

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: P251886

Luminaire Tested: **LD4B50D010TE EU4B30509024 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251886  
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 EU4B30509024 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2400K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

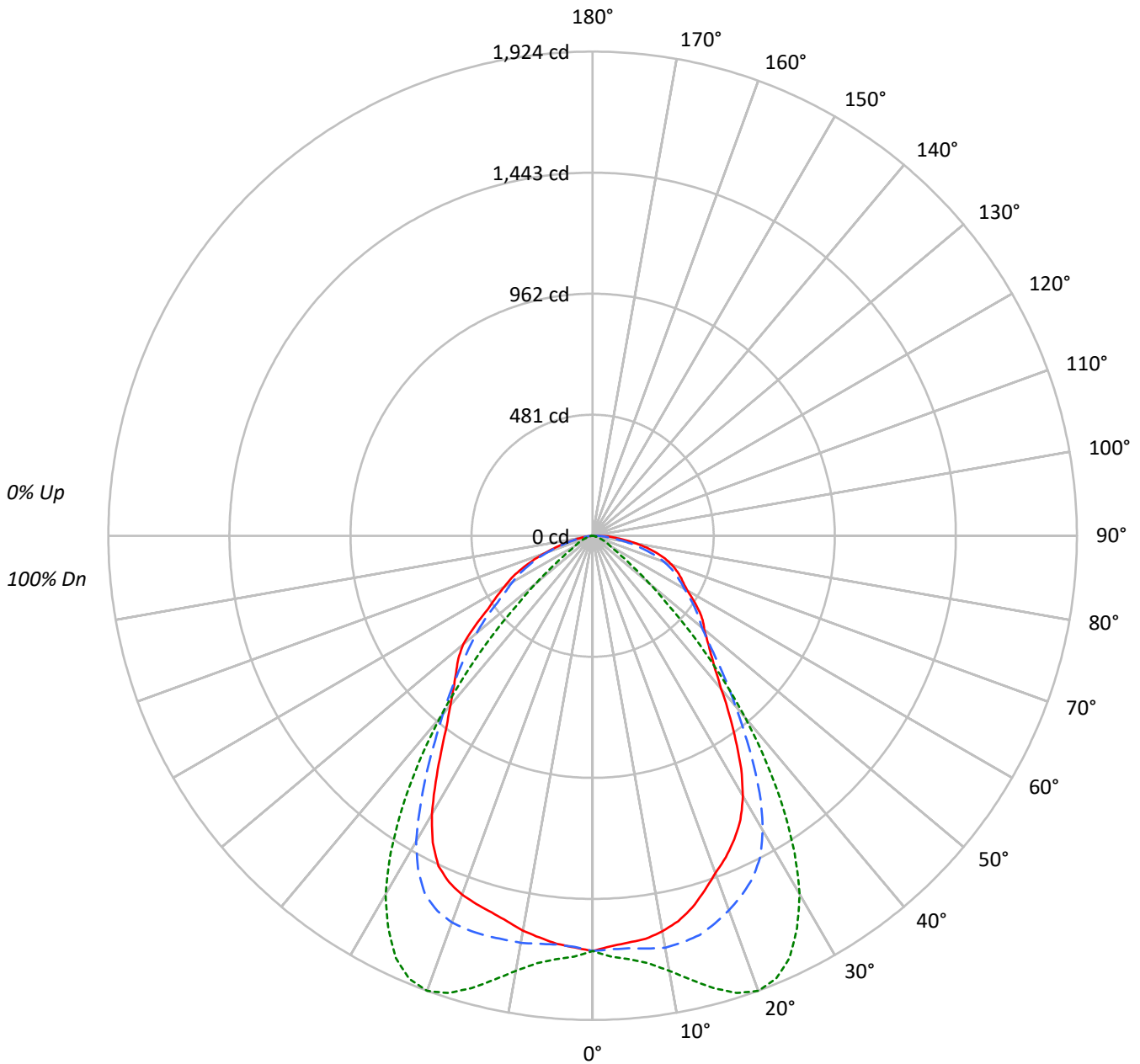
Lumens per Lamp: N/A  
Luminaire Lumens: 3393.0 lumens  
Efficiency: N/A  
Efficacy: 57.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.32 / 1.18  
Luminous Opening: Circular (Dia: 7.42' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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									
RC	80									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																			
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47																			
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

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

	0°	90°	180°
0°	411	411	411
5°	406	422	407
10°	404	444	403
15°	395	480	400
20°	378	510	402
25°	366	509	398
30°	343	473	367
35°	301	401	319
40°	258	306	285
45°	234	201	270
50°	224	113	260
55°	224	61	220
60°	216	40	202
65°	227	33	184
70°	243	23	150
75°	255	17	104
80°	250	11	67
85°	259	7	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.0	4.7
10°-20°	472.8	13.9
20°-30°	721.2	21.3
30°-40°	719.8	21.2
40°-50°	530.8	15.6
50°-60°	362.6	10.7
60°-70°	256.0	7.5
70°-80°	136.7	4.0
80°-90°	35.1	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°	1351.9	39.8
0°-40°	2071.7	61.1
0°-60°	2965.2	87.4
0°-90°	3393.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3393.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1650	1650	1650	1650	1650	
5°	1623	1645	1689	1630	1628	154
15°	1530	1642	1861	1645	1549	429
25°	1331	1503	1851	1574	1449	610
35°	990	1118	1319	1150	1049	619
45°	664	696	571	745	767	518
55°	515	495	140	461	507	458
65°	385	365	56	282	311	381
75°	265	216	17	98	108	275
85°	91	59	2	12	0	100
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°	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8	1649.8
2.5°	1632.7	1642.5	1644.9	1662.1	1674.3	1659.6	1635.1	1635.1	1637.6
5°	1622.8	1635.1	1644.9	1674.3	1689.0	1664.5	1630.2	1625.3	1627.7
7.5°	1615.5	1632.7	1654.7	1698.8	1713.5	1681.7	1635.1	1615.5	1610.6
10°	1595.9	1620.4	1662.1	1725.8	1755.2	1716.0	1642.5	1605.7	1593.4
12.5°	1568.9	1598.3	1654.7	1755.2	1806.7	1747.9	1642.5	1588.5	1568.9
15°	1529.7	1561.6	1642.5	1779.7	1860.6	1782.2	1644.9	1571.4	1549.3
17.5°	1478.2	1517.4	1615.5	1792.0	1904.8	1814.1	1642.5	1559.1	1534.6
20°	1426.7	1473.3	1583.6	1792.0	1924.4	1826.3	1635.1	1546.9	1517.4
22.5°	1382.6	1429.2	1546.9	1769.9	1904.8	1811.6	1613.0	1524.8	1490.5
25°	1331.1	1380.2	1502.7	1723.4	1850.8	1767.5	1573.8	1480.7	1448.8
27.5°	1272.3	1326.2	1441.4	1649.8	1757.7	1686.6	1500.3	1409.6	1375.3
30°	1193.8	1242.9	1350.7	1544.4	1644.9	1576.3	1402.2	1309.1	1277.2
32.5°	1098.2	1142.4	1242.9	1416.9	1492.9	1436.5	1274.7	1196.3	1159.5
35°	990.4	1029.6	1117.9	1255.1	1318.9	1284.5	1149.7	1076.2	1049.2
37.5°	889.9	919.3	992.8	1093.3	1132.6	1110.5	1027.1	973.2	951.2
40°	794.3	823.7	882.5	931.5	941.3	948.7	924.2	889.9	877.6
42.5°	720.7	747.7	784.5	779.6	750.1	791.8	831.0	826.1	816.3
45°	664.3	683.9	696.2	622.7	571.2	639.8	745.2	772.2	767.3
47.5°	617.8	627.6	620.2	497.6	404.5	497.6	669.2	723.2	723.2
50°	578.5	585.9	566.3	414.3	291.7	399.6	603.1	661.9	671.7
52.5°	551.6	554.0	529.5	350.6	201.0	316.2	532.0	583.4	590.8
55°	514.8	517.3	495.2	304.0	139.7	250.0	460.9	507.4	507.4
57.5°	473.1	478.0	456.0	264.8	98.1	208.4	406.9	451.1	453.5
60°	433.9	436.4	421.6	235.3	80.9	179.0	367.7	404.5	404.5
62.5°	406.9	409.4	392.2	218.2	68.6	156.9	326.0	360.4	362.8
65°	384.9	384.9	365.3	201.0	56.4	132.4	281.9	311.3	311.3
67.5°	360.4	355.5	335.8	179.0	44.1	107.9	237.8	259.9	257.4
70°	333.4	326.0	301.5	154.4	31.9	85.8	186.3	203.5	205.9
72.5°	301.5	291.7	259.9	127.5	24.5	63.7	137.3	152.0	152.0
75°	264.8	252.5	215.7	100.5	17.2	44.1	98.1	107.9	107.9
77.5°	220.6	208.4	171.6	73.5	12.3	29.4	66.2	73.5	73.5
80°	174.1	161.8	127.5	51.5	7.4	17.2	41.7	49.0	46.6
82.5°	129.9	117.7	85.8	31.9	4.9	9.8	27.0	27.0	24.5
85°	90.7	83.3	58.8	19.6	2.5	4.9	12.3	4.9	0.0
87.5°	61.3	53.9	36.8	9.8	0.0	2.5	2.5	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)