



# VENTURE

# LIGHTING®

## DUNCAN AVIATION CHOOSES THE ENVIRONMENTALLY RESPONSIBLE SOLUTION

### Background

Duncan Aviation is the largest family-owned maintenance, repair and overhaul (MRO) facility in the world providing complete acquisition sales and support services for business aircraft. They provide premier aircraft services—delivered on time—for a wide variety of business aircraft at their facilities across the United States.

Duncan Aviation has an active “Green Team” in place and has been working for several years to lower its impact on the environment through responsible chemical usage, decreased waste and energy consumption, reuse and recycling. The Green Team pursues progressive and measurable environmental policies that make Duncan Aviation more socially responsible through the purchase of more environmentally responsible products and solutions. Duncan identified their airplane hangars as an energy savings retrofit opportunity. Working in conjunction with Venture’s rep agency Team Diversified and WESCO they found the best solution was to replace their outdated 1000W probe start lamps with Venture Lighting’s 775W Natural White® system.



- **Annual Energy Savings of \$16,095**
- **Rebate Funds 50% of Project**
- **Maintenance Costs Cut in Half**
- **Simple 1 for 1 Solution**

### CASE STUDY

**Project:** Duncan Aviation Airplane Hangar

**Location:** Battle Creek, MI

**Lighting Solution:** Venture’s 775W pulse start metal halide systems



FROM



# VENTURE LIGHTING®

# Lighting Solution Takes Flight

NATURAL WHITE® PULSE START METAL HALIDE LIGHTING SYSTEMS



## The Options:

Initially Duncan Aviation considered a 54W, 14 lamp, 3 ballasted T5HO fluorescent system. This 14 lamp fixture configuration was needed in order to achieve the same light levels as their current lighting system. Quickly they ruled out converting to fluorescent because of the significant increase in system watts and maintenance concerns.

"The proposed T5HO system would have interfered with our "fall restraint" system which is a series of cables & reels suspended, just below the ceiling that our technicians attach to when working, above a certain height. Plus, in order to maintain the fixture we would have to move planes out of the hangar to change a burned out lamp", Mack Jones, facilities manager.

Due to the fact their fixtures are built into the ceiling, Duncan needed a simple 1 for 1 lamp and ballast upgrade. They considered two options, a 750W system and Venture's 775W *Natural White* system. After comparing both products in their hangars, they selected Venture Lighting. Longer lamp life of the 775W system and the superior 92 CRI were key deciding factors as to why they opted to go with Venture. The 775W lamp provides additional lamp life of 14,000 hours over the 750W lamp.

## The Solution:

The 775W high bay solution achieved higher light output, longer life, superior CRI and an effective way to maintain their existing lighting system without changing the look and integrity of the ceiling. This system will reduce maintenance costs as Duncan now receives 2.16 times the lamp life versus the previous 1000W probe start system.

"Color rendering is very important. Our design team members used to have to go outside to get the true color of the fabric for the interior of the planes prior to the installation of the Venture *Natural White* system", Rob High, the facilities' electrician.

## Comparisons

Existing System 1000 Watt Probe Start MH	vs	Venture's 775 Watt Natural White®
98	Number of Fixtures	98
12,000	Hours at 50% Survival	26,000
1080	System Watts	845
105840	Total System Watts	82810
0	Watts Saved	23030
0.60	LLD	0.90
24	Hours of Operation/Day	24
8736	Annual Hours of Operation	8736
\$73,969	Annual Cost of Operation @ \$0.08/kWh	\$57,874
0	Total Annual Savings	\$16,095
70	CRI	92



"The whole experience was exciting, especially to see the major difference in what the higher CRI and *Natural White* Lamps from Venture did for the color of the aircraft. The people at Duncan are all first class individuals and their facility is by far one of the nicest facilities in our area."

- Angela Hanlin, Sales Representative, WESCO

## Rebate Information:

As a bonus, Duncan received a rebate from Consumer's Energy which helped fund half of the total project costs. A couple key factors were considered in order to receive the rebate money. First, they saved 23,030 system watts per year using Venture's 775W *Natural White* system. Secondly, the 14,000 hours of additional lamp life, allowed more than

double the life of each lamp in their current system, reducing maintenance costs.

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*To learn more about this project or any of Venture Lighting's energy saving upgrade systems, contact your local Venture Lighting representative today.*



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