

2009 FORD/CROWN POLICE PACKAGES

Federal Motor Vehicle Safety Standards for Vehicle Lighting & Officer Safety

- FMVSS 108, the lighting standard
 - “Best Practices”
 - Provide a significant contribution to vehicle and officer safety
 - Too much or too little light is dangerous, particularly keyed to vehicle operation.
 - ★ Emergency vehicle lighting identification is specific at low speed or stopped vehicle.
 - Lower level light is required
 - Important that persons can see not only vehicle, but also surrounding cars, objects, persons.
 - Important that persons are able to observe stop, Tail, turn signals and headlight operation.
 - ★ Emergency vehicle lighting identification is specific at high speeds.
 - Much brighter
 - But light aimed much higher
 - May be seen at distances one may not see vehicle lighting.
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Federal Motor Vehicle Safety Standards for vehicle lighting & Officer Safety (cont'd)

- FMVSS 108 defines lighting for all on road vehicles.
 - Durability – affects of:
 - Salt & corrosion
 - Vibration
 - Temperature, very hot & very cold
 - Varying Humidity
 - The amount of light (lumens) and angle of dispersion
 - Above all things is the need for consistency, ease of recognition, understanding of purpose.
 - This consistency allows all vehicle operators to instantly recognize actions defined by vehicle lighting.
 - Side – front – rear of vehicles
 - Drivers intent
 - Stop
 - Turn right or left
 - Relative position and location, direction to others
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Federal Motor Vehicle Safety Standards for vehicle lighting & Officer Safety (cont'd)

- Experienced drivers develop automatic reflex to lighting definition and signals.
 - Reflex action is much faster than thought process.
 - **An Example (visualize):**
 - A vehicle traveling 6 car lengths off another at 60 miles/hour – 90 feet apart.
 - An observant driver – automatic reflex action to brake lights and panic vehicle stop – most likely can preclude an impact.
 - A driver – reacting to a panic stop – with no brake lights – having to think through others' actions will likely use up the 90 feet in one second and have an impact.
 - Emergency vehicle lighting must complement, not obscure or mask over original vehicle lighting – its intent and purpose.
 - Masking over or obscuring will confuse other vehicle operators
 - May preclude reflex actions & require thought process
 - Dramatically increases accident opportunity
 - Crown/Ford Strobe, headlight flasher, and LED lights do not mask over vehicle lighting systems.
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