

4. The lighting system of claim 1 further comprising a sensor.

5. The lighting system of claim 4 wherein the sensor is integral to the camera.

6. The lighting system of claim 4 wherein the sensor is integral to the LED lighting unit.

7. The lighting system of claim 4 wherein the sensor is external to the camera and the LED lighting unit.

8. The lighting system of claim 1 wherein the LED lighting unit is an unfiltered lighting unit.

9. The lighting system of claim 1 wherein the LED lighting unit includes a filter.

10. The lighting system of claim 1 further comprising a timer.

11. The lighting system of claim 1 further comprising a feedback system associated with the camera that adjusts the output of the LED lighting unit to obtain a desired illumination.

12. The lighting system of claim 1 further comprising a spatial control facility.

13. The lighting system of claim 1 wherein the camera includes one or more of a film camera, a digital camera, a mini-camera, a television camera, a motion picture camera, a video camera, a video diskette camera, a still photography camera, a single lens reflex camera, a security camera, a telephoto camera, a point-and-shoot camera, a disposable camera, an underwater camera, a machine vision camera, a proximity detection camera, a large-format camera, a ultraviolet camera, and an infrared camera.

14. The lighting system of claim 1 wherein the camera includes an optical element selected from the group consisting of a zoom lens, a telephoto lens, a wide-angle lens, a fifty millimeter lens, an array of optical elements, and a digital pixel array.

15. The lighting system of claim 1 wherein the lighting system applies color correction to balance at least one of a color of illumination of the subject and a color temperature of illumination of the subject.

16. The lighting system of claim 1 further comprising a user input for controlling one or more of saturation of light and hue of light generated by the LED lighting unit.

17. The lighting system of claim 1, the LED lighting unit further comprising an LED package with at least one electronic component located in a submount of the LED package.

18. The lighting system of claim 1 further comprising a gray card, the lighting system using the gray card to calibrate illumination of the subject in situ.

19. The lighting system of claim 1 further comprising a control facility, the control facility controlling the LED lighting unit to simulate a time of day.

20. The lighting system of claim 19 wherein the time of day is one of morning, noon, or evening.

21. The lighting system of claim 1 further comprising a plurality of lighting units.

22. The lighting system of claim 21 wherein control signals are sent to the plurality of lighting units using a serial addressing protocol.

23. The lighting system of claim 21 further comprising a pulsing facility for pulsing the plurality of lighting units at a high current to provide high output for short periods of time.

24. The lighting system of claim 21 wherein the plurality of lighting units are arranged to substantially surround the subject.

25. The lighting system of claim 1 further comprising a virtual model of the LED lighting unit and the subject, the virtual model modeling the effects of light from the LED lighting unit on an image of the subject captured by the camera.

26. The lighting system of claim 1 further comprising a display for viewing an image of the subject from the camera.

27. The lighting system of claim 26, further comprising a graphical user interface presented on the display, the graphical user interface providing controls for one or more lighting effects in one or more regions of the image.

28. The lighting system of claim 27, the lighting system generating one or more lighting effects by controlling the LED lighting unit in response to input received from the graphical user interface.

29. The lighting system of claim 1 further comprising a computer program that receives user input of one or more color values or intensity values and generates control signals to the LED lighting unit for corresponding color corrections to illumination of the subject.

30. The lighting system of claim 1 further comprising a computer program that stores lighting information descriptive of a manner in which the subject is illuminated with the LED lighting unit.

31. The lighting system of claim 30 further comprising a computer program that stores the lighting information with a digital image of the subject captured by the camera.

32. The lighting system 1 wherein the LED lighting unit is a flash unit.

33. The lighting system of claim 1 further comprising a touch-screen user interface for controlling the LED lighting unit.

34. The lighting system of claim 1 further comprising a diffuser for diffusing light from the LED lighting unit.

35. The lighting system of claim 1 wherein the camera is a disposable camera.

36. The lighting system of claim 1, the LED lighting unit including a phosphor for converting the wavelength of light emitted by the lighting units.

37. The lighting system of claim 1 wherein the LED lighting unit is a foldable, flexible, flat lighting unit.

38. The lighting system of claim 1 wherein the LED lighting unit includes one or more high-intensity LEDs.

39. The lighting system of claim 1 wherein the LED lighting unit includes a plurality of LEDs controllable to produce a range of colors and a range of intensities.

40. The lighting system of claim 39 wherein the range of colors is a range of discrete values.

41. The lighting system of claim 39 wherein the range of intensities is a range of discrete values.

42. The lighting system of claim 39 wherein the plurality of LEDs include LEDs having at least three different colors.

43. A method for illuminating a subject of a photographic image comprising:

directing a camera at a subject; and

lighting the subject with an LED lighting unit based on at least one of a desired lighting condition for the subject and a feature of the subject.

44. The method of claim 43 further comprising lighting the subject with a non-LED lighting unit.