

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: P211561

Luminaire Tested: **LSR4B20D010BZ EC4B10208030 4LBMH1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211561  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35319)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LSR4B20D010BZ EC4B10208030 4LBMH1  
Description: PORTFOLIO 4 INCH CYLINDER  
MEDIUM DISTRIBUTION WITH SEMI-SPECULAR CLEAR TRIM  
WATTAGE D010TR-21.86W DE010-20.46W D5LT-21.24W DMX-20.89W DL2-22.5W  
DL3-21.8 6W DLE-22.46W  
Light Source: HIGH LUMEN LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1522.9 lumens  
Efficiency: N/A  
Efficacy: 73.2 lumens/watt  
Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.93  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

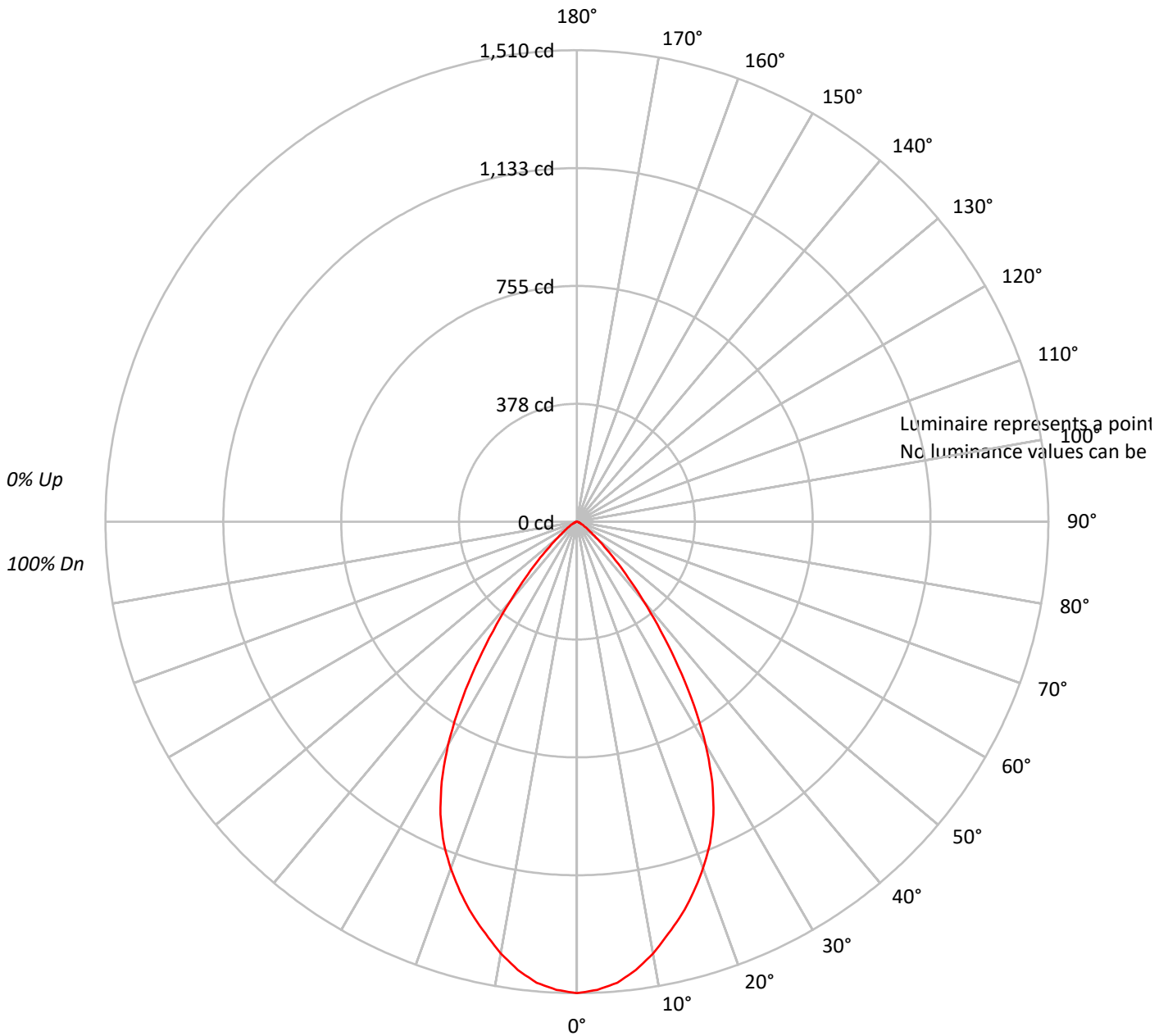
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93						93													
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85						85													
3	101	94	89	85	99	93	88	84	90	86	83	88	84	82	86	83	80	79						79													
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74	73						73													
5	90	82	75	71	89	81	75	70	79	74	70	77	73	69	75	72	69	67						67													
6	86	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64	62						62													
7	81	71	65	60	80	70	64	60	69	64	60	68	63	59	67	62	59	58						58													
8	77	67	60	56	75	66	60	56	65	59	56	64	59	55	63	58	55	54						54													
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	52	50						50													
10	69	59	53	49	68	59	53	49	58	52	49	57	52	48	56	52	48	47						47													

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.0	9.1
10°-20°	364.5	23.9
20°-30°	468.5	30.8
30°-40°	352.5	23.1
40°-50°	141.5	9.3
50°-60°	40.2	2.6
60°-70°	12.7	0.8
70°-80°	3.6	0.2
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°	972.0	63.8
0°-40°	1324.4	87.0
0°-60°	1506.2	98.9
0°-90°	1522.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1522.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1510	
5°	1482	139
15°	1301	365
25°	1034	468
35°	565	352
45°	175	142
55°	41	40
65°	12	13
75°	2	4
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1510.1
2.5°	1500.9
5°	1482.5
7.5°	1448.0
10°	1404.4
12.5°	1351.5
15°	1300.9
17.5°	1243.5
20°	1181.4
22.5°	1114.8
25°	1034.3
27.5°	937.8
30°	825.1
32.5°	698.7
35°	565.4
37.5°	441.3
40°	331.0
42.5°	243.6
45°	174.7
47.5°	119.5
50°	82.7
52.5°	57.5
55°	41.4
57.5°	29.9
60°	23.0
62.5°	16.1
65°	11.5
67.5°	9.2
70°	6.9
72.5°	4.6
75°	2.3
77.5°	2.3
80°	2.3
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)