

DIGITAL NAVIGATION

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FEATURES & SPECIFICATIONS

INTENDED USE — Available in 1X4, 2X2 and 2x4 configurations, HVTS provides both functionality and efficiency. HVTS is the ideal choice for many recessed commercial applications. The wide center basked and curved matte reflector allow HVTS to deliver a high quality of light while maintaining optimal performance.

• **Less than 2" in depth.**

- A high level of configurability allows you to choose the perfect solution for your space.
- Available 0-10v dimming to 1%
- Long-life LEDs deliver 80% lumen maintenance at 60,000 hours

The HVTS lay-in delivers low glare, ambient lighting in a popular center-basket design. A typically configured HVTS features a **Unified Glare Rating (UGR)** starting at 16, UGR data available on [page 7](#). The slim profile of the luminaire, coupled with energy-saving LED technology make HVTS an ideal choice for renovation or new construction. The HVTS lay-in offers a high-quality, cost-effective LED lighting solution for schools, offices, retail, healthcare facilities and other commercial spaces.

CONSTRUCTION — The reflector is finished with a glare reducing matte white paint for improved aesthetics and increased light diffusion. End plates contain easy-to-position clips allowing the luminaire to be securely attached to the T grid. Diffusers are extruded from impact modified acrylic for increased durability. LED boards are accessible from the room-side, and drivers are accessible from the plenum.

Integrated Sensor (nLight® Wired Networking): This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software.

Integrated Smart Sensor (nLight Air Wireless Platform): The RES7 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is available with an automatic dimming photocell, and either a digital PIR or a microphonics (PDT) dual technology occupancy sensor. It pairs to other luminaires and wall switches through our mobile app, **CLAIRITY+**, which allows for simple sensor adjustment

Integrated Wireless Sensor (single room control): Sensor Switch™ VERTEX JOT or JOTVTX15 luminaire-embedded occupancy and ambient light sensor allows the luminaire to power off when the space is unoccupied or when enough ambient light is entering the space. See [page 7](#) for more details on the integrated wireless sensor.

INSTALLATION — With a depth of only 1.9", HVTS makes for an easy installation, especially in restrictive plenum applications. HVTS fits into standard 15/16" and narrow 9/16" T-grid ceiling systems. Suitable for damp location.

ELECTRICAL — Long-life LED's, coupled with high-efficiency drivers provide superior quality of light and an extended service life. 80% LED lumen maintenance at 60,000 hours (L80/60,000). 0-10 volt dimming driver, dims to 1%.

OPTICS — Volumetric illumination is achieved by creating an optimal mix of light to walls, partitions and vertical and horizontal work surfaces – rendering the interior space, objects and occupants in a more balanced, complimentary luminous environment. A high performance acrylic diffuser conceals LED's and efficiently delivers light in a volumetric distribution.

LISTINGS — CSA certified to meet US and Canadian standards. Damp location listed. IC rated. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice

Catalog Number
Notes
Type

LED Center Element Lay-In

HVTS



Specifications

2X4: 47-3/4 (60.3) L ; 23-3/4 (60.3)

W ; 1.9 (4.8) D

2X2: 23-3/4 (60.3) L ; 23-3/4 (60.3)

W ; 1.9 (4.8) D

1X4: 23-3/4 (60.3) L ; 11-3/4 (29.8)

W ; 1.9 (4.8) D

All dimensions are inches (centimeters) unless otherwise specified.



A+ Capable Luminaire


This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning when used with Acuity Brands controls products.

All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency – including color rendering, color fidelity, and color temperature tolerance around standard CIE chromaticity coordinates.

To learn more about Acuity A+ standards, specifications, and testing visit www.acuitybrands.com/aplus.

HVTS
LED Center Element Troffer




 A+ Capable options indicated by this color background.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: HVTS 2X4 5000LM 80CRI 40K COL MIN10 ZT MVOLT

Series	Size	Lumens	CRI	Color Temperature	Lens	Minimum Dimming Level	Dimming ‡	Voltage
HVTS	1X4 1'x4'	3000LM	80CRI 80 CRI	30K 3000K	COL Curved Opal Lens	MIN1 Dims to 1% ‡	(blank) none	MVOLT 120-277V
		4000LM	90CRI 90 CRI	35K 3500K	COLT Curved Opal Lens with Trim	MIN10 Dims to 10%	EZO eldoLED 0-10V Dimming ‡	120 120V
		5000LM		40K 4000K				277 277V
		6000LM		50K 5000K				347 347V ‡
		7200LM						
	2X2 2'x2'	2000LM					ZT Generic 0-10V Dimming ‡	
		3000LM						
		4000LM						
	2X4 2'x4'	5000LM						
		6000LM						
		7200LM						

Step Level Dimming Option	Emergency Options	Controls Input	Sensor
(blank) none SLD Step-level dimming ‡	E7W EM battery pack, 7W, CA Title 20 Noncompliant ‡	(blank) No Control Input	(blank) No Sensor or Control Input function only, if selected.
	E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS ‡	SSE Sensor Switch Embedded ‡	APIR Occ sensing with passive infrared - on/off functionalityand auto dimming photocell
	E15WLCP EM Self-Diagnostic battery pack, 15W Constant Power, Certified in CA Title 20 MAEDBS ‡		APDT Occ sensor dual tech (passive infrared & microphonics) and auto dimming photocell
	GTD Generator Transfer Device ‡		VPIR8 Vertex low-profile on/off occupancy PIR occupancy sensor with VLP programming at 8ft mounting height
		NLIGHT nLight enabled	VAPIR8 Vertex low-profile on/off occupancy sensor with auto dimming photocell with VLP programming at 8ft mounting height
		NLIGHTER nLight enabled, for use with generator supply EM power	VPIR15 Vertex low-profile on/off occupancy PIR occupancy sensor with VLP programming at 15ft mounting height
		NLIGHTLM nLight enabled with lumen management	VAPIR15 Vertex low-profile on/off occupancy sensor with auto dimming photocell with VLP programming at 15ft mounting height
		NLIGHTERLM nLight enabled with lumen management, for use with generator supply EM power	
		NLTAIR2 nLight AIR Generation 2 (wireless) enabled ‡	(blank) No sensor, Control Input function only
		NLTAIREM2 nLight AIR Generation 2 (wireless) enabled and UL924 Emergency Operation, via power interrupt detection ‡	APIR Occ sensing with passive infrared - on/off functionalityand auto dimming photocell
			APDT Occ sensor dual tech (passive infrared & microphonics)
			APIREM Occ sensing with passive infrared - on/off functionalityand auto dimming photocell
			APDTEM Occ sensor dual tech (passive infrared & microphonics) and auto dimming photocell and UL924 Emergency Operation, via power interrupt detection.
			VPIR8 Vertex low-profile on/off occupancy PIR occupancy sensor with VLP programming at 8ft mounting height
		JOT JOT, "Just One Touch" (wireless) enabled ‡	(blank) No sensor, Control Input function only
			VAPIR15 Vertex low-profile on/off occupancy sensor with auto dimming photocell with VLP programming at 15ft mounting height

Table with 2 main columns: Standby Mode and Options. Standby Mode includes NOC and Occupancy Sensor Disabled. Options include PWS1836, PWS1846, PWS1846 PWSLV, PWS1856LV, CP, LATC, and DWAM.

Table with 2 columns: Option Value and Restriction. It lists various options like 347, CP, Dimming, E7W, E10WLCP, E15WLCP, EZT, GTD, JOT, MIN1, NLTAIR2, NLTAIREM2, NOC, PWS1846 PWSLV, PWS1856LV, SLD, SSE, and ZT with their respective restrictions.

ACCESSORIES

Table with 2 columns: Accessory Name and Description. Lists accessories like HDGA14, HDGA22, HDGA24, H1X4SMKSHPPAF, H2X2SMKSHPPAF, H2X4SMKSHPPAF, HVTSPSRMEIC, HBDP 2P U, HBDP 3P U, HBDP 2P J10, and HBDP 2P J40.

UL924 Sequence of Operation
The below information applies to all nLight AIR devices with an EM option.
• EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
• Using the CLAIRITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
• Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices.

Emergency Battery Pack Options - Field Installable

Table with 5 columns: Battery Model Number, Wattage, Runtime (Minutes), Lumen Output* @ 120 Lumens/Watt, and Other. Rows include models like ILB CP07 2H A, ILB CP10 A, ILB CP10 HE AELR A, etc.

All the above are UL Listed products that are certified for field install external/remote to the fixture.
*Minimum delivered lumen output to assist in product selection for increased fixture mounting height.
The CP10 delivered emergency illumination outperforms legacy 1400 lumen fluorescent emergency ballast.
Please contact us at techsupport@iotaengineering.com for any Emergency Battery related questions.



Field Installed Emergency LED Driver



ILB CP10 HE AELR A

Compliance Just Got Easier!

Emergency Lighting with Self Testing Automated Reporting (STAR), enables self-testing and automated reporting to aid in life safety code compliance. Emergency lighting equipment enabled with STAR, automatically conducts the required monthly and annual tests, logs results within the units, and wirelessly communicates test data on demand to the CLARITY+ mobile app. Leave the ladders, disruptions and written records behind with emergency lighting solutions with STAR!

Life Safety Code (NFPA101)
Testing & Reporting Requirements

- 30 seconds every 30 days
- 90 minutes every year
- Keep records for 5 years



DOWNLOAD CLARITY+



HVTS is compatible with Sensor Switch™
WSXA D and SPODMA D as well as nLight Wall Pods.



WSXA D



SPODMA D



nLight WIRED
nPODMA DX



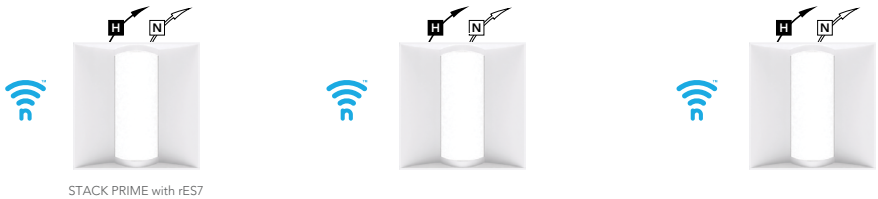
nLight AIR
rPODBA

Intelligent Luminaire Technology Guide

Choose nomenclature from these columns				
Control/Sensor Configurations	Control Input	Sensor	Sensor	Notes
	SSE	+	APIR	= MSD 7 ADCX Individual fixture control only. PIR integral occupancy sensor with automatic dimming control photocell.
	SSE	+	APDT	= MSD PDT 7 ADCX Individual fixture control only. PDT integral occupancy sensor with automatic dimming control photocell.
	SSE	+	VPIR8	= VERTEX 8F EZ OCC VLP Vertex low-profile on/off occupancy PIR occupancy sensor with VLP programming at 8ft mounting height.
	SSE	+	VAPIR8	= VERTEX 8F EZ ADC VLP Vertex low-profile on/off occupancy sensor with auto dimming photocell with VLP programming at 8ft mounting height.
	SSE	+	VPIR15	= VERTEX 15F EZ OCC VLP Vertex low-profile on/off occupancy PIR occupancy sensor with VLP programming at 15ft mounting height.
	SSE	+	VAPIR15	= VERTEX 15F EZ ADC VLP Vertex low-profile on/off occupancy sensor with auto dimming photocell with VLP programming at 15ft mounting height.
	JOT	+	(blank)	= BTRM JOT BTA Wireless room control with "Just One Touch" pairing.
	JOT	+	VAPIR15	= BTRM JOT BTA + VERTEX 15F EZ ADC VLP GSKT Wireless room control with "Just One Touch" pairing.
	NLIGHT	+	(blank)	= nIO EZDXA nLight enabled only. No onboard sensor.
	NLIGHT	+	PIR	= nIO EZDXA + nES 7 nLight enabled with PIR integral occupancy sensor.
	NLIGHT	+	PDT	= nIO EZDXA + nES PDT 7 nLight enabled with dual technology occupancy control sensor.
	NLIGHT	+	APIR	= nIO EZDXA + nES 7 ADCX nLight enabled with PIR integral occupancy sensor with automatic dimming photocell.
	NLIGHT	+	APDT	= nIO EZDXA + nES PDT 7 ADCX nLight enabled with dual technology occupancy controls sensor with automatic dimming photocell.
	NLIGHT	+	VPIR8	= nIO EZDXA + VERTEX 8F EZ OCC VLP nLight enabled with Vertex low-profile on/off occupancy PIR occupancy sensor with VLP programming at 8ft mounting height.
	NLIGHTER	+	(blank)	= nIO EZDCL ER Emergency nLight enabled only. No onboard sensor. BUS Power required.
	NLIGHTER	+	PIR	= nIO EZDCL ER PH + nES 7 Emergency nLight enabled with PIR integral occupancy sensor. BUS Power required.
	NLIGHTER	+	PDT	= nIO EZDCL ER PH + nES PDT 7 Emergency nLight enabled with dual technology occupancy control sensor. BUS Power required.
	NLIGHTER	+	APIR	= nIO EZDCL ER + nES 7 ADCX Emergency nLight enabled with PIR integral occupancy sensor with automatic dimming photocell. BUS Power required.
	NLIGHTER	+	APDT	= nIO EZDCL ER + nES PDT 7 ADCX Emergency nLight enabled with dual technology occupancy controls sensor with automatic dimming photocell. BUS Power required.
	NLIGHTLM	+	(blank)	= nIO EZDXA N80 nLight enabled only with 80% constant lumen management. No onboard sensor.
	NLIGHTLM	+	PIR	= nIO EZDXA N80 + nES 7 nLight enabled with 80% constant lumen management with PIR integral occupancy sensor.
	NLIGHTLM	+	PDT	= nIO EZDXA N80 + nES PDT 7 nLight enabled with 80% constant lumen management with dual technology occupancy control sensor.
	NLIGHTLM	+	APIR	= nIO EZDXA N80 + nES 7 ADCX nLight enabled with 80% constant lumen management with PIR integral occupancy sensor with automatic dimming photocell.
	NLIGHTLM	+	APDT	= nIO EZDXA N80 + nES PDT 7 ADCX nLight enabled with 80% constant lumen management with dual technology occupancy controls sensor with automatic dimming photocell.
	NLIGHTLMER	+	(blank)	= nIO EZDCL ER N80 Emergency nLight enabled only with 80% constant lumen management. No onboard sensor. BUS Power required.
	NLIGHTLMER	+	PIR	= nIO EZDCL ER N80 + nES 7 Emergency nLight enabled with 80% constant lumen management with PIR integral occupancy sensor. BUS Power required.
	NLIGHTLMER	+	PDT	= nIO EZDCL ER N80 + nES PDT 7 Emergency nLight enabled with 80% constant lumen management with dual technology occupancy control sensor. BUS Power required.
	NLIGHTLMER	+	APIR	= nIO EZDCL ER N80 + nES 7 ADCX Emergency nLight enabled with 80% constant lumen management with PIR integral occupancy sensor with automatic dimming photocell. BUS Power required.
	NLIGHTLMER	+	APDT	= nIO EZDCL ER N80 + nES PDT 7 ADCX Emergency nLight enabled with 80% constant lumen management with dual technology occupancy controls sensor with automatic dimming photocell. BUS Power required.
	NLTAIR2	+	(blank)	= RIO EZDL 180D G2 nLight AIR Generation 2 enabled.
	NLTAIREM2	+	(blank)	= RIO EZDL EM 180D G2 nLight AIR Generation 2 enabled
	NLTAIR2	+	APIR	= RES7 G2 nLight AIR Generation 2 enabled.
	NLTAIR2	+	APDT	= RES7 PDT 90D G2 nLight AIR Generation 2 enabled.
	NLTAIR2	+	APIREM	= RES7 EM 90D G2 nLight AIR Generation 2 enabled.
	NLTAIR2	+	APDTEM	= RES7 PDT EM 90D G2 nLight AIR Generation 2 enabled.
	NLTAIR2	+	VPIR8	= RIO EZDL EXTDB ACWH 90D G2 + VERTEX 8F EZ OCC VLP nLight AIR Generation 2 enabled. Vertex low-profile on/off occupancy PIR occupancy sensor with VLP programming at 8ft mounting height.

nLight Platform

nLight AIR Wireless

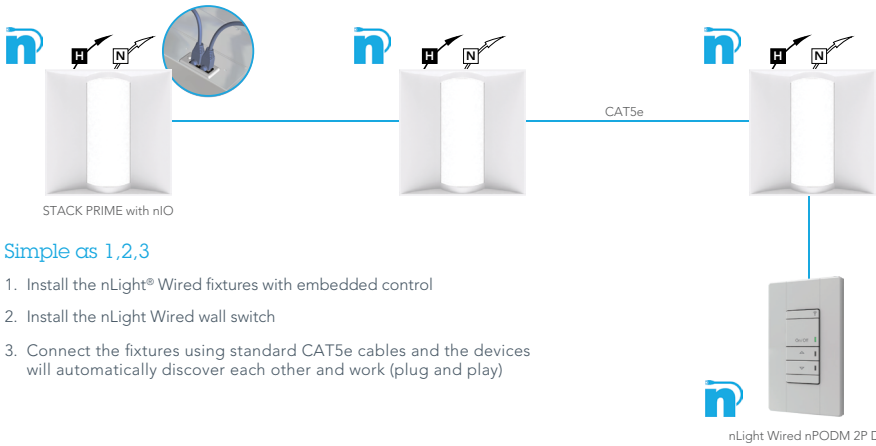


Simple as 1,2,3

- 1. Install the nLight® AIR fixtures with embedded smart sensor
- 2. Install the wireless battery-powered wall switch
- 3. With the **CLAIRITY+** Pro app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome



nLight Wired Networking



Simple as 1,2,3

- 1. Install the nLight® Wired fixtures with embedded control
- 2. Install the nLight Wired wall switch
- 3. Connect the fixtures using standard CAT5e cables and the devices will automatically discover each other and work (plug and play)

nLight embedded fixtures offer:	Customers get:
Manual Dimming	Convenience and visual comfort for occupants
Motion Sensing and/or Daylight Harvesting	Energy savings and code compliance
Fixture or Group Level Control	Ability to configure lighting to the space requirements
Flexibility	Ease of fixture moves, adds and changes
Wireless Wall Switch (nLight AIR Only)	Ease and flexibility of placement
Astronomical and Time of Day Scheduling	Energy savings and building security
Scalable Solution	nLight controls to grow with your business
Future-Ready	nLight platform to set foundation for future upgrades and capabilities

Controls Accessories

nLight® Wired Control Accessories: Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight .			
WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODMA [Color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODMA DX [Color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD TOUCH [Color]	Wall switch with raise/lower	nWSX PDT LV DX [color]
Photocell controls	Model number	Cat-5 cable (plenum rated)	Model number
Full range dimming	nCM ADCX RJB	10' cable	CAT5 10FT J1
		30' cable	CAT5 30FT J1

nLight® AIR Control Accessories: Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair .	
Wall switches	Model number
On/Off single pole	rPODBA [color] G2
On/Off two pole	rPODB A2P [color] G2
On/Off & raise/lower single pole	rPODBA DX [color] G2
On/Off & raise/lower two pole	rPODBA 2P DX [color] G2



Sensor Switch
WSXA D



nLight WIRED
nPOD UNITOUCH



nLight WIRED
nPODMA DX



nLight AIR
rPODBA

PHOTOMETRICS

See Low-Profile Recessed LED Luminaire (acuitybrands.com) for photometry reports.

UGR Chart

UGR Values of HVTSP 1x4 @ 80CRI and 3500K (70% 50% 20% reflectance using a 4H x 8H room size)				
Lumen Package	COL		COLT	
	Crosswise	Endwise	Crosswise	Endwise
3000LM	21.5	21.8	21.5	22.2
4000LM	22.4	22.8	23.7	24.4
5000LM	23.2	23.5	23.2	23.9
6000LM	23.6	24	22.4	23.1

UGR Values of HVTSP 1x4 @ 90CRI and 3500K (70% 50% 20% reflectance using a 4H x 8H room size)				
Lumen Package	COL		COLT	
	Crosswise	Endwise	Crosswise	Endwise
3000LM	21	21.4	21.1	21.8
4000LM	21.9	22.3	22	22.7
5000LM	22.7	23.1	22.8	23.5
6000LM	23.2	23.6	23.3	23.9

UGR Values of HVTSP 2x2 @ 80CRI and 3500K (70% 50% 20% reflectance using a 4H x 8H room size)				
Lumen Package	COL		COLT	
	Crosswise	Endwise	Crosswise	Endwise
2000LM	18.9	20.5	16.5	17.8
3000LM	20	21.6	17.7	19
4000LM	21	22.6	18.6	19.9
5000LM	21.7	23.4	19.4	20.7

UGR Values of HVTSP 2x2 @ 90CRI and 3500K (70% 50% 20% reflectance using a 4H x 8H room size)				
Lumen Package	COL		COLT	
	Crosswise	Endwise	Crosswise	Endwise
2000LM	18.4	20	16.1	17.3
3000LM	19.6	21.2	17.3	18.5
4000LM	20.5	22.2	18.2	19.5
5000LM	21.3	22.9	19	20.2

UGR Values of HVTSP 2x4 @ 80CRI and 3500K (70% 50% 20% reflectance using a 4H x 8H room size)				
Lumen Package	COL		COLT	
	Crosswise	Endwise	Crosswise	Endwise
3000LM	18	19.3	20.1	21.4
4000LM	18.9	20.2	20.7	22
5000LM	19.7	21.1	17.9	19.2
6000LM	20.2	21.5	18.8	20.1
7200LM	20.8	22.1	19.7	20.9

UGR Values of HVTSP 2x4 @ 90CRI and 3500K (70% 50% 20% reflectance using a 4H x 8H room size)				
Lumen Package	COL		COLT	
	Crosswise	Endwise	Crosswise	Endwise
3000LM	19.3	20.6	19.2	20.5
4000LM	19.8	21.1	19.7	21
5000LM	20.4	21.7	20.3	21.6
6000LM	17.5	18.9	17.5	18.7
7200LM	18.5	19.8	18.4	19.6

UGR varies based on luminaire options and is affected by application dependent parameters. Numbers depicted here are considered "Luminaire-UGR and/or "Point-UGR" values. To determine a more precise maximum UGR value ("Application-UGR"), a full lighting design layout should be completed with the selected luminaire configuration for each application.

PERFORMANCE DATA

Table with 4 columns: Luminaire Catalog, Lumens, Wattage, Efficacy. Rows include various HVTS 1X4 models with 3000LM, 4000LM, and 5000LM outputs.

Table with 4 columns: Luminaire Catalog, Lumens, Wattage, Efficacy. Rows include various HVTS 2X2 models with 2000LM, 3000LM, 4000LM, and 5000LM outputs.

PERFORMANCE DATA

Table with 4 columns: Luminaire Catalog, Lumens, Wattage, and Efficacy. It lists 50 different lighting fixture models and their corresponding performance metrics.