

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

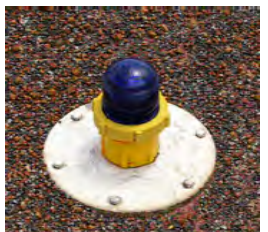


FAA/ICAO STYLE LED LIGHTS
USA, EUROPEAN, CHINESE.
LONG LAMP LIFE, IMPRESSIVE
LIGHT OUTPUT.
GLASS LENS, METAL
BASE. USES FAA STYLE
MOUNTING SYSTEM.
HIGH QUALITY PRODUCT.
MAY ENCOUNTER MOS
COMPLIANCE ISSUES.
LED LIGHTS APPEAR TO
CHANGE STYLES RAPIDLY.
THIS LIMITS SPARES IN THE
FUTURE.

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

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

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.

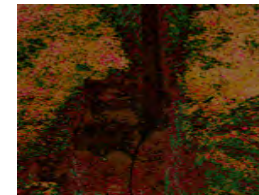
BASE PIT PRICE X 12

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.

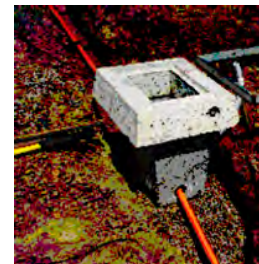
PLEASE HAVE A LOOK AT ALL OF THE OPTIONS
AND GIVE US A CALL TO DISCUSS.
WE ARE HERE TO HELP.
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STEP 4 CHOOSE AN INSTALLATION METHOD



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



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

STEP 5 CHOOSE A LIGHT BASE

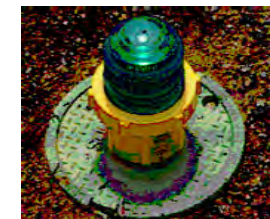


PRE CAST CONCRETE
BLOCKS ARE SET INTO THE
GROUND AND BACKFILLED
WITH SAND AND CEMENT.
LIGHT BASES ARE
CHEMICALLY ANCHORED TO
CONCRETE BASE FOR EASE
OF LEVELING. BASES CAN BE
EASILY RAISED BEFORE
PAVEMENT OVERLAY.

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

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CONSTRUCTED BY

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**YOUR AIRPORT
RUNWAY LIGHTING PROJECT**

**AIRFIELD LIGHTING
AIRPORT LIGHTING SELECTION PROCESS**