

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: P251869

Luminaire Tested: **LD4B40D010 EU4B30508030 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251869  
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 EU4B30508030 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3691.0 lumens  
Efficiency: N/A  
Efficacy: 85.8 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

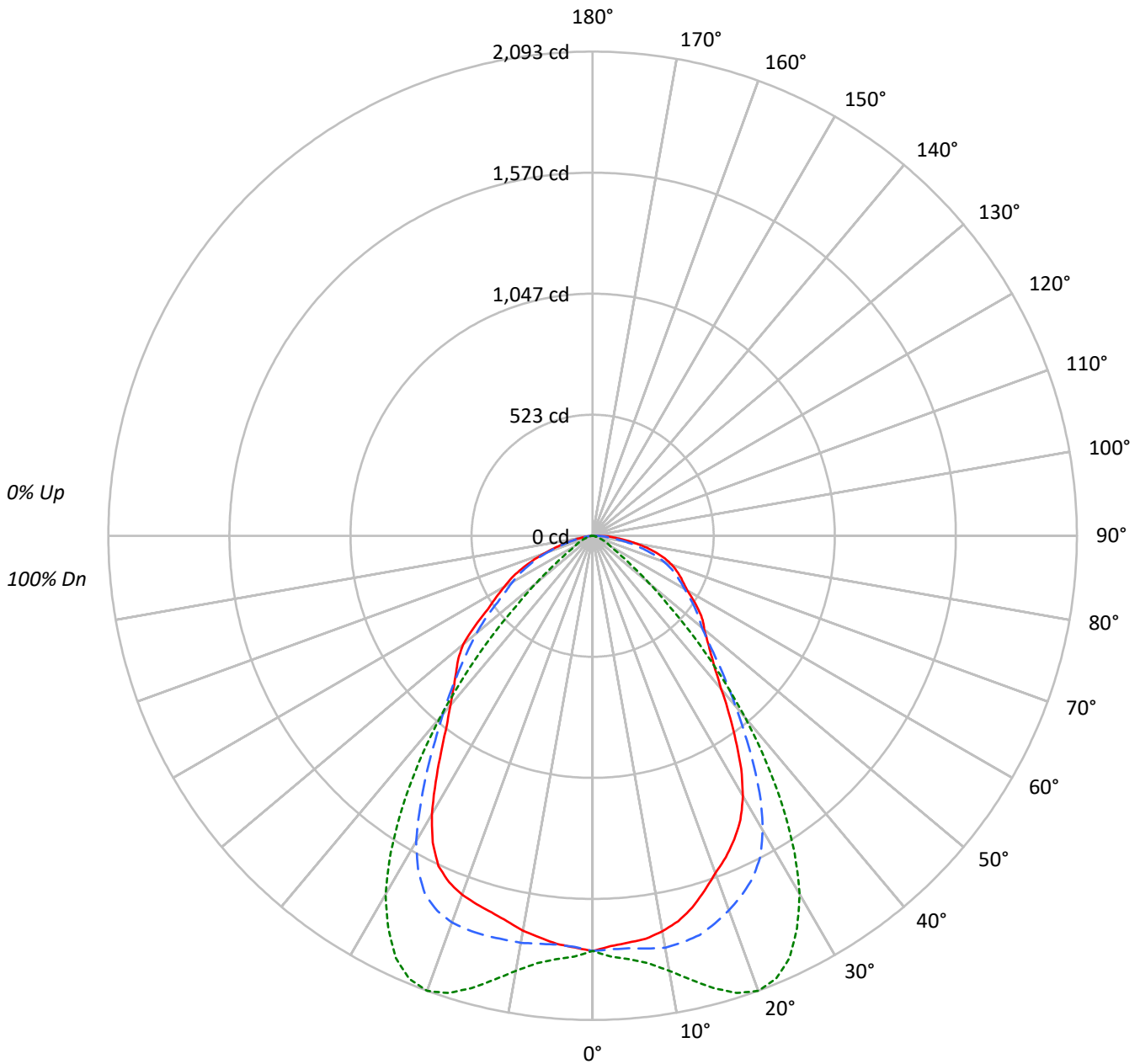
Input Watts (W): 43.02  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20					
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°	447	447	447
5°	442	460	443
10°	439	483	439
15°	429	522	435
20°	411	555	438
25°	398	553	433
30°	374	515	400
35°	328	436	347
40°	281	333	311
45°	255	219	294
50°	244	123	283
55°	243	66	240
60°	235	44	219
65°	247	36	200
70°	264	25	163
75°	277	18	113
80°	272	11	73
85°	282	8	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	171.8	4.7
10°-20°	514.3	13.9
20°-30°	784.5	21.3
30°-40°	783.0	21.2
40°-50°	577.4	15.6
50°-60°	394.5	10.7
60°-70°	278.5	7.5
70°-80°	148.7	4.0
80°-90°	38.2	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°	1470.7	39.8
0°-40°	2253.7	61.1
0°-60°	3225.6	87.4
0°-90°	3691.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3691.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1795	1795	1795	1795	1795	
5°	1765	1789	1837	1773	1771	168
15°	1664	1787	2024	1789	1685	467
25°	1448	1635	2013	1712	1576	663
35°	1077	1216	1435	1251	1141	673
45°	723	757	621	811	835	564
55°	560	539	152	501	552	498
65°	419	397	61	307	339	414
75°	288	235	19	107	117	299
85°	99	64	3	13	0	109
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°	1794.7	1794.7	1794.7	1794.7	1794.7	1794.7	1794.7	1794.7	1794.7
2.5°	1776.0	1786.7	1789.4	1808.0	1821.4	1805.4	1778.7	1778.7	1781.4
5°	1765.4	1778.7	1789.4	1821.4	1837.4	1810.7	1773.4	1768.0	1770.7
7.5°	1757.4	1776.0	1800.0	1848.0	1864.0	1829.4	1778.7	1757.4	1752.0
10°	1736.0	1762.7	1808.0	1877.4	1909.4	1866.7	1786.7	1746.7	1733.4
12.5°	1706.7	1738.7	1800.0	1909.4	1965.4	1901.4	1786.7	1728.0	1706.7
15°	1664.0	1698.7	1786.7	1936.0	2024.1	1938.7	1789.4	1709.4	1685.4
17.5°	1608.0	1650.7	1757.4	1949.4	2072.1	1973.4	1786.7	1696.0	1669.4
20°	1552.0	1602.7	1722.7	1949.4	2093.4	1986.7	1778.7	1682.7	1650.7
22.5°	1504.0	1554.7	1682.7	1925.4	2072.1	1970.7	1754.7	1658.7	1621.4
25°	1448.0	1501.4	1634.7	1874.7	2013.4	1922.7	1712.0	1610.7	1576.0
27.5°	1384.0	1442.7	1568.0	1794.7	1912.0	1834.7	1632.0	1533.4	1496.0
30°	1298.7	1352.0	1469.4	1680.0	1789.4	1714.7	1525.4	1424.0	1389.4
32.5°	1194.7	1242.7	1352.0	1541.4	1624.0	1562.7	1386.7	1301.4	1261.4
35°	1077.4	1120.0	1216.0	1365.4	1434.7	1397.4	1250.7	1170.7	1141.4
37.5°	968.0	1000.0	1080.0	1189.4	1232.0	1208.0	1117.4	1058.7	1034.7
40°	864.0	896.0	960.0	1013.4	1024.0	1032.0	1005.4	968.0	954.7
42.5°	784.0	813.4	853.4	848.0	816.0	861.4	904.0	898.7	888.0
45°	722.7	744.0	757.4	677.4	621.3	696.0	810.7	840.0	834.7
47.5°	672.0	682.7	674.7	541.3	440.0	541.3	728.0	786.7	786.7
50°	629.3	637.3	616.0	450.7	317.3	434.7	656.0	720.0	730.7
52.5°	600.0	602.7	576.0	381.3	218.7	344.0	578.7	634.7	642.7
55°	560.0	562.7	538.7	330.7	152.0	272.0	501.3	552.0	552.0
57.5°	514.7	520.0	496.0	288.0	106.7	226.7	442.7	490.7	493.3
60°	472.0	474.7	458.7	256.0	88.0	194.7	400.0	440.0	440.0
62.5°	442.7	445.3	426.7	237.3	74.7	170.7	354.7	392.0	394.7
65°	418.7	418.7	397.3	218.7	61.3	144.0	306.7	338.7	338.7
67.5°	392.0	386.7	365.3	194.7	48.0	117.3	258.7	282.7	280.0
70°	362.7	354.7	328.0	168.0	34.7	93.3	202.7	221.3	224.0
72.5°	328.0	317.3	282.7	138.7	26.7	69.3	149.3	165.3	165.3
75°	288.0	274.7	234.7	109.3	18.7	48.0	106.7	117.3	117.3
77.5°	240.0	226.7	186.7	80.0	13.3	32.0	72.0	80.0	80.0
80°	189.3	176.0	138.7	56.0	8.0	18.7	45.3	53.3	50.7
82.5°	141.3	128.0	93.3	34.7	5.3	10.7	29.3	29.3	26.7
85°	98.7	90.7	64.0	21.3	2.7	5.3	13.3	5.3	0.0
87.5°	66.7	58.7	40.0	10.7	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)