

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: P251878

Luminaire Tested: **LD4B40D010 EU4B30509050 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251878  
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 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: 3217.0 lumens  
Efficiency: N/A  
Efficacy: 74.8 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

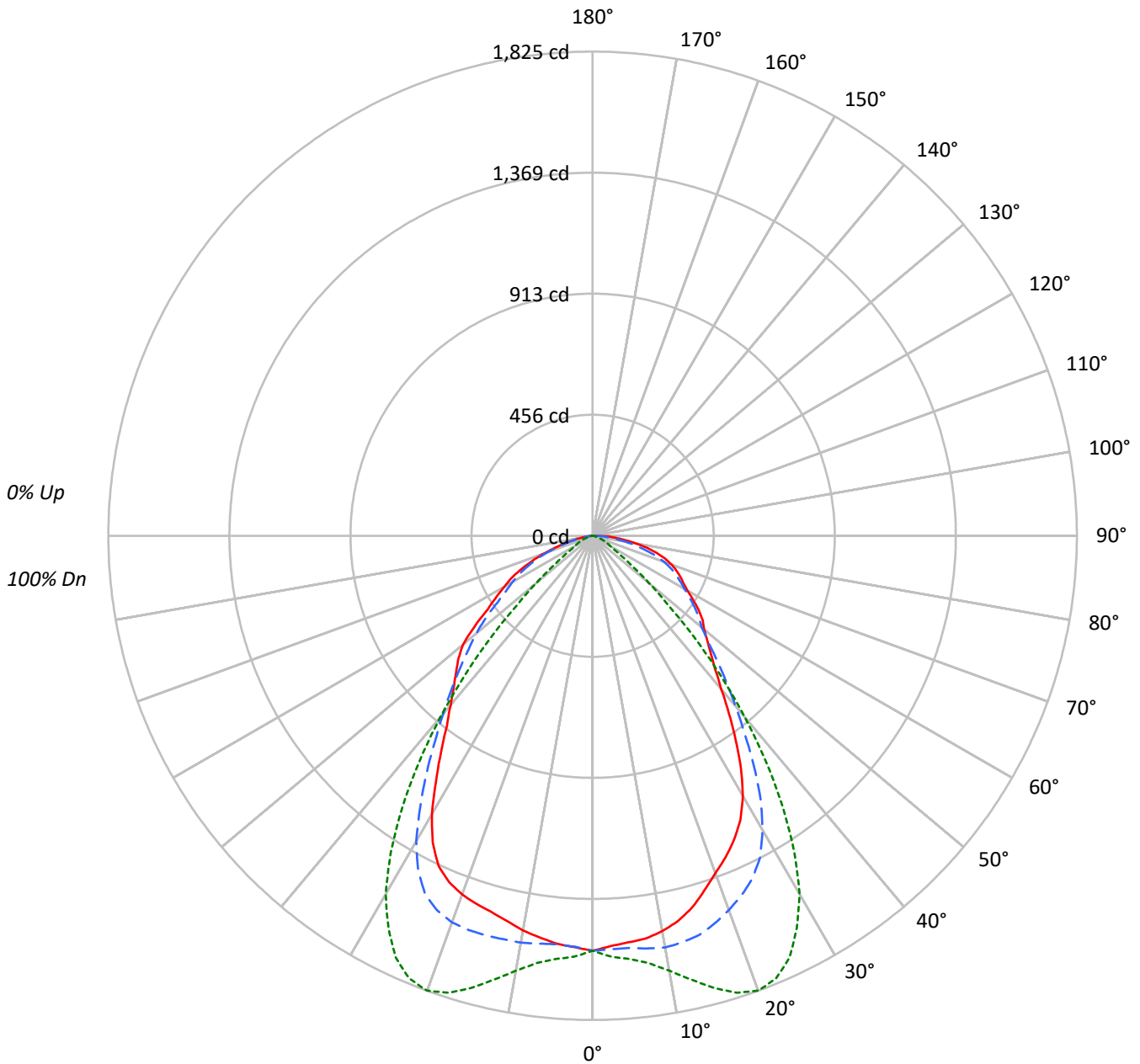
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	390	390	390
5°	385	401	386
10°	383	421	382
15°	374	455	379
20°	359	484	381
25°	347	482	378
30°	326	449	348
35°	286	380	303
40°	245	290	271
45°	222	191	256
50°	213	107	247
55°	212	58	209
60°	205	38	191
65°	215	32	174
70°	230	22	142
75°	242	16	98
80°	237	10	63
85°	246	7	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.8	4.7
10°-20°	448.3	13.9
20°-30°	683.7	21.3
30°-40°	682.5	21.2
40°-50°	503.2	15.6
50°-60°	343.8	10.7
60°-70°	242.7	7.5
70°-80°	129.6	4.0
80°-90°	33.3	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°	1281.8	39.8
0°-40°	1964.3	61.1
0°-60°	2811.4	87.4
0°-90°	3217.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3217.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1564	1564	1564	1564	1564	
5°	1539	1560	1601	1546	1543	146
15°	1450	1557	1764	1560	1469	407
25°	1262	1425	1755	1492	1374	578
35°	939	1060	1250	1090	995	587
45°	630	660	542	707	728	492
55°	488	470	132	437	481	434
65°	365	346	54	267	295	361
75°	251	204	16	93	102	260
85°	86	56	2	12	0	95
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°	1564.2	1564.2	1564.2	1564.2	1564.2	1564.2	1564.2	1564.2	1564.2
2.5°	1548.0	1557.3	1559.6	1575.9	1587.5	1573.5	1550.3	1550.3	1552.6
5°	1538.7	1550.3	1559.6	1587.5	1601.4	1578.2	1545.6	1541.0	1543.3
7.5°	1531.7	1548.0	1568.9	1610.7	1624.7	1594.4	1550.3	1531.7	1527.0
10°	1513.1	1536.3	1575.9	1636.3	1664.2	1627.0	1557.3	1522.4	1510.8
12.5°	1487.5	1515.4	1568.9	1664.2	1713.0	1657.2	1557.3	1506.1	1487.5
15°	1450.3	1480.6	1557.3	1687.4	1764.1	1689.7	1559.6	1489.9	1468.9
17.5°	1401.5	1438.7	1531.7	1699.0	1806.0	1720.0	1557.3	1478.2	1455.0
20°	1352.7	1396.9	1501.5	1699.0	1824.6	1731.6	1550.3	1466.6	1438.7
22.5°	1310.9	1355.0	1466.6	1678.1	1806.0	1717.6	1529.4	1445.7	1413.2
25°	1262.1	1308.6	1424.8	1634.0	1754.8	1675.8	1492.2	1403.9	1373.6
27.5°	1206.3	1257.4	1366.7	1564.2	1666.5	1599.1	1422.5	1336.5	1303.9
30°	1131.9	1178.4	1280.7	1464.3	1559.6	1494.5	1329.5	1241.2	1210.9
32.5°	1041.3	1083.1	1178.4	1343.4	1415.5	1362.0	1208.6	1134.2	1099.4
35°	939.0	976.2	1059.9	1190.0	1250.5	1217.9	1090.1	1020.4	994.8
37.5°	843.7	871.6	941.3	1036.6	1073.8	1052.9	973.9	922.7	901.8
40°	753.1	781.0	836.7	883.2	892.5	899.5	876.3	843.7	832.1
42.5°	683.3	708.9	743.8	739.1	711.2	750.7	787.9	783.3	774.0
45°	629.9	648.5	660.1	590.4	541.6	606.6	706.6	732.1	727.5
47.5°	585.7	595.0	588.0	471.8	383.5	471.8	634.5	685.7	685.7
50°	548.5	555.5	536.9	392.8	276.6	378.9	571.8	627.6	636.9
52.5°	523.0	525.3	502.0	332.4	190.6	299.8	504.4	553.2	560.1
55°	488.1	490.4	469.5	288.2	132.5	237.1	437.0	481.1	481.1
57.5°	448.6	453.2	432.3	251.0	93.0	197.6	385.8	427.7	430.0
60°	411.4	413.7	399.8	223.1	76.7	169.7	348.6	383.5	383.5
62.5°	385.8	388.2	371.9	206.9	65.1	148.8	309.1	341.7	344.0
65°	364.9	364.9	346.3	190.6	53.5	125.5	267.3	295.2	295.2
67.5°	341.7	337.0	318.4	169.7	41.8	102.3	225.5	246.4	244.0
70°	316.1	309.1	285.9	146.4	30.2	81.3	176.6	192.9	195.2
72.5°	285.9	276.6	246.4	120.9	23.2	60.4	130.2	144.1	144.1
75°	251.0	239.4	204.5	95.3	16.3	41.8	93.0	102.3	102.3
77.5°	209.2	197.6	162.7	69.7	11.6	27.9	62.8	69.7	69.7
80°	165.0	153.4	120.9	48.8	7.0	16.3	39.5	46.5	44.2
82.5°	123.2	111.6	81.3	30.2	4.6	9.3	25.6	25.6	23.2
85°	86.0	79.0	55.8	18.6	2.3	4.6	11.6	4.6	0.0
87.5°	58.1	51.1	34.9	9.3	0.0	2.3	2.3	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)