

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: **LDA2B208027D010 EU2B20SP158027 2LBALSQC1MMS**

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: LDA2B208027D010 EU2B20SP158027 2LBALSQC1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Cast Trim w/lens, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1964.9 lumens  
Efficiency: N/A  
Efficacy: 95.4 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

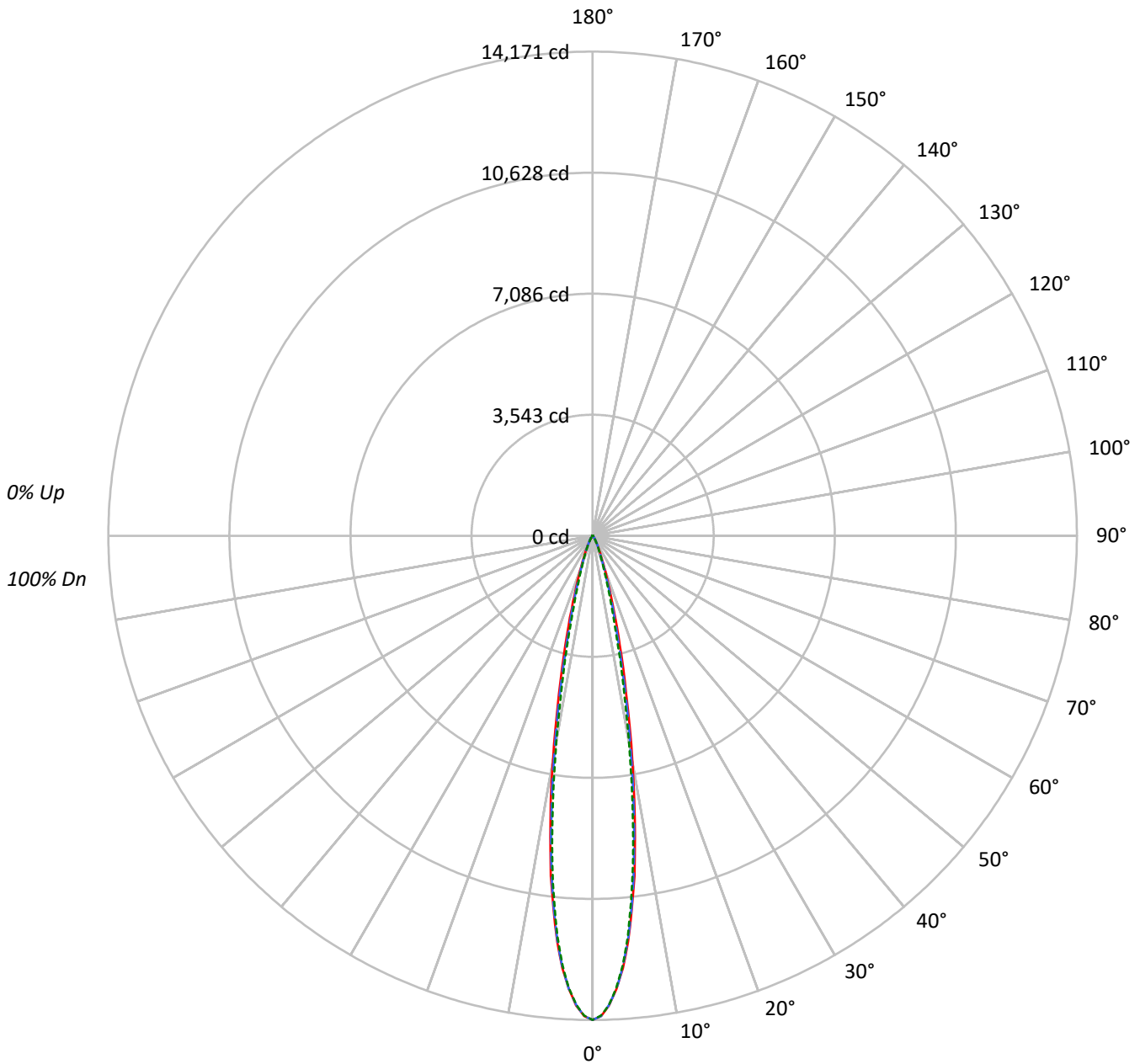
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
RC	80					70					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°	6991381	6991381	6991381
5°	5907051	5875504	5832170
10°	3362228	3214191	3050723
15°	1392296	1233244	1086399
20°	529645	463807	424640
25°	233968	224768	199836
30°	108240	119577	95194
35°	56916	67094	53302
40°	24989	28853	16681
45°	9698	7605	11094
50°	4605	5373	7599
55°	0	3441	0
60°	0	0	1973
65°	0	0	0
70°	0	1442	0
75°	0	0	0
80°	5682	0	0
85°	56041	50946	22643



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	947.5	48.2
10°-20°	724.3	36.9
20°-30°	201.4	10.3
30°-40°	65.5	3.3
40°-50°	14.4	0.7
50°-60°	4.4	0.2
60°-70°	2.6	0.1
70°-80°	1.5	0.1
80°-90°	3.2	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°	1873.3	95.3
0°-40°	1938.8	98.7
0°-60°	1957.6	99.6
0°-90°	1964.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1964.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	14171	14171	14171	14171	14171	
5°	11928	11840	11864	11775	11776	964
15°	2726	2631	2414	2228	2127	796
25°	430	435	413	389	367	216
35°	94	102	111	85	88	62
45°	14	20	11	11	16	14
55°	0	6	4	2	0	4
65°	0	4	0	0	0	3
75°	0	0	0	2	0	1
85°	10	5	9	5	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	14170.9	14170.9	14170.9	14170.9	14170.9
1°	14062.5	14009.7	14060.5	14030.6	14047.5
2°	13757.0	13691.4	13744.1	13702.3	13737.1
3°	13281.5	13230.8	13277.5	13224.8	13252.6
4°	12685.6	12612.0	12658.7	12588.1	12605.0
5°	11927.5	11839.9	11863.8	11775.3	11776.3
6°	10972.4	10911.7	10925.6	10787.4	10777.4
7°	10038.2	9895.0	9880.0	9721.9	9691.0
8°	8904.1	8773.7	8731.0	8544.9	8479.3
9°	7816.7	7654.5	7567.0	7351.1	7274.5
10°	6711.4	6547.2	6415.9	6172.2	6089.6
11°	5688.7	5540.4	5377.3	5116.6	5036.0
12°	4739.6	4623.2	4444.1	4192.4	4107.8
13°	3964.6	3830.2	3638.2	3404.4	3331.8
14°	3293.0	3148.8	2956.7	2756.8	2615.5
15°	2725.9	2631.4	2414.5	2228.5	2127.0
16°	2227.5	2146.9	1959.9	1798.7	1727.1
17°	1826.6	1761.9	1602.7	1476.4	1416.7
18°	1507.2	1426.6	1301.3	1218.7	1172.0
19°	1222.7	1160.0	1068.5	1004.8	958.1
20°	1008.8	957.1	883.4	826.7	808.8
22.5°	651.6	642.7	594.9	564.1	549.2
25°	429.8	434.8	412.9	389.0	367.1
26°	367.1	370.1	350.2	336.3	308.4
27°	314.4	315.4	315.4	289.5	262.6
28°	256.7	267.6	257.7	245.7	219.9
29°	219.9	233.8	228.8	216.9	192.0
30°	190.0	200.0	209.9	191.0	167.1
32.5°	133.3	142.3	153.2	143.3	123.4
35°	94.5	102.5	111.4	84.6	88.5
37.5°	64.7	78.6	75.6	68.6	58.7
40°	38.8	40.8	44.8	47.8	25.9
42.5°	27.9	32.8	29.8	33.8	11.9
45°	13.9	19.9	10.9	10.9	15.9
47.5°	9.9	16.9	6.0	6.0	2.0
50°	6.0	12.9	7.0	3.0	9.9
52.5°	9.9	11.9	8.0	9.0	2.0
55°	0.0	6.0	4.0	2.0	0.0
57.5°	4.0	7.0	4.0	2.0	4.0
60°	0.0	0.0	0.0	1.0	2.0
62.5°	0.0	2.0	0.0	3.0	4.0
65°	0.0	4.0	0.0	0.0	0.0
67.5°	6.0	7.0	4.0	8.0	11.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.0	0.0	2.0	0.0
77.5°	0.0	9.9	3.0	3.0	4.0
80°	2.0	0.0	0.0	1.0	0.0
82.5°	0.0	8.0	1.0	4.0	6.0
85°	9.9	5.0	9.0	5.0	4.0
87.5°	0.0	1.0	2.0	1.0	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	1.0	1.0	0.0
72.5°	2.0	0.0	0.0	0.0	0.0



(END OF REPORT)