

WELCOME



RAYTEC WEBINAR 3.05pm

The Need CCTV Lighting



- Most crime occurs during darkness
- All cameras need light to see
- Street Lighting is NOT good enough

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The Right CCTV Lighting



- Better Picture
- Zero Maintenance
- Reduced electrical consumption

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Firstly - Thanks



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AGENDA



- 30 Min. Review
- Which Demos took place
- Key Lessons
- Practical Tips
- Tools
- Q & A (15min)

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The Need for White-Light



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The Need for White-Light

White-Light



- Illuminate an area for CCTV
- Improve the lighting level of an area for key personnel
- Provide a welcoming environment
- Deter crime
- Used for multipurpose lighting
- Used with colour camera

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KEY LESSONS – Demos 1 & 2



- Old Technology Vs. New Technology



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Evolution of Lighting



Incandescent
Bulb



Fluorescent
Lamp



HID Bulb



LED

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500W Halogen



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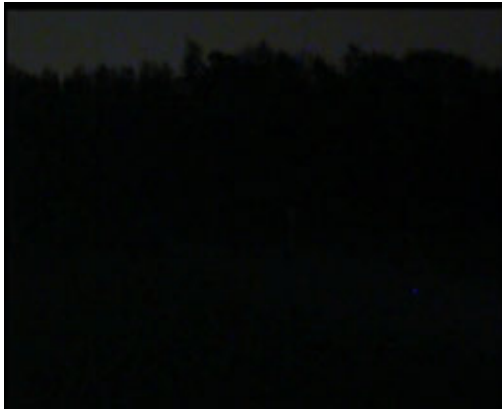
40W Raylux



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500W vs 40W



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High Pressure Sodium vs LED



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Technology Comparison



COMPARING DIFFERENT SOURCES OF LIGHT

	Incandescent Lamps	Fluorescent Lamps	HID Lamps	LEDs
Operational Life (hours)	1,000	10,000	20,000	100,000
Efficiency (%)	10	40	60-80	80-90
Fast Start	Yes	Yes	No	Yes

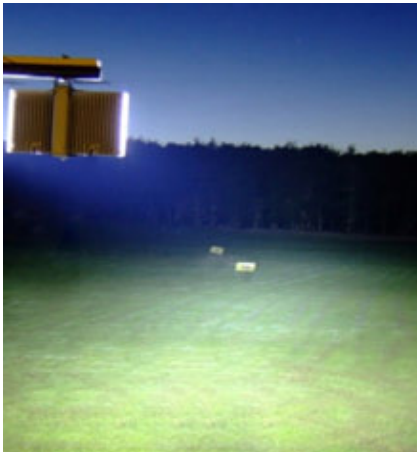
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LESSONS FROM THE DARK SIDE



- Light Costs Money...so Don't Waste it.
- Use the right technology – LED
- 80W vs. 4000W



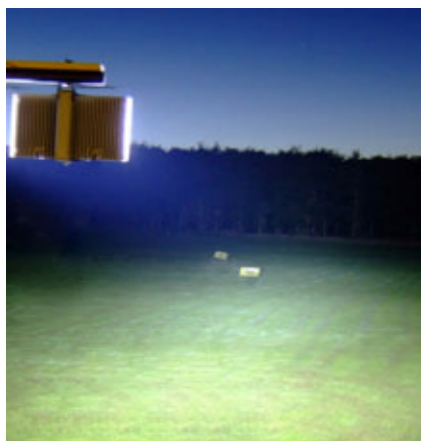
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Demos 3 & 4



06:45 RAYLUX	
3 rd Demo	Colour Camera subject in scene
4 th Demo	Subject still: Accurate Colour Rendition



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RAYLUX 100



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RAYLUX 300



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RAYLUX 300 Wide Angle



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OLD BALL
COTTAGE



HYBRID Demo 7



IR OFF



IR ON



WL ON

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INFRA-RED



07:00 RAYMAX	
1 st Demo	Feature Adaptive Illumination (Short Range RM50-AI-30)
2 nd Demo	Fusion – New Low Voltage Lighting
3 rd Demo	Wide Angle Dome Lighting 180 Degrees (RM300-AI-50)
4 th Demo	IP and MegaPixel Demo (RM100-AI-30 and the Platinum RM100-PLT- AI-30)
5 th Demo	Long Range demo viewing subject on scene
6 th Demo	Different Wavelength Demo

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The Need for IR – RM200



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The Need for IR – RM50



IR off



IR on



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The Need for IR – RM200



IR off



IR on



The Need for IR

Infra-Red

(700+ nm)



- Discreet illumination for CCTV
- No light pollution
- Long Distance illumination
- Used with B/W or D/N camera

715-730nm - bright red glow

815-850nm - faint red glow

940-950nm - discreet

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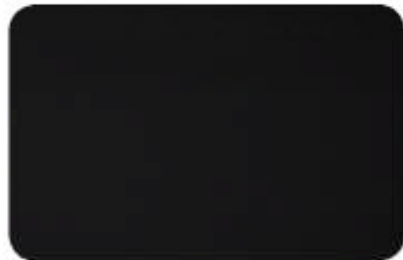
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LESSONS FROM THE DARK SIDE



NO LIGHT EQUALS NO PICTURE

The reality is that no camera can produce an effective image without light. The test night clearly demonstrated that many cameras struggled to achieve images without light. Even the most advanced cameras required dedicated lighting to produce images with the ability to detect, identify or recognise people or objects on the scene.



**RAYMAX IR OFF: 250m+
TWO SUBJECTS RUNNING**



**RAYMAX IR ON: 250m+
TWO SUBJECTS RUNNING**



**RAYMAX IR ON: 250m+
GOLF COURSE TREES**



**RAYMAX IR ON: 250m+
2 SUBJECTS IN TREES**

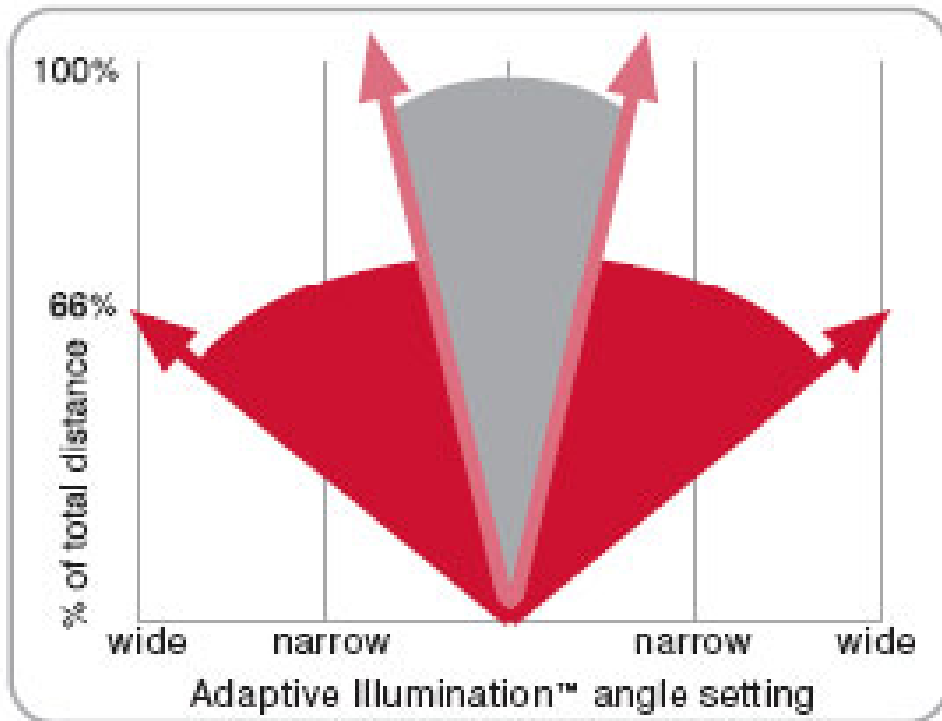
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Demo 1



07:00 RAYMAX	
1 st Demo	Feature Adaptive Illumination (Short Range RM50-AI-30)



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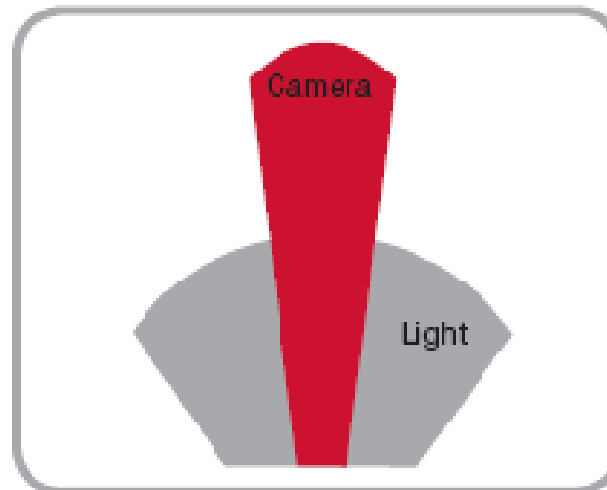
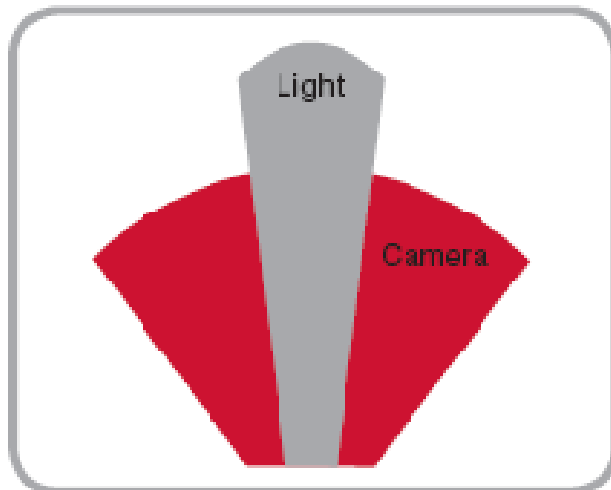
Beam Patterns



Too Narrow creates a Bright Spot

Too Wide wastes Power

Even illumination is needed for best pictures



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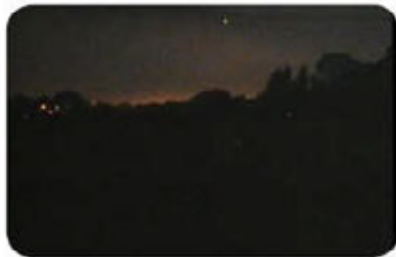
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LESSONS FROM THE DARK SIDE



MATCH YOUR ILLUMINATION TO THE LENS ANGLE

It is critical to have the right angle of illumination, matched to the camera field of view. A narrow light on a wide angle can produce a bright spot on the screen and wide angle illumination on a narrow scene results in light wastage and reduced performance. The Raytec demonstration clearly showed this by demonstrating the effectiveness of Adaptive Illumination, unique to RAYMAX and RAYLUX.



RAYLUX OFF RL200-AI-30



RAYLUX ON RL200-AI-30



RAYMAX IR ON



RAYMAX IR ON: 250m+

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Demo 1



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Demo 1



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Demo 1



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Demo 2



07:00 RAYMAX

2nd Demo

Fusion – New Low Voltage Lighting



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Fusion – Low Voltage



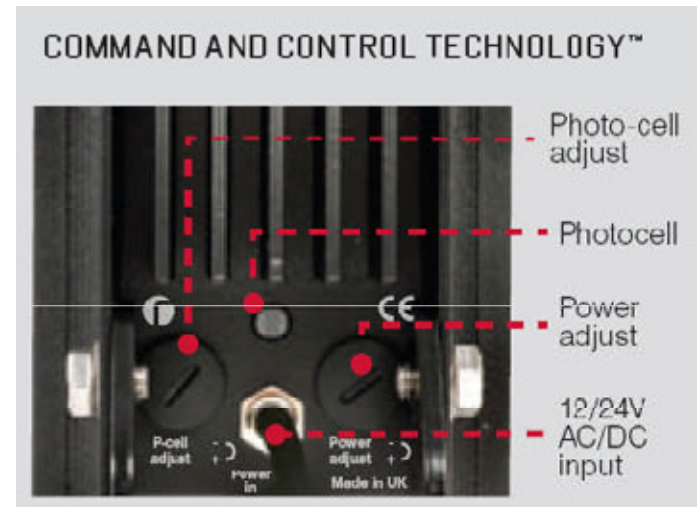
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What is FUSION?



- Low Voltage
- Full Range of IR & WL
- PLATINUM LEDs
- Command and Control
- No specialist PSU required



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Demo 3



07:00 RAYMAX

3rd Demo

Wide Angle Dome Lighting 180 Degrees (RM300-AI-50)



Domes are most at risk because of a lack of “fit for purpose, dedicated lighting”.

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Lighting for Dome Cameras



The 3 Possible Solutions

1. Wide Angle Lighting
2. Target Area Illumination
3. Local Area Illumination



Wide angle lighting is the best solution

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Target Area - Dome Cameras



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Dome – Wide Area



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Demo 4



07:00 RAYMAX

4th Demo

IP and MegaPixel Demo (RM100-AI-30 and the Platinum RM100-PLT- AI-30)



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MegaPixel



Panoramic Lighting



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Demos 5 & 6



07:00 RAYMAX	
5 th Demo	Long Range demo viewing subject on scene
6 th Demo	Different Wavelength Demo

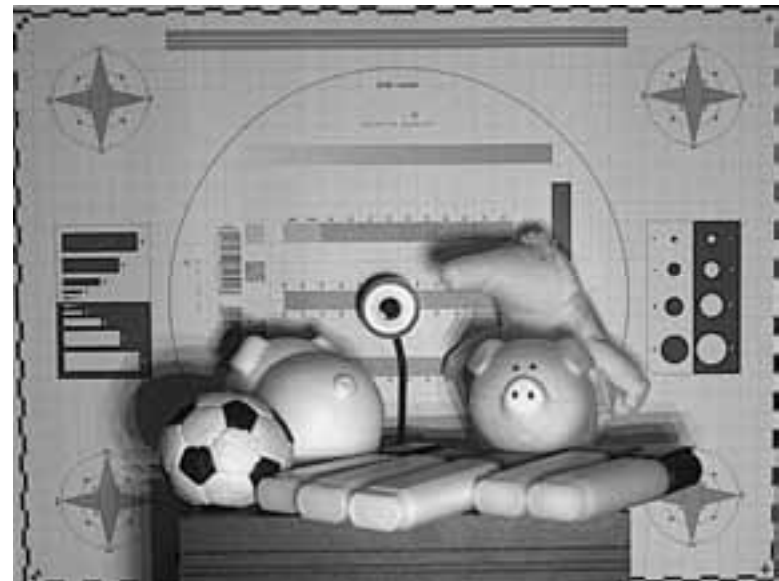
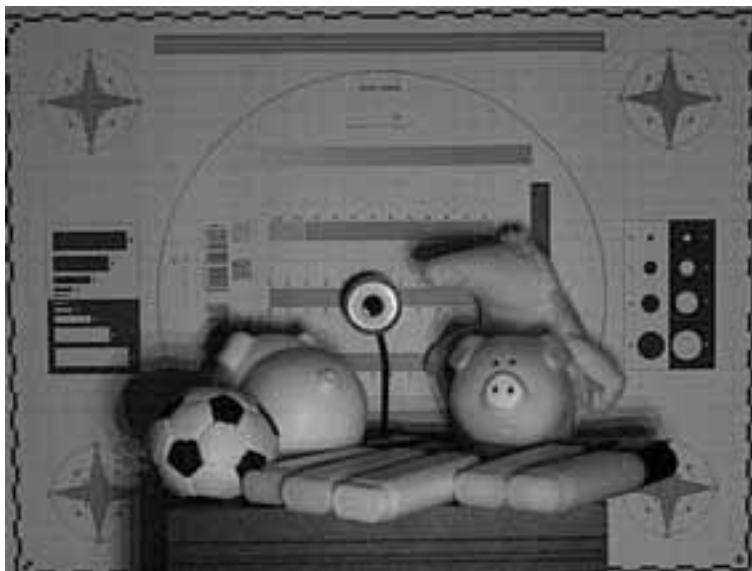


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940nm vs 850nm



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LESSONS FROM THE DARK SIDE



TESTING IS CRITICAL (NO SUBSTITUTE FOR GETTING OUT THERE)

The test nights provided a rare opportunity to try out a range of camera, lens and lighting combinations in real life low-light conditions. This is not always possible but in reality there is no substitute for getting out there, and trying your chosen camera lens and lighting combination in real conditions. Many systems set up during day time conditions may fail to achieve effective night-time images.



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LESSONS FROM THE DARK SIDE



MANAGE THE SWITCH BETWEEN DAY & NIGHT

Some cameras during the night did not switch from Day (Colour) to Night mode (B&W) in response to the lighting situations. The Tavcom test highlighted this real issue perfectly. The solution is using the photocell following contact on Raytec premium PSU to control the camera switching and synchronise this with the lights and light levels. The Volt-free option can be used in conjunction with Raytec lighting controls or the external detector to switch the camera from day to night (or alternatively from night to day when quick start white light is utilised).



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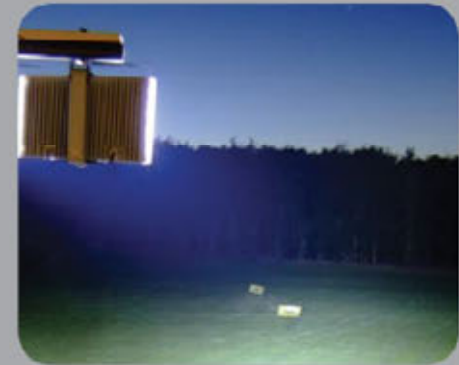
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LESSONS FROM THE DARK SIDE



DEDICATED LIGHTING IS CRITICALLY IMPORTANT

Whilst ambient lighting and street lighting can provide light to the camera, it is often uneven with poor colour rendition and long start up times, and importantly is not dedicated to the CCTV camera. As a result the images are often not useable or fit-for-purpose. The floodlights from the test night demonstrated this very clearly, highlighting the fact that 4000W of non-directed light was less effective than 40W of directed RAYLUX lighting.



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LESSONS FROM THE DARK SIDE



SO WHAT WAS OUR OVERALL CONCLUSION?

Image quality is naturally important and on the night attendees witnessed images from at least 20 different cameras from a wide selection of manufacturers. Almost all the cameras had the ability to produce effective CCTV images with the correct illumination. Many people will have judged some images to be better than others and undoubtedly one or two models may well have stood out from the crowd in either White Light and Infra Red performance – but before you make your choice, a second critical factor comes into play: support.

- Dedicated lighting is critically important
- Support can be equally important

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VOYAGER



07:30 ANPR	
1 st Demo	Typical CCTV camera
2 nd Demo	Voyager 2 Camera
3 rd Demo	Car on scene with lights on/off



VOYAGER 2 LPR HARDWARE

Dedicated Webinar to be scheduled in
May 2009

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WHAT'S THE FUSS?

Speed

Headlights

Lighting Conditions

Weather Conditions

Number Plates

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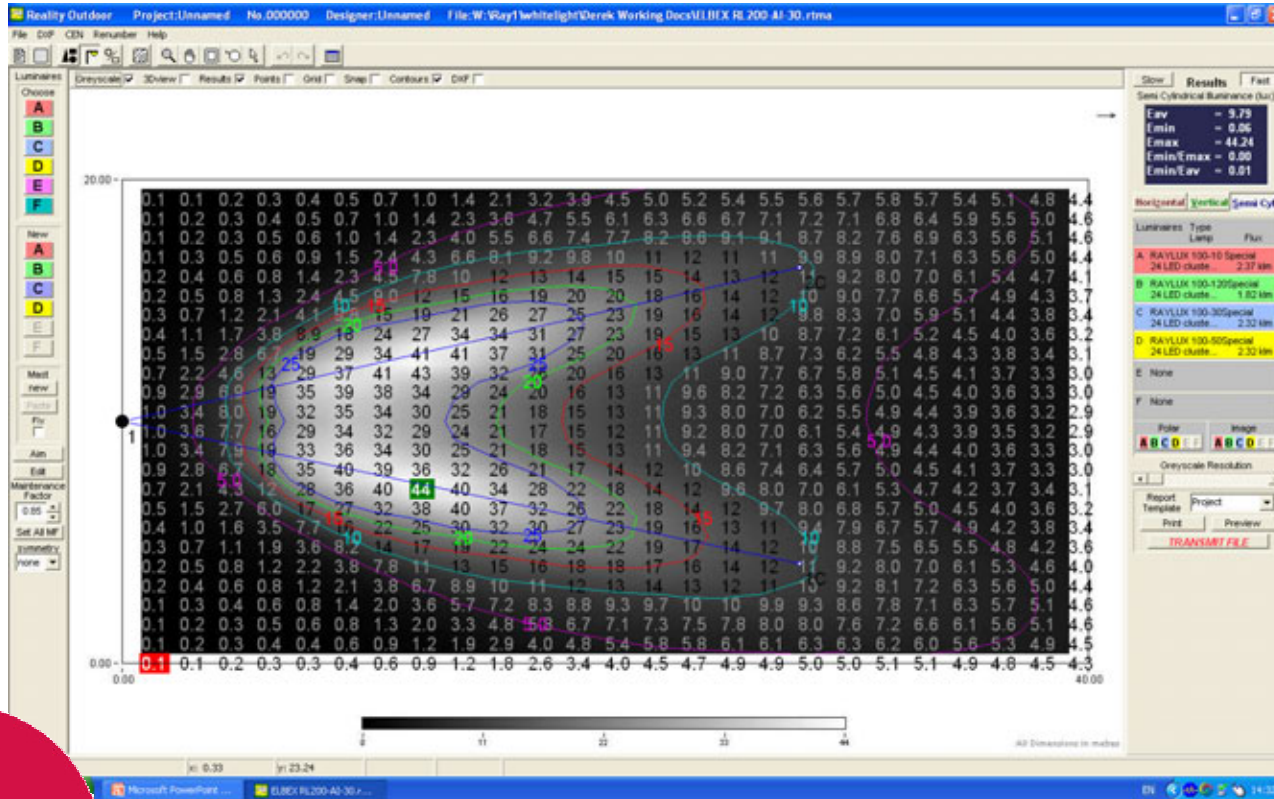
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Traditional Camera

ND05 LCN

Tools and Help



FREE LIGHTING
DESIGN
SERVICE

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Tools and Help



- The Raytec Product Guide
 - Includes “How to Specify CCTV lighting”
- The Complete Guide to CCTV Lighting
- Technical Support Team



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New 2009 Website



rayTEC[®] HOME | PRODUCTS | RESOURCE CENTRE | NEWS | VIDEOS | ABOUT US | CONTACT

QUICK SEARCH

By Product Category:

By Product:

- ▶ RAYMAX INFRARED
- ▶ RAYLUX WHITE-LIGHT
- ▶ FUSION
- ▶ VOYAGER ANPR / LPR
- ▶ HYBRID
- ▶ SPECIALIST APPLICATIONS

RAYTEC NEWS

JAN 28TH 2009
RAYTEC LAUNCH FUSION
 A range of the latest Infra-Red and White-Light Illuminators, FUSION is designed to improve the performance of any camera system at night.

JAN 16TH 2009
RAYMAX EXPLORES TO PROTECT PUBLIC SPACES IN LONDON
 Vision Control Systems illuminators at busy areas and corners in London to ensure safety at local authority sites.

JAN 14TH 2009
FIRST EVER PLATINUM PARTNER CONFERENCE
 Raytec celebrated their 3rd birthday by inviting PLATINUM Partners to attend a 2 day event mixing education and entertainment.

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 usna@rayteccctv.com

FUSION Low Voltage Lighting

- Low Voltage for an easy, cost effective and safe installation.
- State of the art LED illumination using the latest diodes and optical techniques
- Available in Infra-Red and White-Light options

RAYMAX 300
 See every corner with 180 degree lighting. The RAYMAX 300 is designed to work in conjunction with fully functional cameras.

NEW TEST NIGHTS
 Protected Dates:
 March, 10th London / 12th Bristol
 Contact: cal@rayteccctv.com
 or call +44 (0) 1675 520000 for full details.

RAYTEC AT ISC WEST
 Come and see us on Stand #0216 at ISC WEST International Security Conference, Sands Expo and Convention Centre, Las Vegas, USA between 1st-3rd April 09.

ISC WEST

This site has: HOME

HOME	PRODUCTS	RESOURCE CENTRE	NEWS	VIDEOS	ABOUT US	CONTACT	STAFF
	Raymax Infra-Red Raylux White Light Fusion Low Voltage Raymax Hybrid Light Hybrid	Product Datasheet Light Meters / Accessories Test Night Summaries How to choose light How to specify lighting for Dome Cameras The 10 (International) specific test How to specify CCTV lighting The Cost and Energy Savings Calculator	Latest News New Product	360° Animations Products in Action Test Night Videos	Quality Using Open Hi Resolutions Tech Support	UK USA Tech Support	

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Questions

- Click on Participant panel (bottom right)
- Select Raise Hand
- Once a question slot becomes available we will activate your speech function

- Thank You