

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: P31394

Luminaire Tested: **2ALNG-228T5-SDL-UNV-EBT1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P31394  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2ALNG-228T5-SDL-UNV-EBT1-U  
Description: METALUX 2X4 ARCLINE LFL FIXTURE WITH LENS AND OVERLAY  
Light Source: (2) BIPIN T5 DOUBLE ENDED 28W LINEAR FLUORESCENT LAMP 3500K, 2900 EA  
Ballast/Driver: -  
ICN-2S28

**Summary**

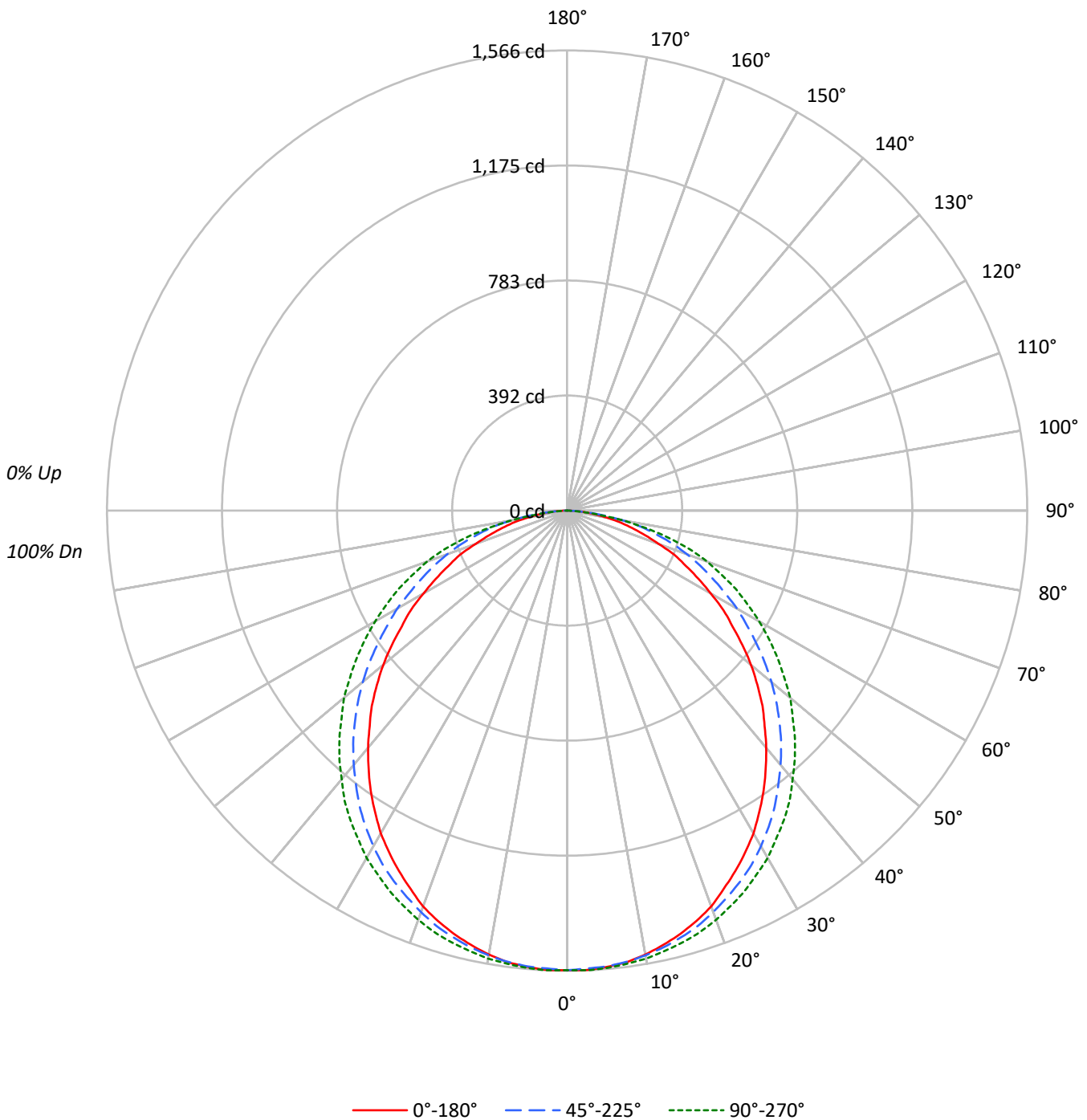
Lumens per Lamp: 2900 (2 lamps)  
Luminaire Lumens: 4403.7 lumens  
Efficiency: 75.9%  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.37  
Luminous Opening: Rectangular (W 1.75' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 61.8  
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: P31394

CATALOG NUMBER: 2ALNG-228T5-SDL-UNV-EBT1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P31394

CATALOG NUMBER: 2ALNG-228T5-SDL-UNV-EBT1-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	90	90	90	90	88	88	88	88	84	84	84	81	81	81	77	77	77	76				
1	83	79	76	73	80	77	74	72	74	72	69	71	69	67	68	67	65	64				
2	75	69	64	59	73	67	63	58	65	61	57	62	59	56	60	57	55	53				
3	68	60	54	49	66	59	53	49	57	52	48	55	51	47	53	49	46	44				
4	63	53	47	42	61	52	46	41	50	45	41	49	44	40	47	43	40	38				
5	58	48	41	36	56	47	40	36	45	40	35	44	39	35	42	38	34	33				
6	53	43	36	31	52	42	36	31	41	35	31	40	34	31	38	34	30	29				
7	49	39	32	28	48	38	32	28	37	31	27	36	31	27	35	30	27	25				
8	46	36	29	25	45	35	29	25	34	28	24	33	28	24	32	28	24	23				
9	43	33	26	22	42	32	26	22	31	26	22	30	25	22	30	25	22	20				
10	40	30	24	20	39	30	24	20	29	24	20	28	23	20	28	23	20	18				

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

	0°	45°	90°
0°	2510	2510	2510
5°	2511	2508	2516
10°	2499	2504	2522
15°	2477	2497	2527
20°	2449	2483	2531
25°	2397	2466	2530
30°	2349	2444	2529
35°	2282	2411	2519
40°	2208	2367	2501
45°	2133	2319	2487
50°	2039	2267	2474
55°	1922	2196	2445
60°	1810	2144	2423
65°	1693	2073	2407
70°	1558	2031	2379
75°	1413	1953	2213
80°	1247	1774	1774
85°	1013	1123	939



TEST NUMBER: P31394

CATALOG NUMBER: 2ALNG-228T5-SDL-UNV-EBT1-U

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	148.2	3.4	2.6	0°	1564	1564	1564	1564	1564	
10°-20°	424.7	9.6	7.3	5°	1559	1560	1557	1560	1562	148
20°-30°	641.7	14.6	11.1	15°	1491	1497	1503	1515	1521	420
30°-40°	767.8	17.4	13.2	25°	1354	1367	1393	1419	1429	624
40°-50°	786.3	17.9	13.6	35°	1165	1185	1231	1271	1286	728
50°-60°	701.6	15.9	12.1	45°	940	962	1022	1078	1096	723
60°-70°	538.0	12.2	9.3	55°	687	719	785	850	874	617
70°-80°	320.0	7.3	5.5	65°	446	474	546	610	634	444
80°-90°	75.4	1.7	1.3	75°	228	256	315	347	357	243
90°-100°	0.0	0.0	0.0	85°	55	67	61	53	51	65
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°	1214.6	27.6	20.9							
0°-40°	1982.4	45.0	34.2							
0°-60°	3470.3	78.8	59.8							
0°-90°	4403.7	100.0	75.9							
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°	4403.7	100.0	75.9							



TEST NUMBER: P31394

CATALOG NUMBER: 2ALNG-228T5-SDL-UNV-EBT1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1564	1564	1564	1564	1564
2.5°	1565	1565	1560	1563	1566
5°	1559	1560	1557	1560	1562
7.5°	1550	1549	1549	1553	1556
10°	1534	1535	1537	1544	1548
12.5°	1514	1518	1522	1531	1535
15°	1491	1497	1503	1515	1521
17.5°	1464	1470	1482	1497	1504
20°	1434	1439	1454	1473	1482
22.5°	1393	1405	1424	1448	1456
25°	1354	1367	1393	1419	1429
27.5°	1312	1325	1359	1388	1396
30°	1268	1285	1319	1352	1365
32.5°	1217	1235	1276	1312	1324
35°	1165	1185	1231	1271	1286
37.5°	1110	1134	1180	1226	1244
40°	1054	1078	1130	1179	1194
42.5°	995	1025	1078	1126	1147
45°	940	962	1022	1078	1096
47.5°	878	900	966	1022	1041
50°	817	844	908	966	991
52.5°	752	785	847	907	931
55°	687	719	785	850	874
57.5°	631	657	724	792	814
60°	564	595	668	732	755
62.5°	504	538	604	671	693
65°	446	474	546	610	634
67.5°	396	417	490	548	567
70°	332	363	433	487	507
72.5°	278	308	377	424	437
75°	228	256	315	347	357
77.5°	183	207	262	275	272
80°	135	161	192	193	192
82.5°	93	113	126	115	107
85°	55	67	61	53	51
87.5°	22	24	15	11	11
90°	0	0	0	0	0

(END OF REPORT)