

EXHIBIT A

(13 PAGES)

**Lighting Upgrade – Legend, Lutron spreadsheet and Fixture
specs**

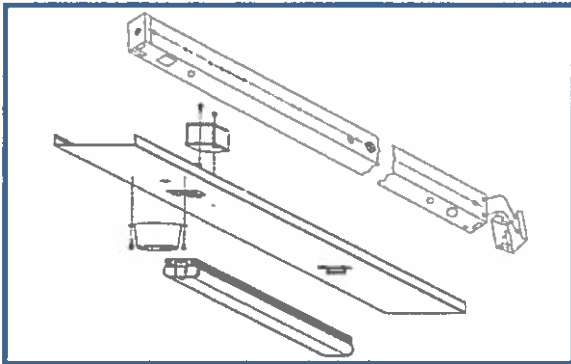
BID # CCC-023
PROJECT: PROP 39 VOC TECH BUILDING LIGHTING UPGRADE

Compton College- Vocational Building Phase 2
Lighting Fixture Legend

#	Existing System		Proposed System		CONTROLS	
	Area	Fixture Type	Existing Qty	Conversion	MFG	PRODUCT
1	Vocational Technology	2 Lamp 40W Biax 2x2 Recessed Troffer DCP 9C	170	CR22-32L-40K-LES	LUTRON	See Lutron Spec
2	Vocational Technology	2 Lamp F32 T8 1x4 Surface Mount Troffer Prismatic Lens	72	L6048-1-25WT/4-40K-HLO L6048-L2150-40K	LUTRON	See Lutron Spec
3	Vocational Technology	1 Lamp F32 T8 4' Recessed Cove Strip W/ Reflector	142	L8524-1-12WT/2-HLO-40K L8524-1-12WT/2-40K-94%	LUTRON	See Lutron Spec
4	Vocational Technology	4 Lamp F32 T8 8' Cable Mount Indirect Dimmable	40	L6048-1-25WT/4-40K-HLO L6048-L2150-40K	LUTRON	See Lutron Spec
5	Vocational Technology	400W MH High Bay	55	New 100watt LED High Bay w motion sensor	LUTRON	See Lutron Spec
6	Vocational Technology	6 Lamp F32 T8 12' Cable Mount Indirect Dimmable	85	L6048-1-25WT/4-40K-HLO L6048-L2150-40K	LUTRON	See Lutron Spec
7	Vocational Technology	4 Lamp F32 T8 4' Surface Mount Wrap	8	L6048-1-25WT/4-40K-HLO L6048-L2150-40K	LUTRON	See Lutron Spec
8	Vocational Technology	2 Lamp F96 T12 1x8 Recessed Troffer Prismatic Lens	23	L8596-1-25WT/4-HLO-40K-NCH-TAB L8596-1-25WT/4/40K/94% NCH, TAB	LUTRON	See Lutron Spec
9	Vocational Technology	Recessed Can 6" 2x 18W DBX 4-Pin	98	14w LED recessed can light RR61441W	Maxlight	See Lutron Spec
10	Vocational Technology	3 Lamp 40W Biax 2x2 Recessed Troffer DCP 16C	10	CR22-32L-40K-LES	LUTRON	See Lutron Spec
11	Vocational Technology	4 Lamp F25 3' T8 1x6 Recessed Troffer Prismatic Lens	1	L8572-1-25WT/4-HLO-40K-NCH L8572-1-25WT/4/40K/94% NCH	LUTRON	See Lutron Spec
12	Vocational Technology	2 Lamp F96 T12 8' Surface Mount Industrial	2	L8596-1-25WT/4-HLO-40K-NCH L8596-1-25WT/4/40K/94% NCH	LUTRON	See Lutron Spec
		Totals	706	Totals		

L8500 LED Strip Series

Lighting retrofit isn't new – we're just making it better.



APPLICATIONS

- Warehouse
- Distribution Centers
- Food Processing Plants
- Parking Garages
- Covered Parking
- Offices
- Stairwells
- Corridors
- Canopies

FEATURES

- Easy, fast, tool-free installation (6-10 units per hour)
- Low maintenance
- Calculated life 97,000 hours
- Programmable ie: daylight harvesting, ect.
- Expandable ie: security, occupancy sensors, photocell
- Energy efficient – up to 90% savings over current energy/lighting costs
- Available in standard lumen output & high lumen output
- Bi-Level Dimming
- Narrow & medium reflectors optimized for high-bay aisle application

SPECIFICATIONS

- Multiple mounting options available
- Driver
- Bracket
- Clip & Terminal
- 2' 12.5W light bar, 2' & 4' 25W light bar or 4' 50W light bar
- Optional – Occupancy Sensor, Occupancy Sensor w/ Daylight, programmable Sensor, Bi-Level Switching

TECHNICAL INFORMATION

- Light Source: LED Light Bar Module
- Power Source: LED High Efficiency Power Supply
- Voltage: Universal 120 to 277
- CCT: 27K, 30K, 40K & 50K
- CRI: 84 (also available in 90)
- Mounting: Surface
- Compliance: ETL
- Input voltage: 36Vdc
- Input current: 700mA (25W), 1.4A (50W)

Revised 04/04/14



L8500 LED Strip Series

Catalog Ordering Example: L85-48-1-25WT/4'-40K

FAMILY TYPE	LENGTH/ WATTAGE	COLOR TEMPERATURE	LIGHT TRANSMISSION	OPTIONS
L85	24 - 1-12WT/2' (12 S Input Watts/1 -2FT Bar)	27K (2700 Kelvin Temp)	SLO (Standard Lumen Output)	OS (Occupancy Sensor)
	24 - 1-25WT/2' (25 Input Watts/1 -2FT Bar)	30K (3000 Kelvin Temp)	HLO (High Lumen Output)	OSD (Occupancy Sensor w/ Daylight)
	48 - 1-25WT/2' (25 Input Watts/1 -2FT Bar)	40K (4000 Kelvin Temp)		PC (Photocell)
	48 - 1-25WT/4' (25 Input Watts/1 -4FT Bar)	50K (5000 Kelvin Temp)		FSP-211 (Programmable Sensor)
	48 - 1-50WT/4' (50 Input Watts/1 -4FT Bar)			SDIM33 (Bi-level Switching 100% to 33%)
	96 - 1-25WT/2' (25 Input Watts/1 -2FT Bar)			SDIM25 (Bi-level Switching 100% to 25%)
	96 - 1-25WT/4' (25 Input Watts/1 -4FT Bar)			SDIM50 (Bi-level Switching 100% to 50%)
	96 - 2-25WT/2' (50 Input Watts/2 -2FT Bars)			NCH (No Channel)
	96 - 2-25WT/4' (50 Input Watts/2 -4FT Bars)			PRGOS (Programmable PIR Time Sensor)
	96 - 1-50WT/4' (50 Input Watts/1 -4FT Bar)			SR (Medium Reflector)
	96 - 2-50WT/4' (100 Input Watts/2 -4FT Bars)			SNR (Narrow Reflector)

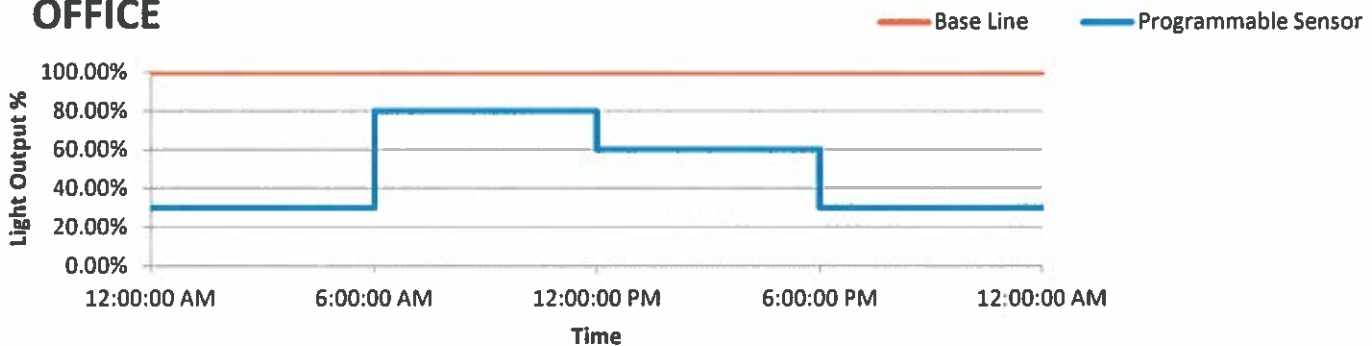
Specifications and Dimensions subject to change without notice. Contact factory for updates. (909) 948-8878

ABOUT PRGOS (FSC Programmable PIR Time Sensor)

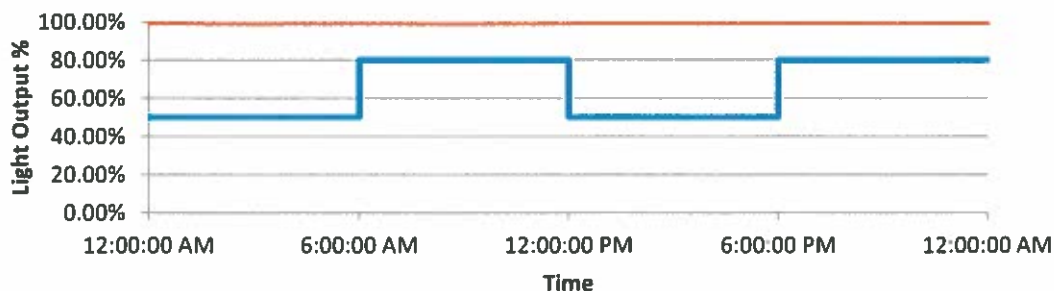
Intelligent, PRGOS sensor is fully dimmable and programmable to maximize peak / off-peak usage for optimal energy savings and fast payback.

- Time Programmable and allows to program light output
- Available with various mounting options
- Interchangeable lenses
- **Space between red and blue line is guaranteed savings (see application charts below)**

OFFICE



WAREHOUSE





L6000 LED Series

LED Radial Wrap



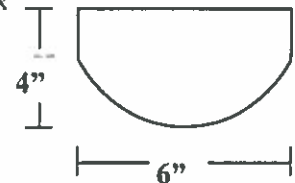
Extended Body

Catalog No. L60-48-2150-50K	Type:
Job Name: Beverley Hills Parking	

Features & Specifications:

A modern radial wraparound fixture in a bright white finish. Ideal for lighting stairwells and multi-deck parking structures. The 6000 Series fixture drives excellent paybacks while providing an aesthetic upgrade. This LED fixture can be controlled by multiple control options. They can be controlled with adjustable sensor/ photocell or advanced lighting controls.

- Housing made from die formed heavy gauge pre-painted cold rolled steel and is finished with a post production white polyester polymer
- Minimum of 82% reflectivity
- Available with an extended body (Shown to the left) to house a sensor within the box or externally
- Tool-less sensor mounting plate allows for easy access when making sensor adjustments or when performing fixture maintenance
- Acrylic Lens
- Standard with an 80% light transmission lens
- Suitable for damp location



General Characteristics:

Light Source: LED Light Bar Module
 Power Source: LED High Efficiency Power Supply
 Voltage: Universal 120 to 277
 CRI: 84
 Options: LED Emergency Lighting, Occupancy Sensor, Occupancy Sensor w/ Daylight, Plug, Programmable Sensor, High Output- 94% Light Transmission Lens
 Rated Life: Calculated L70- 97,000 Hours
 Compliance: ETL and DLC

* LENS TYPE	LENGTH	WATTAGE	WATTAGE	WATTAGE
		@ 100%	@ 50%	@ 33%
LED Light Bar Premium	2FT	12.5WT	6.25WT	4.13WT
LED Light Bar Premium	2FT	25WT	12.5WT	8.25WT
LED Light Bar Premium	4FT	25WT	12.5WT	8.25WT
LED Light Bar Premium	4FT	50WT	25WT	16.5WT

Catalog Ordering: Example: L6048-L4600-50

L60	48-L2150	50K		
-----	----------	-----	--	--

FAMILY TYPE	LENGTH IN INCHES WATTAGE	COLOR TEMPERATURE	LIGHT TRANSMISSION	OPTIONS
L60	24- L1200 (1200 lm/ 12.5 Input Watts)	27K (2700 Kelvin Temp)	SLO (Standard)	EMR (LED Emergency Lighting)
	24- L2000 (2200 lm/ 25 Input Watts)	30K (3000 Kelvin Temp)	HLO (High Output)	OS (Occupancy Sensor)
	48- L2150 (2150 lm/ 25 Input Watts)	40K (4000 Kelvin Temp)		OSD (Occupancy Sensor w/ Daylight)
	48- L4600 (4600 lm/ 50 Input Watts)	50K (5000 Kelvin Temp)		FSP-211 (Programmable Sensor) C6 (6' Cord) PLG (6' SJT Cord & Plug) SDIM25 (Bi-level Switching 100% to 25%) SDIM33 (Bi-level Switching 100% to 33%) SDIM50 (Bi-level Switching 100% to 50%)

* Due to increasing efficiency of LED chips, contact factory for current lumen output.

Powered By:



Specifications and Dimensions Subject to change without notice.
 FSC Lighting 9120 Center Ave., Rancho Cucamonga, CA 91730 Ph 800-255-8990



Revised 5/14/14

RR614



6" LED Downlight Retrofit Fixture

The 6" Retrofit LED module & trim kit (RR614) with an E26 medium screw base has been classified for use with most 5" and 6" housings on the market, including IC/airtight and non-IC Incandescent recessed housings.

Constructed with high-efficacy LEDs with an integral dimmable driver, the fixtures feature an optical diffuser that produces high lumen transmission and even illumination. The fixtures are suitable for damp and wet locations.

PROJECT NAME
CATALOG NUMBER
NOTES
FIXTURE TYPE

FEATURES:

- 120-277V universal power supply
- High lumen transmission and diffusing for even illumination
- White paint finish standard
- 10-100 percent dimmable at 120V only (see page 2 for recommended dimmers)
- Driver features power factor of >.90, THD of <20 percent and has integral thermal protection to sense high temperature or internal failure
- Driver mounts externally to the module, allowing for future replacement, if needed
- Suitable for damp and wet locations
- Supplied with E26 base adapter
- Virtually no UV emitted



CONSTRUCTION:

- Durable die-casting aluminum heat sink with integrated trim in one piece
- Module construction includes LEDs, heat sink, lens and baffle trim
- Impact-resistant plastic lens
- Fits most 5" and 6" recessed cans with torsion spring ('C' Shaped) brackets*

Luminaire Ordering Information:

Watts	Order Number	Model Number	Inc. Equivalent	Lumens	CRI	Lamp Life (Hrs.)	Dimensions Dia" x H"	CCT
14	71775	RR61430W*	90W	900	85	50,000	7.25" X 3.87"	3000
14	72060	RR61441W	90W	950	85	50,000	7.25" X 3.87"	4100
14	71777	RR61450W	90W	1000	85	50,000	7.25" X 3.87"	5000

MAX1211G

Lighting layouts and spacing criteria available upon request

*ENERGY STAR certified subcomponent



RR614 6" LED DownLight Retrofit Fixture



SPECIFICATIONS:

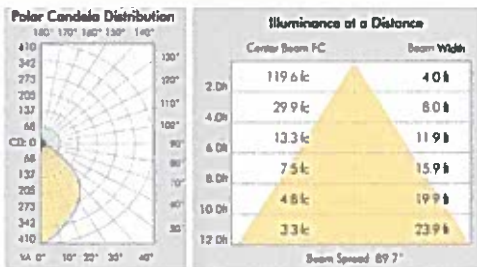
Item	Specification	RR61430W*	RR61441W	RR61450W
General Performance	Spacing Criteria	Available upon request	Available upon request	Available upon request
	Color Temperature	3000K	4100K	5000K
	Lumens Delivered	900	950	1000
	Efficacy	64 lumen/watt	68 lumen/watt	71 lumen/watt
	Color Consistency	Proprietary binning for uniform color	Proprietary binning for uniform color	Proprietary binning for uniform color
	Lumen Maintenance (L70)	50,000 hours	50,000 hours	50,000 hours
Electrical	Power Factor	Over 90%	Over 90%	Over 90%
	Input Voltage	120-277V 60 Hz	120-277V 60 Hz	120-277V 60 Hz
	Power Consumption	14 Watts	14 Watts	14 Watts
	Connection	E26	E26	E26
Physical	Dimensions	7.25" Dia x 3.87" H	7.25" Dia x 3.87" H	7.25" Dia x 3.87" H
	Weight	4 lbs.	4 lbs.	4 lbs.
	Housing	Aluminum die cast	Aluminum die cast	Aluminum die cast
	Lens	Polycarbonate	Polycarbonate	Polycarbonate
	Mounting	Torsion spring	Torsion spring	Torsion spring
	Operating Temperature	-4°F to 113°F	-4°F to 113°F	-4°F to 113°F
	Humidity	20%-85% RH, non condensing	20%-85% RH, non condensing	20%-85% RH, non condensing
Certification	Certification	ETL,FCC, LM-79, LM-80, E*	ETL,FCC, LM-79, LM-80	ETL,FCC, LM-79, LM-80
	Material Usage	RoHS compliant; no mercury	RoHS compliant; no mercury	RoHS compliant; no mercury
	Environment	Indoor/outdoor	Indoor/outdoor	Indoor/outdoor
	Warranty	Five year	Five year	Five year

Lighting layouts and spacing criteria available upon request

*ENERGY STAR certified subcomponent

RR614 is ETL listed for retrofit in the following 5" & 6" recessed housings:

120V Approved Dimmers
- Lutron: Nova [®] (Nielv300 & 600) Diva (Dvelv-300P & 303P)
- Leviton: Acenti: Ate06-1Lw Trimatron: 703W
Consult tech, service or factory for additional dimmers



Manufacturer	Model #s
Halo	H7ICAT, H7RICAT, H7ICT, H7RICT, H7ICATNB, H7ICTNB, H7IT, H7RT, H7TNB, H7TCP, H7UIC, H7UICAT, H27ICAT, H27RICAT, H27ICT, H27RICT, H27IT, H27RT, H5ICAT, H5RICAT, H5IT, H5RT, H2SICAT
All Pro	500AT, E1500RAT, ET500, ET500R, E1700AT, E1700RAT, E700ATNB, E1700, E1700R, E1700ATNB, E1700NB, E1700, ET700R, E1700U, E1700UAT, E2700AT, E12700, E12700R, ET2700, ET2700R
Juno	IC22, IC22R, IC22W, IC22S, IC23, IC23W, IC21, IC21R, TC2, TC2R, IC20, IC20R, IC25, IC25R, IC25W, IC25S, TC20, TC20R
Capri	CR1, pr1, QL1, R9ASIC
Lithonia	L7X, L7XR, L7XLED T24
Thomas	P51, R9ASIC/P59RM
Prescolite	IBXS

LED lighting facts
A Program of the U.S. DOE

Light Output (Lumens) 920
Watts 13.09
Lumens per Watt (Efficacy) 70

Color Accuracy 87
Color Rendering Index (CRI)

Light Color 3071 (Bright White)
Correlated Color Temperature (CCT)

2700K 3000K 4000K 5000K

Warranty** Yes

All results except LED Lumen Maintenance are according to IESNA LM-79 2008. Approved Method for the Electrical and Photometric Testing of Small Area Lighting. The U.S. Department of Energy (DOE) verifies product level data and results.

** See www.lightingfacts.com/products for details.

Registration Number: WJF3 DTY77D (5/24/2012)
Model Number: RR61430W
Type: Recessed downlight





Key Features & Benefits

- ▶ Design Lights Consortium Certified
- ▶ Quick Installation & Easy Maintenance
- ▶ Simple Mechanical Design
- ▶ Universal Voltage (100-277 Vac)
- ▶ Lightweight
- ▶ UL/cUL Listed
- ▶ 50,000 Hours Rated Average Life
- ▶ WireGuard Available
- ▶ 9-foot additional power cable included



Mount Hanging Eyebolt



Applications

- ▶ Warehouse Lighting
- ▶ Ceiling Lighting



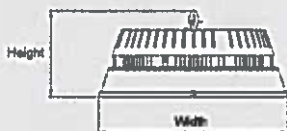
165W LED

Direct Replacement

Up to 60% Energy Savings

400W MH

Dimensions



LED Wattage	Width (in/mm)	Height (in/mm)	Weight (lbs)
70 Watt	17.8 / 453	8.8 / 223	10.2
100 Watt	17.8 / 453	9.8 / 248	10.2
165 Watt	17.8 / 453	9.8 / 248	10.2

LowBay

Item Code	Description	Color Temp	Wattage	Lumens Output	Weight (lbs)	Equivalent Wattage	Beam Type	CRI	DLC
7125	LED-FXLB70/40K	4000K	70	6,600	10.12	150W	Circular	>80	●
7126	LED-FXLB70/50K	5000K	70	7,000	10.12	150W	Circular	>80	●

HighBay

7128	LED-FXHB100/40K	4000K	100	10,100	10.12	250W	Circular	>80	●
7129	LED-FXHB100/50K	5000K	100	10,700	10.12	250W	Circular	>80	●
7131	LED-FXHB165/40K	4000K	165	13,900	10.65	400W	Circular	>80	●
7132	LED-FXHB165/50K	5000K	165	14,600	10.65	400W	Circular	>80	●

WireGuard (Optional)

7615	WG-CBL18/WH
------	-------------

Package



LED Wattage	Package (Master)
70 Watt	1
100 Watt	1
165 Watt	1



Visit www.mynaturalLED.com to download the installation guide or contact your sales rep for more information.

CR22™

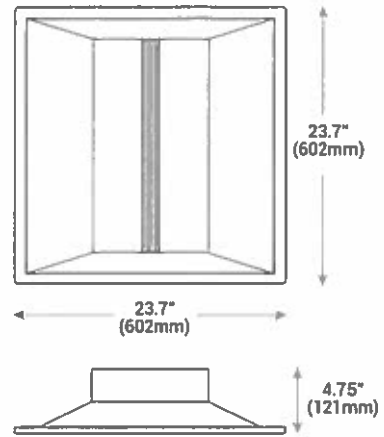
2' x 2' Architectural LED Troffer

Product Description

The CR22™ Architectural LED troffer delivers up to 100 lumens per watt of exceptional 90 CRI light at both 2000 and 3200 lumen levels. This breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology with a unique thermal management design. The CR22™ (HD) option delivers enhanced spectrum 80+ CRI color quality. The CR22™ product family is available in warm, neutral, cool, or daylight color temperatures and has step, 0-10V, or Lutron EcoSystem® Enabled dimming options. Its compact, lightweight design makes the CR22™ perfect for use in commercial new construction or renovated spaces.

Performance Summary

Utilizes Cree TrueWhite® Technology (90 CRI) or available in 80+ CRI
Active Color Management
Room-Side Heat Sink
Assembled in the US & Mexico
Efficacy: 90-100 LPW
Delivered Light Output: 2000, 3200 lumens
Input Power: 22-35 watts
CRI: 90 CRI (Cree TrueWhite® Technology), 80+ CRI
CCT: 3000K, 3500K, 4000K, 5000K
Input Voltage: 120-277 VAC or 347 VAC*
Limited Warranty ¹ : 10 years
Lifetime: Designed to last from 50,000 hours (HD), 75,000 hours (Standard TW), and 100,000 hours (HE TV)
Controls: Step Level to 50%, 0-10V Dimming or Lutron EcoSystem Enabled to 5% ¹
Mounting: Recessed
*32L - 100 LPW 10V types only - other types require addition of a 347 accessory kit



NOTE: Use of Expanded Junction Box will expand the depth to 6.57" and Emergency Backup will expand the depth to 6.30". Use of 347V will increase fixture height by 1.4"

Housings & Accessories

Accessories			
CPLCR Chicago Plenum Field Kit	CR-347V 347 Volt	PW-18/4-06-9T/SS-CR Power Whip	ACS-72-P08-JB Adjustable Cable
CPLCR-EM Chicago Plenum Field Kit-Emergency	CR-347V-SD Step Dimming to 50%	ACS-18/4-72-P08-JB Adjustable Cable	EJBCR-5PK Expanded size junction box for through wiring (5 pack)
	SMK-CR22 Surface Mount Kit		

Ordering Information

Example: CR22-20L-35K-S

QUICKSHIP™

For full list of Cree Quick Ship products visit www.cree.com/lighting/quickship

Click below to select Quick Ship products

CR22-32L-40K-S

Product	Lumen Output	Color Temp	Voltage	Control	Options
CR22	20L 22W 2000 lumens - 90 LPW 32L 32W 3200 lumens - 100 LPW	30K 3000 Kelvin 35K 3500 Kelvin 40K 4000 Kelvin 50K 5000 Kelvin	Blank 120-277 Volt (Standard) 347 347 Volt (Optional)	S Step Dimming to 50% 10V 0-10V Dimming to 5% LES Lutron EcoSystem® Enabled to 5%	HD ⁷ CRI 80+ (35W 3200 lumens - 90 LPW) EB14 ^{4,5} Emergency Backup - 1400 lumens EB14 SMK ^{2,3} Emergency Backup with surface mount kit - 1400 lumens

1. Reference www.cree.com/lighting for recommended dimming control options. 2. Not available in LES types except 32L LES type. 3. Not available with EB14 option. Use EB14 SMK. 4. EB14 not for use with SMK Kits. 5. Includes surface mount kit accessory (SMK-CR24). 6. 347V integrated option only available on 32L 100 LPW 10V fixtures. Wattage increases to 33.5W and fixture height increases by 1.4" over standard 120-277V fixtures. 7. HD only available in 32L. Suggested MSRP for the adder over the standard CR Series fixture for the Lutron EcoSystem® Enabled feature is \$49. *See www.cree.com/lighting/products/warranty for warranty terms.



Rev. Date: V3 08/13/2014



Product Specifications

CREE TRUEWHITE® TECHNOLOGY OPTION

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics, and lifelong color consistency, all while maintaining high luminous efficacy - a true no compromise solution.

CREE LED TECHNOLOGY

Cree's total systems approach to product development is a comprehensive engineering philosophy that combines the most advanced LED sources, driver technologies, optics and forms. The result is highly-reliable luminaire solutions for both indoor and outdoor applications that reduce energy use, extend lifetimes, and maximize illumination performance and quality.

ROOM-SIDE HEAT SINK

An innovative thermal management system designed to maximize cooling effectiveness by integrating a unique room-side heat sink into the diffusing lens. This breakthrough design creates a pleasing architectural aesthetic while conducting heat away from LEDs in a temperature-controlled environment. This enables the LEDs to consistently run cooler, providing significant boosts to lifetime, efficacy, and color consistency.

LUMEN MAINTENANCE FACTORS

- Reference www.cree.com/lighting for detailed lumen maintenance factors

CONSTRUCTION & MATERIALS

- Durable 20-gauge steel housing with standard troffer access plate for electrical installation
- Field replaceable light engine integrates LEDs, driver, power supply, thermal management, and optical mixing components
- One-piece lower reflector finished with a textured high reflectance white polyester powder coating creates a comfortable visual transition from the lens to the ceiling plane
- Provided t-bar clips and holes for mounting support wires enable recessed or suspended installation
- Individual fixtures may be mounted end to end for a continuous row of illumination

NOTE: Reference www.cree.com/lighting for detailed instructions on field replacement of the light engine

OPTICAL SYSTEM

- Unique combination of reflective and refractive optical components achieves a uniform, comfortable appearance while eliminating pixelation and color fringing
- Components work together to optimize distribution, balancing the delivery of high illuminance levels on horizontal surfaces with an ideal amount of light on walls and vertical surfaces. This increases the perception of spaciousness
- Diffusing lens integrated with upward-facing LED strip eliminates direct view of LEDs while lower reflector balances brightness of lens with the ceiling to create a low-glare high angle appearance

ELECTRICAL SYSTEM

- Integral, high-efficiency driver and power supply
- Power Factor: = 0.9 nominal
- Input Power: Stays constant over life.
- Input Voltage: 120-277V, 347V- 50/60Hz
- Battery Backup: Consult factory
- Temperature Rating: Designed to operate in temperatures 0-35°C and below room side and plenum side
- Total Harmonic Distortion: < 20%

CONTROLS

- Step dimming to 50% comes standard*
- Optional continuous dimming to 5% with 0-10V DC control protocol*
- Optional Lutron EcoSystem® Enabled option allows seamless integration with Lutron EcoSystem controls*

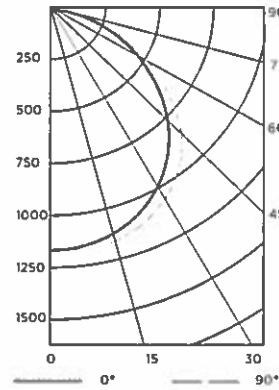
REGULATORY & VOLUNTARY QUALIFICATIONS

- UL924 (EB14 option)
- cULus Listed
- DLC qualified**
- Suitable for damp locations
- Designed for indoor use
- *Reference www.cree.com/lighting for recommended dimming controls and wiring diagrams
- **Please refer to DLC QPL list for most current information

Photometry

CR22 based on LTL Report test #: 24292

Fixture photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%



Coefficients Of Utilization

RCC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	110	105	101	98
2	100	92	85	80
3	91	81	73	67
4	84	72	63	57
5	77	64	55	49
6	71	58	49	43
7	66	52	44	38
8	61	48	39	33
9	57	44	36	30
10	53	40	32	27

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m2)

Horizontal Angle		0°	45°	90°
Vertical Angle	0°	3864	3864	3864
	45°	3575	3864	3972
	55°	3164	3656	3758
	65°	2498	3133	3347
	75°	1620	2348	2051
	85°	366	252	168

Zonal Lumen Summary

Zone	Lumens	% Lamp	Luminaire
0-30	923	N/A	28.1%
0-40	1527	N/A	46.5%
0-60	2704	N/A	82.5%
0-90	3280	N/A	100%

Reference www.cree.com/lighting for detailed photometric data

Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft2	Average fc
8 x 8	2000L	22W	90	0.35	28
	3200L	32W	100	0.55	44
8 x 10	2000L	22W	90	0.28	23
	3200L	32W	100	0.44	37
10 x 10	2000L	22W	90	0.22	20
	3200L	32W	100	0.35	31
10 x 12	2000L	22W	90	0.19	16
	3200L	32W	100	0.29	25

* ceiling: 80/50/20 reflectances; 2.5' workplane, open room LLP; 1.0 Initial Open Space: 50' x 40' x 10'

