

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: P282469

Luminaire Tested: **LDA2B059024D010 EU2B05SP159024 2LBALPINSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P282469  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-7)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B059024D010 EU2B05SP159024 2LBALPINSQ1MMS  
Description: PORTFOLIO 2IN ADJ 500 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Pinhole w-lens, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 571.4 lumens  
Efficiency: N/A  
Efficacy: 81.6 lumens/watt  
Spacing Criteria (0/90/45): 0.32 / 0.3 / 0.32  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

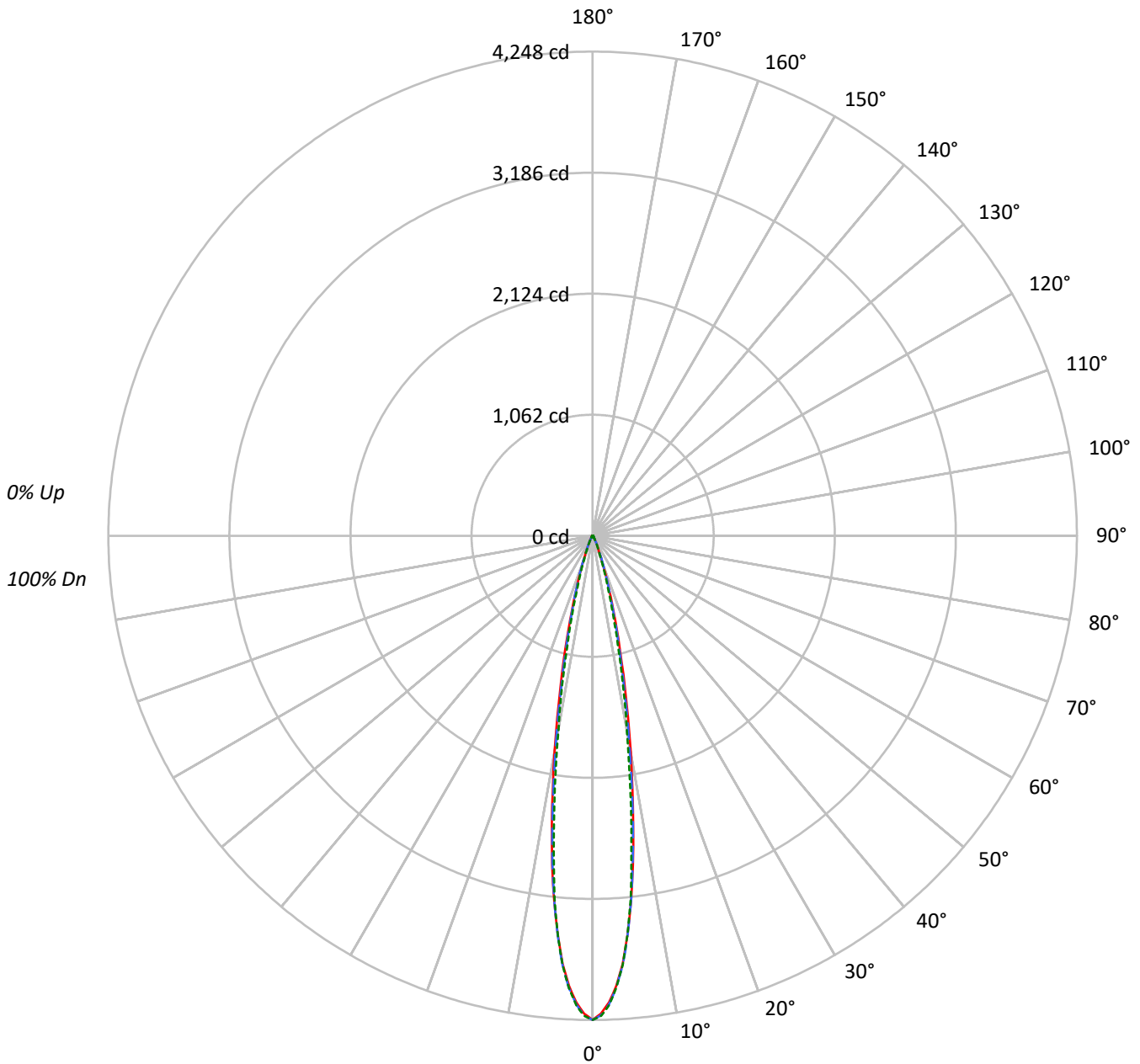
Input Watts (W): 7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96	96	98	98	96															
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	98	96	95	94	96	94	92	94															
3	108	104	100	97	106	102	99	97	100	97	95	98	95	94	96	94	92	91	96	94	92	91															
4	105	100	96	93	104	99	96	93	97	94	92	95	93	91	94	92	90	89	94	92	90	89															
5	102	97	93	90	101	96	93	90	95	91	89	93	90	88	92	89	88	87	92	89	88	87															
6	100	94	90	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85	90	88	86	85															
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83	88	86	84	83															
8	96	90	86	83	95	89	86	83	88	85	83	87	85	82	87	84	82	81	87	84	82	81															
9	94	88	84	81	93	87	84	81	86	83	81	86	83	81	85	82	81	80	85	82	81	80															
10	92	86	82	80	91	85	82	80	85	82	79	84	81	79	84	81	79	78	84	81	79	78															

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

	0°	45°	90°
0°	2095752	2095752	2095752
5°	1738661	1744307	1737671
10°	962268	927501	864028
15°	389561	372553	330823
20°	130521	138396	112040
25°	49646	49809	47196
30°	22275	21876	21135
35°	10781	9637	7649
40°	7149	9017	6312
45°	1814	2930	2721
50°	537	768	998
55°	4473	3957	6193
60°	6414	5131	8387
65°	3035	7938	7588
70°	2885	2308	2885
75°	1334	3050	8769
80°	14774	20456	18468
85°	0	9057	11321



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	278.2	48.7
10°-20°	210.7	36.9
20°-30°	47.9	8.4
30°-40°	14.2	2.5
40°-50°	4.7	0.8
50°-60°	4.2	0.7
60°-70°	5.0	0.9
70°-80°	3.2	0.6
80°-90°	3.3	0.6
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°	536.9	94.0
0°-40°	551.0	96.4
0°-60°	559.9	98.0
0°-90°	571.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	571.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4248	4248	4248	4248	4248	
5°	3511	3538	3522	3476	3509	281
15°	763	773	729	661	648	222
25°	91	98	92	91	87	48
35°	18	20	16	19	13	14
45°	3	8	4	8	4	4
55°	5	8	5	7	7	2
65°	3	6	7	6	6	3
75°	1	2	2	3	5	2
85°	0	0	2	2	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4247.9	4247.9	4247.9	4247.9	4247.9
1°	4193.2	4210.1	4208.5	4201.6	4213.7
2°	4096.7	4117.3	4115.3	4100.3	4121.8
3°	3955.3	3973.6	3970.7	3949.2	3972.6
4°	3766.4	3787.2	3779.1	3746.8	3776.8
5°	3510.7	3538.3	3522.1	3476.1	3508.7
6°	3227.2	3250.7	3224.9	3164.0	3195.9
7°	2909.9	2924.6	2890.7	2812.5	2791.0
8°	2563.6	2582.8	2535.6	2444.4	2420.9
9°	2232.6	2239.1	2181.8	2084.7	2055.0
10°	1920.8	1915.9	1851.4	1753.0	1724.7
11°	1625.3	1618.8	1550.7	1459.8	1469.0
12°	1356.6	1369.3	1290.1	1207.7	1209.3
13°	1135.7	1137.0	1068.9	990.4	985.8
14°	929.8	941.8	883.5	813.2	800.1
15°	762.7	773.1	729.4	661.0	647.7
16°	610.5	623.6	592.3	530.4	512.8
17°	491.6	508.2	487.7	435.9	415.7
18°	393.2	405.9	401.0	347.6	331.0
19°	310.5	328.1	329.4	284.7	264.9
20°	248.6	264.5	263.6	229.0	213.4
22.5°	142.7	151.2	151.5	135.2	126.1
25°	91.2	98.1	91.5	90.6	86.7
26°	79.2	84.7	77.5	77.5	74.0
27°	64.2	69.1	62.2	65.2	60.3
28°	54.1	59.3	53.4	52.8	52.1
29°	45.0	49.8	42.4	45.6	43.7
30°	39.1	42.7	38.4	43.3	37.1
32.5°	30.3	33.2	25.7	32.6	24.4
35°	17.9	19.9	16.0	18.6	12.7
37.5°	18.6	19.2	17.3	19.2	17.9
40°	11.1	11.4	14.0	14.0	9.8
42.5°	10.4	10.1	6.2	9.8	7.8
45°	2.6	7.5	4.2	7.5	3.9
47.5°	2.0	2.6	2.6	5.2	5.2
50°	0.7	2.6	1.0	2.0	1.3
52.5°	0.0	6.2	1.3	4.6	3.9
55°	5.2	7.5	4.6	6.8	7.2
57.5°	0.7	5.2	2.6	5.5	3.9
60°	6.5	8.8	5.2	9.4	8.5
62.5°	0.7	5.9	6.8	5.2	4.6
65°	2.6	5.5	6.8	6.5	6.5
67.5°	3.3	5.5	4.2	4.2	5.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.7	2.3	1.6	2.9	4.6
77.5°	0.7	2.6	2.3	5.2	3.9
80°	5.2	5.9	7.2	9.4	6.5
82.5°	4.6	4.6	7.2	5.2	3.9
85°	0.0	0.0	1.6	1.6	2.0
87.5°	0.0	1.3	3.3	2.6	4.6
90°	0.0	0.0	0.0	0.0	0.0



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







70°	2.0	0.7	1.6	1.6	2.0
72.5°	0.7	2.9	2.6	1.6	3.3



(END OF REPORT)