

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: P274331

Luminaire Tested: **LD4B10DE010W2N2765 EU4B1020W2N902765 4LBDW0LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274331  
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: LD4B10DE010W2N2765 EU4B1020W2N902765 4LBDW0LI  
Description: PORTFOLIO 4" W2N RN DOWNLIGHT, DOUBLE WALLWASH WITH SPECULAR FINISH  
Light Source: W2N 2700K-6500K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 941.6 lumens  
Efficiency: N/A  
Efficacy: 67.3 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

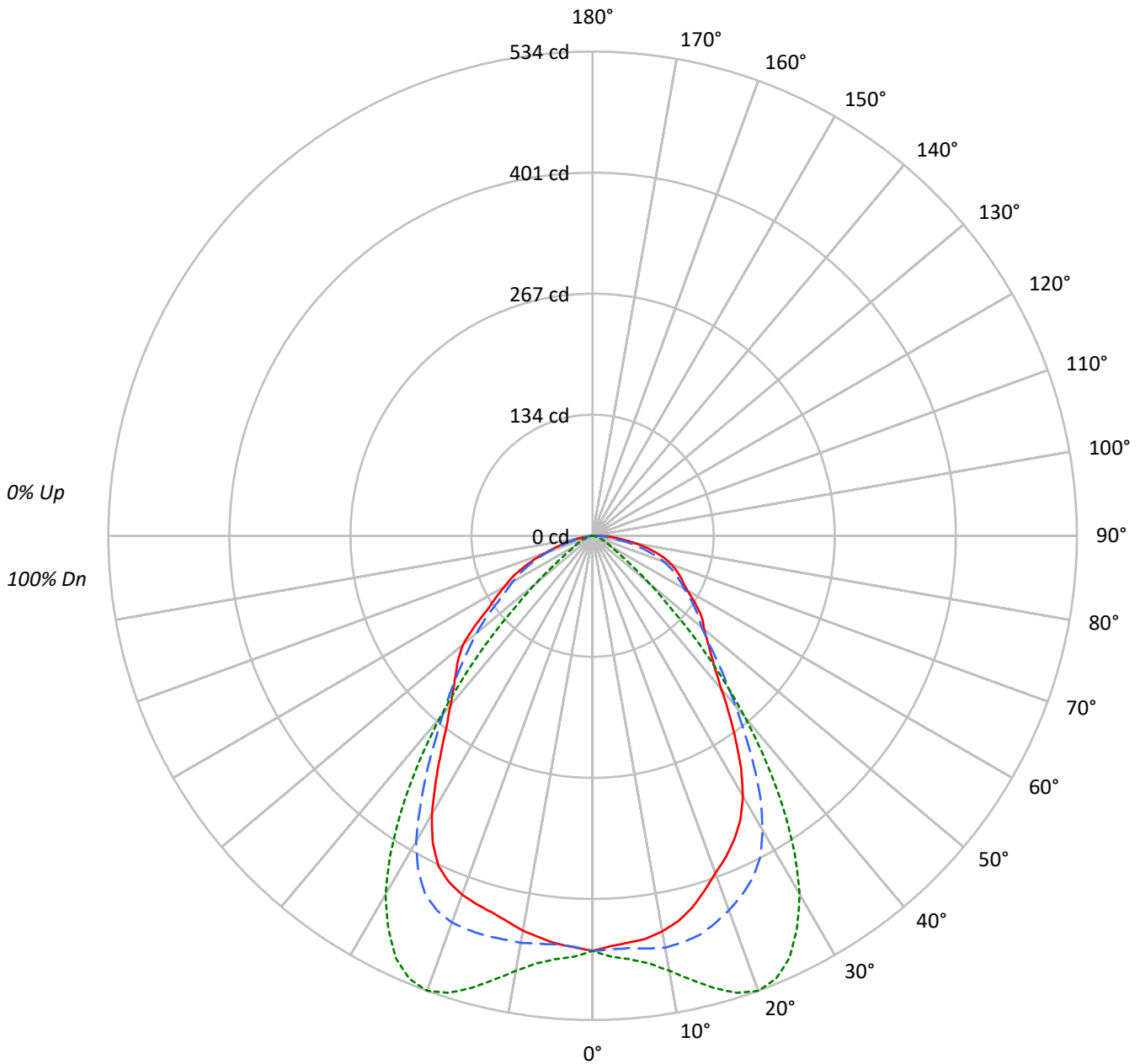
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P274331

CATALOG NUMBER: LD4B10DE010W2N2765 EU4B1020W2N902765 4LBDW0LI

### Luminous Intensity Polar Plot





TEST NUMBER: P274331

CATALOG NUMBER: LD4B10DE010W2N2765 EU4B1020W2N902765 4LBDW0LI

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

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

	0°	90°	180°
0°	114	114	114
5°	113	117	113
10°	112	123	112
15°	109	133	111
20°	105	142	112
25°	102	141	111
30°	95	131	102
35°	84	111	89
40°	72	85	79
45°	65	56	75
50°	62	31	72
55°	62	17	61
60°	60	11	56
65°	63	9	51
70°	67	6	42
75°	71	5	29
80°	69	3	19
85°	72	2	0



TEST NUMBER: P274331

CATALOG NUMBER: LD4B10DE010W2N2765 EU4B1020W2N902765 4LBDW0LI

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.8	4.7
10°-20°	131.2	13.9
20°-30°	200.1	21.3
30°-40°	199.8	21.2
40°-50°	147.3	15.6
50°-60°	100.6	10.7
60°-70°	71.0	7.5
70°-80°	37.9	4.0
80°-90°	9.7	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°	375.2	39.8
0°-40°	574.9	61.1
0°-60°	822.9	87.4
0°-90°	941.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	941.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	458	458	458	458	458	
5°	450	456	469	452	452	43
15°	424	456	516	456	430	119
25°	369	417	514	437	402	169
35°	275	310	366	319	291	172
45°	184	193	158	207	213	144
55°	143	137	39	128	141	127
65°	107	101	16	78	86	106
75°	74	60	5	27	30	76
85°	25	16	1	3	0	28
90°	0	0	0	0	0	



TEST NUMBER: P274331

CATALOG NUMBER: LD4B10DE010W2N2765 EU4B1020W2N902765 4LBDW0LI

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	457.8	457.8	457.8	457.8	457.8	457.8	457.8	457.8	457.8
2.5°	453.1	455.8	456.5	461.2	464.6	460.6	453.8	453.8	454.4
5°	450.4	453.8	456.5	464.6	468.7	461.9	452.4	451.0	451.7
7.5°	448.3	453.1	459.2	471.4	475.5	466.7	453.8	448.3	447.0
10°	442.9	449.7	461.2	478.9	487.1	476.2	455.8	445.6	442.2
12.5°	435.4	443.6	459.2	487.1	501.4	485.1	455.8	440.8	435.4
15°	424.5	433.3	455.8	493.9	516.3	494.6	456.5	436.1	429.9
17.5°	410.2	421.1	448.3	497.3	528.6	503.4	455.8	432.7	425.9
20°	395.9	408.9	439.5	497.3	534.0	506.8	453.8	429.3	421.1
22.5°	383.7	396.6	429.3	491.2	528.6	502.7	447.6	423.1	413.6
25°	369.4	383.0	417.0	478.2	513.6	490.5	436.7	410.9	402.1
27.5°	353.1	368.0	400.0	457.8	487.8	468.0	416.3	391.2	381.6
30°	331.3	344.9	374.8	428.6	456.5	437.4	389.1	363.3	354.4
32.5°	304.8	317.0	344.9	393.2	414.3	398.7	353.8	332.0	321.8
35°	274.8	285.7	310.2	348.3	366.0	356.5	319.1	298.6	291.2
37.5°	246.9	255.1	275.5	303.4	314.3	308.2	285.0	270.1	264.0
40°	220.4	228.6	244.9	258.5	261.2	263.3	256.5	246.9	243.5
42.5°	200.0	207.5	217.7	216.3	208.2	219.7	230.6	229.3	226.5
45°	184.4	189.8	193.2	172.8	158.5	177.6	206.8	214.3	212.9
47.5°	171.4	174.2	172.1	138.1	112.2	138.1	185.7	200.7	200.7
50°	160.5	162.6	157.1	115.0	81.0	110.9	167.4	183.7	186.4
52.5°	153.1	153.7	146.9	97.3	55.8	87.8	147.6	161.9	164.0
55°	142.9	143.5	137.4	84.4	38.8	69.4	127.9	140.8	140.8
57.5°	131.3	132.7	126.5	73.5	27.2	57.8	112.9	125.2	125.9
60°	120.4	121.1	117.0	65.3	22.4	49.7	102.0	112.2	112.2
62.5°	112.9	113.6	108.8	60.5	19.0	43.5	90.5	100.0	100.7
65°	106.8	106.8	101.4	55.8	15.6	36.7	78.2	86.4	86.4
67.5°	100.0	98.6	93.2	49.7	12.2	29.9	66.0	72.1	71.4
70°	92.5	90.5	83.7	42.9	8.8	23.8	51.7	56.5	57.1
72.5°	83.7	81.0	72.1	35.4	6.8	17.7	38.1	42.2	42.2
75°	73.5	70.1	59.9	27.9	4.8	12.2	27.2	29.9	29.9
77.5°	61.2	57.8	47.6	20.4	3.4	8.2	18.4	20.4	20.4
80°	48.3	44.9	35.4	14.3	2.0	4.8	11.6	13.6	12.9
82.5°	36.1	32.7	23.8	8.8	1.4	2.7	7.5	7.5	6.8
85°	25.2	23.1	16.3	5.4	0.7	1.4	3.4	1.4	0.0
87.5°	17.0	15.0	10.2	2.7	0.0	0.7	0.7	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







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







(END OF REPORT)