

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: P251846

Luminaire Tested: **LD4B20D010 EU4B10208050 4LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251846  
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: LD4B20D010 EU4B10208050 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: 1894.0 lumens  
Efficiency: N/A  
Efficacy: 91.1 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

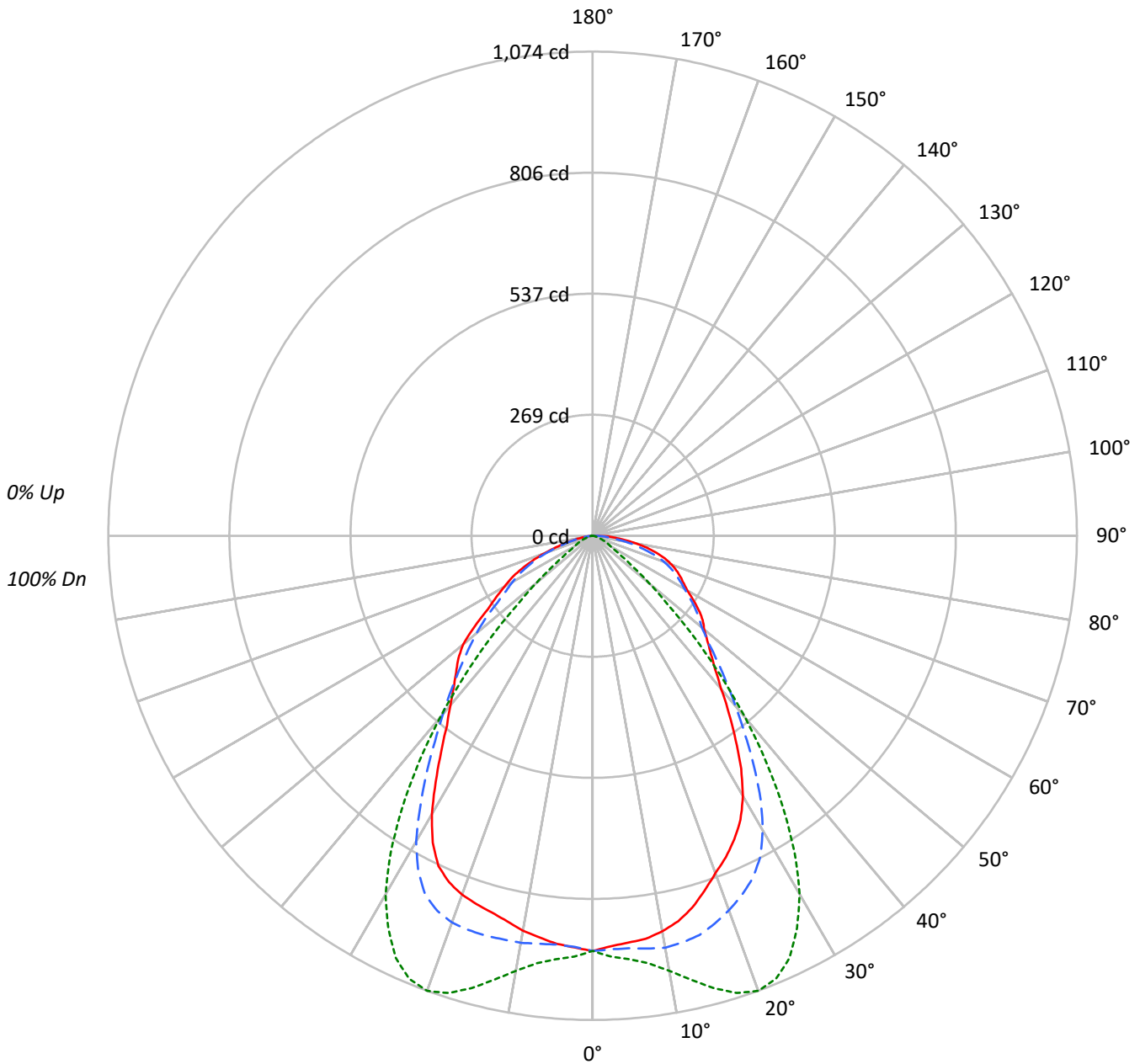
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	229	229	229
5°	227	236	227
10°	225	248	225
15°	220	268	223
20°	211	285	225
25°	204	284	222
30°	192	264	205
35°	168	224	178
40°	144	171	159
45°	131	112	151
50°	125	63	145
55°	125	34	123
60°	121	23	113
65°	127	19	102
70°	136	13	84
75°	142	9	58
80°	139	6	37
85°	145	4	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.2	4.7
10°-20°	263.9	13.9
20°-30°	402.5	21.3
30°-40°	401.8	21.2
40°-50°	296.3	15.6
50°-60°	202.4	10.7
60°-70°	142.9	7.5
70°-80°	76.3	4.0
80°-90°	19.6	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°	754.7	39.8
0°-40°	1156.5	61.1
0°-60°	1655.2	87.4
0°-90°	1894.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1894.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	921	921	921	921	921	
5°	906	918	943	910	909	86
15°	854	917	1039	918	865	239
25°	743	839	1033	878	809	340
35°	553	624	736	642	586	345
45°	371	389	319	416	428	289
55°	287	276	78	257	283	255
65°	215	204	32	157	174	212
75°	148	120	10	55	60	153
85°	51	33	1	7	0	56
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°	920.9	920.9	920.9	920.9	920.9	920.9	920.9	920.9	920.9
2.5°	911.4	916.8	918.2	927.8	934.6	926.4	912.7	912.7	914.1
5°	905.9	912.7	918.2	934.6	942.8	929.1	910.0	907.3	908.6
7.5°	901.8	911.4	923.7	948.3	956.5	938.7	912.7	901.8	899.0
10°	890.8	904.5	927.8	963.4	979.8	957.9	916.8	896.3	889.5
12.5°	875.8	892.2	923.7	979.8	1008.5	975.7	916.8	886.7	875.8
15°	853.9	871.7	916.8	993.5	1038.6	994.8	918.2	877.1	864.8
17.5°	825.2	847.0	901.8	1000.3	1063.3	1012.6	916.8	870.3	856.6
20°	796.4	822.4	884.0	1000.3	1074.2	1019.5	912.7	863.5	847.0
22.5°	771.8	797.8	863.5	988.0	1063.3	1011.3	900.4	851.1	832.0
25°	743.0	770.4	838.8	962.0	1033.1	986.6	878.5	826.5	808.7
27.5°	710.2	740.3	804.6	920.9	981.1	941.5	837.5	786.8	767.7
30°	666.4	693.8	754.0	862.1	918.2	879.9	782.7	730.7	712.9
32.5°	613.0	637.7	693.8	790.9	833.4	801.9	711.6	667.8	647.3
35°	552.8	574.7	624.0	700.6	736.2	717.0	641.8	600.7	585.7
37.5°	496.7	513.2	554.2	610.3	632.2	619.9	573.4	543.3	530.9
40°	443.4	459.8	492.6	520.0	525.5	529.6	515.9	496.7	489.9
42.5°	402.3	417.4	437.9	435.2	418.7	442.0	463.9	461.2	455.7
45°	370.8	381.8	388.6	347.6	318.8	357.2	416.0	431.0	428.3
47.5°	344.8	350.3	346.2	277.8	225.8	277.8	373.6	403.7	403.7
50°	322.9	327.0	316.1	231.3	162.8	223.1	336.6	369.5	374.9
52.5°	307.9	309.3	295.6	195.7	112.2	176.5	296.9	325.7	329.8
55°	287.4	288.7	276.4	169.7	78.0	139.6	257.3	283.3	283.3
57.5°	264.1	266.8	254.5	147.8	54.7	116.3	227.2	251.8	253.2
60°	242.2	243.6	235.4	131.4	45.2	99.9	205.3	225.8	225.8
62.5°	227.2	228.5	218.9	121.8	38.3	87.6	182.0	201.2	202.5
65°	214.8	214.8	203.9	112.2	31.5	73.9	157.4	173.8	173.8
67.5°	201.2	198.4	187.5	99.9	24.6	60.2	132.7	145.1	143.7
70°	186.1	182.0	168.3	86.2	17.8	47.9	104.0	113.6	114.9
72.5°	168.3	162.8	145.1	71.2	13.7	35.6	76.6	84.8	84.8
75°	147.8	140.9	120.4	56.1	9.6	24.6	54.7	60.2	60.2
77.5°	123.2	116.3	95.8	41.1	6.8	16.4	36.9	41.1	41.1
80°	97.2	90.3	71.2	28.7	4.1	9.6	23.3	27.4	26.0
82.5°	72.5	65.7	47.9	17.8	2.7	5.5	15.1	15.1	13.7
85°	50.6	46.5	32.8	10.9	1.4	2.7	6.8	2.7	0.0
87.5°	34.2	30.1	20.5	5.5	0.0	1.4	1.4	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)