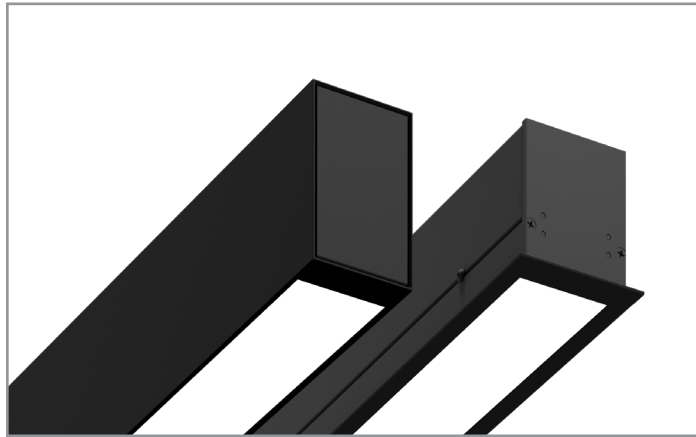


Project		Catalog #		Type	
Prepared by		Notes		Date	



NeoRay

Define Torrent

Recessed and Perimeter
Surface, Suspended, and Wall
Direct Only

Typical Applications

Education • Healthcare • Hospitality • Office • Retail • Transit

Interactive Menu

- Order Information page 2
- Photometric Data page 5
- Energy and Performance Data page 6
- Control Systems page 9
- Product Limited Warranty

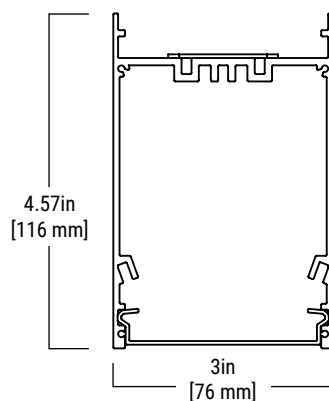


Top Product Features

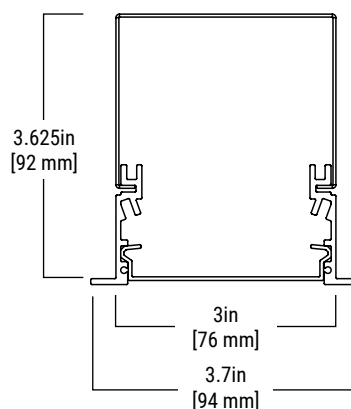
- Matches Define 3in profile
- Surface, Suspended, Wall, Recessed, and Perimeter
- Continuously Lit Runs and Patterns
- 1.5 Step MacAdam Ellipse
- UL Listed for Wet Location
- IP66
- IK09

Dimensions

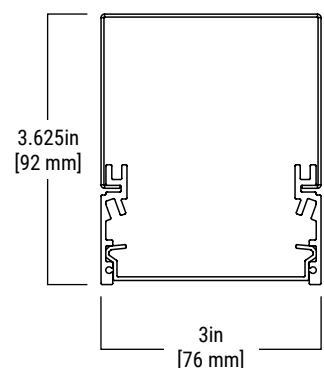
Suspended/Surface/Wall



Recessed - Flange



Recessed - Flangeless



Order Information

SAMPLE ORDER NUMBER: DTR3DR-ID8F0-100DS935-FLL-1DUDD-BMBMGYP

Domestic Preference	Body		Pattern	
	Series	Direction & Location	Pattern Type	Length
[Blank] = Standard BAA = BAA	DTR3 = Define Torrent 3in Aperture	DP = Direct Only Pendant/Suspended DS = Direct Only Surface DR = Direct Only Recessed DW = Direct Only Wall DRP = Direct Only Recessed Perimeter	[Blank] = None ID = Individual SR = Straight Run PT = Pattern (Custom Pattern)	2F0 = 2ft 3F0 = 3ft 4F0 = 4ft 5F0 = 5ft 6F0 = 6ft 7F0 = 7ft 8F0 = 8ft _F0 = Specify Length
Notes Only product configurations with this "BAA" designation 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	Notes Individual (ID) and Straight Run (SR) section length available as 8ft max only. Custom Pattern (PT) available as ETO.	Notes Specify run lengths in 1ft increments. Reference the Run Length Limits table below for additional details. Min fixture length is 2ft.

Output			Optics	Electrical				
Direct Output	Performance	CRI/CCT		Circuiting	Emergency Options	Voltage	Electrical Options	Controls
035D = 350 Lm/ft Direct 065D = 650 Lm/ft Direct 100D = 1000 Lm/ft Direct	S = Standard	927 = 2700K, 90CRI 930 = 3000K, 90CRI 935 = 3500K, 90CRI 940 = 4000K, 90CRI	FLL = Frosted Lens (Diffuse)	1 = Single Circuit S = Secondary Circuit	D = None (Standard) E = Emergency Circuit	U = Universal (120V-277V) 1 = 120V 2 = 277V	Recessed/Perimeter [Blank] = None CP = Chicago Plenum Surface/Suspended TF = Top Feed Power (Default) EF = End Feed Power Wall BF = Back Feed Power (Default) TF = Top Feed Power* EF = End Feed Power	DD = Standard 0-10V (1%-100%) WaveLinx Wireless WPN = WaveLinx Pro Node (No Sensor) WLN = WaveLinx Lite Node (No Sensor)
Notes	Notes	Notes 1.5 Step MacAdam Ellipse standard	Notes	Notes Secondary Circuit (S) allows A/B switching within a pattern. Secondary Circuit requires individual power drops for each circuit and transition (through wiring is not available).	Notes Emergency Circuit (E) requires individual power drops for each circuit and transition (through wiring is not available)	Notes Electrical cord is always black.	Notes End Feed Power (EF) is available with Structure Only (ST) mounting Ceiling Type only. Top Feed Power (TF) with Wall (DW) is available with Structure Only (ST) mounting Ceiling Type only. *Top Feed Power (TF) with Wall (DW) coming soon!	Notes WaveLinx nodes require use of the WaveLinx Wireless Control Module available as ETO

Options					Special Options
Body Finish	End Plate Finish	Suspension Type	Ceiling Type	Mounting Hardware Finish	
W = White S = Silver BM = Black (Matte) RR = Real Red OO = Oasis Orange YY = Yippee Yellow GG = Gracious Green CC = Cyprus Cyan TT = Totally Turquoise BB = Biosphere Blue PP = Perfect Purple VV = Vacation Violet MM = Magic Magenta C = Custom Color (RAL) CM = Custom Color (Match)	Recessed/Perimeter [Blank] =N/A Suspended/Surface/Wall W = White S = Silver BM = Black (Matte) RR = Real Red OO = Oasis Orange YY = Yippee Yellow GG = Gracious Green CC = Cyprus Cyan TT = Totally Turquoise BB = Biosphere Blue PP = Perfect Purple VV = Vacation Violet MM = Magic Magenta C = Custom Color (RAL) CM = Custom Color (Match)	Recessed/Perimeter [Blank] =N/A Suspended S012 = 12in Stem Mount S018 = 18in Stem Mount S024 = 24in Stem Mount S036 = 36in Stem Mount S048 = 48in Stem Mount S___ = Custom Stem Length (in) SA12 = 12in Stem Mount (Swivel/Adjustable) SA18 = 18in Stem Mount (Swivel/Adjustable) SA24 = 24in Stem Mount (Swivel/Adjustable) SA36 = 36in Stem Mount (Swivel/Adjustable) SA48 = 48in Stem Mount (Swivel/Adjustable) SA___ = Custom Stem Length (in) (Swivel/Adjustable) Surface SMT = Surface Mount (Ceiling) Wall WM = Wall Mount WL = Wall Mullion*	Recessed/Perimeter GYP = Visible Flange FES = Flangeless (Finished Extruded Side) FSR = Flangeless (Mud-in) Suspended JB = Junction Box (Recessed J-Box provided by others, J-Box cover included) JC = Junction Box Conduit Entry (Surface mounted J-Box included) ST = Structure Only (Surface Mounted J-Box included) Surface/Wall [Blank] = N/A	Recessed/Perimeter [Blank] =N/A Suspended/Surface/Wall W = White S = Silver BM = Black (Matte) RR = Real Red OO = Oasis Orange YY = Yippee Yellow GG = Gracious Green CC = Cyprus Cyan TT = Totally Turquoise BB = Biosphere Blue PP = Perfect Purple VV = Vacation Violet MM = Magic Magenta C = Custom Color (RAL) CM = Custom Color (Match)	
Notes Performance is based off White (W) and may vary with selected finish. Use [Blank] with Recessed (DR) or Perimeter (DRP) for End Plate Finish. Custom colors and finishes are available as ETO.		Notes Suspended Stem Mount is field cuttable. Use [Blank] with Recessed (DR) or Perimeter (DRP) only. Max Custom Stem Length: 48in Wall Mullion (WL) is available with End Feed Power (EF) or Top Feed Power (TF) only Wall Mullion (WL) coming soon! See Mounting Details below for additional information.	Notes Use [Blank] with Surface (DS) or Wall (DW) only. Use Stem Mount (S) and Junction Box (JB) for direct to J-Box power through the stem. See Mounting Details below for additional information.	Notes Use [Blank] with Recessed (DR) or Perimeter (DRP) only. Suspended (DP) mounting hardware will match selected Mounting Hardware Finish. Surface (DS) and Wall (DW) mounting brackets will always match Body Finish. Custom Colors (C and CM) are available as ETO.	Notes Multiple Special Option Codes may be selected with a "-" to separate. (ex. XX-YY-ZZ)

Product Specifications

Construction

- Suspended/Surface/Wall: Precision cut housing extruded from 6063 aluminum. Die cast aluminum end caps with powder coated steel end plate.
- Recessed/Perimeter: Precision cut housing trim extruded from 6063 aluminum with aluminum frame.
- Extruded UV stabilized polycarbonate lens.
- Fastener free aesthetic.
- IP66 rated light engine with proprietary quick connect light engine plugs.
- Self-closing IP66 light engine end cap to simplify installation.
- IP56 rated individual luminaire housing
- IK09 Impact Protection Rating

Lengths

- Available in 1ft increments as a single luminaire from 2ft to 8ft.
- Continuous illuminated runs available.
- Continuous illuminated corners, intersections, and patterns available

Finish

- Electrostatically applied polyester powder coat paint
- Not intended for use in coastal rated applications.
- Custom Finishes available as ETO

Optics

- FLL: Frosted Lens (Diffuse) with Lambertian distribution.

LED and Light Engine

- Available in 2700K, 3000K, 3500K, 4000K
- CRI ≥90CRI
- 1.5 Step MacAdam Ellipse
- Performance is based off White Body Finish and may vary with selected finish.
- Refer to the lumen adjustment factor tables
- Extrapolated LED lifetime per TM-21:
 - L70 > 54,000 hrs
 - L90 = 44,000 hrs

Mounting

- Stem mount is 1in outer diameter extruded aluminum pipe with internal thread 1/2-14 NPSM on one end.
- Suspended Stem Mount is field cuttable.
- Refer to installation instructions for various ceiling interface details

Integrated Controls

- 0-10V dimming to 1% standard
- WaveLinx node is available as ETO.

Weight

- Suspended/Surface/Wall: Max weight for 8ft luminaire is 28lbs (excludes mounting hardware).
- Recessed/Perimeter: Max weight for 8ft luminaire is 24.3lbs.

Electrical

- 120V - 277V 50/60 Hz
- >0.9 Power Factor (PF)
- <20% Total Harmonic Distortion (THD)
- Flicker free performance with Pst < 1.0 & SVM < 1.0

Temperature

- Min Operating Temp: -40°C
- Max Operating Temp: 40°C

Compliance

- UL listed for wet locations
- 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.

Warranty

- Five year limited warranty
www.cooperlighting.com/legal

PRELIMINARY

Suspended Mounting Details

Note: Stem lengths are adjusted to ensure the top of fixture to ceiling distance for each (JB, JC, ST) is the dimension specified by order logic (12, 18, 24, 36, 48).

MOUNTING DETAILS
COMING SOON

PRELIMINARY

Surface Mounting Details

MOUNTING DETAILS
COMING SOON

Wall Mounting Details

MOUNTING DETAILS
COMING SOON

PRELIMINARY

Recessed Mounting Details

MOUNTING DETAILS
COMING SOON

Perimeter Mounting Details

MOUNTING DETAILS
COMING SOON

PRELIMINARY

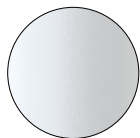
Run Length Limits

Max Run Length per Power Drop (ft)			
Lumen Package	350Lm/ft (035D)	650Lm/ft (065D)	1000Lm/ft (100D)
Fixture Input Wattage	5.1W	9.9W	14.6W
Max Run Length (ft) @ 120V	140*	70*	50
Max Run Length (ft) @ 277V	300*	170*	120*

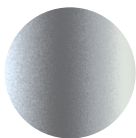
* NOTE:

A max continuous run length per pattern segment of 60ft is recommended due to thermal expansion and contraction of mechanical components within a -40°C to 40°C operating temperature range.

Standard Finish Options



W - White



S - Silver



BM - Black
Matte



RR - Real Red
RAL 3020
Gloss



OO - Oasis Orange
RAL 2004
Gloss



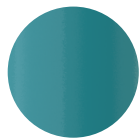
YY - Yippee Yellow
RAL 1018
Gloss



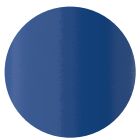
GG - Gracious Green
RAL 6018
Gloss



CC - Cyprus Cyan
RAL 6027
Gloss



TT - Totally Turquoise
RAL 5018
Gloss



BB - Bioshere Blue
RAL 5017
Gloss



PP - Perfect Purple
RAL 4005
Gloss



VV - Vacation Violet
RAL 4008
Gloss



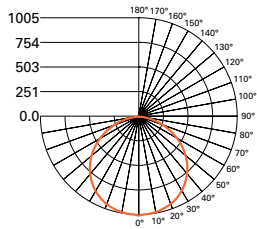
MM - Magic Magenta
RAL 4010
Gloss

Custom RAL and matched colors available as ETO



Photometric Data

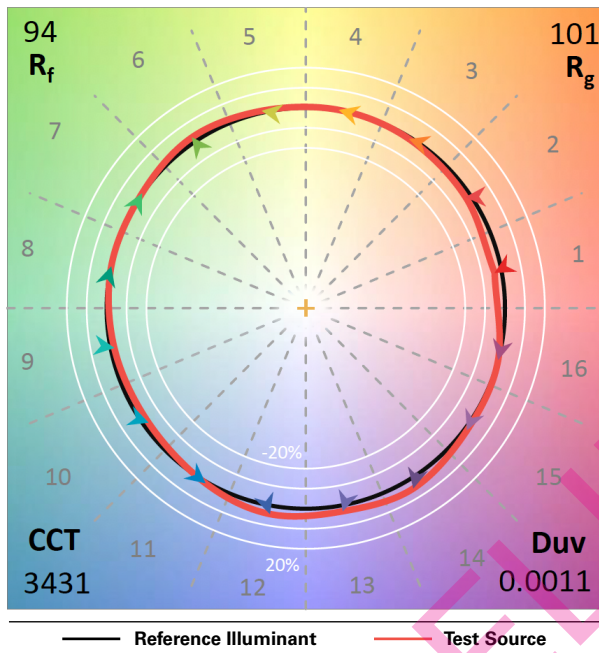
Frosted Lens (FLL)



FILE NAME:
DTR3-DR-4F0-065D-940-FLL-D.ies
CCT/CRI: 4000K / 90 CRI
LUMENS: 2777.1 Lm
WATTS: 39.6W
EFFICACY: 70.1 Lm/W
TEST NO.: P957690
100% DOWN / 0% UP

Note: Refer to IES files for more product data.

ANSI/IES TM-30-18 Color Rendition Report



TM-30 and Photometric Sphere test results are summarized in the table below. Contact Cooper Lighting Solutions for specific TM-30 reports.

CCT	CRI	R _f	R _g	R ₉
2700K	94.7	94	100	67.0
3000K	94.1	94	100	66.4
3500K	94.0	94	101	69.9
4000K	93.3	93	100	69.2

Lumen Maintenance

Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours) ⁽¹⁾	Theoretical L70 (Hours) ⁽²⁾
25°C	>86%	>54,000

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.

Lumen Adjustment Factors

CCT	Adjustment Factor
2700K	0.931
3000K	0.965
3500K	1.000
4000K	1.034

Energy and Performance Data

90CRI 3500K Direct Frosted Lens (FLL)				Glare	
Direct Lumen Package	Direct Lm	W/ft	Lm/W	Max UGR (4H 8H 70/50/20)	Max Luminance (45-90 deg)
035D	353	5.0	71.0	22.01	5412
065D	671	9.9	67.8	24.24	10292
100D	970	14.7	66.1	25.52	14875

* UGR - Universal Glare Rating is an objective calculation of glare from a standard application of electric lighting. UGR numbers may vary depending as most industry photometric tools will assume this product is a fully luminous circle and not a ring of light. Given the form factor of this product as a luminous ring, assumptions were made to derive UGR to more accurately reflect the area of the luminous ring and not the default method assuming a fully luminous circle.

KEY:

	Meets WELL v2 (2)
TEXT	Meets LEED v4.1 (3)

Notes:

- (1) UGR values per CIE 190:2010 with 4H, 8H, Reflectance: 70% Ceiling, 50% Wall, 20% Ref. Plane
- (2) UGR and Luminance values that meet WELL v2 L04 requirements for Managing Glare are shown with green highlighted cell. (UGR<16, Luminance <6000CD, applies to direct distributions only)
- (3) UGR and Luminance values that meet LEED v4.1 requirements for Glare Control are shown with green text. (UGR<19, Luminance <7000CD applies to direct distributions only)

Control Solutions

- WaveLinx LITE wireless
- WaveLinx PRO wireless
- WaveLinx CAT wired
- WaveLinx Wired



The Define Torrent with WaveLinx offers no-hassle lighting control with multiple luminaire level control solutions.



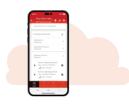
WaveLinx PRO is a wireless lighting control solution, for connected spaces, that significantly reduces a building's energy consumption. From a single floor to an entire campus, WaveLinx PRO connects more than lighting assets; it shares aggregated sensor data with the WaveLinx CORE platform and other building systems, so building owners can improve operations, spaces environment, and tenants' experience. WaveLinx PRO offers a rich portfolio of wireless devices, WaveLinx PRO-enabled luminaires, and an intuitive WaveLinx mobile app for office, education, warehouse, and parking garage applications.



WaveLinx LITE is a cost effective, wireless digital lighting control solution, with out-of-the-box functionality, that saves energy and meets code. It's designed for applications that require occupancy-based, daylighting, or manual light control. Customize installations for office, education, warehouse and parking garages using the secure, simple mobile app.



**Luminaire with
standalone
sensor**



**Standalone
Spaces
WaveLinx LITE**



**Standalone
Spaces
WaveLinx CAT**



**Networked
Spaces
WaveLinx PRO**



**Enterprise
WaveLinx
CORE**

	Luminaire with standalone sensor	Standalone Spaces WaveLinx LITE	Standalone Spaces WaveLinx CAT	Networked Spaces WaveLinx PRO	Enterprise WaveLinx CORE
Occupancy	Yes	Yes	Yes	Yes	Yes
Daylighting	Yes	Yes	Yes	Yes	Yes
Wallstations	–	Yes	Yes	Yes	Yes
Gateways	–	–	–	1 WAC	300 WACs
Devices (MAX)	–	40 per Area (1120 per space)	40 per Area	200 per WAC2	32,500 per CORE Enterprise
Software	–	WaveLinx LITE Mobile App	WaveLinx CAT Mobile App	WaveLinx Mobile App	CORE
Areas	–	28 per Space	Unlimited	50 per WAC2	up to 3,000
Zones	–	16 per Area	16 per Area	16 per Area	up to 9,000
Scheduling	–	–	–	Local	Global
VividTune™	–	–	–	Yes	Yes
Plug-Load Control	–	Yes	Yes	Yes	Yes
Low-Voltage Power	–	–	Yes	Yes	Yes
Integration	–	–	–	–	BACnet, API
Dashboards	–	–	–	–	Energy, Occupancy
Configuration	–	Installer	Installer	Technician	Technician / IT

SCALABILITY

devices

areas

floors

buildings

WaveLinx expands from a single standalone device up to Enterprise with 32,500 devices

*Note: WaveLinx LITE devices can be upgraded to WaveLinx PRO via an OTA firmware update. The OTA and system configuration can only be performed by Cooper Lighting Solutions specialists. WaveLinx Area Controller(s) would also need to be added to complete the solution.