

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: P211450

Luminaire Tested: **LSR4B20D010BZ EC4B10209024 4LBNGPH1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211450  
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 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: 685.4 lumens  
Efficiency: N/A  
Efficacy: 33.0 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

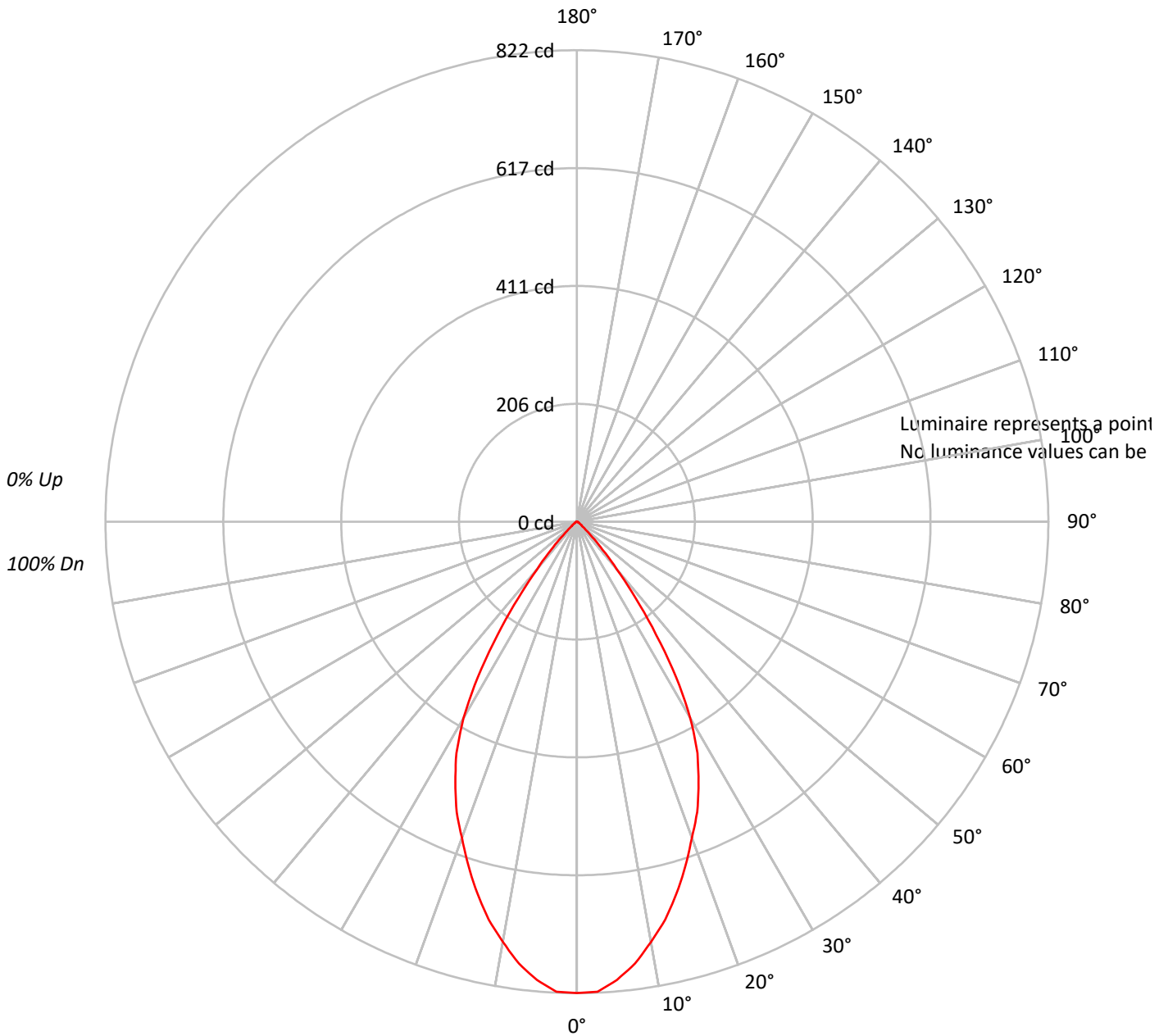
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									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	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°	74.7	10.9
10°-20°	187.3	27.3
20°-30°	228.3	33.3
30°-40°	150.6	22.0
40°-50°	34.7	5.1
50°-60°	6.6	1.0
60°-70°	2.5	0.4
70°-80°	0.7	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°	490.4	71.5
0°-40°	641.0	93.5
0°-60°	682.3	99.5
0°-90°	685.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	685.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	822	
5°	802	75
15°	671	187
25°	502	228
35°	241	151
45°	38	35
55°	7	7
65°	2	2
75°	0	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	821.9
2.5°	820.3
5°	802.0
7.5°	777.1
10°	743.9
12.5°	710.7
15°	670.8
17.5°	629.3
20°	586.1
22.5°	548.0
25°	501.5
27.5°	455.0
30°	395.2
32.5°	322.1
35°	240.8
37.5°	167.7
40°	107.9
42.5°	66.4
45°	38.2
47.5°	19.9
50°	11.6
52.5°	10.0
55°	6.6
57.5°	5.0
60°	5.0
62.5°	3.3
65°	1.7
67.5°	1.7
70°	1.7
72.5°	1.7
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)