

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: P251852

Luminaire Tested: **LD4B20D010 EU4B10209050 4LBDW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P251852
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 EU4B10209050 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: 1594.0 lumens
Efficiency: N/A
Efficacy: 76.6 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

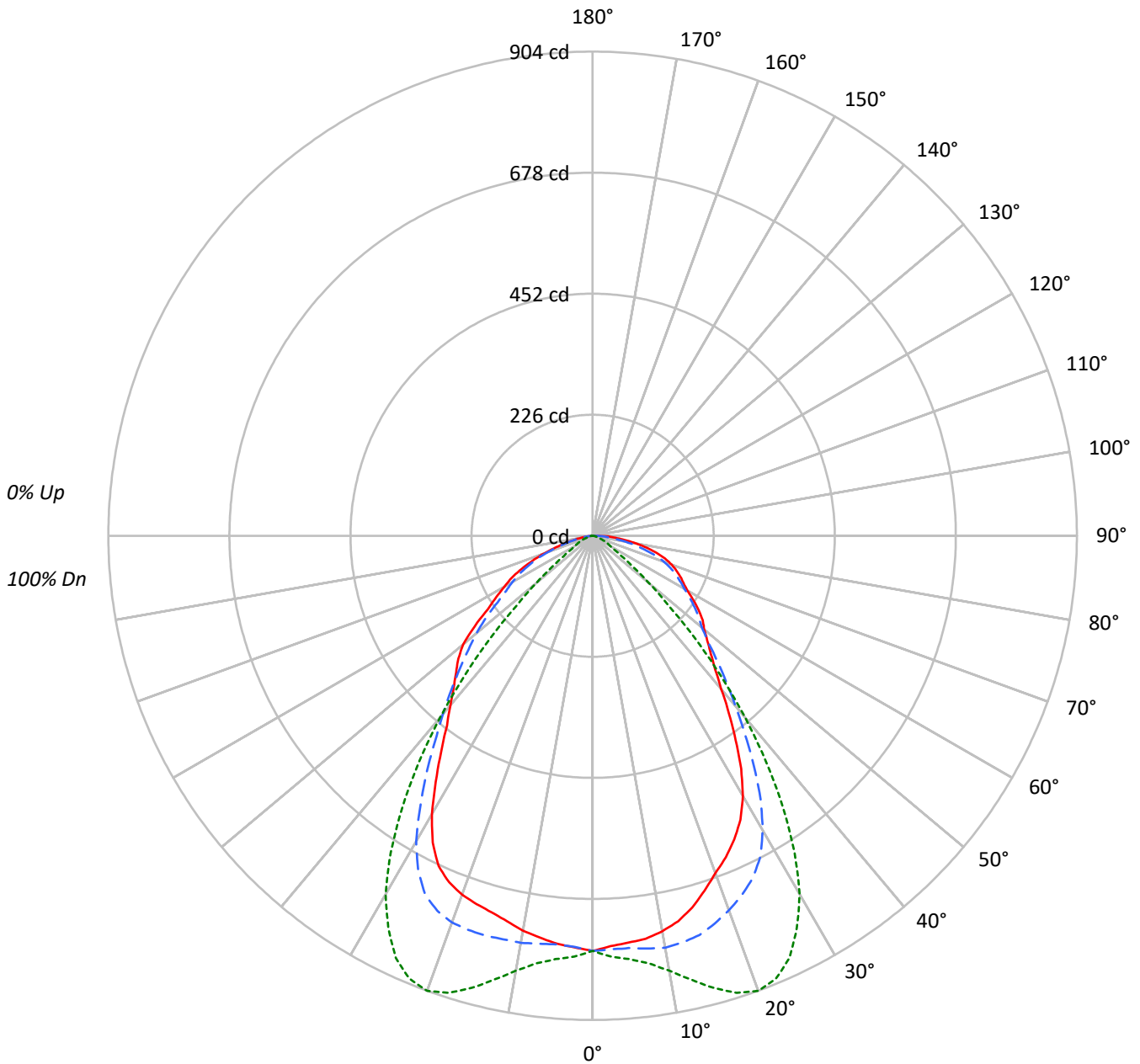
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	193	193	193
5°	191	198	191
10°	190	209	189
15°	185	225	188
20°	178	240	189
25°	172	239	187
30°	161	222	173
35°	142	188	150
40°	121	144	134
45°	110	95	127
50°	105	53	122
55°	105	28	104
60°	102	19	95
65°	107	16	86
70°	114	11	70
75°	120	8	49
80°	117	5	31
85°	122	3	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	4.7
10°-20°	222.1	13.9
20°-30°	338.8	21.3
30°-40°	338.2	21.2
40°-50°	249.4	15.6
50°-60°	170.4	10.7
60°-70°	120.3	7.5
70°-80°	64.2	4.0
80°-90°	16.5	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°	635.1	39.8
0°-40°	973.3	61.1
0°-60°	1393.0	87.4
0°-90°	1594.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1594.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	775	775	775	775	775	
5°	762	773	794	766	765	72
15°	719	772	874	773	728	202
25°	625	706	870	739	681	286
35°	465	525	620	540	493	291
45°	312	327	268	350	360	244
55°	242	233	66	216	238	215
65°	181	172	26	132	146	179
75°	124	101	8	46	51	129
85°	43	28	1	6	0	47
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°	775.1	775.1	775.1	775.1	775.1	775.1	775.1	775.1	775.1
2.5°	767.0	771.6	772.8	780.8	786.6	779.7	768.2	768.2	769.3
5°	762.4	768.2	772.8	786.6	793.5	782.0	765.9	763.6	764.7
7.5°	758.9	767.0	777.4	798.1	805.0	790.0	768.2	758.9	756.6
10°	749.7	761.2	780.8	810.8	824.6	806.2	771.6	754.3	748.6
12.5°	737.1	750.9	777.4	824.6	848.8	821.1	771.6	746.3	737.1
15°	718.6	733.6	771.6	836.1	874.1	837.3	772.8	738.2	727.8
17.5°	694.5	712.9	758.9	841.9	894.8	852.2	771.6	732.5	720.9
20°	670.3	692.1	744.0	841.9	904.1	858.0	768.2	726.7	712.9
22.5°	649.5	671.4	726.7	831.5	894.8	851.1	757.8	716.3	700.2
25°	625.4	648.4	706.0	809.6	869.5	830.3	739.4	695.6	680.6
27.5°	597.7	623.0	677.2	775.1	825.7	792.3	704.8	662.2	646.1
30°	560.9	583.9	634.6	725.5	772.8	740.5	658.7	615.0	600.0
32.5°	515.9	536.7	583.9	665.7	701.4	674.9	598.9	562.0	544.7
35°	465.3	483.7	525.2	589.6	619.6	603.5	540.1	505.6	492.9
37.5°	418.1	431.9	466.4	513.6	532.1	521.7	482.5	457.2	446.8
40°	373.1	387.0	414.6	437.6	442.2	445.7	434.2	418.1	412.3
42.5°	338.6	351.3	368.5	366.2	352.4	372.0	390.4	388.1	383.5
45°	312.1	321.3	327.1	292.5	268.3	300.6	350.1	362.8	360.5
47.5°	290.2	294.8	291.4	233.8	190.0	233.8	314.4	339.7	339.7
50°	271.8	275.2	266.0	194.6	137.0	187.7	283.3	310.9	315.6
52.5°	259.1	260.3	248.8	164.7	94.4	148.6	249.9	274.1	277.5
55°	241.8	243.0	232.6	142.8	65.6	117.5	216.5	238.4	238.4
57.5°	222.3	224.6	214.2	124.4	46.1	97.9	191.2	211.9	213.1
60°	203.8	205.0	198.1	110.6	38.0	84.1	172.7	190.0	190.0
62.5°	191.2	192.3	184.3	102.5	32.2	73.7	153.2	169.3	170.4
65°	180.8	180.8	171.6	94.4	26.5	62.2	132.4	146.3	146.3
67.5°	169.3	167.0	157.8	84.1	20.7	50.7	111.7	122.1	120.9
70°	156.6	153.2	141.7	72.6	15.0	40.3	87.5	95.6	96.7
72.5°	141.7	137.0	122.1	59.9	11.5	29.9	64.5	71.4	71.4
75°	124.4	118.6	101.3	47.2	8.1	20.7	46.1	50.7	50.7
77.5°	103.6	97.9	80.6	34.5	5.8	13.8	31.1	34.5	34.5
80°	81.8	76.0	59.9	24.2	3.5	8.1	19.6	23.0	21.9
82.5°	61.0	55.3	40.3	15.0	2.3	4.6	12.7	12.7	11.5
85°	42.6	39.2	27.6	9.2	1.2	2.3	5.8	2.3	0.0
87.5°	28.8	25.3	17.3	4.6	0.0	1.2	1.2	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)