

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: P251879

Luminaire Tested: **LD4B40D010 EU4B30509727 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251879  
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 EU4B30509727 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: 2636.0 lumens  
Efficiency: N/A  
Efficacy: 61.3 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

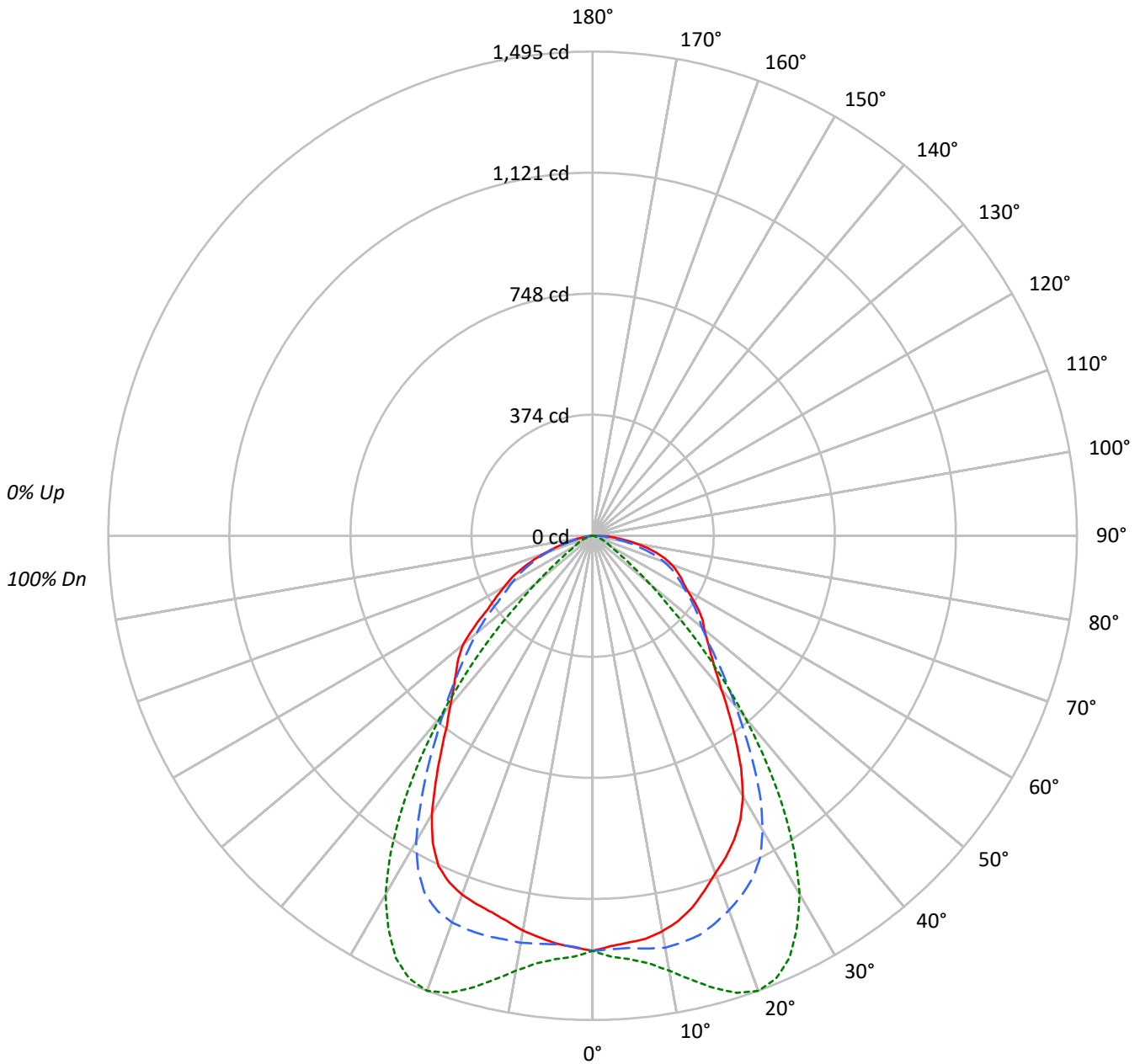
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	319	319	319
5°	315	328	316
10°	314	345	313
15°	307	373	310
20°	294	396	313
25°	284	395	309
30°	267	368	285
35°	234	312	248
40°	201	238	222
45°	182	156	210
50°	174	88	202
55°	174	47	171
60°	168	31	157
65°	176	26	143
70°	189	18	117
75°	198	13	81
80°	194	8	52
85°	202	5	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.7	4.7
10°-20°	367.3	13.9
20°-30°	560.3	21.3
30°-40°	559.2	21.2
40°-50°	412.4	15.6
50°-60°	281.7	10.7
60°-70°	198.9	7.5
70°-80°	106.2	4.0
80°-90°	27.3	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°	1050.3	39.8
0°-40°	1609.5	61.1
0°-60°	2303.6	87.4
0°-90°	2636.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2636.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1282	1282	1282	1282	1282	
5°	1261	1278	1312	1266	1265	120
15°	1188	1276	1446	1278	1204	333
25°	1034	1168	1438	1223	1126	474
35°	769	868	1025	893	815	481
45°	516	541	444	579	596	403
55°	400	385	109	358	394	355
65°	299	284	44	219	242	296
75°	206	168	13	76	84	213
85°	70	46	2	10	0	78
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°	1281.7	1281.7	1281.7	1281.7	1281.7	1281.7	1281.7	1281.7	1281.7
2.5°	1268.4	1276.0	1277.9	1291.3	1300.8	1289.3	1270.3	1270.3	1272.2
5°	1260.8	1270.3	1277.9	1300.8	1312.2	1293.2	1266.5	1262.7	1264.6
7.5°	1255.1	1268.4	1285.5	1319.8	1331.2	1306.5	1270.3	1255.1	1251.3
10°	1239.8	1258.9	1291.3	1340.8	1363.6	1333.2	1276.0	1247.4	1237.9
12.5°	1218.9	1241.7	1285.5	1363.6	1403.6	1357.9	1276.0	1234.1	1218.9
15°	1188.4	1213.2	1276.0	1382.7	1445.5	1384.6	1277.9	1220.8	1203.6
17.5°	1148.4	1178.9	1255.1	1392.2	1479.8	1409.3	1276.0	1211.3	1192.2
20°	1108.4	1144.6	1230.3	1392.2	1495.0	1418.9	1270.3	1201.7	1178.9
22.5°	1074.1	1110.3	1201.7	1375.0	1479.8	1407.4	1253.2	1184.6	1157.9
25°	1034.1	1072.2	1167.5	1338.9	1437.9	1373.1	1222.7	1150.3	1125.6
27.5°	988.4	1030.3	1119.8	1281.7	1365.5	1310.3	1165.6	1095.1	1068.4
30°	927.5	965.6	1049.4	1199.8	1277.9	1224.6	1089.4	1017.0	992.2
32.5°	853.2	887.5	965.6	1100.8	1159.8	1116.0	990.3	929.4	900.8
35°	769.4	799.9	868.5	975.1	1024.6	998.0	893.2	836.1	815.1
37.5°	691.3	714.2	771.3	849.4	879.9	862.7	798.0	756.1	738.9
40°	617.1	639.9	685.6	723.7	731.3	737.0	718.0	691.3	681.8
42.5°	559.9	580.9	609.4	605.6	582.8	615.2	645.6	641.8	634.2
45°	516.1	531.4	540.9	483.7	443.7	497.1	579.0	599.9	596.1
47.5°	479.9	487.6	481.8	386.6	314.2	386.6	519.9	561.8	561.8
50°	449.5	455.2	439.9	321.9	226.6	310.4	468.5	514.2	521.8
52.5°	428.5	430.4	411.4	272.3	156.2	245.7	413.3	453.3	459.0
55°	399.9	401.8	384.7	236.2	108.6	194.3	358.0	394.2	394.2
57.5°	367.6	371.4	354.2	205.7	76.2	161.9	316.1	350.4	352.3
60°	337.1	339.0	327.6	182.8	62.8	139.0	285.7	314.2	314.2
62.5°	316.1	318.1	304.7	169.5	53.3	121.9	253.3	280.0	281.9
65°	299.0	299.0	283.8	156.2	43.8	102.8	219.0	241.9	241.9
67.5°	280.0	276.2	260.9	139.0	34.3	83.8	184.7	201.9	200.0
70°	259.0	253.3	234.3	120.0	24.8	66.7	144.7	158.1	160.0
72.5°	234.3	226.6	201.9	99.0	19.0	49.5	106.7	118.1	118.1
75°	205.7	196.2	167.6	78.1	13.3	34.3	76.2	83.8	83.8
77.5°	171.4	161.9	133.3	57.1	9.5	22.9	51.4	57.1	57.1
80°	135.2	125.7	99.0	40.0	5.7	13.3	32.4	38.1	36.2
82.5°	100.9	91.4	66.7	24.8	3.8	7.6	20.9	20.9	19.0
85°	70.5	64.8	45.7	15.2	1.9	3.8	9.5	3.8	0.0
87.5°	47.6	41.9	28.6	7.6	0.0	1.9	1.9	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)