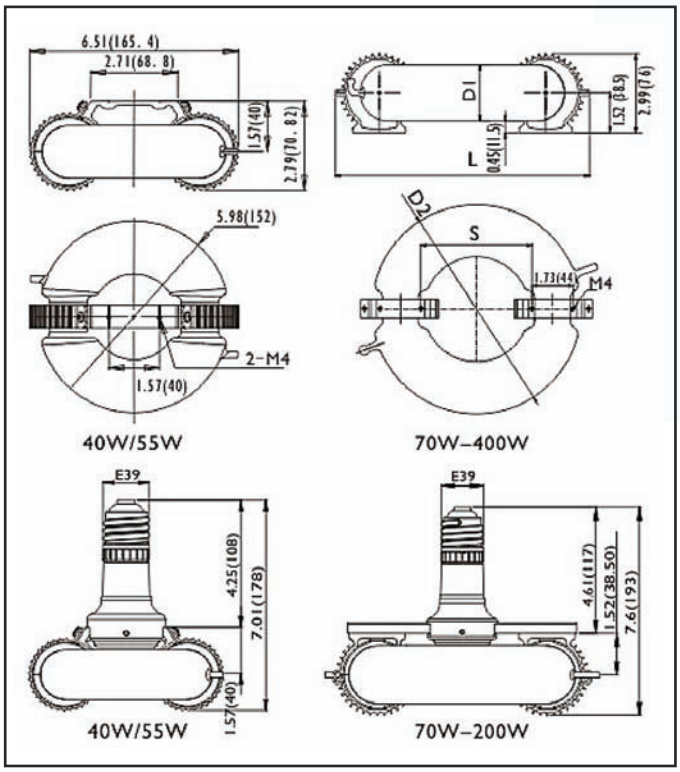
Making the world greener.

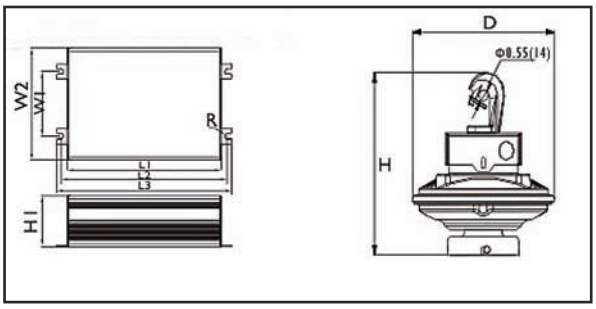
RT SERIES 40W - 400W Induction Retrofit Kit

Round Tubular

Induction Lamp Dimensions



Electronic Ballast Dimensions



Lamp Dimensions: Inch (mm)

Dimension	70/80W	100W	120W	150W	200W	250W	300W	400W
Tube Diameter (D1)	2.13 (54)	2.13 (54)	2.13 (54)	2.13 (54)	2.13 (54)	2.28 (58)	2.28 (58)	2.28 (58)
Lamp Width (D2)	7.09 (180)	8.54 (217)	9.80 (249)	11.57 (294)	13.94 (354)	15.35 (390)	17.36 (441)	17.83 (453)
Lamp Length (L)	7.91 (201)	9.53 (242)	10.79 (274)	12.56 (319)	15.00 (381)	15.79 (401)	18.23 (463)	18.70 (475)
Mounting Hole Spacing (S)	2.91 (74)	4.45 (113)	5.75 (146)	7.56 (192)	9.96 (253)	10.75 (273)	13.20 (335)	13.66 (347)

Electronic Ballast Dimensions (Profile Aluminum): Inch (mm)

Model	L1	L2	L3	W1	W2	R	H1
40/55/70/80/100W	6.19 (157.3)	6.70 (170.3)	7.06 (179.3)	2.38 (60.5)	4.11 (104.5)	0.10 (2.5)	1.89 (48)
120/150/200W	7.44 (189)	8.03 (204)	8.46 (215)	2.76 (70)	4.72 (120)	0.10 (2.5)	2.09 (53)
250W	9.01 (229)	9.60 (244)	10.03 (255)	2.76 (70)	4.72 (120)	0.10 (2.5)	2.09 (53)
400W	10.79 (274)	11.42 (290)	11.89 (302)	2.76 (70)	5.31 (135)	0.10 (2.5)	2.50 (63.5)

Dimmable Electronic Ballast Dimensions (Profile Aluminum): Inch (mm)

Model	L1	L2	L3	W1	W2	R	H1
40/55W	5.20 (132)	5.63 (143)	5.98 (152)	2.75 (70)	3.66 (93)	0.10 (2.5)	1.63 (41.5)
70/100/150/200/250; Same Dimensions as Electronic Ballast							

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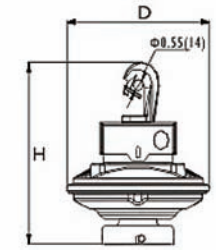

Electronic Ballast Dimensions (Disc type): in. (mm)

Model	H	D
40W	8.11 (206)	6.54 (166)
70/80/100W	9.45 (240)	8.07 (205)
120/150/200W	10.31 (262)	9.61 (244)
250/300/400W	10.79 (274)	11.02 (280)

Induction Lamp Specifications

CCT: 5000K (2700-6500K available by order)
CRI: ≥80
Operating Frequency: 100-300 KHz
Lumen Maintenance: ≥70% at 60,000 hours
Rated Life: 100,000 hours

Electronic Ballast Specifications

Voltage: 120-277V
Power Factor: ≥0.95
Input Frequency: 50/60 Hz
THD: <10%
Case Temperature: <65˚C (149˚F)

Wattage (W)	Rated Lumens (Lm)	Efficacy (Lm/W)	Input Power (W)	Input Current (A)
40	2800-3000	70-75	42	0.35-0.15
55	3850-4125	70-75	58	0.49-0.21
70	4900-5250	70-75	74	0.61-0.27
80	6000-6400	75-80	84	0.70-0.30
100	7500-8000	75-80	105	0.88-0.38
120	9000-9600	75-80	126	1.05-0.45
150	12000-12750	80-85	158	1.31-0.59
200	16000-17000	80-85	210	1.75-0.76
250	21250-22500	85-90	263	2.19-0.95
300	25500-27000	85-90	315	2.63-1.14
400	34000-36000	85-90	420	3.50-1.52

Operating ambient temperature 0˚ - +50˚C / 32˚ - 122˚F (without fixture, or with open fixture); -20˚ - +50˚C / -4˚ - 122˚F (enclosed fixure)
Ambient operating temperature tolerance of -40˚ - 0˚C / -40˚ - 32˚F available upon request

Certifications

Induction Lamp System Guidelines

Procedures and Other Useful Information for the Purchase and Installation of Induction Retrofit Kits

Every retrofit installation is unique and therefore must be evaluated on an individual basis in order to guarantee the succuss of the installation. Our Induction lamp systems have an extremely low failure rate so premature failures are often the result of poor or improper installation. These failures are not covered by the 5 year warranty and are usually due to one of the following avoidable reasons: excessive temperatures/ overheating, water/ heat damage, extreme voltage fluctuations, etc. Please read and adhere to the following guidelines in order to prevent early product failure and ensure the validity of the 5 year warranty for your Retrofit Kit purchase.

What is a retrofit kit?

When an Induction lamp and ballast are purchased together as a system, exclusive of their intended fixture, for the purpose of being installed into an existing, often older, lighting fixture we call it a "retrofit kit".

The most important thing to remember when purchasing a Nu Vue retrofit kit is that our Induction products are designed as a complete system: this means that the lamp, ballast, and fixture are carefully developed and extensively tested to work efficiently and flawlessly together, resulting in maximum product life and performance. Our Induction fixtures are structured to offer the ideal working environment (ventilation, heat sink, reflector, size, etc.) for our lamps and ballasts. That being said, when a lamp and ballast are purchased separate from their intended fixture and installed into an existing fixture they will not always offer the same lifetime duration or performance that a complete Nu Vue induction system would.

Things to do and/ or consider before purchasing a retrofit kit

1. Send a Sample Fixture
   The ideal process for guaranteeing the longevity of a retrofit is to first send us a sample fixture (the exact model for which the retrofit is intended). Our engineers can then use this fixture to develop the optimum installation solution by taking into consideration the mounting options, heat sink, size, etc. of that specific fixture. We will do a test installation to conduct temperature testing to ensure the longevity of the product as well as approve that the installation is in compliance with the terms of the warranty. If necessary, or otherwise beneficial, we will issue detailed installation instructions and/ or construct custom mounting brackets, heat sinks, etc. to create the optimum retrofit solution for the intended fixture.
2. Send Pictures and Dimensions of Existing Fixture
   We may request pictures, dimensions, and/ or a description of the intended fixture, installation environment, etc. to help us evaluate the installation. It is important that pictures of the fixture show both the external fixture housing as well as the internal ballast cavity and how it relates to the fixture; this will help us to better understand the installation and offer any specific instructions that might be needed. Measuring the internal dimensions of the ballast and lamp cavities will help ensure that the lamp and ballast are a proper fit for the fixture and have enough ventilation so as to minimize the risk of overheating which would ultimately lead to premature product failure.
3. Check Line Voltage
   As with all Nu Vue Induction products, the electronic ballasts are designed for use on a line voltage of . While they generally can tolerate voltage fluctuations of up to 10%, anything beyond this will damage the internal components and lead to product failure. This is a very common problem which can be easily avoided by testing the line voltage before installation to ensure it is constant and falls within 120-220V.

Induction Lamp System Guidelines Page 2

4. Select the Correct Ballast

   Different ballasts are designed for use with different fixture types, different installation methods, and in different environments. The commonly used Profile Aluminum ballast, for example, should not be used in outdoor/ exposed installations, these installations require the Die Cast Aluminum ballast. The Profile Aluminum ballast should also NOT be installed in existing non Nu Vue H/Lbay compartments. It is important to consult a Nu Vue representative before placing an order to determine which lamp and ballast system your installation requires.

5. Install/ Mount the Ballast Securely and Properly

   The electronic ballast should never be loosely placed into the ballast cavity - It must always be secured and mounted flush against the inside panel of the cavity. The flush mounting (with no grooves, ridges, etc. directly under the ballast) allows for the heat to transfer through the wall of the ballast housing and then dissipate into the outside environment.

6. Do a Test Installation/ Temperature Test

   Doing a "mock-up", in other words installing a sample retrofit kit in one of the existing fixtures, is a great way to ensure the success and longevity of a retrofit installation. Once the sample has been installed and operating for a significant amount of time, it is important to take temperature reading to ensure that the case temperature of the ballast cavity is not exceeding 65˚C, which would lead to premature ballast failure (See Exhibit A). A Nu Vue representative can further advise on the best method of taking temperature readings.

At Nu Vue Lighting we stand behind our products and are proud of the extremely low failure rate of our Induction systems. The majority of retrofit kit failures we see could have been easily avoided with just a little bit of due diligence before the installation; we strongly encourage customers to put in the time up front and follow the above guidelines in order to prevent the inconvenience and frustration of unnecessary premature product failures.

Exhibit A: Temperature Test Points for Induction Lamps and Ballasts

Electronic Ballast			
Picture Key	Location	Rated Temp.	Max Temp.
1	Tc	65°C (149°F)	65°C (149°F)
2	Ballast Side	65°C (149°F)	65°C (149°F)
3	Ballast Side	65°C (149°F)	65°C (149°F)

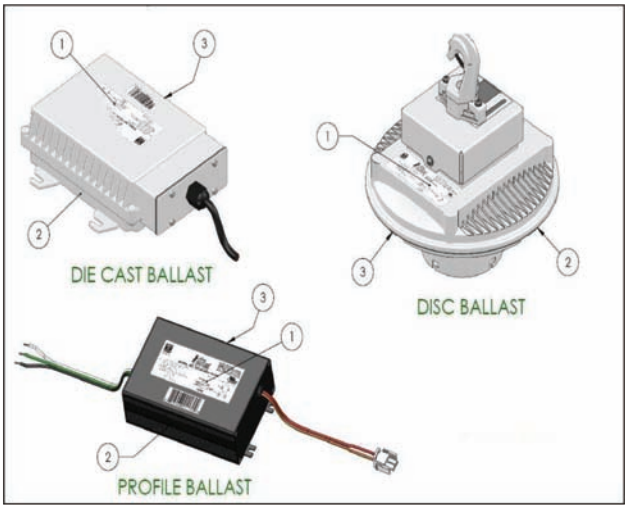

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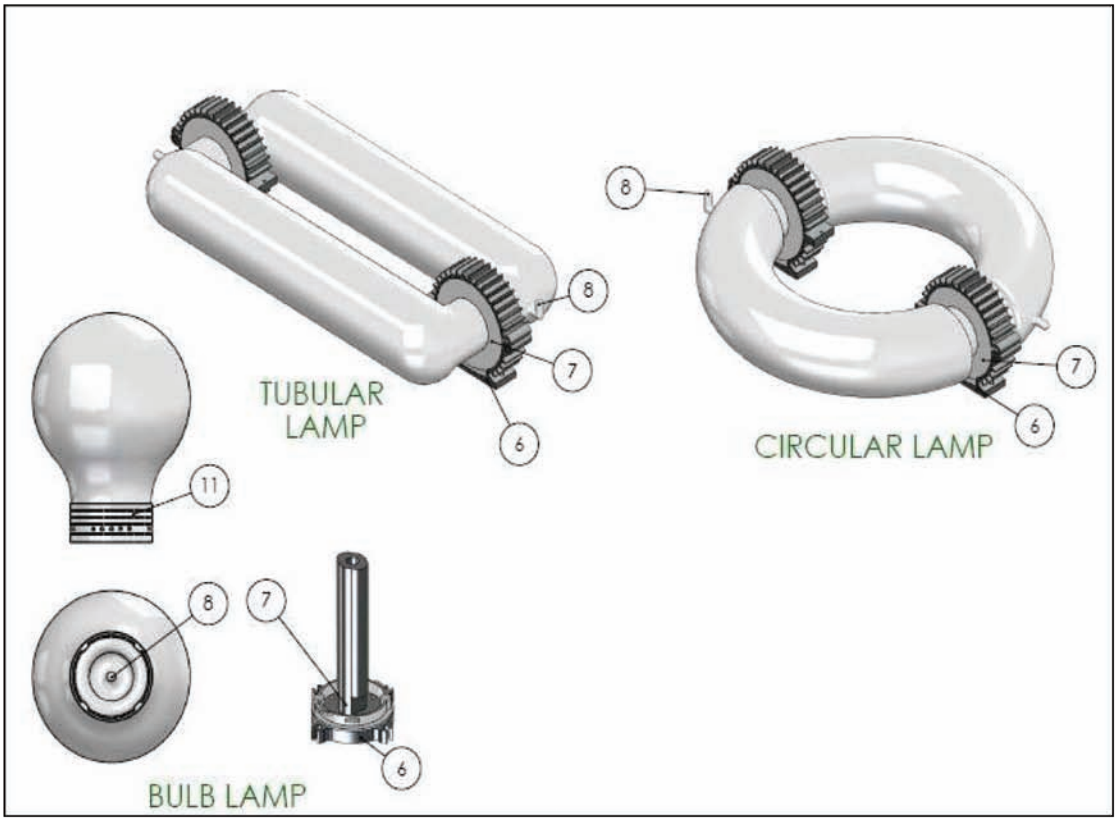
Exhibit A: Temperature Test Points for Induction Lamps and Ballasts

RT/ST Lamp			
Picture Key	Location Description	Rated Temp.	Max Temp.
6	Lamp power coupler Base (Heat sink) Bracket (bottom side)	<130° C	130° C
7	Lamp power coupler (Ferrite Core)	<140° C	150° C
8	Lamp amalgam tip	55-125° C	125° C
N/A	Lamp chamber temperature	<80° C	100° C
N/A	Lamp tube surface on the inside center	<140° C	150° C

VL (Ball Type) Lamp			
Picture Key	Location Description	Rated Temp.	Max Temp.
6	Lamp power coupler Base (Heat sink) (flange side)	<120° C	120° C
7	Lamp power coupler aluminum heat sink	<120° C	130° C
8	Lamp Amalgam Tip	55-125° C	125° C
N/A	Lamp chamber temperature	<80° C	100° C
11	Lamp base plastic sleeve	<150° C	180° C
N/A	Lamp bulb surface at max diameter	<140° C	150° C



Warranty:

Nu Vue Lighting, LLC (Nu Vue) warrants that the complete induction lamp system shall be free from defect in material and workmanship for 10 years or 60,000 hours, whichever comes first when operated according to the conditions listed below. Warranty coverage period begins from original invoice date, if the original invoice cannot be found the warranty coverage begins from manufacture date (stamped on the electronic ballast and lamp tube).

Warranty Conditions:

Temperature Conditions:
Induction lamp and ballast system (not including fixture) for 5 year warranty: Maximum case temperature of the electronic ballast must be less than 65˚C (149˚F). Induction lamp and ballast system (including fixture) for 10 year warranty: Ambient temperature (where the induction lamp system is to be operating) must not exceed 40˚C (104˚F).
The temperatures stated above shall be determined by installing the induction lamp system in the field condition. After installation, if testing shows that the temperatures do not exceed the conditions described above, Nu Vue shall have the sole discretion to repair any parts of the product or to replace any defective induction lamp system free of charge to the place of original installation (provided that it is covered under the terms and conditions of this limited warranty). Please see full warranty for temperature check points. If Nu Vue replaced any defective product with new product the warranty coverage is from the original invoice date; not the replacement date. Any simulated field condition test concerning any induction lamp system which is claimed to be defective must be mutually agreed upon in writing. Nu Vue holds the right of being notified of and present at any such tests.
This limited warranty is only valid if the original purchaser or end user completes and submits a registration card with specific installation information within 30 days of product install. This constitutes the complete warranty for Nu Vue induction lamp systems and fixtures, unless other terms and conditions are established and agreed upon by both parties, in which case further documentation must be presented.
Nu Vue does not warrant the installation, maintenance, or service of induction lamp systems and fixtures. Nu Vue is not responsible for any ancillary equipment that was not provided by Nu Vue, which is attached to or used in connection with the induction lamp systems and fixtures, or for the operation of the induction lamps and fixtures with any ancillary equipment. All such equipment is to be excluded from this limited warranty. Further, Nu Vue shall not be responsible for any damage to the induction lamp systems and/or fixtures resulting from the use of any ancillary equipment with the induction lamp systems and fixtures.
If a retrofit kit (ballast and lamp only) is to have a valid 5 year warranty, a Retrofit Assessment Form must be submitted and approved by Nu Vue.
If Nu Vue does not approve of the specifications of the retrofit project the warranty is either voided or Nu Vue will honor a shorter warranty period that is assigned to the specific project.

What The Warranty Does Not Cover

This limited warranty is contingent upon the proper storage, installation, use and maintenance of the induction lamp systems and fixtures, as well as accordance with any further recommendations from Nu Vue. This limited warranty is not applicable to any induction lamp system that has been subjected to abnormal stresses and operating conditions such as temperatures in excess of maximum rated temperatures, under/over voltage, excessive switching cycles or operating hours or is not installed in accordance with Nu Vue's application guidelines and instructions. Nu Vue also will not cover any profile aluminum ballasts that were installed in existing High/Low Bay ballast compartments.

How to Obtain Warranty Service

If it appears that an installed induction lamp system and/or fixture does not meet the limited warranty set forth above, within the time periods stated above, the purchaser shall notify Nu Vue and make a warranty claim by calling 1-866-996-8883. After receiving proper authorization from Nu Vue, the defective induction lamp system and/or fixtures should be returned to the place of original purchase, unless otherwise directed by Nu Vue. If replacement parts or products are issued, clients have 14 days to return defective material upon receipt of replacement items. If defective material is not returned in the set time frame, a new invoice will be issued for the cost of replacement product.

General Provisions

This limited warranty sets forth the entirety of Nu Vue's responsibilities regarding the induction lamp systems and fixtures. Complete compensation for a defective induction lamp system and/or fixture consists only of the replacement of the defective lamp system and/or fixture. Limitations of liability: under no circumstances, whether as a result of breach of contract, breach of warranty, tort, strict liability or otherwise, will NU VUE be liable for consequential, incidental, special or exemplary damages, including but not limited to, loss of profits, loss of use or damage to any property or equipment, cost of capital, cost of substitute product, facilities or services, down time costs, or claims of claimant's customers. Nu Vue's liability for claims of any kind or for any loss or damages arising out of, resulting from or concerning any aspect of this warranty or from the induction products or services furnished hereunder, shall not exceed the price of the specific induction lamp system and the fixture products which gives right to the claim. IN NO EVENT SHALL NU VUE BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE INDUCTION LAMP SYSTEM, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH INDUCTION LAMP SYSTEM AND THE FIXTURE TO THE FULL EXTENT THAT SUCH MAY BE DISCLAIMED BY LAW.