

NLS
LIGHTING



NV
SPEC GRADE
LUMINAIRE



NV

FORM & FUNCTION

- ✓ **Silicone Micro Optics**—50% more heat resistant than acrylic to UV and heat exposure. Do not brittle, crack, or yellow.
- ✓ **Dark Sky Compliant**—Recessed LEDs. Full cut-off design. Specify HSS for applications with stringent property cut-off criteria.
- ✓ **Uniform light distribution**—using fewest number of fixture heads and poles while exceeding required IES foot-candles. *Less material, less energy, less cost.*
- ✓ Heavy Duty Die Cast Aluminum.
- ✓ **Philips Advance Dimmable Drivers** (120-480V)—best voltage variance resistance.

FULL CUT OFF DESIGN RECESSED OPTICS DARK SKY COMPLIANT

NV-2 ASSEMBLY VIEW

OPTIONAL MOUNTING
Sweep Arm available Square or Round Pole. *See *Mountings* for additional selections.

HOUSING
Die Cast Aluminum.

WIREWAY CHANNEL

FINISH
Textured—3-5 mils powder coated. Applied electrostatically. NLS' standard high-quality finishes prevent corrosion and protect against extreme environmental conditions.

MICRO OPTICS
IP67 Rated, Silicone Optic modules designed to withstand extreme weather conditions. Thermal, UV, vandal resistant. Rated up to 200° C.

OPTIC PLATE
NV Optic Plate laser cut and clear anodized standard. Specify (OPP) and Optic Plate Powder Coated to match specified fixture finish.

DRIVERS
Philips Advance 0-10V Dimming Driver.
THD @ Max Load < 15%
Power Factor @ Max Load < 0.95

DOOR FRAME
Die Cast Aluminum.

FEATURES

MICRO OPTICS
IES Types T2, T3, T4, T5, N2, N3

KELVIN TEMPERATURE
3000, 4000, 5000

CERTIFICATIONS
UL Listed
IP65 Rated Housing
IP67 Optics
DesignLights Consortium®
DesignLights Consortium Premium®
3G Vibration Rated ANSI C136.31-2010



OPTIONS

Bird Deterrent (BD)
Surge Protector (10K)
Marine Grade Finish (MGF)
Nema 7-Pin Receptacle (PE7)
Photocell and Receptacle (PCR)
Receptacle and Shorting Cap (PER)
FSP-211 Event-Based Dimming | 20', 40' Hts. (FSP-X)
Quick Mount Bracket (QMB)
Retrofit Quick Mount Bracket (RQMB)
Optic Place Painted to Match Fixture (OPP)
Rotated Optic Left/Right (ROL/ROR)
Automotive House Side Shield (AHS)
House Side Shield (HSS)

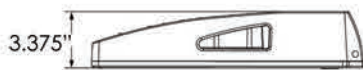
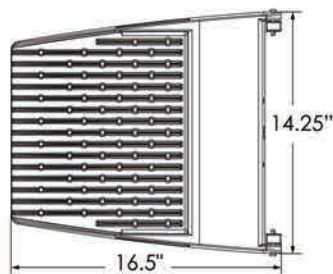


**NV-2 (SIZE 2)
ARCHITECTURAL
SWEEP ARM (ASA)**

QUICK MOUNT BRACKET (QMB)
**Shown with DP6*

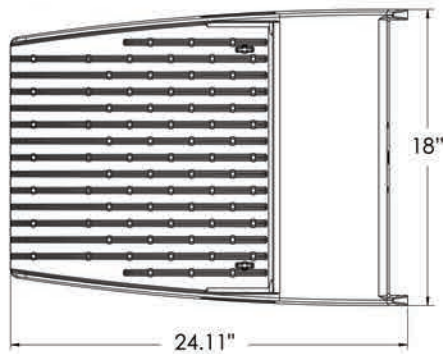
DIMENSIONS

**Size One
NV-1**



Weight 24 lbs.

**Size Two
NV-2**



Weight 42 lbs.

L70/L90 DATA

NV-1		TEMP 25°C
L70 (64L-1050mA)		> 480,000
L90 (64L-1050mA)		> 160,000

NV-2		TEMP 25°C
L70 (128L-1050mA)		> 480,000
L90 (128L-1050mA)		> 160,000

SPEC GRADE MAXIMUM PERFORMANCE

NV maximizes results for General Area Lighting, Parking Lots, Automotive Dealerships and Modern Architecture. Slim, Low Profile design for superior performance and optimal thermal management. This is maximum performance.



**NV-1 (SIZE 1)
DIRECT POLE (DP)**

WATTAGE

NV-1	16L	32L	48L	64L
350 mA	18W	-	-	-
530 mA	28W	-	-	-
700 mA	36W	71W	104W	136W
1050 mA	56W	106W	156W	205W

NV-2	80L	96L	112L	128L
700 mA	168W	200W	243W	265W
1050 mA	263W	316W	366W	409W

EPA

Single	(SGL)	NV-1-DP3	0.46
		NV-1-KM	0.54
		NV-1-SA	0.75

Double	(D90)	NV-1-DP7	1.14
		NV-1-KM	N/A
		NV-1-SA	1.29

(D180)	NV-1-DP3	0.92
	NV-1-KM	1.08
	NV-1-SA	1.50

Triple	(T90)	NV-1-DP7	1.34
		NV-1-KM	N/A
		NV-1-SA	1.99

(T120)	NV-1-DP7	1.37
	NV-1-KM	N/A
	NV-1-SA	2.05

Quad	(QD)	NV-1-DP7	1.34
		NV-1-KM	N/A
		NV-1-SA	1.99

Single	(SGL)	NV-2-DP6	0.89
		NV-2-KM	0.69
		NV-2-SA	0.98

Double	(D90)	NV-2-DP11	1.22
		NV-2-KM	1.18
		NV-2-SA	1.96

(D180)	NV-2-DP6	1.78
	NV-2-KM	1.38
	NV-2-SA	1.75

Triple	(T90)	NV-2-DP11	1.96
		NV-2-KM	1.85
		NV-2-SA	2.66

(T120)	NV-2-DP11	1.91
	NV-2-KM	2.68
	NV-2-SA	2.62

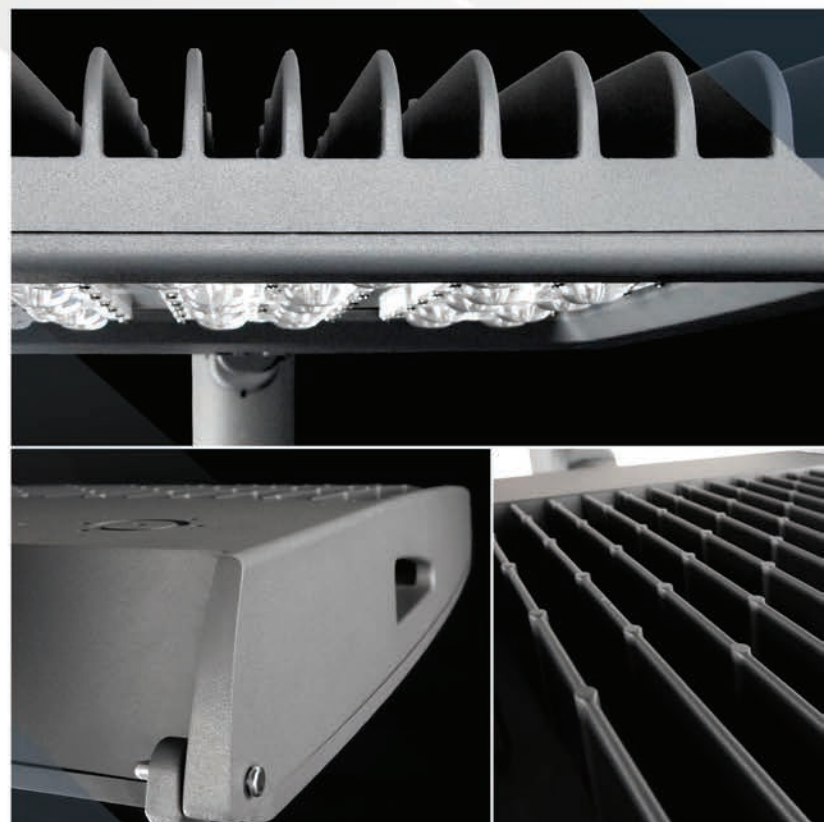
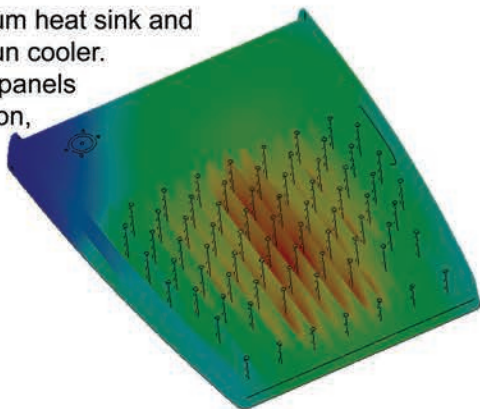
Quad	(QD)	NV-2-DP11	1.96
		NV-2-KM	1.85
		NV-2-SA	2.66

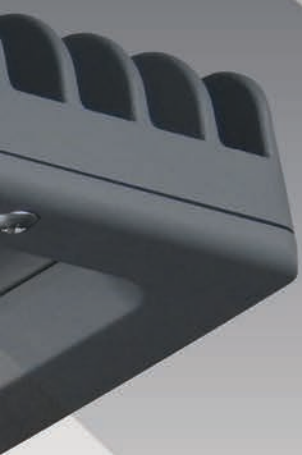


THERMAL MANAGEMENT

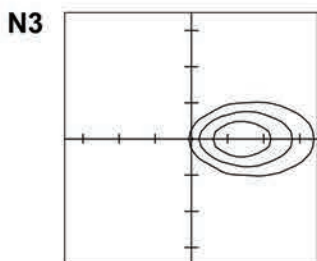
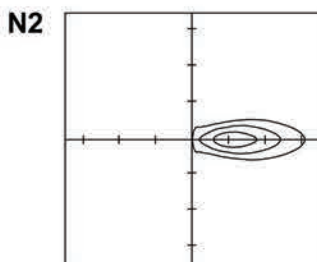
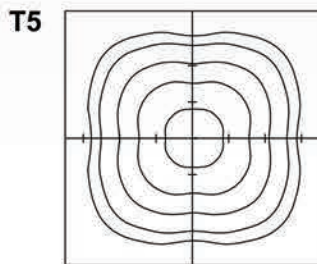
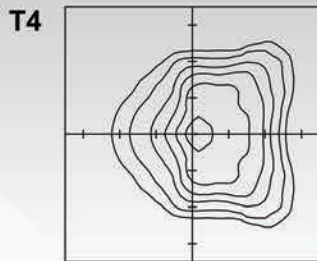
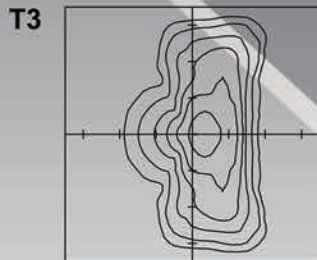
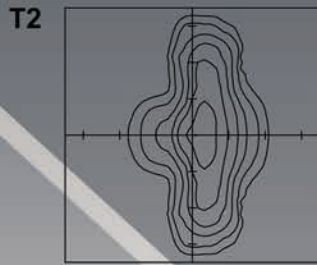
Finite Element Analysis (FEA) Thermal Rendering shown below, displays how heat produced by LEDs is distributed and displaced throughout cooling cavity.

Die Cast Aluminum heat sink and fin designed to run cooler. Sleek side open panels for heat dissipation, cool air flow and water to exit.





IES DISTRIBUTIONS



MICROOPTICS



SILICONE OPTICS

- Industry changing optical properties
- Silicone optic withstands harshest weather and dirt conditions
- Exceptional thermal and UV resistance
- Rated up to 200° C, whereas acrylic rated up to 85° C
- Does not yellow, or crack with age
- Vandal resistant, no fading or chalking
- Proven and warranted solution

HOUSE SIDE SHIELD (HSS)

Micro Optics' House Side Shield (HSS) is designed for full cut-off at property line.



MOUNTING OPTIONS

DP | KM | ASA | WM | TM | TA

DIRECT POLE (DP)

Extruded aluminum arm installs directly to Round or Square pole.

- Direct Pole for Square (DP)
- Specify RPA4/RPA5 for Round Poles from 3" to 6" round.

NV-1



***DP7 (7" Arm Length)**
D90, T90, T120, QD



***DP3 (3" Arm Length)**
Single, D180

NV-2



***DP11 (11" Arm Length)**
D90, T90, T120, QD



***DP6 (6" Arm Length)**
Single, D180

KNUCKLE MOUNT (KM)

Die Cast Knuckle great for adjustable installation on 2-3/8" OD vertical or horizontal tenon. Mounts over tenon and has wireway. Max uptilt of 114 degrees.



NV-1
0°-114°

NV-1



NV-2
0°-90°

NV-2

ARCHITECTURAL SWEEP ARM (ASA)

Cast Sweep Arm includes (standard) Internal Quick Mount Bracket.

NV-2



NV-1



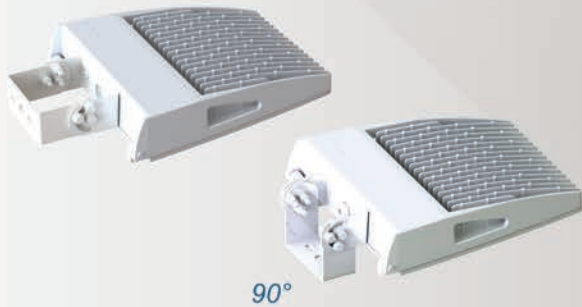
WALL MOUNT (WM)

Cast Aluminum Plate for direct wall mount. 3" extruded aluminum arm mounts directly to a cast wall mount box.



TRUNNION MOUNT (TM)

Steel, bolt-on-mounting for adjustable installation with a maximum uplift of 90 degrees.



TENNIS ARM (TA)

Steel fitter slips over 3.5" x 1.5' rectangular arm.



OPTIONAL

Optional Cast Aluminum Bracket designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures.



◀ **QUICK MOUNT BRACKET (QMB)**
2X4 Drill Pattern.



◀ **RETROFIT QUICK MOUNT BRACKET (RQMB)**
Drill Pattern adjustable from 2X4/2X6.

3-STEP INSTALLATION



STEP 1
Align cleat with fixture after installing on pole (apply over existing hole pattern).



STEP 2
Hook fixture onto QMB/RQMB simplex.



STEP 3
Secure (2) Set Screws into QMB/RQMB.

FORM AND FUNCTION

- Sleek, low profile housing
- Spec grade performance
- Engineered for optimum thermal management
- Low depreciation rate
- Reduces energy consumption and costs up to 65%
- Exceeds IES foot candle levels utilizing the least number of poles and fixtures per project
- Optical system designed for:
 - Parking Lots
 - Auto Dealerships
 - General Area Lighting

CONSTRUCTION

- Die Cast Aluminum
- External cooling fins, Finite Element Analysis (FEA) designed
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP-65 seal for electronics compartment
- One-piece Optics Plate™ mounting silicone Micro Optics
- Two-piece silicone Micro Optic system ensures IP-67 level seal around each PCB
- Grade 2 Clear Anodized Optics Plate™ standard

FINISH

- 3-5 mils electrostatic powder coat.
- NLS' standard high-quality finishes prevent corrosion protects against and extreme environmental conditions

WARRANTY

Five-year limited warranty for drivers and LEDs.



LISTINGS

- Certified to UL 1598
- UL 8750
- CSA C22.2 No. 250.0
- DesignLights Consortium® (DLC)
- DesignLights Consortium Premium® (DLCP)
- IP65/ IP67 Rated
- 3G Vibration Rated per ANSI C136.31-2010



LED WATTAGE CHART

	16L	32L	48L	64L	80L	96L	112L	128L
350 milliamps	18w	-	-	-	-	-	-	-
530 milliamps	28w	-	-	-	-	-	-	-
700 milliamps	36w	71w	104w	136w	168w	200w	243w	265w
1050 milliamps	56w	106w	156w	205w	263w	316w	366w	409w

NV-1

NV-2

Project Name:

Type:

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Cat #	Light Dist.	No. of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
NV Size 1 (NV-1)	Type 2 (T2)	NV-1 16 (16L)	350 (35)	3000K (30K)	120-277 (UNV)	Direct Pole For (NV-1): Single, D180 3" (DPS3)	Bronze (BRZ)	Bird Deterrent (BD)
	Type 3 (T3)	32 (32L)	*NV-1 Only	4000K	347-480	For (NV-1): D90, T90, T120, QD	White (WHT)	Marine Grade Finish (MGF)
		48 (48L)	530 (53)	5000K	7" (DPS7)	For (NV-1): Single, D180	Optic Plate Painted to Match Fixture (OPP)	
	Type 4 (T4)	64 (64L)	*NV-1 Only	5000K	6" (DPS6)	For (NV-1): Single, D180	Nema 7-Pin Receptacle (PE7)	
		NV-2 80 (80L)	700 (7)	5000K	11" (DPS11)	For (NV-2): D90, T90, T120, QD	Photocell + Receptacle (PCR)	
NV Size 2 (NV-2)	Type 5 (T5)	96 (96L)	1050K	Knuckle Mount (KM)	Silver (SVR)	Receptacle + Shorting Cap (PER)		
		112 (112L)	1050K	Architectural Sweep Arm (ASA)	Black (BLK)	FSP-211 with Motion Sensor (UNV Voltage) (FSP-20) *9'-20' Heights		
	Nema 2 24° Narrow Beam (N2) *NV-1 Only	128 (128L)	1050K	Wall Mount (WM)	Graphite (GPH)	(FSP-40) *21'-40' Heights		
			1050K	Trunnion Mount (TM)	Grey (GRY)	Surge Protector (10K)		
	Nema 3 30° Narrow Beam (N3)		1050K	Tennis Arm (TA)	Custom (CS)	Quick Mount Bracket (QMB)		

*See next page for Arm Configurations
*For Round Pole, please specify RPA4 or RPA5

*HSS not applicable with N2 - NEMA 24° Optics
*HSS not applicable with N3 - NEMA 30° Optics

NLS
LIGHTING

INTELLIGENT LIGHT + PERFORMANCE®

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