

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: P251827

Luminaire Tested: **LD4B10D010 EU4B10209727 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251827  
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: LD4B10D010 EU4B10209727 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 692.0 lumens  
Efficiency: N/A  
Efficacy: 68.9 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

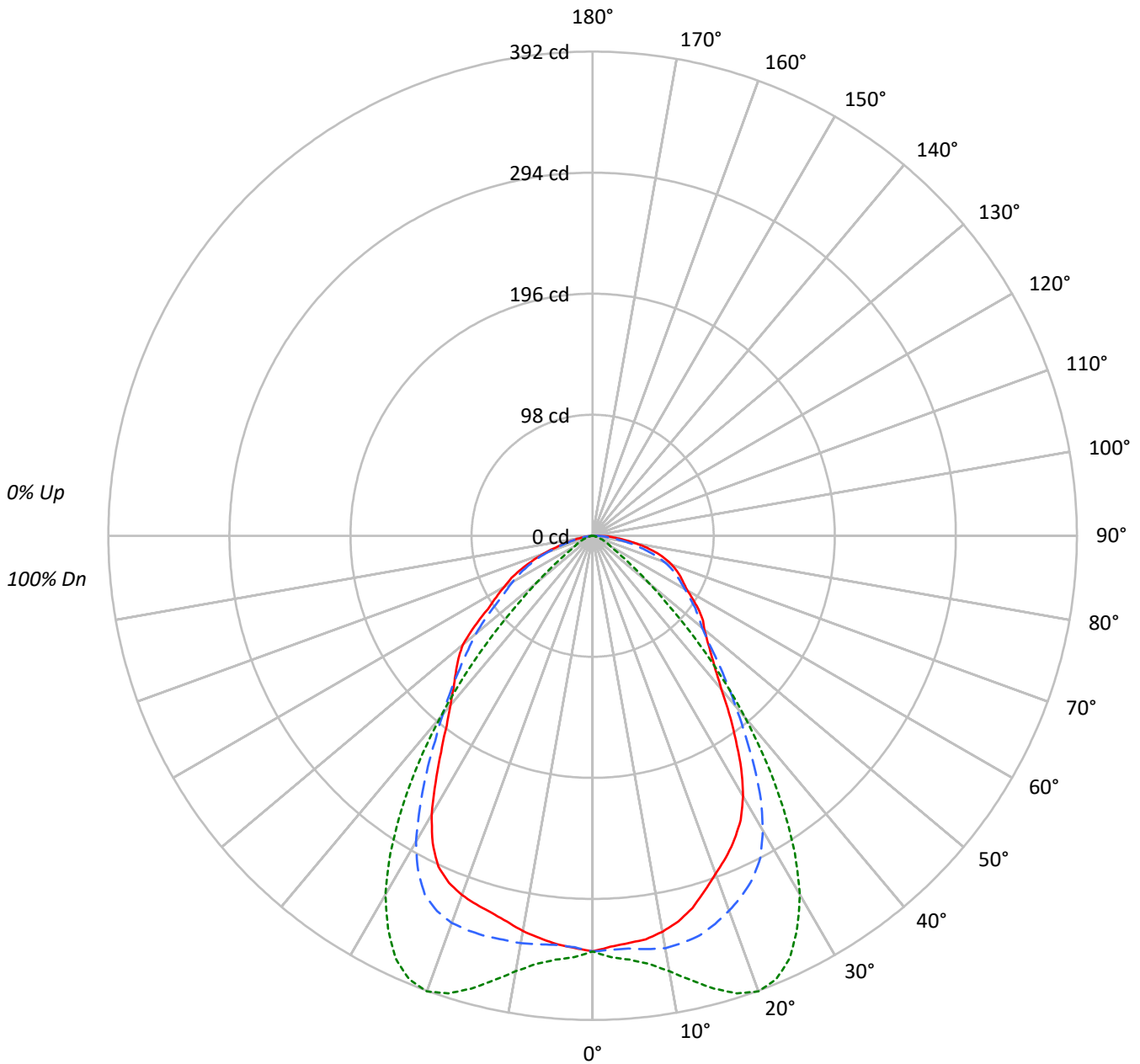
Input Watts (W): 10.05  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	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°	84	84	84
5°	83	86	83
10°	82	91	82
15°	80	98	82
20°	77	104	82
25°	75	104	81
30°	70	97	75
35°	61	82	65
40°	53	62	58
45°	48	41	55
50°	46	23	53
55°	46	12	45
60°	44	8	41
65°	46	7	37
70°	50	5	31
75°	52	3	21
80°	51	2	14
85°	53	1	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.2	4.7
10°-20°	96.4	13.9
20°-30°	147.1	21.3
30°-40°	146.8	21.2
40°-50°	108.3	15.6
50°-60°	74.0	10.7
60°-70°	52.2	7.5
70°-80°	27.9	4.0
80°-90°	7.2	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°	275.7	39.8
0°-40°	422.6	61.1
0°-60°	604.8	87.4
0°-90°	692.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	692.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	336	336	336	336	336	
5°	331	336	344	332	332	31
15°	312	335	380	336	316	87
25°	272	306	378	321	296	124
35°	202	228	269	234	214	126
45°	136	142	116	152	156	106
55°	105	101	28	94	104	93
65°	78	74	12	58	64	78
75°	54	44	4	20	22	56
85°	18	12	0	2	0	20
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°	336.5	336.5	336.5	336.5	336.5	336.5	336.5	336.5	336.5
2.5°	333.0	335.0	335.5	339.0	341.5	338.5	333.5	333.5	334.0
5°	331.0	333.5	335.5	341.5	344.5	339.5	332.5	331.5	332.0
7.5°	329.5	333.0	337.5	346.5	349.5	343.0	333.5	329.5	328.5
10°	325.5	330.5	339.0	352.0	358.0	350.0	335.0	327.5	325.0
12.5°	320.0	326.0	337.5	358.0	368.5	356.5	335.0	324.0	320.0
15°	312.0	318.5	335.0	363.0	379.5	363.5	335.5	320.5	316.0
17.5°	301.5	309.5	329.5	365.5	388.5	370.0	335.0	318.0	313.0
20°	291.0	300.5	323.0	365.5	392.5	372.5	333.5	315.5	309.5
22.5°	282.0	291.5	315.5	361.0	388.5	369.5	329.0	311.0	304.0
25°	271.5	281.5	306.5	351.5	377.5	360.5	321.0	302.0	295.5
27.5°	259.5	270.5	294.0	336.5	358.5	344.0	306.0	287.5	280.5
30°	243.5	253.5	275.5	315.0	335.5	321.5	286.0	267.0	260.5
32.5°	224.0	233.0	253.5	289.0	304.5	293.0	260.0	244.0	236.5
35°	202.0	210.0	228.0	256.0	269.0	262.0	234.5	219.5	214.0
37.5°	181.5	187.5	202.5	223.0	231.0	226.5	209.5	198.5	194.0
40°	162.0	168.0	180.0	190.0	192.0	193.5	188.5	181.5	179.0
42.5°	147.0	152.5	160.0	159.0	153.0	161.5	169.5	168.5	166.5
45°	135.5	139.5	142.0	127.0	116.5	130.5	152.0	157.5	156.5
47.5°	126.0	128.0	126.5	101.5	82.5	101.5	136.5	147.5	147.5
50°	118.0	119.5	115.5	84.5	59.5	81.5	123.0	135.0	137.0
52.5°	112.5	113.0	108.0	71.5	41.0	64.5	108.5	119.0	120.5
55°	105.0	105.5	101.0	62.0	28.5	51.0	94.0	103.5	103.5
57.5°	96.5	97.5	93.0	54.0	20.0	42.5	83.0	92.0	92.5
60°	88.5	89.0	86.0	48.0	16.5	36.5	75.0	82.5	82.5
62.5°	83.0	83.5	80.0	44.5	14.0	32.0	66.5	73.5	74.0
65°	78.5	78.5	74.5	41.0	11.5	27.0	57.5	63.5	63.5
67.5°	73.5	72.5	68.5	36.5	9.0	22.0	48.5	53.0	52.5
70°	68.0	66.5	61.5	31.5	6.5	17.5	38.0	41.5	42.0
72.5°	61.5	59.5	53.0	26.0	5.0	13.0	28.0	31.0	31.0
75°	54.0	51.5	44.0	20.5	3.5	9.0	20.0	22.0	22.0
77.5°	45.0	42.5	35.0	15.0	2.5	6.0	13.5	15.0	15.0
80°	35.5	33.0	26.0	10.5	1.5	3.5	8.5	10.0	9.5
82.5°	26.5	24.0	17.5	6.5	1.0	2.0	5.5	5.5	5.0
85°	18.5	17.0	12.0	4.0	0.5	1.0	2.5	1.0	0.0
87.5°	12.5	11.0	7.5	2.0	0.0	0.5	0.5	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)