

												
<b>Model</b>	<b>CRUi &amp; CRUi-PA</b>	<b>CRUo</b>	<b>CRUi-DFX</b>	<b>CRUo-DFX</b>	<b>SAF</b>	<b>SAFG</b>	<b>SAFR</b>	<b>CREB</b>	<b>CREH</b>	<b>CRTW</b>	<b>CRU-MXo</b>	<b>CRD</b>
<b>Door Styles</b>	Inset	Overlapping	Inset	Overlapping	Overlapping	Overlapping	Overlapping	Inset	Inset	Overlapping	Overlapping	Overlapping
<b>Sizes</b>	1x4, 2x2, 2x4	1x4, 2x2, 2x4	2x2, 2x4	2x2, 2x4	1x4, 2x2, 2x4	1x4, 2x2, 2x4	1x4, 2x2, 2x4	1x4, 2x2, 2x4	1x4, 2x2, 2x4	1x4, 2x2, 2x4	2x2, 2x4	4", 6"
<b>Mounting: Surface, Flange or Grid</b>	Univ. F & G	Univ. F & G	Univ. F & G	Univ. F & G	Flanged	Grid	Flanged Top Access	Grid	Grid	Walkable Ceilings	Univ. F & G	Grid or Drywall
<b>Maximum Lumens</b>	24,102	24,102	18,076	18,076	15,000	15,000	15,000	11,000	13,000	12,000	57,000	5,000
<b>ISO 14644-1 Rating</b>	ISO3-8	ISO3-8	ISO3-8	ISO3-8	ISO4	ISO4-8	ISO4-8	ISO5-8	ISO5-8	ISO3-8	ISO3-8	ISO3-8
<b>IEC60598 IP Certification</b>	IP65	IP65	IP65	IP65	IP66	IP66	IP66	IP66	IP66	IP65	IP65	IP65
<b>NSF Certified</b>	NSF2 FZ, SZ, NFZ	NSF2 FZ, SZ, NFZ	NSF2 FZ, SZ, NFZ	NSF2 FZ, SZ, NFZ	NSF2 FZ, SZ, NFZ	NSF2 FZ, SZ, NFZ	NSF2 FZ, SZ, NFZ	NSF2, SZ, NFZ	NSF2, SZ, NFZ	NSF2, SZ, NFZ	NSF2 FZ, SZ, NFZ	NSF2, SZ, NFZ
<b>ANSI/UL1598 Wet/Damp Listing</b>	Wet Location	Wet Location	Wet Location	Wet Location	Wet Location	Wet Location	Wet Location	Wet Location	Wet Location	Wet Location	Wet Location	Wet Location
<b>Biosafety Rating</b>	BSL1-2	BSL1-3	BSL1-2	BSL1-3	BSL1-3	BSL1-3	BSL1-3	-	-	-	BSL1-3	BSL1-2
<b>Hose-Down Tested PSI</b>	2500Psi	2500Psi	2500Psi	2500Psi	-	-	-	-	-	-	2500Psi	-
<b>Red LED (630nm)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	-
<b>Amber (600nm)</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
<b>Tunable White</b>	Yes	Yes	Yes	Yes	-	-	-	Yes	Yes	Yes	-	-
<b>BIOS SkyBlue</b>	Dynamic & Static	Dynamic & Static	Dynamic & Static	Dynamic & Static	-	-	-	Dynamic & Static	Dynamic & Static	-	-	-
<b>Hazardous Location Listed ANSI/UL844</b>	-	-	-	-	Class I Zone 2, Groups IIC, IIB + H2, IIA, Zone 22 Groups IIA, IIB, Class I & II, Div 2, Groups F, G Class III.	Class I Zone 2, Groups IIC, IIB + H2, IIA, Zone 22 Groups IIA, IIB, Class I & II, Div 2, Groups F, G Class III.	-	-	-	-	-	-

### Cleanroom Classes

- Class 1 (cleanest) -9 (least clean)
- Particle count per cubic meter determine class
- ISO 14644-1 Class 1 (cleanest) -9 (least clean)
- Better fixtures limit particle migration and outgassing
- IEST governs standards
- Lower classes can create sterile atmosphere
- High dynamic air pressures stress seals
- Non-rigid fixtures "breath" particles
- Sealed fixtures wont harbor particles, bacteria

### Narrow Spectrum LEDs

- Amber w/o blue content is essential for Lithography
- Nanotechnology & Semiconductor use Amber
- Vivariums use 630-660nm low intensity, high purity red light
- 99% pure 630nm light is invisible to many lab specimens
- Pharmaceuticals can be photochemically reactive and protected by Amber

### Ingress Protection Certification

- NRTL (ETL/UL/CSA) Certified to IEC Standard 60529
- IP65 = Dust-tight and able to resist jets of water @ 12.5L/min
- IP66 = Dust-tight and able to resist strong jets of water @ 100L/min
- IP67 = Dust-tight and able to resist limited submersion
- 3rd party certification assures air-tight and liquid-tight construction

### Hazardous Locations Listings/Certification

- Class I involves liquid or gaseous fuels & is most common
- Class II involves dusts found in industry & agriculture
- Zone Classifications similar to IEC
- Zones 0, 1 & 2 are gasses, vapors or liquids
- Zones 20, 21, & 22 are dusts and fibers
- Haz locations exist in many industrial & institutional spaces
- Defined under two systems, Classes or Zones.

### NSF2 Certifications

- 3 zones based on use. Food, Splash & Non-Food zones
- Certification mark often required by local inspectors
- Performs factory inspections
- Inspects for toxicity, cleanability and durability

