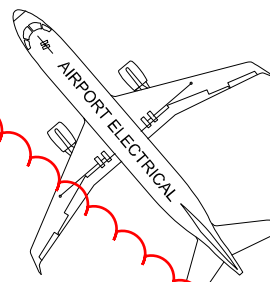


RUNWAY LIGHTING SELECTION PROCESS



STEP 1 CHOOSE A RUNWAY AND TAXIWAY LIGHT



BASE MODEL LIGHT MADE FROM STURDY ABS PLASTIC. WON'T RUST OR CORRODE. UV LIGHT MAY EFFECT LENSES. LENSES NEED REPLACING EVERY 5 TO 7 YEARS. USES OLD STYLE DCA MOUNTING SYSTEM. **LED VERSION HAS VERY IMPRESSIVE LIGHT OUTPUT.**

BASE LIGHT PRICE



MID RANGE GLASS LENS WITH CAST BASE. COMES WITH BASE PLATE FOR MOUNTING TO PAVEMENT SURFACE. TWIST AND LOCK LENS. LENS CAN TRAP MOISTURE INGRESS. METAL PARTS MAY CORRODE NEAR OCEAN ENVIRONMENT.

LAMP LIFE 1000HRS
LIFE SPAN Av 10 TO 12 YEARS

BASE LIGHT PRICE X 1.8



TOP RANGE GLASS LENS, METAL SUPPORT. USES FAA STYLE MOUNTING SYSTEM WITH FAA STYLE METAL BASE. METAL WORK MAY CORRODE NEAR OCEAN ENVIRONMENT.

LAMP LIFE 1000HRS
LIFE SPAN 15 YEARS.

BASE LIGHT PRICE X 4

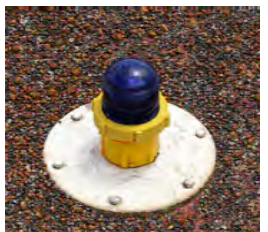


FAA/ICAO STYLE LED LIGHTS USA, EUROPEAN, CHINESE. LONG LAMP LIFE, IMPRESSIVE LIGHT OUTPUT. GLASS LENS, METAL BASE. USES FAA STYLE MOUNTING SYSTEM. HIGH QUALITY PRODUCT. MAY ENCOUNTER MOS COMPLIANCE ISSUES. LED LIGHTS APPEAR TO CHANGE STYLES RAPIDLY. THIS LIMITS SPARES IN THE FUTURE.

LAMP LIFE >50,000HRS

BASE LIGHT PRICE X 7

TAXIWAY LIGHT



ELEVATED TAXIWAY EDGE LIGHTS ARE A CHEAP OPTION FOR LIGHTING A SIMPLE TAXIWAY SYSTEM. THEY DO NOT PROVIDE GREAT GUIDANCE FOR PILOTS AS THEY TEND TO BLEND INTO EACH OTHER. THIS IS KNOWN AS THE "SEA OF BLUE" EFFECT.

BASE LIGHT PRICE



TAXIWAY CENTRELINE LIGHTS ARE PREFERRED BY PILOTS AND GIVE A FAR BETTER DEFINITION OF WHERE TAXIWAYS START AND FINISH.

BASE LIGHT PRICE X 6

STEP 2 CHOOSE A SERIES ISOLATION TRANSFORMER



EPOXY STYLE SERIES ISOLATION TRANSFORMER WITH ATTACHED LEADS. STURDY. LEADS CONNECT TO PRIMARY CABLE WITH HEATSHRINK JOINT WHICH CAN ALLOW WATER INGRESS IF NOT DONE PROPERLY. DIFFICULT AND COSTLY TO FAULT FIND AS CABLE HAS TO BE CUT TO TEST.

BASE TRANSFORMER PRICE.



FULLY ENCAPSULATED RUBBER FAA STYLE SERIES ISOLATION TRANSFORMER WITH HIGH VOLTAGE PLUGS AND SOCKETS.

ROBUST, CAN BE UNPLUGGED FOR FAULT FINDING.

BASE TRANSFORMER PRICE X1.8

STEP 3 CHOOSE A PIT



PLASTIC VALVE BOXES CAN BE USED TO HOUSE THE SERIES ISOLATION TRANSFORMERS. READILY AVAILABLE FROM MULTIPLE LOCATIONS. CAN BE DAMAGED BY VEHICLE TRAFFIC. WON'T RUST. GOOD CHEAP OPTION, BETTER THAN BURYING DIRECT IN GROUND.

BASE PIT PRICE



PLASTIC ELECTRICAL PITS, WITH STEEL LIDS FOR ADDED STRENGTH. CAN BE DAMAGED BY WEIGHT OF TRACTOR OR FIRE TENDERS. CAN RUST IN SALTY ENVIRONMENTS

BASE PIT PRICE X 5

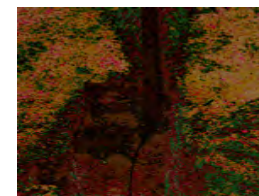


GLASS REINFORCED CONCRETE (GRC) BASE WITH 160MM THICK CONCRETE COLLAR AND 16MM STEEL LID. GRC BASE IS BACKFILLED WITH SAND AND CEMENT TO IMPROVE STABILITY AND WEIGHT BEARING. DESIGNED TO TAKE A 20 TON MOMENTARY LOAD. VERY GOOD PIT. VERY EXPENSIVE

IDEAL FOR LARGER AIRPORTS.

BASE PIT PRICE X 12

STEP 4 CHOOSE AN INSTALLATION METHOD



CABLE BURIED DIRECT IN GROUND. IS ALLOWABLE UNDER AS3000 BUT NOT RECOMMENDED. REQUIRES AIRPORT OWNER TO DO RISK ASSESSMENT AND SIGN OFF AN EXEMPTION TO THE RULES. DIFFICULT TO REPLACE DAMAGED CABLES. INCREASED CABLE FAULTS DUE TO GROUND MOVEMENT.

BASE INSTALL PRICE X 0.3



PRIMARY CABLE INSTALLED IN CONDUIT. BETTER PROTECTION FOR THE CABLE, NO EXEMPTION FROM THE RULES REQUIRED. EASY TO REPLACE DAMAGED CABLE. SINGLE PRIMARY CABLE SUPPLIES ALL RUNWAY LIGHTS. ONE CABLE FAULT RESULTS IN COMPLETE LOSS OF RUNWAY LIGHTING.

BASE INSTALL PRICE

SINGLE OR DUAL SUPPLY

A SINGLE CIRCUIT HAS ONE PRIMARY CABLE THAT RUNS AROUND THE ENTIRE RUNWAY. ANY BREAK OR FAILURE OF THIS CABLE WILL CAUSE ALL LIGHTS TO BE LOST. A DUAL CIRCUIT HAS TWO PRIMARY CABLES THAT RUN AROUND THE ENTIRE RUNWAY. LIGHT ALTERNATE BETWEEN CIRCUIT A & B. IF ONE CIRCUIT FAILS THE OTHER CONTINUES TO OPERATE. THIS LEAVES HALF THE LIGHTING STILL FUNCTIONING AND STILL USEABLE FOR EMERGENCY USE WHILST THE FAULT IS LOCATED. TWO CABLES CAN BE INSTALLED IN ONE CONDUIT. ALTERNATIVELY TWO COMPLETELY INDEPENDENT CONDUITS CAN BE INSTALLED.

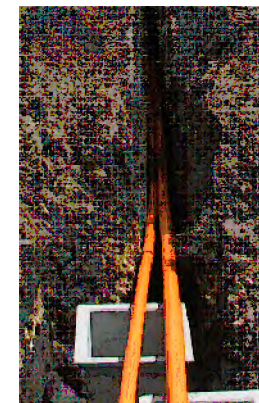
DUAL SUPPLY SINGLE CONDUIT BASE PRICE X 1.4
DUAL SUPPLY DUAL CONDUIT BASE PRICE X 1.8



WHILST DUAL SUPPLY OFFERS GREATER REDUNDANCY A SEVERE CABLE FAULT IN A SINGLE CONDUIT CAN STILL RESULT IN COMPLETE LOSS OF RUNWAY LIGHTING, AS ALL CIRCUITS ARE BUNCHED TOGETHER.

PHOTO SHOWS CABLE FAULT AND MULTIPLE LOSS OF CIRCUITS.

TO PREVENT THIS, IT IS RECOMMENDED THAT EACH PRIMARY CABLE BE INSTALLED IN A SEPARATE CONDUIT THUS PROVIDING COMPLETE SEGREGATION FROM EACH OTHER.



DUAL PRIMARY CABLES INSTALLED IN DUAL CONDUITS.

COMPLETE SEGREGATION FROM EACH OTHER TO THE POINT THAT CIRCUIT "A" NEVER ENTERS INTO A CIRCUIT "B" PIT.

BASE INSTALL PRICE X1.8



STEP 5 CHOOSE A LIGHT BASE



LIGHTS CAN BE MOUNTED ONTO PLASTIC VALVE BOXES. LIDS TEND TO BECOME BRITTLE AFTER 15 YEARS AND WILL PROGRESSIVELY NEED CHANGING. GOOD BASIC OPTION.



PRE CAST CONCRETE BLOCKS ARE SET INTO THE GROUND AND BACKFILLED WITH SAND AND CEMENT. LIGHT BASES ARE CHEMICALLY ANCHORED TO CONCRETE BASE FOR EASE OF LEVELING. BASES CAN BE EASILY RAISED BEFORE PAVEMENT OVERLAY.

BASE PRICE X 6

FINISHED

WHAT HAVE YOU CHOSEN.



AN LED ABS PLASTIC LIGHT WITH CORROSION FREE BODY. MOUNTED ON PVC VALVE BOX. FAA STYLE SERIES ISOLATION TRANSFORMER. THIS STYLE OF FITTING IS THE MOST COMMONLY USE FITTING IN AUSTRALIA AND HAS A PROVEN SUPPLY AND TRACK RECORD.

BASE TOTAL PRICE



MID RANGE LIGHTING INSTALLATION. LED FITTING. CONCRETE FOUNDATION. FAA STYLE SERIES ISOLATION TRANSFORMERS INSTALLED IN SEPARATE ELECTRICAL PIT. SINGLE OR DUAL PRIMARY CABLES INSTALLED IN ONE CONDUIT.

BASE PRICE X 2.2



TOP OF THE RANGE LIGHTING INSTALLATION. GLASS LENS AND METAL BASE MOUNTED ON CONCRETE BLOCK WITH FAA STYLE BASE PLATE. DUAL PIT AND DUCT SYSTEM TO PROVIDE TOTAL SEGREGATION BETWEEN PRIMARY CABLES.

BASE PRICE X 4.2

MULTIPLICATION FACTOR.

THE MULTIPLICATION FACTOR RELATES TO THE SINGLE COMPONENT PRICE, NOT THE TOTAL PROJECT PRICE.

PRIMARY CABLE

BASE PRICE USES 3KV CABLE CONSIDERATION SHOULD BE GIVEN TO USING STRONGER 5KV CABLE BASE X 1.3

PLEASE NOTE.

THIS IS A VERY BASIC GUIDE TO TRY AND SHOW THE DIFFERENT STYLES OF INSTALLING AERODROME GROUND LIGHTING AND THE ASSOCIATED COST DIFFERENCES. AS WITH MOST THINGS IN LIFE, YOU GET WHAT YOU PAY FOR.

PLEASE HAVE A LOOK AT ALL OF THE OPTIONS AND GIVE US A CALL TO DISCUSS.

WE ARE HERE TO HELP.

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FOR CONSULTATION

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**YOUR AIRPORT
RUNWAY LIGHTING PROJECT**

**AIRFIELD LIGHTING
AIRPORT LIGHTING SELECTION PROCESS**