

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: P210841

Luminaire Tested: **LSR4B10D010BZ EC4B10209030 4LBNGPH1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P210841  
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: LSR4B10D010BZ EC4B10209030 4LBNGPH1  
Description: PORTFOLIO 4 INCH CYLINDER  
NARROW DISTRIBUTION WITH GRAPHITE HAZE TRIM  
WATTAGE D010TR-10.05W DE010-10.58W D5LT-10.2W DMX-10.6W DL2-11.8W  
DL3-11.1W DLE-11.39W  
Light Source: HIGH LUMEN LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 429.5 lumens  
Efficiency: N/A  
Efficacy: 43.4 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

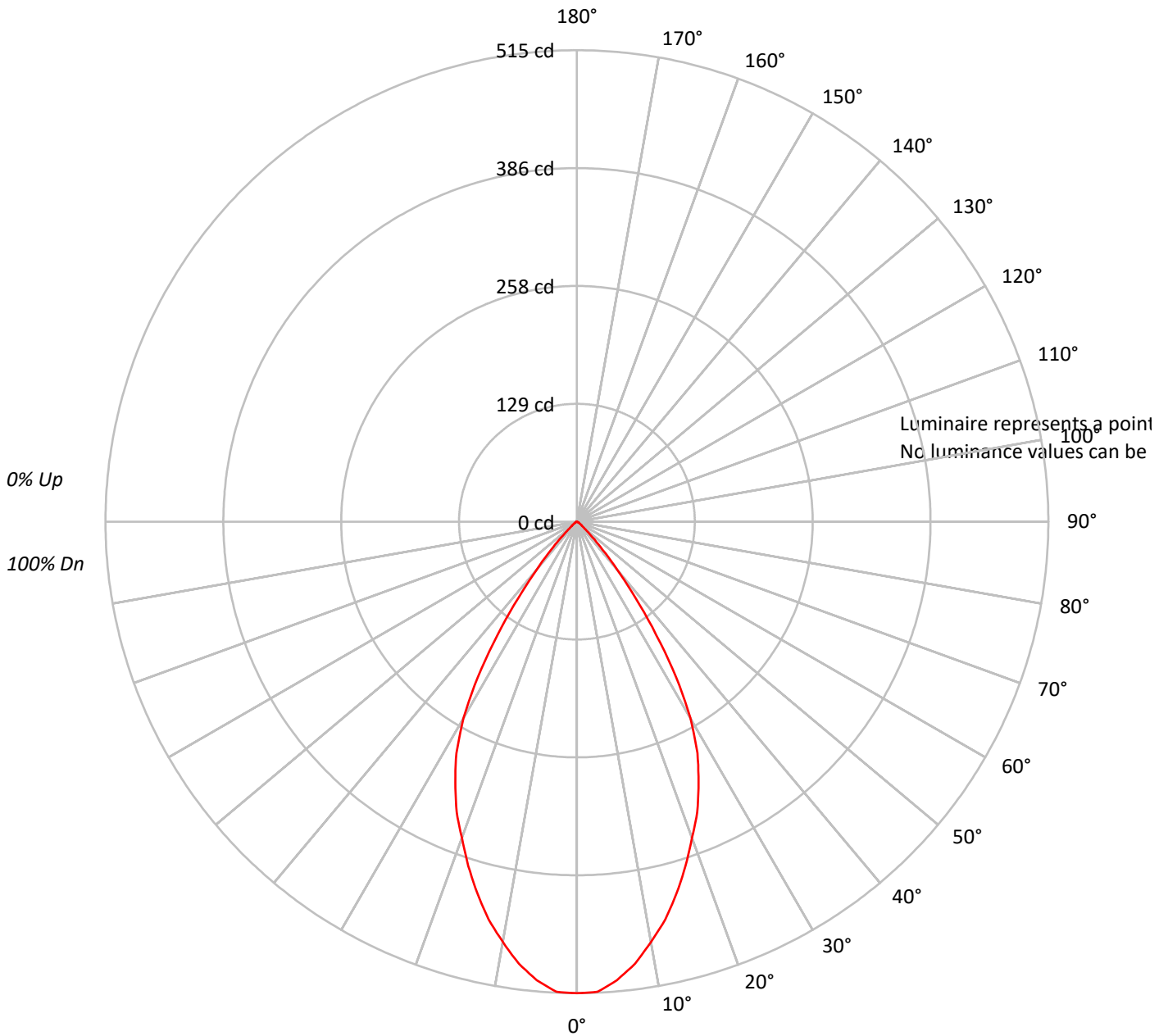
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	46.8	10.9
10°-20°	117.4	27.3
20°-30°	143.1	33.3
30°-40°	94.4	22.0
40°-50°	21.7	5.1
50°-60°	4.2	1.0
60°-70°	1.5	0.4
70°-80°	0.4	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°	307.3	71.6
0°-40°	401.7	93.5
0°-60°	427.6	99.6
0°-90°	429.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	429.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	515	
5°	503	47
15°	420	117
25°	314	143
35°	151	94
45°	24	22
55°	4	4
65°	1	2
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	515.1
2.5°	514.1
5°	502.7
7.5°	487.0
10°	466.2
12.5°	445.4
15°	420.4
17.5°	394.4
20°	367.4
22.5°	343.4
25°	314.3
27.5°	285.1
30°	247.7
32.5°	201.9
35°	150.9
37.5°	105.1
40°	67.6
42.5°	41.6
45°	23.9
47.5°	12.5
50°	7.3
52.5°	6.2
55°	4.2
57.5°	3.1
60°	3.1
62.5°	2.1
65°	1.0
67.5°	1.0
70°	1.0
72.5°	1.0
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)