

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: P211509

Luminaire Tested: **LE\_4B20D010 EC4B10209027 4LBN1H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211509  
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: LE\_4B20D010 EC4B10209027 4LBN1H  
Description: PORTFOLIO 4 INCH CYLINDER  
NARROW DISTRIBUTION WITH SEMI-SPECULAR CLEAR 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: 1205.5 lumens  
Efficiency: N/A  
Efficacy: 58.0 lumens/watt  
Spacing Criteria (0/90/45): 0.81 / 0.81 / 0.85  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

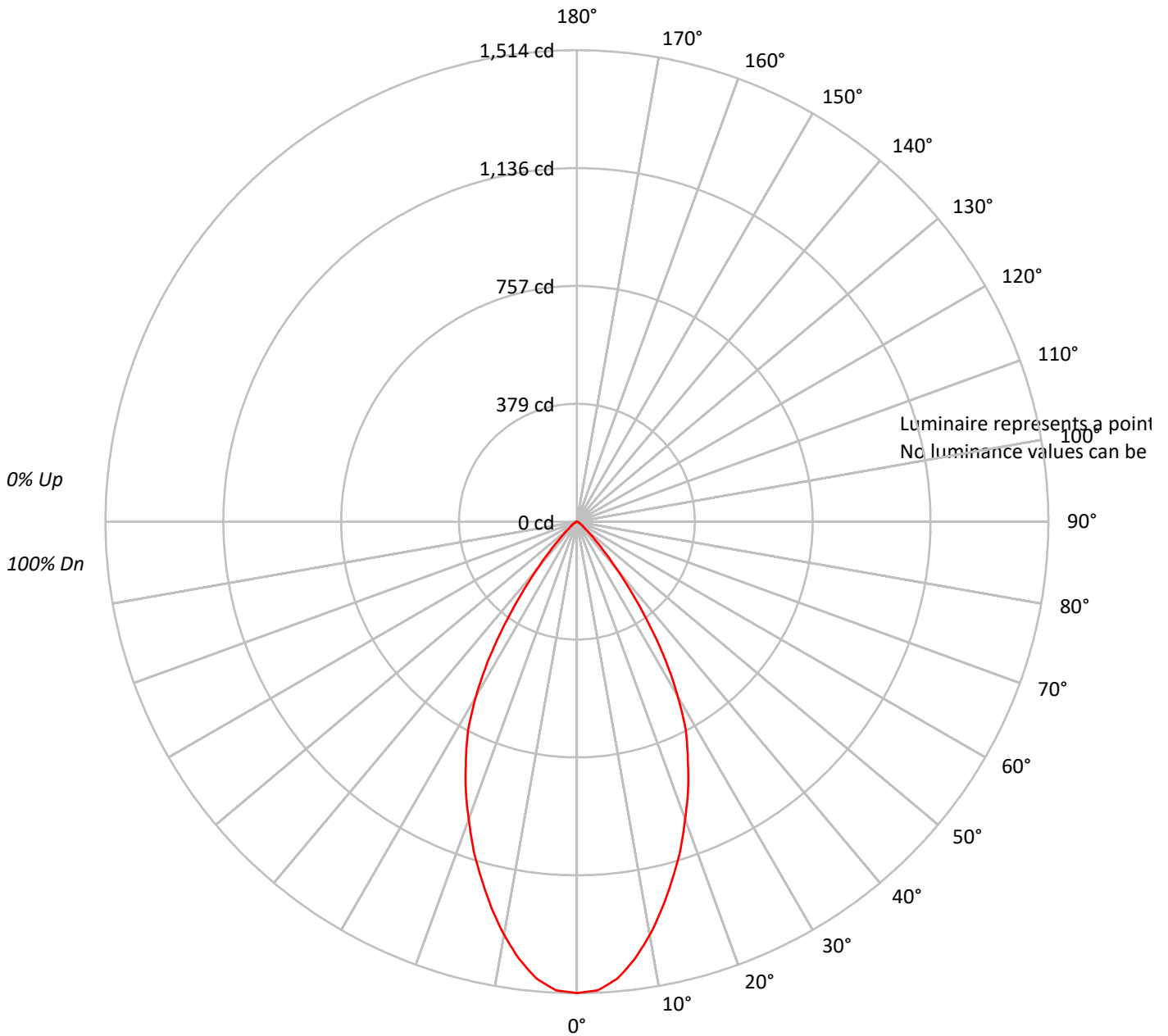
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93			
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87			
3	102	96	91	87	100	95	90	86	92	88	85	90	86	84	87	85	82	81			
4	97	90	84	80	95	89	83	79	86	82	78	84	81	78	83	79	77	75			
5	92	84	78	74	91	83	78	73	81	76	73	80	75	72	78	74	72	70			
6	88	79	73	69	86	78	72	68	77	72	68	75	71	67	74	70	67	65			
7	83	74	68	64	82	73	68	64	72	67	63	71	66	63	70	66	63	61			
8	79	70	64	60	78	69	64	60	68	63	59	67	63	59	66	62	59	58			
9	76	66	60	56	74	65	60	56	65	59	56	64	59	56	63	59	55	54			
10	72	62	57	53	71	62	56	53	61	56	53	60	56	52	60	55	52	51			

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.6	11.3
10°-20°	331.3	27.5
20°-30°	384.6	31.9
30°-40°	254.7	21.1
40°-50°	71.4	5.9
50°-60°	17.9	1.5
60°-70°	6.7	0.6
70°-80°	2.3	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°	852.5	70.7
0°-40°	1107.1	91.8
0°-60°	1196.5	99.3
0°-90°	1205.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1205.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1514	
5°	1474	137
15°	1186	331
25°	843	385
35°	408	255
45°	83	71
55°	20	18
65°	6	7
75°	2	2
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1513.7
2.5°	1507.1
5°	1474.4
7.5°	1417.5
10°	1347.7
12.5°	1269.0
15°	1186.0
17.5°	1105.2
20°	1015.7
22.5°	932.6
25°	843.1
27.5°	757.9
30°	648.7
32.5°	532.9
35°	408.4
37.5°	292.7
40°	198.7
42.5°	128.9
45°	83.1
47.5°	50.2
50°	32.7
52.5°	24.0
55°	19.6
57.5°	15.3
60°	10.9
62.5°	8.7
65°	6.5
67.5°	4.4
70°	4.4
72.5°	2.2
75°	2.2
77.5°	2.2
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)