

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: P251885

Luminaire Tested: **LD4B50D010TE EU4B30508050 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251885  
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 EU4B30508050 4LBDW1LI  
Description: PORTFOLIO 4 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

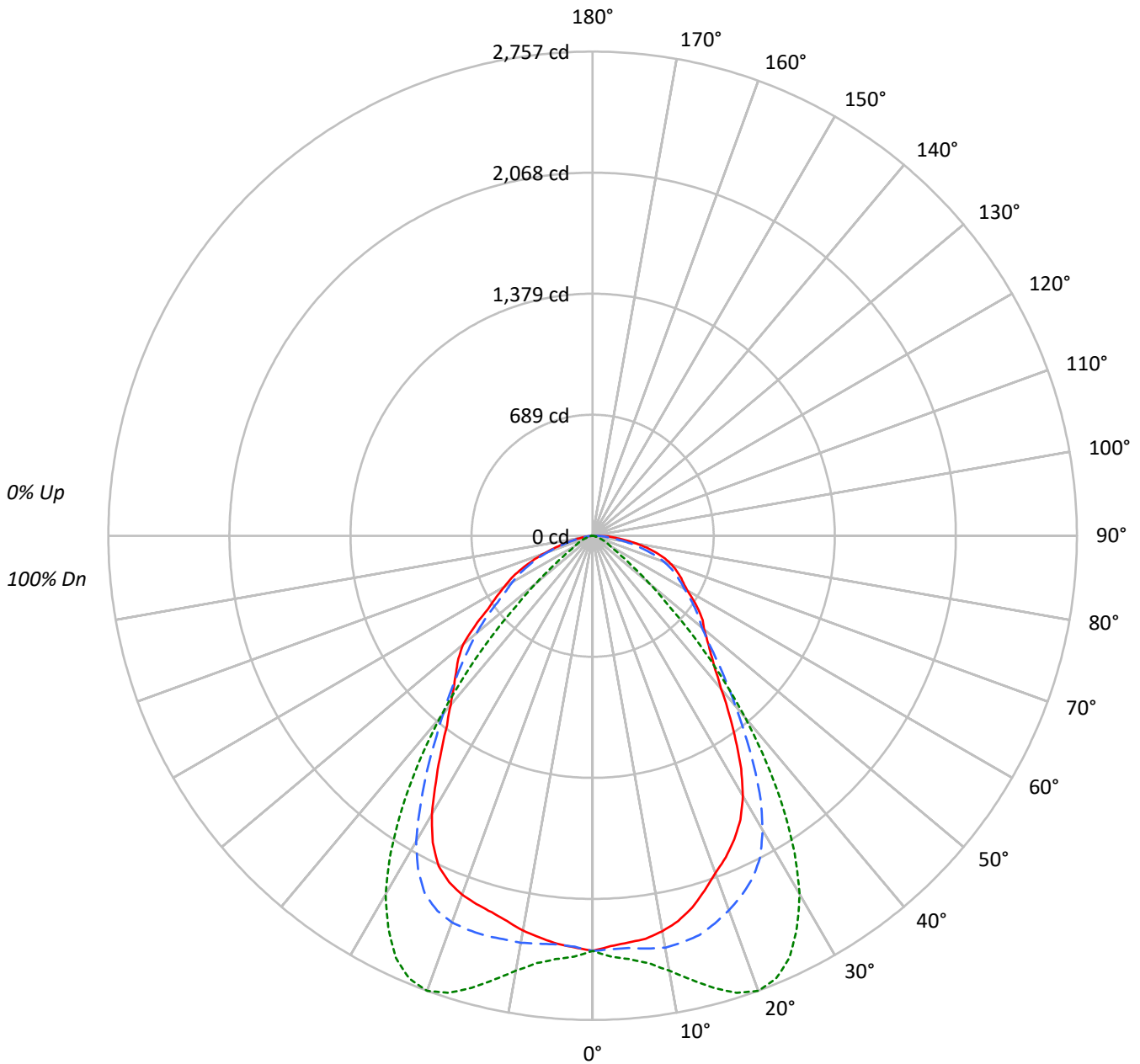
Lumens per Lamp: N/A  
Luminaire Lumens: 4861.0 lumens  
Efficiency: N/A  
Efficacy: 82.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.32 / 1.18  
Luminous Opening: Circular (Dia: 7.42' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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°	589	589	589
5°	581	605	583
10°	578	636	578
15°	565	688	573
20°	542	731	576
25°	524	729	571
30°	492	678	526
35°	432	575	457
40°	370	439	409
45°	335	288	387
50°	321	162	373
55°	320	87	316
60°	310	58	289
65°	325	48	263
70°	348	33	215
75°	365	24	149
80°	358	15	96
85°	371	10	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	226.3	4.7
10°-20°	677.4	13.9
20°-30°	1033.2	21.3
30°-40°	1031.2	21.2
40°-50°	760.4	15.6
50°-60°	519.5	10.7
60°-70°	366.8	7.5
70°-80°	195.9	4.0
80°-90°	50.3	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°	1936.8	39.8
0°-40°	2968.1	61.1
0°-60°	4248.1	87.4
0°-90°	4861.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4861.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2364	2364	2364	2364	2364	
5°	2325	2357	2420	2336	2332	221
15°	2192	2353	2666	2357	2220	615
25°	1907	2153	2652	2255	2076	874
35°	1419	1602	1890	1647	1503	887
45°	952	997	818	1068	1099	743
55°	738	709	200	660	727	655
65°	551	523	81	404	446	545
75°	379	309	25	140	154	393
85°	130	84	4	18	0	144
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°	2363.6	2363.6	2363.6	2363.6	2363.6	2363.6	2363.6	2363.6	2363.6
2.5°	2339.0	2353.1	2356.6	2381.2	2398.7	2377.7	2342.5	2342.5	2346.1
5°	2325.0	2342.5	2356.6	2398.7	2419.8	2384.7	2335.5	2328.5	2332.0
7.5°	2314.4	2339.0	2370.6	2433.9	2454.9	2409.3	2342.5	2314.4	2307.4
10°	2286.3	2321.5	2381.2	2472.5	2514.6	2458.4	2353.1	2300.4	2282.8
12.5°	2247.7	2289.9	2370.6	2514.6	2588.4	2504.1	2353.1	2275.8	2247.7
15°	2191.5	2237.2	2353.1	2549.8	2665.6	2553.3	2356.6	2251.2	2219.6
17.5°	2117.8	2174.0	2314.4	2567.3	2728.9	2598.9	2353.1	2233.7	2198.5
20°	2044.0	2110.7	2268.8	2567.3	2757.0	2616.5	2342.5	2216.1	2174.0
22.5°	1980.8	2047.5	2216.1	2535.7	2728.9	2595.4	2310.9	2184.5	2135.3
25°	1907.0	1977.3	2152.9	2469.0	2651.6	2532.2	2254.7	2121.3	2075.6
27.5°	1822.8	1900.0	2065.1	2363.6	2518.1	2416.3	2149.4	2019.4	1970.3
30°	1710.4	1780.6	1935.1	2212.6	2356.6	2258.3	2008.9	1875.4	1829.8
32.5°	1573.4	1636.6	1780.6	2030.0	2138.8	2058.1	1826.3	1713.9	1661.2
35°	1418.9	1475.1	1601.5	1798.2	1889.5	1840.3	1647.2	1541.8	1503.2
37.5°	1274.9	1317.0	1422.4	1566.4	1622.6	1591.0	1471.6	1394.3	1362.7
40°	1137.9	1180.1	1264.3	1334.6	1348.6	1359.2	1324.0	1274.9	1257.3
42.5°	1032.5	1071.2	1123.9	1116.8	1074.7	1134.4	1190.6	1183.6	1169.5
45°	951.8	979.9	997.4	892.1	818.3	916.6	1067.7	1106.3	1099.3
47.5°	885.0	899.1	888.5	712.9	579.5	712.9	958.8	1036.1	1036.1
50°	828.8	839.4	811.3	593.5	417.9	572.5	864.0	948.3	962.3
52.5°	790.2	793.7	758.6	502.2	288.0	453.1	762.1	835.9	846.4
55°	737.5	741.0	709.4	435.5	200.2	358.2	660.3	727.0	727.0
57.5°	677.8	684.9	653.2	379.3	140.5	298.5	583.0	646.2	649.7
60°	621.6	625.1	604.1	337.2	115.9	256.4	526.8	579.5	579.5
62.5°	583.0	586.5	561.9	312.6	98.3	224.8	467.1	516.3	519.8
65°	551.4	551.4	523.3	288.0	80.8	189.7	403.9	446.0	446.0
67.5°	516.3	509.2	481.2	256.4	63.2	154.5	340.7	372.3	368.8
70°	477.6	467.1	432.0	221.3	45.7	122.9	266.9	291.5	295.0
72.5°	432.0	417.9	372.3	182.6	35.1	91.3	196.7	217.7	217.7
75°	379.3	361.7	309.1	144.0	24.6	63.2	140.5	154.5	154.5
77.5°	316.1	298.5	245.8	105.4	17.6	42.1	94.8	105.4	105.4
80°	249.4	231.8	182.6	73.8	10.5	24.6	59.7	70.2	66.7
82.5°	186.1	168.6	122.9	45.7	7.0	14.0	38.6	38.6	35.1
85°	129.9	119.4	84.3	28.1	3.5	7.0	17.6	7.0	0.0
87.5°	87.8	77.3	52.7	14.0	0.0	3.5	3.5	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)