

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: P281597

Luminaire Tested: **LDA2B209040D010 EU2B20SP159040 2LBASQC1MMS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P281597  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-6)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LDA2B209040D010 EU2B20SP159040 2LBASQC1MMS  
Description: PORTFOLIO 2IN ADJ 2000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Cast Trim, MMS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1712.8 lumens  
Efficiency: N/A  
Efficacy: 83.1 lumens/watt  
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.29  
Luminous Opening: Circular (Dia: 0.17' x H: 0')  
CIE Type: Direct

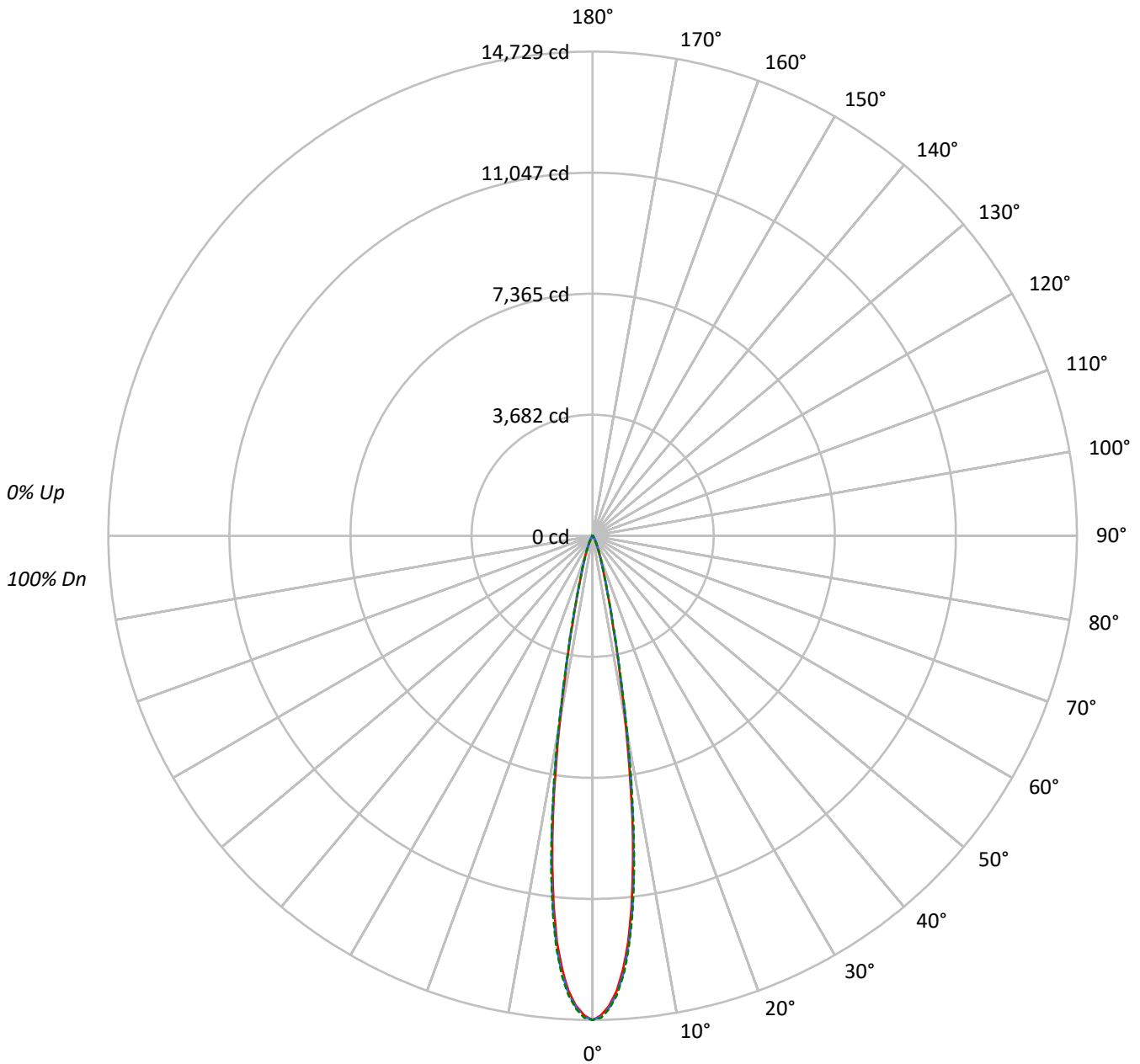
Input Watts (W): 20.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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					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	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	102	101	100	99	98	97	96	98					
2	113	109	107	105	111	108	105	103	105	103	101	102	100	99	99	98	97	96	95	94	96					
3	110	106	103	100	108	104	102	99	102	100	98	100	98	96	98	96	95	94	93	92	94					
4	107	103	99	97	106	102	99	96	100	97	95	98	96	94	96	95	93	92	91	90	92					
5	105	100	96	94	103	99	96	93	97	95	93	96	94	92	95	93	91	90	89	91	90					
6	103	97	94	91	101	97	94	91	96	93	91	94	92	90	93	91	90	89	88	90	89					
7	100	95	92	89	100	95	91	89	94	91	89	93	90	88	92	90	88	87	86	88	87					
8	99	93	90	88	98	93	90	87	92	89	87	91	89	87	90	88	86	85	86	87	86					
9	97	91	88	86	96	91	88	86	90	88	86	90	87	85	89	87	85	84	85	86	84					
10	95	90	87	84	94	89	86	84	89	86	84	88	86	84	88	85	84	83	84	85	83					

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

	0°	45°	90°
0°	7266578	7266578	7266578
5°	6150316	6214599	6241639
10°	2875984	2984946	2990757
15°	842355	854613	854205
20°	338273	338693	339166
25°	150843	166140	154436
30°	64090	88130	58450
35°	29391	40835	27404
40°	9596	15972	8501
45°	0	5791	0
50°	0	0	0
55°	2838	1462	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	4830	0	0
85°	9623	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	973.4	56.8
10°-20°	551.7	32.2
20°-30°	144.1	8.4
30°-40°	37.1	2.2
40°-50°	3.7	0.2
50°-60°	1.2	0.1
60°-70°	0.2	0.0
70°-80°	1.2	0.1
80°-90°	0.3	0.0
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°	1669.1	97.5
0°-40°	1706.3	99.6
0°-60°	1711.1	99.9
0°-90°	1712.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1712.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	14729	14729	14729	14729	14729	
5°	12419	12530	12548	12469	12603	961
15°	1649	1672	1673	1654	1672	541
25°	277	300	305	291	284	138
35°	49	52	68	46	46	33
45°	0	3	8	1	0	3
55°	3	4	2	1	0	2
65°	0	0	0	0	0	1
75°	0	1	0	0	0	3
85°	2	0	0	0	0	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	14728.7	14728.7	14728.7	14728.7	14728.7
1°	14590.6	14648.5	14631.1	14610.5	14668.3
2°	14309.4	14365.6	14360.7	14333.4	14401.2
3°	13876.0	13954.6	13954.6	13914.0	13998.4
4°	13230.0	13350.0	13361.6	13304.5	13409.5
5°	12418.7	12529.5	12548.5	12469.1	12603.1
6°	11319.5	11470.8	11513.8	11422.0	11559.3
7°	10056.5	10215.3	10280.7	10178.1	10331.9
8°	8694.3	8808.5	8887.0	8769.6	8925.9
9°	7170.0	7334.6	7406.5	7292.4	7444.6
10°	5740.8	5892.2	5958.3	5931.0	5969.9
11°	4458.8	4592.8	4637.5	4600.2	4618.4
12°	3491.1	3544.9	3573.8	3549.0	3561.4
13°	2650.8	2722.8	2736.0	2725.2	2731.0
14°	2070.2	2104.9	2119.8	2114.9	2117.3
15°	1649.2	1671.5	1673.2	1654.2	1672.4
16°	1328.3	1345.7	1353.1	1333.3	1357.2
17°	1088.4	1102.5	1110.8	1090.9	1100.8
18°	895.7	906.5	918.1	900.7	915.6
19°	751.8	758.4	759.3	754.3	758.4
20°	644.3	641.0	645.1	636.0	646.0
22.5°	424.3	432.6	442.5	431.7	435.9
25°	277.1	300.2	305.2	291.1	283.7
26°	228.3	258.1	271.3	249.0	225.0
27°	189.4	210.9	228.3	198.5	179.5
28°	166.2	184.4	201.8	173.7	151.4
29°	139.0	157.1	186.9	154.7	140.6
30°	112.5	125.7	154.7	117.4	102.6
32.5°	63.7	74.4	100.1	69.5	57.1
35°	48.8	52.1	67.8	46.3	45.5
37.5°	42.2	38.0	52.9	38.0	30.6
40°	14.9	22.3	24.8	16.5	13.2
42.5°	6.6	6.6	10.8	3.3	3.3
45°	0.0	3.3	8.3	0.8	0.0
47.5°	0.0	0.0	1.7	0.0	0.0
50°	0.0	1.7	0.0	0.0	0.0
52.5°	1.7	0.0	0.0	0.0	0.0
55°	3.3	4.1	1.7	0.8	0.0
57.5°	5.0	4.1	1.7	1.7	1.7
60°	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	1.7	0.8	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
75°	0.0	0.8	0.0	0.0	0.0
77.5°	8.3	1.7	2.5	1.7	3.3
80°	1.7	0.0	0.0	0.0	0.0
82.5°	3.3	0.0	0.0	0.0	0.0
85°	1.7	0.0	0.0	0.0	0.0
87.5°	0.0	0.8	0.0	0.8	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	0.0	0.0	0.0
72.5°	3.3	2.5	0.0	0.0	3.3



(END OF REPORT)