

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: P251892

Luminaire Tested: **LD4B50D010TE EU4B30509727 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251892  
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: LD4B50D010TE 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: 3354.0 lumens  
Efficiency: N/A  
Efficacy: 57.1 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

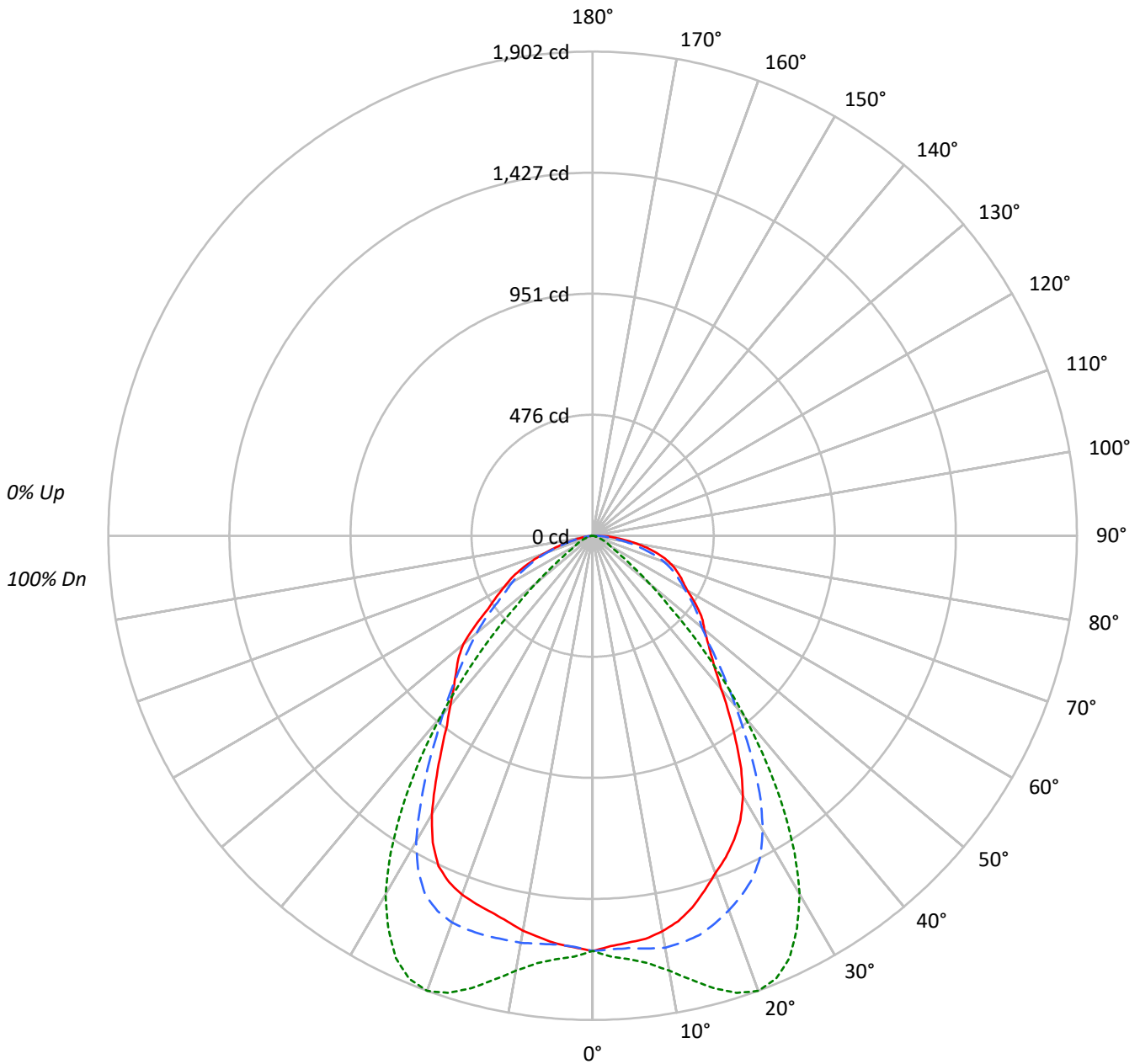
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	406	406	406
5°	401	418	402
10°	399	439	398
15°	390	474	395
20°	374	504	398
25°	362	503	394
30°	340	468	363
35°	298	397	315
40°	255	303	282
45°	231	199	267
50°	222	112	257
55°	221	60	218
60°	214	40	199
65°	224	33	181
70°	240	23	148
75°	252	16	103
80°	247	10	66
85°	256	7	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.2	4.7
10°-20°	467.4	13.9
20°-30°	712.9	21.3
30°-40°	711.5	21.2
40°-50°	524.7	15.6
50°-60°	358.5	10.7
60°-70°	253.1	7.5
70°-80°	135.2	4.0
80°-90°	34.7	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°	1336.4	39.8
0°-40°	2047.9	61.1
0°-60°	2931.1	87.4
0°-90°	3354.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3354.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1631	1631	1631	1631	1631	
5°	1604	1626	1670	1612	1609	153
15°	1512	1624	1839	1626	1532	424
25°	1316	1486	1830	1556	1432	603
35°	979	1105	1304	1136	1037	612
45°	657	688	565	737	758	512
55°	509	490	138	456	502	452
65°	380	361	56	279	308	376
75°	262	213	17	97	107	271
85°	90	58	2	12	0	99
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°	1630.8	1630.8	1630.8	1630.8	1630.8	1630.8	1630.8	1630.8	1630.8
2.5°	1613.9	1623.6	1626.0	1643.0	1655.1	1640.5	1616.3	1616.3	1618.7
5°	1604.2	1616.3	1626.0	1655.1	1669.6	1645.4	1611.5	1606.6	1609.0
7.5°	1596.9	1613.9	1635.7	1679.3	1693.9	1662.4	1616.3	1596.9	1592.1
10°	1577.5	1601.8	1643.0	1706.0	1735.0	1696.3	1623.6	1587.2	1575.1
12.5°	1550.9	1580.0	1635.7	1735.0	1785.9	1727.8	1623.6	1570.3	1550.9
15°	1512.1	1543.6	1623.6	1759.3	1839.2	1761.7	1626.0	1553.3	1531.5
17.5°	1461.2	1500.0	1596.9	1771.4	1882.9	1793.2	1623.6	1541.2	1517.0
20°	1410.3	1456.4	1565.4	1771.4	1902.3	1805.3	1616.3	1529.1	1500.0
22.5°	1366.7	1412.8	1529.1	1749.6	1882.9	1790.8	1594.5	1507.3	1473.3
25°	1315.8	1364.3	1485.5	1703.5	1829.6	1747.2	1555.7	1463.6	1432.1
27.5°	1257.7	1311.0	1424.9	1630.8	1737.5	1667.2	1483.0	1393.4	1359.4
30°	1180.1	1228.6	1335.2	1526.6	1626.0	1558.2	1386.1	1294.0	1262.5
32.5°	1085.6	1129.2	1228.6	1400.6	1475.8	1420.0	1260.1	1182.5	1146.2
35°	979.0	1017.8	1105.0	1240.7	1303.7	1269.8	1136.5	1063.8	1037.2
37.5°	879.6	908.7	981.4	1080.8	1119.5	1097.7	1015.3	962.0	940.2
40°	785.1	814.2	872.4	920.8	930.5	937.8	913.6	879.6	867.5
42.5°	712.4	739.1	775.4	770.6	741.5	782.7	821.5	816.6	806.9
45°	656.7	676.1	688.2	615.5	564.6	632.5	736.7	763.3	758.5
47.5°	610.7	620.4	613.1	491.9	399.8	491.9	661.5	714.9	714.9
50°	571.9	579.2	559.8	409.5	288.4	395.0	596.1	654.3	664.0
52.5°	545.2	547.7	523.4	346.5	198.7	312.6	525.8	576.7	584.0
55°	508.9	511.3	489.5	300.5	138.1	247.2	455.6	501.6	501.6
57.5°	467.7	472.5	450.7	261.7	96.9	206.0	402.3	445.9	448.3
60°	428.9	431.3	416.8	232.6	80.0	176.9	363.5	399.8	399.8
62.5°	402.3	404.7	387.7	215.7	67.9	155.1	322.3	356.2	358.6
65°	380.5	380.5	361.1	198.7	55.7	130.9	278.7	307.8	307.8
67.5°	356.2	351.4	332.0	176.9	43.6	106.6	235.1	256.9	254.4
70°	329.6	322.3	298.1	152.7	31.5	84.8	184.2	201.1	203.6
72.5°	298.1	288.4	256.9	126.0	24.2	63.0	135.7	150.2	150.2
75°	261.7	249.6	213.2	99.4	17.0	43.6	96.9	106.6	106.6
77.5°	218.1	206.0	169.6	72.7	12.1	29.1	65.4	72.7	72.7
80°	172.1	159.9	126.0	50.9	7.3	17.0	41.2	48.5	46.0
82.5°	128.4	116.3	84.8	31.5	4.8	9.7	26.7	26.7	24.2
85°	89.7	82.4	58.2	19.4	2.4	4.8	12.1	4.8	0.0
87.5°	60.6	53.3	36.3	9.7	0.0	2.4	2.4	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)