

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: P211605

Luminaire Tested: **LE\_4B20D010 EC4B10209030 4LBS1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P211605  
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 EC4B10209030 4LBS1MW  
Description: PORTFOLIO 4 INCH CYLINDER  
SHALLOW DISTRIBUTION WITH MATTE WHITE 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: 2055.1 lumens  
Efficiency: N/A  
Efficacy: 98.8 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.34  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

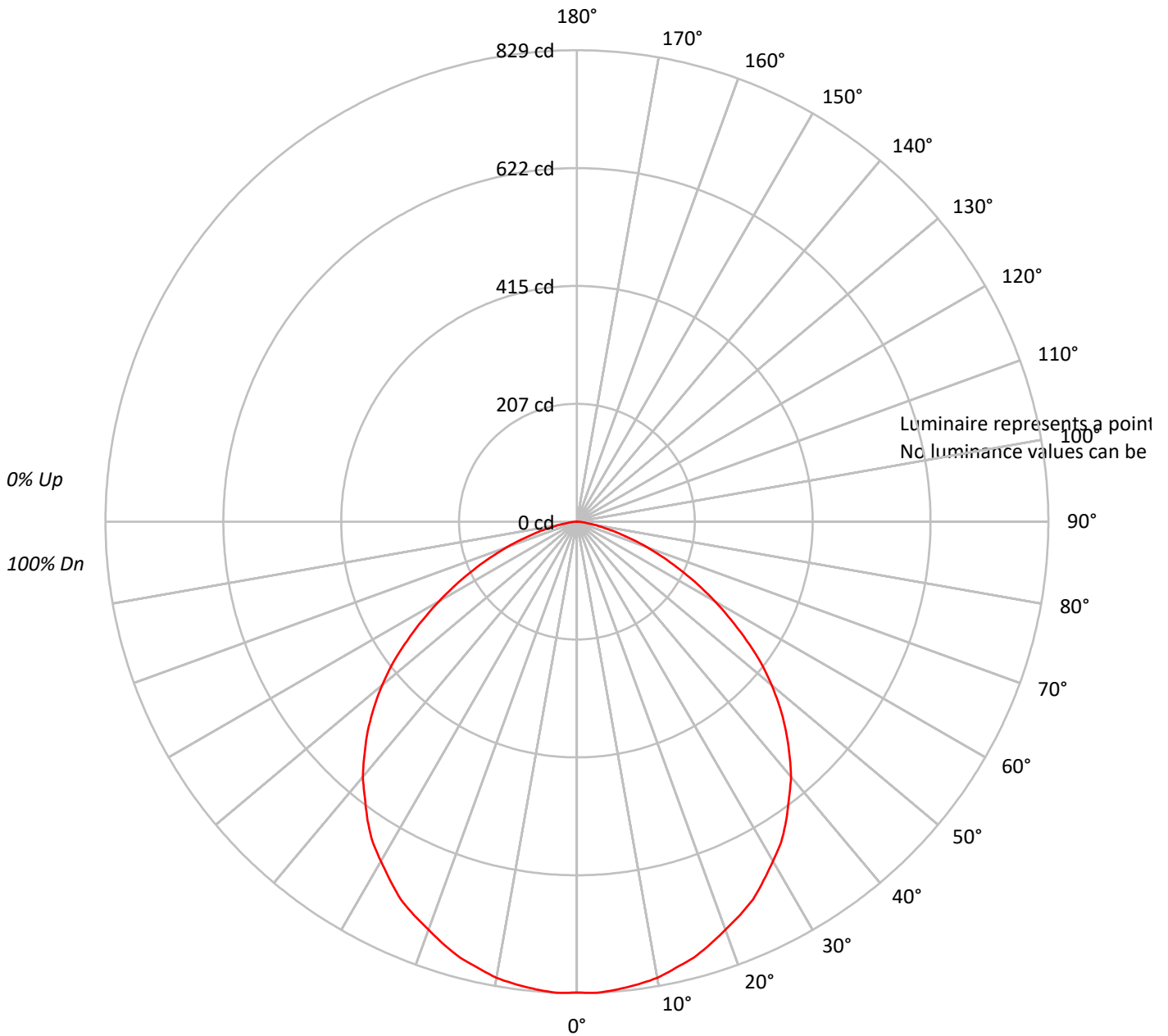
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				20				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				100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86				86
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74				74
3	93	83	75	69	90	81	74	69	78	72	67	76	70	66	73	69	65	63				63
4	85	74	66	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	49	47				47
6	73	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42				42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37				37
8	63	50	41	36	61	49	41	36	48	41	35	46	40	35	45	39	35	33				33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30				30
10	55	42	34	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27				27

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





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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.5	3.8
10°-20°	223.6	10.9
20°-30°	336.8	16.4
30°-40°	400.8	19.5
40°-50°	400.0	19.5
50°-60°	325.3	15.8
60°-70°	200.1	9.7
70°-80°	77.5	3.8
80°-90°	12.4	0.6
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°	638.9	31.1
0°-40°	1039.7	50.6
0°-60°	1765.0	85.9
0°-90°	2055.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2055.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	828	
5°	826	78
15°	794	224
25°	733	337
35°	642	401
45°	520	400
55°	364	325
65°	201	200
75°	71	78
85°	10	12
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	828.0
2.5°	829.3
5°	825.6
7.5°	820.7
10°	814.7
12.5°	803.6
15°	793.9
17.5°	779.3
20°	763.5
22.5°	748.9
25°	733.0
27.5°	711.1
30°	689.3
32.5°	668.5
35°	641.7
37.5°	612.5
40°	585.7
42.5°	552.9
45°	519.9
47.5°	484.6
50°	446.9
52.5°	408.0
55°	364.1
57.5°	321.4
60°	280.0
62.5°	239.9
65°	200.9
67.5°	164.4
70°	130.3
72.5°	98.6
75°	70.6
77.5°	46.3
80°	28.0
82.5°	17.1
85°	9.7
87.5°	4.9
90°	0.0



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— 0°-180°







(END OF REPORT)