

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: P274333

Luminaire Tested: **LD4B20DE010W2N2765 EU4B1020W2N902765 4LBDW0LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P274333
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: LD4B20DE010W2N2765 EU4B1020W2N902765 4LBDW0LI
Description: PORTFOLIO 4" W2N RN DOWNLIGHT, DOUBLE WALLWASH WITH SPECULAR FINISH
Light Source: W2N 2700K-6500K CCT TUNING RANGE
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1483.9 lumens
Efficiency: N/A
Efficacy: 53.0 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

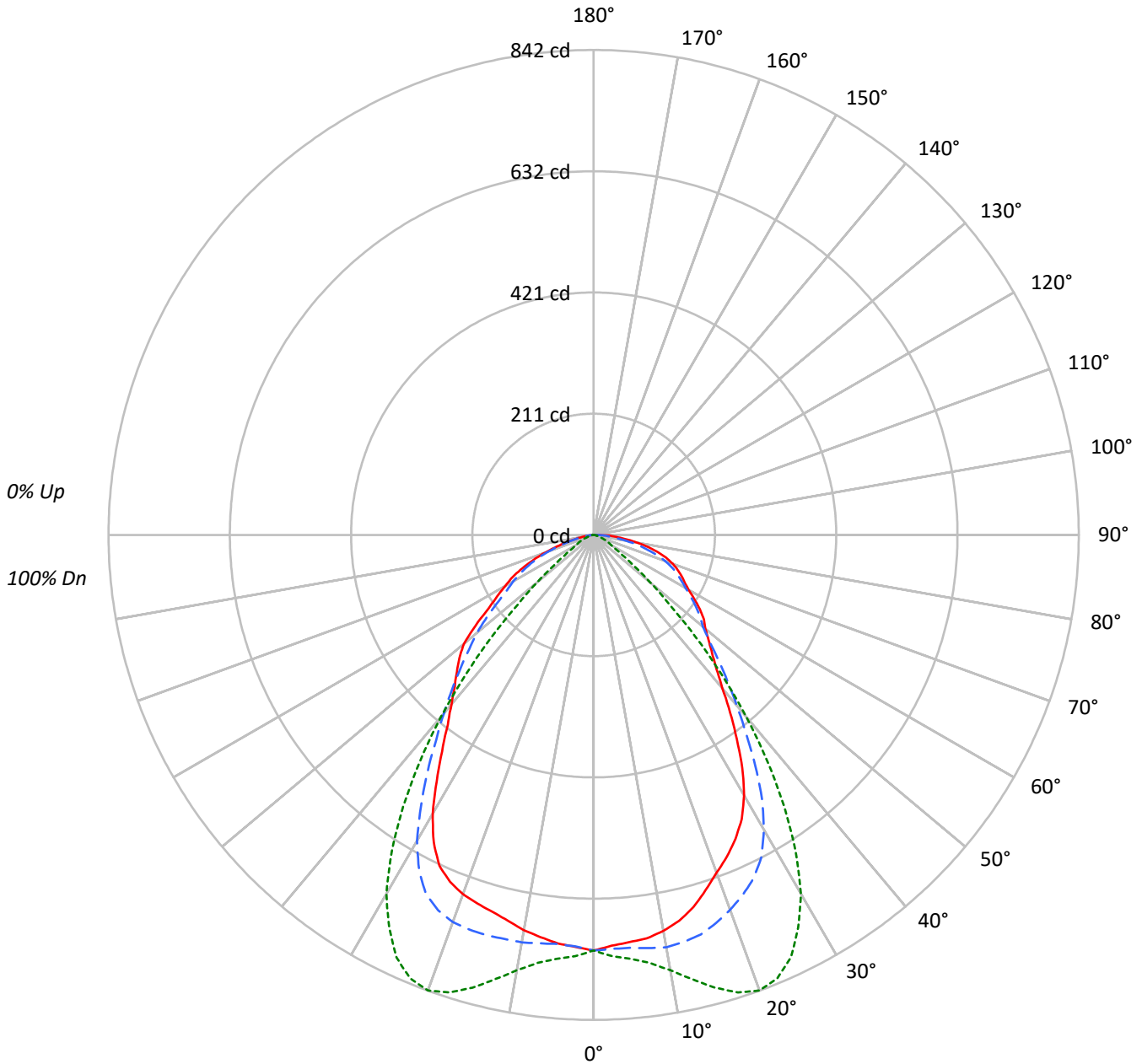
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P274333

CATALOG NUMBER: LD4B20DE010W2N2765 EU4B1020W2N902765 4LBDW0LI

Luminous Intensity Polar Plot





TEST NUMBER: P274333

CATALOG NUMBER: LD4B20DE010W2N2765 EU4B1020W2N902765 4LBDW0LI

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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87	87	87	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76	76	76	76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66	66	66	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58	58	58	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52	52	52	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47	47	47	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44	42	42	42	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38	38	38	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35	35	35	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	32	32	32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	180	180	180
5°	177	185	178
10°	177	194	176
15°	173	210	175
20°	165	223	176
25°	160	223	174
30°	150	207	161
35°	132	175	140
40°	113	134	125
45°	102	88	118
50°	98	49	114
55°	98	27	96
60°	95	18	88
65°	99	15	80
70°	106	10	66
75°	111	7	45
80°	109	5	29
85°	113	3	0



TEST NUMBER: P274333

CATALOG NUMBER: LD4B20DE010W2N2765 EU4B1020W2N902765 4LBDW0LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	4.7
10°-20°	206.8	13.9
20°-30°	315.4	21.3
30°-40°	314.8	21.2
40°-50°	232.1	15.6
50°-60°	158.6	10.7
60°-70°	112.0	7.5
70°-80°	59.8	4.0
80°-90°	15.4	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°	591.2	39.8
0°-40°	906.0	61.1
0°-60°	1296.7	87.4
0°-90°	1483.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1483.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	722	722	722	722	722	
5°	710	719	739	713	712	67
15°	669	718	814	719	678	188
25°	582	657	809	688	634	267
35°	433	489	577	503	459	271
45°	290	304	250	326	336	227
55°	225	217	61	202	222	200
65°	168	160	25	123	136	166
75°	116	94	8	43	47	120
85°	40	26	1	5	0	44
90°	0	0	0	0	0	



TEST NUMBER: P274333

CATALOG NUMBER: LD4B20DE010W2N2765 EU4B1020W2N902765 4LBDW0LI

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	721.5	721.5	721.5	721.5	721.5	721.5	721.5	721.5	721.5
2.5°	714.0	718.3	719.4	726.9	732.2	725.8	715.1	715.1	716.1
5°	709.7	715.1	719.4	732.2	738.7	727.9	712.9	710.8	711.9
7.5°	706.5	714.0	723.6	742.9	749.4	735.4	715.1	706.5	704.4
10°	697.9	708.6	726.9	754.7	767.6	750.5	718.3	702.2	696.8
12.5°	686.1	699.0	723.6	767.6	790.1	764.4	718.3	694.7	686.1
15°	669.0	682.9	718.3	778.3	813.7	779.4	719.4	687.2	677.5
17.5°	646.5	663.6	706.5	783.7	833.0	793.3	718.3	681.8	671.1
20°	623.9	644.3	692.6	783.7	841.6	798.7	715.1	676.5	663.6
22.5°	604.6	625.0	676.5	774.0	833.0	792.3	705.4	666.8	651.8
25°	582.1	603.6	657.2	753.7	809.4	773.0	688.3	647.5	633.6
27.5°	556.4	580.0	630.4	721.5	768.7	737.6	656.1	616.4	601.4
30°	522.1	543.5	590.7	675.4	719.4	689.3	613.2	572.5	558.5
32.5°	480.3	499.6	543.5	619.7	652.9	628.2	557.5	523.2	507.1
35°	433.1	450.3	488.9	548.9	576.8	561.8	502.8	470.6	458.8
37.5°	389.2	402.0	434.2	478.1	495.3	485.6	449.2	425.6	416.0
40°	347.4	360.2	385.9	407.4	411.7	414.9	404.2	389.2	383.8
42.5°	315.2	327.0	343.1	340.9	328.1	346.3	363.4	361.3	357.0
45°	290.5	299.1	304.5	272.3	249.8	279.8	325.9	337.7	335.6
47.5°	270.2	274.5	271.2	217.6	176.9	217.6	292.7	316.3	316.3
50°	253.0	256.2	247.6	181.2	127.6	174.7	263.7	289.5	293.7
52.5°	241.2	242.3	231.6	153.3	87.9	138.3	232.6	255.2	258.4
55°	225.1	226.2	216.6	132.9	61.1	109.4	201.5	221.9	221.9
57.5°	206.9	209.1	199.4	115.8	42.9	91.1	178.0	197.3	198.3
60°	189.8	190.8	184.4	102.9	35.4	78.3	160.8	176.9	176.9
62.5°	178.0	179.0	171.5	95.4	30.0	68.6	142.6	157.6	158.7
65°	168.3	168.3	159.7	87.9	24.7	57.9	123.3	136.2	136.2
67.5°	157.6	155.5	146.9	78.3	19.3	47.2	104.0	113.6	112.6
70°	145.8	142.6	131.9	67.5	13.9	37.5	81.5	89.0	90.1
72.5°	131.9	127.6	113.6	55.7	10.7	27.9	60.0	66.5	66.5
75°	115.8	110.4	94.3	44.0	7.5	19.3	42.9	47.2	47.2
77.5°	96.5	91.1	75.0	32.2	5.4	12.9	28.9	32.2	32.2
80°	76.1	70.8	55.7	22.5	3.2	7.5	18.2	21.4	20.4
82.5°	56.8	51.5	37.5	13.9	2.1	4.3	11.8	11.8	10.7
85°	39.7	36.5	25.7	8.6	1.1	2.1	5.4	2.1	0.0
87.5°	26.8	23.6	16.1	4.3	0.0	1.1	1.1	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





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







(END OF REPORT)