

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: P211464

Luminaire Tested: **LSR4B20D010BZ EC4B10209024 4LBWGPH1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211464  
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 4LBWGPH1  
Description: PORTFOLIO 4 INCH CYLINDER  
WIDE DISTRIBUTIONWITH 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: 957.6 lumens  
Efficiency: N/A  
Efficacy: 46.0 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.12 / 1.08  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

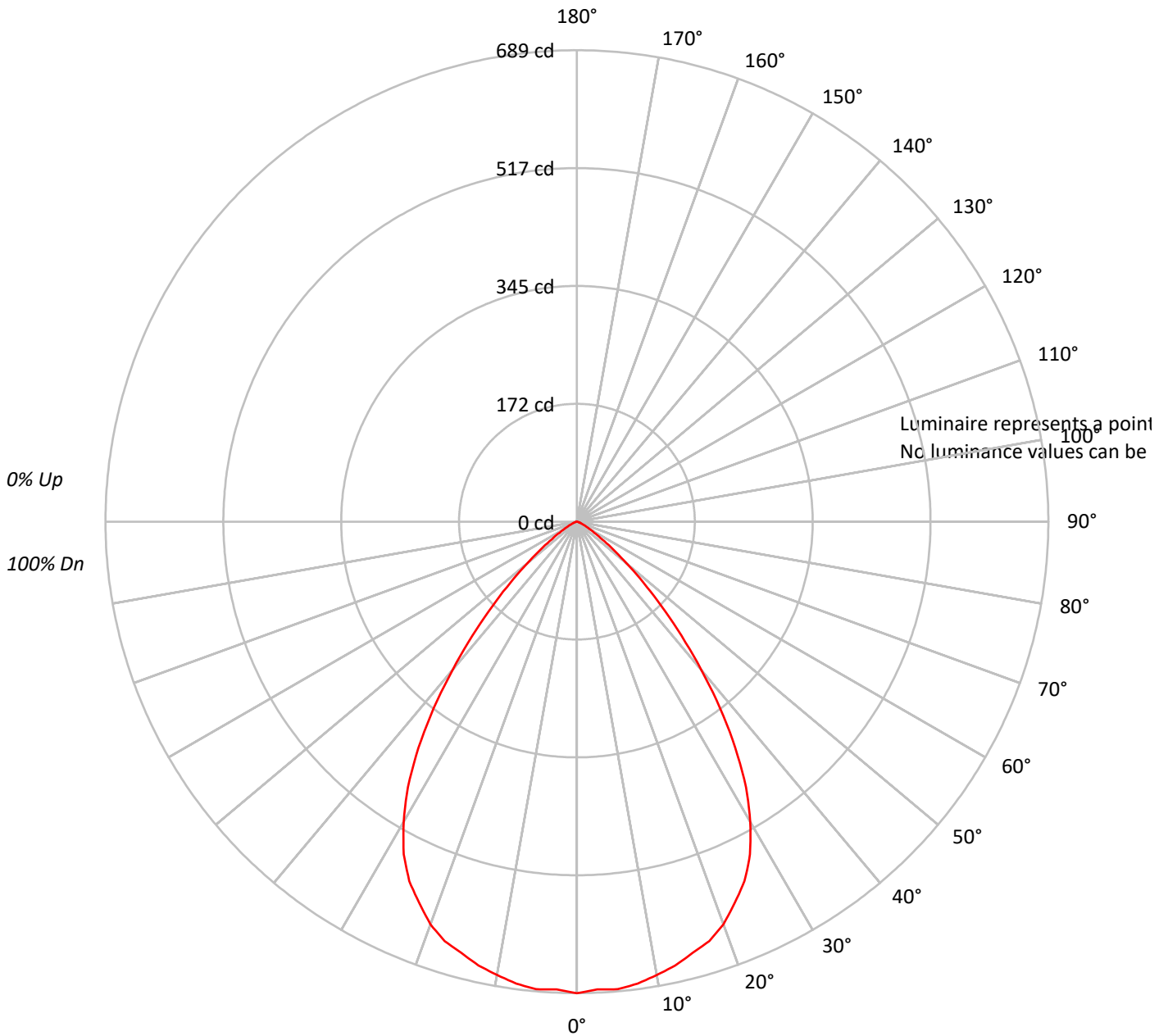
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92																			
2	106	100	96	92	104	99	95	91	95	92	89	92	90	87	90	87	85	83																			
3	100	92	87	82	98	91	86	81	88	84	80	86	82	79	83	80	77	76																			
4	94	85	78	74	92	84	78	73	81	76	72	79	75	71	77	74	71	69																			
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	64	63																			
6	83	72	65	61	81	71	65	60	70	64	60	68	63	59	67	63	59	57																			
7	78	67	60	55	76	66	60	55	65	59	55	64	58	55	63	58	54	53																			
8	73	62	56	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48																			
9	69	58	51	47	68	58	51	47	57	51	47	56	50	46	55	50	46	45																			
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	46	43	41																			

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.0	6.8
10°-20°	184.2	19.2
20°-30°	264.2	27.6
30°-40°	248.8	26.0
40°-50°	137.4	14.3
50°-60°	44.1	4.6
60°-70°	11.0	1.1
70°-80°	2.6	0.3
80°-90°	0.2	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°	513.5	53.6
0°-40°	762.2	79.6
0°-60°	943.7	98.5
0°-90°	957.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	957.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	689	
5°	686	65
15°	653	184
25°	580	264
35°	404	249
45°	174	137
55°	45	44
65°	10	11
75°	2	3
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	689.2
2.5°	684.2
5°	685.9
7.5°	680.9
10°	672.6
12.5°	664.3
15°	652.7
17.5°	642.7
20°	626.1
22.5°	602.8
25°	579.6
27.5°	548.0
30°	506.5
32.5°	460.0
35°	403.6
37.5°	343.8
40°	282.3
42.5°	225.9
45°	174.4
47.5°	131.2
50°	94.7
52.5°	66.4
55°	44.8
57.5°	29.9
60°	21.6
62.5°	14.9
65°	10.0
67.5°	6.6
70°	5.0
72.5°	3.3
75°	1.7
77.5°	1.7
80°	1.7
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)