

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: P251865

Luminaire Tested: **LD4B30D010 EU4B30509050 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251865  
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: LD4B30D010 EU4B30509050 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2297.0 lumens  
Efficiency: N/A  
Efficacy: 82.0 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

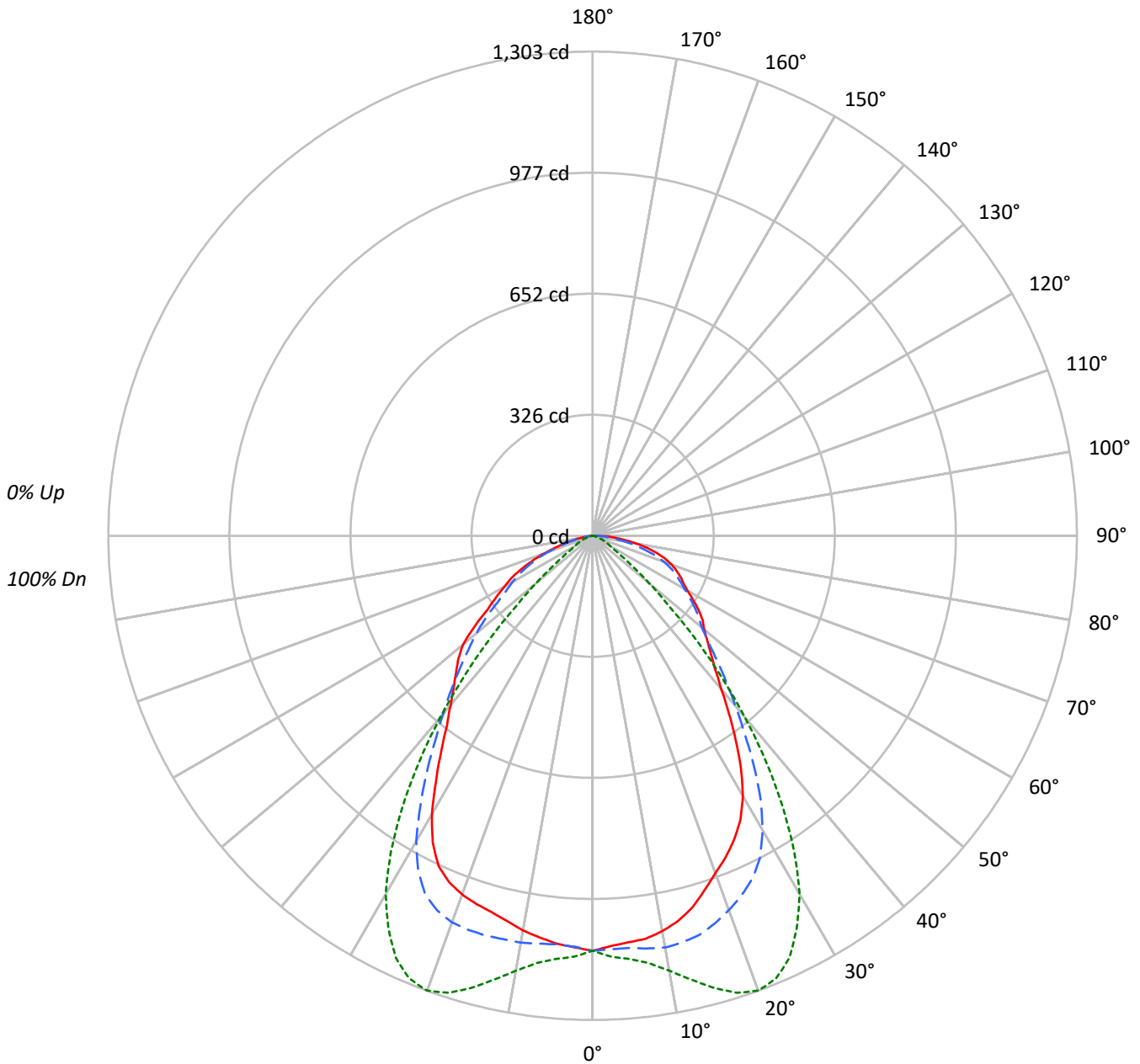
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87	87	87	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76	76	76	76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66	66	66	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58	58	58	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47	47	47	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42	42	42	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38	38	38	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35	35	35	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	32	32	32

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

	0°	90°	180°
0°	278	278	278
5°	275	286	276
10°	273	301	273
15°	267	325	271
20°	256	345	272
25°	248	344	270
30°	233	320	249
35°	204	272	216
40°	175	207	193
45°	158	136	183
50°	152	77	176
55°	151	41	149
60°	146	27	136
65°	154	23	124
70°	164	16	102
75°	173	11	70
80°	169	7	45
85°	176	5	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.9	4.7
10°-20°	320.1	13.9
20°-30°	488.2	21.3
30°-40°	487.3	21.2
40°-50°	359.3	15.6
50°-60°	245.5	10.7
60°-70°	173.3	7.5
70°-80°	92.6	4.0
80°-90°	23.8	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°	915.2	39.8
0°-40°	1402.5	61.1
0°-60°	2007.4	87.4
0°-90°	2297.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2297.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1117	1117	1117	1117	1117	
5°	1099	1114	1143	1104	1102	104
15°	1036	1112	1260	1114	1049	290
25°	901	1017	1253	1065	981	413
35°	670	757	893	778	710	419
45°	450	471	387	504	519	351
55°	348	335	95	312	344	310
65°	261	247	38	191	211	258
75°	179	146	12	66	73	186
85°	61	40	2	8	0	68
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°	1116.9	1116.9	1116.9	1116.9	1116.9	1116.9	1116.9	1116.9	1116.9
2.5°	1105.3	1111.9	1113.6	1125.2	1133.5	1123.5	1106.9	1106.9	1108.6
5°	1098.6	1106.9	1113.6	1133.5	1143.4	1126.9	1103.6	1100.3	1102.0
7.5°	1093.7	1105.3	1120.2	1150.1	1160.0	1138.5	1106.9	1093.7	1090.3
10°	1080.4	1097.0	1125.2	1168.3	1188.3	1161.7	1111.9	1087.0	1078.7
12.5°	1062.1	1082.0	1120.2	1188.3	1223.1	1183.3	1111.9	1075.4	1062.1
15°	1035.6	1057.1	1111.9	1204.9	1259.6	1206.5	1113.6	1063.8	1048.9
17.5°	1000.7	1027.3	1093.7	1213.1	1289.5	1228.1	1111.9	1055.5	1038.9
20°	965.9	997.4	1072.1	1213.1	1302.8	1236.4	1106.9	1047.2	1027.3
22.5°	936.0	967.5	1047.2	1198.2	1289.5	1226.4	1092.0	1032.3	1009.0
25°	901.1	934.3	1017.3	1166.7	1253.0	1196.6	1065.4	1002.4	980.8
27.5°	861.3	897.8	975.8	1116.9	1189.9	1141.8	1015.7	954.3	931.0
30°	808.2	841.4	914.4	1045.5	1113.6	1067.1	949.3	886.2	864.6
32.5°	743.5	773.4	841.4	959.2	1010.7	972.5	863.0	809.9	785.0
35°	670.5	697.0	756.8	849.7	892.9	869.6	778.3	728.6	710.3
37.5°	602.4	622.3	672.1	740.2	766.7	751.8	695.4	658.9	643.9
40°	537.7	557.6	597.4	630.6	637.3	642.3	625.7	602.4	594.1
42.5°	487.9	506.2	531.1	527.7	507.8	536.0	562.6	559.3	552.6
45°	449.7	463.0	471.3	421.5	386.7	433.1	504.5	522.8	519.4
47.5°	418.2	424.9	419.9	336.9	273.8	336.9	453.1	489.6	489.6
50°	391.7	396.6	383.4	280.5	197.5	270.5	408.3	448.1	454.7
52.5°	373.4	375.1	358.5	237.3	136.1	214.1	360.1	395.0	400.0
55°	348.5	350.2	335.2	205.8	94.6	169.3	312.0	343.5	343.5
57.5°	320.3	323.6	308.7	179.2	66.4	141.1	275.5	305.4	307.0
60°	293.7	295.4	285.4	159.3	54.8	121.1	248.9	273.8	273.8
62.5°	275.5	277.1	265.5	147.7	46.5	106.2	220.7	244.0	245.6
65°	260.6	260.6	247.3	136.1	38.2	89.6	190.9	210.8	210.8
67.5°	244.0	240.6	227.4	121.1	29.9	73.0	161.0	175.9	174.3
70°	225.7	220.7	204.1	104.6	21.6	58.1	126.1	137.7	139.4
72.5°	204.1	197.5	175.9	86.3	16.6	43.1	92.9	102.9	102.9
75°	179.2	170.9	146.0	68.0	11.6	29.9	66.4	73.0	73.0
77.5°	149.4	141.1	116.2	49.8	8.3	19.9	44.8	49.8	49.8
80°	117.8	109.5	86.3	34.9	5.0	11.6	28.2	33.2	31.5
82.5°	88.0	79.7	58.1	21.6	3.3	6.6	18.3	18.3	16.6
85°	61.4	56.4	39.8	13.3	1.7	3.3	8.3	3.3	0.0
87.5°	41.5	36.5	24.9	6.6	0.0	1.7	1.7	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)