

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: P211449

Luminaire Tested: **LSR4B20D010BZ EC4B10209024 4LBNB1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211449  
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 EC4B10209024 4LBNB1  
Description: PORTFOLIO 4 INCH CYLINDER  
NARROW DISTRIBUTION WITH SPECULAR BLACK 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: 567.5 lumens  
Efficiency: N/A  
Efficacy: 27.3 lumens/watt  
Spacing Criteria (0/90/45): 0.62 / 0.62 / 0.79  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

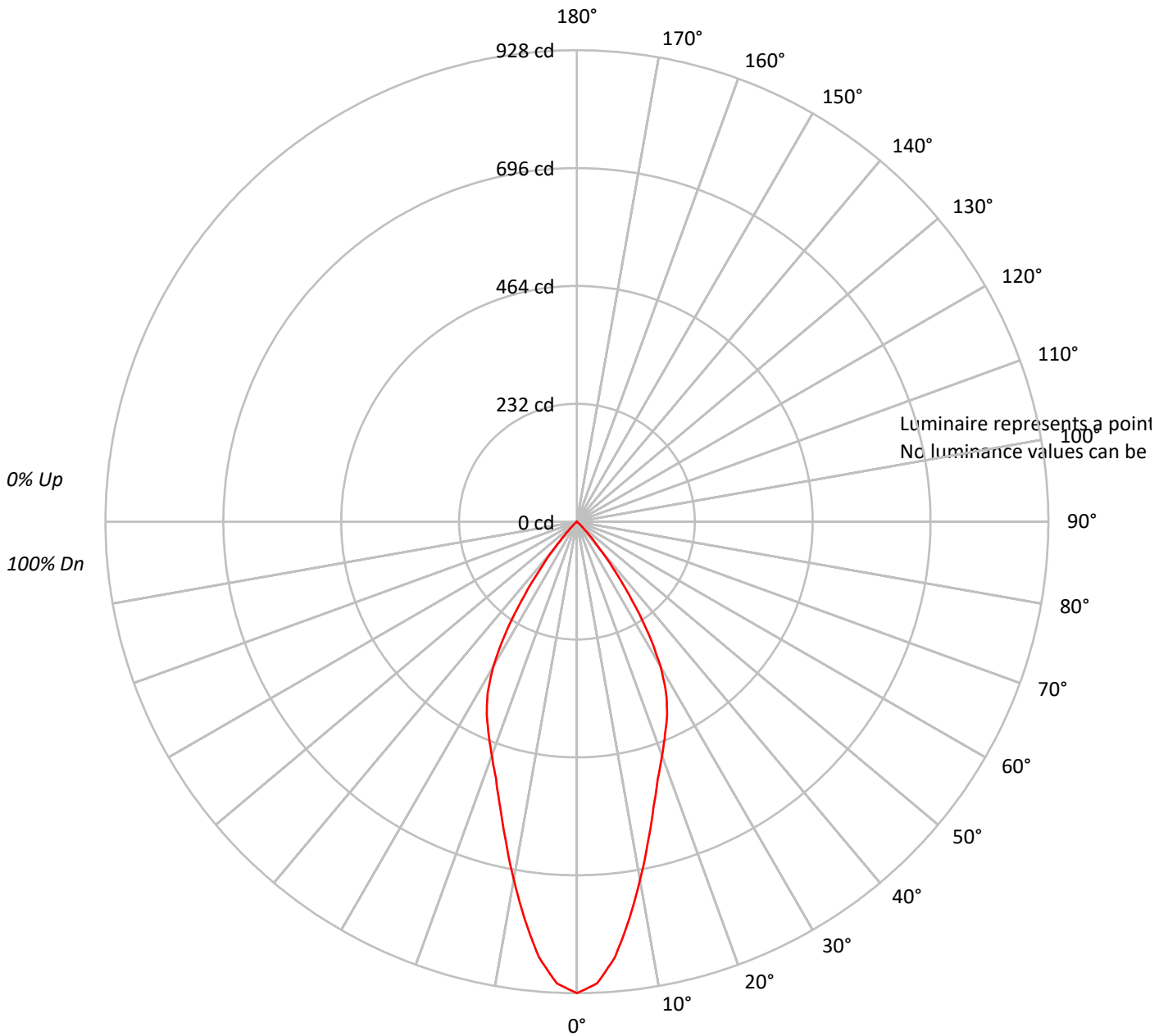
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94			
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	92	90	88			
3	104	98	93	89	102	96	92	88	94	90	87	91	88	86	89	86	84	83			
4	99	92	86	82	97	90	86	82	88	84	81	86	83	80	85	82	79	78			
5	94	86	81	77	92	85	80	76	84	79	76	82	78	75	80	77	74	73			
6	90	81	76	72	88	81	75	71	79	74	71	78	74	70	76	73	70	69			
7	86	77	71	67	84	76	71	67	75	70	67	74	69	66	73	69	66	65			
8	82	73	67	63	80	72	67	63	71	66	63	70	66	62	69	65	62	61			
9	78	69	63	60	77	68	63	59	67	63	59	67	62	59	66	62	59	58			
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	54			

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.3	13.6
10°-20°	164.0	28.9
20°-30°	190.3	33.5
30°-40°	119.2	21.0
40°-50°	16.8	3.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
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°	431.6	76.1
0°-40°	550.8	97.0
0°-60°	567.5	100.0
0°-90°	567.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	567.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	928	
5°	860	77
15°	583	164
25°	420	190
35°	191	119
45°	15	17
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	928.0
2.5°	909.8
5°	860.0
7.5°	788.6
10°	715.5
12.5°	645.8
15°	582.7
17.5°	529.6
20°	489.8
22.5°	453.2
25°	420.0
27.5°	380.2
30°	328.7
32.5°	264.0
35°	190.9
37.5°	124.5
40°	71.4
42.5°	36.5
45°	14.9
47.5°	3.3
50°	0.0
52.5°	0.0
55°	0.0
57.5°	0.0
60°	0.0
62.5°	0.0
65°	0.0
67.5°	0.0
70°	0.0
72.5°	0.0
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)