

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: P211537

Luminaire Tested: **LSR4B20D010BZ EC4B10209727 4LBNGPH1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211537  
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 EC4B10209727 4LBNGPH1  
Description: PORTFOLIO 4 INCH CYLINDER  
NARROW DISTRIBUTION WITH GRAPHITE HAZE 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: 677.5 lumens  
Efficiency: N/A  
Efficacy: 32.6 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 0.86 / 0.88  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

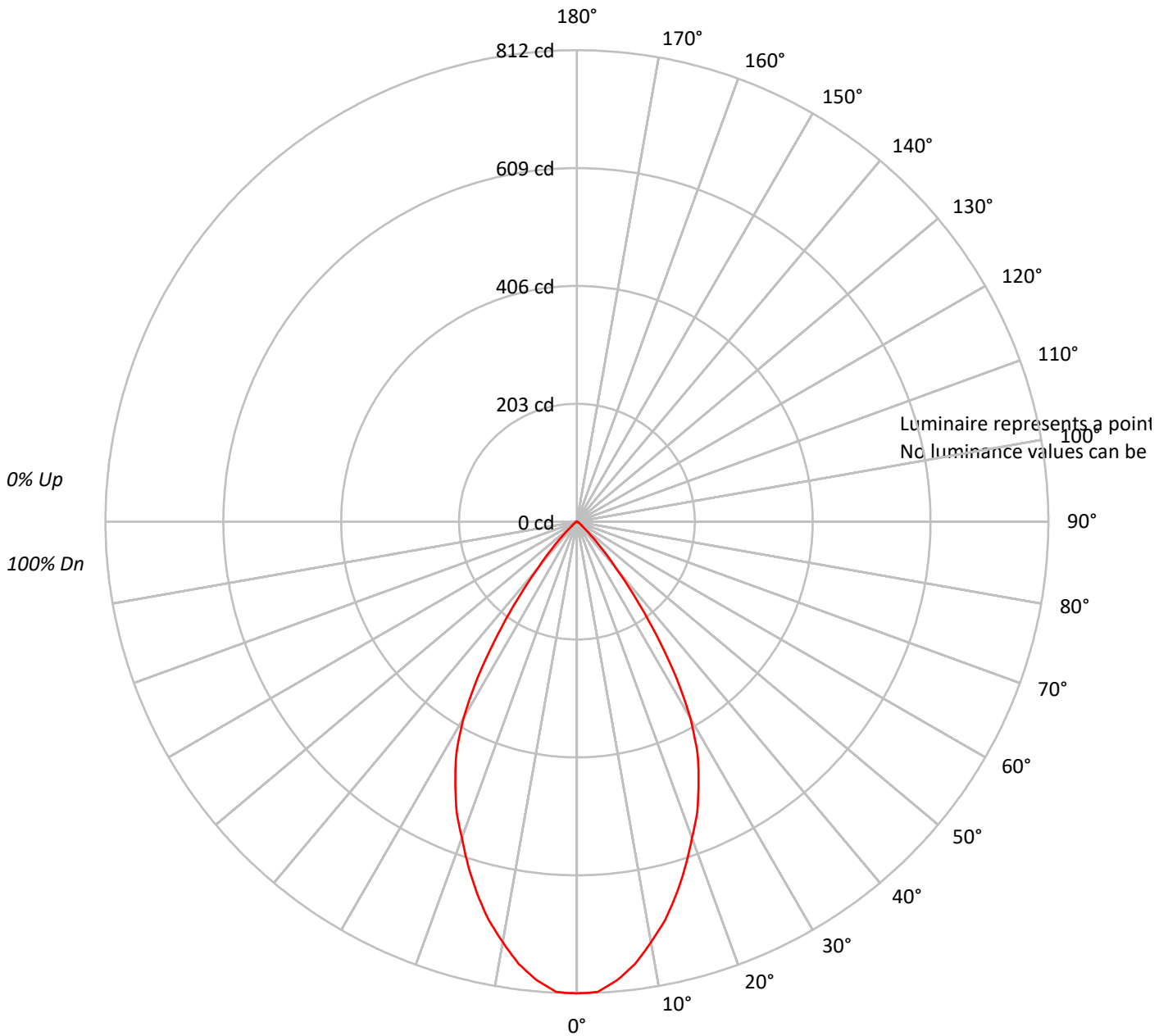
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87			
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	88	85	83	81			
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76			
5	93	84	78	74	91	83	78	74	82	77	73	80	76	73	78	75	72	70			
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	66			
7	84	74	68	64	82	74	68	64	72	67	64	71	67	63	70	66	63	62			
8	80	70	64	60	78	70	64	60	68	63	60	67	63	59	66	62	59	58			
9	76	66	60	56	75	66	60	56	65	60	56	64	59	56	63	59	56	54			
10	72	63	57	53	71	62	57	53	61	56	53	61	56	53	60	56	52	51			

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.9	10.9
10°-20°	185.2	27.3
20°-30°	225.7	33.3
30°-40°	148.9	22.0
40°-50°	34.3	5.1
50°-60°	6.5	1.0
60°-70°	2.4	0.4
70°-80°	0.6	0.1
80°-90°	0.0	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°	484.8	71.5
0°-40°	633.7	93.5
0°-60°	674.5	99.6
0°-90°	677.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	677.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	812	
5°	793	74
15°	663	185
25°	496	226
35°	238	149
45°	38	34
55°	7	7
65°	2	2
75°	0	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	812.5
2.5°	810.9
5°	792.8
7.5°	768.2
10°	735.4
12.5°	702.6
15°	663.2
17.5°	622.1
20°	579.4
22.5°	541.7
25°	495.7
27.5°	449.8
30°	390.7
32.5°	318.4
35°	238.0
37.5°	165.8
40°	106.7
42.5°	65.7
45°	37.8
47.5°	19.7
50°	11.5
52.5°	9.8
55°	6.6
57.5°	4.9
60°	4.9
62.5°	3.3
65°	1.6
67.5°	1.6
70°	1.6
72.5°	1.6
75°	0.0
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)