Octa Light Player™

8-channel Light Synthesizer Luminaire*

Product Description

The Octa Light Player is the latest generation of multi-channel, light synthesizers from Telelumen. It offers 8-channel, full-spectrum, dynamic lighting of 2,000 lumens across the entire color temperature range of 1250K to 90000K with high color rendering. In addition to standard white light tuning, Octa spectral light output can cover a majority of the CIE color space and saturate or de-saturate portions of the spectrum while keeping the chromaticity constant. With optional LED channels with peak wavelengths from near UV to near IR a broad variety of SPD can be synthesized. This kind of flexibility is critical for circadian lighting, photography, sensors, plant and animal research, color management including light booths, and many more applications.

Telelumen Spectral Match Technology

The Octa synthesizer is meant to be driven by Telelumen Lumenscript Editor Software for maximum capability. Dedicated interfaces are also available to simplify control as appropriate. Reproducing natural sources such as daylight SPD variations over time is easy. Together the software and Octa hardware can generate most SPDs within the visible range (beyond visible with optional LEDs) to extract the full potential of programmed illumination changing with time. Far from simply defining the source by its CCT or chromaticity, this software allows custom SPD manipulation and illumination matching for playback on a luminaire. Sophisticated match algorithms convert SPDs into LED channel drive vectors without complex input from the user.

Telelumen Lumenscripts

Illumination programs called Lumenscripts are available in studio-produced quality from Telelumen or can be created by the customer with available software tools. Illumination content in Lumenscripts can be recorded by a spectrometer, and then edited by a developer, synthesized from scratch, or in combination. A Lumenscript to Octa is what an MP3 audio file is to a music player. The light player synthesizer can update the spectrum at 1 kHz if needed. These scripts can be stored locally or streamed for playback on the luminaire. Octas can operate alone or in groups by remote control over Ethernet.

Lumenscript Editor Software Screen Shot

Lumenscript Manager

Connect and Group — 346

Play
☑ play by name — 6500K_2500lm_power_...

Edit Lumenscript
☐ single frame
☐ smooth ☐ loop ☐ dark after ☐ send

Frame number — 0
Duration (s) — 1.000

Edit Frame
Spectrum format — tab-delimited
Match mode — FL palette
Frame source — target

CCT — 6503
Luminous Output — 1502.63

Control Luminaire Channels
☐ Show luminous outputs

	Drive Level
UV	2.201e-01
Violet	1.437e-01
RoyalBlue	1.296e-01
Blue	1.693e-01
Cyan	2.546e-01
Lime	6.114e-01
Amber	2.058e-01
DeepRed	1.435e-01

SPD (W/nm) — plot with axes wavelength (nm) 300–800 and SPD 0.0e+00 to 5.0e-02

	Target	Luminaire
Match?		True
Output (lm)	1.50e+03	1.50e+03
Output (W)	7.92e+00	6.56e+00
(u', v')	0.198, 0.468	0.198, 0.468
duv	0.003	0.003
CCT (degK)	6503	6503
Ra	100.0	97.7
Power (W)		28.1
TM30 Rf	100	97
TM30 Rg	100	100
RMS Delta-E		1.0
Delta-E0		0.0

2019-08-05 11:25:43,047 - INFO - Lum. 346, match FL palette OK. Cycles 60; elapsed time 0.070 s
2019-08-05 11:25:47,984 - INFO - Lum. 346, match FL palette OK. Cycles 60; elapsed time 0.071 s
2019-08-05 11:25:48,958 - INFO - Lum. 346, match FL palette OK. Cycles 60; elapsed time 0.079 s
2019-08-05 11:25:50,618 - INFO - Lum. 346, match FL palette OK. Cycles 60; elapsed time 0.081 s

Solving took 0.094 s

Dimensions:
16.2 cm [6.4 in]
60.4 cm [23.8 in]
60.4 cm [23.8 in]
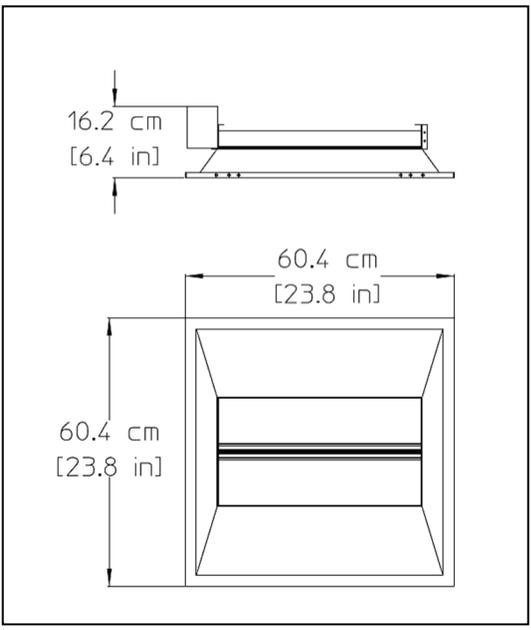
Specifications

Color channels: 8 (various wavelength options from 365nm to 940nm)
CCT range: 1,250K to >50,000K
Lumen output: >2,000, >90 R_f(TM30)
PWM dimming: 1000:1
PWM frequency: 32 kHz
Data and Control: Ethernet
Network protocol: TCP/IP, UDP, DHCP
Input Voltage: 100-240 VAC
(277 VAC for NA only)
0.5A max, 50/60Hz
Weight: 5 kg (11 lbs)
Warranty: 1 year
Mounting: Ceiling, bench, cabinet

*Octa built on CREE CR-22 frame

Made in the USA