SECURITY LIGHTING™ **Columbia LIGHTING**

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

SLK22
2'X2' LED TROFFER RETROFIT KIT

FEATURES

- Contemporary style LED retrofit for existing 2x4 prismatic or parabolic troffers with depth 3-⅛" or greater

- 83 CRI standard or optional 90 CRI for color sensitive applications

- Fully integrated hinged door assembly allows for easy installation and rapid troffer conversion

- Reduces job site waste by reusing existing fixture housing

- High efficiency acrylic center lens features linear prisms for high performance without pixelation

- Optional architecturally styled integration of daylight and occupancy sensor(s)

DLC QPL™ LISTED **DLC QPL™ LISTED PREMIUM** **C CSA US ®** **Built to UL 924 Standards**

RELATED PRODUCTS
∂ SLK24

CONTROL TECHNOLOGY

SpectraSync) Color Tuning Technology   **NX DISTRIBUTED INTELLIGENCE™**

SPECIFICATIONS

CONSTRUCTION
- Retrofit kit reflectors, ends, frame and rails are manufactured from die formed code gauge cold rolled steel

- High transmission extruded acrylic features linear prisms with custom frost for high efficacy and reduced pixelation

- All reflective surfaces are finished after fabrication with unique formula high reflectivity matte white paint for soft, uniform indirect illumination

- Minimum dimensional requirements are listed on page 6. Columbia Lighting recommends a trial installation prior to ordering project quantities

- SLK retrofit kits are designed to fit into most parabolic and lensed troffers with a housing depth of 3 ⅛" or greater

- This product is not suitable for air handling units

OPTICS
- Removable lens for easy access to LED module and electrical components

INSTALLATION
- Mounting rails and hardware are furnished with each luminaire for easy installation

- Fixture can be hinged from either side for easy access to LED components and electrical components

ELECTRICAL
- Maintains insulation contact (IC) rating of existing fixture; note that IC label is void if product is installed on site with a combination of both step-dimming (ESD) driver plus through wiring

CONTROLS
- Optional SpectraSync™ offers two modes of Tunable White solutions and integrates seamlessly into a variety of control systems

- NX Distributed Intelligence™ provides options for standalone and networked integrated sensor with wired or wireless connectivity for NX system deployments

CERTIFICATIONS
- All luminaires are built to UL 1598 and 2108 standards, and bear appropriate CSA labels

- Damp location label standard

- Emergency-equipped fixtures are Dry Location unless specified

- CSA certified to UL 924 standards with battery pack or DTS (Dimming Bypass Module) options

- Adheres to LM79, LM80, and TM21 industry standards for photometrics and lifetime calculations

CERTIFICATIONS (CONTINUED)
- DLC® (DesignLights Consortium) Qualified, with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org

- NX is available in U.S., Canada and Mexico. For other locations consult factory

- The DTS, Dimming Bypass Module, is for emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. See page 7 for wiring diagram. Link to Dimming Bypass Module Specification sheet

WARRANTY
- 5 year warranty

- See HLI Standard Warranty for additional information

KEY DATA	
Lumen Range	1545–4864
Wattage Range	13–40
Efficacy Range (LPW)	112–134
Reported Life (Hours)	L80/60,000
Input Current Range (mA)	47–333

HUBBELL® Lighting

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ORDERING GUIDE

Example: SLK22–35HL–EDU

CATALOG #

SLK22 –			–		–

Model

SLK22 2'x2' LED Troffer Conversion Kit

CRI	Color Temp		Delivered Lumens[3]	
Blank >80	**30**	3000K	**VW**	1545–1785
9 90[1]	**35**	3500K	**VWHE**	1530–1743
	40	4000K	**MW**	2016–2334
	50	5000K	**MWHE**	2010–2289
	2750T	2700K–5000K SpectraSync™ Tunable White[2]	**LW**	2662–2870
			ML	3267–3781
	2765T	2700K–6500K SpectraSync™ Tunable White[2]	**MLHE**	3293–3751
			HL	3543–4099
			VL	4270–4864

Shielding

Blank	Curve
R	Rectangular

Driver

E	Fixed Output[8]
ED	0-10V Dimming
ED1	0-10V 1% Dimming
EDD	0-10V Dim-to-Dark[8]
ESD	Step Dimming[4,5,8]
LUTH	Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology[4,5,8]
LUT5	5-Series EcoSystem LED driver[4,5,8]
DALIP	DALI Power Bus[6]

Voltage

U	120–277
347	347

Options

ELL14	Emergency Battery Pack Installed, 1400 Lumens[5]
DTS	Dimming Bypass Module[7]

Control Options

NX Standalone

NXS	NX, PIR BT Occupancy/Daylight Sensor, Slide Mount[5,8,9,10,11]

Third-Party Control Options

ODPG	Occupancy and Daylight Sensors w/ Grouping, Philips SNS200[5,12,14]
LVS	Lutron Vive Wireless DFCSJ-OEM-OCC In-Fixture Control with Daylight and Occupancy Sensing[12,13,14]
LVR	Lutron Vive Wireless DFCSJ-OEM-RF In-Fixture Control (RF only)[12,13,14]
ZRE	ZRE ControlScope® compatible[14,15]

Notes:
1. Not available with HE lumen output
2. Available with ED driver and 80 CRI only, N/A with HE or VL lumen outputs
3. High efficacy versions designated with "HE"
4. Limitations apply based on lumen packages (see Driver Table)
5. Not available in 347V
6. DALIP only available when LVS, LVR or ODPG control options are selected
7. For emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. Only available with 0-10V drivers. Universal voltage only. See page 7 for wiring diagram

NX In-Fixture Control Options:
8. NX is available with ED and ED1 drivers only
9. Not available with ESD Step Dimming
10. Only available with 0-10V Dimming (ED) Driver Option
11. NX controls can only be used with NX Sensor options

Third-Party Control Options:
12. LVS, LVR and ODPG only available with DALIP driver option
13. VIVE is a trademark of Lutron Electronics Co., Inc
14. Not available with SpectraSync (2750T or 2765T)
15. Registered trademark of Daintree Networks, used by permission

For questions about configuration options, contact Hubbell Representative

PRODUCT EXCEPTIONS & DETAILS

Options listed below are available for the outputs as shown.

DRIVER AVAILABILITY TABLE									
	VW	VWHE	MW	MWHE	LW	ML	MLHE	HL	VL
E	X	X	X	X	X	X	X	X	X
ED	X	X	X	X	X	X	X	X	X
ED1	X	X	X	X	X	X	X	X	X
EDD			X		X	X		X	
ESD			X		X	X		X	X
LUT5			X		X	X			
LUTH			X		X	X			
DALIP					X	X	X	X	X
347	X		X		X	X		X	X

HUBBELL ® **Lighting**

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CONTROLS

NX Distributed Intelligence™ Lighting Controls:
Supports both indoor and outdoor applications in a variety of deployment options- wired, wireless, hybrid.
Integrates with and enables a wide array of luminaires including those with SpectraSync™ Color Tuning Technology.

NX INTEGRATED CONTROLS REFERENCE								
NX Option	Sensor	Networkable	Scheduling	Occupancy	Daylight Harvesting	0–10V Dimming	On/off Control	Bluetooth® App Programming
NX Standalone								
NXS	NXSMP-SMI	No	Yes	Yes	Yes	Yes	Yes	Yes

Philips EasySense Controls ODPG Sensor:

- Occupancy sensing, daylight harvesting, task tuning and grouping in one device
- Standalone control or grouping to wireless switches[1]
- Uses Philips field apps for on site commissioning [2,3]
- Ability to create scenes for various room configurations
- Cost-effective solution for energy-savings and code-compliancy strategies
- DLC® Qualified: Listed on the QPL for Networked Lighting Controls. Please refer to the DLC website for specific product qualifications at www.designlights.org

1   Wireless switches only compatible with ODPG Philips EasySense
2   See link to Philips commssioning
3   Requires android device or IR dongle. See links for phone compatiblity and IR dongle

Wireless Switch Accessories[1]

☐	PESR-WH	EasySense compatible wireless single rocker switch, white
☐	PEDR-WH	EasySense compatible wireless dual rocker switch, white

- NX Design & Application Guide
- NX Brochure
- Philips SNS200
- EasySense Design-in Guide

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CONTROLS (CONTINUED)
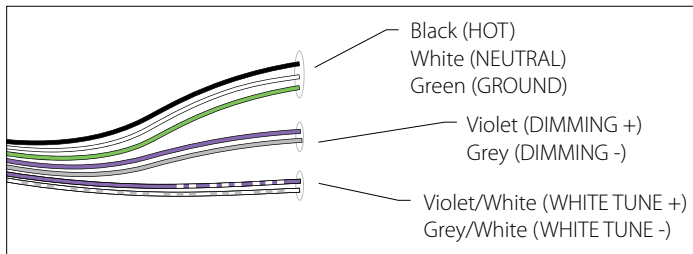
SpectraSync™ Color Tuning Technology:
Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with distinct SpectraSync™ Color Tuning Technologies.

SpectraSync) Color Tuning Technology

SPECTRASYNC COLOR TUNING TECHNOLOGY		
Mode	Kelvin Range	Description
Tunable White	2700K–5000K 2700K–6500K	Offers users the ability to tailor CCT to their personal preference, enhancing task visibility, material and colors or the aesthetics of the space

SpectraSync Tunable White
Available in two options: 2750T (2700K–5000K) or 2765T (2700K–6500K). Requires two 0–10V controllers, one for intensity and one for CCT. Minimum 5% dimming.

Black (HOT)
White (NEUTRAL)
Green (GROUND)
Violet (DIMMING +)
Grey (DIMMING -)
Violet/White (WHITE TUNE +)
Grey/White (WHITE TUNE -)

SpectraSync Tunable White luminaires are provided with two 0–10V circuits. The violet and grey circuit is for wiring to any qualified 0–10V controller for dimming. The violet/white and grey/white circuit is for wiring to any qualified 0–10V controller for Tunable White CCT control.

Controller Manufacturer Data
SpectraSync Tunable White was designed to be used with sinking style dimmers (provided by others) and is compatible with:
- Hubbell Control Solutions (HCS): NX Distributed Intelligence™ Room Controllers (NXRC) and In-fixture Controllers (NXFM)
- Lutron: DVTV, DVSTV, and NFTV dimmers
- Wattstopper: ADF120277 and CD4BL (Titan) dimmers

Color Tuning Profile
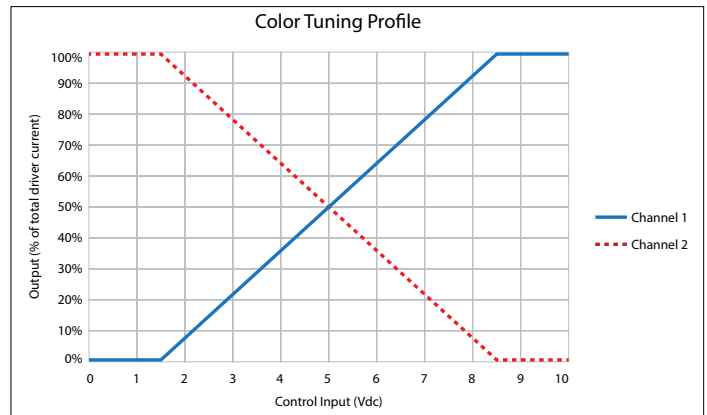
To enable scheduling and for use with NX wall control preset stations please refer to Hubbell Control Solutions NX SpectraSync technical sheet.

DELIVERED LUMENS, SPECTRASYNC™

SpectraSync) Color Tuning Technology

Shielding	Lumen Output	Watts	2700		3000		3500		4000		5000		6500	
			Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW	Lumens	LPW
Curve	VW	14	1500	107	1567	112	1595	114	1616	115	1669	119	1644	117
	MW	18	1961	109	2049	114	2086	116	2113	117	2182	121	2149	119
	LW	23	2582	112	2698	117	2747	119	2782	121	2873	125	2830	123
	ML	29	3177	110	3320	114	3380	117	3423	118	3536	122	3483	120
	HL	32	3444	108	3599	112	3664	114	3711	116	3833	120	3775	118
Rectangle	VW	13	1479	114	1545	119	1573	121	1593	123	1645	127	1621	125
	MW	18	1930	107	2017	112	2053	114	2080	116	2148	119	2116	118
	LW	23	2547	111	2661	116	2709	118	2743	119	2834	123	2791	121
	ML	29	3127	108	3267	113	3326	115	3368	116	3479	120	3427	118
	HL	32	3391	106	3543	111	3607	113	3653	114	3773	118	3717	116

HUBBELL ® Lighting

∂ SpectraSync

∂ NX Solutions Guide

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DELIVERED LUMENS

PRODUCT AVAILIBILITY 80 CRI				
LUMEN PACKAGE	SHIELDING	LUMENS	INPUT WATTS	LPW
SLK22-30VW-EU	Curve	1567	14	112
SLK22-30VW-R-EDU	Rectangle	1545	13	119
SLK22-30VWHE-EU	Curve	1530	13	118
SLK22-35VW-EU	Curve	1614	14	115
SLK22-35VW-R-EDU	Rectangle	1598	13	123
SLK22-35VWHE-EU	Curve	1576	13	121
SLK22-40VW-EU	Curve	1639	14	117
SLK22-40VW-R-EDU	Rectangle	1623	13	125
SLK22-40VWHE-EU	Curve	1600	13	123
SLK22-50VW-EU	Curve	1785	14	128
SLK22-50VW-R-EDU	Rectangle	1666	13	128
SLK22-50VWHE-EU	Curve	1743	13	134
SLK22-30MW-EU	Curve	2049	18	114
SLK22-30MW-R-EDU	Rectangle	2016	18	112
SLK22-30MWHE-EU	Curve	2010	17	118
SLK22-35MW-EU	Curve	2110	18	117
SLK22-35MW-R-EDU	Rectangle	2085	18	116
SLK22-35MWHE-EU	Curve	2070	17	122
SLK22-40MW-EU	Curve	2143	18	119
SLK22-40MW-R-EDU	Rectangle	2118	18	118
SLK22-40MWHE-EU	Curve	2102	17	124
SLK22-50MW-EU	Curve	2334	18	130
SLK22-50MW-R-EDU	Rectangle	2174	18	121
SLK22-50MWHE-EU	Curve	2289	17	135
SLK22-30LW-EU	Curve	2689	23	117
SLK22-30LW-R-EDU	Rectangle	2662	23	116
SLK22-35LW-EU	Curve	2770	23	120
SLK22-35LW-R-EDU	Rectangle	2752	23	120
SLK22-40LW-EU	Curve	2813	23	122
SLK22-40LW-R-EDU	Rectangle	2795	23	122
SLK22-50LW-EU	Curve	3063	23	133
SLK22-50LW-R-EDU	Rectangle	2870	23	125
SLK22-30ML-EU	Curve	3320	29	114
SLK22-30ML-R-EDU	Rectangle	3267	29	113
SLK22-30MLHE-EU	Curve	3293	28	118
SLK22-35ML-EU	Curve	3420	29	118
SLK22-35ML-R-EDU	Rectangle	3378	29	116
SLK22-35MLHE-EU	Curve	3391	28	121
SLK22-40ML-EU	Curve	3473	29	120
SLK22-40ML-R-EDU	Rectangle	3431	29	118
SLK22-40MLHE-EU	Curve	3442	28	123
SLK22-50ML-EU	Curve	3781	29	130
SLK22-50ML-R-EDU	Rectangle	3522	29	121
SLK22-50MLHE-EU	Curve	3751	28	134

PRODUCT AVAILIBILITY 90 CRI				
LUMEN PACKAGE	SHIELDING	LUMENS	INPUT WATTS	LPW
SLK22-930VW-EDU	Curve	1343	13	103
SLK22-930VW-R-EDU	Rectangle	1314	13	101
SLK22-935VW-EDU	Curve	1371	13	105
SLK22-935VW-R-EDU	Rectangle	1342	13	103
SLK22-940VW-EDU	Curve	1401	13	108
SLK22-940VW-R-EDU	Rectangle	1370	13	105
SLK22-950VW-EDU	Curve	1492	13	115
SLK22-950VW-R-EDU	Rectangle	1460	13	112
SLK22-930MW-EDU	Curve	1744	18	97
SLK22-930MW-R-EDU	Rectangle	1715	18	95
SLK22-935MW-EDU	Curve	1781	18	99
SLK22-935MW-R-EDU	Rectangle	1751	18	97
SLK22-940MW-EDU	Curve	1819	18	101
SLK22-940MW-R-EDU	Rectangle	1788	18	99
SLK22-950MW-EDU	Curve	1938	18	108
SLK22-950MW-R-EDU	Rectangle	1905	18	106
SLK22-930LW-EDU	Curve	2286	23	99
SLK22-930LW-R-EDU	Rectangle	2263	23	98
SLK22-935LW-EDU	Curve	2339	23	102
SLK22-935LW-R-EDU	Rectangle	2311	23	100
SLK22-940LW-EDU	Curve	2393	23	104
SLK22-940LW-R-EDU	Rectangle	2361	23	103
SLK22-950LW-EDU	Curve	2528	23	110
SLK22-950LW-R-EDU	Rectangle	2515	23	109
SLK22-930ML-EDU	Curve	2822	29	97
SLK22-930ML-R-EDU	Rectangle	2778	29	96
SLK22-935ML-EDU	Curve	2888	29	100
SLK22-935ML-R-EDU	Rectangle	2836	29	98
SLK22-940ML-EDU	Curve	2955	29	102
SLK22-940ML-R-EDU	Rectangle	2897	29	100
SLK22-950ML-EDU	Curve	3121	29	108
SLK22-950ML-R-EDU	Rectangle	3086	29	106

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DELIVERED LUMENS (CONTINUED)

PRODUCT AVAILIBILITY 80 CRI				
LUMEN PACKAGE	SHIELDING	LUMENS	INPUT WATTS	LPW
SLK22-30HL-EU	Curve	3599	32	112
SLK22-30HL-R-EDU	Rectangle	3543	32	111
SLK22-35HL-EU	Curve	3707	32	116
SLK22-35HL-R-EDU	Rectangle	3664	32	115
SLK22-40HL-EU	Curve	3764	32	118
SLK22-40HL-R-EDU	Rectangle	3721	32	116
SLK22-50HL-EU	Curve	4099	32	128
SLK22-50HL-R-EDU	Rectangle	3820	32	119
SLK22-30VL-EU	Curve	4270	39	109
SLK22-30VL-R-EDU	Rectangle	4432	40	111
SLK22-35VL-EU	Curve	4398	39	113
SLK22-35VL-R-EDU	Rectangle	4583	40	115
SLK22-40VL-EU	Curve	4467	39	115
SLK22-40VL-R-EDU	Rectangle	4655	40	116
SLK22-50VL-EU	Curve	4864	39	125
SLK22-50VL-R-EDU	Rectangle	4779	40	119

PRODUCT AVAILIBILITY 90 CRI				
LUMEN PACKAGE	SHIELDING	LUMENS	INPUT WATTS	LPW
SLK22-930HL-EDU	Curve	3125	32	98
SLK22-930HL-R-EDU	Rectangle	3013	32	94
SLK22-935HL-EDU	Curve	3190	32	100
SLK22-935HL-R-EDU	Rectangle	3076	32	96
SLK22-940HL-EDU	Curve	3259	32	102
SLK22-940HL-R-EDU	Rectangle	3143	32	98
SLK22-950HL-EDU	Curve	3472	32	109
SLK22-950HL-R-EDU	Rectangle	3347	32	105
SLK22-930VL-EDU	Curve	4291	39	110
SLK22-930VL-R-EDU	Rectangle	3769	40	94
SLK22-935VL-EDU	Curve	4382	39	112
SLK22-935VL-R-EDU	Rectangle	3848	40	96
SLK22-940VL-EDU	Curve	4476	39	115
SLK22-940VL-R-EDU	Rectangle	3931	40	98
SLK22-950VL-EDU	Curve	4768	39	122
SLK22-950VL-R-EDU	Rectangle	4187	40	105

DIMENSIONS

2X2 MINIMUM DIMENSIONS

14.375"
(365mm)

3.125"
(79mm)

.625"
(15.88mm)

22.5"
(572mm)
minimum dimension at fixture opening

22.8"
(579mm)
minimum inside dimension
at fixture opening

24"
(610mm)
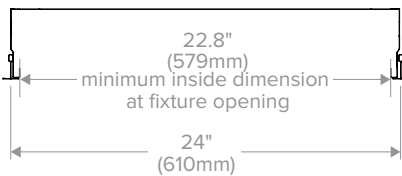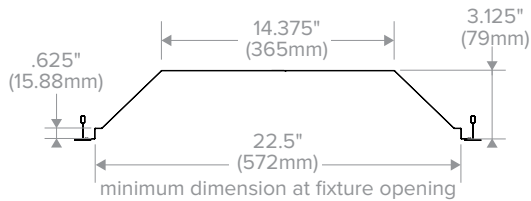
FIT & FUNCTION

Columbia recommends a trial installation prior to ordering project quantities to ensure proper fit.

SLK retrofit kits are designed to fit into most parabolic and lensed-recessed troffers with minimum dimensional requirements.

SLK retrofit kits are not compatible with air handling units.

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PHOTOMETRY

SLK22-35LWG-EU

LUMINAIRE DATA

Test No.	17127
Description	LED retrofit door kit, lensed troffer 2'x2' with frosted linear prismed lens
Delivered Lumens	2769
Watts	22.60
Efficacy	123
Mounting	Recessed
Spacing Criterion	0° = 1.19 90° = 1.31

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–30	705	25.5
0–40	1154	41.7
0–60	2056	74.3
0–90	2769	100
0–180	2769	100

POLAR GRAPH

SLK22-35MLG-EU

LUMINAIRE DATA

Test No.	17130
Description	LED retrofit door kit, lensed troffer 2'x2' with frosted linear prismed lens
Delivered Lumens	3420
Watts	28.70
Efficacy	119
Mounting	Recessed
Spacing Criterion	0° = 1.19 90° = 1.31

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–30	871	25.5
0–40	1424	41.7
0–60	2539	74.2
0–90	3420	100
0–180	3420	100

POLAR GRAPH

SLK22-35HLG-EU

LUMINAIRE DATA

Test No.	17133
Description	LED retrofit door kit, lensed troffer 2'x2' with frosted linear prismed lens
Delivered Lumens	3707
Watts	31.80
Efficacy	117
Mounting	Recessed
Spacing Criterion	0° = 1.19 90° = 1.31

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0–30	943	25.4
0–40	1543	41.6
0–60	2751	74.2
0–90	3707	100
0–180	3707	100

POLAR GRAPH

ADDITIONAL INFORMATION

DTS WIRING DIAGRAM (0–10V DIMMING DRIVER SHOWN)

WHITE/BLUE	Emergency Neutral
BLUE	Emergency Line
BLACK	Utility Line (Unswitched Hot)
WHITE	Utility Neutral
RED	Switched Hot
VIOLET	Dimming
GRAY	Dimming

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