



PASCOAG
UTILITY DISTRICT

Pascoag Electric • Pascoag Water

253 Pascoag Main Street
P.O. Box 107
Pascoag, RI 02859
Phone: 401-568-6222
Fax: 401-568-0066
www.pud-ri.org

RIPUC Docket 4534

Pascoag Utility District's Request to Allocate Funds in the
2015 Demand Side Management Program

Letter of
Transmittal



April 21, 2015

Ms. Luly Massaro
Clerk of the Commission
RI Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

Re: RIPUC Docket NO. 4534
Request to allocate funds in the 2015 DSM Program

Dear Ms. Massaro:

On behalf of the Pascoag Utility District (Pascoag or the District), we herewith file an original and nine copies of its request to allocate funds to the approved budget for 2015.

The 2015 Budget was approved for \$148,570. The District would like to allocate additional money carried over from the 2014 budget. The District estimated a carryover of \$39,000; the actual carryover was \$61,926.00 or an additional \$22,926.00.

The District would like to allocate \$13,455.00 to the Committed Funds- Lighting and Energy Efficient Projects and \$9,471.00 to the LED Street Light Incentive.

The additional funds represent a change of 15.43% increase to the total budget. The Budget will increase from \$148,570 to \$171,496.

Sincerely yours,

Harle Round
DSM Coordinator

Cc: Karen Lyons, Esquire
Cc: William Bernstein, Esquire

Request to
Allocate Funds

**Pascoag Utility District
RIPUC Docket 4534**

Request to allocate funds to the 2015 Budget.

In total, Pascoag Utility District is requesting to allocate an additional \$22,926 to the 2015 DSM Budget. The 2015 budget was approved for \$148,570 which estimated the carryover of funds for 2015 at \$ 39,000; the actual carryover was \$61,926 which will increase the budget from \$148,570 to \$171,496.

The District is proposing to allocate the funds as follows: increase the funds for Committed Funds-Lighting and Energy Efficient by \$13,455 and increase the funds for LED Street Light Incentive by \$9,471.

- Exhibit I – Shows the reconciled DSM Budget for 2014 with the carryover funds.
- Exhibit II – Shows the DSM Income for 2014
- Exhibit III- Shows the Approved 2015 DSM Budget
- Exhibit IV –Shows the proposed 2015 DSM Budget with the additional funds and their percent change to the budget.
- Exhibit V – Shows supporting documents to the proposed changes.

Now, the District would like to summarize the proposed changes and the rationale behind them.

Industrial/Commercial Programs

- The District is proposing to allocate \$13,455 of the additional \$22,926 to the Committed Funds- Lighting and Energy Efficient Projects. In February of 2015 the District met with David Fontes, the Facilities Director of the Burrillville School system. He has proposed replacing some existing lighting with LED lighting at the Steere Farm Elementary, William L Callahan School, Austin T Levy, and the Burrillville High School (BHS); the incentives for lighting total \$12,533. He would also like to install vending machine and cooler sensors on 8 machines in the hallways of BHS; the incentive total for this measure would be \$920. The requested incentives for both lighting and sensors total \$13,455.00. The District is proposing to increase this line item from \$12,000 to \$25,445 to accommodate the School Department . *Please see Exhibit V for the Vendor Miser Application and the Lighting System Application that were submitted to Pascoag.*

- The District would like to allocate \$9,471 of the additional \$22,926 to the LED Street Light Incentive Program. In 2014 the District was awarded a Grant for \$62,500 to replace some of our existing street lights with LED Street Lights. The District is working very closely with Regional Greenhouse Gas Initiative which is administered by the RI Office of Energy Resources. It looks very promising that the District will receive another grant in 2015 to continue our most worthwhile efforts to change our existing high pressure sodium and mercury vapor Street Lights with more efficient LED alternatives. The District is proposing to increase this line item from \$26,526 to \$35,997.

Exhibit I

Pascoag Utility District
Demand Side Management Programs - 2014 Approved Budget with Expenses

	Estimate	Actual	Difference
Estimated Carry Over 2013	\$ 34,360	\$ 34,359.66	\$ -
Estimated / Actual sales for 2014	\$ 109,500	\$ 112,167.88	\$ 2,667.88
Net estimated/actual, 2014 budget	\$ 143,860	\$ 146,527.54	\$ 2,667.88

2014 Approved

Budget

Expenses

Balance

DR	Program	Budget	Expenses	Balance	Description
DR1401	Residential Program	\$ 2,400.00	\$ 2,400.00	\$ -	
DR1402	ENE Residential Conservation (ECHO)	\$ 3,600.00	\$ 3,200.00	\$ 400.00	12 months
DR1403	Home Energy Audits with Incentives	\$ 10,600.00	\$ 10,025.45	\$ 574.55	16 Audits
DR1404	Refrigerators/Freezer Buy Back	\$ 1,020.00	\$ 647.64	\$ 372.36	53 Refrigerators, 27 Air Conditioners, 44 Clothes Washers, 7 Dehumidifiers, 2 freezers
DR1405	Energy Efficient Windows/Doors	\$ 3,500.00	\$ 2,830.00	\$ 670.00	10 Refrigerator buy backs
DR1406	Heating System Incentive	\$ 4,750.00	\$ 4,348.20	\$ 401.80	134 Windows and 23 Doors
DR1407	ENERGY STAR qualified Water Heaters	\$ 900.00	\$ 294.50	\$ 605.50	19 Boilers
DR1408	ENERGY STAR Lighting fixtures and fans	\$ 1,000.00	\$ 474.13	\$ 525.87	2 Hybrid hot water heaters
DR1409	Home Office Equipment/Home Electronics	\$ 2,500.00	\$ 1,706.96	\$ 793.04	2 Ceiling fans, 18 Lighting fixtures
DR1410	Electric Heat Conversion/Geothermal System:	\$ 100.00	\$ -	\$ 100.00	14 TV's, 1 Battery Back-up, 3 monitors, 1 Answering Machine, 7 Printers, 9 Computers, 2 Phone, 1 dust buster
DR1411	New Construction	\$ 2,080.00	\$ 250.00	\$ 1,830.00	1 rebate
DR1412	Central Air Conditioner Incentive	\$ 2,000.00	\$ 1,700.00	\$ 300.00	5 Heat Pump Central AC, 1 Ductless Central AC
DR1413	Change a Light Campaign	\$ 909.21	\$ 814.54	\$ 94.67	224 LED Bulbs 6 Watts up to 23 Watts, 35 CFL Bulbs
DR1414	Energy Conservation Calendars	\$ 2,730.00	\$ 2,730.06	\$ (0.06)	700 Calendars
DR1415	Smart Power Strips	\$ 200.00	\$ 25.00	\$ 175.00	1 smart strip
DR1416	ENERGY STAR Pool Pumps	\$ 500.00	\$ -	\$ 500.00	no activity
DR1417	Committed for 2013 Programs	\$ 1,840.45	\$ 1,840.45	\$ -	3 Clothes Washers, 3 Refrigerators, 2 Dishwashers, 1 Refrigerator Buy-Back, 3 TVs, 6 Led Utility Lights, 15-20 Watt LED Bulbs, 35 Windows, 2 boilers
	Net Residential	\$ 40,628.66	\$ 33,386.93	\$ 7,242.73	
	Industrial/Commercial				
DI1401	Energy Star Incentive - Office Equipment	\$ 500.00	\$ 263.72	\$ 236.28	1 Printer, 2 Monitors, 2 Wyse Terminals
DI1402	Burnville Municipal Buildings	\$ 26,000.00	\$ 1,400.00	\$ 24,600.00	7 rebates on LED retrofit kits for Parking Lot
DI1403	Exotic Nails & Sun Tans Incentive	\$ 2,462.00	\$ -	\$ 2,462.00	no activity
DI1404	Committed Funds- Lighting & EE Projects	\$ 1,000.00	\$ 200.00	\$ 800.00	1 Rebate on a LED retrofit kit on Tinkham Lane
DI1405	Consultant Fees	\$ 0	\$ -	\$ -	no activity
DI1406	Energy Star Commercial Appliances	\$ 700	\$ 360.00	\$ 340.00	2 Dehumidifiers, 1 Ice Machine
DI1407	LED Street Light Incentive	\$ 17,068.00	\$ 17,068.00	\$ -	LED Street Light Rebate
	Net Industrial/Commercial	\$ 56,730.00	\$ 19,291.72	\$ 37,438	
	Administrative/Adv/Education				
DA1401	Administrative	\$ 21,000.00	\$ 21,000.26	\$ (0.26)	2 kill a watt meters, mileage, & labor
DA1402	Funds for Follow-up to Successful Programs	\$ 9,000.00	\$ 1,736.54	\$ 7,263.46	Moved to more active programs.
DA1404	Outreach/Education	\$ 2,000.00	\$ 2,000.00	\$ -	Cut reach at the Farmers Market, Deed Membership
DA1405	Jesse Smith Library Partnership	\$ 10,000.00	\$ 7,084.88	\$ 2,915.14	Supplies, Food, Labor, Calendars
DA1406	Community Events	\$ 4,500.00	\$ 101.56	\$ 4,398.44	Family Fair Time Sheet, Food, Green Festival Sign Changes
DA1407	Energy Efficiency Management continuing education	\$ -	\$ -	\$ -	Timesheet & mileage for Energy Advisory Meeting
DA1407	Program Research and Development	\$ -	\$ -	\$ -	no Activity
DA1407	Unassigned Dollars from DSM Income	\$ 2,667.88	\$ -	\$ 2,667.88	
	Net Administrative/Adv/Education	\$ 49,168	\$ 31,923	\$ 17,244.66	
	Estimated DSM 2014 Budget/ Expenses/ Balance	\$ 146,527.54	\$ 84,601.87	\$ 61,925.67	

Exhibit II

Exhibit II

Jan	\$4,153.32	July	\$ 3,657.29	
	\$1,450.37		\$ 916.92	
	\$1,190.95		\$1,043.63	
	\$1,409.78		\$1,138.46	
	\$1,598.43		\$1,450.58	
	\$1,400.22		\$1,166.24	
Off cycle	\$37.53	Off cycle	\$11.68	\$ 9,304.03
Billing Adjustments	(\$12.96)	Billing Adjustments	(\$80.77)	
Feb	\$4,143.46	August	\$3,775.39	
	\$1,138.47		\$1,257.38	
	\$1,181.81		\$1,279.40	
	\$1,297.77		\$1,286.91	
	\$1,483.38		\$1,344.60	
	\$1,234.97		\$1,087.06	
Off cycle	\$29.18	Off cycle	\$761.59	
Billing Adjustments	(\$5.18)	Billing Adjustments	(\$4.65)	\$10,787.68
March	\$3,759.57	September	\$3,900.19	
	\$963.20		\$1,083.07	
	\$1,098.55		\$1,076.34	
	\$1,064.60		\$1,147.69	
	\$1,064.70		\$1,227.98	
	\$969.93		\$966.86	
Off cycle	\$28.02	Off cycle	\$129.62	\$9,531.75
Billing Adjustments	(\$18.10)	Billing Adjustments		
April	\$3,764.57	October	\$4,464.29	
	\$954.62		\$872.22	
	\$995.61		\$890.18	
	\$1,036.73		\$869.43	
	\$1,134.11		\$899.06	
	\$902.19		\$767.63	
Off cycle	\$34.85	Off cycle	\$32.47	
Billing Corrections	(\$25.27)	Billing Corrections	(\$114.64)	\$8,680.64
May	\$4,018.27	Nov	\$3,819.74	
	\$814.06		\$920.20	
	\$942.14		\$918.11	
	\$882.42		\$1,012.86	
	\$1,034.04		\$1,241.53	
	\$849.52		\$1,030.71	
Off Cycle	\$160.28	Off Cycle	-\$4.85	\$8,938.30
Billing Corrections	(\$83.26)	Billing Corrections		
June	\$3,777.39	December	\$3,620.80	
	\$830.16		\$888.56	
	\$818.03		\$940.48	
	\$935.67		\$1,414.03	
	\$990.92		\$1,084.71	
	\$939.58		\$946.46	
Off cycles	\$53.96	Off Cycle	\$200.00	
Billing Corrections	(\$12.96)	Billing Corrections	(\$591.16)	\$8,503.88
light Bulb sales	\$12.00	ADJ to GL		
Total Jan - June	\$56,421.60	Total July -December	\$55,746.28	

Estimated Total Budget w/ carry over \$143,500.00

Total Collected for 2014 YTD	\$112,167.88	
Actual Carry Over from 2013	\$34,359.66	
Actual DSM dollars collected	\$146,527.54	\$0.00
Minus DSM Expenses as of 12-31-14	<u>(\$84,601.87)</u>	
DSM budget dollars unspent	<u>\$61,925.67</u>	

2014 GL balance \$61,925.67
 Difference \$0.00

Exhibit III

Pascoag Utility District
Demand Side Management Programs - 2015 Approved Budget.

Estimated carry over from 2014	\$ 39,000
Estimated sales for 2015	\$ 109,570
Net 2015 budget	\$ 148,570

	2015 Proposed	
	Budget	
Residential Program		
DR1501 ENE Residential Conservation (ECHO)	\$ 2,400	12 month @ \$200
DR1502 Home Energy Audits with Incentives	\$ 3,600	10 Audits @ \$220, with 10% rebates up to \$100, 5 free cfl's & smart power strip
DR1503 Energy Star Appliance Rebates	\$ 9,000	Up to 106 incentives
DR1504 Refrigerators/Freezer Buy Back	\$ 1,035	\$50 incentive & \$19 removal fee for a Refrigerator or Freezer, up to 15 rebates
DR1505 Energy Efficient Windows/Doors	\$ 2,500	up to 166 window at \$15 or up to 62 doors at \$40
DR1506 Heating System Incentive	\$ 3,000	12 Rebates at \$250
DR1507 ENERGY STAR qualified Water Heaters	\$ 900	6 Rebates at \$150
DR1508 Energy Star Lighting fixtures& ceiling/ventilation fans	\$ 1,000	up to 20 rebates at \$50 maximum
DR1509 Home Office Equipment/Home Electronics	\$ 2,500	50 Rebates at \$50
DR1510 Geothermal System	\$ 100	To keep the line item open
DR1511 New Construction	\$ 2,080	4 Rebates up to \$520 maximum
DR1512 Central Air Conditioning	\$ 1,500	5 Rebates up to \$300 maximum
DR1513 Change a Light Campaign	\$ 750	15 Rebates up to \$50 maximum
DR1514 Smart Power Strips	\$ 200	25% rebate (average cost is between \$27-\$37)
DR1515 ENERGY STAR Pool Pumps	\$ 500	10% of cost up to \$100 maximum; 5 Rebates
DR1516 Desk Calendars- with DSM rebate information	\$ 852	450- Desk Top Calendars with DSM rebate information
DR1517 Committed for 2013 Programs	\$ 2,000	To accommodate programs with depleted funds from 2014
Net Residential	\$ 33,917	
Industrial/Commercial		
D11501 Energy Star Incentive - Office Equipment	\$ 500	10 Rebates up to \$50 maximum
D11502 Burrillville Municipal Buildings	\$ 21,837	Burrillville Municipal Building Incentives
D11503 Committed Funds- Lighting & EE Projects	\$ 12,000	Money to be available for Commercial & Industrial Energy Efficiency Projects.
D11504 Consultation Fees	\$ 1,000	To consult with Rise, National Grid, & ENE
D11505 Energy Star Commercial Appliance	\$ 700	2 Appliances up to a maximum of \$350
D11506 LED Street Light Incentive	\$ 26,526	Balance of Incentive from 2014 \$17,684 & \$8,852 incentive on 52 additional LED Street Lights
Net Industrial/Commercial	\$ 62,563	
Administrative/Ad/Education		
DA1501 Administrative	\$ 21,000	Administrative labor, mileage, supplies, training session with a luncheon for the CSR's
DA1502 Funds for Follow-up to Successful Programs	\$ 2,148	To be used on more successful programs
DA1503 Outreach/Education	\$ 10,000	Billing inserts, Energy Saving Coloring books, Culver conservation items, and the DEED membership.
DA1504 Jesse Smith Library Partnership	\$ 3,700	To partner with the Jesse Smith Library on an Energy Efficiency Project.
DA1505 Community Events	\$ 10,242	To promote Energy Efficient @ Community Events(Green Festival, Family fair, ...)
DA1506 Energy Efficiency Management continuing education	\$ 4,500	Tuition, flight, hotel, meals, books, NEEP 2 day conference, and webinars
DA1507 Program Research and Development	\$ 500	Funds for future development of programs
Net Administrative/Ad/Education	\$ 52,090	
Estimated DSM 2015 Budget/ Expenses/ Balance	\$ 148,570	

Exhibit IV

Pascoag Utility District
Demand Side Management Programs - 2015 Proposed Budget

	Approved	Proposed Budget	Increase	Changes
Estimated carry over from 2014	\$ 39,000	\$ 61,926		
Estimated sales for 2015	\$ 109,570	\$ 109,570		
	\$ 148,570	\$ 171,496		
2015 Approved Budget	\$ 148,570	\$ 171,496		
2015 Approved Budget	\$ 148,570	\$ 171,496		
Net Residential	\$ 33,917	\$ 33,917		
Industrial/Commercial				
DI1501 Energy Star Incentive - Office Equipment	\$ 500	\$ 500		
DI1502 Burrillville Municipal Buildings	\$ 21,837	\$ 21,837.00		
DI1503 Committed Funds- Lighting & EE Projects	\$ 12,000	\$ 25,455	\$ 13,455	212% * Increase of \$13,455 to accommodate the Burrillville School Department
DI1504 Consultation Fees	\$ 1,000	\$ 1,000		
DI1505 Energy Star Commercial Appliance	\$ 700	\$ 700		
DI1506 LED Street Light Incentive	\$ 28,526	\$ 35,997	\$ 9,471	136% To increase the LED Street Light Incentive
Net Industrial/Commercial	\$ 62,563	\$ 85,489	\$ 22,926	
Administrative/Ad/Education				
DA1501 Administrative	\$ 21,000	\$ 21,000		
DA1502 Funds for Follow-up to Successful Programs	\$ 2,148	\$ 2,148		
DA1503 Outreach/Education	\$ 10,000	\$ 10,000		
DA1504 Jesse Smith Library Partnership	\$ 3,700	\$ 3,700		
DA1505 Community Events	\$ 10,242	\$ 10,242		
DA1506 Energy Efficiency Management continuing education	\$ 4,500	\$ 4,500		
DA1507 Program Research and Development	\$ 500	\$ 500		
Net Administrative/Ad/Education	\$ 52,090	\$ 52,090	\$ 22,926	
Actual DSM 2015 Budget	\$ 148,570	\$ 171,496	\$ 22,926	15.43% increase

Vending Misers Application 2015 Retrofit

\$920-

ALL FIELDS ON THIS PAGE ARE REQUIRED TO COMPLETE YOUR APPLICATION.

CUSTOMER/ACCOUNT HOLDER INFORMATION

COMPANY NAME BSD	CONTACT PERSON DAVE FORTOS	APPLICATION DATE 2/25/15
INSTALL SITE BHS	PHONE 568-1301	FAX NUMBER
EMAIL ADDRESS Fortosd@BSD-RED, NOT	SQUARE FEET (COVERED BY THIS APPLICATION)	
STREET ADDRESS 2300 Browne Highway	CITY Harrisville	STATE NC ZIP 02830
MAILING ADDRESS (IF DIFFERENT)	CITY	STATE ZIP
ELECTRIC COMPANY NAME 7UD	<input type="checkbox"/>	ELECTRIC ACCOUNT NUMBER (OR COPY OF ELECTRIC BILL)
GAS COMPANY NAME	<input type="checkbox"/>	GAS ACCOUNT NUMBER (OR COPY OF GAS BILL)

BUILDING TYPE (PLEASE PLACE "X" IN APPROPRIATE BALLOT BOX)

<input type="checkbox"/> ASSEMBLY	<input type="checkbox"/> FAST FOOD	<input type="checkbox"/> HOTEL	<input type="checkbox"/> MULTI STORY RETAIL	<input type="checkbox"/> RELIGIOUS	<input type="checkbox"/> SMALL RETAIL
<input type="checkbox"/> AUTOMOTIVE	<input type="checkbox"/> FULL SERVICE RESTAURANT	<input type="checkbox"/> LARGE REFRIGERATED SPACE	<input type="checkbox"/> MULTIFAMILY HIGH-RISE	<input checked="" type="checkbox"/> K-12 SCHOOL	<input type="checkbox"/> UNIVERSITY
<input type="checkbox"/> BIG BOX	<input type="checkbox"/> GROCERY	<input type="checkbox"/> LARGE OFFICE	<input type="checkbox"/> MULTIFAMILY LOW-RISE	<input type="checkbox"/> SMALL OFFICE	<input type="checkbox"/> WAREHOUSE
<input type="checkbox"/> COMMUNITY COLLEGE	<input type="checkbox"/> HEAVY INDUSTRIAL	<input type="checkbox"/> LIGHT INDUSTRIAL	<input type="checkbox"/> OTHER:		
<input type="checkbox"/> DORMITORY	<input type="checkbox"/> HOSPITAL	<input type="checkbox"/> MOTEL			

PAYMENT METHOD (PAYEE MUST SUBMIT A W-9 FORM)

PAYMENT TO: <input checked="" type="checkbox"/> CUSTOMER <input checked="" type="checkbox"/> VENDOR/INSTALLER	CUSTOMER - TAX ID# (REQUIRED)	VENDOR/INSTALLER - TAX ID# (REQUIRED IF RECEIVING INCENTIVE)
CHECK PAYABLE TO:	CUSTOMER COMPANY TYPE: <input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT	VENDOR COMPANY TYPE: <input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT

VENDOR INFORMATION

AUTHORIZED VENDOR/INSTALLER	CONTACT NAME
STREET ADDRESS	CITY STATE ZIP
PHONE	EMAIL ADDRESS
DATE	AUTHORIZED VENDOR/INSTALLER SIGNATURE (NOT APPLICABLE IF CUSTOMER IS PAYEE.) X

CUSTOMER ACCEPTANCE OF TERMS

PRE-INSTALLATION <input type="checkbox"/> I CERTIFY THAT ALL STATEMENTS MADE IN THIS APPLICATION ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I HAVE READ AND AGREE TO THE TERMS AND CONDITIONS ON THE BACK OF THIS FORM.	ANTICIPATED COMPLETION DATE
DATE	PRINT NAME
	AUTHORIZED SIGNATURE X
POST-INSTALLATION <input type="checkbox"/> I CERTIFY THAT I HAVE SEEN THE ENERGY EFFICIENCY MEASURES THAT HAVE BEEN INSTALLED AND I AM SATISFIED WITH THEIR INSTALLATION.	
DATE	PRINT NAME
	AUTHORIZED SIGNATURE X

VENDING MISERS ELIGIBILITY REQUIREMENTS AND INCENTIVE DETAIL

Equipment Information

All Vending Machine and Cooler Sensors must be installed on vending/cooler equipment scheduled to remain in service for a minimum of 3 years. Only refrigerated beverage vending machines, glass-front refrigerated coolers and non-refrigerated snack vending machines with lighting that containing nonperishable goods and that are installed indoors are eligible.

Table 1: Vending Miser Incentives

Description	Per Unit Incentive
Refrigerated Beverage Vending Machine	\$115.00
Non-Refrigerated Snack Vending Machine	\$45.00
Glass Front Refrigerated Coolers	\$115.00

Table 2: Calculated Incentives

	Building Type	Location Description	Model Number	Control Quantity (E)	Incentive Dollars Per Control (F)	Calculated Incentive Dollars (E x F)
Ex.	College library	Main lobby 1st floor	VM150	2	\$115.00/Control	\$230.00
1	BHS	Hallways	VM150	8	\$115.	\$920
2						
3						
4						

Keys to saving energy with vending misers

- Appoint a coordinator
- Inform all involved parties (students, staff, facilities, vendors, etc.)
- Provide training on how the misers work early on
- Establish a system for when vending machines have to be moved

These programs are funded by the energy efficiency charge on all customers' utility bills, in accordance with Rhode Island law.

Lighting Systems Application 2015 New Construction Program

005

1,140.00 +
9,135.00 +
80.00 +
2,100.00 +
80.00 +
12,535.00 G+

ALL FIELDS ON THIS PAGE ARE REQUIRED TO COMPLETE YOUR APPLICATION.

CUSTOMER/ACCOUNT HOLDER INFORMATION

COMPANY NAME BSD	CONTACT PERSON Dave Fontes	APPLICATION DATE 2/25/15
INSTALL SITE	PHONE 568-1301	FAX NUMBER
EMAIL ADDRESS Fontesd@BSD-RI.Net	SQUARE FEET (COVERED BY THIS APPLICATION)	
STREET ADDRESS 2300 Bronco's Hwy	CITY Harnsville	STATE RI ZIP 02830
MAILING ADDRESS (IF DIFFERENT)	CITY	STATE ZIP
ELECTRIC COMPANY NAME Puq	ELECTRIC ACCOUNT NUMBER (OR COPY OF ELECTRIC BILL)	
GAS COMPANY NAME	GAS ACCOUNT NUMBER (OR COPY OF GAS BILL)	

BUILDING TYPE (PLEASE PLACE "X" IN APPROPRIATE BALLOT BOX)

<input type="checkbox"/> ASSEMBLY	<input type="checkbox"/> FAST FOOD	<input type="checkbox"/> HOTEL	<input type="checkbox"/> MULTI STORY RETAIL	<input type="checkbox"/> RELIGIOUS	<input type="checkbox"/> SMALL RETAIL
<input type="checkbox"/> AUTOMOTIVE	<input type="checkbox"/> FULL SERVICE RESTAURANT	<input type="checkbox"/> LARGE REFRIGERATED SPACE	<input type="checkbox"/> MULTIFAMILY HIGH-RISE	<input checked="" type="checkbox"/> K-12 SCHOOL	<input type="checkbox"/> UNIVERSITY
<input type="checkbox"/> BIG BOX	<input type="checkbox"/> GROCERY	<input type="checkbox"/> LARGE OFFICE	<input type="checkbox"/> MULTIFAMILY LOW-RISE	<input type="checkbox"/> SMALL OFFICE	<input type="checkbox"/> WAREHOUSE
<input type="checkbox"/> COMMUNITY COLLEGE	<input type="checkbox"/> HEAVY INDUSTRIAL	<input type="checkbox"/> LIGHT INDUSTRIAL	<input type="checkbox"/> OTHER:		
<input type="checkbox"/> DORMITORY	<input type="checkbox"/> HOSPITAL	<input type="checkbox"/> MOTEL			

PROJECT TYPE (select one)

<input type="checkbox"/> CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE	<input type="checkbox"/> NEW BUILDING	<input type="checkbox"/> EXPANSION OF AN EXISTING BUILDING	<input type="checkbox"/> PLANNED REPLACEMENT OF EQUIPMENT
<input type="checkbox"/> NEW EQUIPMENT FOR NEW PROCESS OR EXPANDED OPERATION	<input type="checkbox"/> RENOVATION OF EXISTING EQUIPMENT	<input type="checkbox"/> NEW CONTROLS FOR IMPROVED OPERATIONS	<input type="checkbox"/> REPLACEMENT OF FAILED EQUIPMENT

PAYMENT METHOD (PAYEE MUST SUBMIT A W-9 FORM)

PAYMENT TO: <input checked="" type="checkbox"/> CUSTOMER	CUSTOMER - TAX ID# (REQUIRED)	VENDOR/INSTALLER - TAX ID# (REQUIRED IF RECEIVING INCENTIVE)
<input checked="" type="checkbox"/> VENDOR/INSTALLER		
CHECK PAYABLE TO:	CUSTOMER COMPANY TYPE: <input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT	VENDOR COMPANY TYPE: <input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT

VENDOR INFORMATION

AUTHORIZED VENDOR/INSTALLER	CONTACT NAME		
STREET ADDRESS	CITY	STATE	ZIP
PHONE	EMAIL ADDRESS		
DATE	AUTHORIZED VENDOR/INSTALLER SIGNATURE (NOT APPLICABLE IF CUSTOMER IS PAYEE) X		

CUSTOMER ACCEPTANCE OF TERMS

PRE-INSTALLATION <input type="checkbox"/> I CERTIFY THAT ALL STATEMENTS MADE IN THIS APPLICATION ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I HAVE READ AND AGREE TO THE TERMS AND CONDITIONS ON THE BACK OF THIS FORM.	ANTICIPATED COMPLETION DATE	
DATE	PRINT NAME	AUTHORIZED SIGNATURE X
POST-INSTALLATION <input type="checkbox"/> I CERTIFY THAT I HAVE SEEN THE ENERGY EFFICIENCY MEASURES THAT HAVE BEEN INSTALLED AND I AM SATISFIED WITH THEIR INSTALLATION.		
DATE	PRINT NAME	AUTHORIZED SIGNATURE X

Table 1C: Retrofit Lighting Systems Inventory Worksheet

Building and Room Identification (Installation Site): Stevens Farm, LLC, A7 2684

Ex.	Location	Existing Fixtures (Retrofit only)				Proposed Fixtures						Total Incentive \$	
		Qty	Lamp/Ballast Description	*Device Code	Existing Watts per Fixture/Device	Product Code (Table 1A)	Qty	Lamp/Ballast Description	*Device Code	Proposed Watts per Fixture/Device	**Annual Operating Hours		Unit Incentive \$
1	Lobby-East Entrance	4	4' 3 lamp T12 Magnetic	3F40SEM	110 watts	12	4	4' 2 lamp 28 watt RW T8 w/ LP Electronic Ballast	2F28EEL	42 watts	3,200 hours	\$15	\$60
2	Hallways 38		2x T8	2F32SEM	60	8/38		4' 2 lamp 28 watt RW T8 w/ LP Electronic Ballast	2F28EEL	42 watts	3,200 hours	\$15	\$60
3	Hallways 38		2x T8	2F32SEM	60	8/38		4' 2 lamp 28 watt RW T8 w/ LP Electronic Ballast	2F28EEL	42 watts	3,200 hours	\$15	\$60
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

Total Requested Incentive (this page): 1140

NOTE: An electronic version (Excel) of this sheet must be submitted for inventories exceeding this page.
 * The Device Code list is available at <https://www1.nationalgridus.com/files/AddedPDF/POA/RILightingRetrofit1.pdf>.
 ** Facility lighting must average a minimum of 2,000 hours per year, except Municipal Facilities who must contact their Program Administrator for more information on eligibility requirements.



Table 1C: Retrofit Lighting Systems Inventory Worksheet

Building and Room Identification (Installation Site): Denvilleville High School

Ex.	Location	Existing Fixtures (Retrofit only)				Proposed Fixtures						Unit Incentive \$	Total Incentive \$
		Qty	Lamp/Ballast Description	*Device Code	Existing Watts per Fixture/Device	Product Code (Table 1A)	Qty	Lamp/Ballast Description	*Device Code	Proposed Watts per Fixture/Device	**Annual Operating Hours		
	Lobby-East Entrance	4	4' 3 lamp T12 Magnetic	3F40SEM	110 watts	12	4	4' 2 lamp 28 watt RW T8 w/ LP Electronic Ballast	2F28EEL	42 watts	3,200 hours	\$15	\$60
1													
2	CAF	24	400 MH	1MCA005	455	86624	110	110W LED		110	2220	200	4920
3													
4	Extending												
5	Exits	37	70W HPS	4M00105	90	90B37	12	12W LED	11012	12	4015	175	2975
6													
7	Hallways	52	26 T8	2F28SE	60	81	52	36W LED	11096	36	4165	30	1560
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

Total Requested Incentive (this page): \$9,135

NOTE: An electronic version (Excel) of this sheet must be submitted for inventories exceeding this page.
 * The Device Code list is available at <https://www1.nationalgridus.com/files/AddedPDF/POA/RILightingRetrofit1.pdf>.
 ** Facility lighting must average a minimum of 2,000 hours per year, except Municipal Facilities who must contact their Program Administrator for more information on eligibility requirements.

Table 1D: Lighting Sensor Inventory Worksheet

Building and Room Identification (Installation Site): Bunhill Middle School

Ex.	Location of Sensors	Product Code (Table 1B)	Sensor Description	Qty of Sensors	# of Fixtures Controlled by Sensors	Fixture Description	Total Wattage per Sensor	Annual Hours of Operation	Unit Incentive \$	Total Incentive \$
1	Lobby-East Entrance	61	Occupancy Sensor Remote Mount	1	5	(4) 4' 2 lamp T8 Electronic & (1) 26 Watt Compact HW	196 watts	1040 hours	\$40	\$40
2	<u>Caf</u>	<u>61</u>	<u>Occ Sensor 2 JA</u>	<u>2</u>	<u>24</u>	<u>110w LED</u>	<u>1320</u>	<u>2220</u>	<u>40</u>	<u>80</u>
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
Total Requested Incentive (this page):										<u>80</u>

Note: An electronic version (Excel) of this sheet must be submitted for inventories exceeding this page.

Table 1C: Retrofit Lighting Systems Inventory Worksheet

Building and Room Identification (Installation Site): WL Callahan School

EX.	Location	Existing Fixtures (Retrofit only)				Proposed Fixtures						Total Incentive \$	
		Qty	Lamp/Ballast Description	*Device Code	Existing Watts per Fixture/Device	Product Code (Table 1A)	Qty	Lamp/Ballast Description	*Device Code	Proposed Watts per Fixture/Device	**Annual Operating Hours		Unit Incentive \$
1	Lobby-East Entrance	4	4' 3 lamp T12 Magnetic	3F40SEM	110 watts	12	4	4' 2 lamp 28 watt RW T8 w/ LP Electronic Ballast	2F28EEL	42 watts	3,200 hours	\$15	\$60
2	WLC Gym 21		250 WATT	1M0250S	295	86A21	1ED			95	2180	100	2100
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

Total Requested Incentive (this page): 2100

NOTE: An electronic version (Excel) of this sheet must be submitted for inventories exceeding this page.

* The Device Code list is available at <https://www1.nationalgridus.com/files/AddedPDF/POA/RI/ LightingRetrofit1.pdf>.

** Facility lighting must average a minimum of 2,000 hours per year, except Municipal Facilities who must contact their Program Administrator for more information on eligibility requirements.

Table 1D: Lighting Sensor Inventory Worksheet

Building and Room Identification (Installation Site): W.C. Callahan School

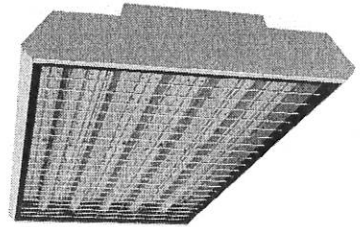
Ex.	Location of Sensors	Product Code (Table 1B)	Sensor Description	Qty of Sensors	# of Fixtures Controlled by Sensors	Fixture Description	Total Wattage per Sensor	Annual Hours of Operation	Unit Incentive \$	Total Incentive \$
1	Lobby-East Entrance	61	Occupancy Sensor Remote Mount	1	5	(4) 4' 2 lamp T8 Electronic & (1) 26 Watt Compact HW	196 watts	1040 hours	\$40	\$40
2	W.C. Gym	61	Occ Sensor	2	21	95watt LED	950	2180	40	80
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
Total Requested Incentive (this page):										80

Note: An electronic version (Excel) of this sheet must be submitted for inventories exceeding this page.

BURRIVILLE HIGH SCHOOL
 CAFE 24 FIXTURES 400W 2X2
 HFNLED112L4K22-9FARS-MS123C-2X2
 110 WATT



HFNLED SERIES



High PERFORMANCE INDUSTRIAL



APPLICATION

- DESIGNED FOR COMMERCIAL INDUSTRIAL APPLICATIONS WHERE MAXIMUM FIXTURE EFFICIENCY IS REQUIRED.
- 90% EFFICIENCY PROVIDES ENERGY SAVING ONE-FOR-ONE ALTERNATIVE TO HID HIGH-BAY SYSTEMS.
- OPTIONAL FRAMED LENS AND/OR HEAVY-DUTY WIRE GUARD.
- PENDANT MOUNTED, CHAIN HUNG, SURFACE OR STEM MOUNTED.

FINISH

- ALL EXPOSED METAL PARTS PRETREATED WITH A PHOSPHATE BONDING PROCESS AND POST-PAINTED WITH AN ELECTROSTATICALLY APPLIED HIGH TEMPERATURE BAKED WHITE ENAMEL FOR SUPERIOR QUALITY AND DURABILITY.

CONSTRUCTION

- DIE-FORMED STEEL HOUSING. KNOCKOUTS PROVIDED ON HOUSING BACK FOR MOUNTING AND ELECTRICAL CONNECTIONS.
- CUSTOM DESIGNED REFLECTOR.
- OPTIONAL 3/4" CONDUIT SUSPENSION MOUNT SYSTEM
- DRIVER EASILY REMOVED.

ELECTRICAL

- HIGH EFFICIENCY CONSTANT CURRENT LED DRIVER.
- DRIVER QUICK DISCONNECT STANDARD.
- HIGH EFFICIENT DRIVER AND LONG LIFE LED'S PROVIDE YEARS OF QUALITY MAINTENANCE FREE OPERATION.



- SUITABLE FOR DRY LOCATIONS.
- I.B.E.W. LABELED.
- 5 YEAR LIMITED WARRANTY ON LED BOARDS & DRIVERS.
- 0-10V DIMMING TO STANDARD*
- LUMEN TUNING AVAILABLE.

CHECK WWW.DESIGNLIGHTS.ORG FOR LIST OF SPECIFIC QUALIFIED CONFIGURATIONS UNDER THE "QUALIFIED PRODUCTS LIST" TAB.

ORDERING GUIDE EXAMPLE: HFNLED224L4K24-9CLC1RS

SERIES	LUMENS	KELVIN	FIXT	OPTIONS
HFNLED	96L 99L 112L 124L 128L 143L	35K, 4K,5K	22	LUMENS: 2x2: 96L= 9,600 MAX WITH LENS OPTION (110w) 99L= 9,900 MAX WITH WIRE GUARD OPTION (110w) 112L= 11,200 WITH NO DOOR (110w) 124L= 12,400 MAX WITH LENS OPTION (156w) 128L= 12,800 MAX WITH WIRE GUARD OPTION (156w) 143L= 14,300 WITH NO DOOR (156w) 2x4: 192L= 19,200 MAX WITH LENS OPTION (220w) 199L= 19,900 MAX WITH WIRE GUARD OPTION (220w) 224L= 22,400 MAX WITH NO DOOR (220w) 248L= 24,800 MAX WITH LENS OPTION (312w) 257L= 25,700 MAX WITH LENS OPTION (312w) 287L= 28,700 MAX WITH LENS OPTION (312w) *(CONTACT FACTORY FOR OTHER LUMEN/WATTAGE COMBINATIONS) KELVIN: 35K = 3,500 KELVIN 4K = 4,000 KELVIN 5K= 5,000 KELVIN VOLTAGE: 9- 120-277 LENS/FRAME: BLANK - NONE FARS - .095" P12 PATTERN ACRYLIC, WHITE STEEL DOOR FAC1RS - .095" ACRYLIC, 11GA CHROME WIRE GUARD, WHITE STEEL DOOR CLRS - CLEAR NOMINAL .125" ACRYLIC, WHITE STEEL DOOR CLC1RS - CLEAR NOMINAL .125" ACRYLIC, 11GA CHROME WIRE GUARD, WHITE STEEL DOOR CLW1RS - CLEAR NOMINAL .125" ACRYLIC, 11GA WHITE WIRE GUARD, WHITE STEEL DOOR CPRS - CLEAR NOMINAL .125" POLYCARBONATE, WHITE STEEL DOOR CPC1RS - CLEAR NOMINAL .125" POLYCARBONATE, 11GA CHROME WIRE GUARD, WHITE STEEL DOOR CPW1RS - CLEAR NOMINAL .125" POLYCARBONATE, 11GA WHITE WIRE GUARD, WHITE STEEL DOOR C1RS - 11GA CHROME WIRE GUARD, WHITE STEEL DOOR*
	192L 199L 224L 248L 257L 287L		24	

* DLC APPROVED FOR LOW BAY APPLICATIONS, 4K ONLY



LUMAX LIGHTING Chestnut Avenue & Fourth Street
 Altoona, PA 16603-0991 814-944-2537 Fax 814-944-6413
www.lumaxlighting.com

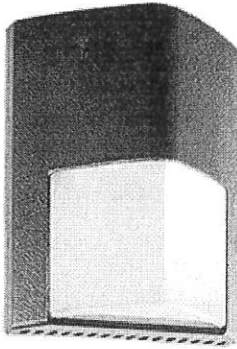




Products Wallpacks LED Doorway Light ENTRA 12W ENTRA12

Spec Sheet Instructions Revit LM79 IES File

Buy Now



Color: Bronze

ENTRA12

Save over \$700 in energy costs over life of fixture
 Equivalent to 70W high pressure sodium
 Durable vandal-resistant polycarbonate housing
 Low-profile and ADA compliant
 100,000-hour LED lifespan
 5-Year warranty

Need Help?
 Chat live with one of
 our lighting specialists

Chat

LED Info

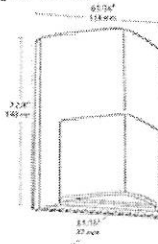
Watts: 12W
 Color Temp: 5000K (Cool)
 Color Accuracy: 70 CRI
 L70 Lifespan: 100,000
 LM79 Lumens: 1,284
 Efficacy: 89 LPW

Driver Info

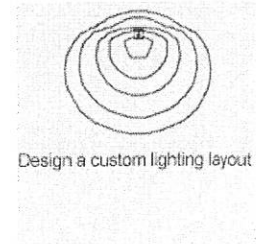
Type: Constant Current
 120V: 0.3A
 208V: 0.3A
 240V: 0.3A
 277V: 0.3A
 Input Watts: 14W
 Efficiency: 83%

Dimensions

Weight: 3.0 lbs



EZ Layout



Design a custom lighting layout

Technical Specifications

UL Listing:

Suitable for wet locations as downlight. Suitable for mounting within 1.2m (4ft) of the ground.

ENERGY STAR:

This product is ENERGY STAR® qualified.

IP Rating:

Ingress Protection rating of IP66 for dust and water.

LED:

12W multi-chip, long life LED.

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

Driver:

Constant Current, Class 2, 100-277V, 50/60Hz, 4kV Surge Protection, 350mA, 100-240VAC: 0.3 - 0.15 A, 277VAC: 0.15 A, Power Factor: 98.5%.

THD:

9.9% at 120V

Correlated Color Temp. (Nominal CCT):

5000K

Cold Weather Starting:

Recommended Mounting Height:

Up to 10 ft.

Reflectors (2):

White aluminum reflector topped with vacuum metalized polycarbonate LED reflector.

Gaskets:

High-temperature silicone.

California Title 24:

ENTRA12 complies with 2013 California Title 24 building and electrical codes as a residential outdoor fixture. See ENTRA12/PC for a model that complies as a commercial outdoor non-pole-mounted fixture ≤ 30 Watts.

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contains no VOC or toxic heavy metals.

Equivalency:

ENTRA™ 12W replaces 70W high pressure sodium.

ADA Compliant:

ENTRA™ is ADA Compliant.

Color Stability:

LED color temperature is warranted to shift no more than 200K in CCT

The minimum starting temperature is -40°F/-40°C.

Ambient Temperature:
Suitable for use in 40°C (104°F) ambient temperatures.

Thermal Management:
Superior thermal management with internal Air-Flow fins and external air vents.

Housing:
Die-cast aluminum.

Lens/Housing Cover:
Vandal resistant polycarbonate molded housing cover and lens.

Mounting:
Heavy die cast aluminum with 1/2" back knockout and mounting template for mounting to 4" box.

over a 5 year period.

Color Consistency:
7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color.

Green Technology:
Mercury and UV free, and RoHS compliant.

IESNA LM-79 & LM-80 Testing:
RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80, and have received the Department of Energy "Lighting Facts" label.

Patents:
The design of the ENTRA™ is protected by patents pending in US, Canada, China, Taiwan and Mexico.

Warranty:
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. See our full warranty here.

LIGHTING DESIGN

Our lighting designers can help you create a custom LED lighting layout for your job. For free. Really.

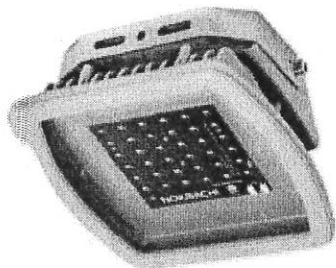
Free Layout



CALLAHAN SCHOOL
 GYM 21 EXISTING 250W FIXTURES
 HEX-063-B-CW-MT-HBS-FR-H3/4-OS
 95 WATT

NORIBACHI

HIGHBAYS



FIXTURE CODE: HBS

LIGHT ENGINE RETROFITS

- L70 Rated life of 100,000+ hours
- Minimum CRI: 70; Custom CRI available upon request.
- Operating temp: -30° C to +60° C
- No toxic chemicals/ROHS compliant
- ETL certified, meets UL and CSA standards
- Eligible for Rebates
- 50-90% energy savings
- Manufactured in the USA

INSTALLATION

- Licensed electrician required
- Contact Noribachi for additional support

WARRANTY

- 5 year manufacturer's warranty
- **10YR** - Optional 10 year manufacturer's warranty
- US manufacturing and quality control

CERTIFICATIONS



APPEARANCE

HOUSING	LENS	MOUNTING	DIFFUSION
<ul style="list-style-type: none"> • GREY • ALUMINUM 	<ul style="list-style-type: none"> • TEMPERED GLASS 	<ul style="list-style-type: none"> • BRACKET 	<ul style="list-style-type: none"> • NONE • LUMINIT FILM

ELECTRICAL CHARACTERISTICS

- Standard AC input: up to 480 VAC
- EMI filter: 47CFR, part 2, part 15
- Power factor: >.9
- Total harmonic distortion: <20%
- Surge protection: IEC/EN 61000-4-5 EMC test standard

OPTIONAL UPGRADES

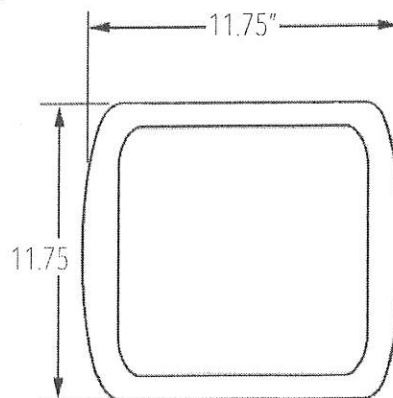
- **L515** - L515P 120V Twist Lock Plug
 - **L615** - L615P 240V Twist Lock Plug
 - **L715** - L715P 277V Twist Lock Plug
 - **L720** - L720P 277V Twist Lock Plug
 - **L820** - L820P 480V Twist Lock Plug
 - **L830** - L830P 480V twist Lock Plug
 - **WET** - Wet Rating
 - **H3/4** - Malleable Hook with 3/4" NPS Threads
 - **EM** - Emergency Battery Backup, 5W, 600 Lumens, 90 Minutes*
 - **CORD6** - 6' 16/3 600V STW Cord
 - **HV1** - 480V up to 150W
 - **HV2** - 480V greater than 150W
 - **BLD** - Bi-level Dimming
 - **OS** - Occupancy Sensor
 - **WG** - Wire Guard
 - **FS** - Frosted Lens
- *MUST PROVIDE EXACT VOLTAGE REQUIREMENTS

OPTIONAL BEAM SPREAD AND TYPE DISTRIBUTION

- **80D** - Optional 80° Beam Spread

DIMENSIONS

LENGTH: 11.75"
 WIDTH: 11.75"
 HEIGHT: 6"



HIGHBAYS

AVAILABLE LIGHT ENGINE RETROFITS



HEX-021

DRIVE CURRENT	WATTAGE	REPLACES	LUMEN OUTPUT	CATALOG #
B	32W	75-175W	4,431lm	HEX-021-B-CW-MT-HBS

HEX-042

DRIVE CURRENT	WATTAGE	REPLACES	LUMEN OUTPUT	CATALOG #
B	63W	125-300W	8,862lm	HEX-042-B-CW-MT-HBS

HEX-063

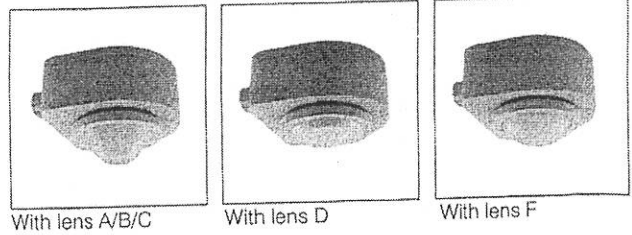
DRIVE CURRENT	WATTAGE	REPLACES	LUMEN OUTPUT	CATALOG #
B	95W	200-400W	13,293lm	HEX-063-B-CW-MT-HBS

HEX-084

DRIVE CURRENT	WATTAGE	REPLACES	LUMEN OUTPUT	CATALOG #
B	126W	300-525W	17,724lm	HEX-084-B-CW-MT-HBS

3. Fixture External

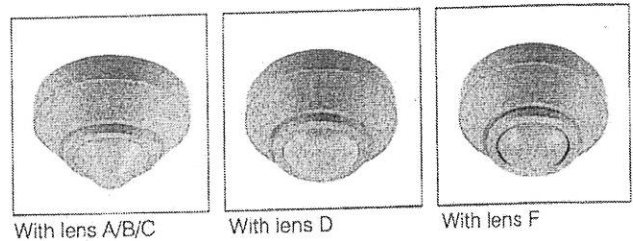
The following product matrix highlights sensors available for external attachment with lighting fixtures for dry location.



Model	Lens (x)	Tech	ALS	Voltage	Output	Control	Wiring	Functionality
LOD-500SEx	A/B/C/D/F	PIR	•	120/277VAC	SLV+AO	BLC	WL	Bi-level control with 0-10V dimmable
LOS-501NEx	A/B/C/D/F	PIR		120/277VAC	SLV	OOS	WL	All time sensor control ON/OFF
LOS-501SEx	A/B/C/D/F	PIR	•	120/277VAC	SLV	OOS	WL	Sensor control ON/OFF with ALS
LOS-510NEx	A/B/C/D/F	PIR		120/277VAC	SLV	OOS	PT	All time sensor control ON/OFF
LOS-510SEx	A/B/C/D/F	PIR	•	120/277VAC	SLV	OOS	PT	Sensor control ON/OFF with ALS
BOA-516SEx	A/B/C/D/F	PIR	•	12-24VDC	AO	BLC	PT	Bi-level control with 0-10V dimmable
BOA-517SEx	A/B/C/D/F	PIR	•	12-24VDC	AO+DO	BLC	PT	Bi-level control with 0-10V dimmable
BOS-515NEx	A/B/C/D/F	PIR		12-24V	IDC	OOS	PT	All time sensor control signaling
BOS-515SEx	A/B/C/D/F	PIR	•	12-24V	IDC	OOS	PT	Sensor control signaling with ALS
COS-516SEx	A/B/C/D/F	PIR	•	12-48VDC	RDP	BLC	PT	Bi-level LED control with CV driver

→ 4. Surface Mount

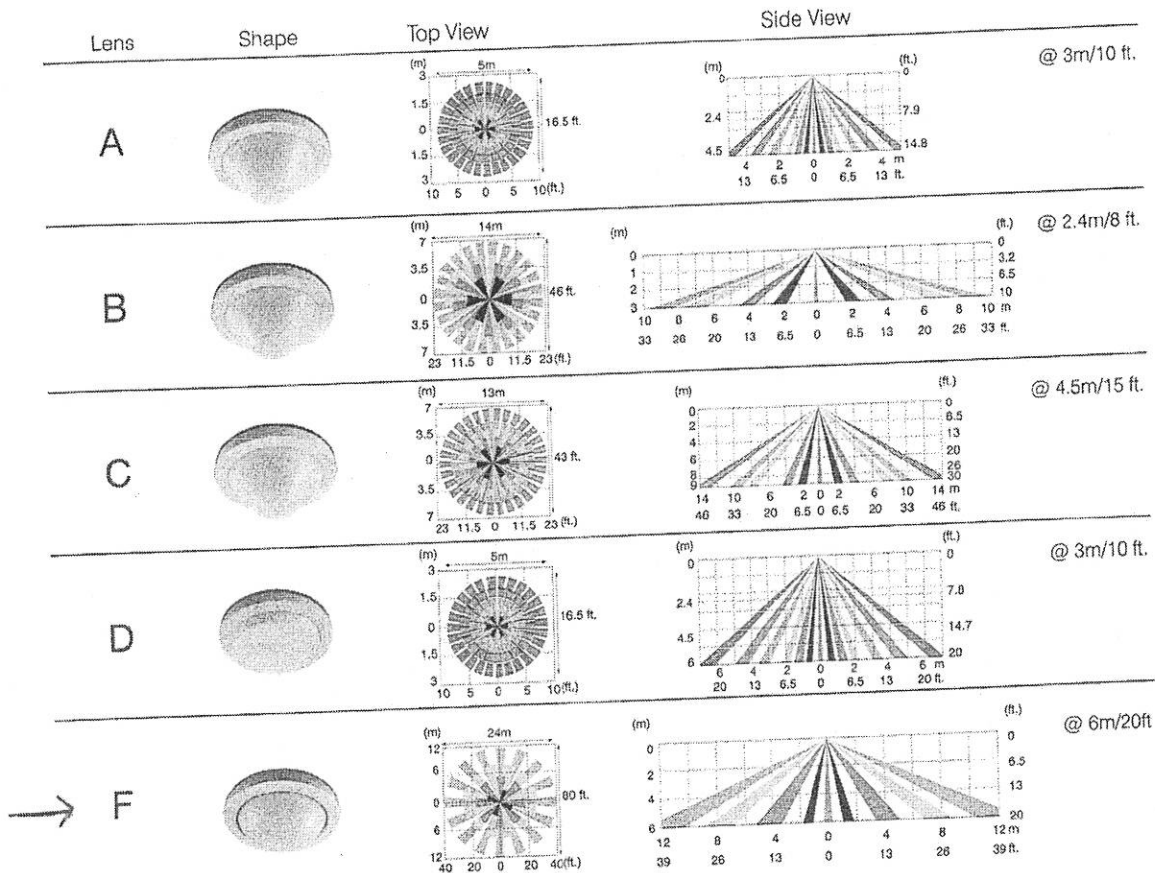
The following product matrix highlights sensors available for external attachment with lighting fixtures for dry location.



Model	Lens (x)	Tech	ALS	Voltage	Output	Control	Wiring	Functionality
LOD-500SSx	A/B/C/D/F	PIR	•	120/277VAC	SLV+AO	BLC	WL	Bi-level control with 0-10V dimmable
LOS-501NSx	A/B/C/D/F	PIR		120/277VAC	SLV	OOS	WL	All time sensor control ON/OFF
LOS-501SSx	A/B/C/D/F	PIR	•	120/277VAC	SLV	OOS	WL	Sensor control ON/OFF with ALS
LOS-510NSx	A/B/C/D/F	PIR		120/277VAC	SLV	OOS	PT	All time sensor control ON/OFF
LOS-510SSx	A/B/C/D/F	PIR	•	120/277VAC	SLV	OOS	PT	Sensor control ON/OFF with ALS
BOA-516SSx	A/B/C/D/F	PIR	•	12-24VDC	AO	BLC	PT	Bi-level control with 0-10V dimmable
BOA-517SSx	A/B/C/D/F	PIR	•	12-24VDC	AO+DO	BLC	PT	Bi-level control with 0-10V dimmable
BOS-515NSx	A/B/C/D/F	PIR		12-24V	IDC	OOS	PT	All time sensor control signaling
BOS-515SSx	A/B/C/D/F	PIR	•	12-24V	IDC	OOS	PT	Sensor control signaling with ALS
COS-516SSx	A/B/C/D/F	PIR	•	12-48VDC	RDP	BLC	PT	Bi-level LED control with CV driver

Interchangeable Optical Selections

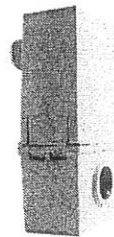
Every PIR sensor requires an optical lens which in fact determines its detection coverage. Lenses with different segment formats will provide different detection patterns and ranges. Different building spaces require different lenses to provide optimal detection ranges. Thus, all IR-TEC's TRANS family PIR based occupancy sensor offers interchangeable lens options which allow an integrated sensor to provide different detection coverage by changing a lens.



Accessories

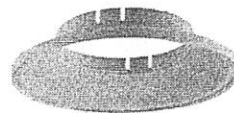
EMA-500 Extension Mounting Adaptor

The EMA-500 is an extension mounting adaptor for the E-mount or P-mount TRANS sensor to lower the sensor position to avoid coverage being blocked by the fixture body.



LH-110 Lens Hood

The LH-110 Lens Hood is specially designed for bi-level control TRANS occupancy sensor to prevent its ambient light sensor from being saturated by the lighting nearby.



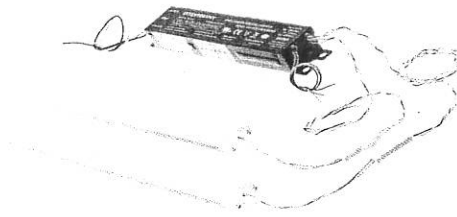
4FT FLUORESCENT REPLACEMENT LED KIT

MHTL-MAGNT8-4FT SERIES

Project _____

Part Number _____

Quantity _____



APPLICATIONS

- Designed To Meet Candle Requirements For Offices, Schools, And Commercial Hospitals
- 4FT T5, T8, T12 Replacement

FEATURES

- >125,000 Hours Rated Lifespan
- 10-year Warranty
- L70 > 100,000 Hours
- Does Not Use Existing Tombstones
- Flat Back Magnet Fit With Screw Mounts
- Quick Connects to Driver And Tubes
- ETL and UL1598c
- Standard 0-10Vdc Dimming Driver
- Comes In Clear or Frosted Lens
- Saves About 50% Energy Over Fluorescent
- 6" Leads with Quick Connects from the Tubes
- 24" Leads with Quick Connects from the Driver
- Lifetime PCB Replacement - See Warranty Statement for Details



LED/DRIVER

- Input Voltage: 120-277Vac
- Two-Way LED Driver Output Current: 700+700 (mA)
- Three-Way LED Driver Output Current: 700+700+700 (mA)
- Operating Frequency: 50Hz/60Hz
- IP54 Dust And Water Splash Protected Driver
- CRI > 85
- THD < 7% @120Vac
- Mounting: Magnet Fit/Mechanical
- All-Round Protection: SCP, OTP, OVP
- Power Factor > 0.99 @120Vac

Retrofit Kit Model	Rated Wattage	Tube Lm/W	Total Lumen	Lens	CCT
MHTL-MAGNT8-4FT-2X18W-4K-U-CL	36W	>108	>3,700	Clear	4,000K
MHTL-MAGNT8-4FT-2X18W-5K-U-CL	36W	>108	>3,700	Clear	5,000K
MHTL-MAGNT8-4FT-2X18W-4K-U-FL	36W	>100	>3,500	Frosted	4,000K
MHTL-MAGNT8-4FT-2X18W-5K-U-FL	36W	>100	>3,500	Frosted	5,000K
MHTL-MAGNT8-4FT-3X18W-4K-U-CL	54W	>108	>5,600	Clear	4,000K
MHTL-MAGNT8-4FT-3X18W-5K-U-CL	54W	>108	>5,600	Clear	5,000K
MHTL-MAGNT8-4FT-3X18W-4K-U-FL	54W	>100	>5,300	Frosted	4,000K
MHTL-MAGNT8-4FT-3X18W-5K-U-FL	54W	>100	>5,300	Frosted	5,000K



Manufactured in the USA

Toll Free 888-511-7780 • www.mhtlighting.com



4FT FLUORESCENT REPLACEMENT LED KIT

MHTL-MAGNT8-4FT SERIES

Project _____

Part Number _____

Quantity _____

ORDERING CODES

MHTL-MAGNT8-4FT

Wattage:
2x18W
3x18W

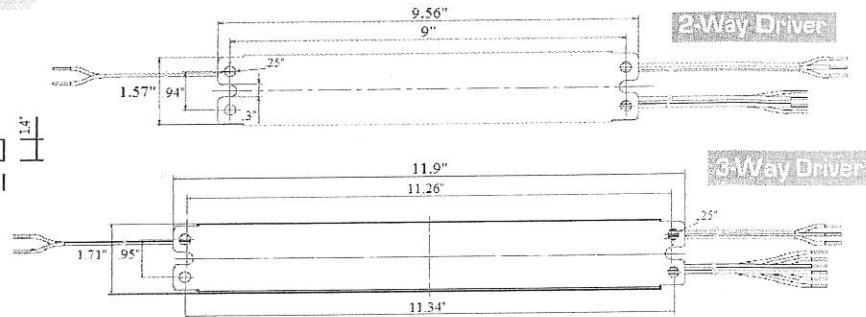
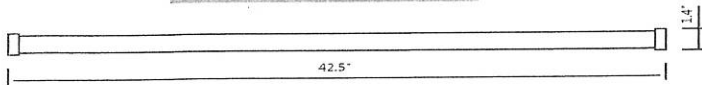
Color Temp:
4K = 4000K
5K = 5000K

U = 120-277V

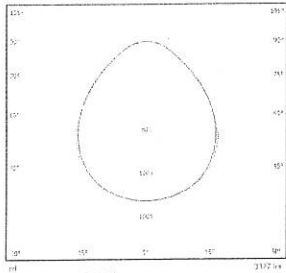
Options:
FL = Frosted PC Lens
CL = Clear PC Lens

DIMENSIONS

4FT Tube Dimensions

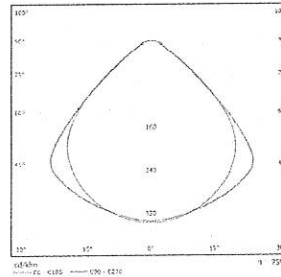
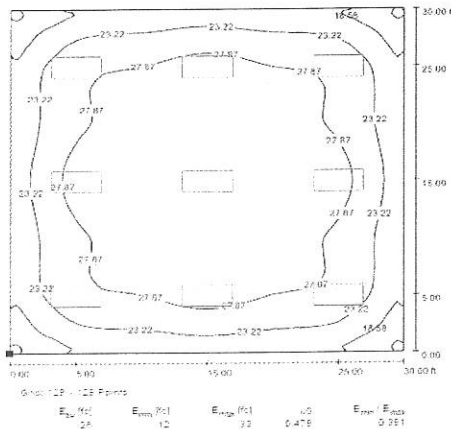


LED vs. FLUORESCENT



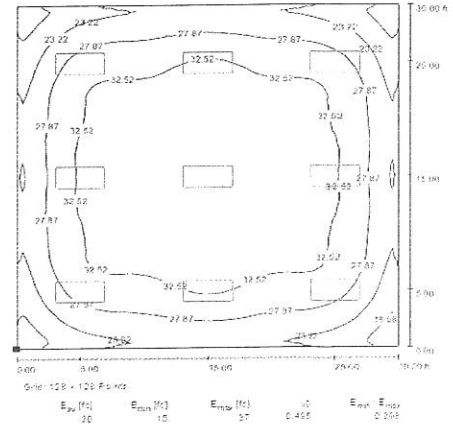
LITHONIA GT8 2X4 TROFFER
MHTL-MAGNT8-4FT
Two Tubes-36W-4000K

Average 26fc in
30'x30' Room with 9
Fixtures. Total Input
Wattage 324W.



PHILIPS DAY-BRITE 2X4 TROFFER
F28T5-Two Tubes-67W

Average 30fc in
30'x30' Room with 9
Fixtures. Total Input
Wattage 603W.



- MHT Products are ETL Listed, UL Classified and Assembled in ISO9000/1 Certified US Facility
- MHT Lighting Offers a 10-year Warranty (See Warranty Terms and Conditions)
- Every Product is Quality Tested and Inspected Prior to Shipment
- Proudly Manufactured in the USA. Meets "Buy American" Requirements within the ARRA
- For Product IES Files Please Contact Your Local Reps

MHT Plant Operations

1961 Richmond Terrace
Staten Island, New York 10302
Tel: (718) 524-4370
Fax: (718) 524-4390

West Coast Operations

9543 Heinrich Hertz Dr. Suite 5
San Diego, California 92154
Tel: (619) 661-0600
Fax: (619) 661-0607

www.mhtlighting.com
888-511-7780

MHT Confidential
Rev Date: September-2014

