

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: P251874

Luminaire Tested: **LD4B40D010 EU4B30509027 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251874  
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: LD4B40D010 EU4B30509027 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3032.0 lumens  
Efficiency: N/A  
Efficacy: 70.5 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

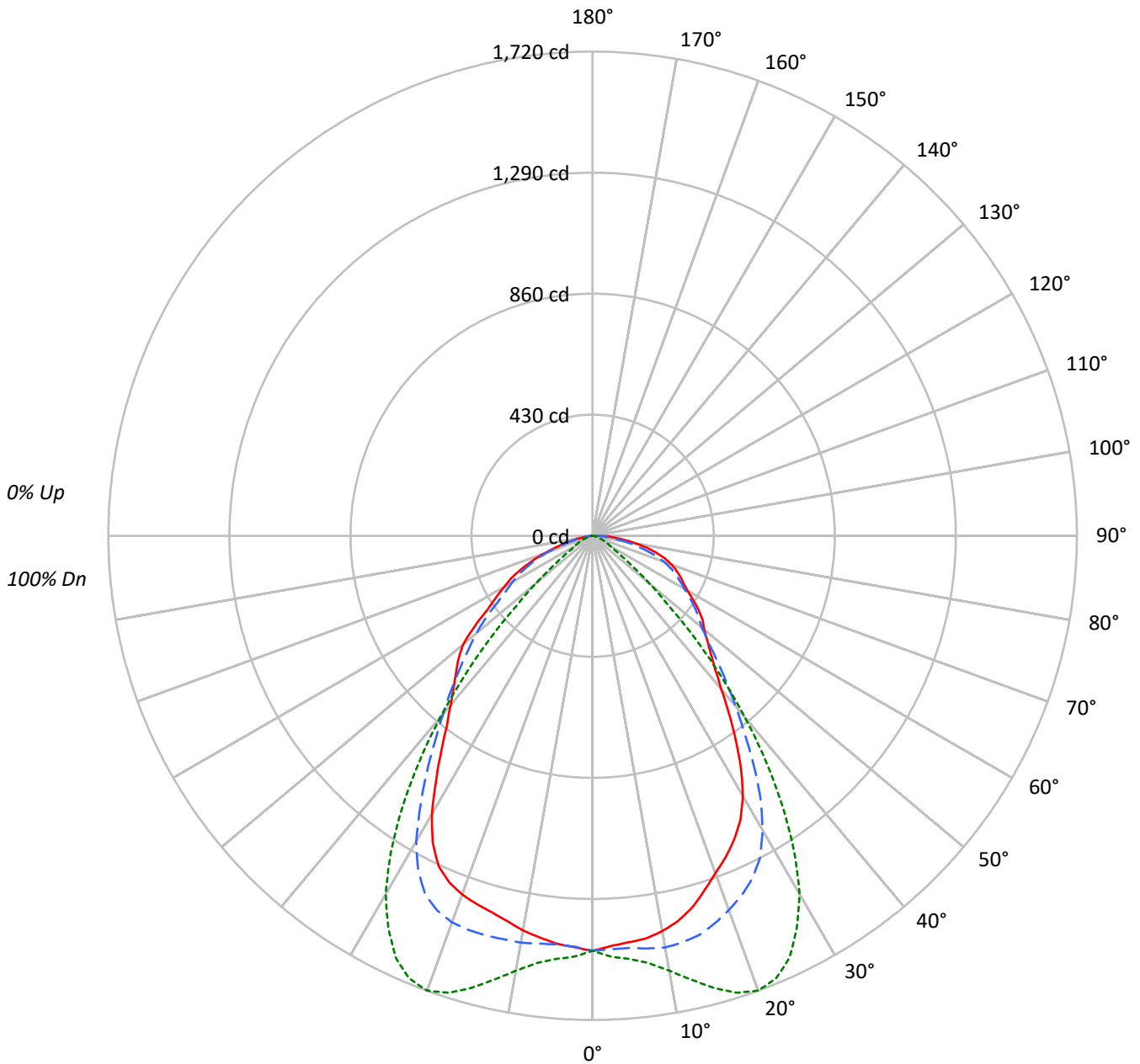
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	367	367	367
5°	363	377	364
10°	361	397	360
15°	353	429	357
20°	338	456	360
25°	327	455	356
30°	307	423	328
35°	269	358	285
40°	231	274	255
45°	209	180	242
50°	200	101	233
55°	200	54	197
60°	193	36	180
65°	203	30	164
70°	217	21	134
75°	228	15	93
80°	223	9	60
85°	232	6	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.2	4.7
10°-20°	422.5	13.9
20°-30°	644.4	21.3
30°-40°	643.2	21.2
40°-50°	474.3	15.6
50°-60°	324.1	10.7
60°-70°	228.8	7.5
70°-80°	122.2	4.0
80°-90°	31.4	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°	1208.1	39.8
0°-40°	1851.3	61.1
0°-60°	2649.7	87.4
0°-90°	3032.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3032.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1474	1474	1474	1474	1474	
5°	1450	1470	1509	1457	1455	138
15°	1367	1468	1663	1470	1384	383
25°	1190	1343	1654	1406	1295	545
35°	885	999	1178	1027	938	553
45°	594	622	510	666	686	463
55°	460	442	125	412	454	409
65°	344	326	50	252	278	340
75°	237	193	15	88	96	245
85°	81	53	2	11	0	90
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°	1474.3	1474.3	1474.3	1474.3	1474.3	1474.3	1474.3	1474.3	1474.3
2.5°	1458.9	1467.7	1469.9	1485.2	1496.2	1483.0	1461.1	1461.1	1463.3
5°	1450.2	1461.1	1469.9	1496.2	1509.3	1487.4	1456.8	1452.4	1454.6
7.5°	1443.6	1458.9	1478.7	1518.1	1531.2	1502.8	1461.1	1443.6	1439.2
10°	1426.1	1448.0	1485.2	1542.2	1568.5	1533.4	1467.7	1434.8	1423.9
12.5°	1402.0	1428.3	1478.7	1568.5	1614.5	1561.9	1467.7	1419.5	1402.0
15°	1366.9	1395.4	1467.7	1590.4	1662.7	1592.6	1469.9	1404.2	1384.5
17.5°	1320.9	1356.0	1443.6	1601.3	1702.1	1621.1	1467.7	1393.2	1371.3
20°	1274.9	1316.6	1415.1	1601.3	1719.6	1632.0	1461.1	1382.3	1356.0
22.5°	1235.5	1277.1	1382.3	1581.6	1702.1	1618.9	1441.4	1362.6	1331.9
25°	1189.5	1233.3	1342.8	1540.0	1653.9	1579.4	1406.4	1323.1	1294.6
27.5°	1136.9	1185.1	1288.1	1474.3	1570.7	1507.1	1340.7	1259.6	1228.9
30°	1066.8	1110.6	1207.0	1380.1	1469.9	1408.6	1253.0	1169.8	1141.3
32.5°	981.4	1020.8	1110.6	1266.2	1334.1	1283.7	1139.1	1069.0	1036.2
35°	885.0	920.1	998.9	1121.6	1178.5	1147.9	1027.4	961.7	937.6
37.5°	795.2	821.5	887.2	977.0	1012.1	992.3	917.9	869.7	850.0
40°	709.8	736.0	788.6	832.4	841.2	847.8	825.9	795.2	784.2
42.5°	644.0	668.1	701.0	696.6	670.3	707.6	742.6	738.2	729.5
45°	593.7	611.2	622.1	556.4	510.4	571.7	665.9	690.0	685.7
47.5°	552.0	560.8	554.2	444.7	361.5	444.7	598.0	646.2	646.2
50°	517.0	523.6	506.0	370.2	260.7	357.1	538.9	591.5	600.2
52.5°	492.9	495.1	473.2	313.3	179.6	282.6	475.4	521.4	527.9
55°	460.0	462.2	442.5	271.6	124.9	223.4	411.8	453.5	453.5
57.5°	422.8	427.2	407.5	236.6	87.6	186.2	363.6	403.1	405.3
60°	387.7	389.9	376.8	210.3	72.3	159.9	328.6	361.5	361.5
62.5°	363.6	365.8	350.5	195.0	61.3	140.2	291.4	322.0	324.2
65°	343.9	343.9	326.4	179.6	50.4	118.3	251.9	278.2	278.2
67.5°	322.0	317.6	300.1	159.9	39.4	96.4	212.5	232.2	230.0
70°	297.9	291.4	269.4	138.0	28.5	76.7	166.5	181.8	184.0
72.5°	269.4	260.7	232.2	113.9	21.9	57.0	122.7	135.8	135.8
75°	236.6	225.6	192.8	89.8	15.3	39.4	87.6	96.4	96.4
77.5°	197.2	186.2	153.3	65.7	11.0	26.3	59.1	65.7	65.7
80°	155.5	144.6	113.9	46.0	6.6	15.3	37.2	43.8	41.6
82.5°	116.1	105.1	76.7	28.5	4.4	8.8	24.1	24.1	21.9
85°	81.1	74.5	52.6	17.5	2.2	4.4	11.0	4.4	0.0
87.5°	54.8	48.2	32.9	8.8	0.0	2.2	2.2	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)