



**Description**

LGLITE Reflective car license plate sheeting series LN 7500 is a very flexible enclosed lens type retro- reflective material which can be used for multi-year car license plates. Series LN 7500 sheeting improves vehicle identification for motorists, law enforcement and citizens, and maintains its reflectivity even under wet conditions. After the application of reflective sheeting, the plates can be embossed or debossed without damage to the reflective sheeting such as cracking or crimpation. The plates can also be roll-coated with either transparent or opaque roll coating inks to produce splendid license plates, which function 24 hours a day to. Enhance nighttime safety and the legibility of the vehicle identification system. The plates also can be printed by the heat transfer method. The sheeting shows high reflective performance when viewed at both head-on and wide entrance angles.

The backside of the reflective sheeting is treated with a pressure sensitive adhesive, laminated with a removable liner, for application to license plate substrates. Series LN 7500 sheeting is available with personalized graphic designs which offer a unique opportunity to promote a country, state or national attraction, event or image while continuing to provide the driving public with the safety aspects of fully reflective license plates. Series LN 7500 sheeting, processing materials and equipment provide flexibility in the design of a license plate system, specific to the desires and requirements of plate issue relative to color, reflectivity, Durability, design and plate manufacture.

**Characteristics**

**A. Reflectivity**

The lower limit in reflectivity values of series LN 7500 sheeting are given below in terms of candlepower per foot-candle per square foot (Candelas per lux per square meter). Measurements shall be conducted in accordance with ASTM E-810, "Standard Test Method for Coefficient of Retro-reflection of Retro-reflective sheeting."

To investigate the reflectivity of applied Series LN 7500 sheeting, prepare test plates as follows : Test plates of the same size and format as the actual Issue must be produced of the same materials, on the same equipment, and by the same general process of metal cleaning, laminating, embossing or debossing and roll coating or heat transfer printing as the production plates. The plates should be designed to have a minimum of 36 sq. inches (230 sq-cm) of flat area, in one section of the plate to facilitate photometric testing. All test plates must be conditioned for 24 hours at 72°F ±5°F (22°C ±1°C) and 50 ±5% R.H prior to testing; then each plate must be thoroughly hand washed prior to testing.

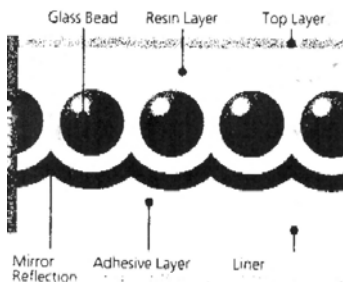
**Table 1.** Warranted Photometric Performance

Unit: cd / (lx \* m²)

Obser. Angle	Entran. Angle	White	Yellow	Blue
0.2°	-4°	70	50	4
	30°	30	22	1.7
0.5°	-4°	30	23	2.0
	30°	15	13	0.8

O.A : Observation Angle  
E.A : Entrance Angle

**Structure**





**B. Adhesive**

Test plates as prepared above will resist peeling, scuffing, and marring from recommended application surfaces, during normal use handling, and resist shocking off when jabbed with a spatula at -10°F (-23°C). Prior to application, the protective paper liner can be removed from the adhesive by peeling without soaking in water or other solvents. The liner can be removed after accelerated storage for 4 hours at 150°F (65 C) under a weight of 2.5 pounds per square inch (0.1 t3kg/cmz)

**Construction**

Face Film	High gloss
Adhesive	Permanent pressure sensitive
Liner	Polyethylene coated paper

**Effective Performance Life**

LGLITE Reflective car license plate sheeting series LN 7500 is warranted for 5 years when properly processed and applied

**Fabrication of Reflective License Plates**

**A. Substrates**

The backside-treated adhesive will form a strong bond to clean, chemically treated aluminum and G90 galvanized steel surfaces normally used in the manufacture of license plates. Some edge rusting may appear with time when galvanized steel is used as steel manufacturers will not guarantee total rust prevention on cut edges. The substrates must be washed with non-toxic solvents such as ethyl alcohol, heptane, or mineral spirits. After washing, dry the surface thoroughly so as to remove the residue. When it comes to the surfaces of substrates, only flat surfaces should be used.

**B. Adhesion to Substrates**

Series LN 7500 sheeting is designed for application to flat coil or sheet stock by continuous squeeze-roll application.

A minimum of 24 hours storage after application of sheeting is recommended before embossing or debossing. Laminated blanks must be stored on edge and used within one year after date of receipt of the sheeting for best embossing results.

**C. Embossing and Debossing**

The reflective sheeting's applied to flat metal is so flexible as to permit the embossing or debossing requirements of most conventional license plate designs Series LN 7500 sheeting can be embossed or debossed up to 1.5 mm or 0.060 inches with standard embossing equipment and dies used for license plate manufacture. Minimum embossing temperature is 70°F (21°C),

**D. Printing**

The legend is applied to embossed or debossed plates by roller coating with transparent or opaque inks, or by heat transfer method which will be recommended by the technical service team. After the roll-coating, the plates must be dried in a oven at a temperature less than 80°C. The specific conditions of drying oven will also be recommended by technical service team. The license plates should always be cooled to room temperature before packaging.

**Storage and Shelf Life**

Sheeting must be stored in their original package in a cool, dry area ; 68-77°F (20-25°C) and 50% ±5% R.H. and sheeting should be used within one year after date of receipt.

**General Characteristics and Package**

The reflective sheeting as supplied will be of good appearance, free from ragged edges and cracks, and packaged according to commercial standards. The sheeting must be spliced for continuous roll application. Additional sheeting is supplied to compensate for splices.