

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: P251838

Luminaire Tested: **LD4B15D010 EU4B10209040 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251838  
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: LD4B15D010 EU4B10209040 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1172.0 lumens  
Efficiency: N/A  
Efficacy: 81.4 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

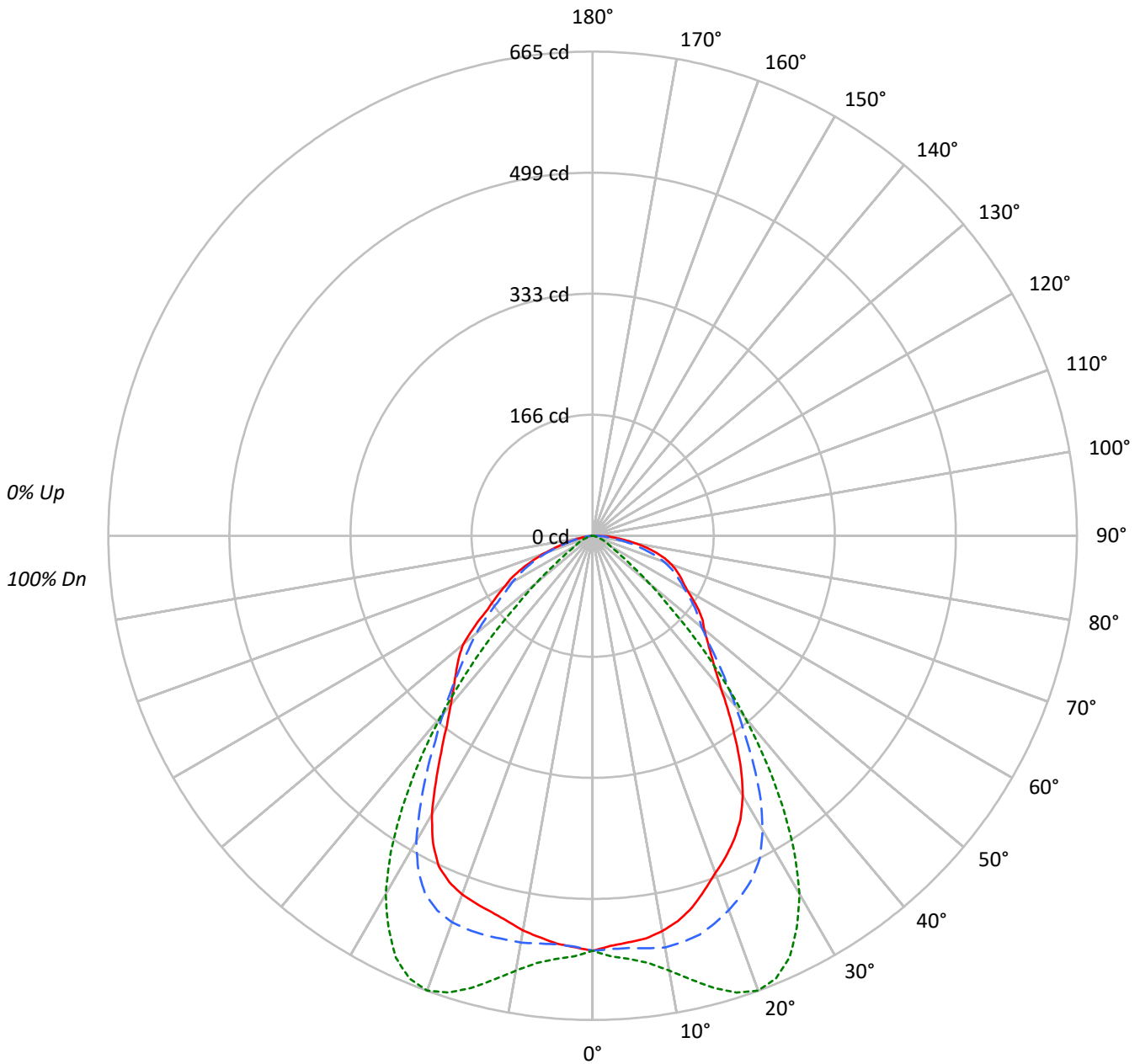
Input Watts (W): 14.39  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	142	142	142
5°	140	146	141
10°	139	153	139
15°	136	166	138
20°	131	176	139
25°	126	176	138
30°	119	163	127
35°	104	139	110
40°	89	106	99
45°	81	70	93
50°	77	39	90
55°	77	21	76
60°	75	14	70
65°	78	11	63
70°	84	8	52
75°	88	6	36
80°	86	4	23
85°	89	2	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.6	4.7
10°-20°	163.3	13.9
20°-30°	249.1	21.3
30°-40°	248.6	21.2
40°-50°	183.3	15.6
50°-60°	125.3	10.7
60°-70°	88.4	7.5
70°-80°	47.2	4.0
80°-90°	12.1	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°	467.0	39.8
0°-40°	715.6	61.1
0°-60°	1024.2	87.4
0°-90°	1172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1172.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	570	570	570	570	570	
5°	561	568	583	563	562	53
15°	528	567	643	568	535	148
25°	460	519	639	544	500	211
35°	342	386	456	397	362	214
45°	230	240	197	257	265	179
55°	178	171	48	159	175	158
65°	133	126	20	97	108	131
75°	92	74	6	34	37	95
85°	31	20	1	4	0	35
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°	569.9	569.9	569.9	569.9	569.9	569.9	569.9	569.9	569.9
2.5°	563.9	567.3	568.2	574.1	578.3	573.3	564.8	564.8	565.6
5°	560.6	564.8	568.2	578.3	583.4	575.0	563.1	561.4	562.3
7.5°	558.0	563.9	571.6	586.8	591.9	580.9	564.8	558.0	556.3
10°	551.2	559.7	574.1	596.1	606.3	592.7	567.3	554.6	550.4
12.5°	541.9	552.1	571.6	606.3	624.1	603.7	567.3	548.7	541.9
15°	528.4	539.4	567.3	614.8	642.7	615.6	568.2	542.8	535.2
17.5°	510.6	524.1	558.0	619.0	657.9	626.6	567.3	538.5	530.1
20°	492.8	508.9	547.0	619.0	664.7	630.8	564.8	534.3	524.1
22.5°	477.6	493.7	534.3	611.4	657.9	625.8	557.2	526.7	514.8
25°	459.8	476.7	519.1	595.3	639.3	610.5	543.6	511.4	500.4
27.5°	439.5	458.1	497.9	569.9	607.1	582.6	518.2	486.9	475.0
30°	412.4	429.3	466.6	533.5	568.2	544.5	484.3	452.2	441.2
32.5°	379.4	394.6	429.3	489.4	515.7	496.2	440.3	413.2	400.5
35°	342.1	355.6	386.1	433.5	455.6	443.7	397.1	371.7	362.4
37.5°	307.4	317.5	342.9	377.7	391.2	383.6	354.8	336.2	328.5
40°	274.4	284.5	304.8	321.8	325.2	327.7	319.2	307.4	303.1
42.5°	248.9	258.3	271.0	269.3	259.1	273.5	287.1	285.4	282.0
45°	229.5	236.2	240.5	215.1	197.3	221.0	257.4	266.7	265.0
47.5°	213.4	216.8	214.2	171.9	139.7	171.9	231.2	249.8	249.8
50°	199.8	202.4	195.6	143.1	100.8	138.0	208.3	228.6	232.0
52.5°	190.5	191.4	182.9	121.1	69.4	109.2	183.7	201.5	204.1
55°	177.8	178.7	171.0	105.0	48.3	86.4	159.2	175.3	175.3
57.5°	163.4	165.1	157.5	91.5	33.9	72.0	140.6	155.8	156.7
60°	149.9	150.7	145.6	81.3	27.9	61.8	127.0	139.7	139.7
62.5°	140.6	141.4	135.5	75.4	23.7	54.2	112.6	124.5	125.3
65°	132.9	132.9	126.2	69.4	19.5	45.7	97.4	107.5	107.5
67.5°	124.5	122.8	116.0	61.8	15.2	37.3	82.1	89.8	88.9
70°	115.2	112.6	104.2	53.3	11.0	29.6	64.4	70.3	71.1
72.5°	104.2	100.8	89.8	44.0	8.5	22.0	47.4	52.5	52.5
75°	91.5	87.2	74.5	34.7	5.9	15.2	33.9	37.3	37.3
77.5°	76.2	72.0	59.3	25.4	4.2	10.2	22.9	25.4	25.4
80°	60.1	55.9	44.0	17.8	2.5	5.9	14.4	16.9	16.1
82.5°	44.9	40.6	29.6	11.0	1.7	3.4	9.3	9.3	8.5
85°	31.3	28.8	20.3	6.8	0.8	1.7	4.2	1.7	0.0
87.5°	21.2	18.6	12.7	3.4	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)