PRECISION PARAGON
EFFICIENCY, ECONOMY, SUSTAINABILITY.

www.P-2.com

(714) 386-5550 CA
(715) 381-2971 WI
(352) 692-5900 FL

IVN – Induction Vandal Resistant Fixture

Seeking an Ultra-long Life Energy Efficient Lighting Solution?

- Induction is a mid-priced option, typically more costly than linear fluorescent, but lower cost than LED, and P2 can tailor it to your needs.
- Philips QL and Sylvania Icetron systems are rated for 100,000 hour system life dramatically reducing long term maintenance costs.

Why P2? It's Simple, Our Relighting Experience.

- Properly deployed, Induction is a valuable niche light source.
- Improperly deployed on your project, it can be a nightmare.
- We understand what it takes to successfully deploy the latest energy efficient, long life lighting technologies and tailor them to your application.
- Our engineers have the tools and expertise to thermally and photometrically model your system to ensure that the long life and performance promised by induction light sources is delivered.

IVN – Long Life Vandal Resistant Under Canopy

Application

- Outdoor, under canopy, vandal resistant.
- Applications where maintenance costs are compounded by inaccessible fixtures or prescribed lengthy service intervals.
- Applications where routine outages can not be tolerated.

IVN – ICB – 41K – UL – NA – NW

IVN	ICB	41K	UL	NA	NW	
Model	Induction System	Lamp Color	Voltage	Icetron Other	Primary Wiring	Other

Fixture Series
IVN = Induction Vandal Resistant Fixture

Induction System
QLA = Philips, 55 Watt, 3500 Lumen System
QLB = Philips, 85 Watt, 6000 Lumen System
ICA = Osram, 77 Watt, 6500 Lumen System
ICB = Osram, 103 Watt, 8000 Lumen System

Lamp Color
35K = 3500 Kelvin (Osram Only)
41K = 4100 Kelvin (Osram Only)
50K = 5000 Kelvin (Osram Only)
30K = 3000 Kelvin (Philips Only)
40K = 4000 Kelvin (Philips Only)

Voltage
120 = Dedicated Voltage 120v (Philips Only)
277 = Dedicated Voltage 277v (Philips Only)
UL = Universal Low 120 through 277volt (Osram Only)

Icetron Other Options
NA = None Selected
TC = Amalgam Tip Covers for Extreme Cold Applications

Primary Wiring
NW = No Whip, Daylight Primary Power for Field Connection

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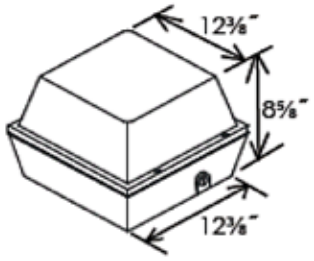
IVN – Induction Vandal Resistant Fixture

Fixture Construction

- Die Cast Housing.
- Bronze Powder Coat Finish.
- Prismatic Polycarbonate Lens.
- Osram Sylvania Icetron or Philips QL induction technology.
- Amalgam controlled Hg vapor provides stable light output.
- Engineered and assembled in the USA. Hudson WI, Gainesville FL, Orange County CA.



Existing System

Existing HID System	Lamp Qty & Type		Initial Lamp Lumens	Mean Lumens Per Lamp	S/P (1) Ratio	S/P (2) Adjusted Lumens	System Input Watts	Lumens (3) Per Watt	Rated Life (Hours)
HPS-150 Standard	1	HPS150	15,000	13,500	0.62	9,298	190	49	24,000
MH-175 Standard	1	MH175	13,500	8,775	1.49	11,977	210	57	10,000
MH-250 Standard	1	MH250	20,500	13,500	1.49	18,425	295	62	10,000

Re-Lighting Options

Proposed HID System	Lamp Qty & Type		Initial Lamp Lumens	Mean Lumens Per Lamp	S/P (1) Ratio	S/P (2) Adjusted Lumens	System Input Watts	Lumens (3) Per Watt	Rated Life (Hours)
QLA - QL55 System	1	QL55/840	3,500	2,800	1.62	4,079	55	74	100,000
QLB - QL85 System	1	QL85/840	6,000	4,800	1.62	6,993	85	82	100,000
ICA - ICE70 & QT100 Ballast	1	ICE70/841	6,500	4,830	1.62	7,037	77	91	100,000

Numeric Footnotes
(1) S/P Ratio = Scotopic to Photopic Lumens
(2) SP Adjusted Lumens = Mean Lumens x (S/P).78 [.78 exponent]
(3) Lumens Per Watt = S/P Adjusted Lumens / Fixture Input Watts

General Notes:
- There are many operating and thermal variables that affect Induction system output. Consult factory for assistance in modeling your Induction system.
- Values shown are based on design operating temperatures and at 277 volts.
- Fixture efficiencies and system layout are not comprehended in the table, but will also affect the usefulness of the system.