

| | |
|------------|-----------|
| DATE: | LOCATION: |
| TYPE: | PROJECT: |
| CATALOG #: | |



FEATURES

- Architectural styling in an edge-lit luminaire
- High efficiency acrylic lens featuring edge lit technology
- Ideal for offices, schools, medical, and public spaces
- Available in trendy matte black finish
- Stylish controls integration
- Wet location option available
- 2" overall depth, 2 1/4" with emergency battery pack option
- Surface mount kit available as an accessory
- Up to 140 lumens per watt



CONTROLS TECHNOLOGY



SPECIFICATIONS

CONSTRUCTION

- Extruded aluminum side and center rails, cast aluminum end caps, cold-rolled steel driver enclosure
- Acrylic light guide and diffuser with custom frost for high efficacy without pixelation
- Rail and end cap surfaces are finished after fabrication with unique formula high-reflectivity matte white paint

INSTALLATION

- An access plate is furnished with each luminaire for fast wiring access without the necessity to open the fixture or wireway
- Luminaire fits recessed exposed Grid ceilings (G); four NEC compliant T-bar clips included
- Can be placed in Slot Grid (SG) style ceiling with regress 3/8" above ceiling plane
- A Flange Kit (FK) accessory is available for recessed hard ceiling applications
- Surface Mount (SM) accessory allows placement below ceiling plane

ELECTRICAL

- 60,000 hour LEDs at L80 for reduced maintenance
- 82 CRI standard or optional 90 CRI for color sensitive applications

CONTROLS

- Optional SpectraSync Tunable White solution integrates seamlessly into a variety of control systems
- NX Lighting Controls provides options for standalone and networked integrated sensor with wired or wireless connectivity for NX system deployments
- NX Connect is a standalone wireless deployment for room based applications using wireless enabled and battery operated devices

CERTIFICATIONS

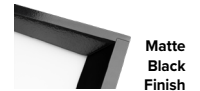
- Emergency battery pack options are California Energy Commission (CEC) Title 20 Compliant
- IC label is standard for recessed products
- All luminaires are built to UL 1598 standards, and bear appropriate cCSAus labels
- CSA certified to UL 924 standards with battery pack or DTS (Dimming Bypass Module) options
- Damp Location label standard; Wet location Listing available
- UL Sanitation certified to NSF standards

CERTIFICATIONS (CONTINUED)

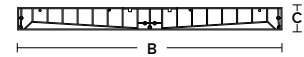
- Adheres to LM79, LM80, and TM21 industry standards
- Tested in accordance with ISO 14644-1; suitable for ISO Class 5-9 positive and negative pressure clean rooms
- The DTS, Dimming Bypass Module, is for emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. See wiring diagram.
- DLC® (DesignLights Consortium) Qualified, with some Premium Qualified configurations. Please refer to the DLC website for specific product qualifications at www.designlights.org
- Product configurations not including battery packs or controls meet federal procurement law requirements under the Trade Agreements Act (FAR 52.225-11). [See Buy America\(n\) Solutions](http://www.buyamerica.gov)

WARRANTY

- 5 year warranty



| Typical Dimensions and Weights | | | | |
|--------------------------------|---------------------------|--------------------------|---------------------------|--------------------|
| Sizes | (A) Length Inches (mm) | (B) Width Inches (mm) | (C) Height Inches (mm) | Weight lbs (kg) |
| 1x2 | 23.75 (603) | 11.75 (299) | 2.00 (51) | 10.0 (4.5) |



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ORDERING GUIDE

Example: VSY12--35MLHEG--EDU

| VSY12 | | | | G | |
|--|-------|------------|---|--------------|--|
| Model | CRI | Color Temp | Nominal Lumens ³ | Ceiling Type | Driver |
| VSY12 Verify 1'x2' Architectural Edge-Lit | Blank | >80 | 30 3000K | VWHE 1440 | G Grid ⁴ |
| | 9 | >90 | 35 3500K | MWHE 1950 | ED 0-10V Dimming |
| | | | 40 4000K | LWHE 2560 | ED1 0-10V 1% Dimming |
| | | | 50 5000K | MLHE 3290 | EDD 0-10V Dim-to-Off |
| | | | 2765T 2700K–6500K SpectraSync™ Tunable White ^{1,2} | HLHE 3635 | LUTH Hi-Lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology ^{5,6} |
| | | | | VLHE 4410 | DALIP Powered by DALI ⁵ |
| | | | | | U 120–277V |
| | | | | | 347 347V |

| Options | Control Options ¹² |
|--|---|
| ELL14 10W Emergency Battery Pack (CEC Title 20 compliant) Installed ^{2,5,7,8} | <u>NX Lighting Controls</u> |
| ELL14ST Emergency Battery Pack, 1400 Lumens, Self Test ^{2,5,7,8} | <u>Networked Wireless</u> |
| ELL14H2 Emergency Battery Pack, 2-Hour Run Time ^{2,5,7,8,9} | NXW NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor ^{2,13,14,15} |
| DTS Dimming Bypass Module ^{2,5,8,10} | NXWSM NX Networked Wireless Enabled Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{2,13,15} |
| C388 3-Wire Flex | <u>Networked Wired</u> |
| C488 4-Wire Flex | NXE NX Wired Dual RJ45 SmartPORTS, without Sensor ^{2,13,14,15} |
| C588 5-Wire Flex | NXESM NX Wired Dual RJ45 SmartPORTS and Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming ^{2,13,14,15} |
| C688 6-Wire Flex | <u>Independent Control</u> |
| GLR Fast Blow Fuse | NXCS NX Connect NXC-WIZ20 Wireless Indoor Occupancy and Photocell Sensor ^{2,5,16,17,18,20} |
| CP Chicago Plenum | <u>Other Lighting Controls</u> |
| WL Wet Location ¹¹ | <u>Networked Wireless</u> |
| MB Matte Black Finish | LVR Lutron Vive Wireless DFCSJ-OEM-RF In-Fixture Control (RF only) ^{5,18,19,20} |
| | LVS Lutron Vive Wireless DFCSJ-OEM-OCC In-Fixture Control with Daylight and Occupancy Sensing ^{5,18,19,20} |
| | AWNRLutron Athena Integral Fixture Control A-WN-DO1-RF-WH (RF only) ^{5,15,18,21} |
| | AWNS Lutron Athena Integral Fixture Control A-WN-DO1-OCC-WH with Daylight and Occupancy Sensing ^{5,15,18} |
| | <u>Independent Control</u> |
| | ODPG Occupancy and Daylight Sensors w/ Grouping, Philips EasySense SNS200 ^{5,15,20} |

ACCESSORY ORDERING GUIDE

| Accessories |
|--|
| <input type="checkbox"/> FK12 1' x 2' Single Flange Kit (Shipped separately) |
| <input type="checkbox"/> KIT-VSY12 SM VSY Surface Mount Kit (1'x2') |

- Notes:

1 Available with ED driver and 80 CRI only. Not available with MLHE, HLHE or VLHE lumen package

2 Combination of SpectraSync, NX and emergency battery pack in not available

3 Refer to performance tables for exact values and available lumen outputs for fixture size

4 For drywall, order G with flange kit accessory

5 Not available with 347V

6 Not available with VWHE lumen package

7 To determine lumen output in emergency mode, multiply the battery pack wattage by the fixture lumens per watt (LPW)

8 For compatibility with Dual-Lite Litegear inverters, contact lighting representative

9 Not available for use in Canada

10 For emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. See wiring diagram page 8.

11 Not available with Surface Mount Kit, Controls or Emergency Battery Pack

All Controls

12 Minimum ambient temperature: 0°C (32°F)

NX Lighting Controls Options

13 NX combined with SpectraSync is not available in 347V

14 Not compatible with Surface Mount Kit

15 Not available with LUTH or DALIP driver options

16 NX Connect devices can be configured using the NX Connect Mobile App, available in the Apple App Store

17 NX Connect devices are not compatible with NX Networked Wireless or Wired Options

Other Lighting Controls Options

18 Not available with SpectraSync

19 Vive is a trademark of Lutron Electronics Co., Inc.

20 Only available with DALIP driver option

21 When installing in a hard ceiling application room side mounting is suggested, please consult factory

| | |
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DELIVERED LUMENS

| PRODUCT AVAILABILITY 80 CRI | | | |
|-----------------------------|--------|-------------|-----|
| Lumen Package | Lumens | Input Watts | LPW |
| VSY12-30VWHE | 1407 | 11 | 126 |
| VSY12-35VWHE | 1442 | 11 | 129 |
| VSY12-40VWHE | 1466 | 11 | 131 |
| VSY12-50VWHE | 1428 | 11 | 128 |
| VSY12-30MWHE | 1905 | 15 | 125 |
| VSY12-35MWHE | 1952 | 15 | 128 |
| VSY12-40MWHE | 1985 | 15 | 130 |
| VSY12-50MWHE | 1985 | 15 | 130 |
| VSY12-30LWHE | 2501 | 19 | 130 |
| VSY12-35LWHE | 2563 | 19 | 133 |
| VSY12-40LWHE | 2607 | 19 | 135 |
| VSY12-50LWHE | 2607 | 19 | 135 |
| VSY12-30MLHE | 3209 | 24 | 131 |
| VSY12-35MLHE | 3288 | 24 | 135 |
| VSY12-40MLHE | 3344 | 24 | 137 |
| VSY12-50MLHE | 3344 | 24 | 137 |
| VSY12-30HLHE | 3551 | 27 | 134 |
| VSY12-35HLHE | 3636 | 27 | 137 |
| VSY12-40HLHE | 3699 | 27 | 140 |
| VSY12-50HLHE | 3699 | 27 | 140 |
| VSY12-30VLHE | 4306 | 33 | 132 |
| VSY12-35VLHE | 4413 | 33 | 135 |
| VSY12-40VLHE | 4487 | 33 | 137 |
| VSY12-50VLHE | 4275 | 32 | 133 |

PROJECTED LUMEN MAINTENANCE

| Calculation Method | Ambient Temp | 25,000 hrs | 50,000 hrs | 60,000 hrs * |
|--------------------|--------------|------------|------------|--------------|
| TM-21-11 | 25C/77F | 0.94 | 0.89 | 0.87 |
| TM-21-21 | 25C/77F | 0.94 | 0.88 | 0.86 |

* Lumen maintenance values calculated per TM-21 using six times the LM-80 test time for the LED and in-situ thermal testing of the luminaire.

DATE:

LOCATION:

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NX LIGHTING CONTROLS



| Control Option Ordering Logic & Description | | | Control Option Functionality | | | | | | | | Control Option Components | |
|---|-------|--|------------------------------|----------|------------|------------------|---------------------|---------------|----------------|---------------------------|---------------------------|---------------------|
| | | | Networkable | Grouping | Scheduling | Occupancy/Motion | Daylight Harvesting | 0-10V Dimming | On/Off Control | Bluetooth App Programming | | |
| NX Wireless | NXW | NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor | ✓ | ✓ | ✓ | - | - | ✓ | ✓ | ✓ | | NXRM2-H |
| | NXWSM | NX Networked Wireless Enabled Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth® Programming | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | NXSMP2-SMI |
| NX Wired | NXE | NX Wired Dual RJ45 SmartPORTS , without Sensor | ✓ | ✓ | ✓ | - | - | ✓ | ✓ | ✓ ¹ | | NXDSP |
| | NXESM | NX Wired Dual RJ45 SmartPORTS and Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth® Programming | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | NXDSP NXSMP2-SMI |
| NX Independent | NXCS | NX Connect NXC-WIZ20 Wireless Indoor Occupancy and Photocell Sensor | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ ² | | NXC-WIZ20 |

1 Requires NXBTC, order separately.
2 Requires use of NX Connect App available for download from Apple app store.

DEFAULT SETTINGS

| | | |
|-----------------------------|--|-------------|
| NX Wireless & Wired | Occupancy Sensor | Enabled |
| | Occupancy Sensor Sensitivity | 7 Minutes |
| | Occupancy Sensor Timeout | 15 Minutes |
| | Occupied Dim Level | 100% |
| | Unoccupied Dim Level | 0% (OFF) |
| | Daylight Sensor | Disabled |
| | Bluetooth | Enabled |
| | 2.4GHz Wireless Mesh | Off |
| | Passcode Factory Passcode: HubbN3T! | Enabled |
| NX Independent - NX Connect | Settling/Dwell Time | 5 sec |
| | Hold Time | 10 min |
| | Group Hold Time | 10 min |
| | Grace Time | - |
| | Strategy | Auto ON/OFF |
| | Occupancy Sensitivity | 5 (highest) |
| | Occupancy Indicator | ON |
| | Partial Off/Standby | 0% |
| | Background Level | 50% |
| | Task Level | 100% |
| | Daylight Harvesting | - |
| | Low Ambient Output | 250% |
| | High Ambient Output | OFF |

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CONTROLS TECHNICAL SUPPORT

1-800-888-8006 (7:00 am–7:00 pm est)

APP INFORMATION

NX Lighting Controls App



The NX Lighting Controls App is a free to use mobile application for programming both an NX Lighting Controls System or Standalone Bluetooth Sensors. The mobile app allows you to configure devices, discover and setup wireless enabled luminaires and program your NX system settings.



Android



Apple iOS

NX Connect App



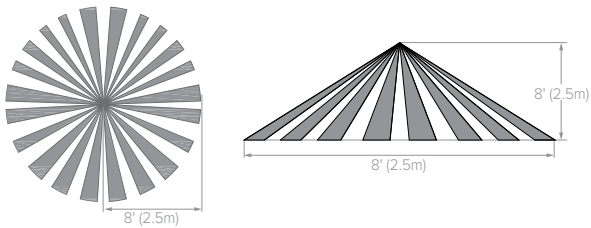
The NX Connect mobile App is a free to use mobile application for programming a NX Connect System. The mobile App allows you to discover, configure and share your NX Connect system.



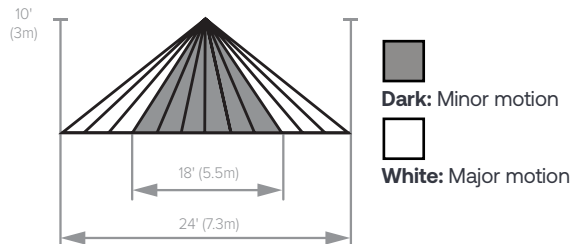
Apple iOS

COVERAGE PATTERNS

NXWSM/NXESM (NXSMP2-SMI SENSOR)



NXCS (NXC-WIZ20 SENSOR)



DATE:






LOCATION:

TYPE:

PROJECT:


CATALOG #:

OTHER LIGHTING CONTROLS

| Control Option Ordering Logic & Description | | | Control Option Functionality | | | | | | | | Control Option Components | |
|---|-------|--|------------------------------|----------|------------|----------------------|------------------------|------------------|-------------------|------------------------------|---|-----------------|
| | | | Networkable | Grouping | Scheduling | Occupancy/ Motion | Daylight Harvesting | 0-10V Dimming | On/Off Control | Bluetooth App Programming | | |
| Other | ODPG | Occupancy sensing, daylight harvesting and task tuning in one device. ¹ | - | ✓ | - | ✓ | ✓ | ✓ | ✓ | ✓ ³ |  | SNS200 |
| | LVR | The Vive integral fixture control is a radio frequency (RF) device that controls either Lutron EcoSystem or DALI drivers based on RF input from Pico remote controls, Radio Powr Savr wireless sensors, or Vive hubs. ² | ✓ | ✓ | ✓ | - | - | - | ✓ | - |  | DFCSJ-OEM-RF |
| | LVS | | ✓ | ✓ | ✓ | ✓ | ✓ | - | ✓ | - |  | DFCSJ-OEM-OCC |
| | AWNDR | The Athena wireless node is a radio frequency (RF) device that enables simple, digital control of individual light fixtures in an Athena control system. ³ | ✓ | ✓ | ✓ | - | - | ✓ | ✓ | - |  | A-WN-D01-RF-WH |
| | AWNS | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - |  | A-WN-D01-OCC-WH |

1 Philips MasterConnect App required for field configuration.
2 Lutron Vive Hub required to enable Networking, Grouping and Scheduling.
3 Lutron Athena Hub required to enable Networking, Grouping and Scheduling.

Philips EasySense Controls (ODPG option) & Accessories:



- Occupancy sensing, daylight harvesting, task tuning and grouping in one device
- Standalone control or grouping to wireless switches¹
- Uses Philips field apps for on site commissioning²
- Ability to create scenes for various room configurations
- Cost-effective solution for energy-savings and code-compliance strategies
- DLC® Qualified: Listed on the GPL for Networked Lighting Controls. Please refer to the DLC website for specific product qualifications at www.designlights.org

1 Wireless switches only compatible with ODPG Philips EasySense
2 Requires android device or IR dongle.

SPECTRASync™ COLOR TUNING TECHNOLOGY

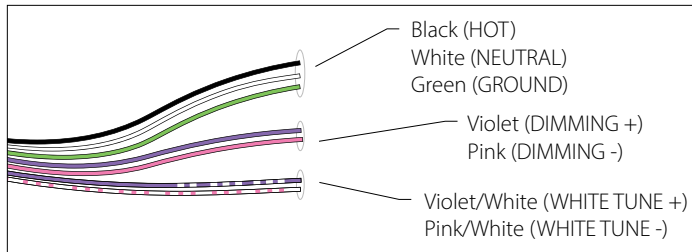
Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with distinct SpectraSync™ Color Tuning Technologies.



| SPECTRASync COLOR TUNING TECHNOLOGY | | |
|-------------------------------------|--------------|--|
| Mode | Kelvin Range | Description |
| Tunable White | 2700K–6500K | Offers users the ability to tailor CCT to their personal preference, enhancing task visibility, material and colors or the aesthetics of the space |

SpectraSync Tunable White

Requires two 0–10V controllers, one for intensity and one for CCT.
Minimum 10% dimming.

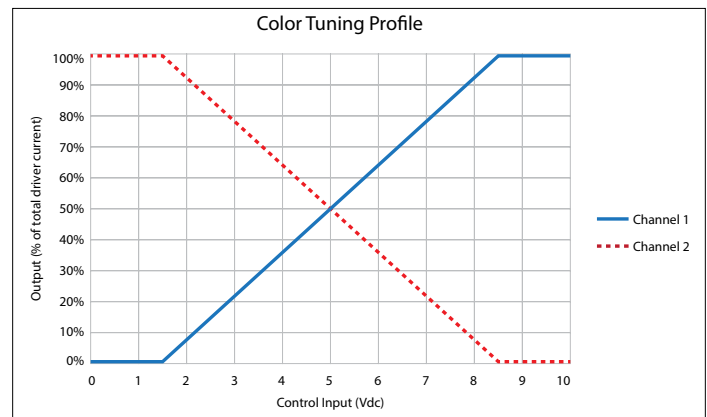


SpectraSync Tunable White luminaires are provided with two 0–10V circuits. The violet and pink circuit is for wiring to any qualified 0–10V controller for dimming. The violet/white and grey/white circuit is for wiring to any qualified 0–10V controller for Tunable White CCT control.

Controller Manufacturer Data

SpectraSync Tunable White was designed to be used with sinking style dimmers (provided by others) and is compatible with:

- NX Lighting Controls Room Controller (NXRC) and In-fixture Controllers (NXFM)
- Lutron: DDTV, DVSTV, and NFTV dimmers
- Wattstopper: ADF120277 and CD4BL (Titan) dimmers



To enable scheduling and for use with NX wall control preset stations please refer to NX SpectraSync technical sheet.

Delivered Lumens, SpectraSync™

| Lumen Output | Watts | 2700 | | 3000 | | 3500 | | 4000 | | 5000 | | 6500 | |
|--------------|-------|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|
| | | Lumens | LPW | Lumens | LPW | Lumens | LPW | Lumens | LPW | Lumens | LPW | Lumens | LPW |
| VWHE | 11 | 1347 | 121 | 1407 | 126 | 1442 | 129 | 1466 | 131 | 1428 | 128 | 1426 | 128 |
| MWHE | 15 | 1823 | 120 | 1905 | 125 | 1952 | 128 | 1985 | 130 | 1985 | 130 | 1930 | 127 |
| LWHE | 19 | 2394 | 124 | 2501 | 130 | 2563 | 133 | 2607 | 135 | 2607 | 135 | 2535 | 131 |

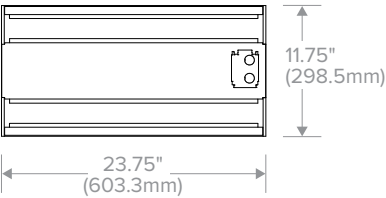
VSY12

VERIFY™ '1'X2' ARCHITECTURAL EDGE-LIT

DIMENSIONS

GRID

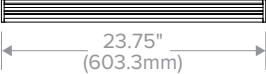
Top view



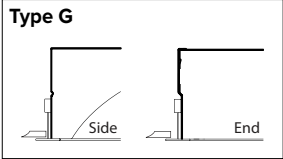
Front view



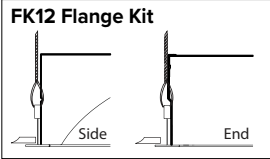
Side view



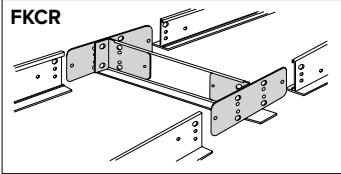
CEILING COMPATIBILITY



For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed.



For hard ceiling applications, order FK12 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.



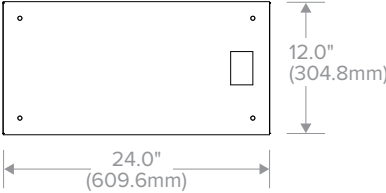
For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK12 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK12 & (1) FKCR)

Row cut out dimensions using FK12s & FKCR adapters:
Width 12 3/8", Length [24" × (# in row)] + 3/8".
Example: (24" × 2) + 3/8" = 48 3/8"

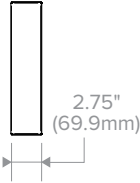
Flange kit cut out dimension for single unit only: 12 3/8" × 24 3/8"

SURFACE MOUNT

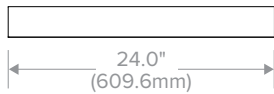
Top view



Front view



Side view



PHOTOMETRY

VSY12-35MLHE-EDU

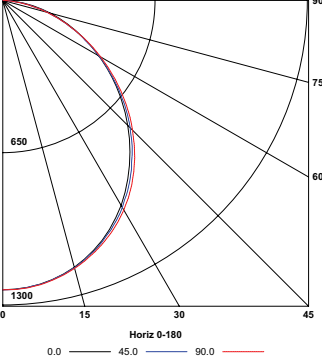
LUMINAIRE DATA

| | |
|-------------------|--|
| Test No. | 19.00994 |
| Description | Recessed Architectural Edge-Lit 1' x 2' LED with Acrylic Diffuser |
| Delivered Lumens | 3288 |
| Watts | 24.43 |
| Efficacy | 135 |
| Mounting | Recessed |
| Spacing Criterion | 0° = 1.22 90° = 1.24 |

ZONAL LUMEN SUMMARY

| Zone | Lumens | % Luminaire |
|-------|--------|-------------|
| 0-30 | 950 | 28.9 |
| 0-40 | 1540 | 46.8 |
| 0-60 | 2646 | 80.5 |
| 0-90 | 3288 | 100 |
| 0-180 | 3288 | 100 |

POLAR GRAPH



DTS WIRING DIAGRAM (0-10V DIMMING DRIVER SHOWN)

