4	3.8	0.8
55°	0.0	2.5	1.7	0.8	0.0
57.5°	1.7	3.0	1.7	0.8	1.7
60°	0.0	0.0	0.0	0.4	0.8
62.5°	0.0	0.8	0.0	1.3	1.7
65°	0.0	1.7	0.0	0.0	0.0
67.5°	2.5	3.0	1.7	3.4	5.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	0.8	0.0
77.5°	0.0	4.2	1.3	1.3	1.7
80°	0.8	0.0	0.0	0.4	0.0
82.5°	0.0	3.4	0.4	1.7	2.5
85°	4.2	2.1	3.8	2.1	1.7
87.5°	0.0	0.4	0.8	0.4	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	0.4	0.4	0.0
72.5°	0.8	0.0	0.0	0.0	0.0



(END OF REPORT)