

**NLS**  
LIGHTING



**SPORTS**  
LIGHTING



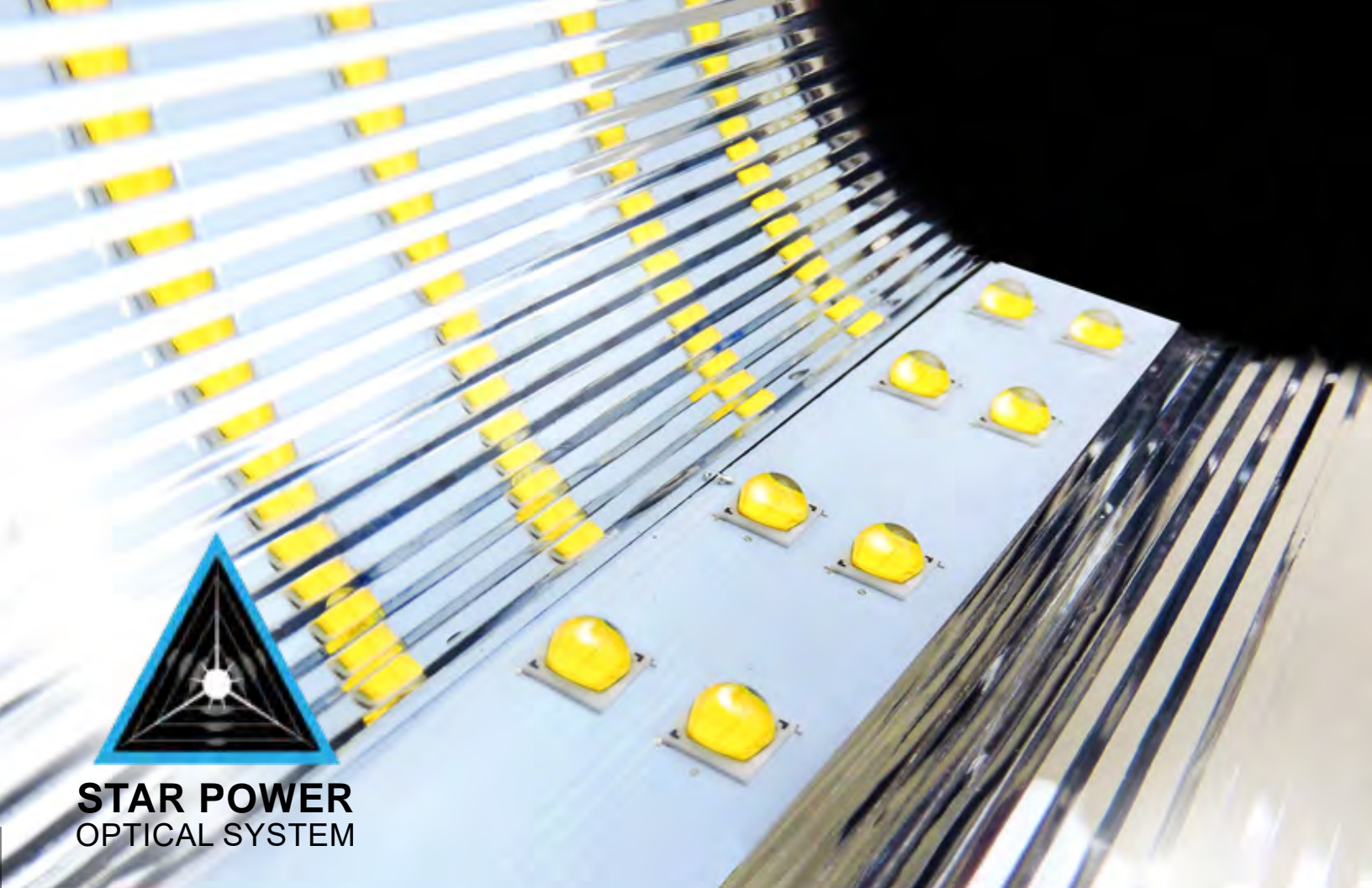
ROSS SNYDER PARK  
LOS ANGELES

## THE BEST CHOICE FOR SPORTS FIELDS

The Vue Sports...

- Produces the highest and most uniform light levels in the industry for the most common mounting heights ranging from 40' to 100' feet with little or no tilt
- Has the most configurations where its lumens all point to the same direction and yield a uniform appearance for both night and day
- Controls glare while requiring no tilt, using a reflector that is made from 95 percent diffused aluminum substrate. LEDs are recessed and hidden two to four inches deep above the bottom plane of the fixture housing
- Is engineered and manufactured to the highest reliability level with respect to lifetime and performance, utilizing the best possible electronics consisting of Philips LEDs and Advance Drivers which are protected with an impact resistant safety glass
- Is designed, tooled, fabricated, powder coated and assembled in the USA, while conforming to the Strictest Made in the USA Standards





## **STAR POWER OPTICAL SYSTEM**

### **THE POWER OF OUR REFLECTOR**

The Vue Series uses the Star Power patent pending LED optical system, which is designed to the unique dimensions of IES Ball Field Application Standards. We combine our Star Power optical system with our unsurpassed photometric in-house design capabilities. Give us a call and we will design and manufacture the most efficient system at the lowest cost with the least amount of energy and maintenance. We manufacture the entire fixture in the United States including our own poles and mounting cross arms to complete your lighting system. Optical System utilizes a linear diffused pattern which softens the light while providing a smooth and bright lighting job with no shadows or striations.

### **DESIGNED FOR SPORTS**

Other LED companies talk about their high lumen packages. The total number of lumens coming out of a fixture are meaningless when it comes to sports lighting. It's where the lumens go that counts. The Star Power optical system takes into account the dimensions of the ball field and considers the quality of light as well as the minimum foot candles, the average foot candles and their uniformity ratios to comply with IES Standards.

### **STAR POWER OPTICS REQUIRE LITTLE OR NO TILT**

Other companies have to tilt their fixtures in order to get the proper light levels in the right places. The Star Power optical system requires little or no tilting and as such is glare-free, Dark-Sky, and neighborhood friendly. We are committed to preserving the view of the Stars even next to a ball field and have even named our optical system the Star Power system because we believe that artificial lighting should not impede a beautiful dark sky in which thousands of stars should be able to be seen and enjoyed by all.



JIM GILLIAM PARK  
BALDWIN HILLS

# VUE SPORT EXCEEDS ITS COMPETITION

## LESS GLARE + GREATER RELIABILITY

Before the Vue there were few, if any LED fixtures which were practical, efficient and effective for Ball Field lighting. Most of the existing fixtures had plastic lensed optics which physically surpass the bottom plane of the fixture. This causes hundreds of points of light and glare to be seen during play. Plastic lenses have been known to fail with the possibility of oxidizing and disrupting light pattern while preventing heat from escaping.

The side effect is a decrease in life and an increased rate of depreciation. This is why the Vue does not utilize plastic lenses. The Vue recesses its LEDs far into the housing so they cannot be seen, eliminating extraneous glare while remaining protected with a single proven glass lens. This is efficiency without sacrificed design.





**WESTWOOD RECREATION CENTER**  
UCLA

### **GREATER LIFE EXPECTANCY IN WARM CLIMATES**

Vue has an amazing L70 life rating of 483,000 hours, which means the depreciation rate is less than half a percent per year. Some of our competitors have a Life Rating of only 35,000 hours which is double to triple the VUE's rate of depreciation. The maximum Drive Current of the VUE is only 1050 Milliamps and provides long life, making the LEDs have less surface brightness when a player or spectator happens to inadvertently look up at the fixture during play.

### **LIGHT WEIGHT LUMINAIRE + REMOTE DRIVERS**

The Vue has a very low profile and weighs less than 60 pounds and is safe for retrofit. NLS also provides a Remote Driver and Control System mounted at approximately 12 feet above grade for easy futurer driver maintenance and installation.

### **INSTANT ON/OFF, DIMMING + CONTROLS**

The Vue is instant on and instant off. No more waiting for the lights to warm up. There needs to be no more fear of turning the lights off and then on again a few minutes later. All Vue fixtures are dimmable and available with NLS' Sport Control System, This allows remote wireless control in which individual fields can be remotely turned on or off at any time.

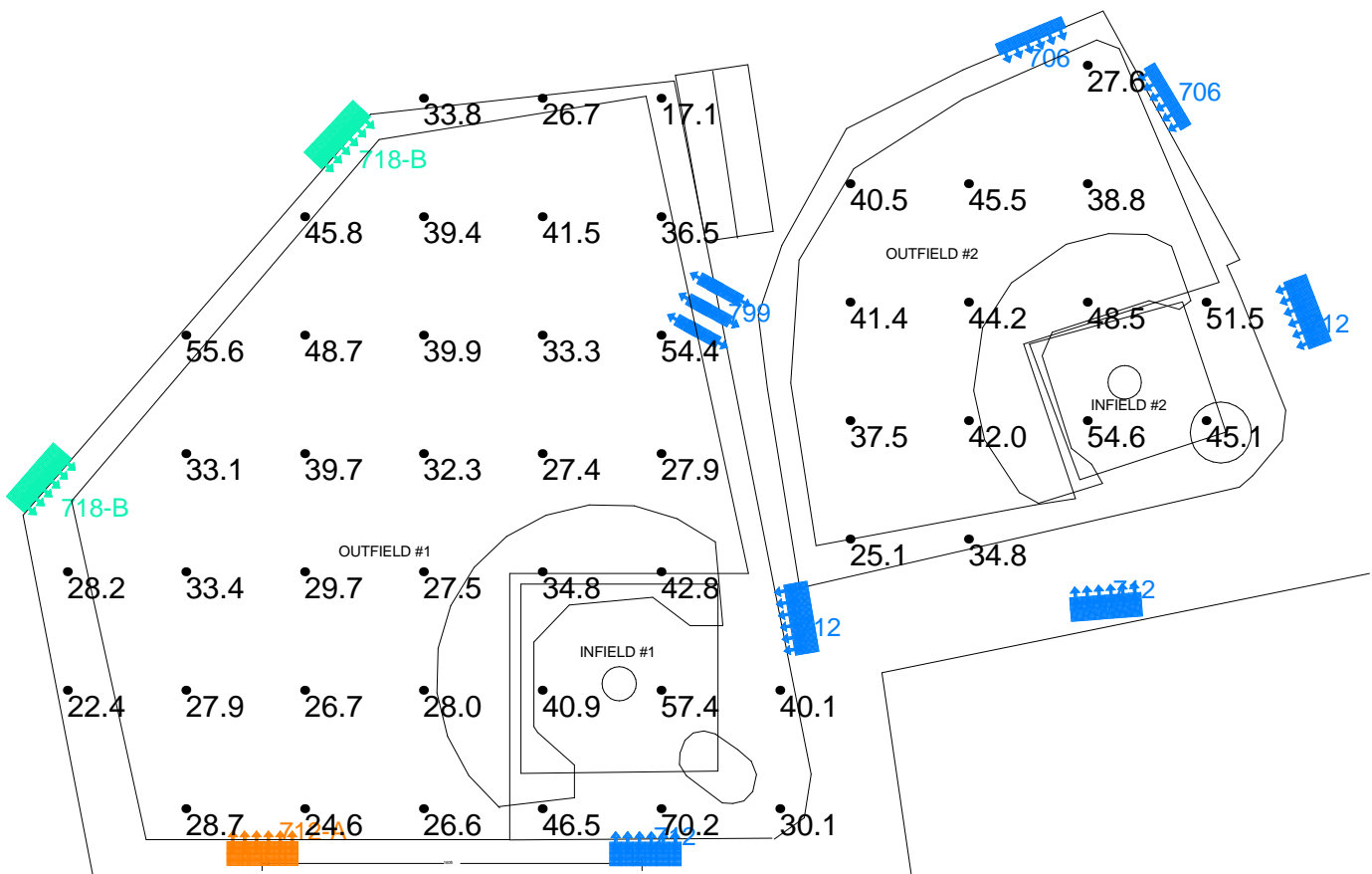
### **PACKAGE YOUR PARK WITH UNIFORMITY**

The Vue is an excellent choice for parking lots, pedestrian lighting, tennis courts, basketball courts, and ball fields. Do what is best for your youth, athletes, neighbors, and the stars. Select the best fixture on the planet, the Vue.

# INDEPENDENT PHOTOMETRIC STUDIES

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	LLF	Description	Arr. Watts
	1	799	GROUP	0.960	NLS-VUE-3-TT-192L-1050-5500K-TWIN 9 HEAD RACK @ 70' MTG. HT.	11070
	4	712	GROUP	0.960	NLS-VUE-3-TT-192L-1050-5500K-SINGLE 12 HEAD RACK @ 70' MTG. HT.	7380
	2	706	GROUP	0.960	NLS-VUE-3-TT-192L-1050-5500K-SINGLE 6 HEAD RACK @ 70' MTG. HT.	3690
	1	712-A	GROUP	0.960	NLS-VUE-3-T2-192L-1050-5500K-SINGLE 12 HEAD RACK @ 70' MTG. HT.	7380
	2	718-B	GROUP	0.960	NLS-VUE-3-T2-192L-1050-5500K-18 HEAD RACK @ 70' MTG. HT.	11070

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	CV
CalcPts_1	Illuminance	Fc	36.10	70.2	17.1	2.11	4.11	0.31
CalcPts_2	Illuminance	Fc	41.22	54.6	25.1	1.64	2.18	0.19
INFIELD #1	Illuminance	Fc	49.15	57.4	40.9	1.20	1.40	N.A.
INFIELD #2	Illuminance	Fc	49.85	54.6	45.1	1.11	1.21	N.A.
OUTFIELD #1	Illuminance	Fc	34.12	54.4	24.6	1.39	2.21	N.A.
OUTFIELD #2	Illuminance	Fc	39.11	48.5	25.1	1.56	1.93	N.A.





## LETTER FROM DAVID L. CRAWFORD

FOUNDER AND RETIRED CEO OF THE INTERNATIONAL DARK SKY ASSOCIATION



To Whom it may concern,

I am the Founder and retired CEO of the International Dark Sky Association. The IDA was created to protect the night time environment against light pollution. Tonight's battle is different in that lighting has converted to LED, and we are combatting color temperature, meaningless lumen outputs, and poorly designed outdoor lighting products.

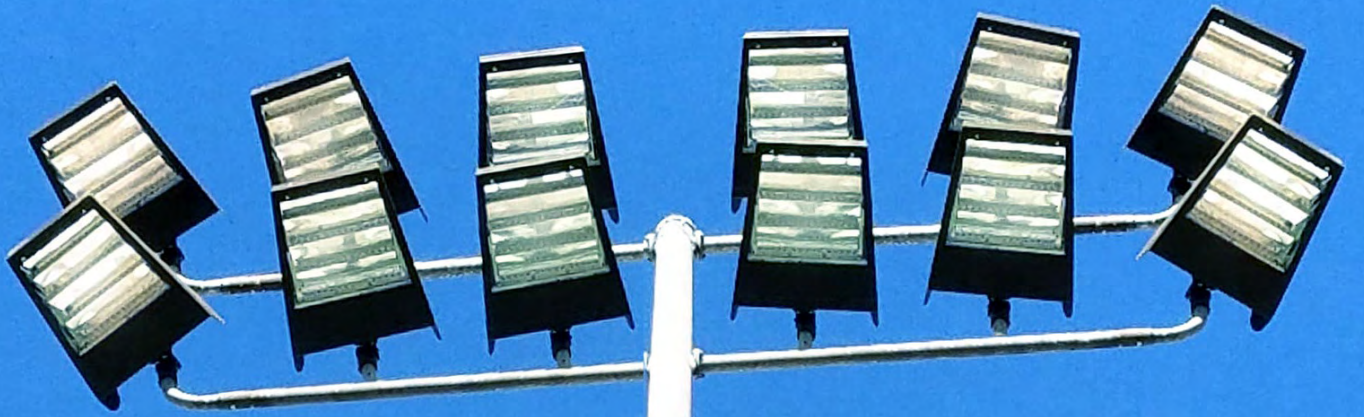
This letter is intended to be a review of the VUE Series LED fixture by NLS Lighting. From a dark sky and light trespass standpoint, the "VUE" is an excellent choice for most any outdoor application. To begin with, the "VUE" is one of the only if not the only LED fixture I have seen which has the light source recessed two to three inches above the bottom plane of the housing. Additionally NLS has designed multiple optical choices to fit the application of almost any lighting design. The "VUE" hides its light source and reflects light where it is required without waste. The "VUE" is an excellent choice particularly considering that many fixtures are evaluated by total lumens regardless of whether or not they are targeted correctly. Also most other companies I have observed either use lensed optics located at or just below the bottom plane of the fixture and so are impossible to shield from long distances from any vantage point below the bottom plane of the fixture.

The President of NLS Lighting, Bill Hein, has been a devoted advocate to dark sky and full cutoff lighting fixtures. He was instrumental in the development of outdoor luminaires with flat lenses that outperformed convex lensed luminaires that were being used throughout the country. I am happy to see that NLS Lighting has designed a new patent pending optical system once again (The "Star Power Optical System") that has high application efficiency performance while hiding the light source deep within the fixture housing.

If you have any questions whatsoever regarding this letter please do not hesitate to write or to call myself.

Sincerely,  
David L. Crawford





## **NO GLARE**

Neighborhood-Friendly  
Baseball, Football,  
Soccer and All Purpose  
Field Lighting



# CONTROL SYSTEM

18 Heads at 120/277V

- *Wireless Control System*
- *On / Off Site Control of fixtures*
- *0-10V Dimming and On/Off control*
- *Dimming schedule programmable*
- *Group scheduling programmable*
- *Energy usage and report scheduling*



EASY AS...

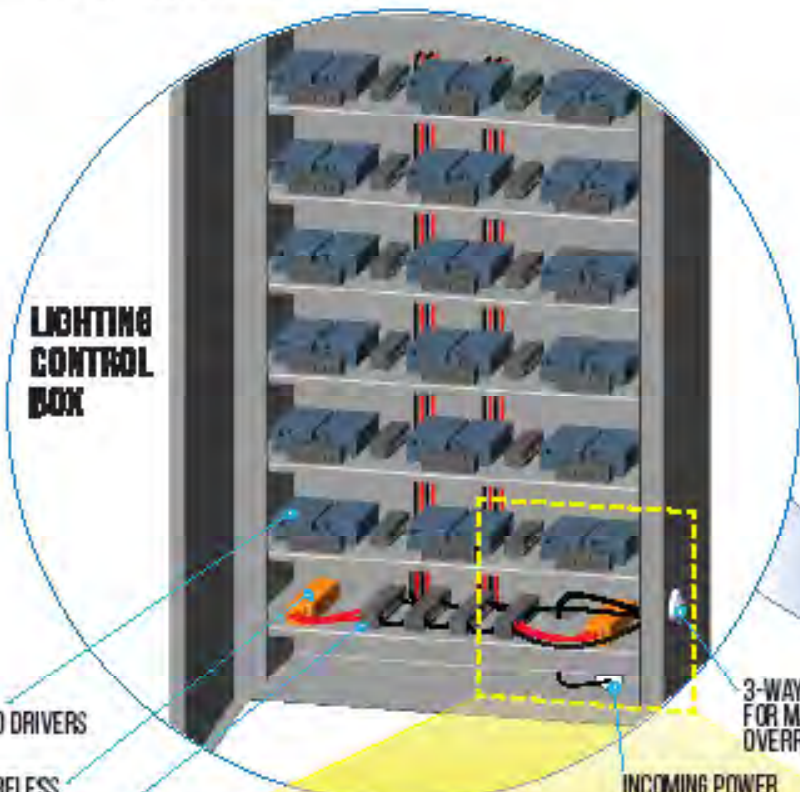
1 VUE LED FIXTURE

2 LIGHTING CONTROL BOX

3 WIRELESS GATEWAY (CD GATEWAY PER SITE (UP TO 500 FIXTURES))



REFER TO STRUCTURAL SHEETS FOR STRUCTURAL CALCULATIONS, POLE FOOTING DIMENSIONS AND OTHER STRUCTURALLY RELATED INFORMATION.

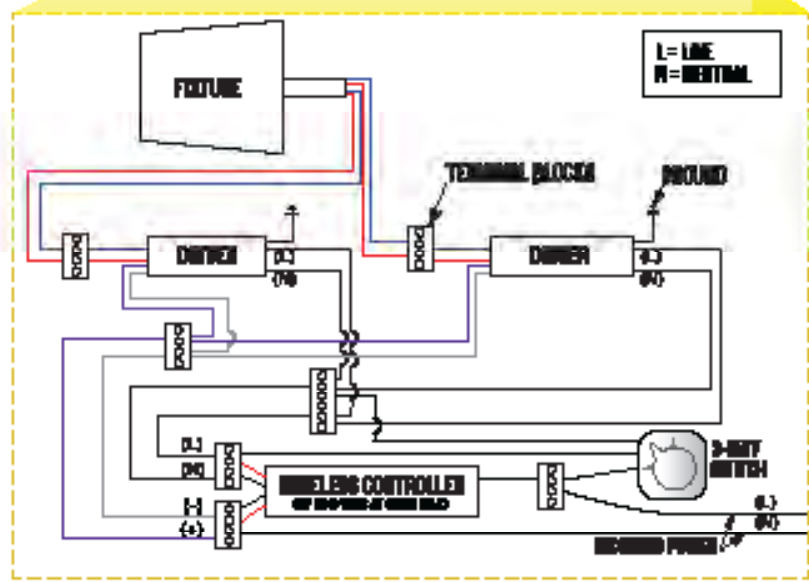


LED DRIVERS  
WIRELESS CONTROL NODE

HIGH VOLTAGE TERMINAL BLOCKS

3-WAY SWITCH FOR MANUAL OVERRIDE

INCOMING POWER



The Vue is a collaboration of form, optics and thermal management. These combined high-quality features reduce energy costs, utilize the least amount of poles and fixtures per project while meeting IES minimum foot candle levels and extend maintenance cycles at a competitive price.

For Tennis Courts and Sports Field Lighting, the Vue can be installed in sets of 6, 12, 18 or other number of heads to achieve exceptional performance using our optical system. The patent pending Star Power optical system has the flexibility and power to enable the Vue to gain a distinct advantage over its competitors at almost any distribution pattern.

The system features 95% optical material, which goes through a linear diffusion process to stretch the virtual image of the diode—both magnifying it and creating a large range of angular flux both horizontally and vertically. This added range increases the width of the light pattern at a greater distance compared to optical systems, which rely on refraction principles using plastics. Star Power optics are also the most reliable; other plastic optics will oxidize over time as well as tend to lose its seal while exposed long term to the elements.

## Product Features

### The Vue Sports is the Best Value Outdoor Lighting Solution

- Has an End of Life modular efficient chip upgrade solution
- Has a beautiful, sleek and stealth shape made out of extruded aluminum
- Light Distribution is Type 2, 3, 4 + Tennis (TT)
- Is the Perfect Long Life Solution for any municipality, school, or infrastructure
- The Vue Sports is designed, tooled, fabricated and assembled in the USA
- Remote Driver kept in separate box for VUE-4 only



### STAR POWER OPTICAL SYSTEM

The Star Power reflector is an excellent system which provides great value and performance.

### LED WATTAGE CHART

	96L	112L	128L	144L	160L	176L	192L	208L	224L	240L	256L
1050 milliamps	316w	366w	409w	458w	505w	551w	594w	662w	711w	760w	809w
	SIZE 2			SIZE 3				SIZE 4			



Project Name:

Type:

--	--	--	--	--	--	--	--	--	--	--	--

Cat #	Light Dist.	No. of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Shields	Options
VUE-2 (316W Max) (VUE-2)	Type 2 (T2)	VUE-2 96 (96L)	1050 (1)	4000K (40K)	120-277 (UNV)	Direct Pole Square (DPS)	Bronze (BRZ)	House Side Shield (HSS)	Marine Grade Finish (MGF) Surge Protector (10K)
VUE-3 (594W Max) (VUE-3)	Type 3 (T3)	VUE-3 112 (112L)		5000K (50K)	347-480 (HV)	Direct Pole Round (DPR)	White (WHT)	Front Side Shield (FSS)	Photocell + Receptacle (PCR)
VUE-4 (VUE-4)	Type 4 (T4)	144 (144L)				Knuckle Mount (KM)	Silver (SVR)		Receptacle + Shorting Cap (PER)
	Type TT (TT)	176 (176L)				Trunion Mount (TM)	Hunter Green (HGN)		NEMA 5 Pin Receptacle + Shorting Cap (5PIN)
		192 (192L)				Tennis Arm (TA)	Black (BLK)		NEMA 7 Pin Receptacle + Shorting Cap (7PIN)
		<u>VUE-4 at T4 Only</u>				Davit Arm (DA)	Graphite (GPH)		Wireless Control System (WCS)
		208 (208L)					Grey (GRY)		Remote Driver (RD)
		224 (224L)					Custom (CS)		*RD kept in separate driver box for Vue-4
		240 (240L)							
		256 (256L)							

# PRODUCT SPECIFICATIONS

**Housing:** Aluminum  
**LED:** Lumileds Luxeon MX. CRI 70  
**Optics:** Star Power T4 and Tennis (TT)  
**Watts:** 316-809  
**L70 Depreciation:** 483,000 Hours (@77°F/ 25°C)  
**Listings:** UL 1598 Listed , DLC QPL 

**Driver:** 0-10V Dimming driver as standard by Philips Advance  
 THD @ Max Load < 15%  
 Power Factor @ Max Load < 0.95  
**Kelvin:** 4000 or 5000  
**Finish:** 5 mils Powder Coat  
**Warranty:** Standard Warranty is 5 years for Driver and LEDs

# PRODUCT DIMENSIONS



Tennis Arm



Direct Pole Mount  
(Round or Square)



Knuckle Mount



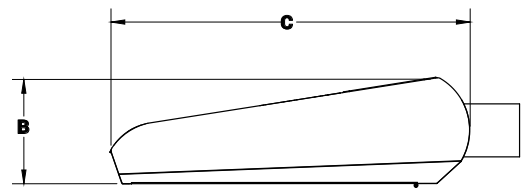
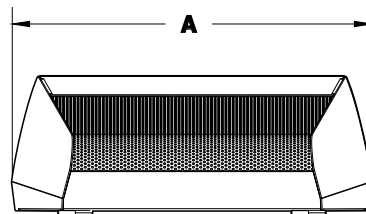
Inline Cross Arm

VUE - LUMEN DATA CHART																									
PART NUMBER	T4 OPTIC	Lm/W	*DLC	T4-HSS OPTIC	Lm/W	*DLC	T4-FSS OPTIC	Lm/W	*DLC	T4-4SS OPTIC	Lm/W	*DLC	TT OPTIC	Lm/W	*DLC	TT-HSS OPTIC	Lm/W	*DLC	TT-FSS OPTIC	Lm/W	*DLC	TT-4SS OPTIC	Lm/W	*DLC	WATT
VUE-2-96L-1-40K	31916	101	S	31284	99	S	32864	104	S	32548	103	S	32232	102	S	31284	99	S	32864	104	S	32548	103	S	316
VUE-2-96L-1-50K	32548	103	S	32232	102	S	34444	109	S	34128	108	S	33180	105	S	32232	102	S	34444	109	S	34128	108	S	316
VUE-3-112L-1-40K	36966	101	S	36234	99	S	38064	104	S	37698	103	S	37332	102	S	36234	99	S	38064	104	S	37698	103	S	366
VUE-3-112L-1-50K	37698	103	S	37332	102	S	39894	109	S	39528	108	S	38430	105	S	37332	102	S	39894	109	S	39528	108	S	366
VUE-3-128L-1-40K	41309	101	S	40491	99	S	42536	104	S	42127	103	S	41718	102	S	40491	99	S	42536	104	S	42127	103	S	409
VUE-3-128L-1-50K	42127	103	S	41718	102	S	44581	109	S	44172	108	S	42945	105	S	41718	102	S	44581	109	S	44172	108	S	409
VUE-3-144L-1-40K	46258	101	S	45342	99	S	47632	104	S	47174	103	S	46716	102	S	45342	99	S	47632	104	S	47174	103	S	458
VUE-3-144L-1-50K	47174	103	S	46716	102	S	49922	109	S	49464	108	S	48090	105	S	46716	102	S	49922	109	S	49464	108	S	458
VUE-3-160L-1-40K	51005	101	S	49995	99	S	52520	104	S	52015	103	S	51510	102	S	49995	99	S	52520	104	S	52015	103	S	505
VUE-3-160L-1-50K	52015	103	S	51510	102	S	55045	109	S	54540	108	S	53025	105	S	51510	102	S	55045	109	S	54540	108	S	505
VUE-3-176L-1-40K	55651	101	S	54549	99	S	57304	104	S	56753	103	S	56202	102	S	54549	99	S	57304	104	S	56753	103	S	551
VUE-3-176L-1-50K	56753	103	S	56202	102	S	60059	109	P	59508	108	S	57855	105	S	56202	102	S	60059	109	S	59508	108	S	551
VUE-3-192L-1-40K	59994	101	S	58806	99	S	61776	104	S	61182	103	S	60588	102	S	58806	99	S	61776	104	S	61182	103	S	594
VUE-3-192L-1-50K	61182	103	S	60588	102	S	64746	109	S	64152	108	S	62370	105	S	60588	102	S	64746	109	S	64152	108	S	594
VUE-4-208L-1-40K	69510	105	S	65538	99	S	68848	104	S	67524	102	S	69510	105	S	65538	99	S	68848	104	S	68186	103	S	662
VUE-4-208L-1-50K	71496	108	S	67524	102	S	72158	109	S	70834	107	S	71496	108	S	67524	102	S	72158	109	S	71496	108	S	662
VUE-4-224L-1-40K	74655	105	S	70389	99	S	73944	104	S	72522	102	S	74655	105	S	70389	99	S	73944	104	S	73233	103	S	711
VUE-4-224L-1-50K	76788	108	S	72522	102	S	77499	109	S	76077	107	S	76788	108	S	72522	102	S	77499	109	S	76788	108	S	711
VUE-4-240L-1-40K	79800	105	S	75240	99	S	79040	104	S	77520	102	S	79800	105	S	75240	99	S	79040	104	S	78280	103	S	760
VUE-4-240L-1-50K	82080	108	S	77520	102	S	82257	109	S	81320	107	S	82080	108	S	77520	102	S	82257	109	S	82080	108	S	760
VUE-4-256L-1-40K	84945	105	S	80091	99	S	84136	104	S	82518	102	S	84945	105	S	80091	99	S	84136	104	S	83327	103	S	809
VUE-4-256L-1-50K	87372	108	S	82518	102	S	88181	109	S	86563	107	S	87372	108	S	82518	102	S	88181	109	S	87372	108	S	809

\*DLC S= Standard  P= Premium 

DIMENSION	VUE-2	VUE-3	VUE-4
A	21.56 in	26.17 in	26.17 in
B	8.00 in	8.36 in	6.25 in
C	27.06 in	32.94 in	32.50 in
Weight	34 lbs.	62 lbs.	51 lbs.

EPA	VUE-2	VUE-3	VUE-4
Single	1.16	1.43	1.1
Double	2.32	2.86	-
Triple	2.5	4.78	-
Quad	3.6	4.88	-



Low Profile VUE-4



## L70 DEPRECIATION

483,000 Hours (@77°F/ 25°C)



701 Kingshill Place, Carson, CA 90746  
 Call Us Today (310) 341-2037

nslighting.com

# NLS LIGHTING

701 KINGSHILL PLACE, CARSON, CA 90746  
PH (310) 341-2037 | [NLSLIGHTING.COM](http://NLSLIGHTING.COM)