

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: METALUX

Report Number: 134p140

Luminaire Tested: **WN-332A-EB81-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 134p140  
Test Lab: METALUX RESEARCH LABS  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: WN-332A-EB81-U  
Description: WRAPAROUND SERIES, 3 LAMP T8, WITH PRISMATIC WRAP LENS  
Light Source: THREE LINEAR FLUORESCENT LAMPS, F32T8 32W - 3100 LUMENS EA  
Ballast/Driver: -

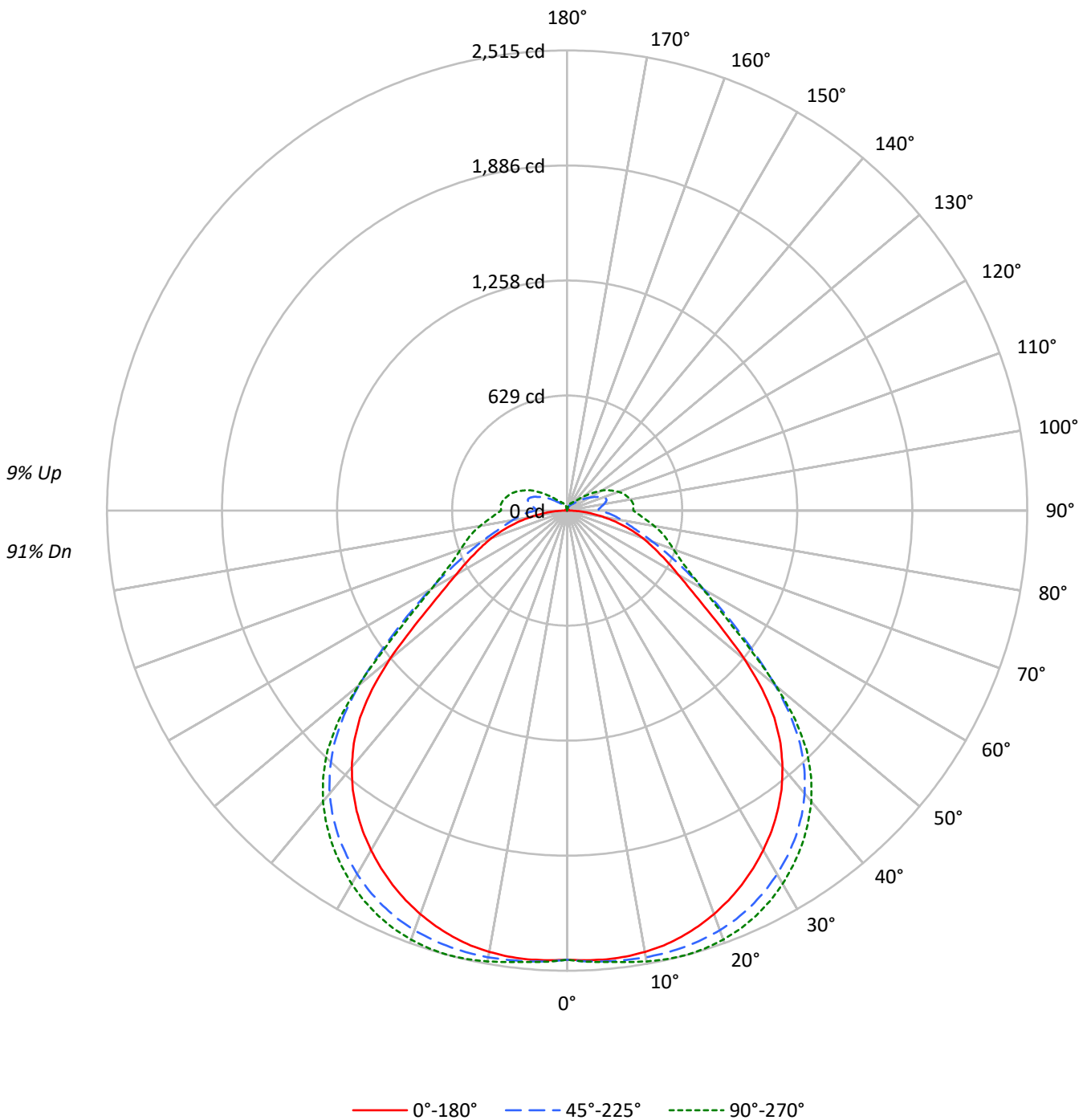
**Summary**

Lumens per Lamp: 3100 (3 lamps)  
Luminaire Lumens: 7761.7 lumens  
Efficiency: 83.5%  
Efficacy: 97.0 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.4 / 1.44  
Luminous Opening: Rectangular (W 0.97' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 80  
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	50	30	10	0													
RCR																																					
0	97	97	97	97	94	94	94	94	88	88	88	83	83	83	78	78	78	76																			
1	89	85	81	78	86	82	79	76	77	75	72	73	70	69	68	67	65	63																			
2	81	74	69	64	78	72	67	63	68	64	60	64	61	58	60	58	55	53																			
3	74	66	59	54	71	64	58	53	60	55	51	57	53	49	54	50	47	45																			
4	68	58	51	46	66	57	50	45	54	48	44	51	46	42	48	44	41	39																			
5	63	52	45	40	60	51	44	39	48	42	38	46	41	37	44	39	36	34																			
6	58	47	40	35	56	46	39	34	44	38	33	42	36	32	40	35	32	30																			
7	54	43	36	31	52	42	35	30	40	34	30	38	33	29	36	32	28	26																			
8	50	39	32	27	48	38	32	27	36	31	26	35	30	26	33	29	25	24																			
9	47	36	29	25	45	35	29	24	33	28	24	32	27	23	31	26	23	21																			
10	44	33	27	22	42	32	26	22	31	25	22	30	25	21	28	24	21	19																			

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

	0°	45°	90°
0°	6819	6819	6819
5°	6865	6896	6904
10°	6908	6992	7057
15°	6936	7103	7233
20°	6938	7216	7375
25°	6918	7304	7488
30°	6874	7361	7557
35°	6799	7382	7579
40°	6639	7325	7528
45°	6289	7075	7271
50°	5475	6413	6443
55°	4426	5506	5347
60°	3900	4800	4750
65°	3661	4299	4640
70°	3574	4028	5027
75°	3424	4068	5946
80°	3231	4847	7726
85°	3123	7713	13163



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	236.0	3.0	2.5	0°	2455	2455	2455	2455	2455	
10°-20°	697.1	9.0	7.5	5°	2462	2467	2473	2474	2476	235
20°-30°	1090.9	14.1	11.7	15°	2412	2430	2470	2501	2515	681
30°-40°	1342.7	17.3	14.4	25°	2257	2306	2383	2429	2443	1040
40°-50°	1348.2	17.4	14.5	35°	2005	2079	2177	2224	2235	1252
50°-60°	983.1	12.7	10.6	45°	1601	1699	1801	1847	1851	1218
60°-70°	636.0	8.2	6.8	55°	914	1047	1137	1135	1104	840
70°-80°	421.4	5.4	4.5	65°	557	561	654	686	706	557
80°-90°	269.9	3.5	2.9	75°	319	297	379	467	554	337
90°-100°	201.8	2.6	2.2	85°	98	143	242	348	413	101
100°-110°	202.0	2.6	2.2	90°	8	62	172	305	361	10
110°-120°	155.9	2.0	1.7	95°	1	58	182	318	364	1
120°-130°	90.4	1.2	1.0	105°	4	75	223	308	329	4
130°-140°	44.3	0.6	0.5	115°	6	74	177	243	260	6
140°-150°	23.7	0.3	0.3	125°	9	50	110	152	165	8
150°-160°	12.8	0.2	0.1	135°	9	33	61	80	88	7
160°-170°	5.3	0.1	0.1	145°	9	23	41	51	55	6
170°-180°	0.3	0.0	0.0	155°	11	17	29	38	41	5
0°-30°	2023.9	26.1	21.8	165°	12	13	17	23	26	3
0°-40°	3366.6	43.4	36.2	175°	0	0	0	0	0	0
0°-60°	5698.0	73.4	61.3	180°	0	0	0	0	0	
0°-90°	7025.2	90.5	75.5							
90°-120°	559.7	7.2	6.0							
90°-150°	718.0	9.3	7.7							
90°-180°	736.0	9.5	7.9							
0°-180°	7761.7	100.0	83.5							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2455	2455	2455	2455	2455
2.5°	2460	2463	2467	2465	2468
5°	2462	2467	2473	2474	2476
7.5°	2459	2465	2477	2484	2489
10°	2449	2459	2479	2494	2502
12.5°	2435	2447	2477	2500	2511
15°	2412	2430	2470	2501	2515
17.5°	2382	2407	2458	2495	2509
20°	2347	2379	2441	2482	2495
22.5°	2305	2345	2416	2459	2474
25°	2257	2306	2383	2429	2443
27.5°	2203	2259	2343	2390	2404
30°	2143	2207	2295	2343	2356
32.5°	2078	2147	2240	2288	2299
35°	2005	2079	2177	2224	2235
37.5°	1924	2001	2104	2151	2161
40°	1831	1914	2020	2065	2076
42.5°	1726	1814	1920	1966	1974
45°	1601	1699	1801	1847	1851
47.5°	1447	1559	1654	1701	1690
50°	1267	1396	1484	1522	1491
52.5°	1075	1216	1304	1319	1279
55°	914	1047	1137	1135	1104
57.5°	793	898	991	987	963
60°	702	771	864	868	855
62.5°	626	659	753	769	771
65°	557	561	654	686	706
67.5°	497	476	569	615	657
70°	440	407	496	556	619
72.5°	379	348	432	506	585
75°	319	297	379	467	554
77.5°	259	253	337	433	520
80°	202	213	303	402	483
82.5°	147	178	273	375	446
85°	98	143	242	348	413
87.5°	54	104	208	325	386
90°	8	62	172	305	361
92.5°	0	55	172	309	362
95°	1	58	182	318	364
97.5°	1	62	192	321	359
100°	2	67	205	321	352
102.5°	3	71	216	316	340
105°	4	75	223	308	329
107.5°	5	79	221	298	316
110°	5	81	211	283	299



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	6	79	197	265	280
115°	6	74	177	243	260
117.5°	7	70	159	222	242
120°	8	63	142	198	218
122.5°	8	56	126	174	190
125°	9	50	110	152	165
127.5°	9	44	93	131	141
130°	9	40	79	112	121
132.5°	9	36	69	95	103
135°	9	33	61	80	88
137.5°	9	30	54	68	75
140°	10	28	49	62	65
142.5°	10	26	45	56	61
145°	9	23	41	51	55
147.5°	10	21	39	48	51
150°	10	20	35	44	47
152.5°	10	18	32	41	44
155°	11	17	29	38	41
157.5°	11	16	26	35	37
160°	11	15	23	31	33
162.5°	12	14	20	27	30
165°	12	13	17	23	26
167.5°	12	13	15	19	21
170°	13	13	14	16	17
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)