# e www.gen Ford Plant Painting Facilities Case Study

## Ford Plants Improve Paint Booths Operational Efficiency Utilizing eLumigen High CRI Class 1, Div 2 LED Industrial Fixture

Ford Motor Company paint booth facilities in multiple locations

- Dearborn Truck
- Michigan Assembly
- Chicago Assembly
- Oakville Assembly
- Louisville Assembly



### The eLumigen award-winning High CRI C1D2 LED Fixture

- Reduced Operational Shutdowns
- Improved Employee Safety
- Reduced Energy Consumption
- Maximized Cost Savings
- Improved Defect Detection.



## **DEARBORN ASSEMBLY PLANT** PAINT BOOTH RETROFIT



#### Before

Old fluorescent lights

388 Lux / 36 Foot-Candles

Low illuminance and 62 CRL

Hazardous glass and mercury FL lamps



#### After

eLumigen High CRI, C1D2 Fixture

670 Lux / 62 Foot-Candles

High illuminance and 95+ CRI

LED fixtures eliminated glass & mercury

### Once installed and measured, the superiority of the High CRI C1D2 LED Fixture was apparent:

- More light (lux at the work) surface) was achieved with fewer fixtures due to the high color rendering  $(\rightarrow 95 \text{ CRI})$  achieved by the eLumigen product. The existing fluorescent lamps had a CRI of only 62.
- Improved energy efficiency with estimated energy savings for Ford of \$690,000/year across the upgraded plants, a 60% savings.
- Reduction in down-time through fewer lamp replacements and maintenance.
- Improved Worker safety avoiding broken glass and mercury.
- Quality improvement through enhanced defect detection during inspection.
- Less than a one-year simple payback period for the project.

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## eLumigen High CRI C1D2 LED Fixture

The eLumigen High CRI C1D2 LED Fixture is an ideal light source replacement for Paint Booth, Inspection & Stamping Applications. It is designed to replace traditional 4 and 8 foot linear fluorescent light sources, with a 95+ CRI rating for absolute color critical requirements.

The integrated connector cable makes installation simple and quick, reducing manufacturing down time. These versatile and rugged fixtures are certified Class 1, Div 2 making them impervious to gas and liquids in harsh environments, have a long, 50,000 hour life rating and are optimal for multiple applications.



#### **TECHNICAL SPECIFICATION**

Wattage	50W
Voltage	110 - 277V, 50/60 Hz
Power Factor	0.90
Light Output	6,200 lumens
Total Harmonic Distortion	<18%.

ССТ	5000K (daylight white)
CRI	95
Lifetime	50,000 hours (L70)
Dimensions	1071 mm/42.2 in
Length	42.2" (1071mm) allows for easy install in 48" fixture, if required.

**Enclosed Fixture** Rated













