

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: P251890

Luminaire Tested: **LD4B50D010TE EU4B30509040 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251890  
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 EU4B30509040 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

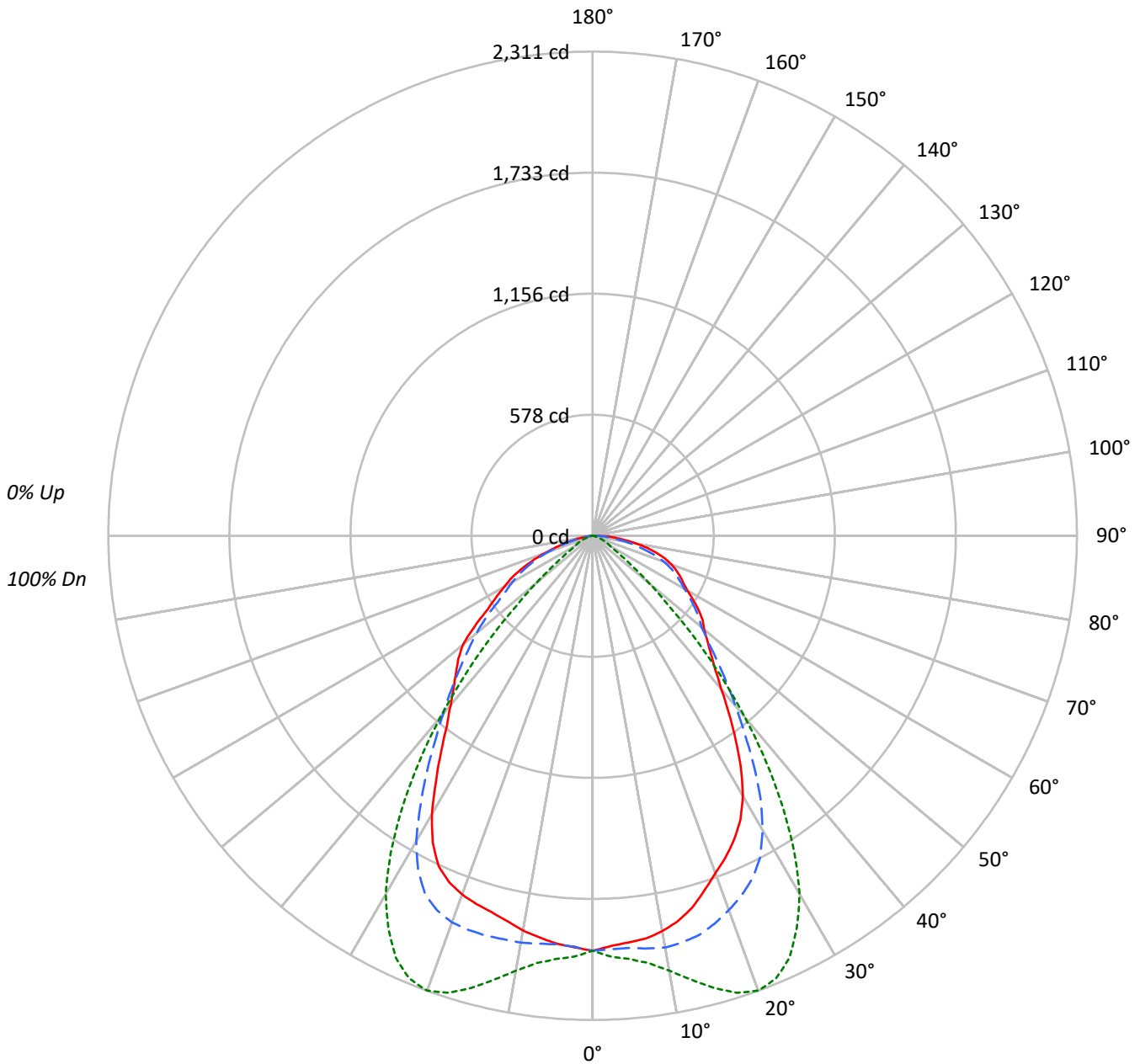
Lumens per Lamp: N/A  
Luminaire Lumens: 4074.0 lumens  
Efficiency: N/A  
Efficacy: 69.3 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.32 / 1.18  
Luminous Opening: Circular (Dia: 7.42' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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				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°	494	494	494
5°	487	507	489
10°	485	533	484
15°	474	576	480
20°	454	613	483
25°	439	611	478
30°	412	568	441
35°	362	482	383
40°	310	368	343
45°	281	242	325
50°	269	136	313
55°	268	73	265
60°	260	48	242
65°	272	40	220
70°	292	28	180
75°	306	20	125
80°	300	13	80
85°	311	8	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.7	4.7
10°-20°	567.7	13.9
20°-30°	865.9	21.3
30°-40°	864.3	21.2
40°-50°	637.3	15.6
50°-60°	435.4	10.7
60°-70°	307.4	7.5
70°-80°	164.2	4.0
80°-90°	42.1	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°	1623.3	39.8
0°-40°	2487.6	61.1
0°-60°	3560.3	87.4
0°-90°	4074.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4074.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1981	1981	1981	1981	1981	
5°	1949	1975	2028	1957	1954	185
15°	1837	1972	2234	1975	1860	515
25°	1598	1804	2222	1890	1740	732
35°	1189	1342	1584	1380	1260	743
45°	798	836	686	895	921	622
55°	618	595	168	553	609	549
65°	462	439	68	338	374	457
75°	318	259	21	118	130	330
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°	1980.9	1980.9	1980.9	1980.9	1980.9	1980.9	1980.9	1980.9	1980.9
2.5°	1960.3	1972.1	1975.1	1995.7	2010.4	1992.7	1963.3	1963.3	1966.2
5°	1948.6	1963.3	1975.1	2010.4	2028.0	1998.6	1957.4	1951.5	1954.5
7.5°	1939.7	1960.3	1986.8	2039.8	2057.5	2019.2	1963.3	1939.7	1933.8
10°	1916.2	1945.6	1995.7	2072.2	2107.5	2060.4	1972.1	1928.0	1913.2
12.5°	1883.8	1919.1	1986.8	2107.5	2169.3	2098.7	1972.1	1907.4	1883.8
15°	1836.7	1875.0	1972.1	2136.9	2234.1	2139.9	1975.1	1886.8	1860.3
17.5°	1774.9	1822.0	1939.7	2151.7	2287.1	2178.2	1972.1	1872.0	1842.6
20°	1713.1	1769.0	1901.5	2151.7	2310.6	2192.9	1963.3	1857.3	1822.0
22.5°	1660.1	1716.0	1857.3	2125.2	2287.1	2175.2	1936.8	1830.8	1789.6
25°	1598.3	1657.2	1804.3	2069.2	2222.3	2122.2	1889.7	1777.8	1739.6
27.5°	1527.7	1592.4	1730.7	1980.9	2110.5	2025.1	1801.4	1692.5	1651.3
30°	1433.5	1492.3	1621.8	1854.4	1975.1	1892.6	1683.7	1571.8	1533.5
32.5°	1318.7	1371.6	1492.3	1701.3	1792.6	1724.9	1530.6	1436.4	1392.3
35°	1189.2	1236.2	1342.2	1507.0	1583.6	1542.4	1380.5	1292.2	1259.8
37.5°	1068.5	1103.8	1192.1	1312.8	1359.9	1333.4	1233.3	1168.5	1142.1
40°	953.7	989.0	1059.6	1118.5	1130.3	1139.1	1109.7	1068.5	1053.8
42.5°	865.4	897.8	941.9	936.0	900.7	950.7	997.8	991.9	980.2
45°	797.7	821.2	835.9	747.6	685.8	768.2	894.8	927.2	921.3
47.5°	741.7	753.5	744.7	597.5	485.7	597.5	803.6	868.3	868.3
50°	694.7	703.5	679.9	497.4	350.3	479.8	724.1	794.7	806.5
52.5°	662.3	665.2	635.8	420.9	241.4	379.7	638.7	700.5	709.4
55°	618.1	621.1	594.6	365.0	167.8	300.2	553.4	609.3	609.3
57.5°	568.1	574.0	547.5	317.9	117.7	250.2	488.6	541.6	544.5
60°	521.0	523.9	506.3	282.6	97.1	214.9	441.5	485.7	485.7
62.5°	488.6	491.6	471.0	262.0	82.4	188.4	391.5	432.7	435.6
65°	462.1	462.1	438.6	241.4	67.7	158.9	338.5	373.8	373.8
67.5°	432.7	426.8	403.3	214.9	53.0	129.5	285.5	312.0	309.1
70°	400.3	391.5	362.0	185.4	38.3	103.0	223.7	244.3	247.2
72.5°	362.0	350.3	312.0	153.1	29.4	76.5	164.8	182.5	182.5
75°	317.9	303.2	259.0	120.7	20.6	53.0	117.7	129.5	129.5
77.5°	264.9	250.2	206.0	88.3	14.7	35.3	79.5	88.3	88.3
80°	209.0	194.3	153.1	61.8	8.8	20.6	50.0	58.9	55.9
82.5°	156.0	141.3	103.0	38.3	5.9	11.8	32.4	32.4	29.4
85°	108.9	100.1	70.6	23.5	2.9	5.9	14.7	5.9	0.0
87.5°	73.6	64.8	44.2	11.8	0.0	2.9	2.9	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)