

# “Lighting for the Lens - Theatrical Flair and Expertise Illuminates Runway Lighting”

*By Simon Garrett, Oceania's Lighting Director, on lighting for New Zealand's major Fashion Event*

Air New Zealand Fashion Week is New Zealand's main stage for highlighting the talent and collections of the country's major designers such as Karen Walker; Kate Sylvester and Trelise Cooper as well as providing a showcase platform for those in the 'ones to watch' fraternity. Staged in boat sheds originally constructed for the America's Cup challenges in the 1990s Air New Zealand Fashion Week is a major production challenge undertaken since its inception by Auckland's Oceania Lighting. Simon Garrett, a former theatre technician and lighting designer leads the Oceania lighting team. Here he describes the unique challenges of lighting for the catwalk and the solutions he has developed.

**“Fashion events have a unique set of lighting problems as the main fashion media is print which demands high quality digital stills photography. The challenge is doing 50 shows in 4 days... it's mad!**

I approach fashion shows as part live product showcase and part studio shoot. The Designers invest heavily in Air NZ Fashion Week so we must deliver a memorable live show for each Label with digital stills providing instant press ready material. In a few months time these live images spearhead mailings to clothing buyers seeking confirmed orders for the season's stock. The shots show tailoring; cut, fabrics and accessories often close up in detail. Surprisingly video takes a back seat as it is for the general public. The priorities are the stills and live show for the all-important “industry”.

In my opinion good pictures, both moving and still require more tightly controlled lighting than live shows. The amount, colour temperature and angle are absolutely critical as a camera lens focuses on a plane and benefits from a lighting source just above and behind the camera lens. This minimal angle shift is sufficient to create shape while typical entertainment or theatrical angles make the talent look gaunt. Cameras are sensitive to contrast requiring a much narrower 2:1 contrast ratio than our eyes can deal with.



**Coco Street** (Photography: Copyright (c)MICHAEL NG 2008, Official Photogrphaher Air New Zealand Fashion Week 2008)



**Trelise Cooper Kids** (Photography: Copyright (c)MICHAEL NG 2008, Official Photogrphaher Air New Zealand Fashion Week 2008)



World (Photography: Copyright (c)MICHAEL NG 2008, Official Photographer Air New Zealand Fashion Week 2008)

Thankfully we don't have to deal with film or tube cameras anymore and, while film is capable of incredible results, when the stock selection and alchemy is perfectly judged the mix of more predictable digital stills and digital video suits me.

Modern professional digital movie cameras happily operate in less light than is needed for the general public in a medium sized 5-800 seat venue. In many ways they mimic our hunter's eye, scanning the frame and tracking change rather than taking a series of imprints. In my opinion blending digital video camera requirements with the live show is not as big a lighting step as you might think. However, I approach digital stills requirements quite differently as for want of a better term they must stop time and this requires considerably more light... The pro-SLR cameras used in fashion photography shoot detail in a very narrow time window with typical files being 21.1mega pixel and beyond compared to 8-10mp from decent domestic digital SLR cameras. The photographer needs enough light to produce sharp, well framed shots featuring clothing as it sits and flows off the models' limbs. The stills guys halve my foot candle reading as shutter speeds of 1/250th and more are needed. This compares with a typical exposure outdoors of half that speed.

Where the eye and our "media server" brain beats cameras dead is in imagining stuff all the while coping with enormous contrast. The camera is left behind in the laws of physics, designed to see a two to one (2:1) contrast ratio. This means when we light faces and torsos with tungsten sources at f4 (80fc) the camera will happily see objects within a stop of this level (half) and be overexposed at double. In this case a range of f2.8 to f5.6 or 40-160fc. Unfortunately this contrast tolerance makes our vision a less than accurate judge of light levels on overlap as it takes double the light for the eye to see a change while the camera can read half a stop accurately. And it's not just fashion... just about



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every gig I am part of these days has a vision component, be it live camera records to tape, live presenters to screen, data or archive footage to screen(s) and may include multi-cam TV record and broadcast. I tend to judge my result by the screen look or monitor. If it's broadcast, I always review the delayed TV coverage as you pick up key mistakes. I also set colour temperature with the video team so I know what I am looking at and the screen looks right when in shot. I like 5000-5500k so it looks a little cooler onscreen itself. Most decent data projectors will vary output between 3000-6500k.

For the past six years I have been using an analogue cine light meter in order to better my results. Using a meter to assist my decisions in focusing was a major breakthrough as they don't lie. My equipment out front has more than halved with an improved look. I use nothing flash, just a basic Sektonic analogue L-398A (NZD \$250.00) which reads in f-stops from 1.2-16 and foot candles at a fixed 100asa. Adding the meter provides massive help in quickly and accurately reading and setting my luminaire to luminaire balance, overlap and focus. In my opinion pre-HD 2008 TV looks nice around f3.6-f4 (30-60fc) which is close to the ideal for the eye. I understand HD needs 1100-1200lux or just over f4.

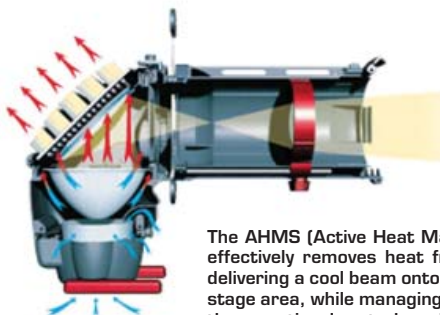
For those of you who use lux:  
 f4 = 880 lux  
 f5.6 = 1720 lux

Michael Ng, the official photographer for Air New Zealand Fashion Week 2008 asked for f8 or quadruple that and some 320 foot candles to get clean shots: a massive increase in photons and kit! He was right as it happened.

**EQUIPMENT CHOICE AND VENUE**

To control such a mass of photons on the catwalks without blinding the audience we need punchy compact instruments producing 80fc or more at 6-8m throws with consistent accurate adjustment controls and less than 2:1 beam distribution. The camera is ruthless in showing lazy or rough focusing which is unseen by the naked eye. A good even peak-flat slope at the beam edge is critical, allowing one to define and overlay the blend areas of adjacent equipment quickly and accurately.

Air NZ Fashion Week runs on an extremely tight budget; a mere fraction of what their overseas counterparts



The AHMS (Active Heat Management System) effectively removes heat from the light beam delivering a cool beam onto performers and the stage area, while managing the heat away from the operational controls and critical components such as the lamp, wiring and cabling

have to spend and we must deliver real value to the designers and labels or they will simply do their own thing. Designed as temporary boat sheds the venues are bare and the roofs have few rigging points. Sound familiar..? At Air NZ Fashion Week the Oceania team focus 300+ lights in two studios and one 1200-seat marquee venue plus rig some ancillary rooms. We have 8 hours if we're lucky to do so. The rigs are all flown on truss which is set at lower trims than we would have for a corporate event so we need to be methodical. I traditionally focus rigs fast with 2-3 climbers and 1-2 floor techs to speed things but am limited to a maximum of two focus techs due to trim and density. Do the maths...we have 2-3hours per rig, just over a minute a light. I use sunglasses to protect my retinas and stand where I want the beam centred and use the light meter for edge using arms and hand signals to direct cuts and size. The glasses allow me to see into the optics as we go and lamp centre adjustment is double checked quickly.



Selecon Pacific Zoomspot

Colour temperature is another issue as unit by unit colour correction is incredibly time consuming and the camera again is utterly ruthless. In practice you can chase a correction across the rig; nothing beats a group of reputable brand lamps of similar age running at or near full for consistency of colour. The challenge is to plan accurately to avoid wasted kit; dimmers are no longer your friend as they variably lower colour temperature.

Fashion tends to intensify optical inconsistencies and you quickly appreciate the difference when reliable equipment and quality lenses help deliver a solution. For example an old favourite, **Selecon 1200W 7"** is useable producing f3.6-f4 at over 3000k when set at 95-100% and is, in my opinion one of the better Fresnel units for that "holy grail" blend of cost, light output, control and colour temperature. Believe it or not, my next favourite is Ianiro's 1000W 6-inch pup which must be 50 years old but has a good lens.

**Selecon's Pacific Zoom** really surprised me (at Fashion Week 08) as for live events and R&R I am a fan of the Source4 for its mix of size, packaging, lower wattage and easily repeatable fixed angles. In fashion the Pacific 23/50 Zoomspot beats it hands down for control, useable performance and peak to  $\Omega$  peak field. Interestingly, the S4 tolerance to miss alignment proved a disadvantage often needing diffusion and shutters to control while the easily adjustable Pacific was easily sorted on the spot. The Pacific 23/50 produces an easy f4 (80fc) at 6m set at a useable catwalk beam spread of approx 2m and for me they were the equipment revelation of FW08."

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