

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: P211653

Luminaire Tested: **LSR4B20D010BZ EC4B10208035 4LBNGPH1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211653  
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 EC4B10208035 4LBNGPH1  
Description: PORTFOLIO 4 INCH CYLINDER  
NARROW 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**

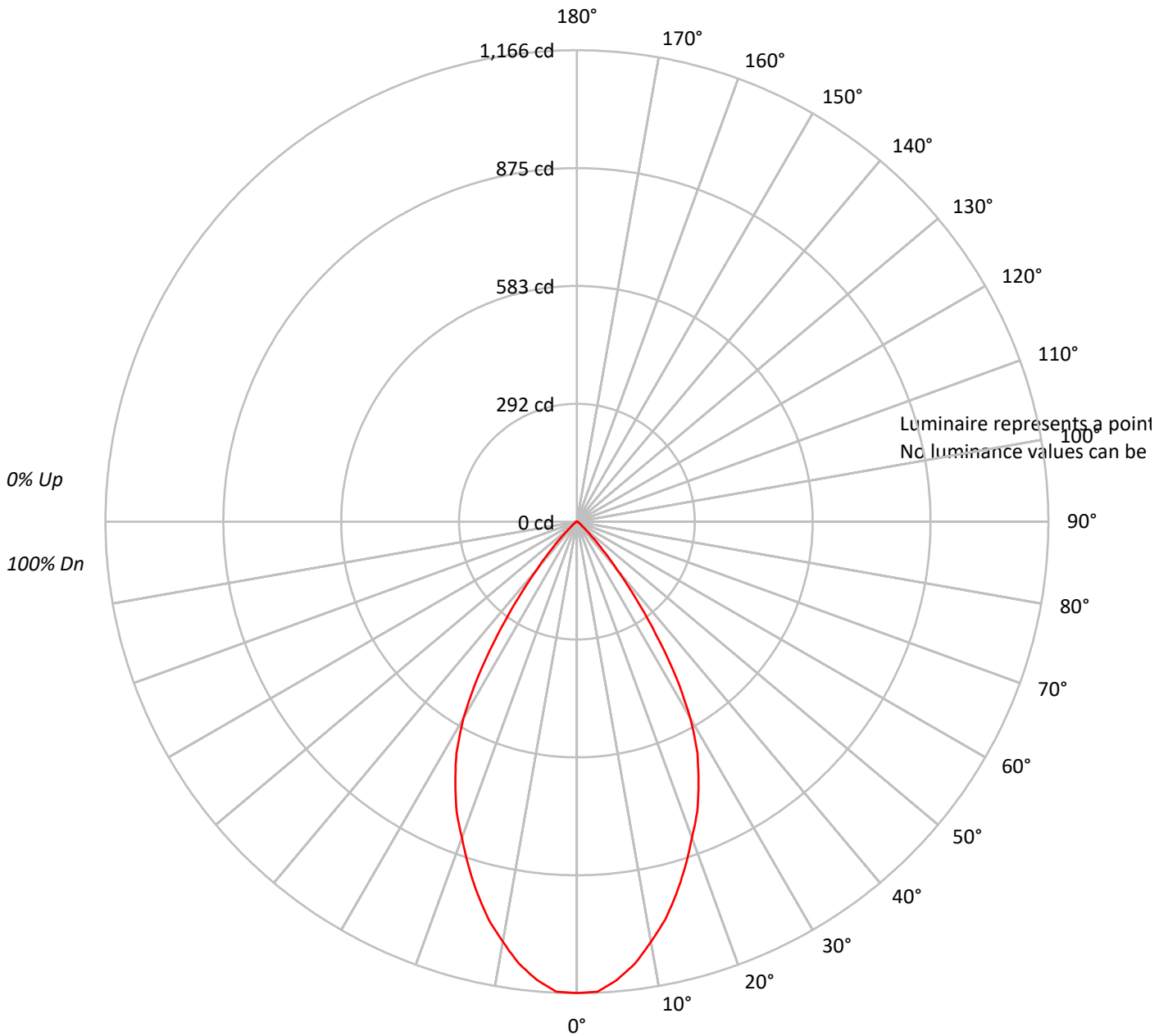
Lumens per Lamp: N/A  
Luminaire Lumens: 972.2 lumens  
Efficiency: N/A  
Efficacy: 46.7 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 0.86 / 0.88  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

Input Watts (W): 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	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	92	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°	106.0	10.9
10°-20°	265.7	27.3
20°-30°	323.8	33.3
30°-40°	213.6	22.0
40°-50°	49.2	5.1
50°-60°	9.4	1.0
60°-70°	3.5	0.4
70°-80°	0.9	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°	695.5	71.5
0°-40°	909.2	93.5
0°-60°	967.8	99.5
0°-90°	972.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	972.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1166	
5°	1138	106
15°	952	266
25°	711	324
35°	342	214
45°	54	49
55°	9	9
65°	2	4
75°	0	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1165.8
2.5°	1163.5
5°	1137.5
7.5°	1102.2
10°	1055.1
12.5°	1008.0
15°	951.5
17.5°	892.6
20°	831.4
22.5°	777.2
25°	711.3
27.5°	645.3
30°	560.5
32.5°	456.9
35°	341.5
37.5°	237.9
40°	153.1
42.5°	94.2
45°	54.2
47.5°	28.3
50°	16.5
52.5°	14.1
55°	9.4
57.5°	7.1
60°	7.1
62.5°	4.7
65°	2.4
67.5°	2.4
70°	2.4
72.5°	2.4
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)