PROJECT	Job Name	Ca	Catalog Number
INFORMATION	Fixture Type	Ar	Approved by

# Luminaires for Transportation Applications

### **TDL SERIES**

#### PRODUCT FEATURES:

- » 6" sealed, recessed downlight with flush lens trim
- » Corrosion-resistant frame and trim construction
- » Peace of Mind Guarantee® against breakage
- » Native 590nm Amber LED for spectrally sensitive applications requiring robust construction such as coastal or skyglow restricted areas
- » Blue light option for public safety applications
- » 1% Dimming via 0-10V control

#### **SPECIFICATIONS**

**HEAT SINK:** Die-cast aluminum with external radial fins for natural convection.

**ROUGH-IN FRAME:** 18-gauge die-formed, type 304 stainless steel construction. Vertically adjustable collar accommodates ceiling thicknesses up to 2", adjustable post-installation. Universal mounting brackets accept 3/4" and 1-1/2" lathers channel, 1/2" EMT conduit and hanger bars. Quick-access junction box accessible post-installation from above and below ceiling. Includes (4) 1/2" and (2) 3/4" knock-outs to allow straight conduit runs. Listed for (8) 12AWG, 90°C conductors and feed-thru branch wiring. Provided with FMC with electrical quick-connect to Trim Section.

470nm (Blue)

TRIM/HOUSING SECTION: IP-rated housing section incorporates the heat sink, LED module, optics and stainless steel lower trim. Lens trim secured with four (4) Torx® tamper-resistant, captive fasteners. See trim ordering information for available options.

**OPTICAL:** Diffused tempered glass upper lens. No light filtering elements.. Available with various reflector distribution patterns and finishes. Flush lens trim options include a clear lens. See distribution and reflector finish ordering information for available options.

**ELECTRICAL:** Native 590nm Amber or 470nm Blue LED source. Narrow bandwidth native sources provide optimal control over spectral emissions. 120-277VAC or 347VAC, 50/60Hz electrical input with serviceable constant current driver (<20% THD, >0.90 PF). Minimum 85% driver efficiency. Standard 0-10V dimming with 1-100% range and dim-to-dark capabilities (non dim-to-dark with 347V); 165µA maximum source current.

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For photometric information, go to www.kenall.com.

WARRANTY: Limited three (3) year LED warranty. Peace of Mind Guarantee against breakage.

INSTALLATION: Suitable for ambient temperature temperatures of -30°C to +40°C, unless otherwise noted.

LISTINGS: Luminaire is certified to UL standards by Intertek Testing Laboratory for non-IC and Wet Location installations. IP65 rating per IEC60598.









# ORDERING INFORMATION (EX: TDL6-FF-5BR-12NA-W-CSS-G-RIT6-DV-DIM1)

TRIM							ROU	GH-IN									
Model	Trim Style	Trim Finish	Lamp Power	Distribution	Reflector Finish	Flush Lens Type	Rough	h-In	Input Voltage	Driver Type	Options						
TDL6	<u>FF</u>		· <del></del>				RI	IT6		DIM1	<u> </u>						
Trim St FF	t <b>yle</b> Flush Lens (With Faste	eners - IP65)			<b>n</b> Medium Vide			<b>gh-In</b> 6" Trar	nsportation Rough	n-In							
Trim Fi 5BR XBR 5FW	nish Type 304 Stainless Type 316 Stainless Type 304 Stainless	Steel with 4B	Brushed Finish	Reflector F	inish		Input Voltage DV 120-277V, 50/60Hz <b>347</b> 347VAC, 60Hz										
XFW	Type 316 Stainless				Semi-Specular		Drive DIM	er Type 1 0-10	OV Dimming to 19	6							
Lamp F 12NA 18BL	Power / Color 12 Watt 590nm Na 18 Watt 470nm Na		-		<b>Type</b> Clear High-Impact A Clear Polycarbonate	crylic	Opti LEL FS	ons 7W Em (0°C m	nergency Battery E iin. ambient, n/a v Holder	Backup with Rem	ote Test Switch						



590nm (Native Amber)

Luminaires for Transportation Applications

# **TDL SERIES**

### **PERFORMANCE**

Talas Carda		Optic		Lamp	Laman Calan	Initial Dalimond I	Input Power	Estd. L70 LED Life
Trim Style	Distribution	Reflector Finish	Lens Type	Code	Lamp Color	Initial Delivered Lumens	. (W)	(hrs)
			_	12NA	590nm Native Amber	235	15	36,000
			Т	18BL	470nm Blue	283	21	60,000
		CS	_	12NA	590nm Native Amber	228	15	36,000
			G	18BL	470nm Blue	275	21	60,000
			-	12NA	590nm Native Amber	220	15	36,000
	M	666	Т	18BL	470nm Blue	266	21	60,000
	101	CSS	-	12NA	590nm Native Amber	214	15	36,000
			G	18BL	470nm Blue	258	21	60,000
			_	12NA	590nm Native Amber	218	15	36,000
		FW	Т	18BL	470nm Blue	262	21	60,000
		FVV	G	12NA	590nm Native Amber	212	15	36,000
FF			G G	18BL	470nm Blue	255	21	60,000
FF			Т	12NA	590nm Native Amber	264	15	36,000
		66	'	18BL	470nm Blue	318	21	60,000
		CS	_	12NA	590nm Native Amber	257	15	36,000
			G	18BL	470nm Blue	310	21	60,000
			_	12NA	590nm Native Amber	224	15	36,000
	W	CSS	Т	18BL	470nm Blue	270	21	60,000
		C33	G	12NA	590nm Native Amber	218	15	36,000
			G G	18BL	470nm Blue	263	21	60,000
			Т	12NA	590nm Native Amber	248	15	36,000
		FW		18BL	470nm Blue	299	21	60,000
		1 VV	G	12NA	590nm Native Amber	242	15	36,000
				18BL	470nm Blue	291	21	60,000

Subject to change without notice. Visit www.kenall.com for ies files and additional information.

Luminaires for Transportation Applications

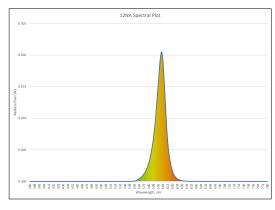
# **TDL SERIES**

### PHOTOMETRIC PERFORMANCE

	TDL6-FF-12	NA-W-CS-G		TDL6-FF-12	NA-M-CS-G								
Wide Distribution Candela Curve	Initial center beam footcandles	Beam diameter (ft)	Distance to illuminated plane (ft)	Initial center beam footcandles	Beam diameter (ft)	Medium Distribution Candela Curve							
54	5.7	7.3	5'	18.2	2.8	127							
108	3.9	8.8	6'	12.6	3.4	253							
215	2.9	10.2	7'	9.3	3.9	380 /							
	2.2	11.7	8'	7.1	4.5								
	1.8	13.2	9'	5.6	5.0	$HT \setminus Y \mid$							
	1.4	14.6	10'	4.5	5.6								
Spacing Criteria: 1.38		Spacing Criteria: 0.61											
Beam Angle: 72°		Beam diameter is where foot-candles drop to 50% of maximum											

	TDL6-FF-12	NA-W-CSS-G		TDL6-FF-12	NA-M-CSS-G	
Wide Distribution Candela Curve	Initial center beam footcandles	Beam diameter (ft)	Distance to illuminated plane (ft)	Beam diameter (ft)	Medium Distribution Candela Curve	
39	6.18	5.7	5'	11.5	4.6	74
78	4.29	6.8	6'	8.0	5.5	148
156	3.15	7.9	7'	5.9	6.5	223 /
130	2.42	9.1	8'	4.5	7.4	
	1.91	10.2	9'	3.6	8.3	$HH \setminus Y \mid$
	1.55	11.3	10'	2.9	9.2	
Spacing Criteria: 1.13		Spacing Criteria: 0.77				
Beam Angle: 59°		Beam diame	eter is where foot-candles drop to 50%	Beam Angle: 50°		

# SPECTROPHOTOMETRIC PERFORMANCE



12NA	
Purity	1.0006
UV (<400nm)	0.000%
Radiant Flux ( ≤560nm)	0.000%
Bandwidth	17.8 nm
Peak Wavelength	590 nm

	0.100																																											
	0.090										۱																																	
	0.080									-																																		
	0.070									1		ŀ																																
	0.060									ı																																		
Radiant Flux (W)	0.050									ı		١																																
E S	0.040																																											
	0.030								1				١																															
	0.020								l				1																															
	0.010													1																														
	0.000	90	88 :	8 3	5 21	88	8 :	8 8	23	8	8 3	6.3	5 8	8	8	92	24	g	90	27	18	3 1	2 8	8 8	8	10	21 12	8 8	8 18		g	8	8	e s	5 8	8	8	35	70	2 1	<b>9</b> 1	8 18	3	8
	0.000	380	388	339	21	430	423	6 199	452	400	468	6 4	492	200	208	516	5.24	532	540	5.43			Ci Si				21 2	62	636	644	652	009	899	29	643	200	708	736	7.24	233		9 1	8 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0 1 2 8 5 7 1 8 5 7 1 8 5 7 1 8 5 7 1 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

18BL	
Purity	0.9583
Bandwidth	24.4 nm
Peak Wavelength	470 nm

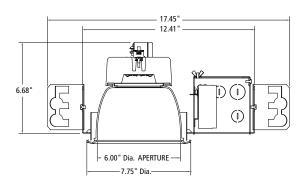


Luminaires for Transportation Applications

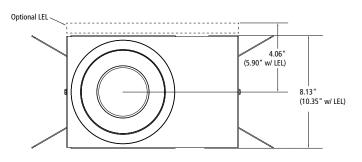
# **TDL SERIES**

**DIMENSIONAL DATA** 

#### **CROSS SECTION**



#### **BOTTOM VIEW**



RECOMMENDED CEILING CUT-OUT: 7.38" Dia.