

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: P211520

Luminaire Tested: **LE\_4B20D010 EC4B10209027 4LBS1WMH**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211520  
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 4LBS1WMH  
Description: PORTFOLIO 4 INCH CYLINDER  
SHALLOW DISTRIBUTION WITH WARM 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: 1920.8 lumens  
Efficiency: N/A  
Efficacy: 92.3 lumens/watt  
Spacing Criteria (0/90/45): 0.99 / 0.99 / 1.08  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

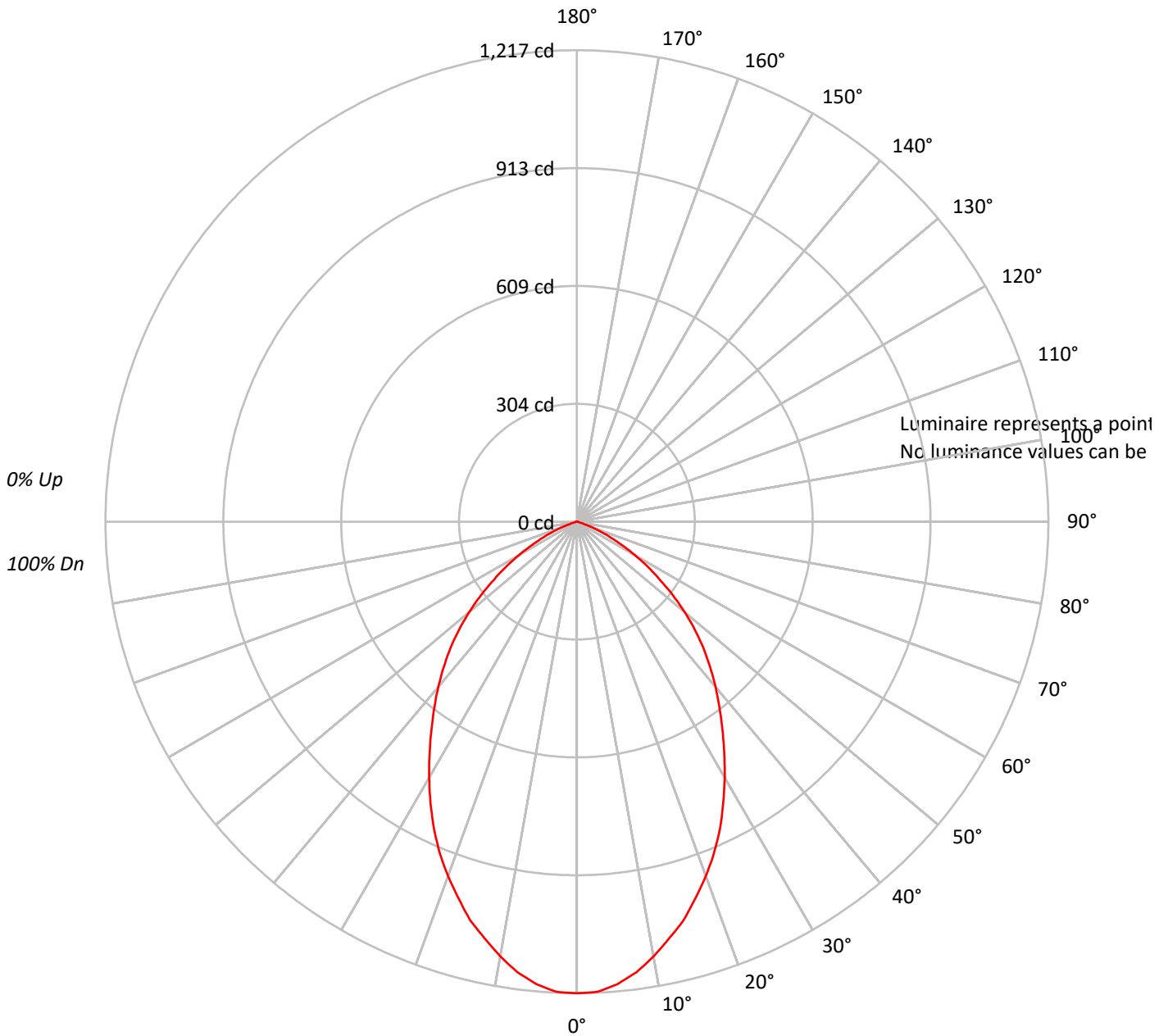
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P211520

CATALOG NUMBER: LE\_4B20D010 EC4B10209027 4LBS1WMH

### Luminous Intensity Polar Plot





TEST NUMBER: P211520

CATALOG NUMBER: LE\_4B20D010 EC4B10209027 4LBS1WMH

**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	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79			
3	96	88	82	76	94	87	81	76	84	79	74	81	77	73	79	75	72	70			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62			
5	83	73	65	59	82	72	64	59	70	63	59	68	62	58	66	61	57	56			
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50			
7	73	61	53	48	71	60	53	48	59	52	48	57	52	47	56	51	47	45			
8	68	56	49	44	67	56	48	43	54	48	43	53	47	43	52	47	43	41			
9	64	52	45	40	63	52	45	40	50	44	40	49	44	39	49	43	39	38			
10	60	48	41	37	59	48	41	37	47	41	36	46	40	36	45	40	36	35			

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





TEST NUMBER: P211520

CATALOG NUMBER: LE\_4B20D010 EC4B10209027 4LBS1WMH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.5	5.9
10°-20°	298.2	15.5
20°-30°	400.4	20.8
30°-40°	409.9	21.3
40°-50°	354.8	18.5
50°-60°	236.0	12.3
60°-70°	97.0	5.0
70°-80°	11.5	0.6
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°	811.1	42.2
0°-40°	1221.0	63.6
0°-60°	1811.8	94.3
0°-90°	1920.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1920.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1217	
5°	1198	113
15°	1065	298
25°	874	400
35°	655	410
45°	462	355
55°	262	236
65°	96	97
75°	5	12
85°	0	1
90°	0	



TEST NUMBER: P211520

CATALOG NUMBER: LE\_4B20D010 EC4B10209027 4LBS1WMH

**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1217.3
2.5°	1214.9
5°	1198.5
7.5°	1173.3
10°	1139.4
12.5°	1101.5
15°	1065.0
17.5°	1018.5
20°	973.1
22.5°	925.3
25°	873.7
27.5°	818.3
30°	762.9
32.5°	707.5
35°	654.6
37.5°	604.2
40°	556.5
42.5°	508.5
45°	462.0
47.5°	413.0
50°	362.6
52.5°	312.2
55°	261.8
57.5°	217.8
60°	172.5
62.5°	131.0
65°	95.7
67.5°	63.0
70°	36.5
72.5°	17.6
75°	5.0
77.5°	2.6
80°	1.3
82.5°	1.3
85°	0.0
87.5°	0.0
90°	0.0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°







(END OF REPORT)