

COOLEEDGE™

## COOLEEDGE LIGHT QUALITY METRICS: FABRILUM 3000K (EMEA)

---

### NOTES ABOUT LIGHT QUALITY METRICS DATA:

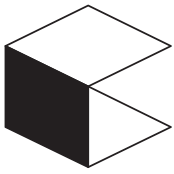
---

- Values shown are TYPICAL – actual performance of individual units may vary
- The data presented has been generated in accordance with LM-79-08
- Spectral and color rendering data is applicable to all luminaire sizes, models, and flux levels of FABRILum including:
  - Spectral Power Distribution (SPD)
  - Nominal CCT
  - Chromaticity
  - $R_f$  and  $R_g$  (TM-30-15)
  - CRI ( $R_a$ ) and R-values
  - $D_{uv}$

### SELECTED DEFINITIONS

---

- **Candlepower:** As presented in this document it is the same as “candela” the SI unit of measurement for light intensity.
- **CRI ( $R_a$ ):** The general Color Rendering Index based on 8 CIE reference pastel color samples.
- **$D_{uv}$ :** The American National Standards Institute (ANSI) references  $D_{uv}$ , a metric based on the CIE 1976 color space that quantifies the distance between the chromaticity of a given light source and a blackbody radiator of equal CCT. A negative  $D_{uv}$  indicates that the source is “below” the Planckian locus (blackbody curve), potentially having a red/blue tint, whereas a positive  $D_{uv}$  indicates that the source is “above” the curve, potentially exhibiting a green tint.
- **Nominal CCT Quadrangles:** ANSI has defined acceptable chromaticity quadrangles for LED binning in relation to the blackbody curve within CIE color space. The data presented shows the typical chromaticity coordinate within the relevant quadrangle.
- **R-value ( $R$ ):** The R-value is a mathematical calculation measuring how similar a light source renders a particular color compared to a reference blackbody source of the same CCT. R-values are not absolute and therefore cannot be used as a specific measurement of color rendering. For example, a 2700K source may have a lower R9 value than a 5700K source, however, in absolute terms the 2700K source will render saturated red much better than the 5700K source because of the relative abundance of red in the spectral power distribution (SPD) for the 2700K source in comparison.
- **R1-R15:** The data presented include the special CRI set of CIE 14 samples and the Japanese Industrial Standard (JIS) for R15.
- **$R_f$ :** The IESNA TM-30-15 technical memorandum for measuring color rendering defines a “fidelity” index,  $R_f$ , that is similar to CRI and quantifies the average difference in appearance between the test source and a reference source based on 99 reference colors.
- **$R_g$ :** The IESNA TM-30-15 technical memorandum for measuring color rendering defines a “gamut” index,  $R_g$ , that quantifies the average difference in color saturation between the test source and a reference source based on 99 reference colors.



# COOLEGE LIGHT QUALITY METRICS: FABRILUM 3000K (EMEA)

DATA SHOWN IS BASED ON A 4' X 6' (1200MM X 1800MM) TEST LUMINAIRE

COOLEGE™

## LIGHTING PROPERTIES: TYPICAL PERFORMANCE

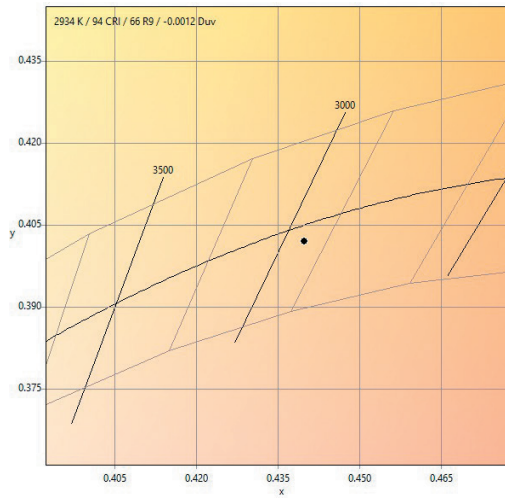
### TEST CONDITIONS

Temp (°C)	AC Voltage (V)	AC Current (A)	Input Power (W)
23.0	120	1.64	197

### COLOR RENDERING INDEX DETAILS

Reference	Value
R1	95
R2	99
R3	98
R4	93
R5	94
R6	96
R7	91
R8	83
R9	66
R10	96
R11	94
R12	79
R13	96
R14	100
R15	91

### NOMINAL CCT QUADRANGLES



### CHROMATICITY COORDINATES

Chromaticity (x)	0.4399
Chromaticity (y)	0.4021
Chromaticity (u)	0.2534
Chromaticity (v)	0.3474
Chromaticity (u)	0.2534
Chromaticity (v)	0.5211
Duv	-0.0012

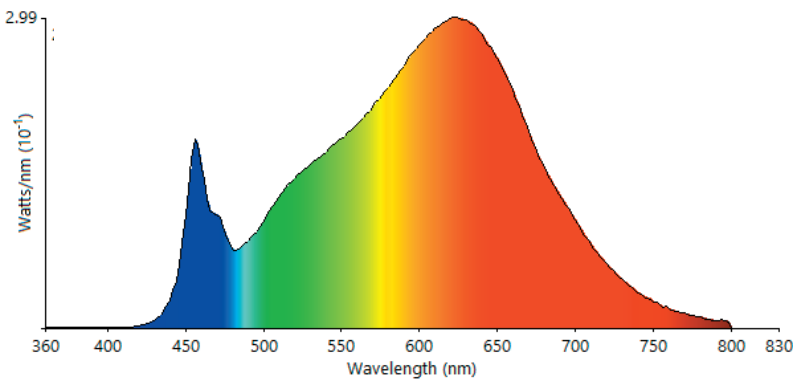
### SUMMARY OF RESULTS

Total Lumen Output	14600 Lumens
Luminaire Efficacy	74.1 lm/W
Maximum Candela	5439 Candela
CCT	2934 K
CRI	94
R9	66
TM-30 R <sub>f</sub>	90
TM-30 R <sub>g</sub>	97

### INTENSITY (CANDLEPOWER) SUMMARY

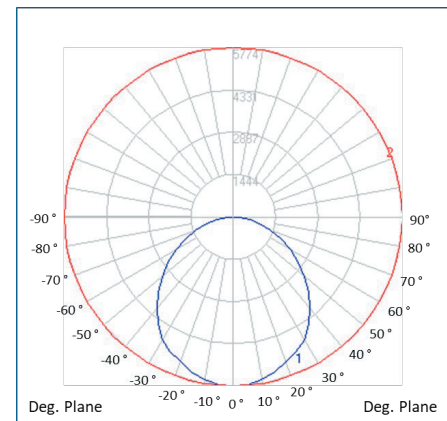
Angle	Mean CP	Lumens
0	100%	100%
5	99%	100%
10	98%	98%
15	95%	98%
20	91%	92%
25	88%	92%
30	30%	81%
35	78%	81%
40	71%	65%
45	63%	65%
50	55%	47%
55	47%	47%
60	39%	29%
65	31%	29%
70	23%	13%
75	16%	13%
80	9%	4%
85	3%	4%
90	0%	0%

### SPECTRAL POWER DISTRIBUTION (SPD)



Testing was performed in accordance with LM-79-08.

### POLAR GRAPH



Cooledge Lighting Inc.  
110-13551 Commerce Parkway  
Richmond, BC V6V 2L1 Canada

O +1 604 273 2665  
F +1 604 273 2660  
T +1 844 455 4448  
W cooledgelighting.com

Cooledge Lighting reserves the right to change materials or modify the design of its product without notification as part of the company's continuing product improvement program.