

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: P274478

Luminaire Tested: **LDSQ4B20DE010W2N2765 EU4B1020W2N902765 4LBCSSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274478  
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: LDSQ4B20DE010W2N2765 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: 1394.4 lumens  
Efficiency: N/A  
Efficacy: 49.8 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

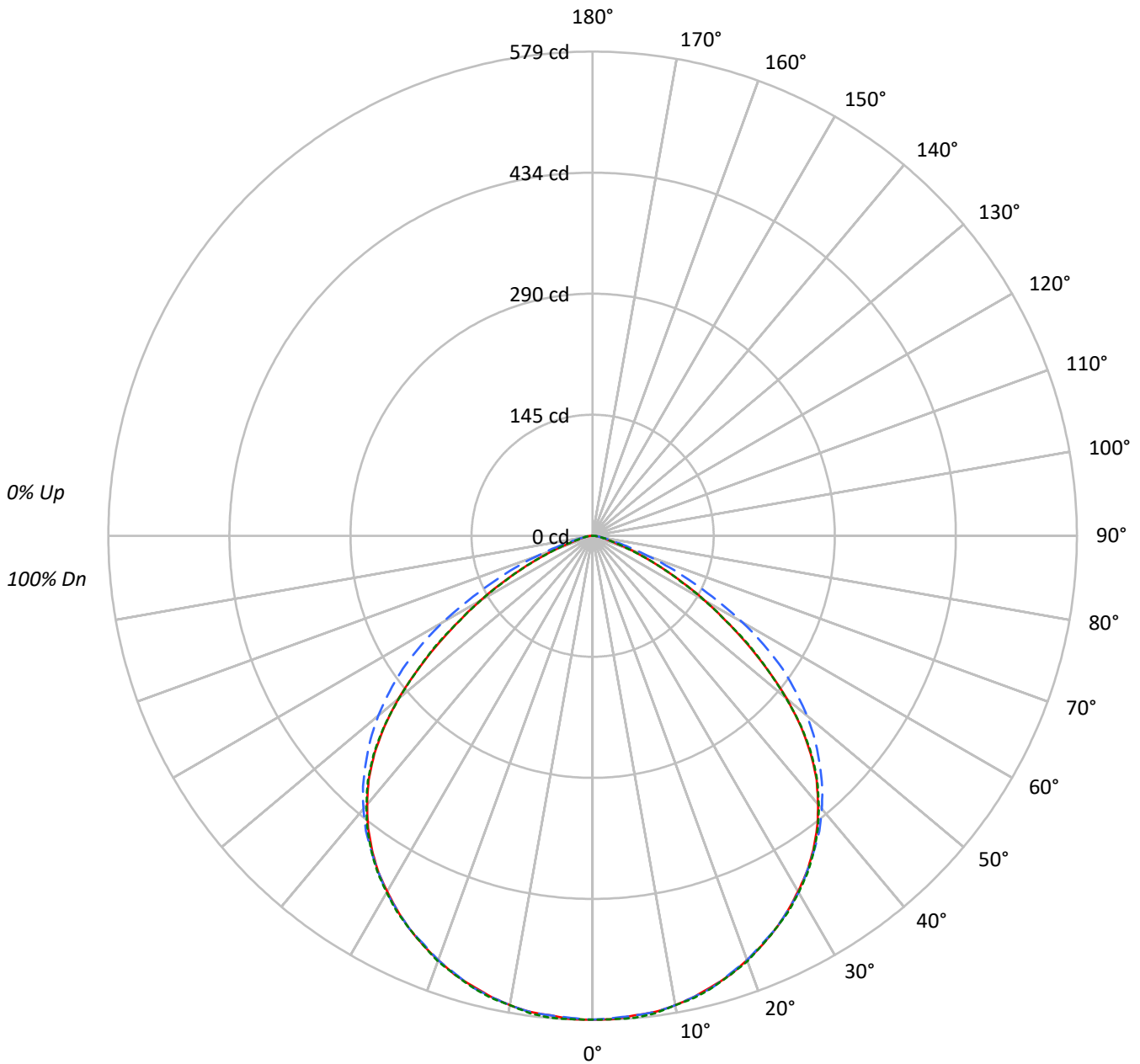
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					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				
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°	44288	44288	44288
5°	44242	44242	44457
10°	44303	44303	44303
15°	44147	44258	44258
20°	43978	43978	44092
25°	43774	43774	43774
30°	43406	43529	43529
35°	42937	43068	43068
40°	41897	42606	42036
45°	39944	41503	40095
50°	36081	39832	35903
55°	30079	36979	30466
60°	23744	31658	23514
65°	16645	23926	16645
70°	10272	15755	9959
75°	5530	8074	5530
80°	4452	4452	4452
85°	3776	3776	3776



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.8	3.9
10°-20°	157.4	11.3
20°-30°	238.9	17.1
30°-40°	287.9	20.6
40°-50°	289.0	20.7
50°-60°	222.3	15.9
60°-70°	111.4	8.0
70°-80°	27.8	2.0
80°-90°	4.9	0.4
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°	451.2	32.4
0°-40°	739.1	53.0
0°-60°	1250.3	89.7
0°-90°	1394.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1394.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	579	579	579	579	579	
5°	576	577	576	576	579	55
15°	557	558	558	557	558	157
25°	518	518	518	518	518	239
35°	460	460	461	461	461	287
45°	369	376	383	378	370	282
55°	225	247	277	248	228	202
65°	92	109	132	109	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°	578.6	578.6	578.6	578.6	578.6
2.5°	578.6	578.6	577.2	577.2	578.6
5°	575.8	577.2	575.8	575.8	578.6
7.5°	574.3	574.3	574.3	574.3	575.8
10°	570.0	570.0	570.0	570.0	570.0
12.5°	564.3	565.7	564.3	564.3	565.7
15°	557.1	558.5	558.5	557.1	558.5
17.5°	549.9	549.9	548.5	549.9	549.9
20°	539.9	539.9	539.9	539.9	541.3
22.5°	529.8	529.8	528.4	531.3	529.8
25°	518.3	518.3	518.3	518.3	518.3
27.5°	505.4	505.4	505.4	506.8	506.8
30°	491.1	492.5	492.5	492.5	492.5
32.5°	476.7	476.7	476.7	478.1	478.1
35°	459.5	459.5	460.9	460.9	460.9
37.5°	440.8	442.2	445.1	443.7	442.2
40°	419.3	422.1	426.4	423.6	420.7
42.5°	396.3	400.6	406.3	402.0	397.7
45°	369.0	376.2	383.4	377.6	370.4
47.5°	337.4	348.9	360.4	350.3	338.9
50°	303.0	318.8	334.5	318.8	301.5
52.5°	264.2	284.3	305.8	285.7	264.2
55°	225.4	247.0	277.1	248.4	228.3
57.5°	188.1	211.1	242.7	211.1	188.1
60°	155.1	175.2	206.8	175.2	153.6
62.5°	122.0	140.7	168.0	140.7	120.6
65°	91.9	109.1	132.1	109.1	91.9
67.5°	66.0	80.4	100.5	79.0	66.0
70°	45.9	56.0	70.4	54.6	44.5
72.5°	28.7	34.5	45.9	34.5	28.7
75°	18.7	21.5	27.3	20.1	18.7
77.5°	14.4	14.4	15.8	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)