

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: P211631

Luminaire Tested: **LE\_4B20D010 EC4B10209730 4LBS1GPH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211631  
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 EC4B10209730 4LBS1GPH  
Description: PORTFOLIO 4 INCH CYLINDER  
SHALLOW 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: 1580.1 lumens  
Efficiency: N/A  
Efficacy: 76.0 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.16 / 1.26  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

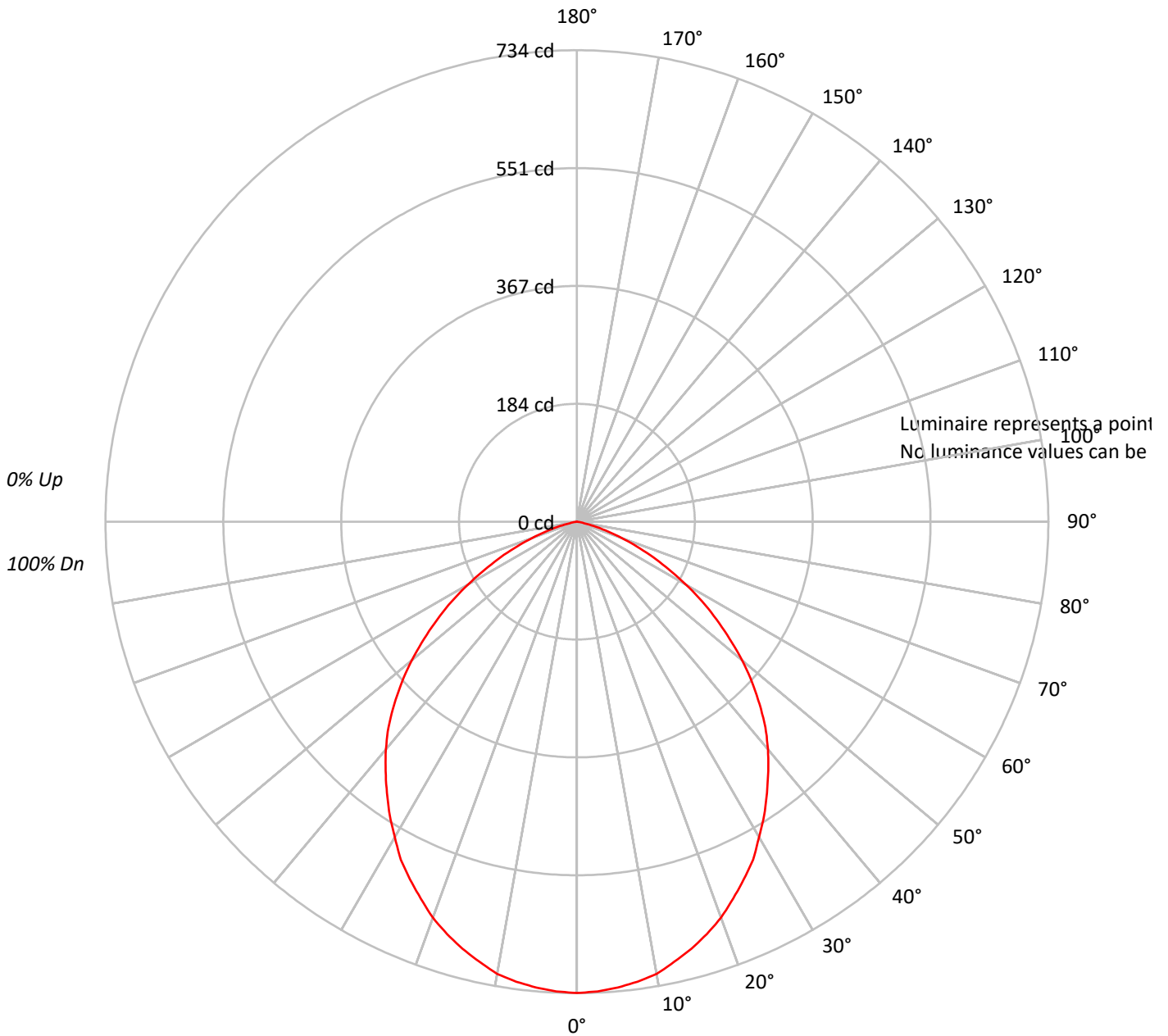
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	91	90	88			
2	102	95	89	84	100	93	88	83	90	85	82	87	83	80	84	81	78	76			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66			
4	87	76	68	62	85	75	67	62	72	66	61	70	65	60	68	63	59	57			
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50			
6	74	62	54	48	73	61	53	48	59	52	47	58	52	47	56	51	47	45			
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	32			
10	57	44	37	32	56	44	36	32	43	36	31	42	36	31	41	35	31	30			

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.1	4.4
10°-20°	193.9	12.3
20°-30°	282.9	17.9
30°-40°	322.6	20.4
40°-50°	309.5	19.6
50°-60°	237.0	15.0
60°-70°	130.0	8.2
70°-80°	34.6	2.2
80°-90°	0.5	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°	545.9	34.6
0°-40°	868.5	55.0
0°-60°	1414.9	89.5
0°-90°	1580.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1580.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	734	
5°	728	69
15°	688	194
25°	614	283
35°	516	323
45°	402	309
55°	266	237
65°	131	130
75°	30	35
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	733.8
2.5°	732.0
5°	728.1
7.5°	722.4
10°	714.9
12.5°	701.7
15°	688.3
17.5°	673.1
20°	656.1
22.5°	635.2
25°	614.5
27.5°	593.6
30°	567.0
32.5°	542.3
35°	515.7
37.5°	489.3
40°	462.7
42.5°	434.3
45°	402.1
47.5°	369.8
50°	335.6
52.5°	299.6
55°	265.5
57.5°	231.3
60°	195.3
62.5°	161.2
65°	130.8
67.5°	100.5
70°	74.0
72.5°	49.3
75°	30.4
77.5°	13.2
80°	3.8
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)