

ILLUMINATION SYSTEMS



from

Kalin[®]

(An ISO 9001:2008 Certified Co.)

integrating the science and art of light

**ENERGY-EFFICIENT, ECONOMIC
AND
LONG-LIFE LUMINAIRES**



SPECIALIST IN
Revolving Search-Lights



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About Us

We are pleased to introduce ourselves as a leading manufacturer of various lights & their accessories under the brand name "**KALIN**". We are pioneers in the field of manufacturing / erection of special types of **long-range flood lights** and **security lights** (fixed and revolving both) besides offering AMC solutions towards after sales services.

We are a team of dedicated engineers, who are continuously engaged in R&D to improve quality and reduce energy consumption. Our luminaries have been designed scientifically and our reflectors is in **stainless steel & mirror back glass** material which gives more than 95% efficiency with *guaranteed brightness for more than 5 years*. (Other makes generally use anodized aluminum reflector, which have short life spans and give less than 70% reflection efficiency).

Our Long Range Flood Lights can effectively and economically do the job of a large number of Security/ Flood lights required to be fitted along the periphery. At the same time, these enable the user to pan the landscape over wide angles and adjust target direction, wherever required.

Our luminaries have been widely appreciated & welcomed by all sectors (Central Govt./State Govt./Limited & Pvt. Ltd. organizations) with satisfactory report & repeated orders, VIZ: Air force, Indian Navy, MES, Indian Army, DMSRD, HAL, IOCL, HPCL, GAIL, ONGC, Ordnance-Factories, Railways, Delhi-metro, Jails, NTPC, NHPC, NCL and many other private concern.

We are happily informing you that our mostly products are tested by NABL approved testing lab (NTH) as per IS:10322:Part5.

We hereby enclosed all data/ product range with specifications, for your kind approval and necessary action to add our make in your future requirement / NIT.

Should you require more information, please feel free to write us or log on: www.kalin.co.in or www.kalinlights.com

We want an opportunity to serve you.

We thankful if you forward this letter to other concern person and deptt. if required so.

Thanks with warm regards;

Kalin Engineering Works

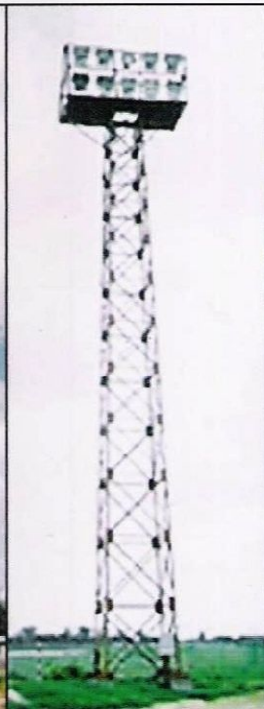
Kalin *PRODUCT RANGE AT A GLANCE*



FULL HIGH MAST
height : 12-30 mtr



TOWER LIGHT
height : 12-30 mtr



STADIUM LIGHT
height : 15-30 mtr



SEMI HIGH-MAST
height : 8-12 mtr



PERIMETER SECURITY LIGHT
Distance Between Pole 200-400 Mtr
(Back to Back Position)



MRSL-LRF25G402

MOTORIZED REVOLVING SEARCH LIGHT
(Optional: Speed Control / Reverse-forward / vertical controls on demand)



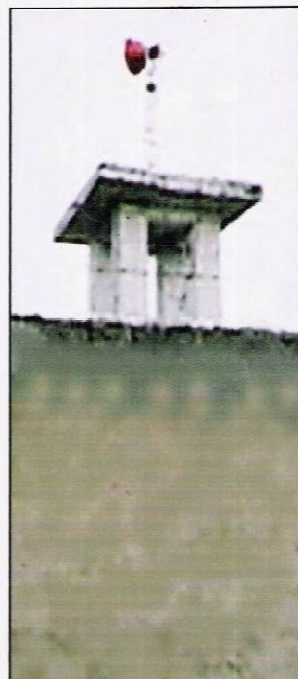
TRIPOD MOUNTED SEARCH LIGHT
(Manually Operated)



C.S. MOUNTED SEARCH LIGHT
(Manually Operated)



VARIOUS LOW VOLTAGE INSPECTION AND MAINT. LIGHTS
24Volt, 100,150,200W



UDCA MOUNTED SEARCH LIGHT FOR WATCH TOWER'S ROOF-TOP
(Manually Operated)



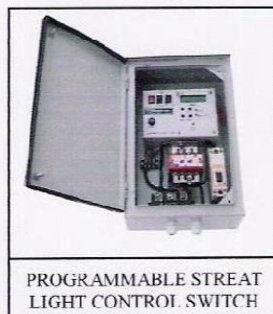
LED's TRAFFIC LIGHT
Colour: red/green/yellow
(Flasher Optional)



WIDE AREA FLOOD LIGHT
(SS REFLECTOR TYPE)



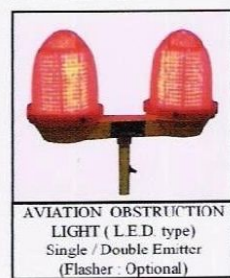
LONG RANGE FLOOD LIGHT
(SS BODY CUM REF.)



PROGRAMMABLE STREET LIGHT CONTROL SWITCH



HAND HELD SEARCH LIGHT (Dragon Torch)



AVIATION OBSTRUCTION LIGHT (LED type)
Single / Double Emmitter
(Flasher - Optional)

KALIN ENGINEERING WORKS

(AN ISO 9001:2008 CERTIFIED Co.)

186 'C' BLOCK, PANKI, KANPUR-208020 (UP)

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Please Ask For Detail Catalogue OR Visit us 'www.kalinlights.com'

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SPECIAL SECURITY LIGHTS FOR PERIMETER

The security lights are working on phenomena of contrast light i.e. the light level on security man should be minimum and intruder shall be well visible. As per old system, traditional street light (Fluorescent Tube/ Sodium) are being used yet as perimeter lighting, but this system have many disadvantages (apart from contrast lighting) like: high maintenance, low efficiency of reflector, low coverage and also lighting those area where illumination not required. So wastage of light was very much higher in old system.

Now, we proposed special designed long range flood lights for perimeter. New system will be solve all these problems of lights being provide for security lights. We will

illuminate only the boundary wall and connecting roads. This is generated with the help of 2 Nos. Long-range floodlights on position back to back on the pole. These lights can effectively illuminate targets upto 500 mtr and have both directional and elevational controls. Due to long range of the fitting, the total cost of the project will magically reduced because no. of installations will substantially reduce.(Please see the Table)

Salient features

- Minimize maintenance exp. About 75 %
- Minimize Project cost about 50 %
- Minimize Replacement cost of Lamp & accessories about 60 %
- Minimize Power consumption per annum about 60 %



Distance between poles
100-300 meters

COST COMPARISION TABLE (apprx.)

	DESCRIPTION OF PERIPHERAL ILLUMINATIONS	TRADITIONAL STREET LIGHTING	KALIN LIGHTS (LRF model)	COST REDUCTION	SAVING IN %
a.	No. of installations per km. For providing uniform illumination of 8 to 10 lux along the periphery	33 Nos.	8 Nos.	25 Nos.	75%
b.	Wattage per installation HPSV Lamp.	250 W	400 W	--	--
c.	Total Wattage required for illumination per linear km.	8250 W	3200 W	5050 W	61%
d.	Budgeted cost of installation fittings with lamps (Excluding cost of poles & Cabling) per linear km.	Rs.1,35,000/-	Rs.91,000/-	Rs.44,000/-	33%
e.	Cost of erection & commissioning including cost of poles) per km.	Rs.1,15,500/-	Rs.30,400/-	Rs.85,100/-	74%
f.	Total power consumption per annum @ Rs.2.40/ KWH. per linear km.	Rs. 86,700/-	Rs.33,600/-	Rs.53,100/-	61%
g.	Replacement cost of lamps, expected life 10,000 hrs. (3 years)	Rs. 18,000/-	Rs.06,800/-	Rs.11,200/-	61%
h.	Effective life of reflector (Kalin uses Glass or stainless steel reflector in place of traditionally used Aluminium reflectors).	1 year	5 years	4 years	--
i.	TOTAL OPERATING COST IN 5 YEARS	Rs. 7,02,000/-	Rs.2,96,200/-	Rs. 4,08,800/-	58%

(based on testing at field gun factory,1997)

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HAND-HELD SEARCH LIGHT (DRAGON –LIGHT)

APPLICATIONS : Paramilitary forces during mobile search operations, forest department, customs, police, defense forces troops, and prisons and for general inspection tasks etc.

SALIENT FEATURES :

- High intensity precision spot beam, operating range upto 1000 M.
- Maintenance free, rechargeable sealed lead acid battery.
- High efficient deep parabolic mirror back reflector with shock resistant glass.
- Heavy duty molded unbreakable plastic / super tough nylon /ABS body.
- Light weight, portable with shoulder pad & proper gripped handle.
- Lab tested by National Test House (a NABL approved testing lab)

PRODUCT RANGE: Economic model (traditional type):- High intensity, precision spot beam, hand held search-light (dragon torch), portable, molded glass filled nylon /ABS body with shoulder pads for easy carrying, deep parabolic mirror back reflector, inbuilt timer, rechargeable sealed lead acid battery of 12v-7Ah, high efficiency & sealed beam halogen lamp of 12v/55w, continuous glow upto 70 minute, in-built SMPS charger along-with charging lead for 230Vac 50hz. **Model No.:** KDL-55E.



Unique model:- all features are same as ‘economic model’ but also inbuilt **variable dimmer** (to adjust the light intensity & increased battery backup upto 12 hrs), **variable flasher** (for indication), auto on when power failure during charging time etc. tested by NABL’s ‘Govt Test House’. (optional : the model is also available in single operational control knob for easy to use). **Model No.:** KDL-55U.



Digital Model:- all features (such as dimmer/ flasher/ timer/ auto-on/ fuse etc.) are same as ‘unique’ model, but all controlling through its MEMBRANE switch (soft key pad as in mobile set) instead of traditional knob/push switches. (Optional ‘LCD’ screen display is also available on extra cost if needed). **Model No.:** KDL-55UE.



LED Dragon Torch (Latest model):- High intensity, precision spot beam, hand held search-light (dragon torch), portable, molded glass filled nylon/ABS body with joint-less handle, shoulder pads, deep parabolic hi-reflectivity mirror back reflector, with hi-glow 5w power LED, Built-in 4v-6ah sealed lead acid rechargeable battery, inbuilt 3 way mode dimmer for high / medium / low beam option, runtime: 4 to 12 hours, inbuilt additional back-light for minor work, in-built SMPS charger along-with charging lead for 230Vac 50hz. **Model No.:** KDL-5SE.



Optional Accessories(on extra cost): IR filter, Remote control, tripod stand for all above models.

COMPARISON TABLE

Model No.	KDL-55E	KDL-55U	KDL-55UE	KDL-5SE
Lamp	55w, Halogen	55w, Halogen	55w, Halogen	5w, LED
Battery	12v,7ah, sealed	12v,7ah, sealed	12v,7ah, sealed	4v, 6ah, sealed
Charger (SMPS)	Inside the light	Inside the light	Inside the light	Inside the light
Charging volt	150-300Vac	150-300Vac	150-300Vac	150-300Vac
Membrane buttons	No	No	Yes	No
Timer (auto off, 30s)	Yes	Yes	Yes	No
Variable Flasher	No	Yes	Yes	Optional
Variable Dimmer	No	Yes	Yes	high, medium, low
Run time	70 minute	70 min. – 8 hrs.	70min.- 8 hrs	4- 12 hrs
Weight (appx. In kg)	4 kg	4 kg	4 kg	1.2 kg
Front dia, back dia, length (~cm)	FD16, BD13, L 25	FD16, BD13, L 25	FD16, BD13, L 25	FD13, BD11, L23

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MANUAL REVOLVING SEARCH LIGHT (C.S.MOUNTED)

APPLICATION : Security surveillance from watch tower cabin (inside roof), plant maintenance, also useful for other general area for lighting & illumination.

SALIENT FEATURES:

- Beam range more than 700 m.
- Focusing arrangement for beam adjustment.
- Available in high efficiency Glass/SS reflectors.
- Rotate in both axis with locking arrangement.
- Proper gripped handle at back for easy movement.
- Also available in low voltage operated models.
- Painted by heat proof epoxy powder coated.



SPECIFICATION:

A. REVOLVING BASE (CONICAL STAND): The conical stand would be suitable for mounting of our high intensity search lights on its top plate & jointed by nut-bolts. It is made of CI/Alu. & painted by powder coating for long life. This stand would have high grade maintenance free bearing and designed so that the light can be rotate very smoothly around horizontal as-well-as vertical axis through MS cradle of the light and can be locked at any position. Required foundation holes are also provided in bottom side of the stand to fix the stand base at desired place (generally watch-tower's hand railing or parapet wall) by anchor bolts/clamps.

B. SEARCH LIGHTS : We suggest our two following varieties of luminaries' viz. LRF and LVS models for this arrangement, both luminaries have high efficiency parabolic reflector of 70-95% reflectivity, focusing arrangement for adjustment of light-beam narrow or spread option & finished with weather proof coating & suitable for outdoor installations(IP65):-



1.LRF model: This fitting is suitable for continuous working (lamp life ~30,000 burning hrs) and has a conical beam with spreads but taken approx. 10 minute for full glow:-

SPECIFICATION: High intensity search cum flood light, the housing would have made of low carbon aluminum alloy, inside fitted mirror back reflector with 4 mm thick toughened front glass along-with endless neoprene rubber gasket, focusing arrangement, E-40 lamp holder, painted powder coated epoxy paint, separate control gear/ panel suitable for HPSV or MH lamp of required wattage.

OR

2.LVS model: This fitting is most useful for powerful illumination. It provides instant illumination & has a narrow & long spot beam like a laser (but lamp life ~500 bur. hrs):-

SPECIFICATION: High intensity, low voltage electric shock proof search light, cylindrical shape housing of 3 mm thick aluminium alloy body, glass reflector, 4 mm thick toughened front glass with endless neoprene rubber gasket & fixed to the housing, painted by powder coating epoxy paint, low voltage capsule halogen GY6.35 pin base type lamps fixed with fire proof holder (Qty 2 nos;1 for stand-by), separate control box of required wattage.



PRODUCT RANGE

Catalogue No.	Supply		Type of Lamp	Beam Range(~)	Max. Spreads
	Volts	Watts			
CS-LRF 25G25	230	250	HPSV / MH	300 M	15 M
CS-LRF 25G40	230	400	HPSV / MH	500 M	20 M
CS-LRF 40G100	230	1000	HPSV / MH	700 M	30 M
CS-LVS 35G25	230 / 24	250	Capsule Halogen	400 M	4 M
CS-LVS 35G40	230 / 36	400	Capsule Halogen	600 M	6 M

Data & photo subject to change due to improvement in design & manufacturing

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TRIPOD MOUNTED REVOLVING SEARCH LIGHT

APPLICATIONS:

Watch Tower (inside roof), Machines Maintenance, Studio, High security zone etc.

SALIENT FEATURES:

- High intensity & weather proof search-light having high efficiency GLASS reflector.
- Only one luminary will cover all area around its installation upto 700 meters.
- Search light can be movable on platform & brake at desired spot by wheel locking.
- Search light can be also move in horizontal & vertical plane with locking arrangement.

SPECIFICATIONS:

A. TRIPOD STAND : The tripod stand shall be suitable for mounting of high intensity search lights on its rotating disk. It is made of iron & steel with G.I. coating/powder coating and designed so that the search light can be rotate one full round around its vertical axis and can be locked at any position, it should have 3 or 4 nos. high grade PVC castor wheels at bottom for easy movement on the platform with wheel locking arrangement, the height of tripod stand is 1Meter above from the bottom (or as required).



B. SEARCH LIGHTS : We suggest our two following varieties of luminaries' viz. LRF and LVS models for this arrangement ,both luminaries have Glass Reflector of 95% reflectivity, focusing arrangement for adjustment of light-beam narrow or spread option & finished with weather proof coating & suitable for outdoor installations(IP65):-



1. LRF model: This fitting is suitable for continuous working (lamp life ~30,000 burning hrs) and has a conical beam with spreads but taken approx. 10 minute for full glow:-

SPECIFICATION: High intensity search cum flood light, the housing should have made of 'low carbon aluminum alloy inside fitted mirror back Glass / SS reflector with 5 mm thick toughened front glass along-with endless neoprene rubber gasket, focusing arrangement, E-40 lamp holder, painted powder coated epoxy paint, separate control gear/ panel suitable for HPSV or MH lamp of required wattage.

OR



2. LVS model: This fitting is most useful for powerful illumination. It provides instant illumination & has a narrow & long spot beam like a laser (but lamp life ~500 bur. hrs):-

SPECIFICATION: High intensity, low voltage electric shock proof search light, cylindrical shape housing of 3 mm thick aluminium alloy body, glass reflector, 4 mm thick toughened front glass with endless neoprene rubber gasket & fixed to the housing, painted by powder coating epoxy paint, low voltage capsule halogen GY6.35 pin base type lamps fixed with fire proof holder (Qty 2 nos;1 for stand-by), separate control box of required wattage.

PRODUCT RANGE

Catalogue No.	Supply		Type of Lamp	Min. beam Range	Max. Spreads
	Volts	Watts			
TRI-LRF 25G25	230	250	HPSV / MH	300 M	15 M
TRI-LRF 25G40	230	400	HPSV / MH	400 M	20 M
TRI-LRF 40G100	230	1000	HPSV / MH	700 M	30 M
TRI-LVS 35G25	230 / 24	250	Capsule Halogen	400 M	4 M
TRI-LVS 35G40	230 / 36	400	Capsule Halogen	500 M	6 M
TRI-LVS 35G100	230	1000	Capsule Halogen	800 M	10 M

Data & photo subject to change due to improvement in design & manufacturing

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MANUAL ROTATING SEARCH LIGHT

It is a very special type rotating search light arrangement for watch towers which is movable one round (~360°) around its vertical axis with 30° up & down from the horizontal plane by the help of "Under Deck Control Arrangement" (UDCA) which can provide movement of the luminary in all planes. The UDCA is manually operated and can enable installation of the luminary roof (any where) of the watch-tower. The operating handle is located within the watchtower.

The salient features are :

- Only one luminary will cover all area around the watchtower more than 800 meters.
- Luminary can be rotated by watchman manually all the directions under the roof & can be locked as desired position at any time.
- Due to luminary installed over the roof there are no any obstructions of watchtower's wall and pillar in the way of beam of luminary.
- The watchman will feel fearless from the lighting insects because light source (luminary) fitted over the roof.
- The watchman will also feel safe because he always in dark place in comparison to others.
- The control gear or power device will be installed under the roof for easy electrical maintenance.



Specifications :

A. UDCA STAND: This stand shall be suitable for mounting of following search light on roof of the watch tower. The height of UDCA would be 1.5 meters (or as required) and the operating lever shall be mounted at suitable height so that luminary can be operate easily from inside of the room (i.e. below the roof of watch tower). The UDCA arrangement should have designed so that the search-light can be rotate one full round around its vertical axis with 15 degree up and down both from horizontal plane. The UDCA should have locking arrangement for locking the whole system at any position/ direction. All bushes will be made by gun metal, Hardware will be in S.S. and others metal parts having Ni-Cr and Zn electroplated for outdoor installations. (Entire UDCA will be Stainless Steel if needed so, on extra cost)

B. SEARCH LIGHTS : We suggest our two following varieties of luminaries' viz. LRF and LVS models for this arrangement ,both luminaries have Glass Reflector of 95% reflectivity, focusing arrangement for adjustment of light-beam narrow or spread option & finished with special polyurethane weather proof coating for corrosion resistant and aesthetic look and thus suitable for outdoor installations:-



- 1. LRF model:** This fitting is suitable for continuous working (lamp life ~30,000 burning hrs) and has a conical beam with spreads but taken apprx. 10 minute for full glow:

SPECIFICATION: High intensity search cum flood light, the front housing should have made of 3mm low Carbon Aluminum alloy with die-cast back housing, the main reflector* is in glass with SS side reflector, 4 mm thick toughened front glass with endless neoprene rubber gasket, focusing arrangement, E-40 lamp holder, painted by powder coated paint, separate control gear/ panel suitable for HPSV or MH lamp of required wattage. Degree of protection:IP65.

OR



- 2. LVS model:** This fitting is most useful for powerful illumination. The model provides instant illumination and has a narrow and long spot beam like a laser (but lamp life ~500 burning hrs):

SPECIFICATION: High intensity, low voltage electric shock proof search light, cylindrical shape housing of 3 mm thick aluminium alloy body, glass reflector, 4 mm thick toughened front glass with endless neoprene rubber gasket & fixed to the housing, painted by powder coated paint, low voltage capsule halogen GY6.35 pin base type lamps fixed with fire proof holder (Qty 2 nos;1 for stand-by*), separate power device of required wattage. Degree of protection:IP64.

PRODUCT RANGE

Catalogue No.	Supply		Type of Lamp	Effective Range	Max. Spreads
	Volts	Watt			
RSL-LRF 25G25	230	250	HPSV / MH, single	200-300 Mtrs	15 Mtrs
RSL-LRF 25G40	230	400	HPSV / MH, single	300-500 Mtrs	20 Mtrs
RSL-LRF 40G100	230	1000	HPSV / MH, single	500-800 Mtrs	25 Mtrs
RSL-LVS 35G25	230 / 24	250	Cap.Halogen, twin	200-400 Mtrs	4 Mtrs
RSL-LVS 35G40	230 / 36	400	Cap.Halogen, twin	400-600 Mtrs	6 Mtrs
RSL-LVS 35G100	230	1000	Cap.Halogen, single	600-800 Mtrs	10 Mtrs

*this search light also available in SS body cum reflector.

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MOTORISED REVOLVING SEARCH LIGHT

APPLICATIONS: Surveillance from Watch-tower, ATC tower, Large open area, Circus, High security zone etc.

SALIENT FEATURES



MRSL-LRF40G1001

- Only 1 revolving system will cover all area around its installation more than 600 meters.
- High intensity, weather proof search light having high efficiency mirror back glass/SS reflector.
- Luminary will continuously rotate 360 degree in horizontal plane.
- Normally this system installed over the roof, so there are no any obstructions of wall and pillar in the way of beam of luminary.
- Revolving disc & outer box would be in rustless fiber material.
- The security man will also feel safe because he will always in dark place in comparison to others. Also safe from lighting insects because luminary fitted over the roof.



MRSL-LRF25G402

SPECIFICATIONS

A. REVOLVING MECHANISM : The revolving system shall be suitable for mounting of 1 or 2 pcs. of search lights (LRF or LVS model) on its rotating disc(fiber/MS). The luminary will continuously rotate 360 degree, 5RPM in horizontal plane. Revolving cabinet should have completed with speed reduction unit, electric motor, pulley, V-belts etc. and duly wired up to search lights. Entire metal parts have finished with weather proof epoxy cum powder coating and also covered by ms/fiber box for corrosion resistant, aesthetic look & best suitable for outdoor installations, completed with control panel with fuses, MCB, indicators etc.

Optional Accessories/Features (on additional cost/request only):

- Speed control unit for 1 to 10 rpm with reverse-forward push button.
- Also available half or quarter round (90°/180°) horizontally & Vertical moving lights on request.

B. SEARCH LIGHTS : We suggest our two following varieties of luminaries' viz. LRF and LVS models for this arrangement, both luminaries have Glass Reflector of 95% reflectivity, focusing arrangement for adjustment of light-beam narrow or spread option & finished with weather proof coating & suitable for outdoor installations(IP65):-



1. LRF model: This fitting is suitable for continuous working (lamp life ~30,000 burning hrs) and has a conical beam with spreads but taken apprx. 10 minute for full glow:-

SPECIFICATION: High intensity search cum flood light, the housing should have made of 'low carbon aluminum alloy inside fitted mirror back SS reflector with 5 mm thick toughened front glass alongwith endless neoprene rubber gasket, focusing arrangement, E-40 lamp holder, painted by PU/Powder coated epoxy paint, separate control gear/ panel suitable for HPSV or MH lamp of required wattage.

OR



2. LVS model: This fitting is most useful for powerful illumination. It provides instant illumination & has a narrow & long spot beam like a laser (but lamp life ~500 bur. hrs):-

SPECIFICATION: High intensity, low voltage electric shock proof search light, cylindrical shape housing of 3 mm thick aluminium alloy body, glass reflector, 4 mm thick toughened front glass with endless neoprene rubber gasket & fixed to the housing, painted by PU paint, low voltage capsule halogen GY6.35 pin base type lamps fixed with fire proof holder (Qty 2 nos;1 for stand by), separate control panel of required wattage.

PRODUCT RANGE

CATALOGUE NO		Operating Voltage	Each Lamp Wattage	Type of Lamp	Min. Spreads	Min.Eff. Range
With single light	With double lights					
MRSL-LRF25G251	MRSL-LRF25G252	230V AC	250 W	HPSV / MH	15 Mtrs	200 M
MRSL-LRF25G401	MRSL-LRF25G402	230V AC	400 W	HPSV / MH	20 Mtrs	300 M
MRSL-LRF40G1001	MRSL-LRF40G1002	230V AC	1000 W	HPSV / MH	25 Mtrs	600 M
MRSL-LVS35G251	MRSL-LVS35G252	230V AC	250 W	Capsule Halogen	4 Mtrs	400 M
MRSL-LVS35G401	MRSL-LVS35G402	230V AC	400 W	Capsule Halogen	6 Mtrs	600 M

Photo & Data subject to change any time due to improvement in design & manufacturing process.

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LOW VOLTAGE MAINTENANCE LIGHT

SALIENT FEATURES:

- Shock proof due to low voltage operation.
- Instant Illumination by imported halogen lamps.
- Light weight and portable.
- Can be operated by Battery.

APPLICATIONS:

These Luminaries are specifically designed for repair/maintenance / inspection of the boiler, chimney, turbine, shipyard, dockyard, CNC machines etc. during shutdown / breakdown/general purpose and security surveillance, where low voltage equipments / devices are compulsory for do the job.

PRODUCT RANGE & SPECIFICATION:



24V, 50 WATT: high intensity, low voltage, portable type, dust and weather proof, cast aluminium LM6 body, toughened front glass fixed with the body by help of front ring & neoprene rubber gasket, suitable conical base (fixed or universal moving type with locking arrangement at desired position), highly polished SS reflector, proper gripped handle at body top for carrying and aiming. Fitting would be completed with 1x50 watt halogen lamp. Input voltage 24volts ac/dc. Cat. No.LVM 50

24 V, 100 WATT: high intensity, low voltage, portable type, dust and weather proof, cast aluminium LM6 body, toughened front glass fixed with the body by help of front ring & neoprene rubber gasket, suitable conical base (fixed or universal moving type with locking arrangement at desired position), highly polished SS reflector, proper gripped handle at body top for carrying and aiming. Fitting would be completed with 2x50 watt dichroic reflector type halogen lamp (or 1x100w capsule halogen lamp). Input voltage 24volts ac/dc. Cat. No.LVM 100



24 V, 150 WATT: high intensity, low voltage, portable type, dust and weather proof, cast aluminium LM6 body, toughened front glass fixed with the body by help of front ring & neoprene rubber gasket, suitable conical base (fixed or universal moving type with locking arrangement at desired position), highly polished SS reflector, proper gripped handle at body top for carrying and aiming. Fitting would be completed with 1x150 watt capsule halogen lamp. Input voltage 24volts ac/dc. Cat. No.LVM 150

24 V, 200 WATT: high intensity, low voltage, portable type, dust and weather proof, cast aluminium LM6 body, toughened front glass fixed with the body by help of front ring & neoprene rubber gasket, suitable conical base and m.s. cradle with side degree for rotation of the light on both axis with locking arrangement at desired position, highly polished aluminium/SS reflector, proper gripped handle at body top for carrying and aiming. Fitting would be completed with 4x50 watt dichroic reflector type halogen lamp. Input voltage 24volts ac/dc. Cat. No.LVM 200



All picture & data subject to change due to improvement in design & manufacturing process w/o notice.

KALIN ENGINEERING WORKS, 186- 'C' BLOCK, PANKI, KANPUR-208020 (UP)
Tel: 0512-2262865 / 2560697 / 09336109295 Fax: 0512-2262895 website : www.kalinlights.com

Kalin[®]

(integrating the science and art of light)

AVIATION OBSTRUCTION LIGHT (LED base)

Aviation Obstruction Light (Aircraft warning light) is a high-intensity lighting devices that are attached to tall structures and are used as collision avoidance measures. Such devices make structures more visible to passing aircraft and are usually used at night. These lights need to be of sufficient brightness in order to be visible for miles around the structure.

According **ICAO & DARA**, Selection of the AOL is depending on the height of structure:-

Below 200 feet : low Intensity AOL having 10-35 cd in red color is sufficient.

200 to 500 feet : Medium Intensity AOL having at-least 1600cd with flashing to be used.

Above 500 feet : High intensity AOL having 200,000 cd for day time & 2000cd for night is needed, but if the structure is painted with red/white band (as specified by ICAO/DARA), the medium intensity AOL having at-least 2000cd with flashing is acceptable.

Regarding min. Numbers of AOL around circumference of the structure is depending on its diameter as: less than 20'Ø-3 No., 20'-100'Ø-4No., above 100'Ø-6No. per level needed.

Traditionally for AOL, red lamps (or beacons) use **incandescent filament bulbs** or **Xenon/Neon lamp**, but these bulbs have high power consumption and frequent replacement of bulb due to its short life span, which is a very hazardous, expansive & complicated work for such a extreme height like chimneys & towers, and have become a less favoured option.

Now, **KALIN** introducing **LED** (Light Emitting Diode) based Aviation Obstruction Light, having a significantly longer lifespan than conventionally lamp, thus reducing maintenance costs and increasing reliability.



Salient Features Are:

- Multiple segments to avoid complete run down.
- Emitter life ~1,00,000 burning hours (~10years).
- Wide operating voltage range: 150-300Vac.
- Very low power consumption.
- Operating temp: -20 to +80°C.
- Tested by Govt.Test Lab.(NABL)

Product Range & Specifications:

SINGLE EMITTER, ABS RED COVER:

Cast alu.(LM-6) housing, weather proof IP55,painted with corrosion resistant yellow paint, covered by hard ABS red cover dome & sealed with gasket, long life & energy saving LED based lamp, solid state, ultra Red LED, power:24W, input voltage:150-300Vac, suitable for low lumens intensity applications. Cat Par No.:AOL/SE-24



DOUBLE EMITTER, ABS RED COVER

Cast alu.(LM-6) double dome housing, weather proof IP55,painted with corrosion resistant yellow paint, covered by hard ABS red cover, both domes sealed with gasket, long life & energy saving LED based lamp, solid state, ultra Red LED, power:2x24W, input voltage:150-300Vac, suitable for low lumens intensity applications. Cat Par No.:AOL/DE-48

HEAVY DUTY, HARD CLEAR GLASS COVER

Cast alu.(LM-6) housing, weather proof IP65,painted with weather & heat proof yellow powder coating, covered by transparent borosilicate hard thick glass sealed with gasket & retaining metal ring, long life & energy saving high glow LED based lamp, solid state, ultra bright LED, color Red or white, power:24W, input voltage:150-300Vac, Suitable for medium lumens intensity. Cat Par No.:AOL/SE-24G



Photo & Data subject to change any time due to improvement in design & manufacturing process.

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Tel: 0512-2262865 / 2560697 / 09336109295 Fax: 0512-2262895 website : www.kalinlights.com

L.E.D. BASED TRAFFIC LIGHT (BLINKER)

We are sure you would agree with us that lighting is one of the most important aspect of improving efficiency, quality of life and security at any organisation. Our company is manufacture special luminaries having very high efficiency in terms of lux output, longevity of reflector, energy saving & easy operation.

Among the various luminaries being manufactured by us are suited for flood lighting, search lighting, inspection lighting, open area illumination, facade illumination, low voltage lighting, Hi-mast, mining area illumination, security and surveillance (fixed or Mobile type) lights etc.

Now **KALIN** launched a special type long life L.E.D. (light emitting diode) based **TRAFFIC-LIGHT/BLINKER** suitable for all types of crossings.

Salient features are:

- Multiple segments to avoid complete run down of Emitter unit
- Emitter life upto 1,00,000 burning hrs.
- Very Low power consumption
- Operating voltage 80-300.
- Available in all colors as desired.

SPECIFICATION

High intensity, long life, LED based traffic lights, housing made by CRCA sheet or FRP and finished with yellow/black powder coated/PU paint, toughened front glass with endless neoprene rubber gasket, type of LED: ultra bright AIGaAs 5mm; colour of LED: red/green/yellow (or as required), solid state multiple circuit PCB, operating temp: 22 to +80 degree C, working voltage: 80-300 Vac.

(Optional accessories: solid state variable Blinker, automatic timer for 1-24hrs, multi tone hooter)

PRODUCT RANGE

CATALOGUE No	TYPE	Power (Watt)	Each emitter Lance dia.
TLL-112	Single emitter	1x12 W	200 mm
TLL-115	Single emitter	1x15 W	200 mm
TLL-120	Single emitter	1x20 W	200 mm
TLL-130	Single emitter	1x55 W	300 mm
TLL-215	Double emitter	2x15 W	200 mm
TLL-220	Double emitter	2x20 W	200 mm
TLL-230	Double emitter	2x55 W	300 mm
TLL-315	Triple emitter	3x15 W	200 mm
TLL-320	Triple emitter	3x20 W	200 mm
TLL-330	Triple emitter	3x55 W	300 mm



**SINGLE
EMITTER
(TLL - 120)**



**TRIPLE
EMITTER
(TLL - 320)**

Kalin

(integrating the science and art of light)

LIGHTING HI-MAST TOWER (LATTICE TYPE)

Specifications

A. Lattice tower (12-25 meters)

- 1.Width: 2x2 mtr at bottom and 1x1 mtrs at top.
- 2.Main vertical arm: ISA75x75x6
- 3.Horizontal arm: ISA 65x65x6
- 4.Cross arm: ISA 50x50x6 (double cross arm would be provided)
- 5.Geometrical angle between horizontal & cross arm member:- not more than 45 degree.
- 6.All joints: done by high tensile bolts of size 15dia with double washer & nut.
- 7.M.S. platform at top: shall be 2x2 meters in size and covered by thick checkered plate / welded mesh in bottom, protective railing 1.2 mtrs height with required holes for mounting lighting fixtures all around the platform made by at least 3 horizontal members and 8 vertical members in equal distance of ISA50x50x6.
- 8.M.S. ladder: shall be provided from ground upto top and made by 15dia x400mm long round bar with equal distance 300 mm (max.) and joint with vertical member of ISA 50x50x5. The ladder should have also protective round strip made by m.s.flat 40x5 with equal distance of 600 mm and joints with vertical m.s. flat of 35x5 with equal distance of 400 mm (max.).

B. Suitable Lights (Qty as needed.): There are 2 varieties to be used for such a job:

1. **Long range flood lights:** High Intensity search cum flood light, having range more than 600 meters, low carbon alu. body, glass mirror reflector (guaranteed for brightness up to 5 years), toughened front glass, ceramic lamp holder, focusing arrangement, M.S. cradle, separate control gear suitable for HPSV or MH lamp 250w/400w/1000w of KALIN's make.
2. **Wide area flood light:** High Intensity, out door, wide area flood light, low carbon aluminium alloy body, step type parabolic S.S. reflector (guaranteed for brightness up to 5 years), toughened front glass with endless rubber gasket, m.s.cradle, control gear suitable for HPSV or MH lamp of 1x250w/ 2x250w/ 1x400w/ 2x400w of KALIN's make.



KALIN ENGINEERING WORKS, 11 - 'B' BLOCK, PANKI, KANPUR- 208020 (UP)

Tel: 0512-2262865 / 2560697 / 09336109295

Fax: 0512-2262895

website : www.kalinlights.com

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LIGHTING HIGH MAST-MOTORISED

High-Mast lighting tower is a tall pole with lighting attached to the top pointing towards the ground, **usually but not always used to light** a highway or recreational field. The pole that the lighting is mounted on is generally between 16-30 metres tall, while the lighting consists of a luminaire ring surrounding the pole with one or several independent lighting fixtures mounted around it. Some units have the lighting surrounded by a circular shield to prevent or reduce light pollution or light trespass. Maintenance of these systems are done by lowering the luminaire ring from the mast head to the base using a winch and motor to the ground to allow for easier access without disrupting traffic.

OTHER APPLICATIONS: telecommunication, sub-station / power station, transmission, surveillance, safety from lightning etc.

SPECIFICATION:

A. Tower (16-30 meters):

Material Construction	: BS-EN -10025
Thickness in mm	: 5(bottom) & 4(rest),
Diameter (polygon) in mm	: Min.150(top) & 400(bottom)
No. of joints	: 2 – 4 (as per height)
Type of joints	: slip stress fit
Metal protection treatment for fabrication:	: hot dip galvanized
Average thickness of galvanizations	: minimum 70 Microns (IS 2629)
Size of opening door at base (mm)	: 250 x 1000
Size of Base Plate (mm)	: 540 dia. x 25 thick
Max weights of high mast (in kg)	: 800 (16 mtr) & 1400 (30 mtr)
Maximum wind pressure	: 180 km/hr (IS 875,part3)
Maximum gust speed time	: 3 seconds
Factor of safety for wind load	: 1.25
Winch for lantern carriage	: self sustaining type
Power tool	: reversible motor & redu.gear mech.
Type of foundation (RCC)	: open raft shallow footing
Size of foundation	: as per soil bearing capacity
Designed load bearing capacity of soil	: considered 10 Tons/M.Sq.
Design safety factor	: 1.20
Considered wind speed (km/hr.)	: 180 km/hr.(IS 875,1987)
Number of Foundation Bolts	: minimum 12 nos.
Cable Conduction size	: 5 core x 2.5 sq. mm copper
Input supply	: 415 V, 3 phase



B. Suitable High Mast Lights (Qty as req.):

1. Long Range Flood Lights: High Intensity search cum flood light, having range more than 300 mtrs, low carbon aluminium body, highly polished mirror reflector (guaranteed for brightness up to 5 years), toughened front glass, ceramic lamp holder, focusing arrangement, M.S. cradle, separate control gear suitable for HPSV or MH lamp 400 /1000w. (Model:LRF, Make:KALIN)



2. Wide Area Flood Light: High Intensity, out-door, wide area flood light, low carbon aluminium alloy body, step type parabolic S.S./Alu. reflector, toughened front glass with endless rubber gasket, m.s.cradle, integral/non-integral control gear suitable for HPSV or MH lamp of 1x400w / 2x400w. (Model:KPR, Make:KALIN)

(Please provide your enquiry with hi-mast height needed; Qty/type/watts of lights which to be installed in mast)

KALIN ENGINEERING WORKS, 186 - 'C' BLOCK, PANKI, KANPUR- 208020 (UP)

Tel: 0512-2262865 / 2560697 / 09336109295

Fax: 0512-2262865

website : www.kalinlights.com

Kalin®

(integrating the science and art of light)

LONG RANGE FLOOD LIGHT

SALIENT FEATURS ARE:

- Beam range 100 m to 1000 m.
- Focusing arrangement for beam adjustment.
- Available in Glass and / or SS reflectors.
- Pilfer-proof bolting to minimize theft of lamp
- Vibration socks proof cushioning (optional)
- Tested by Govt. Test House as per IS10322/pt5/sec5.

APPLICATIONS:

These light fittings can effectively target more than 1000 mtrs. These lights are most suitable for peripheral lighting, high mast, dam/construction sites, watch tower's rotating light, borders, open cast mines, stadium etc and general areas etc, where greater convergence required. This long range flood light can effectively do the job of large number of security / flood lights required to be fitted along the periphery and at the same time enable the person to see around and adjust the target direction wherever required.

SPECIFICATION:

A. SEARCH-LIGHT: We have 2 best varieties of search lights as per reflector/body:-

1.S.S. body cum reflector: High intensity search cum flood light, weather proof, highly polished Stainless Steel body cum reflector with die-cast aluminum back housing, 4-6 mm thick toughened front glass with endless neoprene rubber gasket, retaining ring, pilfer proof clamp/bolting System, focusing arrangement, E-40 lamp holder, body and back housing painted by powder coating, separate control gear suitable for HPSV or MH (tubular/elliptical) lamp.



2.GLASS reflector: High intensity search cum flood light, weather and dust proof, body and reflector are separate part; body would be in aluminium alloy for lamp's heat transferred to atmosphere easily and reflector in High Efficiency 'GLASS' reflector having 95% reflectivity for best lux output., die-cast aluminium back housing, 4-6 mm thick toughened front glass with endless neoprene rubber gasket, focusing arrangement, E-40 lamp holder, painted by powder coating, separate control gear suitable for HPSV or MH (tubular/elliptical) lamp.

B. CONTROL GEAR: MOC of CG having die cast aluminum alloy(LM 6) & finished with PU weather proof/powder coating for corrosion resistant, suitable for HPSV/ MH lamp of desired wattage & completed with all accessories i.e. Copper wound ballast, inbuilt condenser & igniter and duly wired upto terminals.



DEGREE OF PROTECTION: IP 65

PRODUCT RANGE

Catalogue Reference		Lamp			Focusing Range (~Meters)	
S.S. body Cum Reflector	Glass Reflector	Watt	Volt	Type	Series of S.S.Reflector	Series of Glass Reflector
LRF 15 SS 15	LRF 15 G 15	150 W	230 V	HPSV OR MH Lamp	100-150	150-200
LRF 25 SS 25	LRF 25 G 25	250 W	230 V		150-250	200-400
LRF 25 SS 40	LRF 25 G 40	400 W	230 V		300-500	400-600
LRF 40 SS 100	LRF 40 G 100	1000 W	230 V		500-600	600-700
LRF 50 S S200	LRF 50 G 200	2000 W	230 V		600-800	700-1000

data & picture are subject to change due to improvement in design & manufacturing process.

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Tel: 0512-2262865/ 09336109295 Fax: 0512-2262865 E-MAIL:info@kalinlights.com Web:www.kalinlights.com

Kalin®

(integrating the science and art of light)

WIDE AREA FLOOD LIGHT

SALIENT FEATURES:

- Outdoor highly energy conservative spread light.
- Efficient, reliable and economical.
- Available in Electro polished S.S. reflector.
- Dust & watertight compartment.

APPLICATIONS:

These light fittings have very powerful uniform spreads light due to its step forming parabolic shape SS electropolished reflector. These lights are most suitable for large open area, illumination of buildings or any monuments, stadium, facade lighting, lighting towers, security post etc. where greater convergence required.



SPECIFICATION

ASSEMBLY: High intensity heavy-duty wide area powerful spreads light fitting complete in all respects and suitable for HPSV/ MH lamp. The luminaries made in double piece compartment- "Lamp compartment" and "Control Gear compartment". The whole housing should have made of low Carbon Aluminum alloys. The fitting should have a M.S. clamping arrangement to enable fixing at different locations & movable on its horizontal and vertical axis and locked as desired position. The face of luminaries should have provided with toughened glass of 4 mm thickness and firmly fixed to the body by help of aluminium alloy rim and endless neoprene rubber gasket. The lamp holder is E-40 type with copper cladding. The entire luminaries finished with special polyurethane weather proof coating for corrosion resistant and aesthetic look and thus suitable for outdoor installations.

REFLECTOR: The main reflector is specially designed for maximum efficiency and is in step forming in parabolic shape which is in 0.6 mm thick **stainless steel** 304-L grade and electropolished having reflectivity index more than 0.7 & guaranteed for brightness up to 5 years. Position of the lamp is such that the source of light is at focal point of the reflector.

CONTROL GEAR: The control gear is integral type and attached with "lamp compartment". This control gear suitable for HPSV/ MH (tubular) lamp and completed with all accessories i.e. Copper wound ballast, capacitor, igniter, terminal block etc. and duly wired up to lamp and ready for operation on recommended power supply.

DEGREE OF PROTECTION: IP 54

PRODUCT RANGE

Catalogue Reference	Front Size (mm)	Lamp			Main Reflector		Visibility (meters)
		Watt	Volt	Type	Type	Size	
KPR 15 S 15	340 X 260	1X150	230	HPSV	S.S.	290x210	20
KPR 25 S 25	425 X 285	1X250	230	Or	S.S.	375x235	30
KPR 40 S 40	530 X 370	1X400	230	MH	S.S.	480x320	40
KPR 40 S 80	530 X 370	2X400	230	(Tubular)	S.S.	480x320	80

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Tel: 0512-2262865/ 09336109295 Fax: 0512-2262865 E-mail: info@kalinlights.com website: www.kalinlights.com

Kalin®

(integrating the science and art of light)

PROGRAMMABLE STREET LIGHT CONTROL SWITCH

APPLICATIONS:

To automatic timely On-Off street light, security lights, aviation lights, traffic blinkers etc. or any other types of electrical loads (single/three phase) whole the year.

SALIENT FEATURES:

- Real time clock with battery backup for 5 years.
- Wide input variation 160-260volts
- Fully protect from spikes and surges.
- Timer records remain in the memory even in power failure.
- Stand by power consumption of the system is less than 1 w.
- The switching (On/Off) is within +/- 1 minute with respect to time set in memory.
- Permanent seasonal records as per sunrise & sunset timings in different city in India thought out the year.
- Auto recovery relay go back to previous programmed after power failure.
- Provide optional photo switch to operate electrical load once the light level goes below 40 lux and reinstate when light level achieve 80 lux.
- Provide on-off switch for by passing the programme circuit when require
- Provide protection against high voltage (260v), low voltage (160v), high current & short circuit also.
- 2 nos. of records set in memory on each monthly basis (one for 1st –15th & another 16th –month end).
- 2x20 characters LCD display for user-friendly setting of required timing & display of On/ off time.



SPECIFICATIONS

Energy saving programmable street light control switch suitable to operate on single phase AC voltage 160-260 V, 50 Hz, housed in a sheet metal enclosure, powder coated, confirming to IP 54 of IS :12063/1987(1999), having programming features of default (company programmed) / define (user programme) to switch on & off the street light load for whole the year with 24 programmed spreads over year, inbuilt real time clock with battery backup up to 5 years, 2x20 character LCD display for setting, inbuilt by-passing switch when require manually controls, inbuilt a photo sensor circuit option for on the street light when ambient light level falls 40 lux and off when goes 80 lux with by-passing switch arrangement. Entire system shall be protected for over voltage (260V), under voltage (160V), over load, voltage spikes & surges and completed with suitable MCB, heavy contactor & duly wired upto input/output terminals. Make: KALIN

PRODUCT RANGE

Catalogue No.	Max. Load (1Ø)*	Safe Load (1Ø)
KPSCS –050	5 Kw	4 Kw
KPSCS –100	10 Kw	8 Kw
KPSCS –150	15 Kw	12 Kw

Compact control switches with metering facility in 10KW is also available with us. Above control switches can be arranged in 3 phase on request.

KALIN ENGINEERING WORKS, 186 - 'C' BLOCK, PANKI, KANPUR- 208020 (UP)
Tel: 0512-2262865 / 2560697 / 09336109295 Fax: 0512-2262865 website : www.kalinlights.com

performance & approvals

Tel: 079-23200228
FAX: 079-23200228

Chief Engineer (AF)
Military Engineer Services
Lekawada Patia, Chitoda
PO: CRPF Campus
Gardhinagar-382042

40080/AP/1255/E4

Sep 2013

GE (I) (AF) Baroda

APPROVAL OF PRODUCT

1. KALIN ENGINEERING WORKS Delhi has approached this HQ for approval of their product "Motorized Revolving Search light, High Mast Tower Light, Aviation lights, Programmable Street light control switch" are manufactured by them. This HQ hereby accords approval for use of above make/brand to be used in works under this zone.

2. CMPT Approval committee constituted at this HQ in terms of policy letter No 43285/CMPT/E2 (Design) dt: 15 Apr 2003 hereby accords for KALIN ENGINEERING WORKS brand "Indoor, "Motorized Revolving Search light, High Mast Tower Light, Aviation lights, Programmable Street light control switch" in Defence works on trail basis to be utilized in your GE office and based on evaluated performance report will be considered subsequently for approval.

3. Pl fwd the Performance report of the respective product which is to be utilized on trail basis on priority

4. For detail technical literature and price list, the firm can be approached at the following address:

Address:

KALIN ENGINEERING WORKS

186, C-Block, Panki, Kanpur-208020 (U.P)

e-mail: info@kalinlights.com

Website: www.kalinlights.com

Copy To:

KALIN ENGINEERING WORKS

186, C-Block, Panki, Kanpur-208020 (U.P)

Tel: 0512-2262865

(J.R. Meena DSE)
SE
Dir (E/M)
For Chief Engineer

Tel: 01080-223021/220

Security Section
19 FBSU AF
C/O 56 APO
Pin- 937219

19FBSU/678/2/P4

28 Nov 13

M/s Kalin Engineering Works
186, C-Block, Panki
Kanpur- 208020 (UP)

INSTALLATION OF REVOLVING WATCH TOWER LIGHTS

Dear Sir,

- Reference is made to supply order No. 19FBSU/678/2/P4 dated 30 Sep 13.
- It is to inform you that Qty-07 Revolving watch tower lights have been installed by your representative Mr. Harmilan Yadav at this base and the same has been checked and found serviceable.
- For your information, please.



(G Pal)
JWO
Asst Sec Offr

सैन्य अभियन्ता सेवार्यं

गैरिसन इंजीनियर ई/एम चक्रेको, कानपुर-08 द्वारा निम्नोक्त कार्य हेतु अनुमोदित तथा योग्य ठेकेदारों से आवेदन पत्र आमंत्रित किये जाते हैं।

क्रम सं.	कार्य का नाम	अनुमानित लागत	धरोहर धनराशि	आवेदन पत्र आमंत्रण तिथि
1.	एयर फोर्स स्टेशन चक्रेको कानपुर, स्थित टेक्निकल एरिया में "कालिन" लाइट तथा एच.टी.एच. बिल्डिंग में सोडियम वेपर लेम्प/ फ्लेम यूफ लाइट को व्यवस्था।	6.00 लाख	₹. 12,000/-	08 नवम्बर '99
2.	एयर फोर्स स्टेशन चक्रेको-कानपुर-08 स्थित टेक ओवर पॉइंट पर इस्टाब्लिश 33 के.वी. के एच.डी.सी. बीज रिमोट पैनल पी.टी.व. और सी.टी.उ. को मरम्मत/सर्विसिंग/ ओवर हालिंग।	3.40 लाख	₹. 6800/-	10 नवम्बर '99

विवरण हेतु दिनांक 26 अक्टूबर '99 का इंडियन ट्रेड जर्नल देखें।

DAINK JAGRAN: 28/10/1999

डोएबीपी 4000 (2290) '99

Garrison Engineer (AF)
BARRAULI

4005-1/1255/E4

27 Feb 2003

Garrison Engineer E/M
Kheria, Agra-02

USE OF HIGH SECURITY LIGHT

1. Ref your letter No 101/3627/E4 dt 04 Feb 03 added to HQ 4 Wing, AF and copy to this office.

2. Three nos long range flood lights & one no wide area spread light fitting of KALIN make of 500 mtr, 300 mtr & 100 mtr beam range were installed in the AF technical area. This light fitting have a focussing range varying from 100 mtr to 500 mtrs and its illumination is in the beam and there is no dispersal of the light for the long range flood light resulting in good illumination.

3. The product wise and performance wise the light fitting is satisfactory as the same is in use for the last 1/2 year and no replacement of bulb, choke, ignitor, capacitor was carried out.

(R O Parmar)
Major
Garrison Engineer (AF)

Copy to :-

- CWS(AF) Barrauli
 - CWS(AF) Maharajpur
 - HQ 4 Wing, AF Agra
- for info and necessary action please.

TO WHOM IT MAY CONCERNED

It is certified that a number of long range flood light fittings of Kalin make having beam range of 500/300 meter had been installed in technical area of Air Force Station Maharajpur. The performance of these light fittings had been very satisfactory.

8740/16/E8

Garrison Engineer (E/M)
Maharajpur, PO : Air Field
Gwalior-20

(Rajinder Gupta)
EE
Garrison Engineer (E/M)

08 Oct 2004

Lab Test Reports of Various Product as per IS

भारत सरकार
GOVERNMENT OF INDIA
उपभोग मंत्रालय, खाद्य एवं सार्वजनिक विपणन विभाग
Ministry of Consumer Affairs, Food & Public Distribution
उपभोग मंत्रालय विभाग
Department of Consumer Affairs

104083

राष्ट्रीय परीक्षण शाला (उ०के०)
NATIONAL TEST HOUSE (NR)

1091970 कमला नेहरू नगर, गाजियाबाद KAMLA NEHRU NAGAR, GHAZIABAD-201002
Phone : 0120-2789913, 2789908 Fax : 0120-2789933 E-mail : nr@nathdftd.com

TEST CERTIFICATE

I. C. No.: NTH/NR/EU/2010/664 Dated: 28/09/2010

Issued to:
M/S KALIN ENGINEERING WORKS,
11, B-Block, Park,
KANPUR-208020 (U.P.)

Customer Ref. No. Nil
Dated: 18.08.2010
Sample received on: 19.08.2010
Sample No.: KAN4121 A

The sample of KALIN make System 8 Flood Light with Stainless Steel body and Reflector IP-65, Class-I, Luminaires tested for suitable for 400 W, HPSV SON-T lamp at 230V, 50 Hz supply.

As desired, the sample was subjected to the following examinations and tests as per IS. Specification no. IS:222 (Part-2)-1987 with the results noted below:

1. Marking
2. On the Bulb:
Type : BALLAST UNIT
Type : IBU 400
Tor Lamp : 1 X HPSV - T 400W or
1 X SON-T 400W
Voltage : 230V, 50Hz A : 70°C
B : 120°C
Wiring diagram
HIGH POWER FACTOR
(NO RFI) OR AND CAPACITOR REQUIRED -
2545 L N LAMP

3. On the Capacitor : N/A
4. On the Igniter : N/A
5. On Lamp Holder : N/A
6. On Starter : N/A
7. On paper label on the luminaire
Kalin
Model : Long Range flood light
Type : SS
Cat No : LRF 25 SS 46
Vol : 230V A.C. Watt : 463
Kalin Engineering Works, 11, B-Block,
Park, Kanpur-208020 (U.P.)

8. Earthing Terminal : Provided with marking

TESTED BY
NATHAR SINGH
SCIENTIFIC OFFICER (ELECTRICAL)

CHECKED & APPROVED BY
K.N. MISHRA
SCIENTIST 'SD' (ELECTRICAL)

Note: 1. This test certificate or reports may not be published for commercial purpose except in full unless permission for the publication of an approved abstract has been obtained from the DIRECTOR, NATIONAL TEST HOUSE.
2. This Test Certificate applies only to sample tested.

(S) NTH Checked/No. 266581/101 NTH-2

भारत सरकार
GOVERNMENT OF INDIA
उपभोग मंत्रालय, खाद्य एवं सार्वजनिक विपणन विभाग
Ministry of Consumer Affairs, Food & Public Distribution
उपभोग मंत्रालय विभाग
Department of Consumer Affairs

104528

राष्ट्रीय परीक्षण शाला (उ०के०)
NATIONAL TEST HOUSE (NR)

1092245 कमला नेहरू नगर, गाजियाबाद KAMLA NEHRU NAGAR, GHAZIABAD-201002
Phone : 0120-2789913, 2789908 Fax : 0120-2789933 E-mail : nr@nathdftd.com

TEST CERTIFICATE

I. C. No.: NTH/NR/ER/2010/123 Dated: 25/01/2011

Issued to:
M/S KALIN ENGINEERING WORKS,
11, B-Block, Park,
KANPUR-208020 (U.P.)

Customer Ref. No. Nil
Dated: 07.01.2011
Sample received on: 21.01.2011
Sample No.: KAN4271

The annex containing of one piece of KALIN brand Flood Light Specification (Drawn/Text) of make KALIN, with 55 Watt halogen lamp and 12V-7 Ah SSBV battery.

As desired, the sample was subjected to the following examinations, measurements and tests as per customer specification and the results are noted below:

1. Marking
(a) On the Bulb:
DRAGON LIGHT
MCCFLU
INPUT : 12V 75 W
Output : 120, 200 W AC
CLASSIFIER : Tubular SMD
Battery : Tubular 12V - 7.2Ah
DIMMER : Tubular Variable
KALIN Engineering Works, 11A-C-Block, PARK, KANPUR-208020 (U.P.)

(b) On the Capacitor : N/A
(c) On the Igniter : N/A
(d) On Lamp Holder : N/A
(e) On Starter : N/A
(f) On paper label on the luminaire
Kalin
Model : Flood Light
Type : S.S
Cat No : LRF 25 SS 46
Vol : 230V A.C. Watt : 463
Kalin Engineering Works, 11, B-Block,
Park, Kanpur-208020 (U.P.)

(g) Earthing Terminal : Provided with marking

TESTED BY
NATHAR SINGH
SCIENTIFIC OFFICER (ELECTRICAL)

CHECKED & APPROVED BY
K.N. MISHRA
SCIENTIST 'SD' (ELECTRICAL)

Note: 1. This test certificate or reports may not be published for commercial purpose except in full unless permission for the publication of an approved abstract has been obtained from the DIRECTOR, NATIONAL TEST HOUSE.
2. This Test Certificate applies only to sample tested.

(S) NTH Checked/No. 266635/101 NTH-2

भारत सरकार
GOVERNMENT OF INDIA
उपभोग मंत्रालय, खाद्य एवं सार्वजनिक विपणन विभाग
Ministry of Consumer Affairs, Food & Public Distribution
उपभोग मंत्रालय विभाग
Department of Consumer Affairs

1140307

राष्ट्रीय परीक्षण शाला (उ०के०)
National Test House (NR)

कमला नेहरू नगर, गाजियाबाद-201 002
KAMLA NEHRU NAGAR, GHAZIABAD-201 002

TEST CERTIFICATE

I. C. No.: NTH/NR/GZE-5 No.: NTH (NR)/GZE-5

Issued to:
M/S KALIN ENGINEERING WORKS,
11, B-Block, Park,
KANPUR-208020 (U.P.)

Customer Ref. No.: NTH/S2B/0106/0/2011 Date: 24/06/2014

Description of Test item: IED based Aviation obstruction light 220V/250V/250V AC, 50 Hz supply.

Identical Item of Test Item: IED based Aviation obstruction light. Cat. No. ADL/SE-24

Product Specification (if any):

Date of Receipt of the Test Item: 26/06/2014

Date of Performance of Tests: From 30/06/2014 to 02/07/2014

Method(s) used for Test: IS: 60529-1999 (Part II)-IS Test

Sampling Procedure where relevant: N/A

TESTED BY
NATHAR SINGH
SCIENTIFIC OFFICER (ELECTRICAL)

CHECKED & APPROVED BY
K.N. MISHRA
SCIENTIST 'SD' (ELECTRICAL)

Note: 1. This test certificate or reports may not be published for commercial purpose except in full unless permission for the publication of an approved abstract has been obtained from the DIRECTOR, NATIONAL TEST HOUSE.
2. This Test Certificate applies only to sample tested.

(S) NTH Checked/No. 1017622/101 NTH-2

भारत सरकार
GOVERNMENT OF INDIA
उपभोग मंत्रालय, खाद्य एवं सार्वजनिक विपणन विभाग
Ministry of Consumer Affairs, Food & Public Distribution
उपभोग मंत्रालय विभाग
Department of Consumer Affairs

104597

राष्ट्रीय परीक्षण शाला (उ०के०)
NATIONAL TEST HOUSE (NR)

कमला नेहरू नगर, गाजियाबाद KAMLA NEHRU NAGAR, GHAZIABAD-201002
Phone : 0120-2789913, 2789908 Fax : 0120-2789933 E-mail : nr@nathdftd.com

TEST CERTIFICATE

I. C. No.: NTH/NR/ER/2010/463 Dated: 18/11/2010

Issued to:
M/S KALIN ENGINEERING WORKS,
11, B-Block, Park,
KANPUR-208020 (U.P.)

Customer Ref. No. Nil
Dated: 18.08.2010
Sample received on: 19.08.2010
Sample No.: KAN4121 A

The sample of KALIN brand System 8 Flood Light with Glass Reflector IP-65 Class-I, Luminaires tested for suitable for 400 W, HPSV SON-T lamp at 230V, 50 Hz supply.

As desired, the sample was subjected to the following examinations and tests as per IS. Specification no. IS:222 (Part-2)-1987 with the results are noted below:

1. Marking
(a) On the Bulb:
BALLAST UNIT
Type : IBU 400
Tor Lamp : 1 X HPSV - T 400W or
1 X SON-T 400W
Voltage : 230V, 50Hz A : 70°C
B : 120°C
Wiring diagram
HIGH POWER FACTOR
(NO RFI) OR AND CAPACITOR REQUIRED -
2545 L N LAMP

(b) On the Capacitor : Not required
(c) On the Igniter : Not required
(d) On Lamp Holder : Nil
(e) On Starter : Nil
(f) On paper label on the luminaire
Kalin
Model : Long Range Flood light
Type : S.S/Glass Reflector
Cat No : LRF 25 SS 46
Vol : 230V A.C. Watt : 463
Kalin Engineering Works, 11, B-Block,
Park, Kanpur-208020 (U.P.)

(g) Earthing Terminal : Provided with marking

TESTED BY
NATHAR SINGH
SCIENTIFIC OFFICER (ELECTRICAL)



CHECKED & APPROVED BY
K.N. MISHRA
SCIENTIST 'SD' (ELECTRICAL)

Note: 1. This test certificate or reports may not be published for commercial purpose except in full unless permission for the publication of an approved abstract has been obtained from the DIRECTOR, NATIONAL TEST HOUSE.
2. This Test Certificate applies only to sample tested.

(S) NTH Checked/No. 267922/101 NTH-2

Our Credentials

प्रकार को - 2
FORM C-2


भारत सरकार
GOVERNMENT OF INDIA
व्यापार चिन्ह रजिस्ट्री
TRADE MARKS ACT, 1999
व्यापार चिन्ह अधिनियम, 1999
Trade Marks Act, 1999
व्यापार चिन्ह के रजिस्ट्रीकरण का प्रमाणपत्र, धारा 23 (2) नियम 62 (1)
Certificate of Registration of Trade Mark, Section 23 (2), Rule 62 (1)

व्यापार चिन्ह संख्या/Trade Mark No. 1490038 तिथि/Date 22-09-2006 पत्रांक/J.No. 1,391

यह प्रमाणित किया जाता है कि निम्न प्रकार चिन्ह को सजातीय वस्तुओं के संबंध में, यह के बारे में विचारक

Certified that the Trade Mark / a representation is annexed hereto, has been registered in the name(s) of MAHENDRA NARAIN AWASTHI TRADING AS KALIN ENGINEERING WORKS, PLOT NO.11, B - BLOCK, SHAHPUR, PANKI - 208 020, KANPUR, UTTAR PRADESH. MANUFACTURERS AND MERCHANTS.

In Class 11 Under No. 1490038 as of the Date 22-Sep-2006 in respect of TYPES OF LIGHTS AND ELECTRICAL GOODS, INCLUDED IN CLASS 11.




Kalin

मेरे निदेश पर आज, September 20, 2008 day of 2008

व्यापार चिन्ह रजिस्ट्री, मुंबई।
Trade Marks Registry, Mumbai

व्यक्तिगत व्यापार को प्रतिबंधित करने के लिए 10 वर्षों के लिए है और अनुपस्थिति में 10 वर्षों के लिए है और प्रत्येक 10 वर्षों के बाद इसे नवीनीकृत किया जा सकता है।
Registration is for 10 years from the date of application and may then be renewed for a period of 10 years and also at the expiration of each period of 10 years.



पूर्व में जारी स्वामी रजिस्ट्रेशन संख्या
012585 / श्री. एम.टी. / एम. एम. जी
दिनांक: 03-10-2006 //

GOVT. OF UTTAR PRADESH
OFFICE OF THE GENERAL MANAGER
DISTT. INDUSTRIES CENTRE, KANPUR NAGAR
Form No. 3267

ACKNOWLEDGEMENT

कलिन इंजीनियरिंग वर्क्स PART-II प्रोपराइटर - श्री एम.एम. अवस्थी HAS FILED

1. MEMORANDUM FOR A... (MANUFACTURING / SERVICE) ENTERPRISE SETUP AT THE ADDRESS... 186, सी-ब्लॉक, पंकी, कानपुर... PIN 208020 FOR THE ITEM / ITEMS INDICATED BELOW AS PER THE FACTS STATED IN FORM NO. 3367 AND ALLOCATED ENTREPRENEURS' MEMORANDUM NO. AS BELOW: DETAILS OF ITEM/ITEMS TO BEING MANUFACTURED/SERVICE TO BE PROVIDED.

2. Sl. No. Items of Manufacturer's type of services to be rendered Capacity in case of manufacture Initial date of production/ commencement of service

01- प्रयोग कालीन इंजीनियरिंग वर्क्स के अंतर्गत 50.00 मीटर 01-09-2005

3. DETAILS OF PLANT AND MACHINERY AS PER DATE WISE INVESTMENT

4. NOTE: The issue of this acknowledgement does not bestow any legal right. The enterprise is required to seek requisite clearance/ Licence/ Permit from the concerned authorities stipulated under the laws of Central Government/ State Government/ UT Administration/ Court orders.

5. DATE OF CHANGE OF CATEGORY FROM MICRO/S SMALL TO SMALL/MEDIUM OR VICEVERSA.

6. DATE OF ISSUE

7. NATURE OF ACTIVITY (MANUFACTURING-1, SERVICES-2)

8. CATEGORY OF ENTERPRISES (MICRO-1, SMALL-2, MEDIUM-3)

9. ENTREPRENEURS' MEMORANDUM NUMBER

(Five two boxes are for State/Union Territory code, next three boxes are for District code, sixth and seventh boxes are for category of enterprise (sixth box for indicating manufacturing or service and seventh box for indicating micro or small or medium) and last five boxes are for Entrepreneurs' Memorandum number)

DATE: 20-10-2010
PLACE: KANPUR NAGAR

General Manager
DISTRICT INDUSTRIES CENTRE
KANPUR NAGAR


भारत सरकार
GOVERNMENT OF INDIA
व्यवसाय एवं उद्योग विभाग
MINISTRY OF COMMERCE AND INDUSTRY
OFFICE OF JT. DIRECTOR GENERAL OF FOREIGN TRADE
संकाय नगरपालिका बिल्डिंग, व्यापार का केंद्र, कानपुर
117/L-444, KAKADEO KANPUR-201025

आयात-रिपोर्टिंग कोड (आईटीसी) का प्रमाण-पत्र
CERTIFICATE OF IMPORTER EXPORTER CODE (IEC)

1. नाम/Name KALIN ENGINEERING WORKS

2. पता/Address 186, C-BLOCK PANKI KANPUR U.P. 208020

3. इस प्रमाणित कि नाम के मालिक के निम्नलिखित व्यक्ति का नाम और डिजाइन का प्रमाणित किया गया है/Name and Designation of the person whose photograph has been affixed on the Bank Certificate



MAHENDRA NARAIN AWASTHI
PROP.

4. शाखा/बिना/कार्यालय पता, यदि कोई हो/Address of the Branch/Unit if any Branches Nil



5. आईटीसी संख्या/IEC Number 061003181

6. जारी करने की तिथि/Date of Issue 14.07.2014

7. स्वामी का पता/Address/PAN स्थान/Place KANPUR AFZPM300B
दिनांक/Date: 14.07.2014 विदेश व्यापार विकास अधिकारी/Foreign Trade Development Officer

(Issued From File No. AFZPM300B/2014/181/1) को जारी किया गया है। (14.07.2014)

ध्यान दें: 1. आईटीसी को 10 वर्षों के लिए जारी किया जाता है और इसे नवीनीकृत करने के लिए 10 वर्षों के बाद इसे नवीनीकृत किया जा सकता है।
2. आईटीसी को नवीनीकृत करने के लिए आवेदन करने के लिए 10 वर्षों के बाद इसे नवीनीकृत किया जा सकता है।
3. आईटीसी को नवीनीकृत करने के लिए आवेदन करने के लिए 10 वर्षों के बाद इसे नवीनीकृत किया जा सकता है।

Certificate of Registration
(Quality Management System)
Kvalitet Veritas Quality Assurance

This is to certify that the Quality Management System of

KALIN ENGINEERING WORKS
186-'C' Block, Panki, Kanpur-208020, U.P., India.
Has been found to be of the Quality Management System Standard

NS-EN ISO 9001:2008/ISO 9001:2008

This certificate is valid for the following product or service range

Manufacturer & Developer Of Energy Efficient & Security Luminaries.

Issued by: KVQA Certificate No: QJSC-1212
Date of Issue: (8, February, 2011)
Valid until: 25, October, 2012*

The certification scope is accredited by the Norsk Akkreditering of Norway with reference to the Parliamentary Proposition no 106 (1989/90) and Norsk Akkreditering's the status laid down in Royal Decree of 7th October 1993

Accredited by a member of IA1's MLA for Quality Systems
*Subjektet skal opprettholde kompetansen og dokumentasjonen.

Honourable Clients

S.N.	Client Name	Location / Place of installation
1	Indian Army (Through M.E.S.): Chief Engineer: Zone:- C.W.E.: Cantt.:- Garrison Engineer/AGE:-	Lucknow Zone , Jalandher Zone Jammu cantt, Allahabad cantt, Lucknow cantt. Kanpur Cantt, Allahabad (East&West)cantt, Samba cantt (J&K), Kathchak Cantt (J&K), Satwari Cantt (J&K), Nagrotta Cantt (J&K), Udhampur Cantt., COD Agra, Dehradun Cantt, DMSRD-Kanpur, Agra Cantt, Bareilly Cantt, Portblair (Andamans) etc.
2	Indian Air Force (Through M.E.S.): Chief Engineer A/F:- C.W.E. A/F:- Garrison Engineer / AGE:-	Suratgarh/Chandigarh (CE/Palam), Baroda (CE/Gandhi-Ngr), CE/Nagpur Air Force Gwalior, Kheria (Agra), Bamrauli (Ald) Air Force Kheria (Agra), Maharajpur (Gwalior), Chakeri (Kanpur), Amla (Nagpur), Gurgaon, Bamrauli/Manauri (ALD), Palam (delhi), Jamnagar (Gj.) Izat-nagar (Barielly), Bakshi-ka-talab & Memora (both in Lucknow) etc. J&K region: Satwari, Dhar-Road, Srinagar, Nathatop, Thoise (Leh) etc.
3	Indian Navy:	Naval Dockyard: Mumbai & Vizag
4	Ordinance Factories :	Ordinance Factory Medak (OFMK), Hyderabad OFC , FGK, OPF, SAF (all in Kanpur) Ordinance Factory, Jabalpur (MP) Ordinance Factory, Varangaon, Nasik Ordinance Clothing Factory (OCF), Shahjahanpur
5	Power Generation Plant	NTPC:Faridabad, Bhagalpur, Ramagundam, Auraiya, Vizag & Tanda NHPC:Salal Power Station (Rieasi-J&K); NTECL (Chennai) U.J.V.N.L. Chilla Power Station, Haridwar UPRVUNL: Panki Thermal Power Station, Kanpur (UP) HSEB: Panipat Thermal Power Station, Panipat (HR) DVC: Kodema Thermal Power Station (Jharkhand) GSEB: Gujarat Thermal Power Station, Gandhinagar (GJ)
6	Fertilisers/Chemicals Unit	IFFCO: Bareilly (UP) & Paradeep (Orissa) The Fertilisers & Chemicals Travancore Ltd: Kochi (Kerala) Indo Gulf Fertilisers Ltd, Sultanpur National Fertilisers Ltd, Vijaypur, Guna (MP) Kribhco-Surat (Gujarat) & Kribhco-Shyam, Sahjahanpur (UP)
7	Iron & Steel Mines/Plant	Donimalai Iron Ore Mine: Bellary (Karnataka) Vishakhapatnam Steel Plant (AP) & Bhilai Steel Pant (CG) Barsua Iron Mines, Raurkela, SAIL (Orissa)
8	Oil & Gas Refineries / Plants	IOCL Refinery: Mathura, Vadodara, Panipat, Guwahaty & Barauni Bharat-Oman Refineries Ltd (BORL), Bina, Sagar (MP) IOCL, Mundra-Panipat Pipe-line, & Vadinar(WRPL, Kuchchh, Gujarat) Oil & Natural Gas Corpn.(ONGC): MRPL, Mangalore Gas Authority of India Ltd. (GAIL): Pata, Babrala,Vijaypur (MP) HPCL's Bottling Plant:-Unnao, Rajahmundry* etc. Indan Bottling Plant / IOCL Pipe Line: Kanpur & Ambala
9	Hindustan Aeronautics Ltd. (HAL)	Kanpur, Barrakpur, Lucknow & Korwa
10	Delhi Metro Rail Corp.	Maintenance yard at Sultanpur, Mundka, Sarita-vihar, Yamuna-bank
11	ISRO (deptt. of space)	Trivandaram (Kerala)
12	Uranium Corpn of India Ltd	Jaduguda (Jharkhand)
13	Deptt. of Atomic Energy (Hyderabad)	Zirconcium complex, Pazhayakaya, Tuticorin (TN)
14	I.G.Research centre for Atomic Energy	Chennai (T.N.)
15	Bharat Dynamics Ltd.	Vishakhapatnam
16	Northern Coalfields Ltd.(NCL)	Sonebhadra
17	Indian Railway (loco-shed)	Ghaziabad, Kanpur & Lucknow
18	Finance Ministry of India	Bank Press Note, Dewas (MP)
19	ALIMCO	Kanpur (UP)
20	JAILS (through) U.P.R.N.N.L.	Various Jails in UP (lucknow, Kannauj, Allahabad, G.Noida etc)
21	Fire & Emmergency Service, J&K	Jammu (J&K)
22	Few Others (Reputed Ltd. Co. Only):- Pepsi India Ltd, Kanpur Sahara India Ltd, Lucknow Duncan Industries Ltd., UP Chemplast Sanmar Ltd, Cuddalore Hindalco Industries Ltd, Silvasa etc.	Essar oil refinery & EBTL, Jamnagar/sura ABB Ltd. Ultratech Cement Ltd, Jodhpur Cadbury India Ltd, Gwalior CAIRN India Ltd, Gujarat Jaiprakash Associate ltd (JP group), MP M&B Switchgears, Indore.(MP) Hetero Lab / Drug Ltd, Vizag Merino Industries ltd Krishnapatnam Port Co.Ltd, Nellore. Utkal Alumina Intern.Ltd, Rayagada Nerolac Paints Ltd., Kanpur
23	Foreign / Export deals (start recently)	Lagos (Nigeria), Thimpu (bhutan), Male (Maldives), Egypt etc.

PRODUCT RANGE

- Hand held search lights for general security surveillance.
- High mast tower (motor operated/ pole mounted/ lattice tower).
- Long range flood lights & wide angle flood lights for general illumination.
- Watch tower rotating search lights (manual / motorized) for high security.
- Facade lights for illumination of front of building & monuments.
- Low bay divorcing lights for industrial sheds.
- High bay conversing lights for hangers.
- Locomotive head lights for diesel & electrical engines.
- Street lights / Road lights.
- L.E.D. based aviation lights.
- L.E.D. base Traffic lights.
- Dragon search lights.
- Programmable Street light control switch.

PRODUCT UNIQUE FEATURES

- USING TWO TYPES OF REFLECTOR: **STAINLESS STEEL & MIRROR BACK GLASS.**
- OUR GLASS REFLECTOR HAS VERY HIGH REFLECTIVITY INDEX (**0.95%**).
- REFLECTOR & BODY ARE SEPARATE COMPONENTS FOR BETTER IN RESULT.
- ALSO MANUFACTURED S.S.BODY CUM REFLECTOR FITTINGS FOR CHEAP IN COST.
- EXTERIOR OF LUMINAIRE IS HEAT-PROOF POWDER COATED/PAINTED.
- REFLECTOR LIFE GUARANTEED FOR MORE THAN **FIVE YEARS.**
- HAS PROVISIONS FOR FOCUSSING OF BEAM ADJUSTMENT (NARROW OR WIDE).
- ALL HARDWARE IN STAINLESS STEEL MATERIAL FOR LONG LIFE & RUST FREE.
- PILFER PROOFING BOLTING ARRANGEMENTS PROVIDED IN OPTIONAL.
- SAVINGS OF APPROX. **25-50%** IN NUMBERS WHERE KALIN'S LIGHTS FITTED.
- SV/MH LAMPS & BALLAST CAN BE REPLACED BY ANY OTHER STANDARD MAKE.
- HELPS PLANNING OF LANDSCAPES OVER WIDER AREA .
- OUR MOSTLY LUMINARIES ARE **TYPE TESTED** BY GOVT.TEST HOUSE.

POLICY & ASSURANCE

WE AT "KALIN" ARE PIONEERS IN THE FIELD OF MANUFACTURE OF LONG RANGE FLOOD AND SECURITY SEARCH-LIGHTS. WE ARE CONTINUOUSLY ENGAGED IN R&D TO IMPROVE QUALITY AND REDUCE CONSUMPTION. OUR PRODUCTS HAVE BEEN APPRECIATED AND WELCOMED IN DIFFERENT SECTORS WITH THEIR REPEAT ORDERS.

WE ASSURE YOU OF TIMELY DELIVERY OF QUALITY PRODUCTS AND SERVICE SUPPORT WITH AMC SOLUTIONS.

CUSTOMER SATISFACTION IS OUR PRIME GOAL

KALIN ENGINEERING WORKS, 186 -'C' BLOCK, PANKI, KANPUR- 208020 (UP)
Ph.:0512-2262865,09336109295 Fax: 0512-2262895 Web:www.kalinlights.com E-mail:info@kalinlights.com