

The LONGHORN Observation Luminary from RVision is an intelligent lighting system with integrated electro-optical sensors and network connectivity. The system is built upon the RS series of lights from Meltron and provides:

- Unprecedented lighting capability using Meltron's patented Nano-Defractive Optics allowing the Longhorn to cast efficient and clean LED light far beyond the competition
- Four separate channels controlling 4 banks of Nano-difracted LEDs for intelligent operations:
 - allows each channel to be controlled independently
 - provides symmetric light distribution in each channel for better uniformity
 - enables varied illumination schemes for changing weather conditions
- Internal mechanisms allow the Longhorn to turn on/off automatically based on local inputs or pre-programmed schedules via Network connectivity
- Electro-optic sensors from RVision are integrated with the Longhorn to provide
 - Multiple observation capabilities around and beneath the Longhorn or at range
 - The following slides outline the various electro-optical options currently available.
- The versatility of the Longhorn enables RVision to adapt new technologies for many different scenarios. Contact an RVision representative to arrange your custom solution.



To understand RVision's varied Electro-Optic solutions and how they might benefit an end user's application or installation, the following scenarios are outlined in the forthcoming slides:

♦ Highway Scenario

- Employs 2 discreet HD color video cameras that enable views of oncoming traffic from 2 directions. Each camera is hidden behind smoked glass (clear can be provided if needed to work in low light conditions)
- Each camera is tied to an IP encoder that enables remote control and automation.
- Wireless radios are optional and pole mounted should RVision be required to provide the network to command and control
- This scenario would be used most commonly along a highway, street, or walking path. The configuration focuses on targets or objects of interest that are distant from the cameras. In this scenario cameras do not see directly below the Longhorn.
- Typical objects or matters of interest would include a driver through a vehicle's windshield, a license plate, or a person approaching on a sidewalk or path.
- The next slide details how multiple Longhorn assemblies might be configured for this scenario.

Highway Scenario RVision Video 1 – remote zoom capability 4.9 deg to 54 deg HFOV ★ Neither Camera has visibility directly under Longhorn Light 4.0 deg to 31 deg VFOV ★ Internal mechanical Video 2 – remote zoom capability 4.9 deg to 54 deg HFOV adjustments allow elevation 4.0 deg to 31 deg VFOV setup changes when distances between poles vary

40 to 60 meters between poles

- This concept gives visibility toward and underneath adjacent pole
- Zoom capability for tighter shots when needed normally in wide field of view
- Along a highway gives ability to see into windshield of oncoming vehicle
- Along a highway gives ability to read license tags

Highway Scenario





♦ Overwatch Scenario

- Employs 2 discreet HD color video cameras that enable wide fields of view directly below and around the Longhorn and associated pole. Each camera is hidden inside a smoked glass dome(clear can be provided if needed to work in low light conditions).
- Each camera is tied to an IP encoder that enables remote control and automation.
- Wireless radios are optional and pole mounted should RVision be required to provide the network to command and control
- This scenario would be used most commonly along a street, or in a more confined area such as a park or adjacent to a building. The configuration focuses on targets or objects of interest that are directly below and fairly close to the cameras. In this scenario cameras do not have long angles to see objects at distance.
- Typical objects or matters of interest would include a street corner, or delivery door, or urban sidewalk.
- The next slide details how a Longhorn assembly might be configured for this scenario.





- ★ Primary focus is below luminary with close proximity to attached pole
- ★ Internal mechanical adjustments allow elevation & azimuth setup changes to vary camera position

- This concept gives visibility primarily under attached pole
- 4mm lens on each camera provides wide field of view
- Design good for monitoring objects less than 25 meters from pole
- Height of pole should not exceed 10 meters for effective observation
- Dome on bottom of Longhorn is overt and obviously recognized as a surveillance device
- Options are available to install Microphone

Overwatch Scenario





♦ Articulated Color/NIR Scenario

- Employs an RVision Pan Tilt system with 1 camera module that enables views of color and Near IR in all directions. The camera is attached to the pan tilt allowing for continuous pan and +/-90 degrees tilt.
- The pan tilt is tied to an IP encoder that enables remote control and automation.
- Wireless radios are optional and pole mounted should RVision be required to provide the network to command and control
- This scenario would be used most commonly where the Longhorn Luminary may not always be turned on. The color camera with 30X optical zoom would be able to reach targets of interest well beyond 1km while the Near IR feature is effective in low light conditions but not total darkness
- Typical objects or matters of interest would be people and or vehicles at distance during the day and right before nightfall. The Longhorn would have to be illuminated in order for the camera to work in total darkness.
- The next slide details how the Longhorn assembly might be configured for this scenario.

Articulated Color/Near IR Scenario



- Video 1 Color/NIR 30X Zoom 12X Digital Zoom
- 47.8 deg Wide FOV 1.7 deg Narrow FOV
- ★ View video in color, or Near IR
- ★ Guard tour capability allows automated observation of multiple targets/points of interest





- This concept allows total freedom of movement for the observation system
- Pan left/right continuously or tilt up/down 180 degrees
- The only blind spots are directly behind the attached pole or directly above the PTZ
- Pole can be any height (however the higher the pole, the more sway induced into the video image)
- PTZ on bottom of Longhorn is overt and obviously recognized as a surveillance device

Articulated Color/NIR Scenario







Quick Disconnect

Available in: White Gray Tan Black

♦ Articulated Color/NIR Thermal Scenario

- Employs an RVision Pan Tilt system with 2 discreet camera modules that enable views of color, Near IR, and thermal imaging in all directions. Each camera is attached to the pan tilt and the 2 move in sync with one another
- The pan tilt is tied to an IP encoder that enables remote control and automation.
- Wireless radios are optional and pole mounted should RVision be required to provide the network to command and control
- This scenario would be used most commonly where the Longhorn Luminary may not always be turned on. The color camera with 30X optical zoom would be able to reach targets of interest well beyond 1km while the Near IR feature is effective in low light conditions but not total darkness. The thermal imager would be used in total darkness or in daytime over water when the glare of the sun saturates the color camera.
- Typical objects or matters of interest would be people and or vehicles at distance day and night. The thermal is also good for viewing animals in the dark.
- The next slide details how the Longhorn assembly might be configured for this scenario.

Articulated Color/NIR/Thermal Scenario VRVision Video 1 – Color/NIR 30X Zoom 47.8 deg Wide FOV ★ Allows ability to see objects without 12X Digital Zoom 1.7 deg Narrow FOV luminary turned on ★ View video in color, near IR, or Video 2 – Thermal 36mm thermal imaging 12.2 deg HFOV ★ Guard tour capability allows 9.8 deg VFOV **8X Digital Zoom** automated observation of multiple targets/points of interest

- This concept allows total freedom of movement for the observation system
- Pan left/right continuously or tilt up/down 180 degrees
- The only blind spots are directly behind the attached pole or directly above the PTZ
- Pole can be any height (however the higher the pole, the more sway induced into the video image)
- PTZ on bottom of Longhorn is overt and obviously recognized as a surveillance device
- Other lens options are available for thermal (8 deg, 24 deg, 32 deg, and 50 deg HFOV)



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Contact Information



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