

# Case Study

*Marine Corp Air Station Main Gate, Miramar*

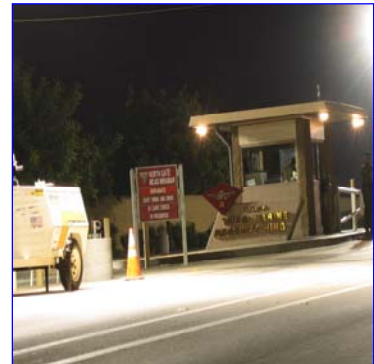
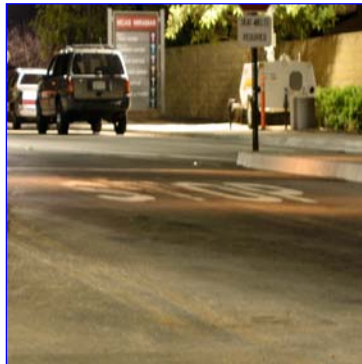
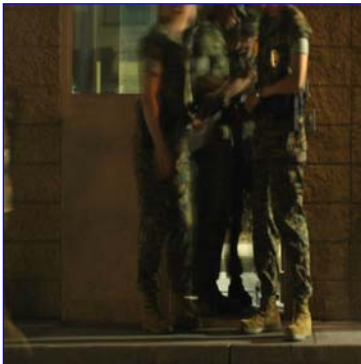
**Magnaray<sup>®</sup> International**

**\*\*\*\* Before Retrofit \*\*\*\***

The main gate of MCAS, Mir Mar since 9/11 has been using (7) portable generators which use (4) - 1000 Watt metal halide fixtures per unit for a total of 33,040 watts.



As you can see from above, the lighting effect had many "hot" and "cold" spots, making it difficult to see. This made it almost impossible for a guard to see details on an coming vehicle. Once a vehicle arrived at the guard shack for identification prior to entry on the base, light was very irregular due to the spot effect of the floods (both 1000 Watt MH, and the 150 Watt Par lamps), which then intensified problems with glare.



The combined effect made it almost impossible to determine the occupants of a vehicle, and any potential contraband. It was impossible to see occupants on the far side or back seat of a vehicle, which is the most important task for the guard.

## ■ Wattage in Place:

- (28) 1000 Watt Metal Halide @ 1,250 each= 33,040 Watts
- (8) 150 Watt PAR Floods @ 150 each= 1,200 Watts
- Total Watt=34,240 Watts

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\*\*\**After Retrofit*\*\*\*

The (7) portable generators were replaced with (7) 15' (A.G.) poles and Magnaray<sup>®</sup> four light fixture arrays (with 50 Watt HIF lamps) for a total wattage of 5,936 watts.



As you can see, with the Magnaray<sup>®</sup> HIF fixtures, light is even, with reduced glare, producing even, consistent high color rendering results for a “what you see is what you have” approach with no hot and dark spots or high glare factors.



Guards now have little or no problem reading identification badges or identifying occupants in the passenger side or rear of vehicle. The reduction in size of the emergency generator helped pay for the cost of entire project.

- **Wattage after Retrofit:**
- (28) W4PI5096 @ 212 watts each = 5,936
- (2) W1PL50 @ 53 watts each = 106
- Total Watts= 6,042

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**Percentage of savings: 82.3%**

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Additional savings with Magnaray<sup>®</sup> System came from all (7) arrays equipped with dual switching to allow 50% the lamps to be turned off during non-peak hours. Eight street lights were also turned off.

Contractor: Centennial Construction

Electrical: Carol Electric, Los Alamitos, CA

For more information: Magnaray<sup>®</sup> International Toll Free 1-866 624-6272

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