

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: P274364

Luminaire Tested: **LD4B10DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MB**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P274364
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1808-906-3)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B10DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MB
Description: PORTFOLIO 4" W2N SQ DOWNLIGHT, CAST SHALLOW WITH MATTE BLACK FINISH
Light Source: W2N 2000K-5000K CCT TUNING RANGE
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 712.0 lumens
Efficiency: N/A
Efficacy: 50.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.35
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

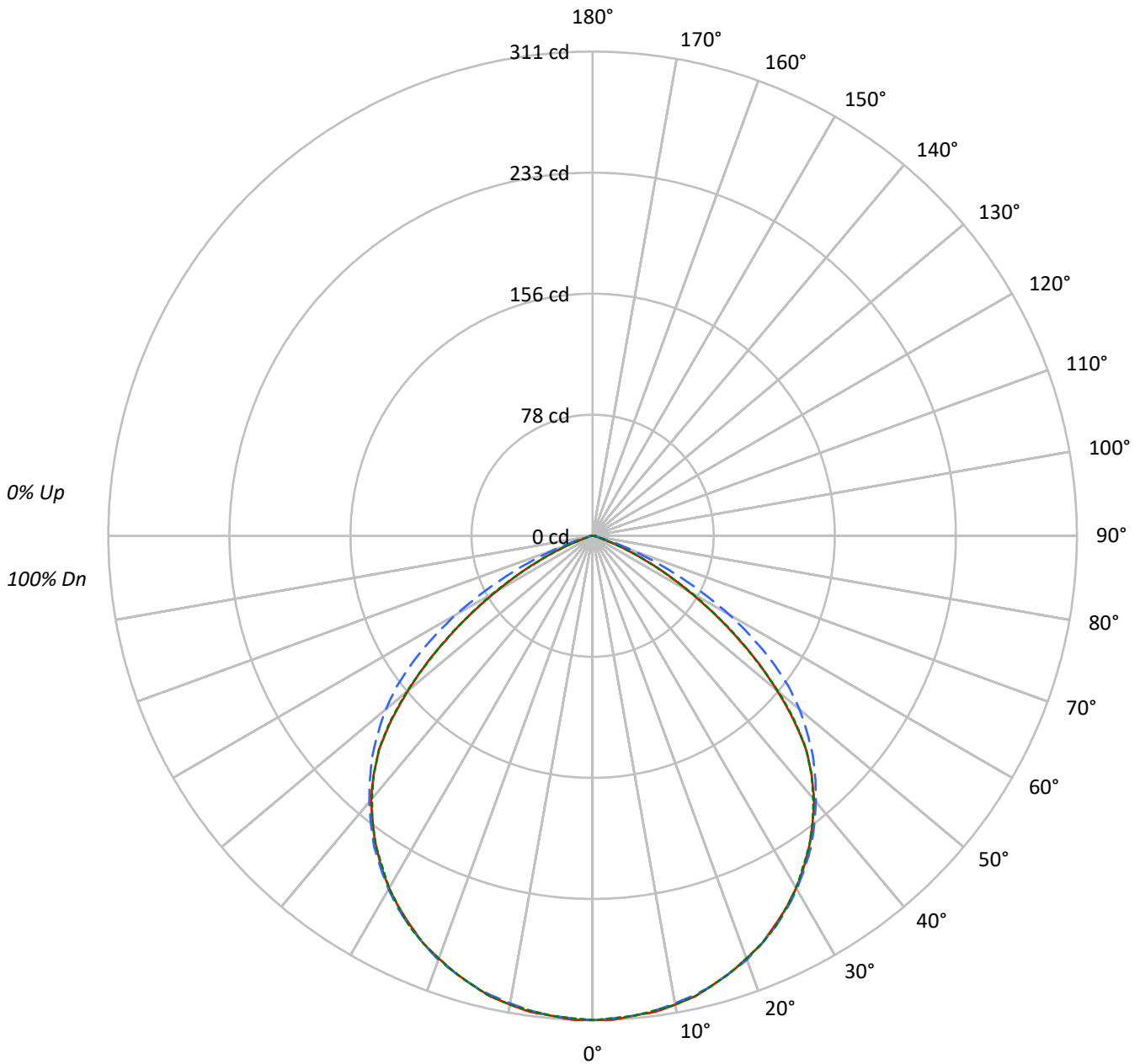
Input Watts (W): 14
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67																			
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58																			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51																			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																			
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40																			
8	65	52	44	39	63	51	44	38	50	43	38	49	43	38	48	42	38	36																			
9	60	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																			
10	57	44	37	32	55	44	36	32	43	36	31	42	36	31	41	35	31	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23813	23813	23813
5°	23765	23765	23765
10°	23768	23698	23768
15°	23670	23670	23670
20°	23533	23606	23533
25°	23344	23420	23420
30°	23095	23174	23095
35°	22678	22837	22678
40°	22112	22292	22022
45°	20979	21650	20979
50°	18422	20637	18529
55°	14946	18736	15066
60°	10884	15508	11160
65°	6756	10939	6756
70°	2775	5975	2775
75°	532	1834	532
80°	793	793	793
85°	1581	1581	1581



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.4	4.1
10°-20°	84.3	11.8
20°-30°	127.5	17.9
30°-40°	151.9	21.3
40°-50°	150.7	21.2
50°-60°	111.6	15.7
60°-70°	48.5	6.8
70°-80°	6.4	0.9
80°-90°	1.7	0.2
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°	241.2	33.9
0°-40°	393.1	55.2
0°-60°	655.4	92.0
0°-90°	712.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	712.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	311	311	311	311	311	
5°	309	310	309	309	309	29
15°	299	299	299	298	299	84
25°	276	276	277	277	277	127
35°	243	244	244	244	243	152
45°	194	197	200	196	194	147
55°	112	124	140	125	113	100
65°	37	46	60	47	37	38
75°	2	3	6	3	2	4
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	311.1	311.1	311.1	311.1	311.1
2.5°	311.1	310.2	310.2	310.2	310.2
5°	309.3	310.2	309.3	309.3	309.3
7.5°	308.4	308.4	307.6	307.6	307.6
10°	305.8	305.8	304.9	304.9	305.8
12.5°	303.1	302.2	302.2	302.2	303.1
15°	298.7	298.7	298.7	297.8	298.7
17.5°	294.2	294.2	294.2	294.2	294.2
20°	288.9	288.9	289.8	288.9	288.9
22.5°	283.6	283.6	283.6	283.6	283.6
25°	276.4	276.4	277.3	277.3	277.3
27.5°	269.3	269.3	270.2	269.3	269.3
30°	261.3	261.3	262.2	261.3	261.3
32.5°	252.4	252.4	253.3	251.6	251.6
35°	242.7	243.6	244.4	243.6	242.7
37.5°	232.0	232.9	233.8	232.0	232.0
40°	221.3	222.2	223.1	221.3	220.4
42.5°	208.0	210.7	211.6	209.8	208.0
45°	193.8	197.3	200.0	196.4	193.8
47.5°	175.1	181.3	186.7	182.2	176.0
50°	154.7	164.4	173.3	164.4	155.6
52.5°	134.2	144.0	158.2	144.9	133.3
55°	112.0	124.4	140.4	125.3	112.9
57.5°	91.6	103.1	120.9	104.0	91.6
60°	71.1	83.6	101.3	84.4	72.9
62.5°	54.2	64.0	80.0	64.0	53.3
65°	37.3	46.2	60.4	47.1	37.3
67.5°	23.1	31.1	41.8	31.1	24.0
70°	12.4	17.8	26.7	18.7	12.4
72.5°	4.4	8.0	14.2	8.0	4.4
75°	1.8	2.7	6.2	2.7	1.8
77.5°	1.8	1.8	2.7	1.8	1.8
80°	1.8	1.8	1.8	1.8	1.8
82.5°	1.8	1.8	1.8	1.8	1.8
85°	1.8	1.8	1.8	1.8	1.8
87.5°	1.8	1.8	1.8	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)