

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: P251891

Luminaire Tested: **LD4B50D010TE EU4B30509050 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251891  
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 EU4B30509050 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

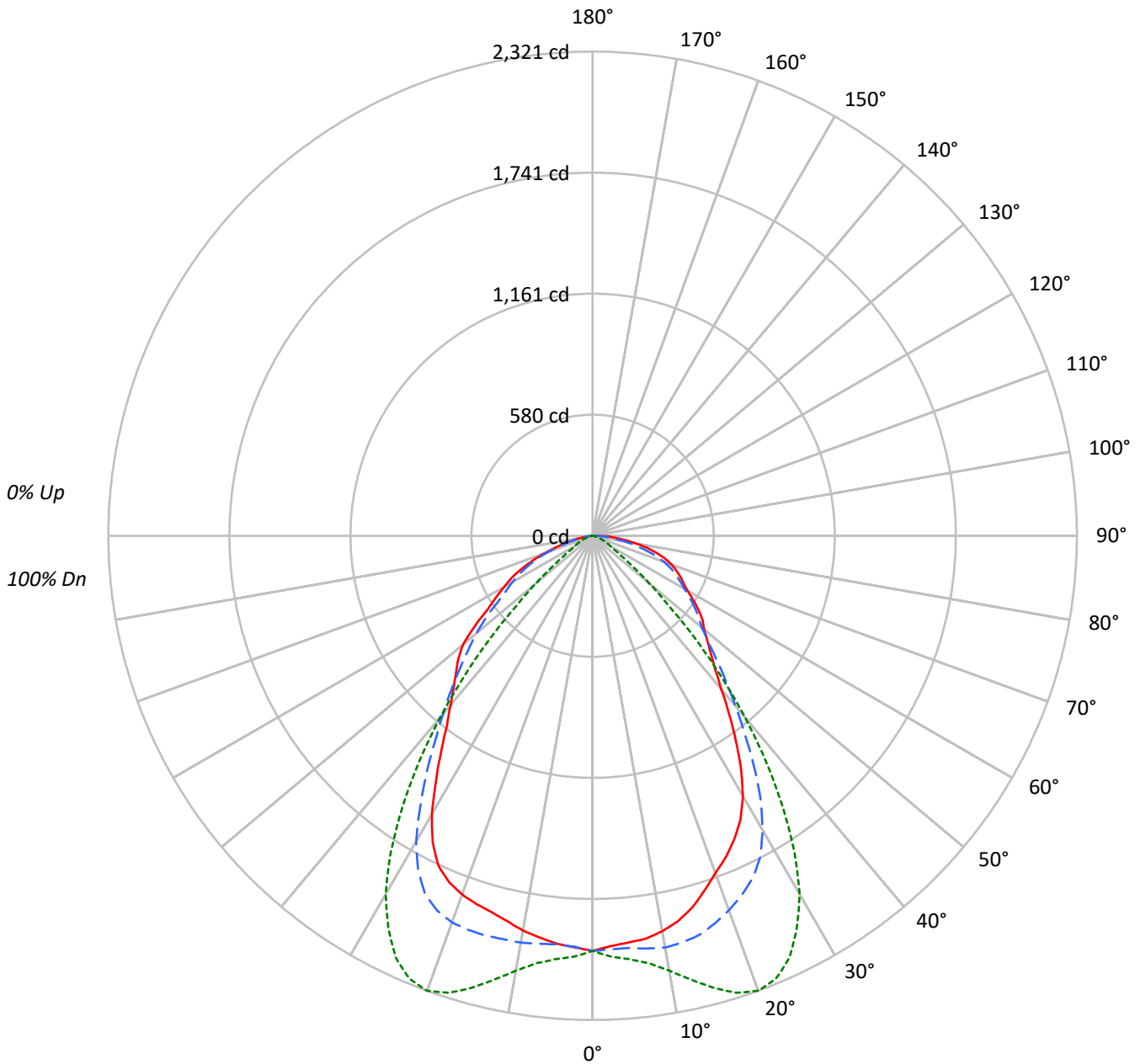
Lumens per Lamp: N/A  
Luminaire Lumens: 4092.0 lumens  
Efficiency: N/A  
Efficacy: 69.6 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.32 / 1.18  
Luminous Opening: Circular (Dia: 7.42' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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°	496	496	496
5°	490	509	491
10°	487	536	486
15°	476	579	482
20°	456	615	485
25°	441	614	480
30°	414	571	443
35°	363	484	385
40°	312	369	344
45°	282	243	326
50°	270	136	314
55°	270	73	266
60°	261	49	243
65°	274	40	221
70°	293	28	181
75°	307	20	125
80°	301	13	81
85°	313	9	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.5	4.7
10°-20°	570.2	13.9
20°-30°	869.7	21.3
30°-40°	868.1	21.2
40°-50°	640.1	15.6
50°-60°	437.3	10.7
60°-70°	308.8	7.5
70°-80°	164.9	4.0
80°-90°	42.3	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°	1630.4	39.8
0°-40°	2498.6	61.1
0°-60°	3576.0	87.4
0°-90°	4092.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4092.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1990	1990	1990	1990	1990	
5°	1957	1984	2037	1966	1963	186
15°	1845	1981	2244	1984	1868	517
25°	1605	1812	2232	1898	1747	735
35°	1194	1348	1591	1387	1265	746
45°	801	840	689	899	925	625
55°	621	597	168	556	612	552
65°	464	440	68	340	376	459
75°	319	260	21	118	130	331
85°	109	71	3	15	0	121
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°	1989.7	1989.7	1989.7	1989.7	1989.7	1989.7	1989.7	1989.7	1989.7
2.5°	1969.0	1980.8	1983.8	2004.5	2019.3	2001.5	1972.0	1972.0	1974.9
5°	1957.2	1972.0	1983.8	2019.3	2037.0	2007.4	1966.0	1960.1	1963.1
7.5°	1948.3	1969.0	1995.6	2048.8	2066.6	2028.1	1972.0	1948.3	1942.4
10°	1924.7	1954.2	2004.5	2081.3	2116.8	2069.5	1980.8	1936.5	1921.7
12.5°	1892.1	1927.6	1995.6	2116.8	2178.9	2108.0	1980.8	1915.8	1892.1
15°	1844.8	1883.3	1980.8	2146.4	2243.9	2149.3	1983.8	1895.1	1868.5
17.5°	1782.7	1830.0	1948.3	2161.2	2297.2	2187.8	1980.8	1880.3	1850.7
20°	1720.7	1776.8	1909.9	2161.2	2320.8	2202.6	1972.0	1865.5	1830.0
22.5°	1667.4	1723.6	1865.5	2134.6	2297.2	2184.8	1945.3	1838.9	1797.5
25°	1605.4	1664.5	1812.3	2078.4	2232.1	2131.6	1898.0	1785.7	1747.3
27.5°	1534.4	1599.4	1738.4	1989.7	2119.8	2034.0	1809.4	1700.0	1658.6
30°	1439.8	1498.9	1629.0	1862.6	1983.8	1901.0	1691.1	1578.7	1540.3
32.5°	1324.5	1377.7	1498.9	1708.8	1800.5	1732.5	1537.4	1442.8	1398.4
35°	1194.4	1241.7	1348.1	1513.7	1590.6	1549.2	1386.6	1297.9	1265.4
37.5°	1073.2	1108.7	1197.4	1318.6	1365.9	1339.3	1238.8	1173.7	1147.1
40°	957.9	993.4	1064.3	1123.5	1135.3	1144.1	1114.6	1073.2	1058.4
42.5°	869.2	901.7	946.1	940.2	904.7	954.9	1002.2	996.3	984.5
45°	801.2	824.9	839.6	750.9	688.9	771.6	898.8	931.3	925.4
47.5°	745.0	756.9	748.0	600.2	487.8	600.2	807.1	872.2	872.2
50°	697.7	706.6	682.9	499.6	351.8	481.9	727.3	798.2	810.1
52.5°	665.2	668.2	638.6	422.8	242.4	381.4	641.6	703.6	712.5
55°	620.9	623.8	597.2	366.6	168.5	301.6	555.8	612.0	612.0
57.5°	570.6	576.5	549.9	319.3	118.3	251.3	490.8	544.0	546.9
60°	523.3	526.2	508.5	283.8	97.6	215.8	443.5	487.8	487.8
62.5°	490.8	493.7	473.0	263.1	82.8	189.2	393.2	434.6	437.6
65°	464.2	464.2	440.5	242.4	68.0	159.6	340.0	375.5	375.5
67.5°	434.6	428.7	405.0	215.8	53.2	130.1	286.8	313.4	310.4
70°	402.1	393.2	363.6	186.3	38.4	103.5	224.7	245.4	248.3
72.5°	363.6	351.8	313.4	153.7	29.6	76.9	165.6	183.3	183.3
75°	319.3	304.5	260.2	121.2	20.7	53.2	118.3	130.1	130.1
77.5°	266.1	251.3	207.0	88.7	14.8	35.5	79.8	88.7	88.7
80°	209.9	195.1	153.7	62.1	8.9	20.7	50.3	59.1	56.2
82.5°	156.7	141.9	103.5	38.4	5.9	11.8	32.5	32.5	29.6
85°	109.4	100.5	71.0	23.7	3.0	5.9	14.8	5.9	0.0
87.5°	73.9	65.0	44.3	11.8	0.0	3.0	3.0	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)