

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: P274335

Luminaire Tested: **LD4B15DE010W2N2050 EU4B1020W2N902050 4LBDW0LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274335  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-14)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD4B15DE010W2N2050 EU4B1020W2N902050 4LBDW0LI  
Description: PORTFOLIO 4" W2N RN DOWNLIGHT, DOUBLE WALLWASH WITH SPECULAR FINISH  
Light Source: W2N 2000K-5000K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1118.4 lumens  
Efficiency: N/A  
Efficacy: 50.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.32 / 1.18  
Luminous Opening: Circular (Dia: 7.42' x H: 0')  
CIE Type: Direct

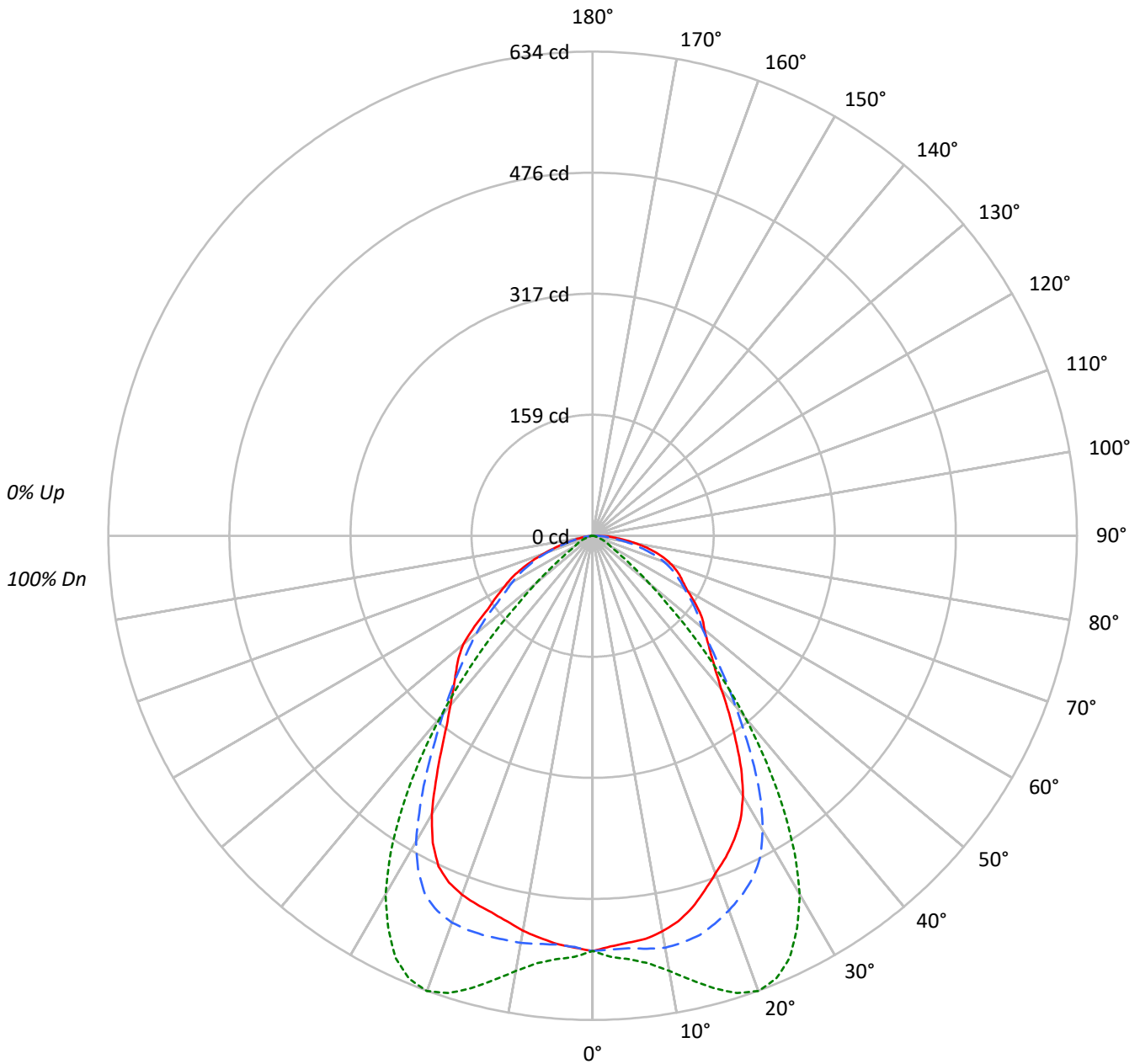
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
RC	80									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	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47																			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

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

	0°	90°	180°
0°	135	135	135
5°	134	139	134
10°	133	146	133
15°	130	158	132
20°	125	168	133
25°	121	168	131
30°	113	156	121
35°	99	132	105
40°	85	101	94
45°	77	66	89
50°	74	37	86
55°	74	20	73
60°	71	13	66
65°	75	11	60
70°	80	8	49
75°	84	5	34
80°	82	3	22
85°	85	2	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.1	4.7
10°-20°	155.8	13.9
20°-30°	237.7	21.3
30°-40°	237.3	21.2
40°-50°	175.0	15.6
50°-60°	119.5	10.7
60°-70°	84.4	7.5
70°-80°	45.1	4.0
80°-90°	11.6	1.0
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°	445.6	39.8
0°-40°	682.9	61.1
0°-60°	977.4	87.4
0°-90°	1118.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1118.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	544	544	544	544	544	
5°	535	542	557	537	536	51
15°	504	541	613	542	511	141
25°	439	495	610	519	478	201
35°	326	368	435	379	346	204
45°	219	230	188	246	253	171
55°	170	163	46	152	167	151
65°	127	120	19	93	103	125
75°	87	71	6	32	36	91
85°	30	19	1	4	0	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8	543.8
2.5°	538.2	541.4	542.2	547.8	551.9	547.0	539.0	539.0	539.8
5°	534.9	539.0	542.2	551.9	556.7	548.7	537.3	535.7	536.5
7.5°	532.5	538.2	545.4	560.0	564.8	554.3	539.0	532.5	530.9
10°	526.0	534.1	547.8	568.9	578.6	565.6	541.4	529.3	525.2
12.5°	517.1	526.8	545.4	578.6	595.5	576.1	541.4	523.6	517.1
15°	504.2	514.7	541.4	586.6	613.3	587.4	542.2	517.9	510.7
17.5°	487.2	500.2	532.5	590.7	627.8	597.9	541.4	513.9	505.8
20°	470.3	485.6	522.0	590.7	634.3	602.0	539.0	509.9	500.2
22.5°	455.7	471.1	509.9	583.4	627.8	597.1	531.7	502.6	491.3
25°	438.8	454.9	495.3	568.0	610.1	582.6	518.8	488.1	477.5
27.5°	419.4	437.1	475.1	543.8	579.4	555.9	494.5	464.6	453.3
30°	393.5	409.7	445.2	509.1	542.2	519.6	462.2	431.5	421.0
32.5°	362.0	376.5	409.7	467.0	492.1	473.5	420.2	394.3	382.2
35°	326.4	339.4	368.5	413.7	434.7	423.4	379.0	354.7	345.8
37.5°	293.3	303.0	327.3	360.4	373.3	366.0	338.6	320.8	313.5
40°	261.8	271.5	290.9	307.1	310.3	312.7	304.6	293.3	289.3
42.5°	237.6	246.5	258.6	257.0	247.3	261.0	273.9	272.3	269.1
45°	219.0	225.4	229.5	205.2	188.3	210.9	245.6	254.5	252.9
47.5°	203.6	206.9	204.4	164.0	133.3	164.0	220.6	238.4	238.4
50°	190.7	193.1	186.7	136.6	96.2	131.7	198.8	218.2	221.4
52.5°	181.8	182.6	174.5	115.5	66.3	104.2	175.3	192.3	194.7
55°	169.7	170.5	163.2	100.2	46.1	82.4	151.9	167.3	167.3
57.5°	156.0	157.6	150.3	87.3	32.3	68.7	134.1	148.7	149.5
60°	143.0	143.8	139.0	77.6	26.7	59.0	121.2	133.3	133.3
62.5°	134.1	134.9	129.3	71.9	22.6	51.7	107.5	118.8	119.6
65°	126.9	126.9	120.4	66.3	18.6	43.6	92.9	102.6	102.6
67.5°	118.8	117.2	110.7	59.0	14.5	35.6	78.4	85.7	84.8
70°	109.9	107.5	99.4	50.9	10.5	28.3	61.4	67.1	67.9
72.5°	99.4	96.2	85.7	42.0	8.1	21.0	45.2	50.1	50.1
75°	87.3	83.2	71.1	33.1	5.7	14.5	32.3	35.6	35.6
77.5°	72.7	68.7	56.6	24.2	4.0	9.7	21.8	24.2	24.2
80°	57.4	53.3	42.0	17.0	2.4	5.7	13.7	16.2	15.4
82.5°	42.8	38.8	28.3	10.5	1.6	3.2	8.9	8.9	8.1
85°	29.9	27.5	19.4	6.5	0.8	1.6	4.0	1.6	0.0
87.5°	20.2	17.8	12.1	3.2	0.0	0.8	0.8	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)