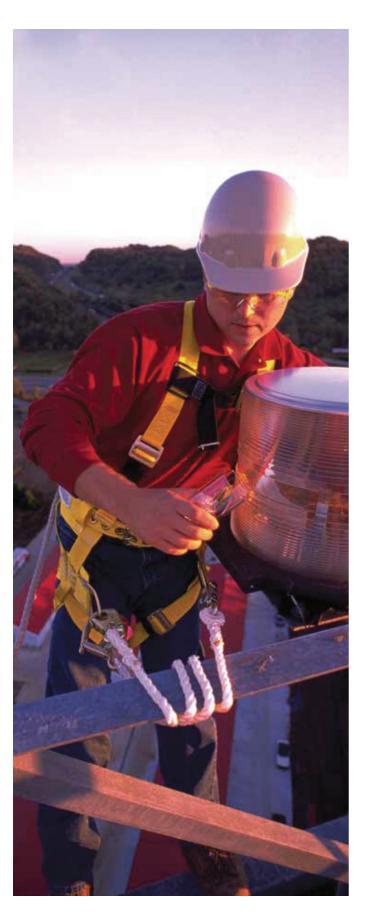


## Obstruction Lighting Guide







## **Obstruction Lighting Devices** as Tough as Your Environment

For more than a century, companies have come to rely on Cooper Crouse-Hinds for value they can trust to grow their business. By integrating a comprehensive line of electrical products with expert support, industry insights and local availability, we improve safety and productivity in the most demanding industrial and commercial environments worldwide. Every product we develop and every solution we engineer is clearly focused on lowering our customer's total cost of ownership.

Our new line of LED Obstruction Lighting is no exception. Designed for long life, high brightness, and energy efficiency, these products will provide years of cost-effective and maintenance-free operation. Cooper Crouse-Hinds LED obstruction lights, beacons, and visual signals contain the most advanced solid state technology packaged in a corrosive and weather-tight housing, meeting the most rigorous safety standards for the most demanding environments.

Cooper Crouse-Hinds is a global leader across the industrial. commercial and residential markets because of a strategic focus that combines the highest quality and reliability with technical support to minimize downtime, reduce repair incidence, and spur growth. In a worldwide marketplace, Cooper **Crouse-Hinds provides solutions** and products that are certified to meet local standards. When it comes to quality, engineering and service, however, our commitment to continuous reinvention sets a global standard.

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Xenon High Intensity White

Xenon Flashheads Medium Intensity Xenon Controllers for High Intensity



### **Introduction to Obstruction Lighting Guidelines**

Any structure that exceeds 200' above ground level generally needs to be marked (lighted) according to FAA/ICAO Regulations. There are many factors that can affect obstruction marking requirements, such as weather, terrain, proximity to airports, etc. The information presented in the following pages of this catalog is intended to provide basic guidance for structure marking.

The FAA and ICAO guidelines presented herein describe minimum requirements for various structure heights and descriptions of equipment to be used. Note that for Red Lighting Systems, the tower must be painted in alternating levels of aviation orange and white to provide maximum daytime visibility (red lights are for nighttime only). In the case of white or dual lighting systems, the need for painting the tower is eliminated.

Height is only one important consideration when choosing how a structure is to be marked. The products presented in this catalog support the obstruction lighting requirements set forth by the FAA/FCC and ICAO. For industrial applications, professional assistance



will be required, for example in the case of aviation lighting for industrial facilities. Let your sales representative or Cooper Crouse-Hinds Customer Service (866-764-5454) help you determine which is the best lighting solution for your unique application.

#### Introduction to Obstruction Lighting Guidelines......3 FAA and ICAO Configurations......4-11 LED Technology......12-13 LED General Use LED Class I. Div. 2 LED ATEX Visual Signals..... LED General Use LED Class I, Div. 2 LED ATEX Beacons L-864..... LED General Use Medium Intensity Red LED Class I, Div. 2 Medium Intensity Red Xenon Medium Intensity Red Beacons L-864/L-865..... LED Dual Medium Intensity Red/White Xenon Dual Medium Intensity Red/White Xenon Medium Intensity White

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## **FAA & ICAO Configurations**

### **FAA**

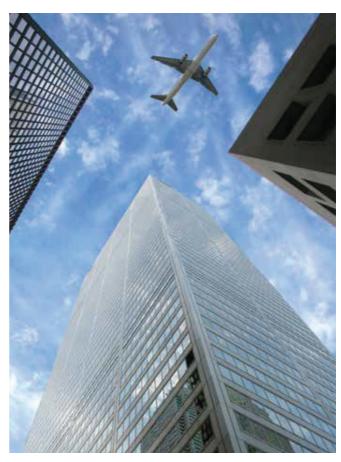
FAA Lighting System Configuration		
TYPE A	Red Lighting System	
TYPE B	High Intensity White	
TYPE C	High Intensity White/Medium Intensity White Beacon on appurtenance over 40' tall	
TYPE D	Medium Intensity White	
TYPE E	Dual Lighting System/Red Medium Intensity White	
TYPE F	Dual Lighting System Red High Intensity White (Dual Beacon on appurtenance over 40' tall)	

FAA Equipment Classification		
L-810	Steady-Burning Red Obstruction Light	
L-856	High Intensity Flashing White Obstruction Light (40 FPM)	
L-857	High Intensity Flashing White Obstruction Light (60 FPM)	
L-864	Flashing Red Obstruction Light (20-40 FPM)	
L-865	Medium Intensity Flashing White Obstruction Light (40 FPM)	
L-864/L-865	Dual: Flashing Red Obstruction Light Medium Intensity Flashing White Obstruction Light (40 FPM)	
L-866	Medium Intensity Flashing White Obstruction Light (60 FPM)	
L-885	Red Catenary (60 FPM)	

FPM = Flashes Per Minute

## **ICAO**

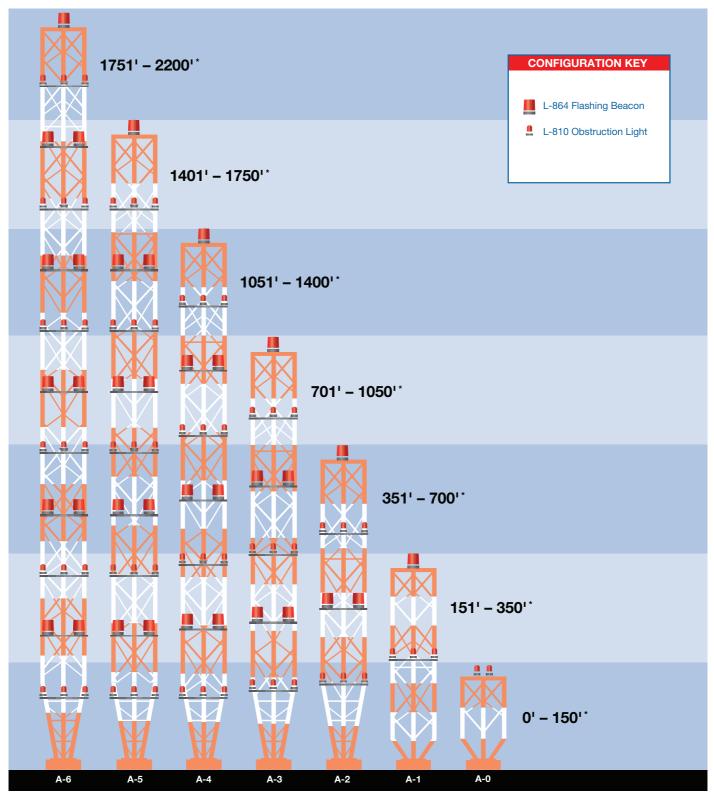
ICAO Lighting System Configuration		
Type A	Low Intensity, Red Steady Medium Intensity, White Flashing High Intensity, White Flashing	
Type B	Low Intensity, Red Steady Medium Intensity, Red Flashing High Intensity, White Flashing	
Type C	Low Intensity (Mobile), Yellow/Blue Flashing Medium Intensity, Red Steady	







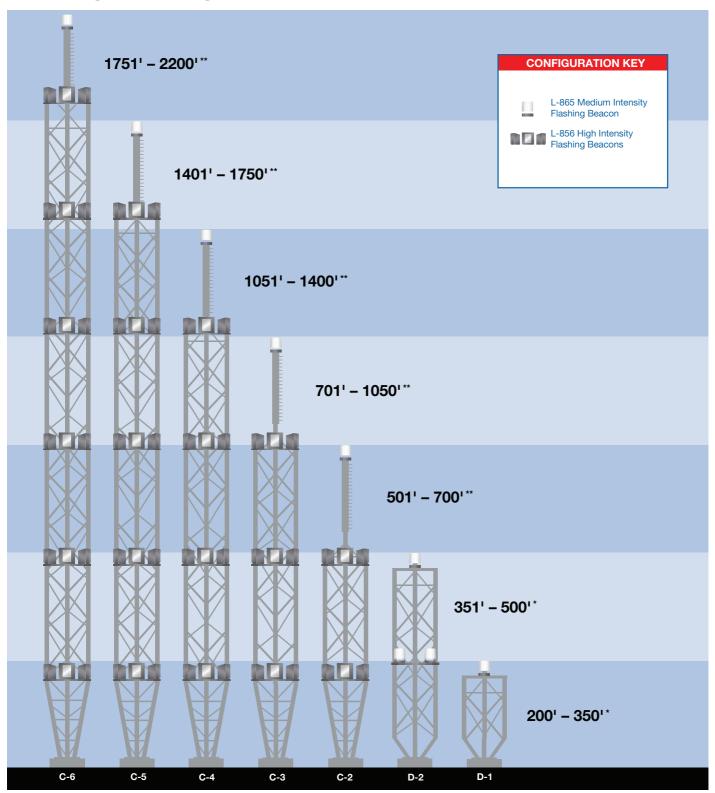
## FAA Red Lighting Type A<sup>†</sup>—Painted Tower/Red Lights for Night



<sup>&</sup>lt;sup>†</sup>This illustration is meant to be used as a guideline only. Please refer to FAA Advisory Circular 70/7460-1K

<sup>\*</sup> Including any appurtenance

# FAA White Lighting Type C<sup>†</sup> and Type D<sup>†</sup>—White Lights for Day/ White Lights for Night



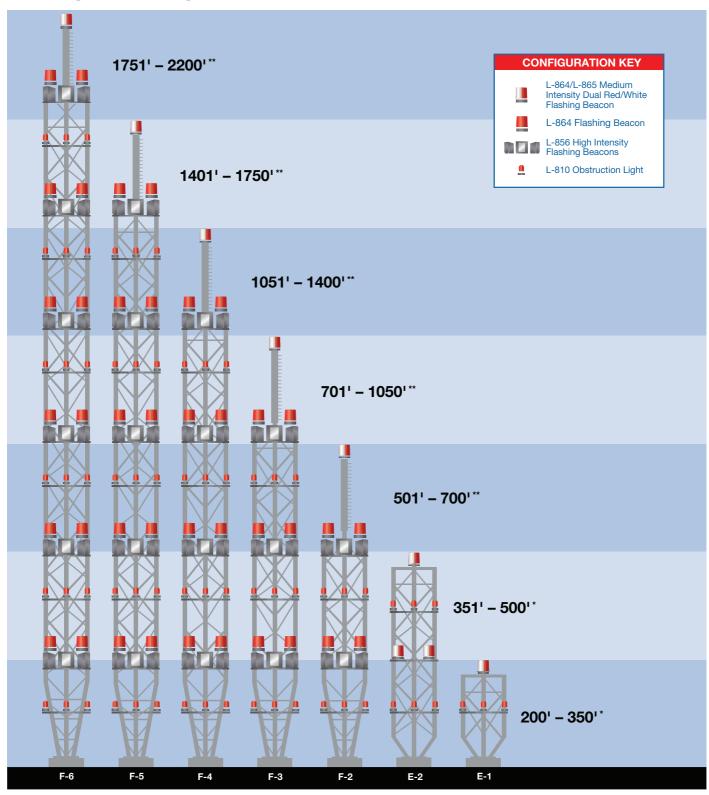
<sup>†</sup>This illustration is meant to be used as a guideline only. Please refer to FAA Advisory Circular 70/7460-1K

<sup>\*</sup> Including any appurtenance

<sup>\*\*</sup> Excluding appurtenance



# FAA Dual Lighting Type E<sup>†</sup> and Type F<sup>†</sup>—White Lights for Day/Red Lights for Night



<sup>†</sup>This illustration is meant to be used as a guideline only. Please refer to FAA Advisory Circular 70/7460-1K

<sup>\*</sup> Including any appurtenance

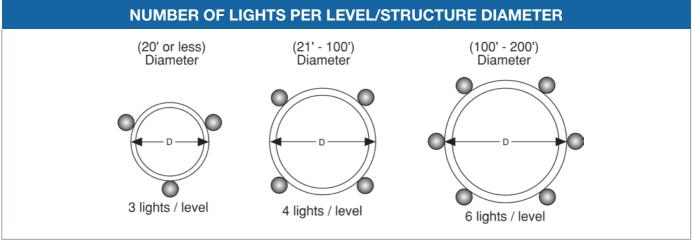
<sup>\*\*</sup> Excluding appurtenance

## FAA/FCC Chimney & Stack Lighting Requirements

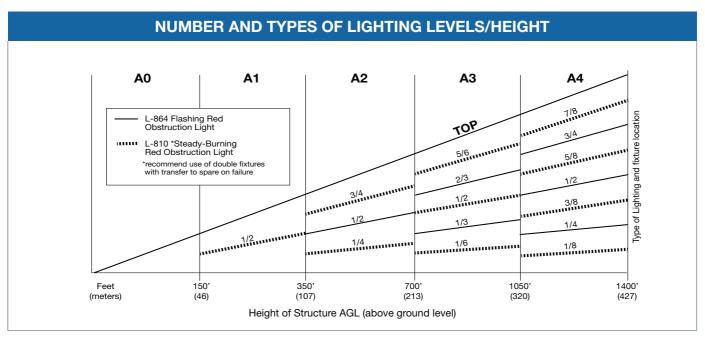
#### NOTE:

Information is provided to assist in your product selection based on AC 70/7460-1K and AC 150/5345-43G Advisory Circular. Your application may demand special lighting requirements. LED Fixtures are ideal for solid structure applications.





**NOTE:** Number of lights per level is the minimum

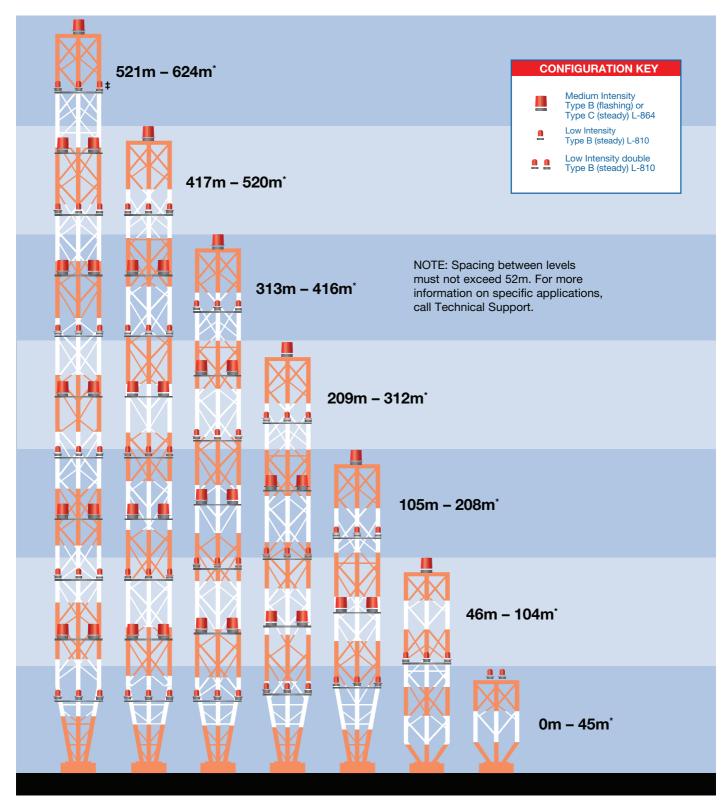


#### NOTE:

Lowest level of lights must be raised above the height of adjacent structures. If your structure is not represented, allow us to assist you with selecting the proper products for your specific structure. *Example:* For structure "A1" requires one L-864 beacon at top and at ½ tower height mount L-810 sidelights.



## ICAO Red Lighting<sup>†</sup>—Painted Tower/Red Lights for Night

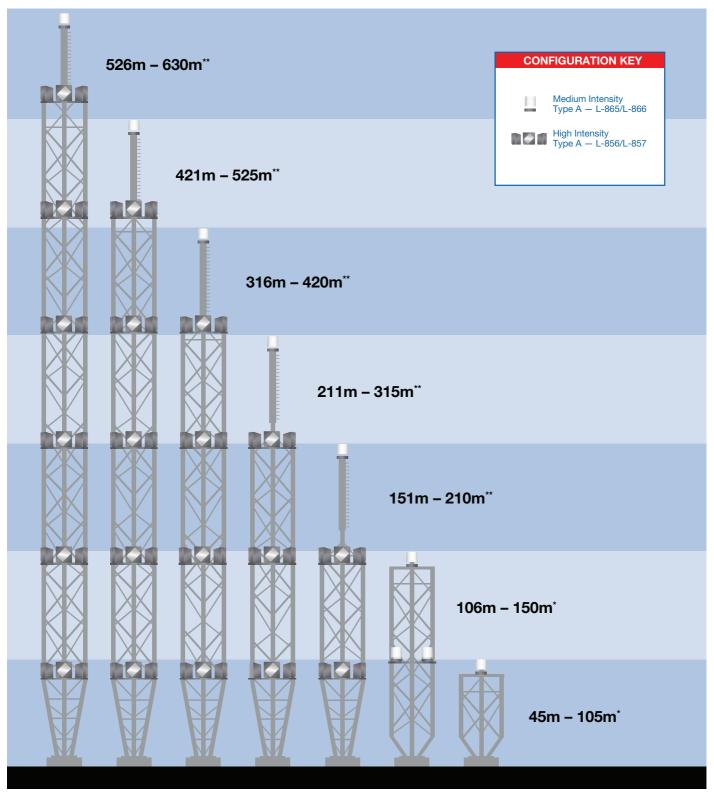


 $<sup>^{\</sup>dagger}$  This illustration is meant to be used as a guideline only. Please refer to ICAO (Annex 14)

 $<sup>^{\</sup>mbox{\tiny $\frac{1}{2}$}}\mbox{May}$  use low intensity Type B or medium intensity Type B at this level

<sup>\*</sup> Including any appurtenance

## ICAO White Lighting<sup>†</sup>—White Lights for Day/White Lights for Night



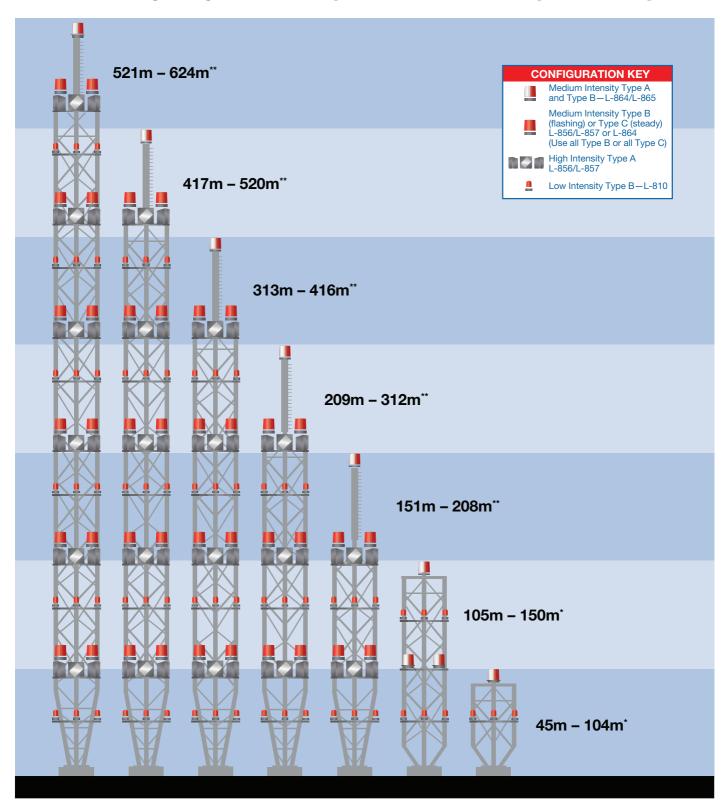
<sup>&</sup>lt;sup>†</sup>This illustration is meant to be used as a guideline only. Please refer to ICAO (Annex 14)

<sup>\*</sup> Including any appurtenance

<sup>\*\*</sup> Excluding appurtenance



## ICAO Dual Lighting<sup>†</sup>—White Lights for Day/Red Lights for Night



<sup>&</sup>lt;sup>†</sup> This illustration is meant to be used as a guideline only. Please refer to ICAO (Annex 14)

<sup>\*</sup> Including any appurtenance

<sup>\*\*</sup> Excluding appurtenance