

SDERC Lighting Display

Track Lighting: PAR30 Halogen lamps

Location: Fixture #20

Technology Description: Comparison of standard halogen flood light to one with infrared technology and a DiOptic reflector.

Infrared technology is a multi-layered thin film coating that allows visible light to pass through while reflecting infrared energy back to the filament. IR coated lamps can increase lamp life up to 67% and can save up to 40% in energy when compared to standard halogen lamps. The DiOptic reflector directs additional light into the beam which generates a smoother and concentrated beam that eliminates stray light. With these technologies, a 50W IR halogen lamp with a DiOptic reflector can replace a 75W standard halogen lamp while producing similar lighting results. The lamp in the display unit is a 50PAR30/CAP/IR/NFL25 DiOptic coated halogen lamp providing 900 lumens at 3000K with a catalog lamp life of 3000 hours. Lamp life can be extended to 6000 hours by driving the 130V version with 120V, but light output and wattage decrease. The comparison lamp in the display unit is a 75PAR30/CAP/SPL/NFL25 halogen lamp providing 1130 lumens with a lamp life of 2500 hours. Lamp life is 5000 hours with the 130V version driven at 120V; lumen output is reduced to 860.

Applications: Flood/spot lighting.

Energy Savings: The standard 75PAR30 halogen lamp consumes 75W. The 50PAR30/IR lamp consumes 50W. If used in a general lighting application, the 50W infrared halogen lamp would save 50 kWh/yr and \$7.50/yr over the 75W standard halogen lamp (based on 2,000 hrs/yr and \$0.15/kWh).

Costs: Currently, the infrared halogen with DiOptic reflector costs approximately twice as much as a standard halogen.

Donated Product: SDREO would like to formally thank John Templer at Wesco for donating the lamps. For more information please contact John at (619) 838-5749 or jtempler@wescodist.com.