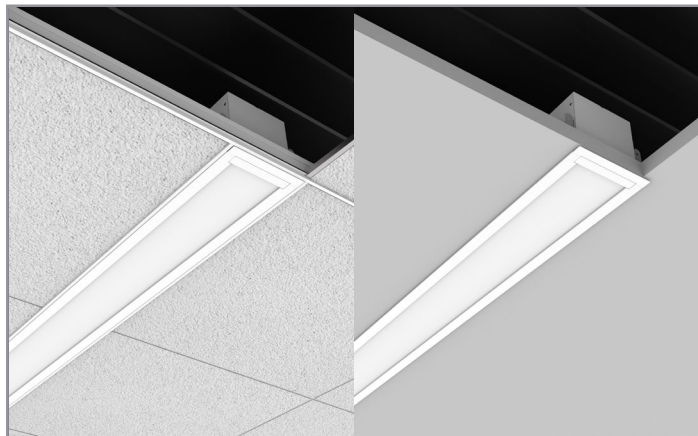| Project		Catalog #		Type	
Prepared by		Notes		Date	

Corelite

SQ4R

LED
Recessed
Direct

Typical Applications

• Office • Education • Healthcare • Hospitality • Retail

Interactive Menu

- Order Information page 2
- Photometric Data page 5
- Energy and Performance Data page 6
- Control Systems page 7
- Product Limited Warranty

Product Certification

UL CERTIFIED SAFETY · RoHS COMPLIANT · **Efficiency Standards** T24 California Title 24 Non-Residential Compliant * · **IALD**LIRC

Product Features

PERCEIVE · Connected Systems · powered by fifthlight technology · damp location · BAA COMPLIANT OPTIONS AVAILABLE BUY AMERICAN ACT
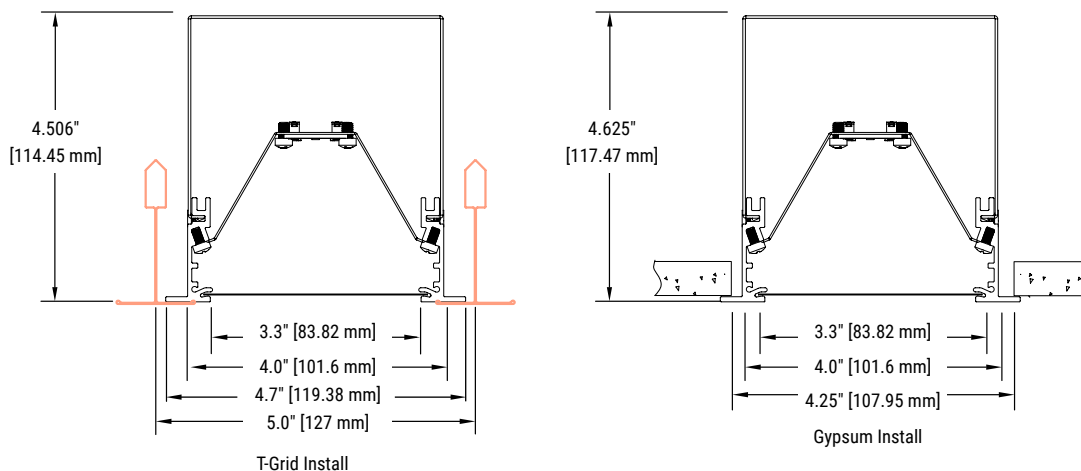
*Self-tested by Cooper Lighting. Not a third party certification

Top Product Features

- Nominal 4" linear aperture
- Available in 4' and 8' lengths for individual or continuous runs
- Seamless illumination with continuous roll lens
- Perceive Technology: 5 differentiated lens aesthetics - PARAmid, Prism, Waves, Ripple and Honeycomb
- Integration with 6 common architectural ceiling types
- Multiple lumen packages
- 3000K, 3500K and 4000K CCT at 80+ or 90+ CRI
- Integrated sensor systems - occupancy, daylight and IoT connectivity

Dimensions

4.506"
[114.45 mm]

3.3" [83.82 mm]
4.0" [101.6 mm]
4.7" [119.38 mm]
5.0" [127 mm]

T-Grid Install

4.625"
[117.47 mm]

3.3" [83.82 mm]
4.0" [101.6 mm]
4.25" [107.95 mm]

Gypsum Install

COOPER Lighting Solutions

Order Information

SAMPLE ORDER NUMBER: **SQ4R-F-100D835-1D-UNV-STD-W-T1-16**

Icon Key: Grey bar denotes available with 10-Day Quick Ship
Ø Consult factory for availability
Orange bar denotes coming soon

Domestic Preferences	Series	Shielding	Lumen Package (Lms/ft)	CRI/CCT	Circuiting	Emergency
[Blank]=Standard **BAA**=Buy American Act	**SQ4R**= SQ 4" Linear Recessed, Direct	**F**=Frosted Continuous Roll Lens **PC3**=Perceive PARAmid **PP3**=Perceive Prism **PW1**=Perceive Waves **PR1**=Perceive Ripple **PH1**=Perceive Hex	**050D**=500 Lumens/ft Down **075D**=750 Lumens/ft Down **100D**=1000 Lumens/ft Down **125D**=1250 Lumens/ft Down ____**D**=Specify **	**830**=3000K, 80CRI **835**=3500K, 80CRI **840**=4000K, 80CRI **930**=3000K, 90CRI **935**=3500K, 90CRI **940**=4000K, 90CRI **93050**=White Tuning 3000K-5000K **92765**=White Tuning 2700K-6500K	**1**=Single Circuit **S**=Secondary Circuit	**D**=None **E**=Emergency Circuit **BSL6**=Bodine 6-watt, 120V-277V Emergency Battery Pack, BSL6LST **EPC**=LVS Controls EPC UL924 Bypass Relay Device
Notes Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.	**Notes**	**Notes** F, PC3, PP3, PW1, PR1, PH1: Seamless illumination with continuous roll lens	**Notes** Custom lumen output available.Down (Direct): Min = 200 Lms/ft Max = 1900 Lms/ft Example: 135D = 1350 Lms/ft Down **Consult factory to specify custom lumen package Not all lumen packages are available for every configuration. See Driver Availability tables for more details.	**Notes** White Tuning is 90CRI standard. Tunable White options to be used with W2A driver only. Must be used with two (2) 10V dimming control channels, 1 color, 1 intensity. Not compatible with other control or sensor options	**Notes**	**Notes** Emergency and Secondary circuit section wiring are configured per unit (4ft, 8ft). Emergency circuit option operates entire portion of a specified unit. EPC option used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). Battery operates entire portion of 4ft fixtures and 4ft sections of 8ft. Fixture Non-IC-Rated for internal battery and lumen output ≥1000 Lms/ft. External battery standard with chicago plenum.

Voltage	Driver/Dimming	Senor Options	Options	Finish	Mounting	Run Length
UNV=Univeral (120V-277V) **347**=347V	**STD**=Standard 0-10V (1%-100%) **SR**=Sensor Ready (1%-100%) **5LT**=Fifth Light DALI (1%-100%) **LH**=Lutron HiLume 1% EcoSystems (LDE1) **W2A**=White Tuning, 2ch, 0-10V Intensity and CCT Control	**[Blank]**=No Sensor **WAA**=WaveLinx PRO Wireless Integrated Sensor **WAB**=WaveLinx LITE Wireless Integrated Sensor **LWIPD1**=Enlighted Wireless Integrated Sensor **WTA**=WaveLinx Wireless Tilemount **WTB**=WaveLinx Lite Tilemount	**CP**=Chicago Plenum	**W**=White	**T1**=15/16" T-Grid, 9/16" T-Grid **T2**= 9/16" Slot T-Grid, 9/16" Tegular T-Grid, 9/16" Interlude T-Grid **FG**=Flanged (Gypsum Board)	**4**=4 ft **8**=8 ft **XX**=Specify Run Length
Notes Integral 347V driver with STD 0-10V option only.	**Notes** See Driver Availability tables for more details	**Notes** WaveLinx sensor must be used with STD drive LWI sensor must be used with ""SR"" driver. Integrated sensor options available in individual fixtures and runs up to 16ft. Tile mount required for sensor options with runs over 16ft Integrated Sensors combined with Emergency Circuit require one UL924 Bypass Relay per emergency fixture.	**Notes** Meets CCEA requirements	**Notes**	**Notes** Please refer to ceiling interface diagrams for additional detail and dimensions.	**Notes** See 'Standard Row Configurations' table on Page 4 for continuous row length breakdowns.

COOPER Lighting Solutions

Product Specifications

Construction
- Formed housing with precision cut housing trim extruded from 6063 aluminum.
- Laser-cut formed cold rolled steel endcaps
- Die-formed 22 gauge cold rolled steel pre-paint white reflector
- Driver accessible from below

Lengths
- 4 ft and 8 ft fully illuminated sections for individual and continuous runs
- See table on page 5 for continuous row length breakdowns

Finish
- Electrostatically applied polyester powder coat paint

Mounting
- Recessed lay-in for T-grid installation or direct into gypsum with ½" flange
- Fixtures can be joined for straight continuous runs using rigid alignment features

Shielding
- Frosted (F) – Flush, high diffusion pixilation-free lens

Light Engine
- LED's are available in 3000K, 3500K, 4000K
- CRI options of either ≥80CRI or ≥90CRI
- Lumen output will be affected - please refer to the lumen adjustment factor tables
- TM21 life at 60,000 hours up to L94 and calculated L70 exceeds 400,000 hrs
- Drivers available in 120-277V and 347V

Integrated Controls
- 0-10V dimming to 1% standard
- WaveLinx wireless sensor compatible for standalone, controlled, connected, and IoT capability
- DALI 2.0 and Lutron available

Emergency Options
- Default emergency circuit section (E) is 4 ft. in length and located at the beginning of the fixture unless designated elsewhere
- Optional 120-277V emergency battery provided internal to fixture with pre-wired external test switch
- 90-minute backup period for code compliance
- Estimated lumen output = battery wattage x min efficacy - see performance table (e.g. 100 lm/W x 14 = 1400 lumens)
- UL 924 emergency/generator transfer options available

Weight
- 2.7 lbs. per foot

Compliance
- cULus listed for damp locations
- Meets NYC requirements
- IC Rated for insulation contact (except where noted)
- Tested to IESNA LM-79 and LM-80
- Stated life per TM21 standards
- Can be used for State of California Title 24 high efficacy luminaire
- Meets NEMA 77, California Title 24, and IEEE1789 low risk or less than 5% modulation depth at all frequency below 90Hz
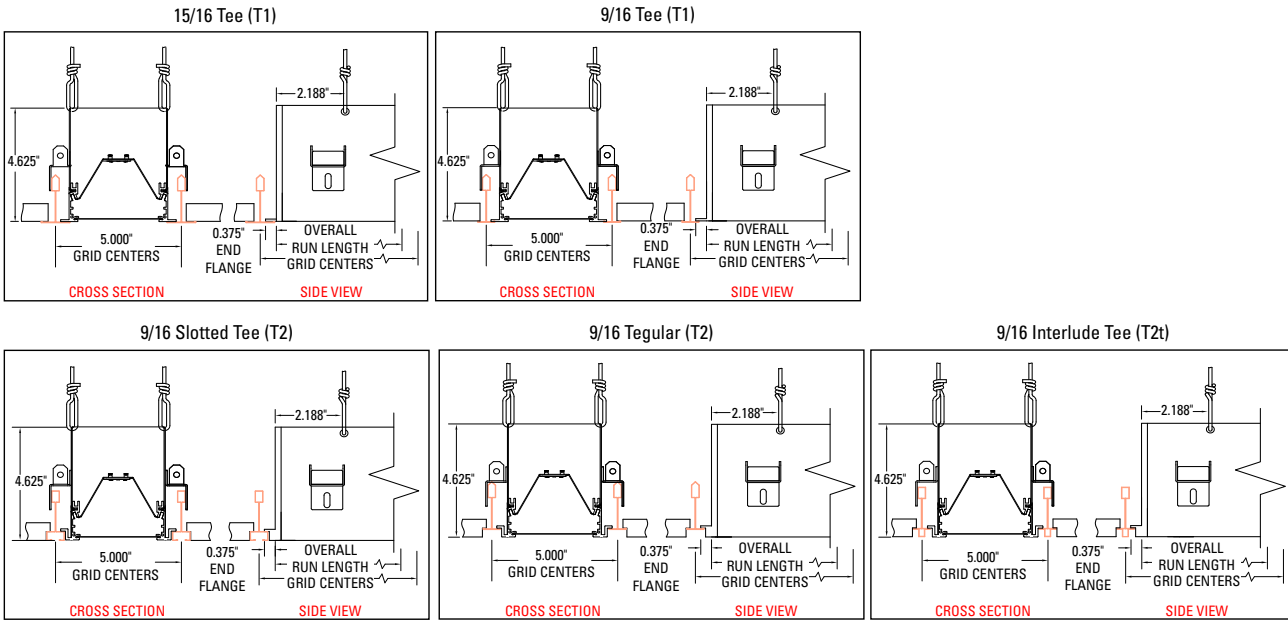
Warranty
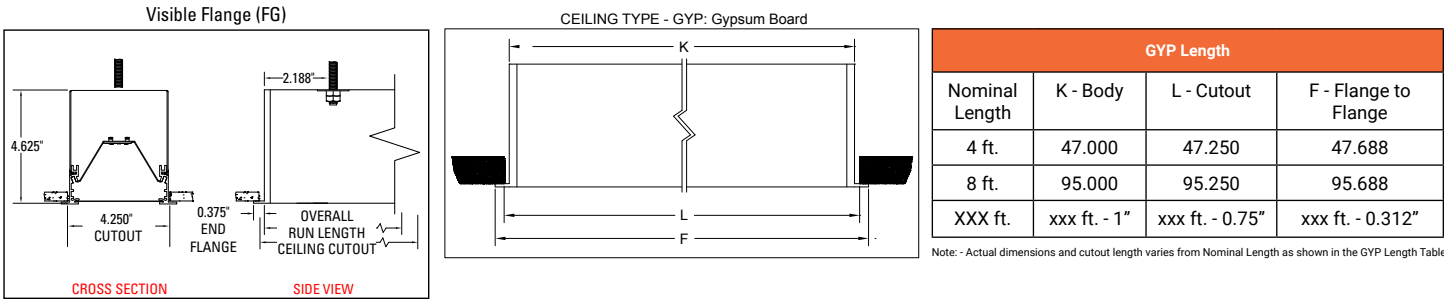- Five year limited warranty standard. Optional ten year limited warranty available

Ceiling Type

Extruded Trim Flange Details - Refer to submittal drawings for detailed flange information - for additional options consult factory.
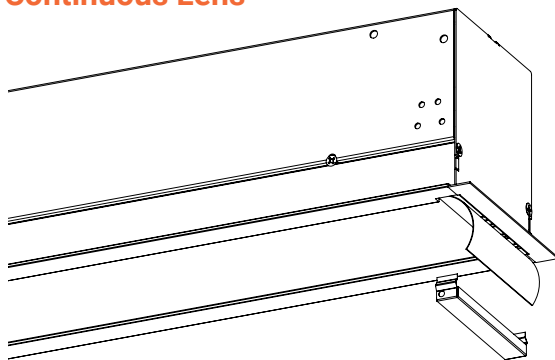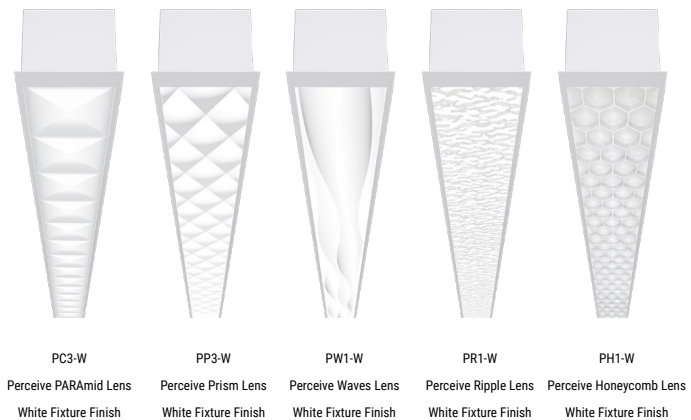
Grid Ceiling Systems

15/16 Tee (T1)

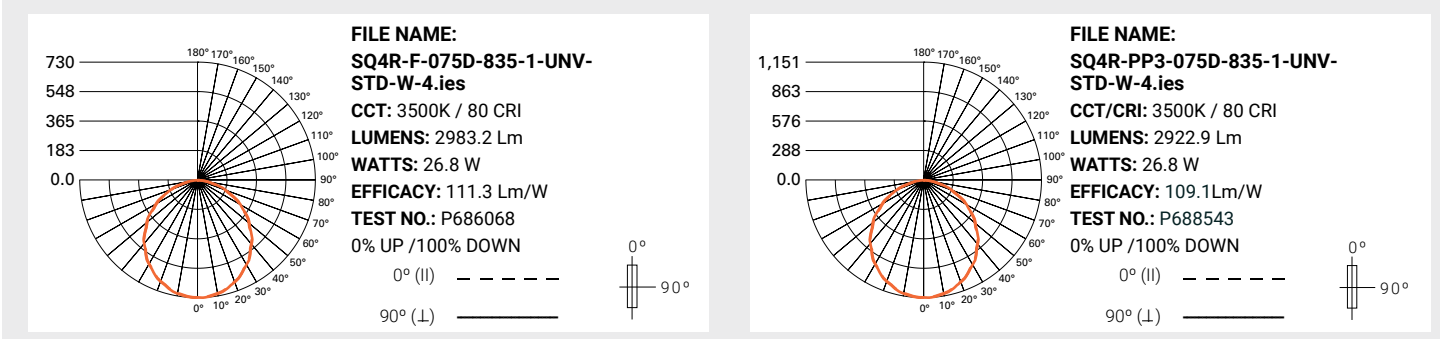2.188"
4.625"
5.000" GRID CENTERS
0.375" END FLANGE
OVERALL RUN LENGTH GRID CENTERS
CROSS SECTION
SIDE VIEW

9/16 Tee (T1)

2.188"
4.625"
5.000" GRID CENTERS
0.375" END FLANGE
OVERALL RUN LENGTH GRID CENTERS
CROSS SECTION
SIDE VIEW

9/16 Slotted Tee (T2)

2.188"
4.625"
5.000" GRID CENTERS
0.375" END FLANGE
OVERALL RUN LENGTH GRID CENTERS
CROSS SECTION
SIDE VIEW

9/16 Tegular (T2)

2.188"
4.625"
5.000" GRID CENTERS
0.375" END FLANGE
OVERALL RUN LENGTH GRID CENTERS
CROSS SECTION
SIDE VIEW

9/16 Interlude Tee (T2t)

2.188"
4.625"
5.000" GRID CENTERS
0.375" END FLANGE
OVERALL RUN LENGTH GRID CENTERS
CROSS SECTION
SIDE VIEW

Drywall Ceiling

Visible Flange (FG)

2.188"
4.625"
4.250" CUTOUT
0.375" END FLANGE
OVERALL RUN LENGTH CEILING CUTOUT
CROSS SECTION
SIDE VIEW

CEILING TYPE - GYP: Gypsum Board

K
L
F

GYP Length			
Nominal Length	K - Body	L - Cutout	F - Flange to Flange
4 ft.	47.000	47.250	47.688
8 ft.	95.000	95.250	95.688
XXX ft.	xxx ft. - 1"	xxx ft. - 0.75"	xxx ft. - 0.312"

Note: - Actual dimensions and cutout length varies from Nominal Length as shown in the GYP Length Table.

Continuous Lens

Shielding Options

PC3-W	PP3-W	PW1-W	PR1-W	PH1-W
Perceive PARAmid Lens	Perceive Prism Lens	Perceive Waves Lens	Perceive Ripple Lens	Perceive Honeycomb Lens
White Fixture Finish	White Fixture Finish	White Fixture Finish	White Fixture Finish	White Fixture Finish

COOPER Lighting Solutions

Photometric Data

FILE NAME: SQ4R-F-075D-835-1-UNV-STD-W-4.ies
CCT: 3500K / 80 CRI
LUMENS: 2983.2 Lm
WATTS: 26.8 W
EFFICACY: 111.3 Lm/W
TEST NO.: P686068
0% UP /100% DOWN

FILE NAME: SQ4R-PP3-075D-835-1-UNV-STD-W-4.ies
CCT/CRI: 3500K / 80 CRI
LUMENS: 2922.9 Lm
WATTS: 26.8 W
EFFICACY: 109.1Lm/W
TEST NO.: P688543
0% UP /100% DOWN

Note: Refer to IES files for more product data.

Lumen Maintenance

Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours) [1]	Theoretical L70 (Hours) [2]
25°C	>84%	121,000

Notes: (1) Supported by IES TM-21 standards. (2) Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, that explains proper use of IES TM-21 and LM-80.

Color Data (3500K)

		80CRI	90CRI
TM-30-15	R_f	84	89.7
	R_g	97.2	97.2
CRI/CIE	R_a	83.4	94.3
	R_9	10.9	61.7

80CRI
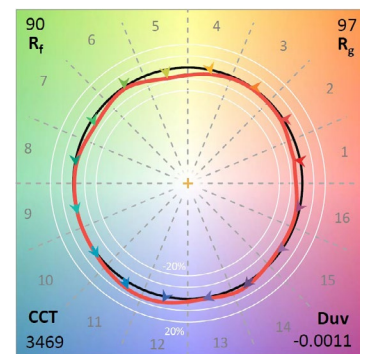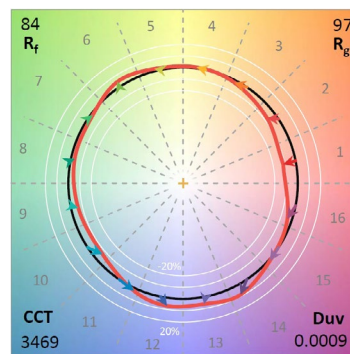
90CRI

Run Configurations

Standard Length	4ft	8ft	12ft	16ft	20ft	24ft	28ft	32ft	36ft	40ft	44ft	48ft	52ft	56ft	60ft	64ft	68ft	72ft	76ft	80ft	84ft	88ft	92ft	96ft
4ft	1		1		1		1		1		1		1		1		1		1		1		1	
8ft		1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8	9	9	10	10	11	11	12

Driver Availability

Lumen Package	'STD' 0-10V, UNV Qty of Drivers 4'	8'	'5LT' DALI / 'SR' Qty of Drivers 4'	8'	'LH' Lutron Qty of Drivers 4'	8'	'STD' 0-10V, 347V Qty of Drivers 4'	8'	'W2A' 2Ch WT 0-10V, UNV Qty of Drivers 4'	8'
050D	1	1	1	1	1	1	1	1	1	1
075D	1	1	1	1	1	1	1	1	1	2
100D	1	1	1	1	1	1	1	1	1	2
125D	1	2	1	2	1	2	1	2	1	2

COOPER Lighting Solutions

Energy and Performance Data - Frosted Lens and Perceive™ Lenses

Continua SQ4R Performance (3500K, 80 CRI)						
Shielding	Lumen Package	Lumens/ft	W/ft	Lm/W	UGR	Max Luminance
F	050D	507	4.7	107.4	22.8	6481
	075D	746	6.7	111.3	24.1	9528
	100D	988	9.3	106.8	25.1	12618
	125D	1248	12.4	100.9	25.9	15947
PC3	050D	502	4.7	106.2	22.2	6591
	075D	738	6.7	110.1	23.5	9690
	100D	977	9.3	105.6	24.5	12832
	125D	1235	12.4	99.8	25.3	16218
PH1	050D	462	4.7	97.8	23.4	6154
	075D	679	6.7	101.4	24.8	9047
	100D	899	9.3	97.2	25.7	11983
	125D	1137	12.4	91.9	26.6	15144
PP3	050D	497	4.7	105.2	23	6601
	075D	731	6.7	109.1	24.3	9702
	100D	968	9.3	104.6	25.3	12850
	125D	1223	12.4	98.8	26.1	16241
PR1	050D	492	4.7	104.0	21.5	6844
	075D	723	6.7	107.9	22.8	10063
	100D	957	9.3	103.5	23.8	13326
	125D	1210	12.4	97.8	24.6	16842
PW1	050D	475	4.7	100.6	22	6780
	075D	699	6.7	104.3	23.4	9968
	100D	925	9.3	100.0	24.3	13201
	125D	1169	12.4	94.5	25.1	16685

PC3-W

PP3-W

PR1-W

PH1-W

Notes:
(1) UGR values per CIE 190:2010 with 4H, 8H, Reflectance: 70% Ceiling, 50% Wall, 20% Ref. Plane
(2) For other UGR data for room or reflective ceiling plans please see technical data on website.
(3) Luminance measured at 45-90 degrees from nadir.
(4) UGR and Luminance values that meet WELL v2 L04 requirements for Managing Glare are shown with green highlighted cell. (UGR < 16, Luminance < 6,000, Indirect-only)
(5) UGR and Luminance values that meet LEED v4.1 requirements for Glare Control are shown with green text. (UGR < 19, Luminance < 7,000, Indirect-only)
(6) For technical data of other configurations please see photometric section on website or click link at top-right

KEY:

	Meets WELL v2
TEXT	Meets LEED v4.1

Lumen Adjustment Factors

CCT	3000K		3500K		4000K	
CRI	80	90	80	90	80	90
Lumen Multiplier	0.977	1.000	1.028	0.812	0.859	0.855
Melanopic Ratio	0.483	0.558	0.654	0.584	0.673	0.744

Example Calculation:
025U-075D / 3500K / 80 CRI
Lumen Output selected = 985 lms/ft

3500K / 90 CRI Desired
Lumen Adjustment Factor = 0.852

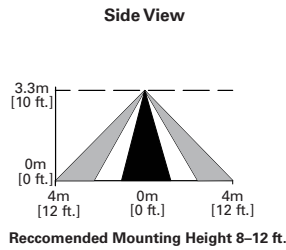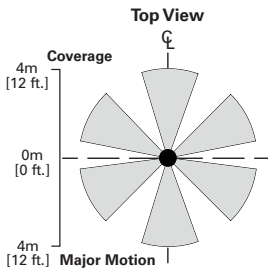Adjusted Lumen Output = 985 lms/ft x 0.852 = 839 lms/ft

🚀 Control Systems

- WaveLinx Wireless
- WaveLinx Wired
- WaveLinx Lite
- Enlighted
- iLumin Plus
- VividTune

Connected Systems
CLICK HERE

The SQ4R with option for integrated and tile mounted sensor technology provides automatic energy savings without sacrificing performance. The SQ4R delivers superior lighting with integrated occupancy and daylighting controls. For standalone and controlled applications, the WaveLinx Lite integral sensor provides out-of-the-box functionality with no gateways required and factory startup is not needed. When more connectivity is required, the WaveLinx Wireless sensor meets modern code and utility requirements, delivers energy and cost savings, while enabling buildings to become smart buildings. The WaveLinx Wireless Connected Lighting System combined with Trellix provides an open IoT platform and infrastructure that connects intelligent sensors leveraging the real-estate of the physical light fixture to solve higher complexity problems to deliver actionable insights through the aggregation of valuable data. Tilemount sensor not available with Chicago plenum option.

For additional information integrated sensors and connected lighting, please visit Cooper Lighting Solutions' Connected Lighting Website.

Top View

Coverage

4m [12 ft.]

0m [0 ft.]

4m [12 ft.] Major Motion

Side View

3.3m [10 ft.]

0m [0 ft.]

4m [12 ft.]   0m [0 ft.]   4m [12 ft.]

Recomended Mounting Height 8–12 ft.

SQ4R Recessed with Integrated Sensor - Endcap

	Standalone	**Controlled** WaveLinx Lite	**Connected** WaveLinx Wireless	**Enterprise** Trellix
Occupancy	Yes	Yes	Yes	Yes
Daylighting	Yes	Yes	Yes	Yes
Gateways	–	–	1 WAC	300 WACs
Devices	–	50 per Area (1400 per site)	150 per WAC	45,000 per Core Enterprise
Software	–	WaveLinx Lite Mobile App	WaveLinx Mobile App	Trellix Core
Areas	–	28 per Site	16 per WAC	up to 4,800
Zones	–	16 per Area	16 per Area	up to 76,800
Scheduling	–	–	Local	Global
VividTune™	–	–	Yes	Yes
Plug-Load Control	–	–	Yes	Yes
Integration	–	–	–	BACnet, API
Dashboards	–	–	–	Energy, Occupancy
Configuration	–	Installer	Technician	Technician / IT

SCALABILITY

devices → areas → floors → buildings

COOPER
Lighting Solutions
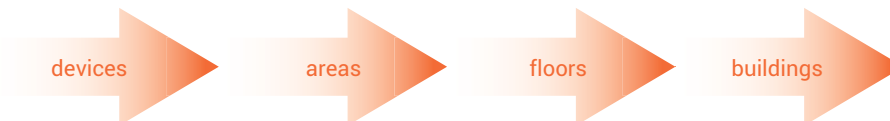
Integrated Sensor Details and Placement

Sensor Type	Wireless	Sensor Integration	Sensor Mounting	Ordering Code
WaveLinx	Yes	Integral to Fixture or Tile Mount	Mounted in solid cover	WAA/WAB
LumaWatt Pro (enlighted)	Yes	Integral to Fixture or Tile Mount	Mounted in illuminated lens	LWIPD1

○ Standard Sensor with Luminaire Control
⊗ Auxiliary Sensor used for Sensor Coverge
  (wireless systems only)

INTEGRAL SENSOR LAYOUT EXAMPLES

4ft Individual

8ft Individual

16ft Run

20ft(+) Run

Tile mount sensors

COOPER
Lighting Solutions

**VividTune™**
color tuning solutions
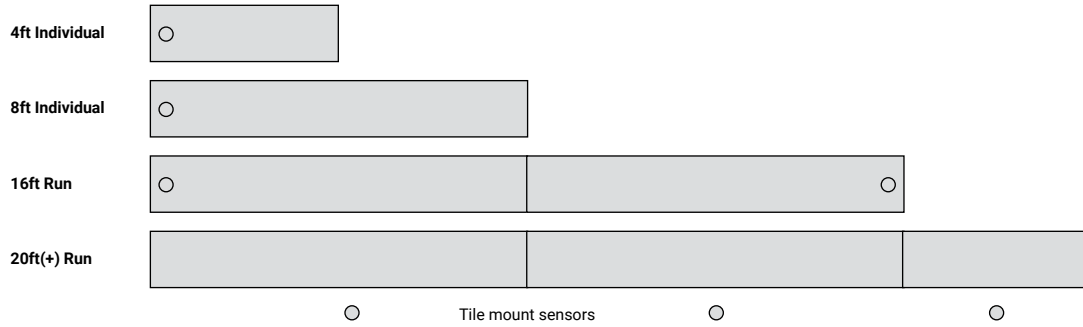
Coming Soon

SQ4R with VividTune Tunable White

VividTune tunable white luminaires from Cooper Lighting Solutions deliver high-quality light in a broad range of continuously variable color temperatures and intensities. Create a dynamic environment by adjusting the ambient light warmer or cooler to influence mood, support the task at hand, or create a dramatic ambience. The ability to control correlated color temperature and intensity separately using simple controls is the next evolution of LED lighting for the commercial, educational, healthcare and hospitality space. The unparalleled flexibility and number of available lighting environments enable users to find the right light with tunable white.

Black Body Locus — ANSI C78.377-2017 Quadrangles
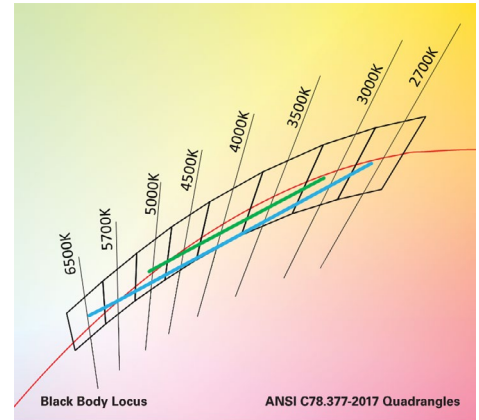
3000K - 5000K
2700K - 6500K

CCT Multiplier	90CRI 3000K-5000K	90CRI 2700K-6500K
2700K	-	0.954
3000K	0.981	0.974
3500K	1.000	0.997
4000K	1.011	1.016
4500K	1.018	1.032
5000K	1.025	1.044
5700K	-	1.058
6500K	-	1.068
6500K	-	-

Example Calculation:

025U-075D / 3000K-5000K tuned to 3500K

Lumen Output selectred = 1202 lms/ft

90CRI 3000K-5000K tuned to 4000K

Lumen Adjustment Factor = 1.011

Adjusted Lumen Output = 1130 lms/ft x 1.011 = 1215 lms/ft

Controlling VividTune Tunable White

VividTune luminaires make tunable white more accessible by using simple and familiar controls. From wall dimmers to wireless controls, VividTune tunable white luminaires are compatible with industry standard 0-10V dimming controls. A single 0-10V dimming input is used to control intensity (brightness) while a second 0-10V dimming input is used to adjust CCT. For suggested control configurations, go to www.cooperlighting.com for tunable white application guides.

warm 2700K — CCT 0-10V — cool 6500K

10% — Intensity 0-10V — 100%