

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: P251831

Luminaire Tested: **LD4B15D010 EU4B10208035 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251831  
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 EU4B10208035 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1384.1 lumens  
Efficiency: N/A  
Efficacy: 96.2 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

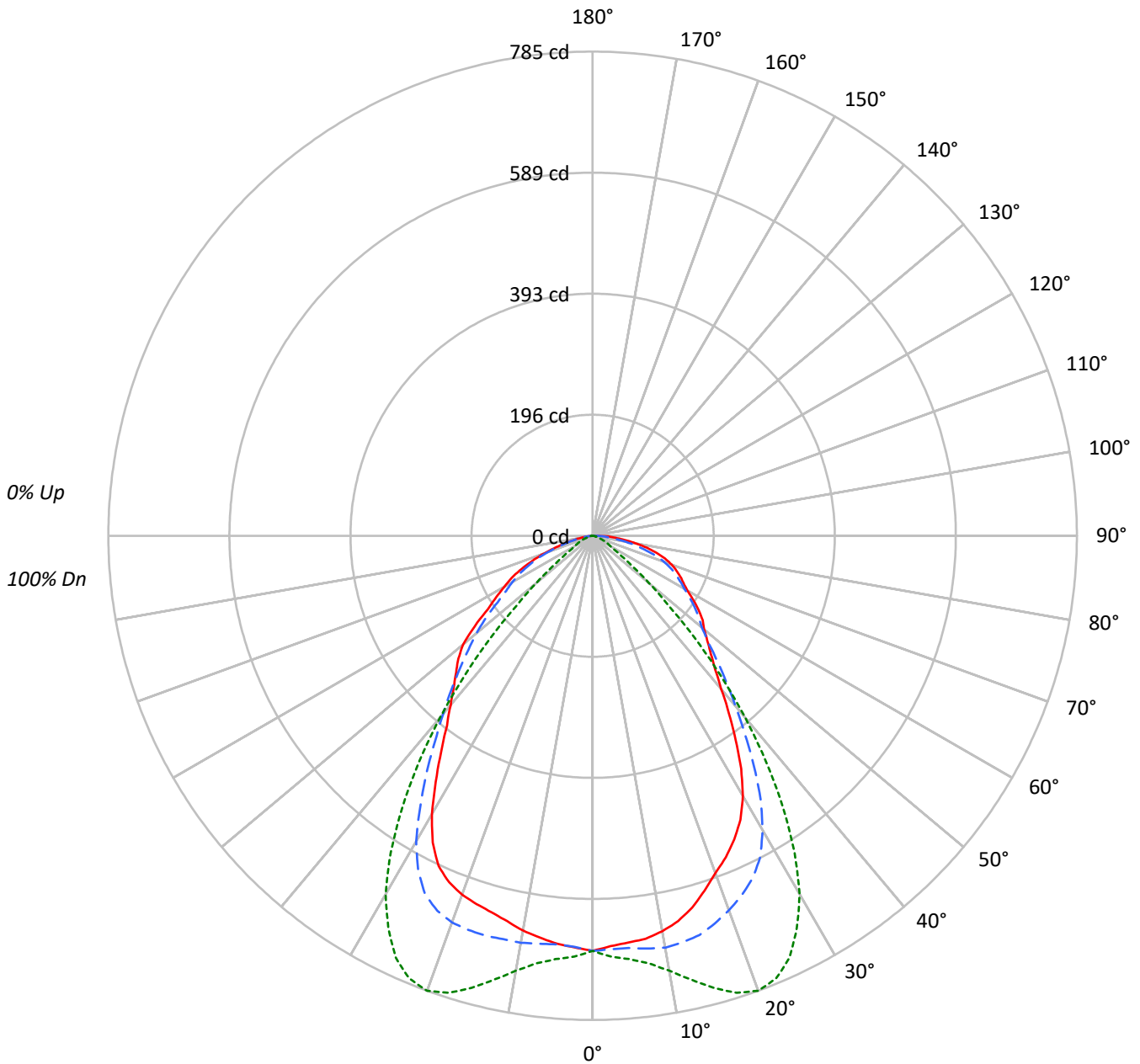
Input Watts (W): 14.39  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	168	168	168
5°	166	172	166
10°	165	181	164
15°	161	196	163
20°	154	208	164
25°	149	208	162
30°	140	193	150
35°	123	164	130
40°	105	125	116
45°	95	82	110
50°	91	46	106
55°	91	25	90
60°	88	16	82
65°	93	14	75
70°	99	9	61
75°	104	7	42
80°	102	4	27
85°	106	3	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.4	4.7
10°-20°	192.9	13.9
20°-30°	294.2	21.3
30°-40°	293.6	21.2
40°-50°	216.5	15.6
50°-60°	147.9	10.7
60°-70°	104.4	7.5
70°-80°	55.8	4.0
80°-90°	14.3	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°	551.5	39.8
0°-40°	845.1	61.1
0°-60°	1209.6	87.4
0°-90°	1384.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1384.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	673	673	673	673	673	
5°	662	671	689	665	664	63
15°	624	670	759	671	632	175
25°	543	613	755	642	591	249
35°	404	456	538	469	428	252
45°	271	284	233	304	313	211
55°	210	202	57	188	207	187
65°	157	149	23	115	127	155
75°	108	88	7	40	44	112
85°	37	24	1	5	0	41
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°	673	673	673	673	673	673	673	673	673
2.5°	666	670	671	678	683	677	667	667	668
5°	662	667	671	683	689	679	665	663	664
7.5°	659	666	675	693	699	686	667	659	657
10°	651	661	678	704	716	700	670	655	650
12.5°	640	652	675	716	737	713	670	648	640
15°	624	637	670	726	759	727	671	641	632
17.5°	603	619	659	731	777	740	670	636	626
20°	582	601	646	731	785	745	667	631	619
22.5°	564	583	631	722	777	739	658	622	608
25°	543	563	613	703	755	721	642	604	591
27.5°	519	541	588	673	717	688	612	575	561
30°	487	507	551	630	671	643	572	534	521
32.5°	448	466	507	578	609	586	520	488	473
35°	404	420	456	512	538	524	469	439	428
37.5°	363	375	405	446	462	453	419	397	388
40°	324	336	360	380	384	387	377	363	358
42.5°	294	305	320	318	306	323	339	337	333
45°	271	279	284	254	233	261	304	315	313
47.5°	252	256	253	203	165	203	273	295	295
50°	236	239	231	169	119	163	246	270	274
52.5°	225	226	216	143	82	129	217	238	241
55°	210	211	202	124	57	102	188	207	207
57.5°	193	195	186	108	40	85	166	184	185
60°	177	178	172	96	33	73	150	165	165
62.5°	166	167	160	89	28	64	133	147	148
65°	157	157	149	82	23	54	115	127	127
67.5°	147	145	137	73	18	44	97	106	105
70°	136	133	123	63	13	35	76	83	84
72.5°	123	119	106	52	10	26	56	62	62
75°	108	103	88	41	7	18	40	44	44
77.5°	90	85	70	30	5	12	27	30	30
80°	71	66	52	21	3	7	17	20	19
82.5°	53	48	35	13	2	4	11	11	10
85°	37	34	24	8	1	2	5	2	0
87.5°	25	22	15	4	0	1	1	0	0
90°	0	0	0	0	0	0	0	0	0



Report Generated By E9808895 / USPTCWHP6082093







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







(END OF REPORT)