

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: METALUX

Report Number: P32138

Luminaire Tested: **2ALNG-328T5-UNV-EBT2-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P32138  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2ALNG-328T5-UNV-EBT2-U  
Description: METALUX 2X4 ARCLINE LFL FIXTURE WITH LENS  
Light Source: (3) BIPIN T5 DOUBLE ENDED LINEAR FLUORESCENT LAMP 3500K  
GE F28WT5/835/ECO 28 WATTS  
Ballast/Driver: -  
ULT228PUNV90-C

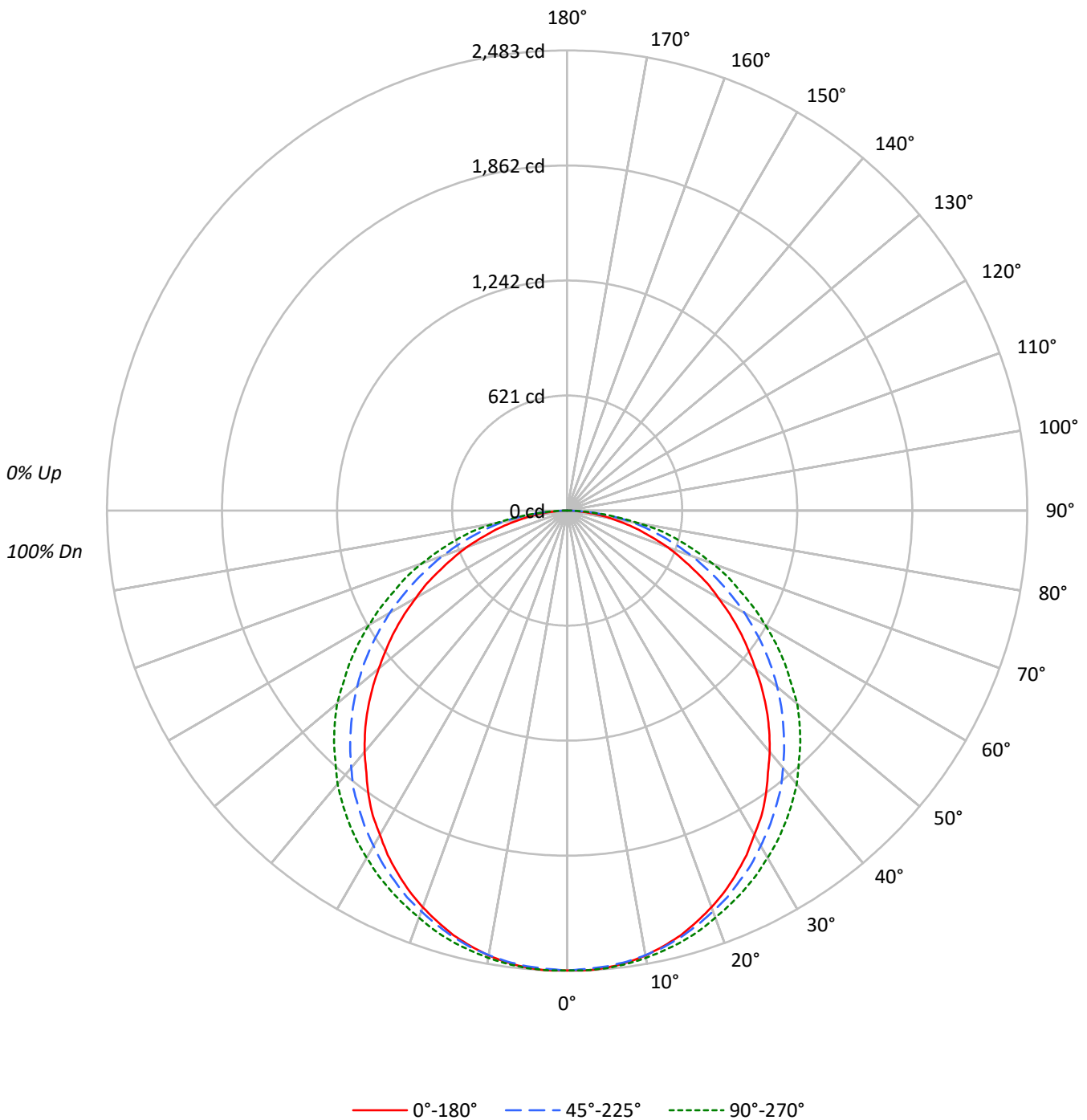
**Summary**

Lumens per Lamp: 2900 (3 lamps)  
Luminaire Lumens: 7184.5 lumens  
Efficiency: 82.6%  
Efficacy: 86.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.38  
Luminous Opening: Rectangular (W 1.75' x L: 1.75' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 83.4  
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: P32138

CATALOG NUMBER: 2ALNG-328T5-UNV-EBT2-U

### Luminous Intensity Polar Plot





TEST NUMBER: P32138

CATALOG NUMBER: 2ALNG-328T5-UNV-EBT2-U

**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	98	98	98	98	96	96	96	96	92	92	92	88	88	88	84	84	84	84	84	84	83	
1	90	85	82	79	87	84	80	77	80	77	75	77	75	72	74	72	70	74	72	70	69	
2	81	74	69	64	79	73	67	63	70	65	61	67	63	60	65	61	59	65	61	59	57	
3	74	65	58	53	72	64	57	52	61	56	51	59	54	50	57	53	50	57	53	50	48	
4	68	58	50	45	66	56	50	44	54	48	44	52	47	43	51	46	42	51	46	42	41	
5	62	51	44	38	60	50	43	38	49	42	38	47	42	37	46	41	37	46	41	37	35	
6	57	46	39	33	56	45	38	33	44	38	33	43	37	33	41	36	32	41	36	32	31	
7	53	42	35	29	52	41	34	29	40	34	29	39	33	29	38	33	29	38	33	29	27	
8	50	38	31	26	48	38	31	26	37	30	26	36	30	26	35	29	26	35	29	26	24	
9	46	35	28	24	45	35	28	24	34	28	23	33	27	23	32	27	23	32	27	23	22	
10	43	32	26	21	42	32	26	21	31	25	21	30	25	21	30	25	21	30	25	21	20	

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

	0°	45°	90°
0°	8720	8720	8720
5°	8736	8711	8743
10°	8701	8694	8748
15°	8631	8664	8755
20°	8520	8606	8745
25°	8381	8547	8764
30°	8198	8478	8778
35°	8024	8410	8813
40°	7800	8314	8846
45°	7570	8201	8843
50°	7256	8087	8858
55°	6973	7948	8775
60°	6622	7768	8681
65°	6262	7543	8566
70°	5919	7337	8560
75°	5405	7089	8487
80°	4757	7084	7914
85°	4073	6089	6210



TEST NUMBER: P32138

CATALOG NUMBER: 2ALNG-328T5-UNV-EBT2-U

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	235.1	3.3	2.7	0°	2481	2481	2481	2481	2481	
10°-20°	673.0	9.4	7.7	5°	2476	2475	2469	2476	2478	235
20°-30°	1018.1	14.2	11.7	15°	2372	2375	2381	2397	2406	668
30°-40°	1227.2	17.1	14.1	25°	2161	2179	2204	2244	2260	995
40°-50°	1273.2	17.7	14.6	35°	1870	1895	1960	2030	2054	1168
50°-60°	1152.7	16.0	13.2	45°	1523	1557	1650	1744	1779	1173
60°-70°	893.3	12.4	10.3	55°	1138	1184	1297	1392	1432	1016
70°-80°	549.5	7.6	6.3	65°	753	805	907	1001	1030	749
80°-90°	162.5	2.3	1.9	75°	398	437	522	600	625	421
90°-100°	0.0	0.0	0.0	85°	101	129	151	153	154	115
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	1926.1	26.8	22.1							
0°-40°	3153.3	43.9	36.2							
0°-60°	5579.2	77.7	64.1							
0°-90°	7184.5	100.0	82.6							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	7184.5	100.0	82.6							



TEST NUMBER: P32138

CATALOG NUMBER: 2ALNG-328T5-UNV-EBT2-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2481	2481	2481	2481	2481
2.5°	2483	2482	2475	2481	2483
5°	2476	2475	2469	2476	2478
7.5°	2460	2459	2455	2462	2467
10°	2438	2439	2436	2448	2451
12.5°	2407	2409	2413	2426	2430
15°	2372	2375	2381	2397	2406
17.5°	2326	2332	2343	2366	2376
20°	2278	2285	2301	2332	2338
22.5°	2224	2233	2258	2290	2300
25°	2161	2179	2204	2244	2260
27.5°	2096	2110	2152	2198	2214
30°	2020	2044	2089	2142	2163
32.5°	1952	1974	2028	2089	2113
35°	1870	1895	1960	2030	2054
37.5°	1780	1820	1894	1963	1992
40°	1700	1732	1812	1893	1928
42.5°	1614	1647	1733	1820	1849
45°	1523	1557	1650	1744	1779
47.5°	1427	1469	1567	1667	1701
50°	1327	1374	1479	1576	1620
52.5°	1231	1280	1390	1492	1521
55°	1138	1184	1297	1392	1432
57.5°	1041	1086	1200	1300	1335
60°	942	991	1105	1203	1235
62.5°	854	902	1004	1101	1136
65°	753	805	907	1001	1030
67.5°	662	710	808	902	941
70°	576	616	714	801	833
72.5°	480	530	618	707	729
75°	398	437	522	600	625
77.5°	314	358	437	505	530
80°	235	275	350	387	391
82.5°	167	200	257	267	272
85°	101	129	151	153	154
87.5°	39	57	58	58	62
90°	0	0	0	0	0

(END OF REPORT)