

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: P274477

Luminaire Tested: **LDSQ4B15DE010W2N2765 EU4B1020W2N902765 4LBCSSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274477  
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: LDSQ4B15DE010W2N2765 EU4B1020W2N902765 4LBCSSQ1MW  
Description: PORTFOLIO 4" W2N SQ DOWNLIGHT, CAST SHALLOW WITH MATTE WHITE FINISH  
Light Source: W2N 2700K-6500K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1146.9 lumens  
Efficiency: N/A  
Efficacy: 52.1 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

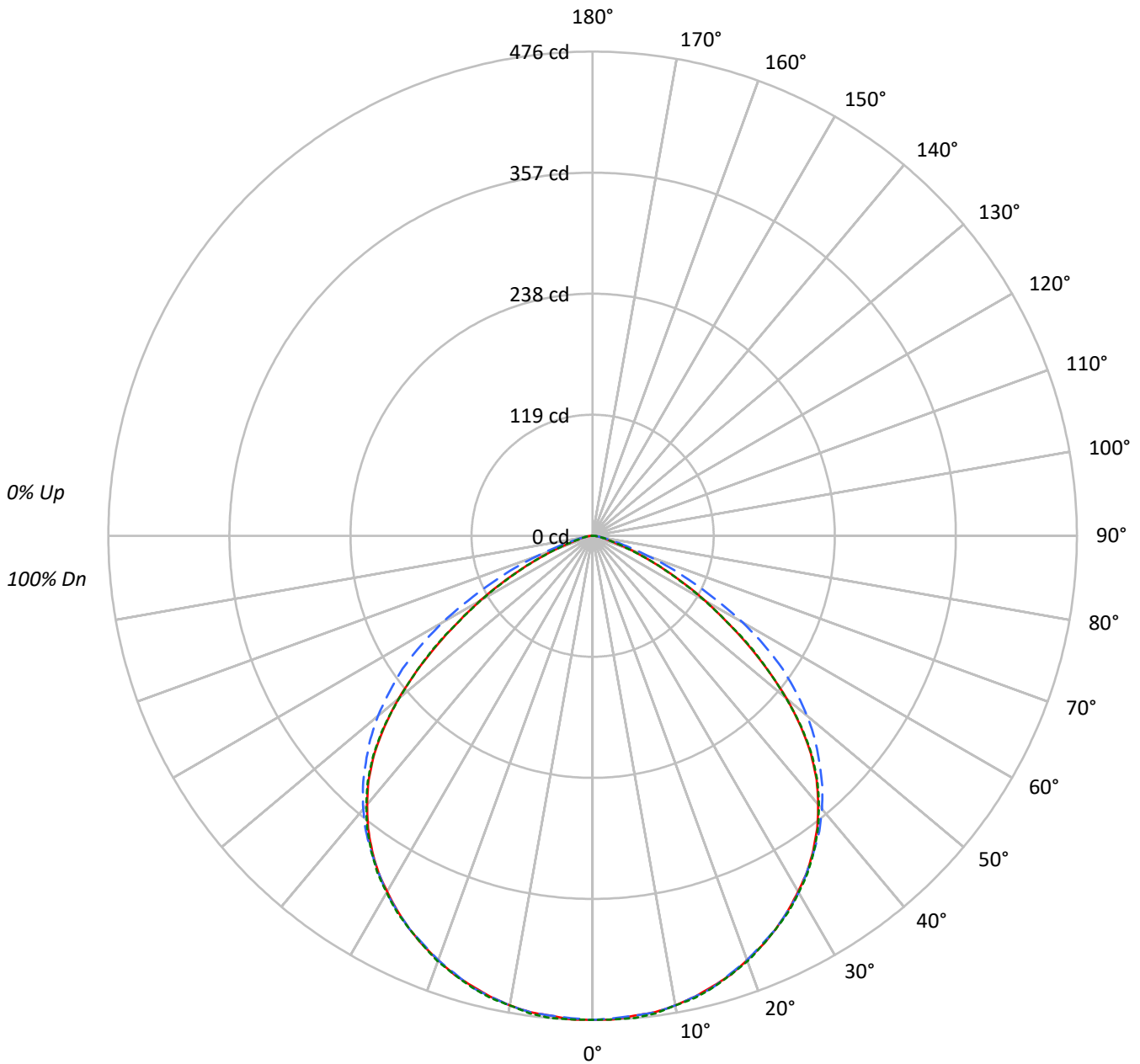
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	88					88			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65					65			
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56					56			
5	80	68	59	53	78	67	59	53	65	58	52	63	57	52	61	56	51	49					49			
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44					44			
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39					39			
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	47	41	36	35					35			
9	60	47	39	34	58	46	39	34	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	36427	36427	36427
5°	36389	36389	36566
10°	36437	36437	36437
15°	36309	36404	36404
20°	36166	36166	36264
25°	36004	36004	36004
30°	35699	35805	35805
35°	35312	35424	35424
40°	34453	35042	34572
45°	32853	34131	32983
50°	29675	32771	29532
55°	24742	30413	25062
60°	19519	26040	19350
65°	13692	19669	13692
70°	8460	12958	8191
75°	4554	6625	4554
80°	3659	3659	3659
85°	3074	3074	3074



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.1	3.9
10°-20°	129.5	11.3
20°-30°	196.5	17.1
30°-40°	236.8	20.6
40°-50°	237.7	20.7
50°-60°	182.8	15.9
60°-70°	91.6	8.0
70°-80°	22.9	2.0
80°-90°	4.0	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°	371.1	32.4
0°-40°	607.9	53.0
0°-60°	1028.4	89.7
0°-90°	1146.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1146.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	476	476	476	476	476	
5°	474	475	474	474	476	45
15°	458	459	459	458	459	129
25°	426	426	426	426	426	196
35°	378	378	379	379	379	236
45°	304	309	315	311	305	232
55°	185	203	228	204	188	166
65°	76	90	109	90	76	77
75°	15	18	22	16	15	19
85°	4	4	4	4	4	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	475.9	475.9	475.9	475.9	475.9
2.5°	475.9	475.9	474.7	474.7	475.9
5°	473.6	474.7	473.6	473.6	475.9
7.5°	472.4	472.4	472.4	472.4	473.6
10°	468.8	468.8	468.8	468.8	468.8
12.5°	464.1	465.3	464.1	464.1	465.3
15°	458.2	459.4	459.4	458.2	459.4
17.5°	452.3	452.3	451.1	452.3	452.3
20°	444.0	444.0	444.0	444.0	445.2
22.5°	435.8	435.8	434.6	436.9	435.8
25°	426.3	426.3	426.3	426.3	426.3
27.5°	415.7	415.7	415.7	416.9	416.9
30°	403.9	405.1	405.1	405.1	405.1
32.5°	392.1	392.1	392.1	393.3	393.3
35°	377.9	377.9	379.1	379.1	379.1
37.5°	362.5	363.7	366.1	364.9	363.7
40°	344.8	347.2	350.7	348.4	346.0
42.5°	325.9	329.5	334.2	330.7	327.1
45°	303.5	309.4	315.3	310.6	304.7
47.5°	277.5	287.0	296.4	288.1	278.7
50°	249.2	262.2	275.2	262.2	248.0
52.5°	217.3	233.8	251.5	235.0	217.3
55°	185.4	203.1	227.9	204.3	187.8
57.5°	154.7	173.6	199.6	173.6	154.7
60°	127.5	144.1	170.1	144.1	126.4
62.5°	100.4	115.7	138.2	115.7	99.2
65°	75.6	89.8	108.6	89.8	75.6
67.5°	54.3	66.1	82.7	65.0	54.3
70°	37.8	46.1	57.9	44.9	36.6
72.5°	23.6	28.3	37.8	28.3	23.6
75°	15.4	17.7	22.4	16.5	15.4
77.5°	11.8	11.8	13.0	11.8	11.8
80°	8.3	8.3	8.3	8.3	8.3
82.5°	5.9	5.9	5.9	5.9	5.9
85°	3.5	3.5	3.5	3.5	3.5
87.5°	1.2	1.2	1.2	1.2	1.2
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)