

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: P211618

Luminaire Tested: **LSR4B20D010BZ EC4B10209730 4LBMGPH1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211618  
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 EC4B10209730 4LBMGPH1  
Description: PORTFOLIO 4 INCH CYLINDER  
MEDIUM 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: 816.1 lumens  
Efficiency: N/A  
Efficacy: 39.2 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 0.94 / 0.92  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

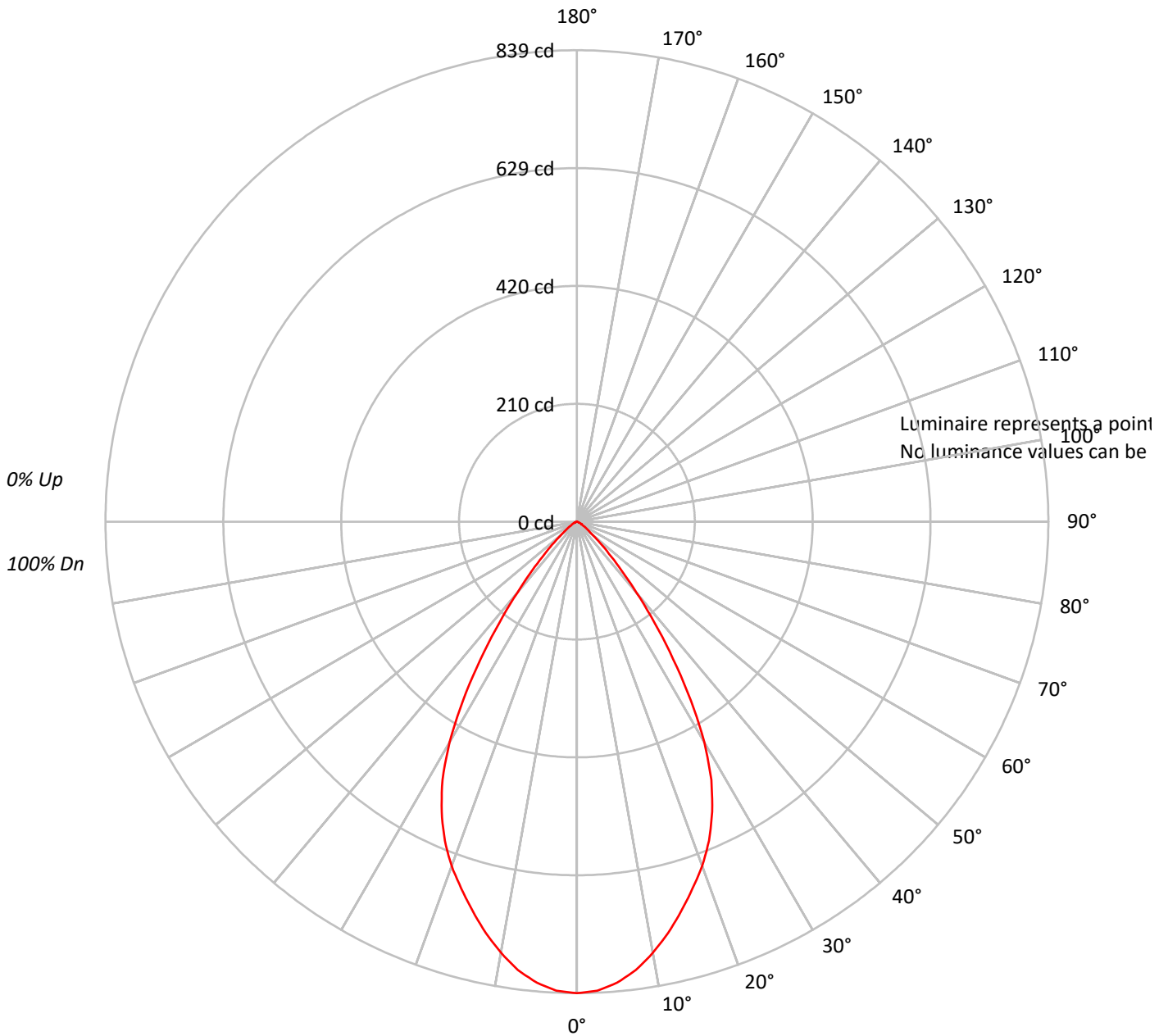
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93			
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	88	86			
3	102	95	90	85	100	93	89	85	91	87	83	88	85	82	86	83	81	79			
4	96	88	82	78	94	87	82	78	85	80	77	83	79	76	81	78	75	73			
5	91	82	76	72	89	81	76	71	79	74	71	78	73	70	76	72	69	68			
6	86	77	71	66	85	76	70	66	74	69	65	73	68	65	72	68	64	63			
7	82	72	66	61	80	71	65	61	70	65	61	69	64	60	68	63	60	59			
8	77	67	61	57	76	67	61	57	66	60	57	65	60	56	64	59	56	55			
9	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	52	51			
10	70	60	54	50	69	59	54	50	59	53	50	58	53	49	57	52	49	48			

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.2	9.5
10°-20°	201.3	24.7
20°-30°	258.2	31.6
30°-40°	186.7	22.9
40°-50°	66.9	8.2
50°-60°	18.1	2.2
60°-70°	5.9	0.7
70°-80°	1.8	0.2
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°	536.8	65.8
0°-40°	723.4	88.6
0°-60°	808.4	99.1
0°-90°	816.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	816.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	839	
5°	824	77
15°	717	201
25°	570	258
35°	299	187
45°	81	67
55°	19	18
65°	5	6
75°	2	2
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	839.1
2.5°	835.6
5°	823.6
7.5°	804.8
10°	779.0
12.5°	749.8
15°	717.2
17.5°	684.6
20°	652.0
22.5°	614.3
25°	569.7
27.5°	518.2
30°	453.0
32.5°	377.5
35°	298.6
37.5°	226.5
40°	164.7
42.5°	116.7
45°	80.6
47.5°	54.9
50°	36.0
52.5°	25.7
55°	18.9
57.5°	13.7
60°	10.3
62.5°	8.6
65°	5.1
67.5°	3.4
70°	3.4
72.5°	1.7
75°	1.7
77.5°	1.7
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)