

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: P274336

Luminaire Tested: **LD4B20DE010W2N2050 EU4B1020W2N902050 4LBDW0LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P274336
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: LD4B20DE010W2N2050 EU4B1020W2N902050 4LBDW0LI
Description: PORTFOLIO 4" W2N RN DOWNLIGHT, DOUBLE WALLWASH WITH SPECULAR FINISH
Light Source: W2N 2000K-5000K CCT TUNING RANGE
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1383.4 lumens
Efficiency: N/A
Efficacy: 49.4 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

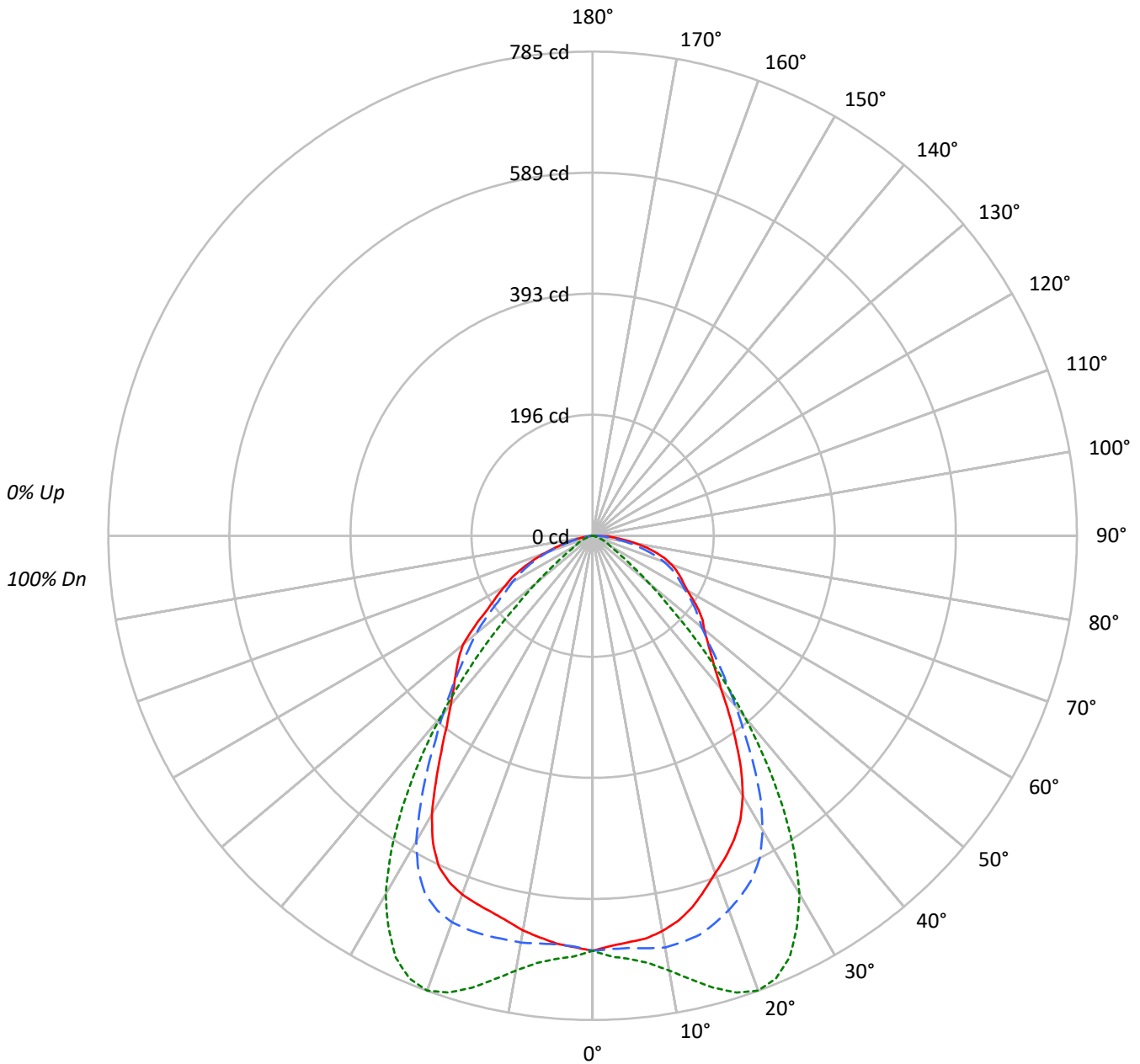
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
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	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°	168	168	168
5°	165	172	166
10°	165	181	164
15°	161	196	163
20°	154	208	164
25°	149	207	162
30°	140	193	150
35°	123	164	130
40°	105	125	116
45°	95	82	110
50°	91	46	106
55°	91	25	90
60°	88	16	82
65°	92	14	75
70°	99	9	61
75°	104	7	42
80°	102	4	27
85°	106	3	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.4	4.7
10°-20°	192.8	13.9
20°-30°	294.0	21.3
30°-40°	293.5	21.2
40°-50°	216.4	15.6
50°-60°	147.9	10.7
60°-70°	104.4	7.5
70°-80°	55.8	4.0
80°-90°	14.3	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°	551.2	39.8
0°-40°	844.7	61.1
0°-60°	1209.0	87.4
0°-90°	1383.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1383.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	673	673	673	673	673	
5°	662	671	689	665	664	63
15°	624	670	759	671	632	175
25°	543	613	755	642	591	249
35°	404	456	538	469	428	252
45°	271	284	233	304	313	211
55°	210	202	57	188	207	187
65°	157	149	23	115	127	155
75°	108	88	7	40	44	112
85°	37	24	1	5	0	41
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°	672.7	672.7	672.7	672.7	672.7	672.7	672.7	672.7	672.7
2.5°	665.7	669.7	670.7	677.7	682.7	676.7	666.7	666.7	667.7
5°	661.7	666.7	670.7	682.7	688.7	678.7	664.7	662.7	663.7
7.5°	658.7	665.7	674.7	692.7	698.7	685.7	666.7	658.7	656.7
10°	650.7	660.7	677.7	703.7	715.7	699.7	669.7	654.7	649.7
12.5°	639.7	651.7	674.7	715.7	736.6	712.7	669.7	647.7	639.7
15°	623.7	636.7	669.7	725.7	758.6	726.7	670.7	640.7	631.7
17.5°	602.7	618.7	658.7	730.6	776.6	739.6	669.7	635.7	625.7
20°	581.7	600.7	645.7	730.6	784.6	744.6	666.7	630.7	618.7
22.5°	563.7	582.7	630.7	721.7	776.6	738.6	657.7	621.7	607.7
25°	542.7	562.7	612.7	702.7	754.6	720.7	641.7	603.7	590.7
27.5°	518.8	540.7	587.7	672.7	716.7	687.7	611.7	574.7	560.7
30°	486.8	506.8	550.7	629.7	670.7	642.7	571.7	533.7	520.8
32.5°	447.8	465.8	506.8	577.7	608.7	585.7	519.8	487.8	472.8
35°	403.8	419.8	455.8	511.8	537.7	523.7	468.8	438.8	427.8
37.5°	362.8	374.8	404.8	445.8	461.8	452.8	418.8	396.8	387.8
40°	323.8	335.8	359.8	379.8	383.8	386.8	376.8	362.8	357.8
42.5°	293.9	304.9	319.8	317.8	305.9	322.8	338.8	336.8	332.8
45°	270.9	278.9	283.9	253.9	232.9	260.9	303.9	314.8	312.9
47.5°	251.9	255.9	252.9	202.9	164.9	202.9	272.9	294.9	294.9
50°	235.9	238.9	230.9	168.9	118.9	162.9	245.9	269.9	273.9
52.5°	224.9	225.9	215.9	142.9	82.0	128.9	216.9	237.9	240.9
55°	209.9	210.9	201.9	123.9	57.0	102.0	187.9	206.9	206.9
57.5°	192.9	194.9	185.9	107.9	40.0	85.0	165.9	183.9	184.9
60°	176.9	177.9	171.9	96.0	33.0	73.0	149.9	164.9	164.9
62.5°	165.9	166.9	159.9	89.0	28.0	64.0	132.9	146.9	147.9
65°	156.9	156.9	148.9	82.0	23.0	54.0	114.9	126.9	126.9
67.5°	146.9	144.9	136.9	73.0	18.0	44.0	97.0	105.9	104.9
70°	135.9	132.9	122.9	63.0	13.0	35.0	76.0	83.0	84.0
72.5°	122.9	118.9	105.9	52.0	10.0	26.0	56.0	62.0	62.0
75°	107.9	103.0	88.0	41.0	7.0	18.0	40.0	44.0	44.0
77.5°	90.0	85.0	70.0	30.0	5.0	12.0	27.0	30.0	30.0
80°	71.0	66.0	52.0	21.0	3.0	7.0	17.0	20.0	19.0
82.5°	53.0	48.0	35.0	13.0	2.0	4.0	11.0	11.0	10.0
85°	37.0	34.0	24.0	8.0	1.0	2.0	5.0	2.0	0.0
87.5°	25.0	22.0	15.0	4.0	0.0	1.0	1.0	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)