



# LIGHTING GLOSS FOR 4K

GTC WINTER WORKSHOPS London and Leeds

## The London Workshop

A report by David Perella on the lighting workshop held at Dukes Island Studios on Saturday 10 January, 2015, featuring Jonathan Harrison, Alan Roberts and Carey Duffy. Photography by Clive North.

The Guild held a highly informative and enjoyable workshop on the creative and technical aspects of lighting for the 'gloss' look in 4K. The event was well organised, as always by Clive North, expertly hosted by Christina Fox and led by DOP Jonathan Harrison, with expert contributions from technical guru Alan Roberts and filter expert Carey Duffy.

The Guild would like to thank David Morphy and Cirrolite for providing the lighting fixtures and for sponsoring Jonathan, Steve Guidicci and Dukes Island Studios for the venue and catering and Presteigne Broadcast Hire for providing the LCD screens, Sony F55 with Canon lens and the PA system. Miriam, the model for the day, was very professional and patient and an excellent subject for Jonathan's lighting. Jonathan Harrison began the

session by leading a minute's silence in remembrance of those who lost their lives in the tragic events that had occurred in France over the previous week - a few moments to reflect on the value and precious nature of life.

The workshop started with Jonathan looking into the reasons why we light subjects in a certain way and taking time to think about the different qualities of light, (hard or soft), and the wide range of lighting fixtures available. Discussing this with the members and guests present, he reminded us that the eye is drawn towards brightness, sharpness and movement and that the most important colour to think about is the skin tone. The flesh tone tells us a lot about a person (whether they're healthy, old, unwell etc.) and it's important to make faces look good when

lighting for 'gloss'. Jonathan explained the importance of critically positioning the key light (modelling light) to achieve the most pleasing look and mentioned the way in which he likes the nose shadow to naturally follow the smile line on a face; this helps to disguise the shadow somewhat and looks visually pleasing too.

For the 'gloss' look, he stressed the need for a large soft source (compared to the size of the subject) as the key light, to give that 'wrap-around' feel of light falling on the subject and the gentle transition into shadow on the side away from the light. For the workshop he used an Octadome light bank (five feet in diameter) with a 1kW tungsten bulb as his modelling light; this was fitted with a grid to effectively control the spread of the soft

illumination. For backlighting, fill lighting and other mood - enhancing lighting, Jonathan used a combination of Kino Flo and Dedo lighting fixtures. As human beings living on a planet illuminated by a single sun, we're used to seeing light on faces that replicates this and sources of light that emanate from unnatural directions look 'sinister' or 'moody'; this of course can be used for dramatic effect and is perfectly acceptable if it's simulating firelight from ground level for example. Good, natural-looking lighting is motivated and there is a reason for its direction and quality (hard or soft); it's important that lighting adds to the emotional feel of a scene and enhances the story (script). In drama, the lighting is inspired by the script and is a creative collaboration between the DOP and Director.

Jonathan went on to emphasise the need to accurately determine the correct exposure for a face and to achieve consistency of flesh tones: for example, how many people use light meters on video shoots and how many use a consistent white target area for white balancing? This probably depends on the field you work in, but for drama, consistency is essential.

His suggestion was to use something like the Lastolite Ezy Balance product for white balancing and in addition to metering, you can set exposure 'zebras' in the camera at 95% to determine peak white value in a scene. We were also shown the difference that can be achieved by adjusting the knee setting in the F55 menu and the beneficial effect it can have on highlight control in a scene.

A very informative part of the workshop looked at the differences between continuous spectrum light sources, (daylight, tungsten), and non-continuous spectrum sources such as HMI lamps, fluorescent tubes and modern LED lighting. It's possible to accurately measure the colour temperature of daylight or a tungsten source and filter appropriately, but colour meters just don't work accurately with current LED sources and may just about work with HMI lamps. LED sources produce a noticeable

colour cast when compared to continuous spectrum sources and it's recommended that you test lamps before use. A colour chart, such as the MacBeth Chart, was recommended for comparing the colour rendition of LED sources against a standard tungsten source; a white balance is taken under the light source before the chart is photographed, correctly exposed and this can show how well an LED lamp is performing.

Alan Roberts kindly shared some of his considerable expertise in this area and many were impressed, if not rather overawed by his mathematical explanations! Alan explained that, although LED lamps are often given a colour rendering index (CRI) value, problems may occur even with the best-rated light sources when the response of a film emulsion or digital sensor does not match the expected wavelengths of the lights; correcting this in post production can be expensive and time-consuming.

CRI is based on colour science from the 1960's and is not always reliable when assessing modern LED illumination. The Colour Quality Scale (CQS) is an improvement, but still not perfect for TV use. Alan's preference is for the Television Lighting Consistency Index (TLCI) and this has a scale ranging from 0 to 100. An

LED source with a TLCI value of 85 or above would need no correction by a colourist; in the range 70 to 85 some simple correction would be needed (for example, a hue correction in post production), but for values in the range 50 to 70, a large correction would be needed. A TLCI of 25 to 50 would produce poor colour rendering and it's unlikely a colourist could produce results of broadcast standard. Alan Robert's test results can be viewed on the GTC website: <http://www.gtc.org.uk/tlci-results.aspx>

Carey Duffy, MPTV Filter Group Consultant at Tiffen International Ltd, gave an insight into the use of camera filters and brought along some examples of diffusion filters to use when shooting 4K. He described the importance of filters in creatively aiding the

look and feel of a production and reminded us that at the moment of image capture, we have a full spectrum of light in front of us that we can manipulate to our advantage; the options in post are often more limited and will invariably look and feel different.

Carey mentioned that Tiffen have produced a new Pearlescent Filter which has been specifically designed to control excessive sharpness and detail resolution associated with the images produced from 4K sensors and above. These sensors deliver more resolution, which can emphasise an actor's skin contour by accentuating blemishes and unwanted fine detail. In keeping with the workshop's principle aim, the new filter can achieve a luxurious look and glow to skin tones, but contrast is reduced



Carey Duffey of Tiffen International Ltd.



Technical lighting guru, Alan Roberts



DOP Jonathan Harrison and model for the day, Miriam

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and colours become slightly muted as density increases; this is a minor trade-off for high-resolution imagery and RAW capture formats.

For the remainder of the day's workshop, Jonathan fine-tuned his lighting set-up, carefully explaining his reasons and ideas as he went along.

In all, seven lamps were used: the five-foot-wide light bank with 1kW tungsten source as the key (with grid attached), a Kino Flo Celeb 400 bank as a back light (or rim light), a floor mounted Kino Flo Celeb 200 as frontal fill, a Dedo lamp with small soft box attached as a soft 'kicker', with another Dedo lamp used to further enhance Miriam's hair outline against the background. Two further Dedo lamps were added: one directed downwards to illuminate a glass and flowers in a vase and the other to put a subtle highlight on a poster on the back wall.

Jonathan mentioned that he likes to use lights of differing colour temperature and his soft 'kicker', rim light and background light were slighter bluer than the key light. A cooler, bluer light suggests distance and this added to the three-dimensional feel of the scene.

This was a very worthwhile workshop and I'm sure that everyone who attended was grateful to Jonathan for sharing his knowledge and enthusiasm.

We never stop learning and it's always a pleasure to gain knowledge in the company of like-minded, creative people at the GTC.



## The Leeds Workshop

**Report Neil Harrison  
Photography Keith Massey**

I was fortunate in January to have a Saturday free, which coincided with a GTC lighting workshop given by Director of Photography Jonathan Harrison. The workshop was not too far away in Leeds, so I braved a very snowy M62 and was very glad I did.

Jonathan is an immediately likable character, who is not at all phased to have 35 plus experienced industry peers sitting in front of him. You know straightaway that he knows his stuff, and presents it in a down-to-earth manner.

His presentation started by introducing the audience to a selection of common lighting instruments. We were also introduced to a variety of new LED fixtures on the market. A lot of these were Dedolight products, which is understandable, as the lighting was provided by UK distributor Cirrolite. However, as a long-time Dedolight user, I can tell you that is not a bad thing! His party piece,

at this time, was to dunk an operating tungsten Dedolight head, in a bucket of water. It then continued to operate underwater and again out of the water for the rest of the session. Which only reinforces the widely held opinion that they are the best lighting instruments.

After a coffee break and time to catch up with members from around the area, it was time for a quite in-depth theory presentation. This was very well put together and was mostly centered around looking at the colour rendition of various different types of light. From tungsten through HMI and fluorescent to LED, Jonathan showed us the pros and cons of each type, complete with both live and photographic comparisons, which were very eye-opening. He also briefly touched on the new TLCI rating being developed to give camera people a better idea of a particular instrument's suitability for film or photographic use.

After lunch, it was back in to the warehouse for a live

demonstration of lighting setups using a variety of lights and modifiers. This was again very well done, using a Sony F55 camera outputting to two large LCD monitors mounted facing the audience. A live model was used and this allowed us to see the different looks that could be obtained with different lights, as well as allowing Jonathan to go through the entire process of building up a scene.

Even though I shoot and light every week of the year, I still always learn new techniques and skills through these GTC workshops. Jonathan is a great presenter and I highly recommend any working cameraman to attend one of his workshops, especially if you are new to lighting, or contemplating buying your own kit. All in all it was a very useful day, which has so far cost me £500 + buying a new Octodome softbox!

Thanks must also go to ITV Provision Leeds for a great lunch and hospitality, as well as a venue to host the day.

Lighting Gloss for 4K workshops were generously sponsored by Cirrolite, Dukes Island Studios, Prestigne and Provision

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