

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: P211594

Luminaire Tested: **LSR4B20D010BZ EC4B10209030 4LBNB1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211594  
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 EC4B10209030 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**

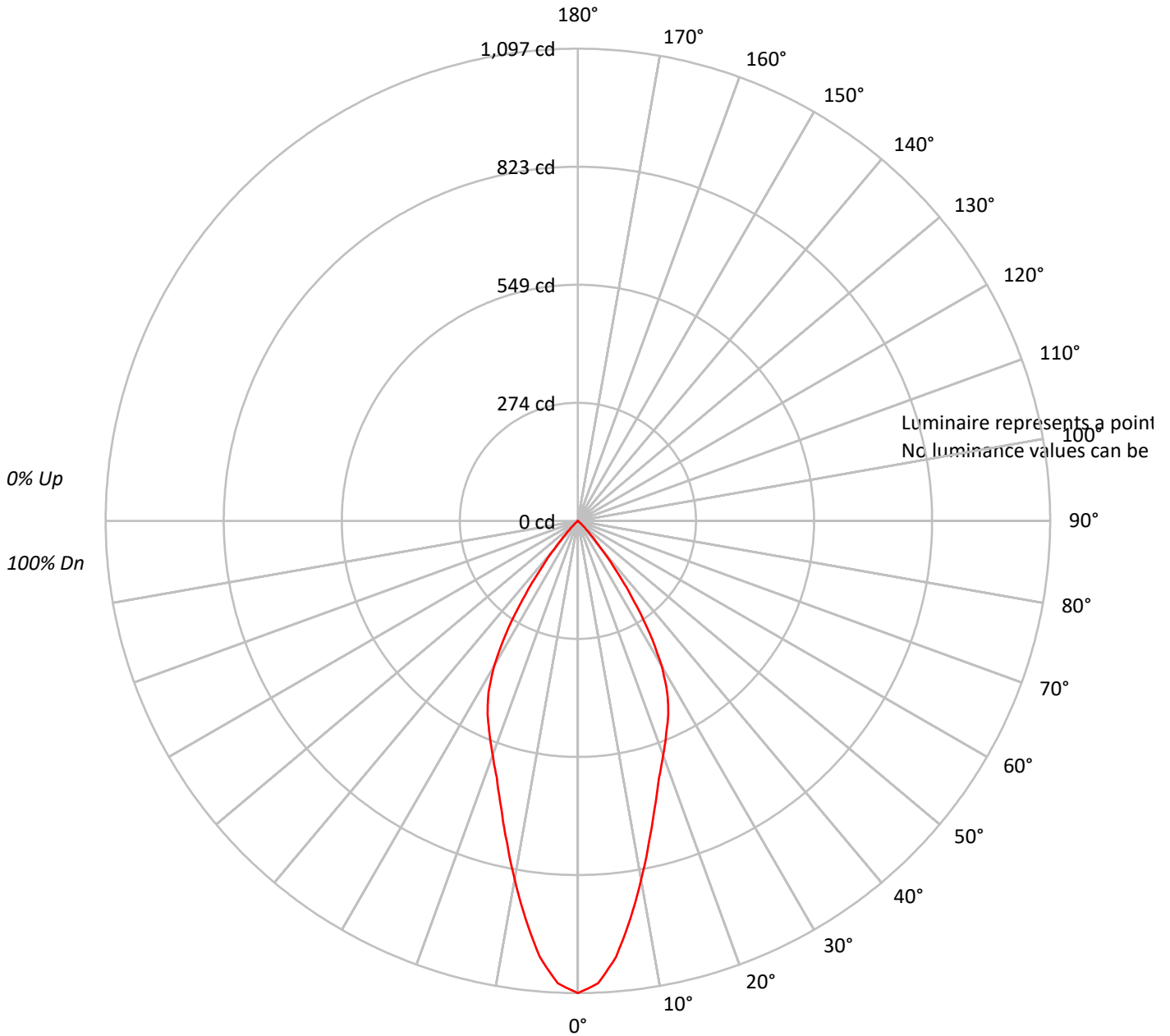
Lumens per Lamp: N/A  
Luminaire Lumens: 671.0 lumens  
Efficiency: N/A  
Efficacy: 32.3 lumens/watt  
Spacing Criteria (0/90/45): 0.62 / 0.62 / 0.79  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

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									
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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94						94													
2	109	104	100	97	106	102	99	96	99	96	94	96	94	92	93	92	90	88						88													
3	104	98	93	89	102	96	92	88	94	90	87	91	88	86	89	86	84	83						83													
4	99	92	86	82	97	90	86	82	88	84	81	86	83	80	85	82	79	78						78													
5	94	86	81	77	92	85	80	76	84	79	76	82	78	75	80	77	74	73						73													
6	90	81	76	72	88	81	75	71	79	74	71	78	74	70	76	73	70	69						69													
7	86	77	71	67	84	76	71	67	75	70	67	74	69	66	73	69	66	65						65													
8	82	73	67	63	80	72	67	63	71	66	63	70	66	62	69	65	62	61						61													
9	78	69	63	60	77	68	63	59	67	63	59	67	62	59	66	62	59	58						58													
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	63	59	56	54						54													

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.4	13.6
10°-20°	193.9	28.9
20°-30°	225.0	33.5
30°-40°	140.9	21.0
40°-50°	19.8	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°	510.3	76.0
0°-40°	651.2	97.0
0°-60°	671.0	100.0
0°-90°	671.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	671.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1097	
5°	1017	91
15°	689	194
25°	497	225
35°	226	141
45°	18	20
55°	0	0
65°	0	0
75°	0	0
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1097.2
2.5°	1075.6
5°	1016.7
7.5°	932.3
10°	846.0
12.5°	763.5
15°	688.9
17.5°	626.1
20°	579.0
22.5°	535.8
25°	496.6
27.5°	449.5
30°	388.6
32.5°	312.1
35°	225.7
37.5°	147.2
40°	84.4
42.5°	43.2
45°	17.7
47.5°	3.9
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)