

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: P274481

Luminaire Tested: **LD4B20DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P274481
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1808-906-36)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD4B20DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MW
Description: PORTFOLIO 4" W2N SQ DOWNLIGHT, CAST SHALLOW WITH MATTE WHITE FINISH
Light Source: W2N 2000K-5000K CCT TUNING RANGE
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1401.8 lumens
Efficiency: N/A
Efficacy: 50.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.37
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

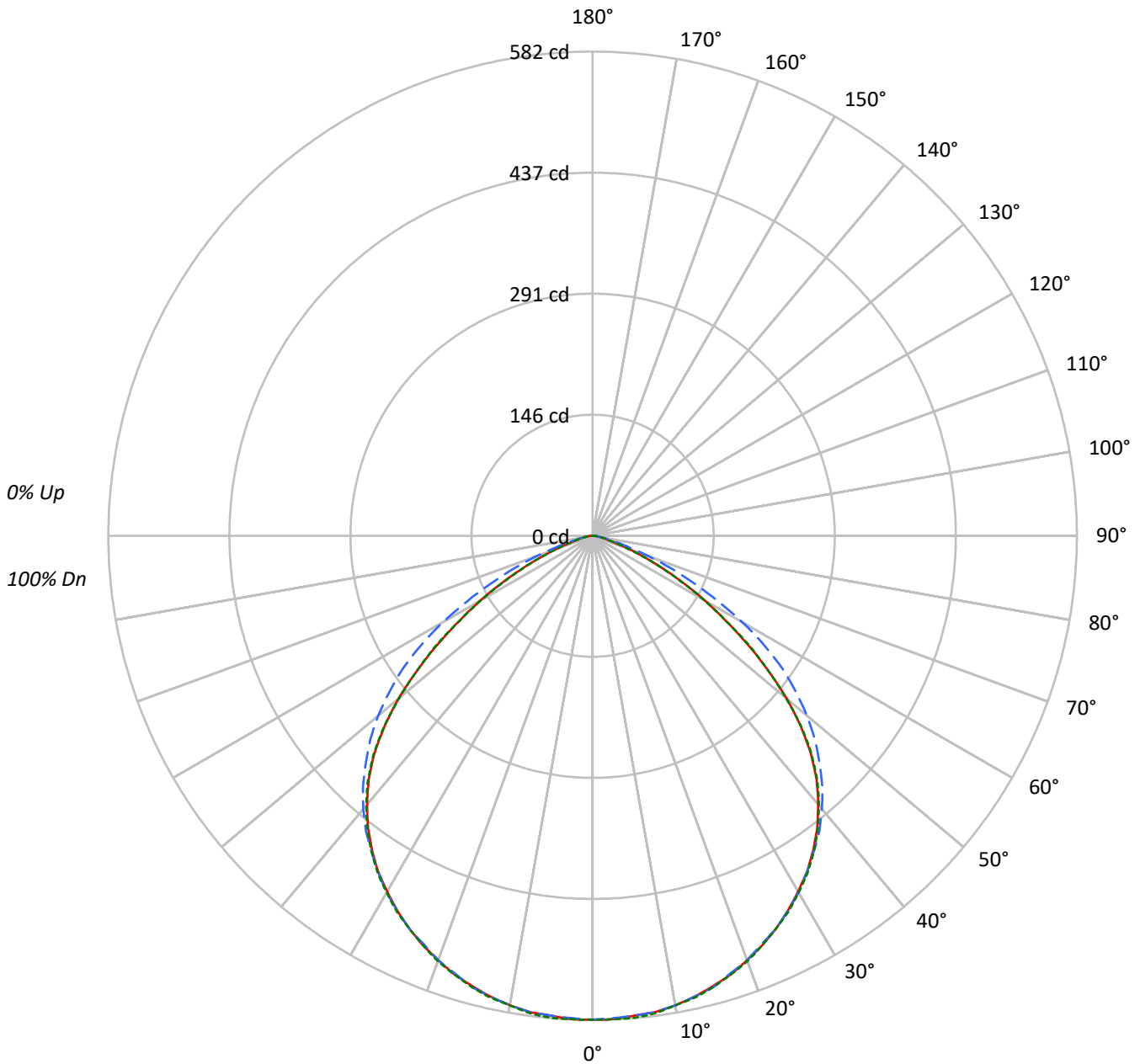
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	88																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																			
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	59	53	78	67	59	53	65	58	52	63	57	52	61	56	51	49																			
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44																			
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39																			
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	47	41	36	35																			
9	60	47	39	34	58	46	39	34	45	38	33	44	38	33	43	37	33	31																			
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	44525	44525	44525
5°	44480	44480	44695
10°	44544	44544	44544
15°	44384	44495	44495
20°	44214	44214	44328
25°	44010	44010	44010
30°	43636	43759	43759
35°	43161	43301	43301
40°	42116	42836	42266
45°	40160	41719	40312
50°	36272	40047	36093
55°	30240	37179	30627
60°	23866	31827	23652
65°	16735	24052	16735
70°	10339	15823	10004
75°	5560	8103	5560
80°	4452	4452	4452
85°	3776	3776	3776



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.1	3.9
10°-20°	158.3	11.3
20°-30°	240.2	17.1
30°-40°	289.4	20.6
40°-50°	290.6	20.7
50°-60°	223.4	15.9
60°-70°	112.0	8.0
70°-80°	27.9	2.0
80°-90°	4.9	0.3
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°	453.6	32.4
0°-40°	743.0	53.0
0°-60°	1257.0	89.7
0°-90°	1401.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1401.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	582	582	582	582	582	
5°	579	580	579	579	582	55
15°	560	562	562	560	562	158
25°	521	521	521	521	521	240
35°	462	462	463	463	463	288
45°	371	378	385	380	372	284
55°	227	248	279	250	230	203
65°	92	110	133	110	92	94
75°	19	22	27	20	19	24
85°	4	4	4	4	4	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	581.7	581.7	581.7	581.7	581.7
2.5°	581.7	581.7	580.3	580.3	581.7
5°	578.9	580.3	578.9	578.9	581.7
7.5°	577.4	577.4	577.4	577.4	578.9
10°	573.1	573.1	573.1	573.1	573.1
12.5°	567.3	568.7	567.3	567.3	568.7
15°	560.1	561.5	561.5	560.1	561.5
17.5°	552.9	552.9	551.4	552.9	552.9
20°	542.8	542.8	542.8	542.8	544.2
22.5°	532.7	532.7	531.2	534.1	532.7
25°	521.1	521.1	521.1	521.1	521.1
27.5°	508.1	508.1	508.1	509.6	509.6
30°	493.7	495.1	495.1	495.1	495.1
32.5°	479.2	479.2	479.2	480.7	480.7
35°	461.9	461.9	463.4	463.4	463.4
37.5°	443.2	444.6	447.5	446.0	444.6
40°	421.5	424.4	428.7	425.8	423.0
42.5°	398.4	402.7	408.5	404.2	399.9
45°	371.0	378.2	385.4	379.6	372.4
47.5°	339.2	350.8	362.3	352.2	340.7
50°	304.6	320.5	336.3	320.5	303.1
52.5°	265.6	285.8	307.5	287.3	265.6
55°	226.6	248.3	278.6	249.7	229.5
57.5°	189.1	212.2	244.0	212.2	189.1
60°	155.9	176.1	207.9	176.1	154.5
62.5°	122.7	141.5	168.9	141.5	121.3
65°	92.4	109.7	132.8	109.7	92.4
67.5°	66.4	80.8	101.0	79.4	66.4
70°	46.2	56.3	70.7	54.9	44.7
72.5°	28.9	34.6	46.2	34.6	28.9
75°	18.8	21.7	27.4	20.2	18.8
77.5°	14.4	14.4	15.9	14.4	14.4
80°	10.1	10.1	10.1	10.1	10.1
82.5°	7.2	7.2	7.2	7.2	7.2
85°	4.3	4.3	4.3	4.3	4.3
87.5°	1.4	1.4	1.4	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)