

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: **LDA2B209024D010 EU2B20SP159024 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: LDA2B209024D010 EU2B20SP159024 2LBALSQC1MW  
Description: PORTFOLIO 2IN ADJ 2000 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: 1437.1 lumens  
Efficiency: N/A  
Efficacy: 69.8 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

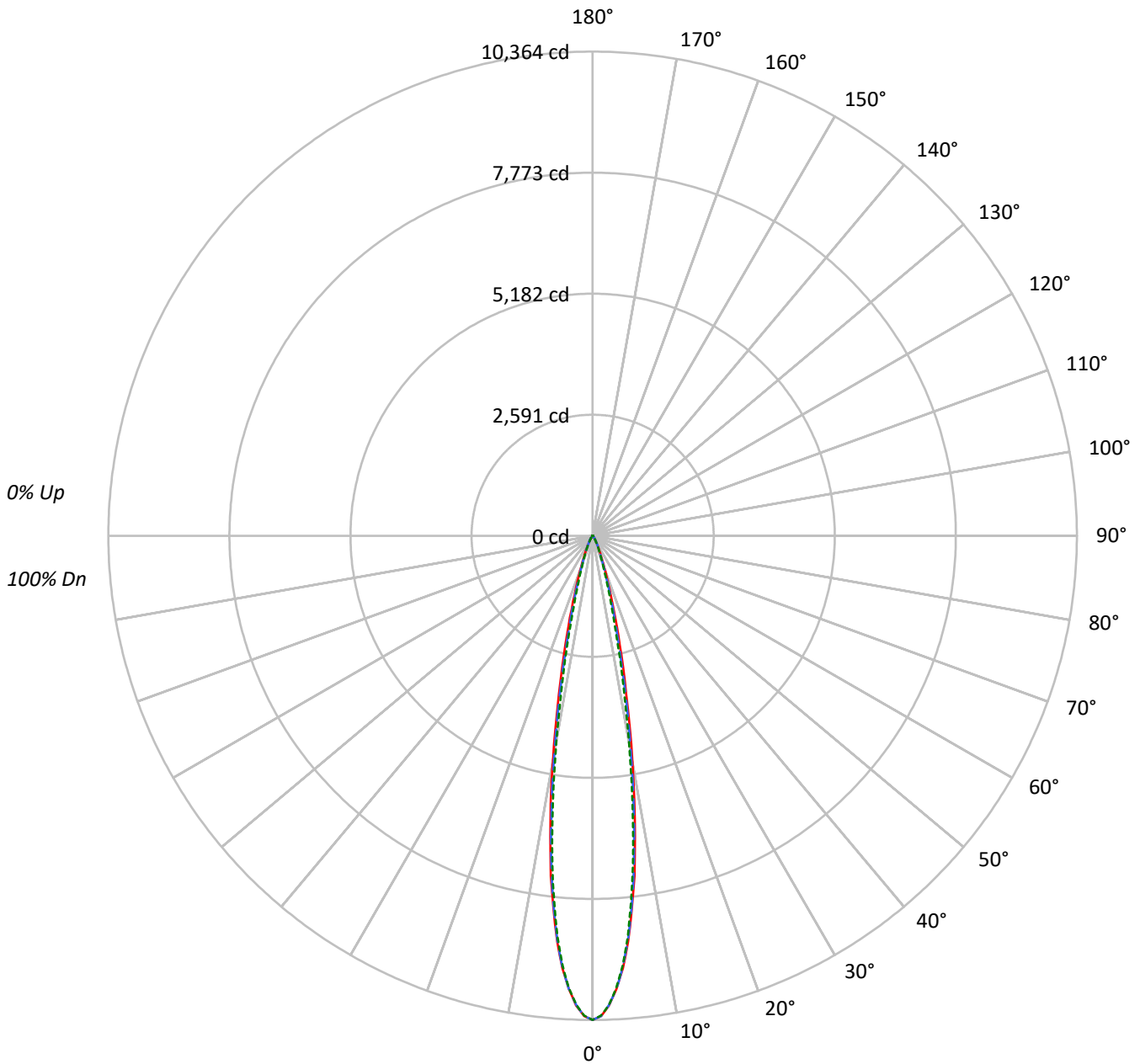
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	5113251	5113251	5113251
5°	4320182	4297154	4265408
10°	2459024	2350764	2231182
15°	1018314	901961	794547
20°	387363	339218	310552
25°	171094	164398	146162
30°	79186	87447	69616
35°	41618	49086	39028
40°	18291	21060	12172
45°	7117	5582	8094
50°	3377	3914	5603
55°	0	2494	0
60°	0	0	1480
65°	0	0	0
70°	0	1010	0
75°	0	0	0
80°	4262	0	0
85°	41323	36794	16416



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	693.0	48.2
10°-20°	529.8	36.9
20°-30°	147.3	10.3
30°-40°	47.9	3.3
40°-50°	10.6	0.7
50°-60°	3.2	0.2
60°-70°	1.9	0.1
70°-80°	1.1	0.1
80°-90°	2.3	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°	1370.1	95.3
0°-40°	1417.9	98.7
0°-60°	1431.7	99.6
0°-90°	1437.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1437.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	10364	10364	10364	10364	10364	
5°	8723	8659	8677	8612	8613	705
15°	1994	1924	1766	1630	1556	582
25°	314	318	302	284	268	158
35°	69	75	82	62	65	45
45°	10	15	8	8	12	10
55°	0	4	3	2	0	3
65°	0	3	0	0	0	2
75°	0	0	0	2	0	1
85°	7	4	6	4	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	10364.1	10364.1	10364.1	10364.1	10364.1
1°	10284.8	10246.2	10283.3	10261.5	10273.9
2°	10061.4	10013.4	10052.0	10021.4	10046.9
3°	9713.6	9676.5	9710.7	9672.2	9692.5
4°	9277.8	9223.9	9258.1	9206.5	9218.9
5°	8723.3	8659.3	8676.8	8612.0	8612.7
6°	8024.8	7980.5	7990.6	7889.5	7882.2
7°	7341.6	7236.8	7225.9	7110.2	7087.7
8°	6512.1	6416.8	6385.5	6249.5	6201.4
9°	5716.9	5598.3	5534.2	5376.3	5320.3
10°	4908.5	4788.4	4692.4	4514.1	4453.7
11°	4160.5	4052.1	3932.7	3742.1	3683.2
12°	3466.3	3381.2	3250.2	3066.2	3004.3
13°	2899.5	2801.3	2660.9	2489.9	2436.8
14°	2408.4	2302.9	2162.5	2016.2	1912.9
15°	1993.7	1924.5	1765.9	1629.9	1555.6
16°	1629.1	1570.2	1433.4	1315.5	1263.1
17°	1335.9	1288.6	1172.2	1079.8	1036.1
18°	1102.3	1043.4	951.7	891.3	857.1
19°	894.2	848.4	781.5	734.9	700.7
20°	737.8	700.0	646.1	604.6	591.5
22.5°	476.6	470.0	435.1	412.6	401.6
25°	314.3	318.0	302.0	284.5	268.5
26°	268.5	270.7	256.1	245.9	225.6
27°	229.9	230.7	230.7	211.7	192.1
28°	187.7	195.7	188.5	179.7	160.8
29°	160.8	171.0	167.4	158.6	140.4
30°	139.0	146.3	153.5	139.7	122.2
32.5°	97.5	104.0	112.1	104.8	90.2
35°	69.1	74.9	81.5	61.8	64.8
37.5°	47.3	57.5	55.3	50.2	42.9
40°	28.4	29.8	32.7	34.9	18.9
42.5°	20.4	24.0	21.8	24.7	8.7
45°	10.2	14.6	8.0	8.0	11.6
47.5°	7.3	12.4	4.4	4.4	1.5
50°	4.4	9.5	5.1	2.2	7.3
52.5°	7.3	8.7	5.8	6.5	1.5
55°	0.0	4.4	2.9	1.5	0.0
57.5°	2.9	5.1	2.9	1.5	2.9
60°	0.0	0.0	0.0	0.7	1.5
62.5°	0.0	1.5	0.0	2.2	2.9
65°	0.0	2.9	0.0	0.0	0.0
67.5°	4.4	5.1	2.9	5.8	8.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	1.5	0.0
77.5°	0.0	7.3	2.2	2.2	2.9
80°	1.5	0.0	0.0	0.7	0.0
82.5°	0.0	5.8	0.7	2.9	4.4
85°	7.3	3.6	6.5	3.6	2.9
87.5°	0.0	0.7	1.5	0.7	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	0.7	0.7	0.0
72.5°	1.5	0.0	0.0	0.0	0.0



(END OF REPORT)