

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.



Table of Contents

Introduction to Obstruction Lighting Guidelines	3
FAA and ICAO Configurations	4-11
LED Technology	12-13
Obstruction Lights (L-810)	14-25
LED General Use	
LED Class I, Div. 2	
LED ATEX	
Visual Signals	26-33
LED General Use	
LED Class I, Div. 2	
LED ATEX	
Beacons L-864	34-39
LED General Use Medium Intensity Red	
LED Class I, Div. 2 Medium Intensity Red	
Xenon Medium Intensity Red	
Beacons L-864/L-865	40-41
LED Dual Medium Intensity Red/White	
Xenon Dual Medium Intensity Red/White	
Beacons L-865/L-866	42
Xenon Medium Intensity White	
Beacons L-856/L-857	43-44
Xenon High Intensity White	
Xenon Flashheads Medium Intensity	
Xenon Controllers for High Intensity	
Control Systems	48-52
Accessories	53-62
Index	63-64

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)

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

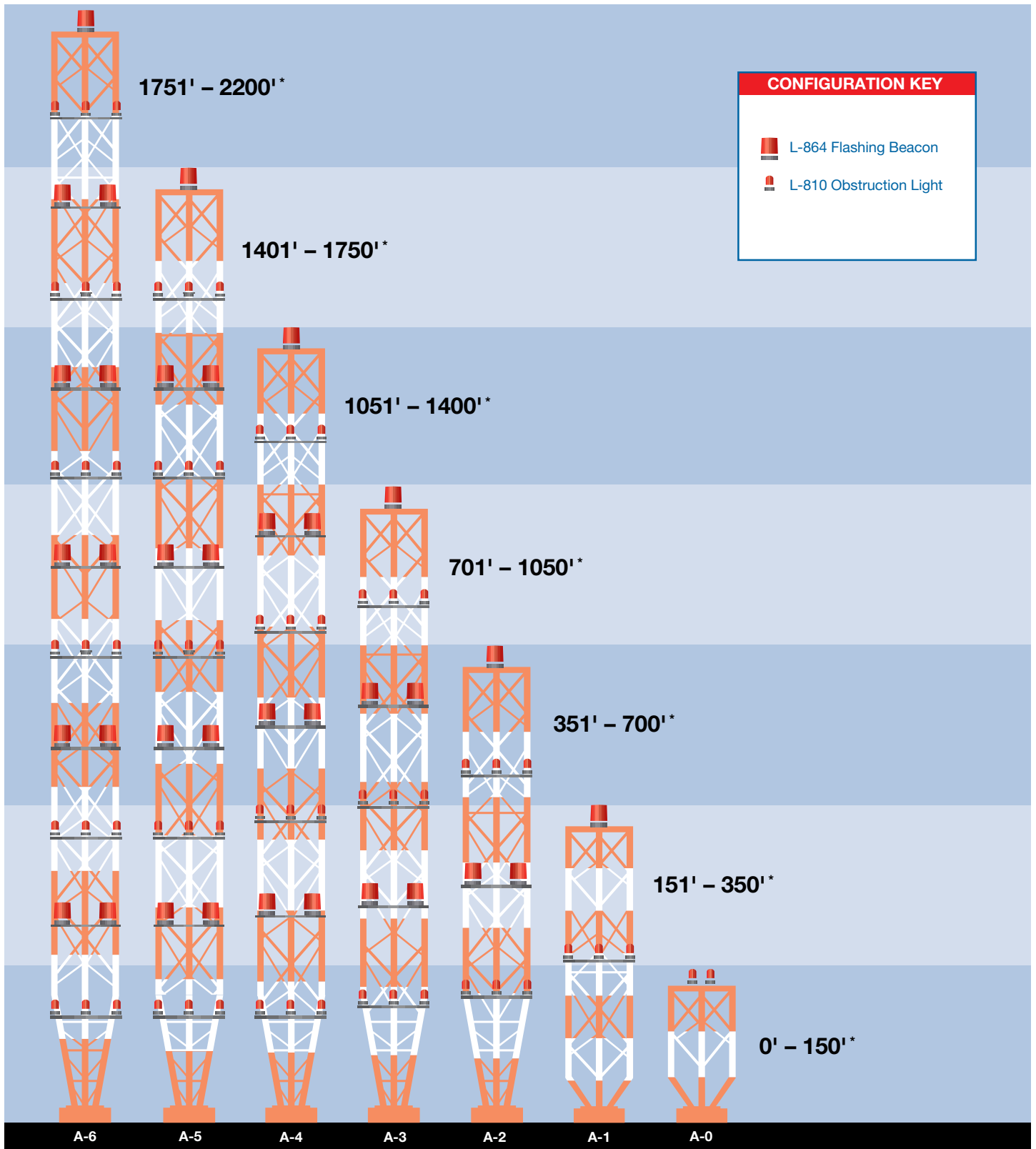
FAA Equipment Classification

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



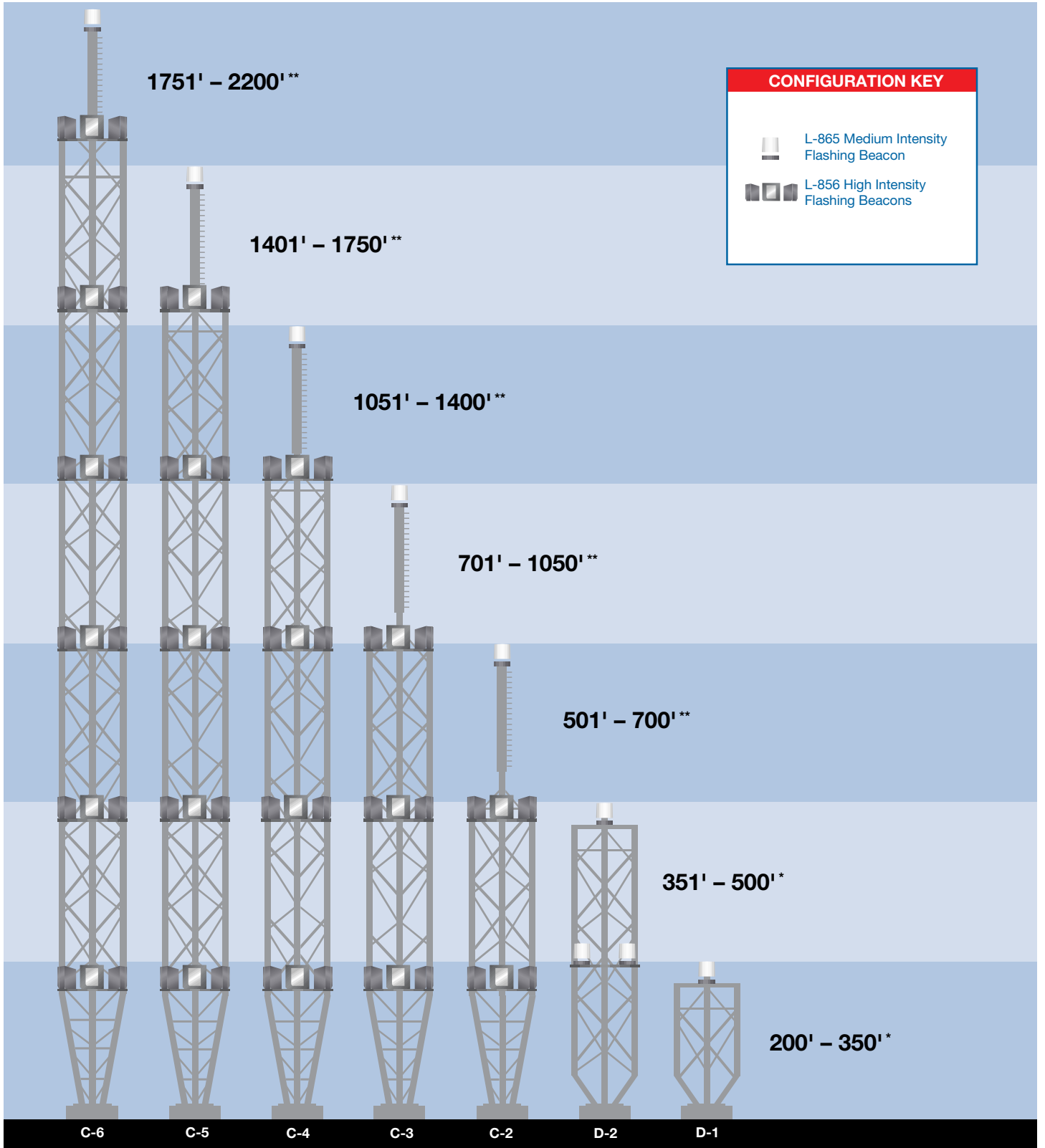
FAA Red Lighting Type A† – Painted Tower/Red Lights for Night



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

* Including any appurtenance

FAA White Lighting Type C[†] and Type D[†]—White Lights for Day/ White Lights for Night

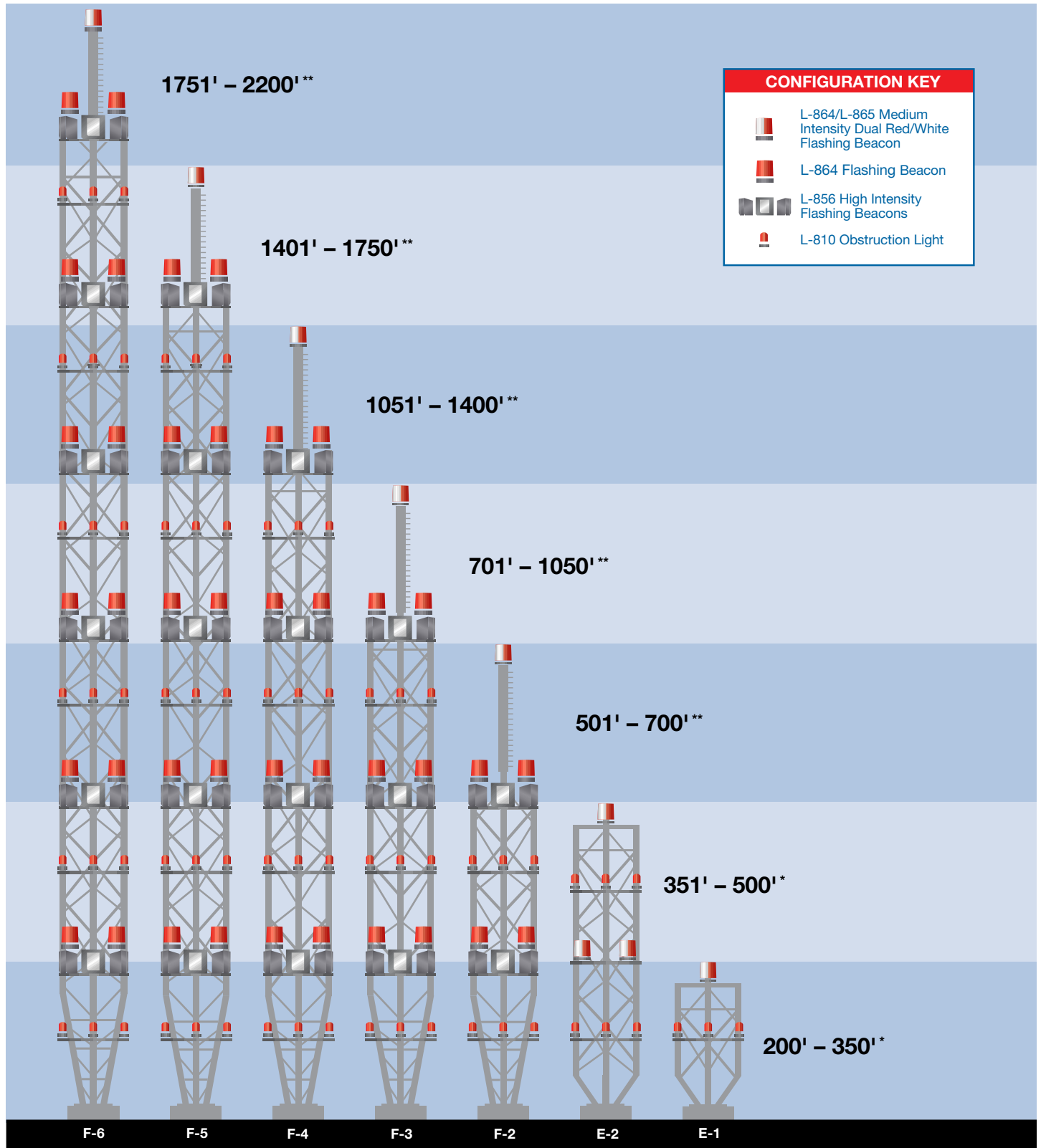


[†] This illustration is meant to be used as a guideline only. Please refer to FAA Advisory Circular 70/7460-1K

* Including any appurtenance

** Excluding appurtenance

FAA Dual Lighting Type E[†] and Type F[†] – White Lights for Day/ Red Lights for Night



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

^{*} Including any appurtenance

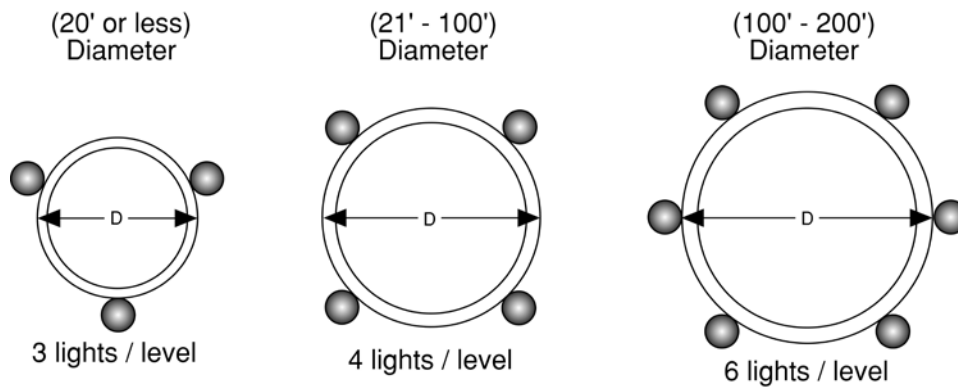
^{**} Excluding appurtenance

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.

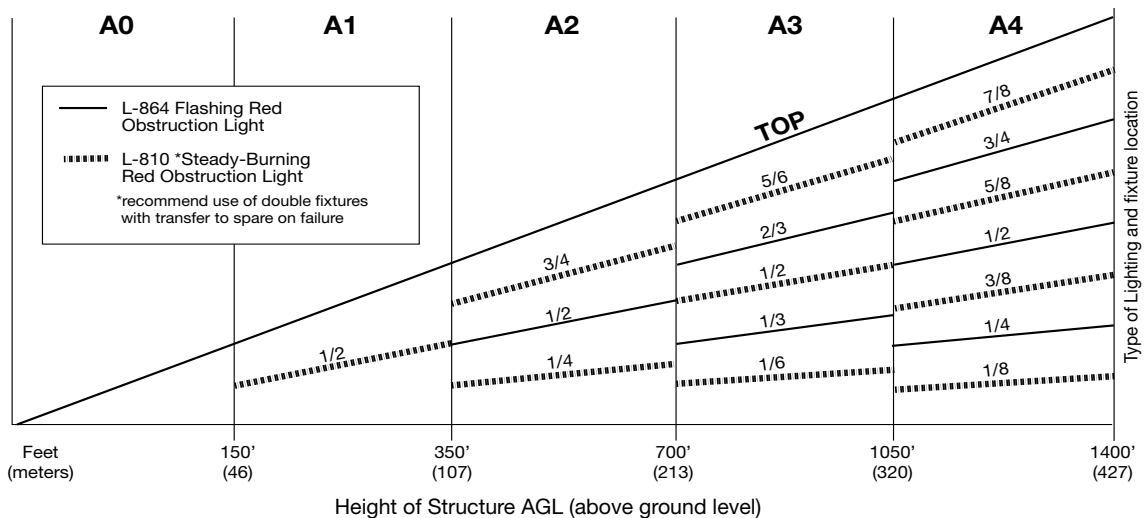


NUMBER OF LIGHTS PER LEVEL/STRUCTURE DIAMETER



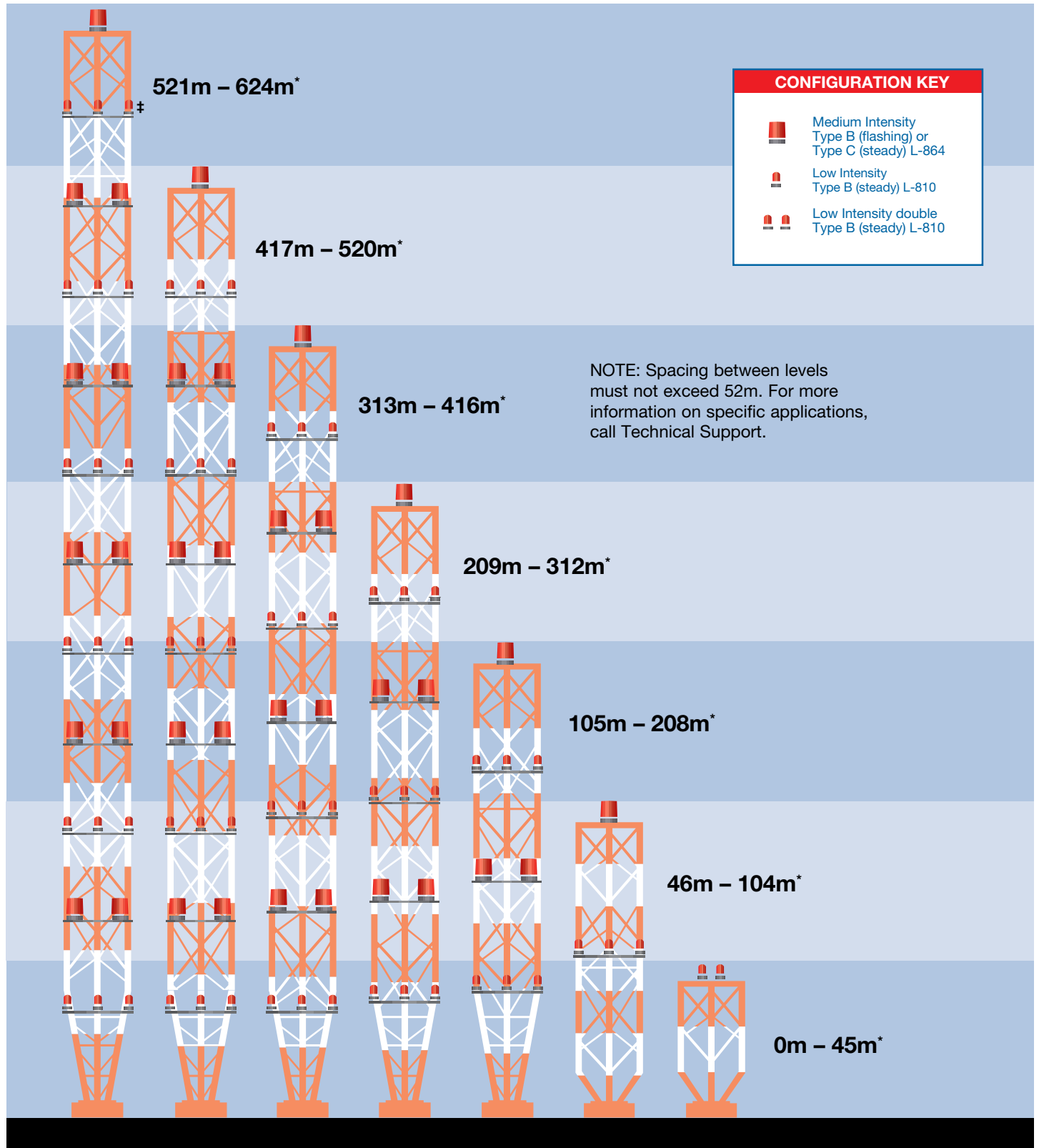
NOTE: Number of lights per level is the minimum

NUMBER AND TYPES OF LIGHTING LEVELS/HEIGHT



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 1/2 tower height mount L-810 sidelights.

ICAO Red Lighting[†] – Painted Tower/Red Lights for Night

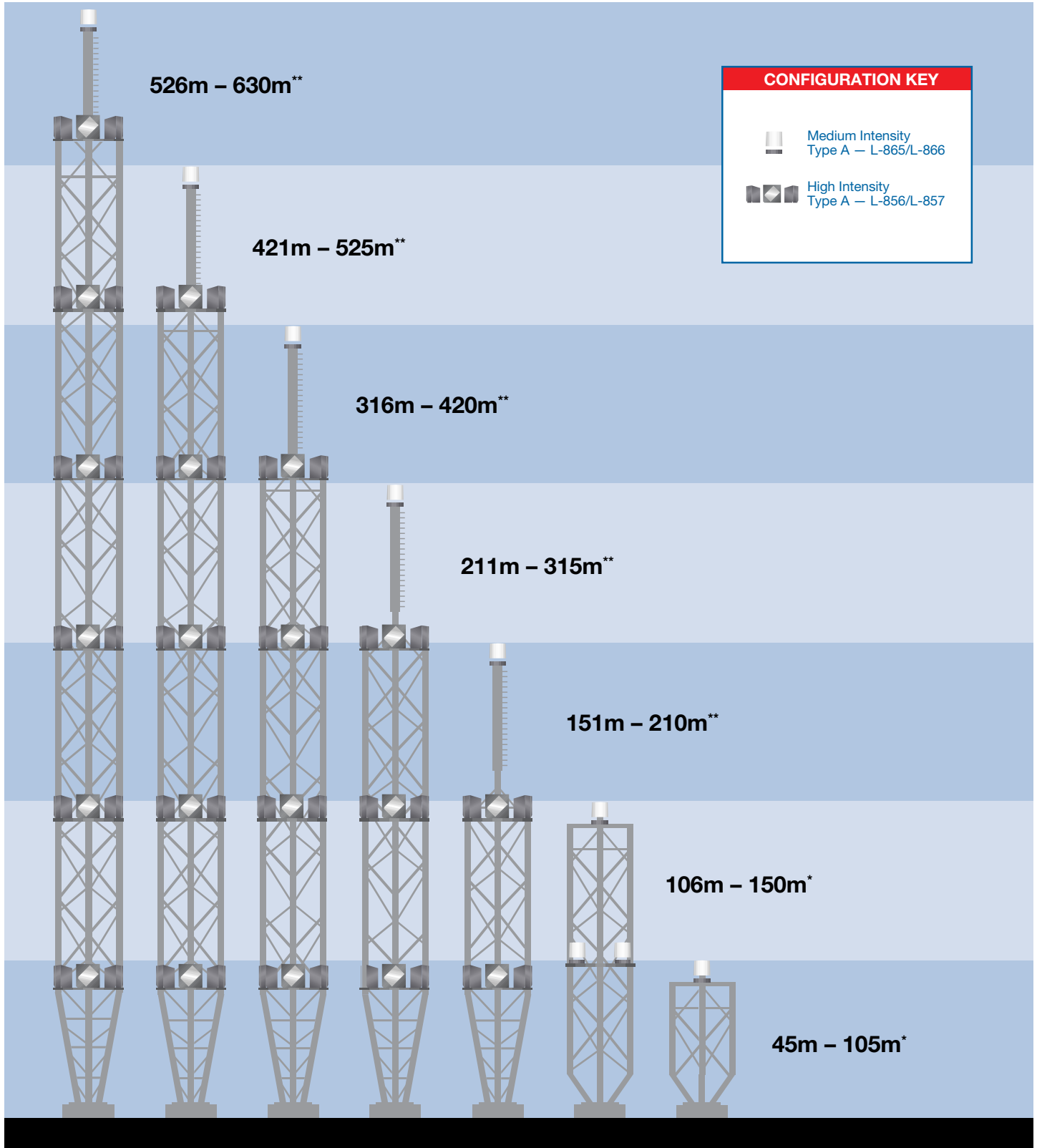


[†] This illustration is meant to be used as a guideline only. Please refer to ICAO (Annex 14)

[‡] May use low intensity Type B or medium intensity Type B at this level

* Including any appurtenance

ICAO White Lighting[†] – White Lights for Day/White Lights for Night



[†]This illustration is meant to be used as a guideline only. Please refer to ICAO (Annex 14)

* Including any appurtenance

** Excluding appurtenance