

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: P251870

Luminaire Tested: **LD4B40D010 EU4B30508035 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251870  
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 EU4B30508035 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3783.0 lumens  
Efficiency: N/A  
Efficacy: 87.9 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

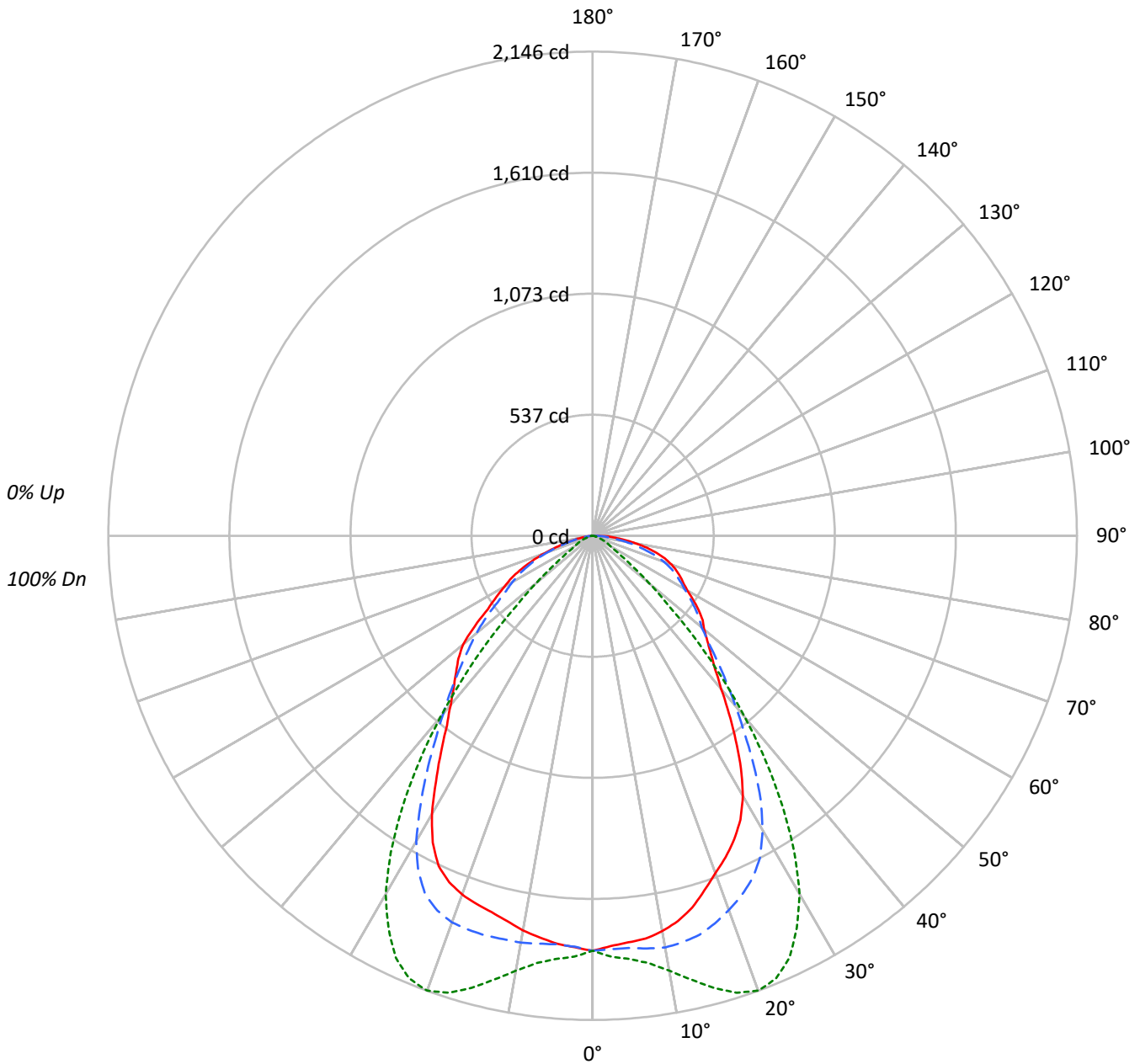
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	458	458	458
5°	453	471	454
10°	450	495	449
15°	440	535	446
20°	422	569	449
25°	408	567	444
30°	383	528	410
35°	336	447	356
40°	288	341	318
45°	261	224	301
50°	250	126	290
55°	249	68	246
60°	241	45	225
65°	253	37	205
70°	271	26	167
75°	284	18	116
80°	278	12	74
85°	289	8	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.1	4.7
10°-20°	527.2	13.9
20°-30°	804.0	21.3
30°-40°	802.5	21.2
40°-50°	591.8	15.6
50°-60°	404.3	10.7
60°-70°	285.4	7.5
70°-80°	152.4	4.0
80°-90°	39.1	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°	1507.3	39.8
0°-40°	2309.9	61.1
0°-60°	3306.0	87.4
0°-90°	3783.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3783.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1839	1839	1839	1839	1839	
5°	1809	1834	1883	1818	1815	172
15°	1706	1831	2074	1834	1727	478
25°	1484	1676	2064	1755	1615	680
35°	1104	1246	1470	1282	1170	690
45°	741	776	637	831	856	578
55°	574	552	156	514	566	510
65°	429	407	63	314	347	424
75°	295	240	19	109	120	306
85°	101	66	3	14	0	112
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°	1839.4	1839.4	1839.4	1839.4	1839.4	1839.4	1839.4	1839.4	1839.4
2.5°	1820.3	1831.2	1834.0	1853.1	1866.8	1850.4	1823.0	1823.0	1825.8
5°	1809.4	1823.0	1834.0	1866.8	1883.2	1855.8	1817.6	1812.1	1814.8
7.5°	1801.2	1820.3	1844.9	1894.1	1910.5	1875.0	1823.0	1801.2	1795.7
10°	1779.3	1806.6	1853.1	1924.2	1957.0	1913.2	1831.2	1790.2	1776.6
12.5°	1749.3	1782.0	1844.9	1957.0	2014.4	1948.8	1831.2	1771.1	1749.3
15°	1705.5	1741.1	1831.2	1984.3	2074.5	1987.0	1834.0	1752.0	1727.4
17.5°	1648.1	1691.9	1801.2	1998.0	2123.7	2022.6	1831.2	1738.3	1711.0
20°	1590.7	1642.7	1765.6	1998.0	2145.6	2036.2	1823.0	1724.7	1691.9
22.5°	1541.5	1593.5	1724.7	1973.4	2123.7	2019.8	1798.4	1700.1	1661.8
25°	1484.1	1538.8	1675.5	1921.4	2063.6	1970.6	1754.7	1650.9	1615.3
27.5°	1418.5	1478.7	1607.1	1839.4	1959.7	1880.4	1672.7	1571.6	1533.3
30°	1331.1	1385.7	1506.0	1721.9	1834.0	1757.4	1563.4	1459.5	1424.0
32.5°	1224.5	1273.7	1385.7	1579.8	1664.5	1601.7	1421.3	1333.8	1292.8
35°	1104.2	1147.9	1246.3	1399.4	1470.5	1432.2	1281.9	1199.9	1169.8
37.5°	992.2	1025.0	1106.9	1219.0	1262.7	1238.1	1145.2	1085.1	1060.5
40°	885.6	918.4	984.0	1038.6	1049.6	1057.7	1030.4	992.2	978.5
42.5°	803.6	833.6	874.6	869.2	836.4	882.8	926.6	921.1	910.2
45°	740.7	762.6	776.2	694.2	636.8	713.4	830.9	861.0	855.5
47.5°	688.8	699.7	691.5	554.8	451.0	554.8	746.2	806.3	806.3
50°	645.0	653.2	631.4	461.9	325.3	445.5	672.4	738.0	748.9
52.5°	615.0	617.7	590.4	390.8	224.1	352.6	593.1	650.5	658.7
55°	574.0	576.7	552.1	338.9	155.8	278.8	513.8	565.8	565.8
57.5°	527.5	533.0	508.4	295.2	109.3	232.3	453.7	502.9	505.6
60°	483.8	486.5	470.1	262.4	90.2	199.5	410.0	451.0	451.0
62.5°	453.7	456.4	437.3	243.3	76.5	174.9	363.5	401.8	404.5
65°	429.1	429.1	407.2	224.1	62.9	147.6	314.3	347.1	347.1
67.5°	401.8	396.3	374.4	199.5	49.2	120.3	265.1	289.7	287.0
70°	371.7	363.5	336.2	172.2	35.5	95.7	207.7	226.9	229.6
72.5°	336.2	325.3	289.7	142.1	27.3	71.1	153.1	169.5	169.5
75°	295.2	281.5	240.5	112.1	19.1	49.2	109.3	120.3	120.3
77.5°	246.0	232.3	191.3	82.0	13.7	32.8	73.8	82.0	82.0
80°	194.1	180.4	142.1	57.4	8.2	19.1	46.5	54.7	51.9
82.5°	144.9	131.2	95.7	35.5	5.5	10.9	30.1	30.1	27.3
85°	101.1	92.9	65.6	21.9	2.7	5.5	13.7	5.5	0.0
87.5°	68.3	60.1	41.0	10.9	0.0	2.7	2.7	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)