

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: P32139

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

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P32139  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2ALNG-328T5-SDL-UNV-EBT2-U  
Description: METALUX 2X4 ARCLINE LFL FIXTURE WITH LENS WITH DIFFUSER  
Light Source: (3) BIPIN T5 DOUBLE ENDED LINEAR FLUORESCENT LAMP 3500K  
GE F28WT5/835/ECO 28 WATTS  
Ballast/Driver: -  
ULT228PUNV90-C

**Summary**

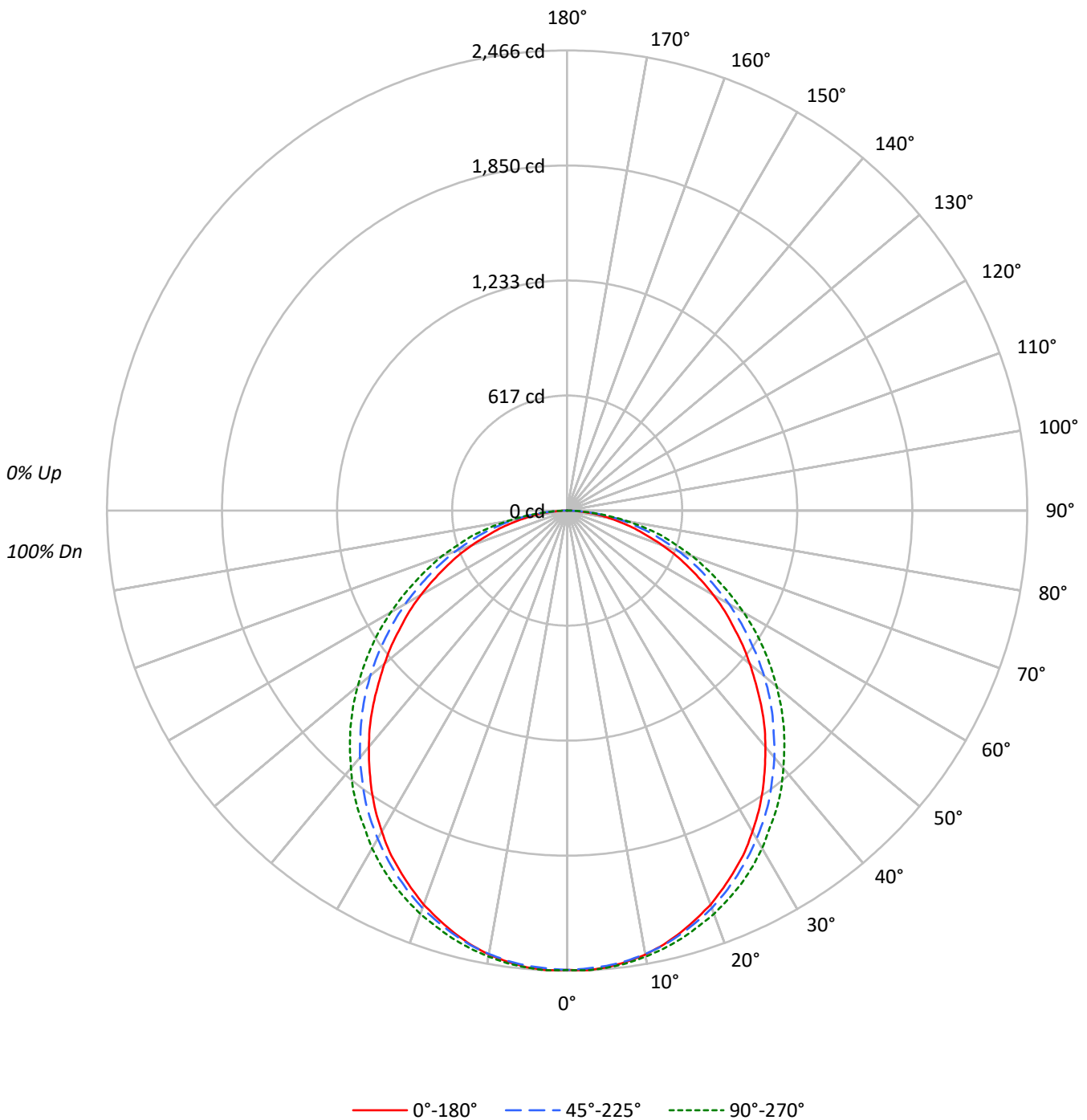
Lumens per Lamp: 2900 (3 lamps)  
Luminaire Lumens: 6766.1 lumens  
Efficiency: 77.8%  
Efficacy: 81.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 1.75' x L: 1.75' x H: 0')  
CIE Type: Direct

Input Watts (W): 83  
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: P32139

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

### Luminous Intensity Polar Plot





TEST NUMBER: P32139

CATALOG NUMBER: 2ALNG-328T5-SDL-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	0
RCR																				
0	93	93	93	93	90	90	90	90	86	86	86		83	83	83		79	79	79	78
1	85	81	77	74	82	79	76	73	76	73	71		73	71	69		70	68	67	65
2	77	70	65	61	75	69	64	60	66	62	58		64	60	57		61	58	56	54
3	70	62	55	50	68	61	55	50	58	53	49		56	52	48		54	50	47	46
4	64	55	48	43	62	54	47	42	52	46	42		50	45	41		48	44	41	39
5	59	49	42	37	57	48	42	37	46	41	36		45	40	36		44	39	35	34
6	55	44	37	32	53	43	37	32	42	36	32		41	35	31		39	35	31	30
7	51	40	33	28	49	39	33	28	38	32	28		37	32	28		36	31	28	26
8	47	37	30	25	46	36	30	25	35	29	25		34	29	25		33	28	25	23
9	44	34	27	23	43	33	27	23	32	27	23		31	26	23		31	26	22	21
10	41	31	25	21	40	31	25	21	30	24	21		29	24	21		28	24	20	19

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

	0°	45°	90°
0°	8653	8653	8653
5°	8669	8640	8676
10°	8623	8612	8662
15°	8522	8555	8638
20°	8404	8479	8603
25°	8245	8365	8563
30°	8060	8239	8482
35°	7843	8105	8388
40°	7584	7928	8268
45°	7302	7734	8162
50°	6988	7529	8011
55°	6667	7274	7862
60°	6369	7044	7669
65°	5971	6770	7443
70°	5580	6526	7337
75°	5092	6288	7184
80°	4554	6072	6619
85°	3952	5122	5122



TEST NUMBER: P32139

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

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	233.1	3.4	2.7	0°	2462	2462	2462	2462	2462	
10°-20°	664.4	9.8	7.6	5°	2457	2454	2449	2455	2459	233
20°-30°	996.3	14.7	11.5	15°	2342	2348	2351	2368	2374	660
30°-40°	1180.8	17.5	13.6	25°	2126	2137	2157	2192	2208	979
40°-50°	1200.7	17.7	13.8	35°	1828	1840	1889	1935	1955	1142
50°-60°	1062.7	15.7	12.2	45°	1469	1494	1556	1621	1642	1133
60°-70°	804.8	11.9	9.3	55°	1088	1121	1187	1258	1283	976
70°-80°	482.5	7.1	5.5	65°	718	754	814	877	895	714
80°-90°	140.8	2.1	1.6	75°	375	405	463	512	529	398
90°-100°	0.0	0.0	0.0	85°	98	118	127	133	127	112
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°	1893.7	28.0	21.8							
0°-40°	3074.6	45.4	35.3							
0°-60°	5337.9	78.9	61.4							
0°-90°	6766.1	100.0	77.8							
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°	6766.1	100.0	77.8							



TEST NUMBER: P32139

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2462	2462	2462	2462	2462
2.5°	2465	2462	2456	2461	2466
5°	2457	2454	2449	2455	2459
7.5°	2439	2438	2434	2441	2447
10°	2416	2415	2413	2423	2427
12.5°	2383	2383	2386	2399	2403
15°	2342	2348	2351	2368	2374
17.5°	2296	2302	2310	2331	2337
20°	2247	2252	2267	2289	2300
22.5°	2188	2196	2214	2244	2255
25°	2126	2137	2157	2192	2208
27.5°	2062	2069	2096	2139	2151
30°	1986	1998	2030	2071	2090
32.5°	1910	1921	1962	2004	2019
35°	1828	1840	1889	1935	1955
37.5°	1740	1758	1806	1862	1884
40°	1653	1675	1728	1784	1802
42.5°	1565	1589	1640	1704	1723
45°	1469	1494	1556	1621	1642
47.5°	1371	1403	1469	1536	1556
50°	1278	1312	1377	1440	1465
52.5°	1186	1215	1283	1353	1375
55°	1088	1121	1187	1258	1283
57.5°	1001	1031	1095	1157	1190
60°	906	933	1002	1062	1091
62.5°	809	844	904	972	995
65°	718	754	814	877	895
67.5°	633	658	724	778	803
70°	543	574	635	686	714
72.5°	453	486	545	600	613
75°	375	405	463	512	529
77.5°	298	330	375	419	427
80°	225	250	300	321	327
82.5°	162	182	214	229	225
85°	98	118	127	133	127
87.5°	40	49	50	47	45
90°	0	0	0	0	0

(END OF REPORT)