

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: P251876

Luminaire Tested: **LD4B40D010 EU4B30509035 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251876  
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 EU4B30509035 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3198.0 lumens  
Efficiency: N/A  
Efficacy: 74.3 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

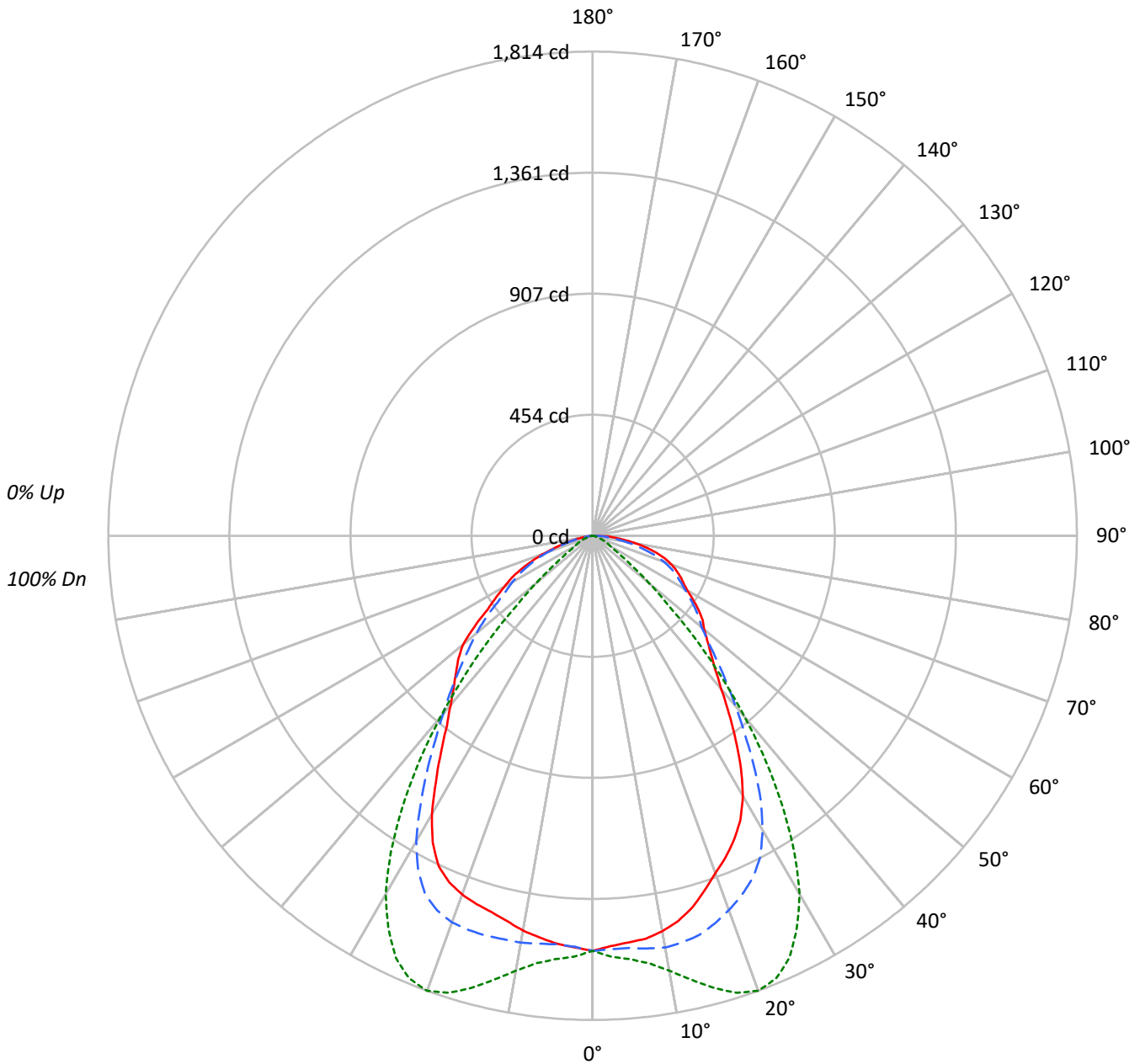
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87	87	87	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76	76	76	76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66	66	66	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58	58	58	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47	47	47	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42	42	42	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38	38	38	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35	35	35	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	32	32	32

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

	0°	90°	180°
0°	387	387	387
5°	383	398	384
10°	381	419	380
15°	372	452	377
20°	357	481	379
25°	345	480	375
30°	324	446	346
35°	284	378	301
40°	243	289	269
45°	221	190	255
50°	211	107	245
55°	211	57	208
60°	204	38	190
65°	214	31	173
70°	229	22	141
75°	240	16	98
80°	235	10	63
85°	244	7	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.9	4.7
10°-20°	445.6	13.9
20°-30°	679.7	21.3
30°-40°	678.4	21.2
40°-50°	500.3	15.6
50°-60°	341.8	10.7
60°-70°	241.3	7.5
70°-80°	128.9	4.0
80°-90°	33.1	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°	1274.2	39.8
0°-40°	1952.7	61.1
0°-60°	2794.8	87.4
0°-90°	3198.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3198.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1555	1555	1555	1555	1555	
5°	1530	1550	1592	1536	1534	145
15°	1442	1548	1754	1550	1460	404
25°	1255	1416	1744	1483	1366	575
35°	934	1054	1243	1084	989	583
45°	626	656	538	702	723	489
55°	485	467	132	434	478	431
65°	363	344	53	266	293	359
75°	250	203	16	92	102	259
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°	1555.0	1555.0	1555.0	1555.0	1555.0	1555.0	1555.0	1555.0	1555.0
2.5°	1538.8	1548.1	1550.4	1566.5	1578.1	1564.2	1541.1	1541.1	1543.4
5°	1529.6	1541.1	1550.4	1578.1	1592.0	1568.9	1536.5	1531.9	1534.2
7.5°	1522.6	1538.8	1559.6	1601.2	1615.1	1585.0	1541.1	1522.6	1518.0
10°	1504.2	1527.3	1566.5	1626.6	1654.3	1617.4	1548.1	1513.4	1501.9
12.5°	1478.7	1506.5	1559.6	1654.3	1702.9	1647.4	1548.1	1497.2	1478.7
15°	1441.8	1471.8	1548.1	1677.5	1753.7	1679.8	1550.4	1481.1	1460.3
17.5°	1393.3	1430.2	1522.6	1689.0	1795.3	1709.8	1548.1	1469.5	1446.4
20°	1344.7	1388.6	1492.6	1689.0	1813.8	1721.4	1541.1	1458.0	1430.2
22.5°	1303.1	1347.0	1458.0	1668.2	1795.3	1707.5	1520.3	1437.2	1404.8
25°	1254.6	1300.8	1416.4	1624.3	1744.5	1665.9	1483.4	1395.6	1365.5
27.5°	1199.2	1250.0	1358.6	1555.0	1656.7	1589.7	1414.1	1328.6	1296.2
30°	1125.2	1171.4	1273.1	1455.6	1550.4	1485.7	1321.6	1233.8	1203.8
32.5°	1035.1	1076.7	1171.4	1335.5	1407.1	1354.0	1201.5	1127.5	1092.9
35°	933.5	970.4	1053.6	1183.0	1243.1	1210.7	1083.6	1014.3	988.9
37.5°	838.7	866.5	935.8	1030.5	1067.5	1046.7	968.1	917.3	896.5
40°	748.6	776.3	831.8	878.0	887.2	894.2	871.1	838.7	827.2
42.5°	679.3	704.7	739.4	734.8	707.0	746.3	783.3	778.7	769.4
45°	626.2	644.6	656.2	586.9	538.4	603.1	702.4	727.8	723.2
47.5°	582.3	591.5	584.6	469.0	381.2	469.0	630.8	681.6	681.6
50°	545.3	552.2	533.7	390.5	275.0	376.6	568.4	623.8	633.1
52.5°	519.9	522.2	499.1	330.4	189.5	298.1	501.4	549.9	556.8
55°	485.2	487.5	466.7	286.5	131.7	235.7	434.4	478.3	478.3
57.5°	445.9	450.6	429.8	249.5	92.4	196.4	383.6	425.1	427.5
60°	409.0	411.3	397.4	221.8	76.2	168.7	346.6	381.2	381.2
62.5°	383.6	385.9	369.7	205.6	64.7	147.9	307.3	339.6	342.0
65°	362.8	362.8	344.3	189.5	53.1	124.8	265.7	293.4	293.4
67.5°	339.6	335.0	316.5	168.7	41.6	101.7	224.1	244.9	242.6
70°	314.2	307.3	284.2	145.6	30.0	80.9	175.6	191.8	194.1
72.5°	284.2	275.0	244.9	120.1	23.1	60.1	129.4	143.3	143.3
75°	249.5	238.0	203.3	94.7	16.2	41.6	92.4	101.7	101.7
77.5°	207.9	196.4	161.7	69.3	11.6	27.7	62.4	69.3	69.3
80°	164.0	152.5	120.1	48.5	6.9	16.2	39.3	46.2	43.9
82.5°	122.5	110.9	80.9	30.0	4.6	9.2	25.4	25.4	23.1
85°	85.5	78.6	55.5	18.5	2.3	4.6	11.6	4.6	0.0
87.5°	57.8	50.8	34.7	9.2	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)