

Tunnel HID

Housing Enclosure

- Extruded, low copper, corrosion resistant aluminum alloy 6063-T5 and clear anodized, Class 1, Type II per specification AA-M10-C12-A41

Physical Size

- Available luminaire suitable for three lengths, 24", 48" and 60". The typical cross section of the luminaire shall be 16.75" x 7.50". Available luminaire for light source 1 for 24" length and 2 light sources for 48" and 60" lengths.

Lamp Choices

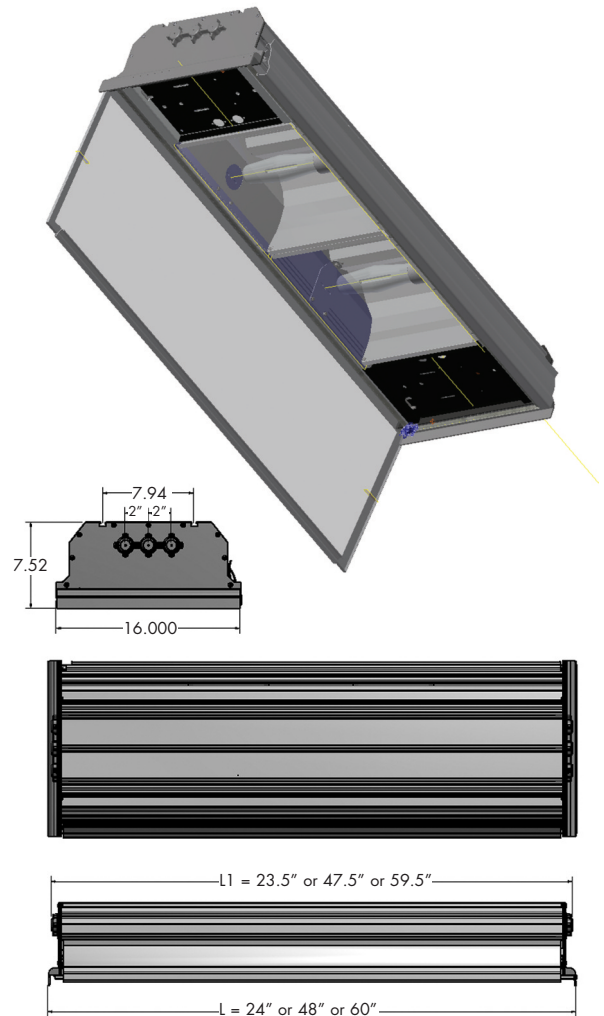
- Available for light source mogul base type metal halide or HPS lamps. Lamp envelop sizes ED23.5, ED28, ED18, BT37, T15 or equal. Maximum wattages 400W for metal lamps and 600W HPS (400W maximum for 24" and 48" lengths and 600W maximum for 60" length).

Optical Choices

- Optical distributions choices suitable for threshold, transition, interior and exit zones for optimum performance – maximum luminance, minimum veiling glare luminance and ultimate uniformity using fewest luminaires. Available counter-beam or pro-beam optics without requiring any external shielding. Modular optical assemblies are designed to align precisely optical axis and optical center with lamp light center with lamp support for consistent optical performance for the all luminaires.

Power Input

- 120VAC, 208VAC, 240VAC, 277VAC, 347VAC, 480VAC 50/60HZ.



Ordering Guide

MODEL	LENGTH 1, 2, 3	LIGHT SOURCE		TYPE LIGHT SOURCE HPS/MH/PS	PHOTOMETRIC CHOICES	MOUNTING CONFIG. MOUNTING SURFACE	INPUT VAC	ELECTRICAL PROTECTON	GLARE CONTROL
		1	2*						
TWL	2	150 - 400		HPS	V-SYM	AW	V3	DFC6	
TWL	1=24"	70W	70W	HPS	H-SYM = Axial lamp, sym. beam	FC = Fixed on Ceiling	V1 =	DF = Dual Fusing V/H/CL	
	2=48"	100W	100W	MH	H-ASY = Axial lamp, asym. beam	FW = Fixed on Wall	120-277VAC	C6 = 6' 14/3	
	3=60"	150W	150W	PS	V-SYM = Across lamp, sym beam	AC = Adjust. on Ceiling	V2 =	SOOW 600V	
		250W	250W		V-CBPB = Across lamp, couter/pro beam	AW = Adjust. on Wall	347VAC	90C cable	
		400W	400W			XX = Custom	V3 =	CT6 = 6' 1/2"	
		600W**	600W**			SS = Stainless Steel Brkt.	480VAC	SS flex conduit	

Note: *2nd Light source only available for 48" and 60" length units only.

**600W available for 60" length units only.

Note: North Star Lighting reserves the right to modify specifications without notice.



Tunnel HID

Quick and easy tool-less access for servicing

- Tool less access for re-lamping, fuse inspection/replacement, check and replace modular quick release and detachable ballast tray assembly and power feed connection.

Electrical Components

- Modular ballast assembly: Structurally solid formed ballast tray made of low copper aluminum alloy 5052. Tool-less access, quick release detachable assembly for repair and replacement. Ballast and its components capacitor and igniter, are UL recognized components and meet UL 1029 standards. Lamp Holder: UL recognized components, mogul base, NI-Cad plated copper screw shell, high temp. center contact, rated 5KV, 600V with 200C SF-2 wire leads. Provided with suitable dual fuse and fuse holders rated 600V, high temperature body rated to 150-degree C. Toolless access for servicing. Designed for cooler operation and long life.
- Wiring: Wires between ballast and electrical components is made of SF2 wires rated 600V, 200 degree C. Wiring between electrical components and quick disconnect terminal (polarized nylon plug) is 16 AWG ETFE rated 600V, 9 amp, per circuit for wiring 2 poles for wires from ballast to lamp and 3 poles from incoming line to ballast.
- Grounding Lug: Grounding lug shall be dual rated solder less ground lug aluminum alloy to accommodate wire size AWG #6 to 14.
- Terminal Block: One piece plug rated 600V insulation with non-conducting material for AWG# 8 to 14. The block is fixed mounted on the housing with separate ground lug to receive two circuit connections.
- Power Input connections: Flexible metallic watertight conduit using watertight fittings supplied with 12 AWG 3-conductors rated for 600V.

Luminaire Mounting Choices

- Luminaires provides various mounting choices (with necessary mounting brackets) to any surface ceiling, wall, corner of the tunnel or suspended on rigid stem either fixed down light position or adjustable aiming from down light to tilt up to 45 degree angles. Mounting brackets are 1/4 thick low copper high strength aluminum alloy 6061-T6. Optional 10 gauge thick, 316 stainless steel brackets, are available.

Safety Certifications

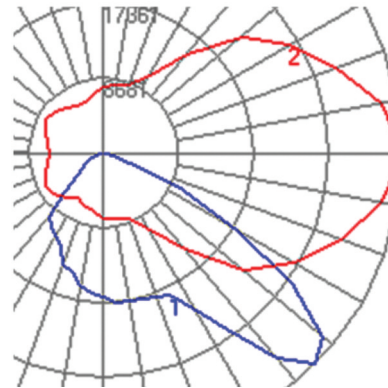
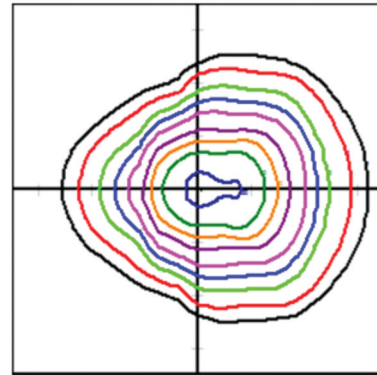
- Luminaire is Certified for ETL listed for USA and Canada per standards UL1598 3D Ed. Outdoor wet location and UL1598A marine locations and CSA-22.2 NO. 250.0-13. Also certified NEMA Type 4X, IEC EN60598 IP66. Lens: Clear 1/4" thick soda lime tempered glass impact resistant to rating IK08 as per IEC EN622262. Luminaire was vibration tested to meet 3G ratings as per ANSI C136-31-2010 standards to perform in tunnels harsh environment.



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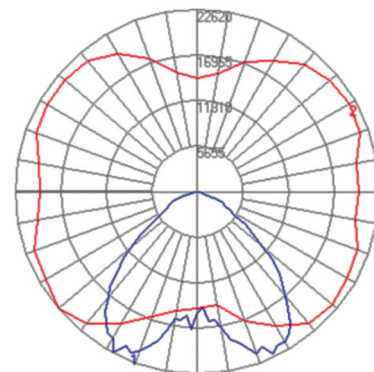
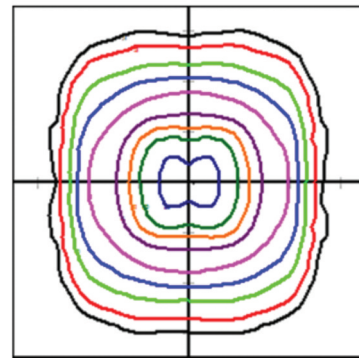
Photometry Summary: TWL1-400WHPS-H-ASYM (Recommended Applications: Threshold zones – Wide Tunnels)

IES Classification	Type III
Longitudinal Classification	Very Short
Lumens Per Lamp	51000 (1 lamp)
Total Lamp Lumens	51000
Luminaire Lumens	43394
Downward Total Efficiency	85 %
Total Luminaire Efficiency	85 %
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	464
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Max. Cd.	34722.121 (0H, 45V)
Max. Cd. (<90 Vert.)	34722.121 (0H, 45V)
Max. Cd. (At 90 Deg. Vert.)	0 (0.0%Lamp)
Max. Cd. (80 to <90 Deg. Vert.)	302.869 (0.6%Lamp)
Cutoff Classification (deprecated)	Full Cutoff



Photometry Summary: TWL1-400WHPS-H-SYM (Recommended Applications: Threshold – Transition Zones)

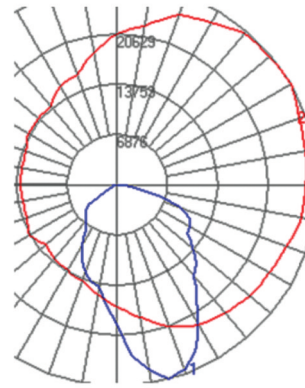
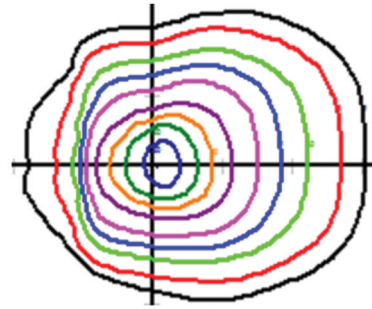
IES Classification	Type III
Longitudinal Classification	Very Short
Lumens Per Lamp	51000 (1 lamp)
Total Lamp Lumens	51000
Luminaire Lumens	43795
Downward Total Efficiency	86 %
Total Luminaire Efficiency	86 %
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	464
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Max. Cd.	22620.355 (220H, 27.5V)
Max. Cd. (<90 Vert.)	22620.355 (220H, 27.5V)
Max. Cd. (At 90 Deg. Vert.)	0 (0.0%Lamp)
Max. Cd. (80 to <90 Deg. Vert.)	165.081 (0.3%Lamp)
Cutoff Classification (deprecated)	Full Cutoff



Tunnel HID

Photometry Summary: TWL1-400WHPS-V-CBPB
(Recommended Applications: Counter-Beam and Pro-Beam)

IES Classification	Type IV Forward Throw
Longitudinal Classification	Short
Lumens Per Lamp	51000 (1 lamp)
Total Lamp Lumens	51000
Luminaire Lumens	42863
Downward Total Efficiency	84 %
Total Luminaire Efficiency	84 %
Luminaire Efficacy Rating (LER)	97
Total Luminaire Watts	464
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Max. Cd.	27505.314 (30H, 15V)
Max. Cd. (<90 Vert.)	27505.314 (30H, 15V)
Max. Cd. (At 90 Deg. Vert.)	2.392 (0.0%Lamp)
Max. Cd. (80 to <90 Deg. Vert.)	2067.102 (4.1%Lamp)
Cutoff Classification (deprecated)	Cutoff



Photometry Summary: TWL1-400WHPS-V-SYM
(Recommended Applications: Transition/Interior/Exit Zones)

IES Classification	Type II
Longitudinal Classification	Very Short
Lumens Per Lamp	51000 (1 lamp)
Total Lamp Lumens	51000
Luminaire Lumens	43862
Downward Total Efficiency	86 %
Total Luminaire Efficiency	86 %
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	464
Ballast Factor	1.00
Upward Waste Light Ratio	N.A.
Max. Cd.	16269.381 (70H, 20V)
Max. Cd. (<90 Vert.)	16269.381 (70H, 20V)
Max. Cd. (At 90 Deg. Vert.)	11.79 (0.0%Lamp)
Max. Cd. (80 to <90 Deg. Vert.)	2451.699 (4.8%Lamp)
Cutoff Classification (deprecated)	Cutoff

