

# NCAA Basketball Championships Best Lighting Practices

**Goals: 1. Quality TV Broadcasts:** To establish best practices for lighting televised NCAA events, providing quality broadcasts within a reasonable budget. The light level expectations are applicable for HD and HDR broadcast.

**2. Value-based Lighting System:** To provide recommended best practices for lighting college level sporting events with considerations for quality lighting for player safety; reduced energy, maintenance and life-cycle costs; and environmental sensitivity.

**Considerations:** 1. Size of facility, 2. Level of TV broadcast, 3. Validation of light levels, and 4. Cost consciousness.

Broadcast Level	A	B	C	D	E
Horizontal Illumination	250	200	125	80	80
Horizontal Uniformity (Max/Min)	1.35:1	1.5:1	1.7:1	2.0:1	2.0:1
Main Center Camera Vertical Illumination	180	145	100	75	N/A
Max/Min Uniformity Ratio (Main Center Camera)	1.25:1	1.5:1	1.7:1	2.0:1	N/A
End Camera Vertical Illumination	125	100	60	45	N/A
Max/Min Uniformity Ratio (End Camera)	1.35:1*	2.5:1	N/A	N/A	N/A
Typical Seating	70k plus	15k - 20k	3k-10k	3k - 5k	N/A
Site Notes	Typically held in NFL Covered Facility	Site Typically held in NBA/NHL	Site Typically Held in College Facility	Site Typically Held in College Facility	Site Typically Held in College Facility

\*Broadcast Level A - End Camera Max/Min Uniformity Ratio is for the half court nearest the camera.

- Field of play to background contrast ratio (for the first 30 rows) should be less than 2:1.

Competition	Broadcast Level	Competition	Broadcast Level
Men's Final Four	A	Women's Final Four	B
Men's Division I Regionals	B	Women's Division I Regionals	B
Men's Division I Second & Third Rounds	B	Women's Division I First & Second Rounds	C
Men's Division I First Round	B	Women's Division II Elite Eight	C
Men's Division II Elite Eight	C	Women's Division II Regionals	D
Men's Division II Regionals	D	Women's Division III Finals	C
Men's Division III Finals	C	Women's Division III Sectionals	E
Men's Division III Sectionals	E	Women's Division III First & Second Rounds	E
Men's Division III First & Second Rounds	E		

Notes:

- All footcandle levels are target minimum averages
- New industry standards are now LED systems
- Photometric Characteristics
  - Recommended color temperature must be 4500 - 5700 degrees Kelvin
  - Minimum Color Rendering Index (CRI) must be 75
  - LED - Visors recommended to reduce glare for athletes, spectators and broadcast
- Refer to the NCAA Broadcast Lighting Requirements for additional information
- Refer to sport and broadcast specific documents for design examples and verification forms
- Sports presentation should be considered for fan and TV enhancement for new LED systems
- NCAA's preferred Lighting Service Provider is Musco Sports Lighting LLC

Contact NCAA at 317/917-6222 or [www.NCAA.com](http://www.NCAA.com) with questions.

