

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: P281741

Luminaire Tested: **LDA2B208030D010 EU2B20SP158030 2LBAPINSQ1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281741  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-10)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B208030D010 EU2B20SP158030 2LBAPINSQ1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ PinHole, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2002.8 lumens  
Efficiency: N/A  
Efficacy: 97.2 lumens/watt  
Spacing Criteria (0/90/45): 0.3 / 0.3 / 0.29  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

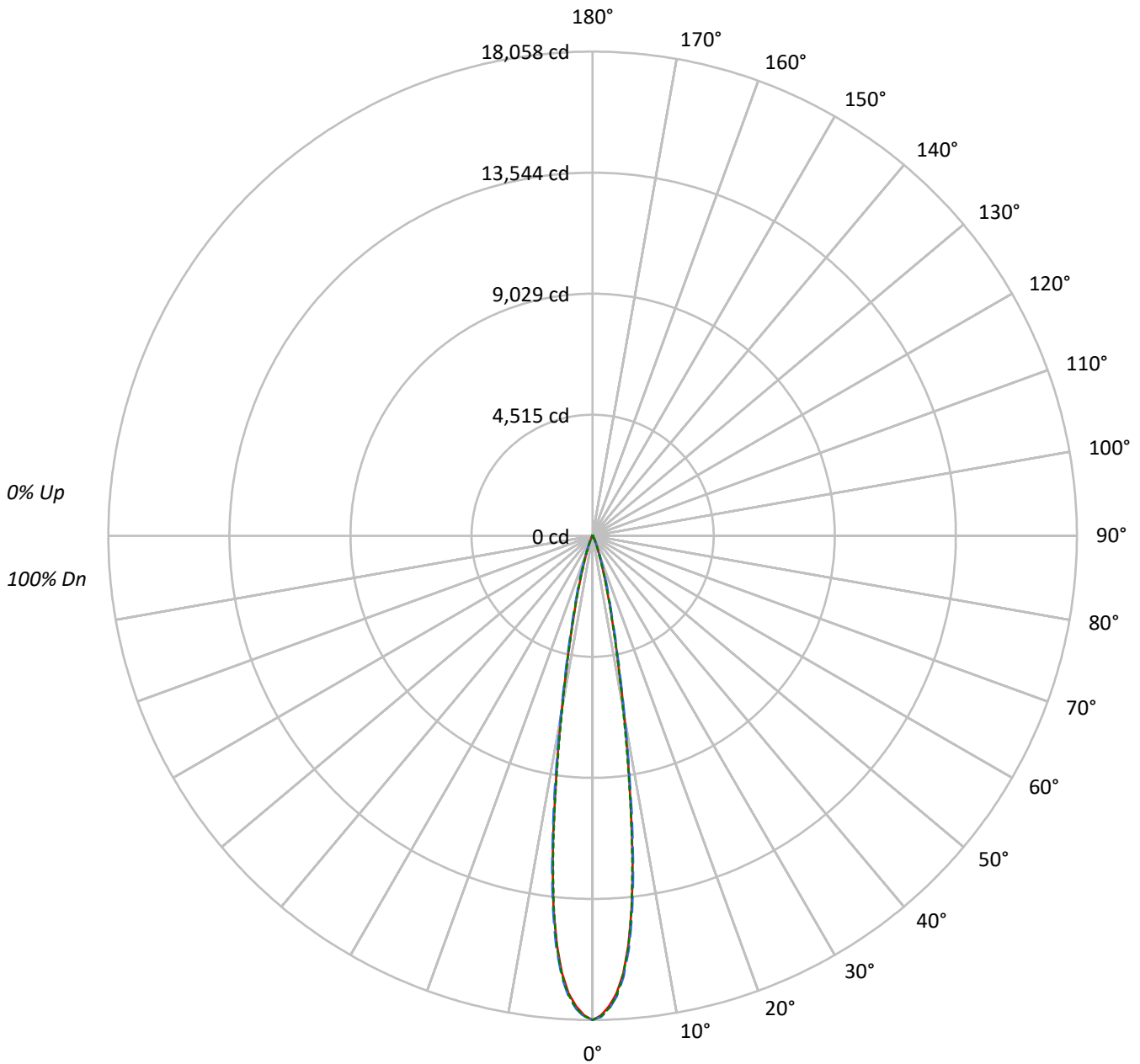
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P281741

CATALOG NUMBER: LDA2B208030D010 EU2B20SP158030 2LBAPINSQ1MMS

### Luminous Intensity Polar Plot





TEST NUMBER: P281741

CATALOG NUMBER: LDA2B208030D010 EU2B20SP158030 2LBAPINSQ1MMS

**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	116	114	112	111	113	112	110	109	108	107	106	104	103	103	101	100	100	98																			
2	113	110	107	105	111	108	106	104	105	103	102	102	101	99	99	98	97	96																			
3	110	106	103	101	108	105	102	100	102	100	98	100	98	97	98	97	95	94																			
4	107	103	100	97	106	102	99	97	100	98	96	98	96	95	97	95	94	93																			
5	105	100	97	95	104	100	96	94	98	95	93	97	94	93	95	93	92	91																			
6	103	98	95	92	102	97	94	92	96	93	91	95	93	91	94	92	90	89																			
7	101	96	93	90	100	95	92	90	94	92	90	93	91	89	93	90	89	88																			
8	99	94	91	89	98	94	91	88	93	90	88	92	90	88	91	89	88	87																			
9	98	92	89	87	97	92	89	87	91	89	87	91	88	86	90	88	86	85																			
10	96	91	88	86	95	90	88	86	90	87	85	89	87	85	89	87	85	84																			

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

	0°	45°	90°
0°	8908979	8908979	8908979
5°	7586233	7665274	7600595
10°	3349203	3425802	3270951
15°	1016271	1165567	1032206
20°	304094	405424	339796
25°	118454	116657	124551
30°	52753	47683	50246
35°	10781	9396	9396
40°	0	708	2898
45°	9349	7814	14024
50°	0	2533	8596
55°	0	0	3871
60°	0	1085	4440
65°	0	0	2568
70°	0	6491	12838
75°	0	0	0
80°	0	0	0
85°	0	6227	25473



TEST NUMBER: P281741

CATALOG NUMBER: LDA2B208030D010 EU2B20SP158030 2LBAPINSQ1MMS

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1170.6	58.4
10°-20°	668.6	33.4
20°-30°	126.9	6.3
30°-40°	23.1	1.2
40°-50°	6.0	0.3
50°-60°	4.5	0.2
60°-70°	0.7	0.0
70°-80°	1.0	0.1
80°-90°	1.4	0.1
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°	1966.1	98.2
0°-40°	1989.1	99.3
0°-60°	1999.6	99.8
0°-90°	2002.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2002.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	18058	18058	18058	18058	18058	
5°	15318	15419	15478	15451	15347	1163
15°	1990	2164	2282	2144	2021	633
25°	218	234	214	244	229	114
35°	18	22	16	19	16	25
45°	13	21	11	12	20	6
55°	0	1	0	1	4	2
65°	0	0	0	0	2	0
75°	0	0	0	0	0	0
85°	0	1	1	1	4	0
90°	0	0	0	0	0	



TEST NUMBER: P281741

CATALOG NUMBER: LDA2B208030D010 EU2B20SP158030 2LBAPINSQ1MMS

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	18057.7	18057.7	18057.7	18057.7	18057.7
1°	17887.0	17905.9	17946.1	17987.4	17922.7
2°	17552.2	17597.9	17654.9	17692.8	17622.5
3°	17083.5	17147.1	17207.4	17215.2	17149.3
4°	16359.3	16437.4	16501.0	16493.2	16410.6
5°	15318.1	15418.6	15477.7	15450.9	15347.1
6°	13942.2	14039.3	14115.2	14038.2	13898.7
7°	12228.2	12339.8	12420.1	12288.4	12117.7
8°	10241.8	10398.1	10478.4	10294.3	10119.1
9°	8360.4	8468.7	8550.1	8349.3	8170.7
10°	6685.4	6884.1	6838.3	6683.2	6529.2
11°	5258.2	5437.8	5445.7	5340.8	5190.1
12°	4116.6	4306.3	4354.3	4273.9	4140.0
13°	3252.9	3394.6	3473.8	3391.3	3264.0
14°	2588.9	2715.0	2816.6	2709.4	2582.2
15°	1989.7	2163.8	2282.0	2143.7	2020.9
16°	1582.4	1726.3	1866.9	1709.6	1611.4
17°	1215.2	1343.6	1488.6	1345.8	1265.4
18°	961.9	1063.5	1223.0	1075.7	1005.4
19°	753.2	830.2	978.7	849.2	792.3
20°	579.2	664.0	772.2	684.1	647.2
22.5°	350.4	397.3	428.5	401.7	382.8
25°	217.6	234.3	214.3	244.4	228.8
26°	189.7	202.0	197.5	217.6	198.6
27°	151.8	167.4	155.1	170.7	165.2
28°	138.4	157.3	132.8	151.8	142.8
29°	97.1	104.9	94.9	101.5	101.5
30°	92.6	94.9	83.7	91.5	88.2
32.5°	72.5	68.1	55.8	59.1	56.9
35°	17.9	22.3	15.6	19.0	15.6
37.5°	26.8	24.6	29.0	27.9	26.8
40°	0.0	1.1	1.1	1.1	4.5
42.5°	20.1	12.3	11.2	7.8	13.4
45°	13.4	21.2	11.2	12.3	20.1
47.5°	0.0	1.1	0.0	2.2	2.2
50°	0.0	2.2	3.3	4.5	11.2
52.5°	2.2	13.4	6.7	12.3	17.9
55°	0.0	1.1	0.0	1.1	4.5
57.5°	4.5	2.2	4.5	4.5	20.1
60°	0.0	2.2	1.1	1.1	4.5
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	2.2
67.5°	0.0	1.1	0.0	0.0	0.0



TEST NUMBER: P281741

CATALOG NUMBER: LDA2B208030D010 EU2B20SP158030 2LBAPINSQ1MMS

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	1.1	0.0	0.0
80°	0.0	1.1	0.0	0.0	0.0
82.5°	0.0	1.1	2.2	3.3	2.2
85°	0.0	1.1	1.1	1.1	4.5
87.5°	0.0	2.2	3.3	0.0	2.2
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	3.3	4.5	0.0	8.9
72.5°	0.0	5.6	1.1	1.1	0.0



(END OF REPORT)