

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: P251893

Luminaire Tested: **LD4B50D010TE EU4B30509730 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251893  
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 EU4B30509730 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

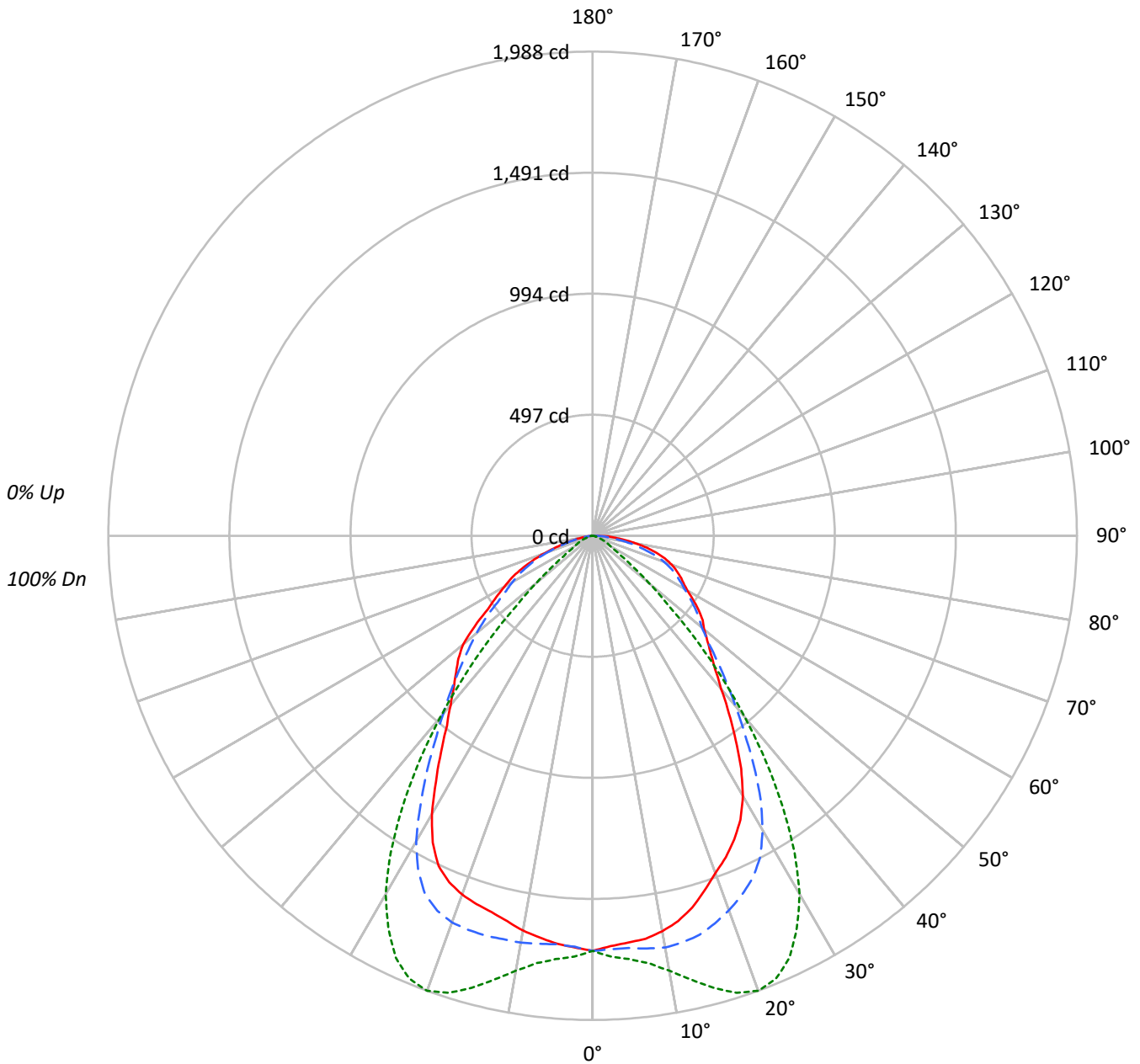
Lumens per Lamp: N/A  
Luminaire Lumens: 3505.0 lumens  
Efficiency: N/A  
Efficacy: 59.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.32 / 1.18  
Luminous Opening: Circular (Dia: 7.42' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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°	425	425	425
5°	419	436	421
10°	417	459	416
15°	408	496	413
20°	391	527	416
25°	378	526	411
30°	355	489	380
35°	311	414	330
40°	267	316	295
45°	242	208	279
50°	232	117	269
55°	231	63	228
60°	223	42	208
65°	234	34	190
70°	251	24	155
75°	263	17	107
80°	258	11	69
85°	268	7	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	163.2	4.7
10°-20°	488.4	13.9
20°-30°	745.0	21.3
30°-40°	743.6	21.2
40°-50°	548.3	15.6
50°-60°	374.6	10.7
60°-70°	264.5	7.5
70°-80°	141.2	4.0
80°-90°	36.3	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°	1396.6	39.8
0°-40°	2140.1	61.1
0°-60°	3063.0	87.4
0°-90°	3505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3505.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1704	1704	1704	1704	1704	
5°	1676	1699	1745	1684	1682	159
15°	1580	1697	1922	1699	1600	443
25°	1375	1552	1912	1626	1497	630
35°	1023	1155	1362	1188	1084	639
45°	686	719	590	770	793	536
55°	532	512	144	476	524	473
65°	398	377	58	291	322	393
75°	274	223	18	101	111	284
85°	94	61	2	13	0	104
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°	1704.3	1704.3	1704.3	1704.3	1704.3	1704.3	1704.3	1704.3	1704.3
2.5°	1686.5	1696.7	1699.2	1716.9	1729.6	1714.4	1689.1	1689.1	1691.6
5°	1676.4	1689.1	1699.2	1729.6	1744.8	1719.5	1684.0	1678.9	1681.5
7.5°	1668.8	1686.5	1709.3	1754.9	1770.1	1737.2	1689.1	1668.8	1663.8
10°	1648.6	1673.9	1716.9	1782.8	1813.2	1772.6	1696.7	1658.7	1646.0
12.5°	1620.7	1651.1	1709.3	1813.2	1866.3	1805.6	1696.7	1641.0	1620.7
15°	1580.2	1613.1	1696.7	1838.5	1922.1	1841.0	1699.2	1623.2	1600.4
17.5°	1527.0	1567.5	1668.8	1851.1	1967.6	1873.9	1696.7	1610.6	1585.3
20°	1473.8	1521.9	1635.9	1851.1	1987.9	1886.6	1689.1	1597.9	1567.5
22.5°	1428.2	1476.4	1597.9	1828.4	1967.6	1871.4	1666.3	1575.1	1539.7
25°	1375.1	1425.7	1552.3	1780.2	1911.9	1825.8	1625.8	1529.5	1496.6
27.5°	1314.3	1370.0	1489.0	1704.3	1815.7	1742.3	1549.8	1456.1	1420.6
30°	1233.3	1283.9	1395.3	1595.4	1699.2	1628.3	1448.5	1352.3	1319.4
32.5°	1134.5	1180.1	1283.9	1463.7	1542.2	1484.0	1316.8	1235.8	1197.8
35°	1023.1	1063.6	1154.8	1296.6	1362.4	1327.0	1187.7	1111.7	1083.8
37.5°	919.2	949.6	1025.6	1129.4	1169.9	1147.2	1061.1	1005.3	982.6
40°	820.5	850.9	911.6	962.3	972.4	980.0	954.7	919.2	906.6
42.5°	744.5	772.4	810.4	805.3	774.9	817.9	858.5	853.4	843.3
45°	686.3	706.5	719.2	643.2	590.0	660.9	769.8	797.7	792.6
47.5°	638.2	648.3	640.7	514.1	417.8	514.1	691.3	747.0	747.0
50°	597.6	605.2	585.0	428.0	301.3	412.8	623.0	683.7	693.9
52.5°	569.8	572.3	547.0	362.1	207.7	326.7	549.5	602.7	610.3
55°	531.8	534.3	511.5	314.0	144.3	258.3	476.1	524.2	524.2
57.5°	488.7	493.8	471.0	273.5	101.3	215.2	420.4	466.0	468.5
60°	448.2	450.8	435.6	243.1	83.6	184.9	379.9	417.8	417.8
62.5°	420.4	422.9	405.2	225.4	70.9	162.1	336.8	372.3	374.8
65°	397.6	397.6	377.3	207.7	58.2	136.7	291.2	321.6	321.6
67.5°	372.3	367.2	346.9	184.9	45.6	111.4	245.6	268.4	265.9
70°	344.4	336.8	311.5	159.5	32.9	88.6	192.5	210.2	212.7
72.5°	311.5	301.3	268.4	131.7	25.3	65.8	141.8	157.0	157.0
75°	273.5	260.8	222.8	103.8	17.7	45.6	101.3	111.4	111.4
77.5°	227.9	215.2	177.3	76.0	12.7	30.4	68.4	76.0	76.0
80°	179.8	167.1	131.7	53.2	7.6	17.7	43.0	50.6	48.1
82.5°	134.2	121.6	88.6	32.9	5.1	10.1	27.9	27.9	25.3
85°	93.7	86.1	60.8	20.3	2.5	5.1	12.7	5.1	0.0
87.5°	63.3	55.7	38.0	10.1	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)