# LIGHTING RETROFIT PROPOSAL

IRONBRIDGE BEALTY PARINERS

Prepared for

**Andrew Allemand** 

**Ironbridge Realty** 

#### Site Information

Name: Corum Station Shopping Center

Address: 4690 Louetta Rd. Spring TX 77388

**Proposal Date** 

Proposal Expires

September 07, 2021

October 07, 2021



Jon Gipson CEO/Managing Member 713-244-5535 jgipson@efficientpowertech.com



#### **Executive Summary**

#### **Project Costs**

Total Project Cost	\$66,888
Sales Tax	\$5,518
Turnkey Project Cost	\$72,406

#### **Financial Metrics**

Payback Period (yrs)	2.25
Avg. Annual Return	51%
10 Yr Operating Savings	\$369,960
Net Present Value	\$204,555

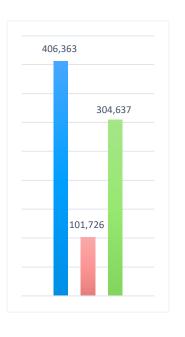
#### Cost of Waiting

Postpone for one month	\$3,083
Postpone for six months	\$18,498
Postpone for one year	\$36,996

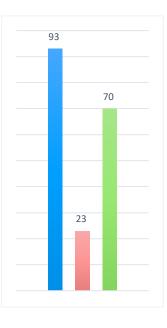
#### Assumptions

Energy Rate (\$/kWh)	0.1000
Annual Utility Rate Increase	3.00%
Discount Rate	6.00%

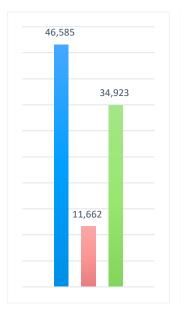
#### Usage (kWh)



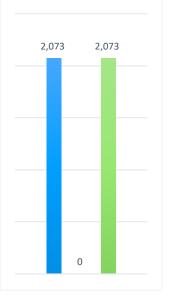
#### Demand (kW)



# Energy Cost (\$)



# Maintenance Cost (\$)





#### **Energy Usage**

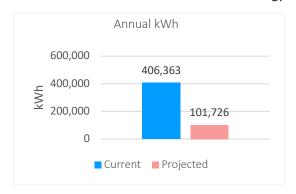
The following set of information evaluates your current energy usages and costs and compares that to the projected energy usage and costs your facility will see after the proposed lighting upgrade.

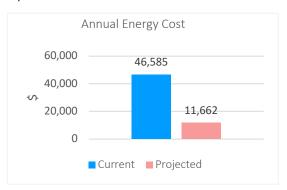
#### Annual Energy Usage

Current Usage	Projected	Reduction	Current	Projected	Financial	Percent
(kWh)	Usage (kWh)		Cost	Cost	Savings	Saved
406,363	101,726	75%	\$46,585	\$11,662	\$34,923	<mark>75%</mark>

- 1. Energy cost = \$0.1000/kWh; Annual energy cost escalation = 3.00%
- 2. Energy costs are averaged over 10 year analysis period
- 3. Projected Usage (kWh) includes savings from controls if applicable

#### **Energy Comparison**





- 1. Energy Cost = \$0.1000/kWh; Annual energy cost escalation = 3.00%
- 2. Energy costs are averaged over 10 year analysis period



#### Watts Summary

Existing Watts	Proposed Watts	Reduced Watts	Reduction
92,777	23,225	69,552	<mark>75%</mark>

The calculations in this table take into account the existing fixtures that are being replaced, upgraded, and/or have new lighting controls being proposed for them

#### Lighting Wattage Comparison

#### Exterior

_		_		Total				Total	Burn
Space	Existing Fixture	Qty	Watts	Watts	Proposed Solution	Qty	Watts	Watts	Hours
Building facade	Wallpack/Metal Halide/250.0W/1 Lamp	24	295.0	7,080	EPT Lighting Part No: ETP001-MWP08-65W-27V- 50K-D-MES Wall Mount/5000K	24	65.0	1,560	4,380
Canopy	Downlight/CFL Pin Base/42.0W/2 Lamp	6	93.0	558	Halco Lighting Technologies Part No: CDL6FR15/950/RTJB/LED-HLT Downlight/6 in/5000K	6	30.0	180	4,380
Canopy	Downlight/CFL Pin Base/42.0W/4 Lamp	16	168.0	2,688	Halco Lighting Technologies Part No: EPT01-T8-48FR12-840-BYP4- DSE-LED-84887-HLT Tube/T8 Linear/4000K	64	12.5	800	4,380
Canopy	Downlight/Metal Halide/150.0W/1 Lamp	32	185.0	5,920	Halco Lighting Technologies Part No: CDL8FR30/940/RTJB/LED 99620 Downlight/8 in/4000K	32	30.0	960	4,380
Canopy	Strip/T12 Fluorescent/4 ft/116.0W/2 Lamp	9	207.5	1,868	Halco Lighting Technologies Part No: EPT01-T8-48FR12-840-BYP4- DSE-LED-84887-HLT Tube/T8 Linear/4000K	18	12.5	225	4,380
Canopy	Strip/T8 Fluorescent/8 ft/59.0W/2 Lamp	43	103.8	4,463	Halco Lighting Technologies Part No: LS8/72U50 Linear/8 ft/5000K	43	72.0	3,096	4,380
Parking Lot	Area Light/Metal Halide/1000.0W/1 Lamp	65	1,080.0	70,200	EPT Lighting Part No: EPT01-MAL06-300-27V-50K- D-SQ-T3-MES Area & Site/5000K	65	300.0	19,500	4,380
Total			2,132.3	92,777			450.0	23,225	



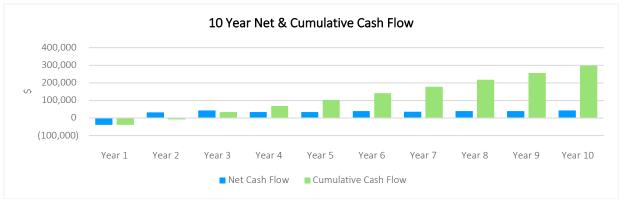
#### Cash Flow

We understand that finalizing a project like this often takes time. However, each day you delay your upgrade, you are missing out on the opportunity to reduce your operating expenses. As shown below, the lost opportunity continues to compound over time.

#### 10 Year Cash Flow Analysis

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Project Cost	\$(72,406)	-	-	-	-	-	-	-	-	-	\$(72,406)
Energy Savings	\$30,464	\$31,378	\$32,319	\$33,289	\$34,287	\$35,316	\$36,375	\$37,467	\$38,591	\$39,748	\$349,233
Maintenance Savings	\$2,918	\$0	\$9,749	\$0	\$180	\$3,197	\$0	\$2,374	\$0	\$2,309	\$20,727
Net Cash Flow	\$(39,024)	\$31,378	\$42,068	\$33,289	\$34,467	\$38,513	\$36,375	\$39,841	\$38,591	\$42,057	\$297,555
Cum Cash Flow	\$(39,024)	\$(7,646)	\$34,422	\$67,711	\$102,178	\$140,691	\$177,066	\$216,907	\$255,498	\$297,555	\$297,555



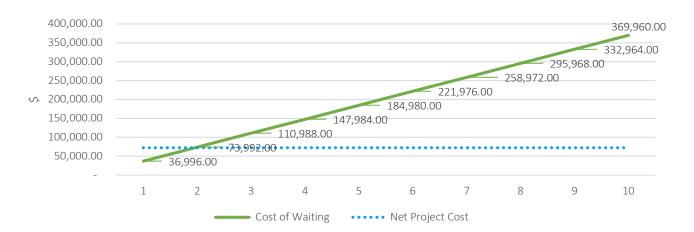




#### **Cost Of Waiting**

The cost of waiting shows the amount of cash your company will be losing if you delay the proposed lighting upgrade.

Monthly	Yearly	10 Years
\$3,083	\$36,996	\$369,960



Cost of waiting includes energy savings and maintenance savings applied as an average annual amount over a 10 year analysis period



#### **Equipment Financing Quote**

Power your business with flexible business equipment financing. Let your energy savings pay for your equipment!

#### Fast Flexible Financing

- \* Financing up to \$2 Million
- \* Application-only up to \$250,000
- \* Most credit decisions within minutes
- \* Streamlined documentation
- \* Potential tax savings

Amount Financed: \$72,406

LED SAVINGS: \$3,083/month

#### **Term Options:**

\* 24-Months: \$3,820/month \* 36-Months: \$2,538/month \* 48-Months: \$1,943/month \* 60-Months: \$1,599/month



#### **Bill Of Materials**

The following tables break out the costs of material and installation fees that are included on your proposal.

#### **Fixtures**

Brand	Part Number	Description	Qty	Price	Extended
Halco Lighting Technologies	CDL6FR15/95 0/RTJB/LED- HLT	Downlight/LED/Round/6 in/5000K	6	\$49.99	\$299.94
Halco Lighting Technologies	CDL8FR30/94 0/RTJB/LED 99620	Downlight/LED/Round/8 in/4000K	32	\$65.00	\$2,080.00
Halco Lighting Technologies	LS8/72U50	Strip/Commercial/8 ft/LED/5000K/120-277V	43	\$159.99	\$6,879.57
EPT Lighting	EPT01- MAL06-300- 27V-50K-D- SQ-T3-MES	300w LED Area Light   44,000Lm   120-277V   5000K   Arm Mount   <b>10YR WARRANTY</b>	65	\$489.99	\$31,849.3 5
EPT Lighting	ETP001- MWP08-65W- 27V-50K-D- MES	65w LED Wall Pack   7,900Lm   5000K   120-277V   5Yr Warranty	24	\$129.00	\$3,096.00

Total: \$44,204.86

#### Lamps

Brand	Part Number	Description	Qty	Price	Extended
Halco Lighting	EPT01-T8-	LED T8 12.5W 48 IN 4000K Double-Single Ended	82	\$9.98	\$818.36
Technologies	48FR12-840-	Bypass Type B			
	BYP4-DSE-				
	LED-84887-				
	HLT				

Total: \$818.36

#### Labor

Description	Qty	Total Cost
300w LED Area Light   44,000Lm   120-277V   5000K   Arm Mount   10YR WARRANTY	65	\$8,775.00
65w LED Wall Pack   7,900Lm   5000K   120-277V   5Yr Warranty	24	\$2,280.00
Downlight/LED/Round/6 in/5000K	6	\$243.00
Downlight/LED/Round/8 in/4000K	32	\$1,296.00
LED T8 12.5W 48 IN 4000K Double-Single Ended Bypass Type B	82	\$0.00
Strip/Commercial/8 ft/LED/5000K/120-277V	43	\$3,440.00

Total: \$16,034.00

#### **Project Level Cost**

Description	Price
Bypass Ballasts, Replace Tombstones, Make Repairs to Existing Damaged Fixtures & Install Tubes	\$2,720.00
Lift	\$3,110.88

Total: \$5,830.88



#### **Appendix**

Disclaimer: The projections and assumptions contained within this "Financial Analysis" cannot be relied upon as factual and Efficient Power Tech LLC does not warrant any conclusions or results associated with this document directly or indirectly, nor does it warrant anything contained herein. Disposal costs are not included in the Bill of Materials. A Disposal Quote will be provided upon request from the Customer. This document should not be relied upon exclusively to make any purchase decisions. Rebates and/or Incentive estimates are subject to qualifications, rules, customer size, usage operational information and other requirements under each Rebate and/or Incentive Provider's terms and conditions and are dependent on the information provided by the Rebate and/or Incentive Provider and Customer including but not limited to current wattage and lamps being replaced. Rebates and/or Incentives estimates are not guaranteed in whole or in part by Efficient Power Tech for any reason, including errors or omissions, which could reduce Rebate and/or Incentive amounts by penalty or otherwise. Upon acceptance of the Proposal, Efficient Power Tech will work to obtain the associated Project Rebate and/or Incentive on behalf of Customer and notify Customer of any changes to any estimate or terms and conditions of any Rebate and/or Incentive Program that would affect obtaining a Rebate and/or Incentive or the amount.

#### **Financial Assumptions**

Analysis Period (Years)	10
Payback Calculation Method	Cash Flow Payback
Cost of Capital	6.00%
Average Cost of Electricity	0.1000 \$/kWh
Annual Energy Inflation	3.00%
Annual Material Inflation	3.00%
Annual Service Inflation	3.00%
Product Tax Rate	8.25%
Service Tax Rate	8.25%

#### **Schedules**

Schedule Name	Hours/Week	Hours/Year
Continuous (24x7)	168	8,760
Dusk to Dawn	84	4,380
Weekdays (9-6)	45	2,346



# Proposal 1

Prepared for

# **Andrew Allemand**

Ironbridge Realty

Prepared By

Jon Gipson

713-244-5535

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# AREA LIGHT(MAL06)

# **Specifications**

- Rugged one-piece, die-cast aluminum housing secures the thermally conductive LED panel and electrical chamber
- Low profile, 3G vibration rated compact design minimizes wind load requirements.
- Housing is completely sealed against moisture and environmental contaminants.

#### Optics:

- · Available in IES Type III, IV, V distributions
- Light engines are available in standard 4000 K and 5000 K (70 CRI) configurations.
- Scalable Lumen Packages from 14,100 to 52,150 Lumens replaces up to 1000W Metal Halide.
- Optics is precisely designed to shape the distribution, maximizing efficiency and application spacing.
- For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed.
- The optics can conform to dark sky requirement.

#### Electrical:

- Universal 120-277 VAC or 347-480 VAC input voltage
- Standard with 1-10V dimming driver(s)
- Power Factor: ≥90%

#### Controls:

- · Optional occupancy sensor
- Optional Photocell

#### **Ambient Temperature:**

• Ambient operating temperature -40° C to  $45^{\circ}$  C (-40  $\mathbb{F}$  to 113  $\mathbb{F}$ ).

#### Installation:

- Suitable for mounting heights ranging from 26-50' in area lighting applications
- Round pole, Square pole, slipfitter and wall mount are available
- The design can be operated by one person to install the whole lamp

#### Lifespan:

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

• It's available in black or optional dark bronze, silvery gray or white.











#### Certifications:

• UL listed for wet location and DLC premium qualified

#### Medium Size: 100W/150W/200W



Large Size: 300W/350W











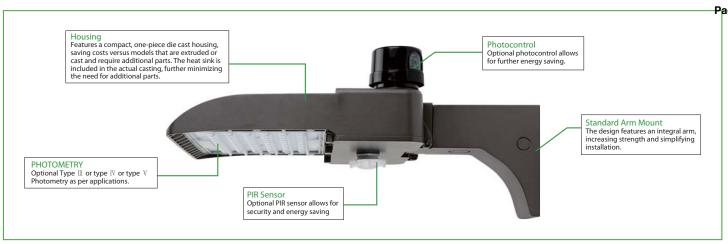
#### Warranty:

Mester warrants that our LED products will be free from defects in materials and workmanship for a period of five (10) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. (For more information visit: http://www.mesterleds.com/ resources/warranty/)

#### 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 (±5 C ) specifications subject to change without notice.





PERFORMANCE DATA		4000K	(70CRI)	5000K(70CRI)		
SYSTEM WATTS	VOLTAGE	DIST.TYPE	LUMENS	LPW	LUMENS	LPW
	120-277V	3	14600lm	146 lm/W	14800lm	148 lm/W
100W	120-277V	4	14100lm	141 lm/W	14200lm	142 lm/W
•	120-277V	5	14900lm	149 lm/W	14900lm	149 lm/W
	120-277V	2	21600lm	144 lm/W	22000lm	147 lm/W
	347-480V	3	22000lm	147 lm/W	23000lm	153 lm/W
150W	120-277V	4	20700lm	138 lm/W	21150lm	141 lm/W
15000	347-480V	4	21150lm	141 lm/W	21750lm	145 lm/W
•	120-277V	F	22000lm	147 lm/W	23000lm	153 lm/W
•	347-480V	5	23000lm	153 lm/W	23150lm	154 lm/W
	120-277V	3	27800lm	139 lm/W	28000lm	140 lm/W
•	347-480V		28000lm	140 lm/W	28500lm	143 lm/W
000147	120-277V	4	27400lm	137 lm/W	27600lm	138 lm/W
200W	347-480V		27600lm	138 lm/W	28200lm	141 lm/W
•	120-277V	-	28200lm	141 lm/W	28400lm	142 lm/W
•	347-480V	5	28400lm	142 lm/W	29000lm	145 lm/W
	120-277V	2	43500lm	145 lm/W	44000lm	147 lm/W
•	347-480V	3	43500lm	145 lm/W	44000lm	147 lm/W
300W	120-277V	4	42300lm	141 lm/W	42500lm	142 lm/W
30000	347-480V	4	42500lm	142 lm/W	42900lm	143 lm/W
•	120-277V	F	43500lm	145 lm/W	43800lm	146 lm/W
•	347-480V	5	43800lm	146 lm/W	44100lm	147 lm/W
	120-277V	3	50000lm	143 lm/W	50350lm	144 lm/W
	347-480V	3	50000lm	143 lm/W	50350lm	144 lm/W
250/4/	120-277V	4	49350lm	141 lm/W	49700lm	142 lm/W
350W	347-480V	4	49700lm	142 lm/W	50750lm	145 lm/W
	120-277V	F	50750lm	145 lm/W	51100lm	146 lm/W
	347-480V	5	51100lm	146 lm/W	52150lm	149 lm/W

# **ELECTRICAL DATA**

Number	Driver Current	Nominal Power	INPUT VOLTAGE	CURRENT
Of Drivers	(mA)	(VV)	(V)	(Amps)
		100	120	0.83
1	2600	100	208	0.48
I I	2600	100	240	0.42
		100	277	0.36
		150	120	1.25
		150	208	0.72
1	3900	150	240	0.63
'	3900	150	277	0.54
		150	347	0.43
		150	480	0.31
		200	120	1.67
	F100	200	208	0.96
1		200	240	0.83
ļ ,	5100	200	277	0.72
		200	347	0.58
		200	480	0.42
		300	120	2.50
		300	208	1.44
1	6000	300	240	1.25
'	8000	300	277	1.08
		300	347	0.86
		300	480	0.63
		350	120	2.92
		350	208	1.68
1	6200	350	240	1.46
'	6200	350	277	1.26
		350	347	1.01
		350	480	0.73

ltem	-		<b>*</b>				
	1	2 @90°	2 @120°	2@180°	3 @90°	3 @120°	4 @90°
100W/150W/200W	0.4418	0.7145	0.8813	0.8836	1.0548	1.0135	1.0548
300W/350W	0.5614	0.8471	1.105	1.1228	1.294	1.2503	1.294

#### **BUG**

SYSTEM WATTS	VOLTAGE	DIST.TYPE	В	U	G
100W	120-277V	3	2	0	2
150W	120-277V/347-480V	3	3	0	3
200W	120-277V/347-480V	3	3	0	3
300W	120-277V/347-480V	3	3	0	4
350W	120-277V/347-480V	3	3	0	5

#### MOUNTING

- Standard versatile mounting arm accommodates multiple drilling patterns as well as square and round poles
- Wall Mount available for direct wall mounting and J-box mounting
- Optional for cast aluminum slipfitter mounting adapter (Compatible with more MESTER mounting adaptors such as Tenon, suits for various application)

#### Mounting Options



Arm Mount (4" and 5" Square and Round poles) Standard versatile mounting arm is simple to install and can be used with existing poles for retrofit installations.

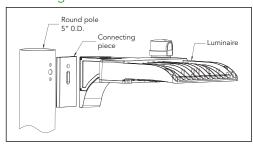


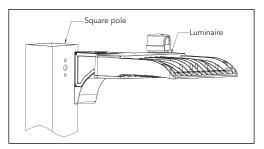
Slipfitter Mount An optional cast aluminum mast arm adapter secures fixture head to nominal 2"(2-3/8"O.D. pipe size) horizontal steel tenon arm

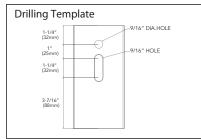


Wall Mount Wall Mount is easy to install for direct wall mounting with 1/2' conduit wiring or standard J-box mounting

#### Mounting Dimensions



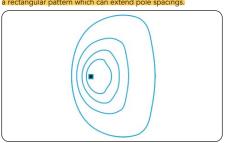




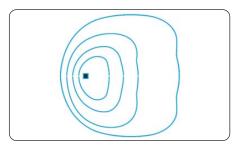
#### **PHOTOMETRICS**

Mester offers a complete set of optical systems to meet every site lighting requirement. These systems provide remarkable flexibility in precisely matching light distribution patterns to specific site requirements.

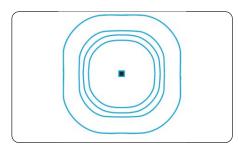
Type 3 optics produce an asymmetrical pattern that directs the majority of the light forward and equally on both sides of the luminaire. In a back-to-back configuration, it creates a rectangular pattern which can extend pole spacings.



Type 4: Type 4 is suitable for applications where light is primarily required forward with minimal backlight. Typical installations include perimeter poles.



Type 5: Type 5 optics produce a symmetrical square distribution pattern that distributes light equally on all sides of the luminaire. Type 5 luminaires is universal for most area lighting applications

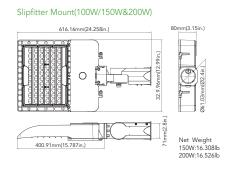


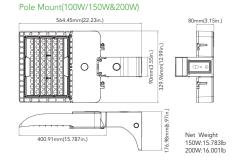
ORDERING GUIDE Example:MALU6 150W 2/V XXK Y Y Y Y						XXKYYYYY	
Wattage	Voltage	сст	Finish	Photocell (Option)	Sensor (Option)	Mounting	Photometry
<b>100</b> 100W	<b>27V</b> 120-277V	<b>40K</b> 4000K	<b>D</b> Dark Bronze	<b>P0</b> 120-277V Photocell	M With 120-277V Sensor	<b>SQ</b> Square Pole Mount	T3 TYPE Ⅲ Photometry
<b>150</b> 150W	<b>48V</b> 347-480V	<b>50K</b> 5000K	<b>B</b> Black	P3 347V Photocell	Blank Without Sensor	SP Slipfitter Mount	<b>T4</b> TYPE IV Photometry
<b>200</b> 200W			<b>W</b> White	P4 480V Photocell		WM Wall Mount	<b>T5</b> TYPE V Photometry
<b>300</b> 300W			<b>SG</b> Silver Gray	Blank Without Photocell			
<b>350</b> 350W							
	Wattage  100 100W 150 150W 200 200W 300 300W	Wattage Voltage  100 100W 27V 120-277V 150 150W 48V 347-480V 200 200W 300 300W	Wattage Voltage CCT  100 100W 27V 120-277V 40K 4000K 150 150W 48V 347-480V 50K 5000K 200 200W 300 300W	Wattage         Voltage         CCT         Finish           100 100W         27V 120-277V         40K 4000K         D Dark Bronze           150 150W         48V 347-480V         50K 5000K         B Black           200 200W         W White         SG Silver Gray	Wattage         Voltage         CCT         Finish         Photocell (Option)           100 100W         27V 120-277V         40K 4000K         D Dark Bronze         P0 120-277V Photocell           150 150W         48V 347-480V         50K 5000K         B Black         P3 347V Photocell           200 200W         W White         P4 480V Photocell           SG Silver Gray         Blank Without Photocell	Wattage         Voltage         CCT         Finish         Photocell (Option)         Sensor (Option)           100 100W         27V 120-277V         40K 4000K         D Dark Bronze         P0 120-277V Photocell         M With 120-277V Sensor           150 150W         48V 347-480V         50K 5000K         B Black         P3 347V Photocell         Blank Without Sensor           200 200W         W White         P4 480V Photocell         SG Silver Gray         Blank Without Photocell	Wattage         Voltage         CCT         Finish         Photocell (Option)         Sensor (Option)         Mounting           100 100W         27V 120-277V         40K 4000K         D Dark Bronze         P0 120-277V Photocell         M With 120-277V Sensor         SQ Square Pole Mount           150 150W         48V 347-480V         50K 5000K         B Black         P3 347V Photocell         Blank Without Sensor         SP Slipfitter Mount           200 200W         W White         P4 480V Photocell         Without Photocell         WM Wall Mount

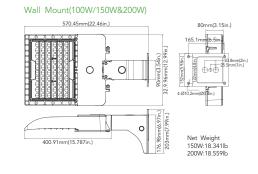
Note: 100W is limited to 120-277V only.

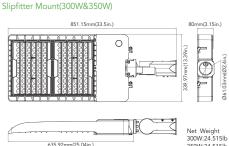
#### DIMENSION

unit: inch/mm







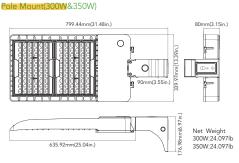


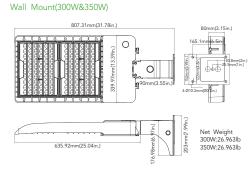


a yoke mount onto a 2-3/8" OD tenon. It may be utilized with the

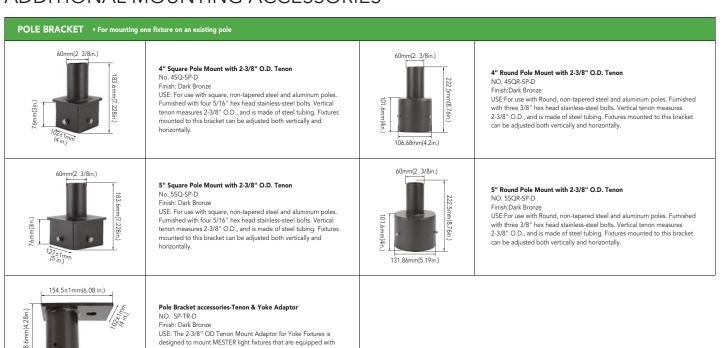
Mester Flood Light Series of light fixtures.

63mm(2.48in.)





#### ADDITIONAL MOUNTING ACCESSORIES



# WALL BRACKET

#### 90° Wall Mount Bracket with 2-3/8" O.D. Tenon

NO. WM-SP-D

Finish: Dark Bronze
USE: The 90" wall mount bracket with 2-3/8" tenon attaches an MESTER floodlight to almost any surface: wall, roof, or wood pole. Provides wiring access and abuilt-in 2-3/8" O.D. tenon to mount a fixture with our adjustable slipfitter. Suggested 3/8" diameter bolts for mounting. Mounting holes are spaced 3-1/4" apart.

# 185mm(7.28in.)

Mid-Pole tenon Bracket

#### 2-3/8" OD Horizontal Tenon Mid-Pole Bracket

NO. SO-SP-D

NO. 342-97-U Finish:Dark Bronze USE:2-3/8" OD Horizontal Tenon Mid-Pole Bracket is designed to mount light fixture that is equipped with a adjustable slipfitter onto a 2-3/8" OD horizontal tenon

#### Round External Mount Horizontal Tenon · To mount 2/3/4 fixtures on a existing pole



# **Double 90' Horizontal Tenon Adaptor** NO. R60-SP2-90-D

Finish-Dark Bronze

Frinsin-Dark Bronze
USE:The Bracket is designed to mount over 2-3/8" (60mm) O.D.
vertical tenon. Two fixtures can be mounted to the Round External
Mount Horizontal Tenon and adjusted horizontally



#### Triple 120' Horizontal Tenon Adaptor

NO. R60-SP3-120-D Finish-Dark Bronze

USE:The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Three fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally



#### Double 180' Horizontal Tenon Adaptor

NO. R60-SP2-180-D Finish:Dark Bronze

USE:The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Two fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally



#### Quad 90' Horizontal Tenon Adaptor

NO. R60-SP4-90-D Finish:Dark Bronze

VISE:The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Four fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally



#### Triple 90' Horizontal Tenon Adaptor

NO. R60-SP3-90-D

Thish:Dark Bronze
USE:The Bracket is designed to mount over 2-3/8" (60mm) O.D. vertical tenon. Three fixtures can be mounted to the Round External Mount Horizontal Tenon and adjusted horizontally

## DLC Model NO.

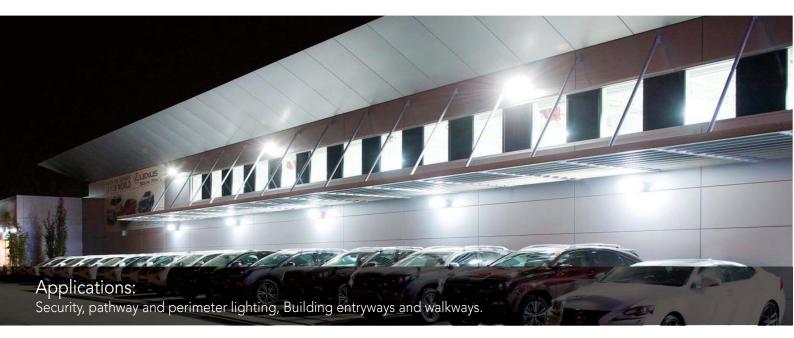
SYSTEM WATTS	VOLTAGE	ССТ	DIST.TYPE	DLC NO.	DLC Classification
100W	120-277V	4000K	3	MAL06100W27V40K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
TOOVV	120-2777	5000K	3	MAL06100W27V50K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
	120-277V	4000K	3	MAL06150W27V40K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
150W	120-277	5000K	3	MAL06150W27V50K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
13000	347-480V	4000K	3	MAL06150W48V40K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
	347-460V	5000K	3	MAL06150W48V50K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
	120-277V	4000K	3	MAL06300W27V40K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
300W	120-2770	5000K	3	MAL06300W27V50K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
30000	347-480V	4000K	3	MAL06300W48V40K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
	347-460V	5000K	3	MAL06300W48V50K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
	120-277V	4000K	3	MAL06350W27V40K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
350W	120-2777	5000K	3	MAL06350W27V50K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
33000	347-480V	4000K	3	MAL06350W48V40K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium
347-480V		5000K	3	MAL06350W48V50K[D,B,W,SG][Blank,P0,P3,P4][Blank,M][SQ,SP,WM]T3	Premium

Houston, TX 77057

P: (713) 783-2367



# WALL PACK(WP08)



# **Features**

- Sealed die-casting profile for indoor and outdoor applications.
- Voltage is 120-277V or 347-480V
- Lumen ouput from 3550-15000lm with efficacy up to 128lm/W
- Polycarbonate optical lens with UV stabilizers.
- Photocell optional.
- Replacing 100W MH to 400W MH.
- Operating temperature is -40  $^{\circ}$ C to 40  $^{\circ}$ C (-40  $^{\circ}$ F to 104  $^{\circ}$ F).
- UL/cUL wet location listed and DLC qualified.

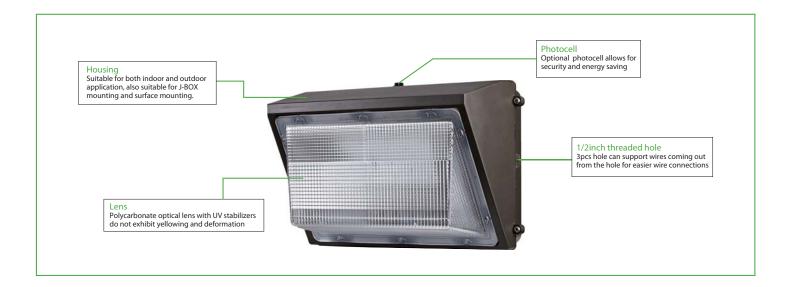












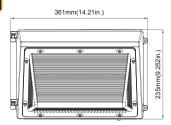
	Fa						
PERFORMANCE DATA		4000k	(70CRI)	5000K(70CRI)			
SYSTEM WATTS	VOLTAGE	LUMENS	LPW	LUMENS	LPW		
30W	120-277VAC	3550lm	118 lm/W	3600lm	120 lm/W		
40W	120-277VAC	5000lm	125 lm/W	5100lm	128 lm/W		
40W	347-480VAC	5000lm	125 lm/W	5100lm	128 lm/W		
65W	120-277VAC	7800lm	120 lm/W	7900lm	122 lm/W		
65W	347-480VAC	7800lm	120 lm/W	7900lm	122 lm/W		
90W	120-277VAC	10000m	111 lm/W	10500m	117 lm/W		
90W	347-480VAC	10000m	111 lm/W	10500m	117 lm/W		
125W	120-277VAC	14500m	116 lm/W	15000m	120 lm/W		
125W	347-480VAC	14500m	116 lm/W	15000m	120 lm/W		

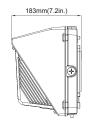
# **ELECTRICAL DATA**

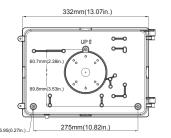
Number Of Drivers	Driver Current (mA)	Nominal Power (W)	INPUT VOLTAGE (V)	CURRENT (Amps)
01 5111010	V y	30	120	0.25
		30	208	0.14
1	430	30	240	0.13
		30	277	0.13
		40	120	0.33
		40	208	0.19
		40	240	0.17
1	640	40	277	0.14
		40	347	0.12
		40	480	0.08
		65	120	0.54
		65	208	0.31
	1110	65	240	0.27
1		65	277	0.23
		65	347	0.19
		65	480	0.14
		90	120	0.75
		90	208	0.43
	2270	90	240	0.38
1	2270	90	277	0.32
		90	347	0.26
		90	480	0.19
		125	120	1.04
	3260	125	208	0.60
2	3200	125	240	0.52
۷		125	277	0.45
	2200	125	347	0.36
	3200	125	480	0.26

# **DIMENSION**

unit: inch/mm

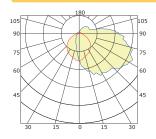






Weight 30W: 6.327lb 40W: 6.525lb 65W: 6.724lb 90W: 7.319lb 125W: 8.157lb

# **PHOTOMETRICS**



# **ACCESSORIES**



#### Photocell

NO. PC-JL-120-277V

USE: Photocell is field installed or Pre-installed in factory by requesting.

ORDERING GUIDE Example: WP0840W27V50KYY						
Fixture Type	Power Consumption	Input Voltage	ССТ	Finish	Photocell (Option)	
WP08 Wall Pack Series	30 30W 40 40W 65 65W 90 90W 125 125W	<b>27V</b> 120-277V <b>48V</b> 347-480V	<b>40K</b> 4000K <b>50K</b> 5000K	<ul><li>D Dark Bronze</li><li>B Black</li><li>W White</li></ul>	PO 120-277V Photocell Blank Without Photocell	

Note: The 30W is limited to 120-277V input.





Catalog Number.	TypeFage 2
Project:	
Comments:	Date:



ProLED® Commerical Downlight Retrofits are a long life and energy efficient replacement for traditional lamps. The 6" LED Commercial Downlight Retrofit features an integrated junction box for quick and easy installation into existing housings or directly mount to drywall or ceiling tiles. It is dimmable, easy to install and delivers a maintenance-free experience with a 50,000-hour useful rated life. With its superior LED technology and performance, the ProLED Commercial Downlight Retrofits deliver consistent color, uniform illumination, and long life for your lighting design. Applications include: office, hallway, bathroom, lobby, hospitality, conference room. ProLED Commercial Downlight Retrofits are backed by a 5-year limited warranty.

#### Performance Specifications

CRI	90
Rated Life	50,000 hours
Watt	15W
Lumens —	1000 lm
Lumens per Watt (LPW)	66.6
Input Line Voltage	120-277V
Input Line Frequency	60 Hz

Min. Start Temp.	-25°C (-13°F)
Max. Operating Temp	45°C (114°F)
Power Factor	>0.90%
Warranty	5-Year Limited
Control	Dimmable to 10% (120V)
Weight	1.5 lb

	Traditional Incandescent	Replacement LED	<b>Energy Savings</b>
Energy Savings	120W	15W	87%

#### Construction

- 50,000 hour life results in lower maintenance costs over time
- · Cast aluminum housing and trim
- · Frosted lens for smooth, even and comfortable light distribution
- · ETL approved for damp locations

- RoHS Compliant
- Dimmable to 10% (120V)
- · Interior standard junction box

#### Installation

- Downlight comes affixed with a standard junction box
- J-Box can be wired directly to the power source or fed to downlight J-box with supplied 24" flexible conduit
- · Acceptable for use in IC and Non-IC housings

- · Comes with 24" flexible metal conduit
- Strong spring clips secure housing to commercial downlight housings, drywall and ceiling tiles

#### Electrical

120-277V Input

- Dimmable to 10% (120V)
- 60 Hz Input frequency
- Power Factor >0.90%

## Ordering Information





Watt	Product #	Product Code	Volts	Color Temp.	CRI	Lumen Output	Useful Life*	Dimmable	Fixture Size	Equivalent Wattage
15W	99614	CDL6FR15/927/RTJB/LED	120	2700K	90	1000	50,000	Yes	6"	120W
15W	99615	CDL6FR15/930/RTJB/LED	120	3000K	90	1000	50,000	Yes	6"	120W
15W	99616	CDL6FR15/940/RTJB/LED	120	4000K	90	1000	50,000	Yes	6"	120W
15W	99617	CDL6FR15/950/RTJB/LED	120	5000K	90	1000	50,000	Yes	6"	120W

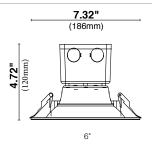
 $<sup>^{\</sup>star}$  Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens.





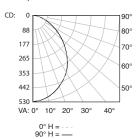
# 6" Commercial Downlight Retrofit

#### **Dimensions**

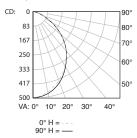


#### **Photometrics**

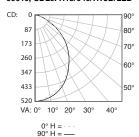
#### 99614, CDL6FR15/927/RTJB/LED



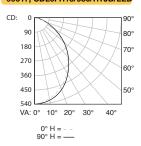
#### 99615, CDL6FR15/930/RTJB/LED



#### 99616, CDL6FR15/940/RTJB/LED



#### 99617, CDL6FR15/950/RTJB/LED



#### **LUMENS PER ZONE**

ZONE	LUMENS	% TOTAL	ZONE	LUMENS %	TOTAL
0-10	49.5	4.3%	90-100	0.000	0%
10-20	138.1	12.1%	100-110	0.004	0%
20-30	200.2	17.5%	110-120	0.1	0%
30-40	227.1	19.9%	120-130	0.1	0%
40-50	215.7	18.9%	130-140	0.3	0%
50-60	170.3	14.9%	140-150	0.6	0%
60-70	98.9	8.6%	150-160	0.8	0.1%
70-80	36.1	3.2%	160-170	0.7	0.1%
80-90	5.2	0.5%	170-180	0.3	0%

#### **LUMENS PER ZONE**

ZONE	LUMENS	% TOTAL	ZONE	LUMENS %	TOTAL
0-10	58.6	5.7%	90-100	0.000	0%
10-20	157.9	15.4%	100-110	0.000	0%
20-30	215.0	21.0%	110-120	0.000	0%
30-40	225.3	22.0%	120-130	0.000	0%
40-50	183.9	17.9%	130-140	0.000	0%
50-60	112.5	11.0%	140-150	0.000	0%
60-70	48.8	4.8%	150-160	0.000	0%
70-80	18.2	1.8%	160-170	0.000	0%
80-90	5.4	0.5%	170-180	0.000	0%

#### **LUMENS PER ZONE**

ZONE L	.UMENS	% TOTAL	ZONE	LUMENS %	TOTAL
0-10	61.1	5.7%	90-100	0.000	0%
10-20	164.7	15.4%	100-110	0.000	0%
20-30	224.2	21.0%	110-120	0.000	0%
30-40	235.0	22.0%	120-130	0.000	0%
40-50	191.8	17.9%	130-140	0.000	0%
50-60	117.3	11.0%	140-150	0.000	0%
60-70	50.9	4.8%	150-160	0.000	0%
70-80	19.0	1.8%	160-170	0.000	0%
80-90	5.6	0.5%	170-180	0.000	0%

#### **LUMENS PER ZONE**

ZONE	LUMENS	% TOTAL	ZONE	LUMENS %	TOTAL
0-10	63.7	5.7%	90-100	0.000	0%
10-20	171.7	15.4%	100-110	0.000	0%
20-30	233.7	21.0%	110-120	0.000	0%
30-40	244.9	22.0%	120-130	0.000	0%
40-50	199.9	17.9%	130-140	0.000	0%
50-60	122.2	11.0%	140-150	0.000	0%
60-70	53.1	4.8%	150-160	0.000	0%
70-80	19.8	1.8%	160-170	0.000	0%
80-90	5.8	0.5%	170-180	0.000	0%

#### **ZONAL LUMEN SUMMARY**

ZONE	LUMENS	% LAMP %	LUMI NAI RE
0-30	387.7	33.9%	33.9%
0-40	614.8	53.7%	53.7%
0-60	1,000.9	87.5%	87.5%
60-90	140.2	12.3%	12.3%
70-100	41.4	3.6%	3.6%
90-120	0.1	0%	0%
0-90	1,141.2	99.7%	99.7%
90-180	3.0	0.3%	0.3%
0-180	1,144.1	100%	100%

#### ZONAL LUMEN SUMMARY

ZONE	LUMENS	% LAMP %	LUMINAIRE
0-30	431.6	42.1%	42.1%
0-40	656.9	64.1%	64%
0-60	953.2	93%	92.9%
60-90	72.4	7.1%	7.1%
0-90	1,025.6	100%	100%

#### ZONAL LUMEN SUMMARY

ZONE	LUMENS 9	% LAMP %	LUMINAIRE
0-30	450.1	42.1%	42.1%
0-40	685.1	64.1%	64%
0-60	994.2	93%	92.9%
60-90	75.5	7.1%	7.1%
0-90	1.069.8	100%	100%

#### **ZONAL LUMEN SUMMARY**

ZONE	LUMENS	% LAMP %	LUMI NAI RE
0-30	469.1	42.1%	42.1%
0-40	713.9	64.1%	64%
0-60	1,036.1	93%	92.9%
60-90	78.7	7.1%	7.1%
0-90	1 114 8	100%	100%



Catalog Number:	lype: Page 4
Project:	
Comments:	Date:



ProLED® Commerical Downlight Retrofits are a long life and energy efficient replacement for traditional lamps. The 8" LED Commercial Downlight Retrofit features an integrated junction box for quick and easy installation into existing housings or directly mount to drywall or ceiling tiles. It is dimmable, easy to install and delivers a maintenance-free experience with a 50,000-hour useful rated life. With its superior LED technology and performance, the ProLED Commercial Downlight Retrofits deliver consistent color, uniform illumination, and a long life for your lighting design. Applications include: office, hallway, bathroom, lobby, hospitality, conference room. ProLED Commercial Downlight Retrofits are backed by a 5-year limited warranty.

#### Performance Specifications

CRI	90
Rated Life	50,000 hours
Watt	30W
Lumens	2000 lm
Lumens per Watt (LPW)	66.6
Input Line Voltage	120-277V
Input Line Frequency	60 Hz

Min. Start Temp.	-25°C (-13°F)
Max. Operating Temp.	45°C (114°F)
Power Factor	>0.90%
Warranty	5-Year Limited
Control	Dimmable to 10% (120V)
Weight	1.8 lb

	Traditional Incandescent	Replacement LED	<b>Energy Savings</b>
Energy Savings	200W	30W	85%

#### Construction

- 50,000 hour life results in lower maintenance costs over time
- · Cast aluminum housing and trim
- · Frosted lens for smooth, even and comfortable light distribution
- · ETL approved for damp locations

- RoHS Compliant
- Dimmable to 10% (120V)
- · Interior standard junction box

#### Installation

- · Downlight comes affixed with a standard junction box
- J-Box can be wired directly to the power source or fed to downlight J-box with supplied 24" flexible conduit
- · Acceptable for use in IC and Non-IC housings

- · Comes with 24" flexible metal conduit
- Strong spring clips secure housing to commercial downlight housings, drywall and ceiling tiles

#### Electrical

• 120-277V Input

- · Dimmable to 10%
- 60 Hz Input frequency
- Power Factor >0.90%

## Ordering Information





Watt	Product #	Product Code	Volts	Color Temp.	CRI	Lumen Output	Useful Life*	Dimmable	Fixture Size	Equivalent Wattage
30W	99618	CDL8FR30/927/RTJB/LED	120	2700K	90	2000	50,000	Yes	8"	200W
30W	99619	CDL8FR30/930/RTJB/LED	120	3000K	90	2000	50,000	Yes	8"	200W
30W	99620	CDL8FR30/940/RTJB/LED	120	4000K	90	2000	50,000	Yes	8"	200W
30W	99621	CDL8FR30/950/RTJB/LED	120	5000K	90	2000	50,000	Yes	8"	200W

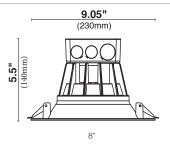
 $<sup>^{\</sup>star}$  Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens.





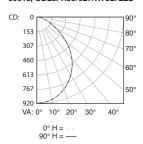
# 8" Commercial Downlight Retrofit

#### **Dimensions**



#### **Photometrics**

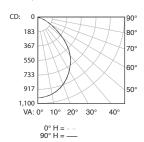
#### 99618, CDL8FR30/927/RTJB/LED



ZONE	LUMENS	% TOTAL	ZONE	LUMENS %	TOTAL
0-10	86.0	4.3%	90-100	0.3	0%
10-20	243.3	12.1%	100-110	0.4	0%
20-30	357.3	17.8%	110-120	0.5	0%
30-40	409.4	20.4%	120-130	0.6	0%
40-50	386.0	19.2%	130-140	0.6	0%
50-60	287.4	14.3%	140-150	1.0	0%
60-70	163.4	8.1%	150-160	1.4	0.1%
70-80	60.5	3.0%	160-170	1.3	0.1%
80-90	11.9	0.6%	170-180	0.5	0%

ZONAL	LUMEN	SUMMAR	Υ
ZONE	LUMENS	% LAMP %	LUMINAIRE
0-30	686.6	34.1%	34.1%
0-40	1,096.1	54.5%	54.5%
0-60	1,769.5	87.9%	88%
60-90	235.8	11.7%	11.7%
70-100	72.8	3.6%	3.6%
90-120	1.2	0.1%	0.1%
0-90	2,005.3	99.7%	99.7%
90-180	6.6	0.3%	0.3%
0-180	2,011.9	100%	100%

#### 99619, CDL8FR30/930/RTJB/LED



#### **LUMENS PER ZONE**

**LUMENS PER ZONE** 

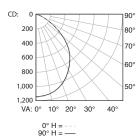
ZONE	LUMENS	% TOTAL	ZONE	LUMENS %	TOTAL
0-10	86.3	4.2%	90-100	0.000	0%
10-20	244.2	11.9%	100-110	0.000	0%
20-30	360.1	17.6%	110-120	0.000	0%
30-40	413.6	20.2%	120-130	0.000	0%
40-50	387.8	18.9%	130-140	0.000	0%
50-60	282.4	13.8%	140-150	0.000	0%
60-70	154.4	7.5%	150-160	0.000	0%
70-80	74.1	3.6%	160-170	0.000	0%
80-90	49.0	2.4%	170-180	0.000	0%

ZONAL LUWLIN SUMIMAN I						
ZONE	LUMENS	% LAMP %	LUMINAIRE			
0-30	690.6	33.7%	33.7%			
0-40	1 104 2	53 9%	53.8%			

ZONAL LUMEN CUMMARY

0-30	690.6	33.7%	33.7%
0-40	1,104.2	53.9%	53.8%
0-60	1,774.5	86.6%	86.5%
60-90	277.5	13.5%	13.5%
0-90	2,052.0	100.2%	100%

#### 99620, CDL8FR30/940/RTJB/LED

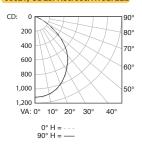


#### **LUMENS PER ZONE**

ZONE	LUMENS	% TOTAL	ZONE	LUMENS %	TOTAL
0-10	96.3	4.2%	90-100	0.000	0%
10-20	272.4	11.9%	100-110	0.000	0%
20-30	401.8	17.6%	110-120	0.000	0%
30-40	461.4	20.2%	120-130	0.000	0%
40-50	432.6	18.9%	130-140	0.000	0%
50-60	315.1	13.8%	140-150	0.000	0%
60-70	172.3	7.5%	150-160	0.000	0%
70-80	82.6	3.6%	160-170	0.000	0%
80-90	54.7	2.4%	170-180	0.000	0%

ZUNA	L LUME	N SUMMA	ΗY
ZONE	LUMENS	% LAMP %	LUMINAIRE
0-30	770.4	33.7%	33.7%
0-40	1,231.8	53.9%	53.8%
0-60	1,979.4	86.6%	86.5%
60-90	309.6	13.5%	13.5%
0-90	2 289 0	100.2%	100%

#### 99621, CDL8FR30/950/RTJB/LED



LUMEN	NS PER	ZONE			
ZONE I	LUMENS	% TOTAL	ZONE	LUMENS %	TOTAL
0-10	94.2	4.2%	90-100	0.000	0%
10-20	266.6	11.9%	100-110	0.000	0%
20-30	393.2	17.6%	110-120	0.000	0%
30-40	451.6	20.2%	120-130	0.000	0%

10-20	266.6	11.9%	100-110	0.000	0%
20-30	393.2	17.6%	110-120	0.000	0%
30-40	451.6	20.2%	120-130	0.000	0%
40-50	423.5	18.9%	130-140	0.000	0%
50-60	308.4	13.8%	140-150	0.000	0%
60-70	168.6	7.5%	150-160	0.000	0%
70-80	80.9	3.6%	160-170	0.000	0%
80-90	53.5	2.4%	170-180	0.000	0%

ZONA	L LUME	NSUMMAI	HΥ
ZONE	LUMENS	% LAMP %	LUMINAIRE
0-30	754.1	33.7%	33.7%
0-40	1,205.7	53.9%	53.8%
0-60	1,937.5	86.6%	86.5%
60-90	303.0	13.5%	13.5%
0-90	2,240.6	100.2%	100%

Catalog Number:	Type: Page 6
Project:	
Comments:	Date:

# Halco Linear Strip Series











The Halco Linear Strip Luminaires feature a sleek design and are the ideal solution for numerous applications. The LED Strips are the perfect energy saving solution for traditional, fluorescent linear fixtures. Designed to provide optimal light output without the sacrifice of high maintenance and energy costs. Flexible mounting and easy install allow the strips to be used in commercial, industrial, retail, storage, utility, and general task lighting applications.

#### Performance

Replaces pre-existing 4' and 8' fluorescent strip fixtures

Driver efficiency >85%

- CRI >80
- L70 Lumen Maintenance > 60,000 hours
- 5 year limited warranty
- 0-10V Dimming Standard, dimmable down to 10%
- Universal 120-277VAC
- Motion Sensor and Battery Backup Options Available

#### Certification

- UL Listed
- R0Hs Compliant
- DLC Premium
- Damp Location

#### Construction

- Intergal LED gear tray and reflector
- Driver on board
- Diffused lens that requires no additional frame or fastener

#### **Applications**

- Commercial
- Industrial
- Retail
- Starage/Utility
- Shops
- Task Lighting

## **Ordering Information**

Model Selection	Typical Order Example	LS4/36U40						
Family	Size	1	Wattage	Voltage	ССТ	1	Options	Cord Set*
LS= Linear Strip Series	4=4 foot 8=8 foot		36=36 Watts 72=72 Watts	U=120-277VAC	40=4000K 50=5000K		(Omit)=None EM=Battery Backup MSP=End-Mounted PIR Motion Sensor	(Omit)=None C1= 6' 120V Cord & L5-15P Plug C2=6' 277V Cord & L7-15P Plug

Cord Set Options are assembled to order. Lead times apply. Motion Sensor options are assembled to order. Lead times apply.



# Halco Linear Strip Series

#### **Product Information Table**

Product Code	Product Number	Product Description	Weight
LS4/36U40	10240	LINEAR STRIP 4 FT: 36 WATTS, 120-277V, 4000K	6.72
LS4/36U50	10241	LINEAR STRIP 4 FT: 36 WATTS, 120-277V, 5000K	6.72
LS8/72U40	10243	LINEAR STRIP 8 FT: 72 WATTS, 120-277V, 4000K	11.79
LS8/72U50	10244	LINEAR STRIP 8 FT: 72 WATTS, 120-277V, 5000K	11.79

# **Product Specification Table**

Rated Wattage	36	72			
Input Voltage	120-277VAC				
Power Factor	>	0.9			
L70 Lifetime*	>6	0,000			
Efficacy	>130LPW				
Total Harmonic Distortion (THD)	<b>&lt;20%</b>				
CRI	>80, R9 >0				
Dimming	0-10V Contin	nuous Dimming			
сст	4000h	K, <mark>5000K</mark>			
Warranty	5 Years	Standard			
Color Consistency	5-Step Mad	Adam Ellipse			
Wet	Damp Location, 20-8	5% RH, non-condensing			
DLC	-20°C to 50°C				
Weight (lbs)	6.72	11.79			

# **Energy Savings Table**

Halco Retrofit	Comparable Fluorescent	LED Advantage			
4' 36W	2 x 32W T8	50% Less Watts			
8' 72W	2 x 59W T8	38% Less Watts			

Performance Data Table		40	00K	5000K		
Product	Rated Wattage	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	
LS4/36UXX	36	4903	136	4910	136	
LS8/72UXX	72	9806	136	9820	136	

Quick ship: 4000K and 5000K. Other CCTs may require a lead time or be special order

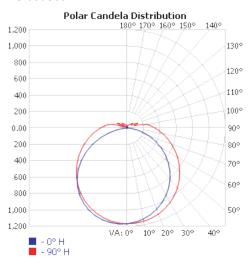
2 Typical color consistency. May vary or be changed.

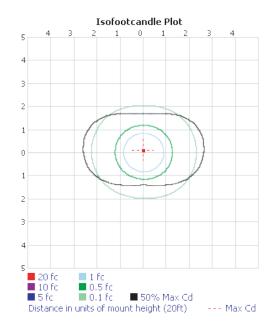
3 L70 hours calculated based on LED package manufacturer LM80 report and ISTMT report of LED in luminaire. Stated values are for select catalog numbers. Contact manufacturer for detailed information

# Halco Linear Strip Series

#### **Photometrics**

#### LS4/36U50



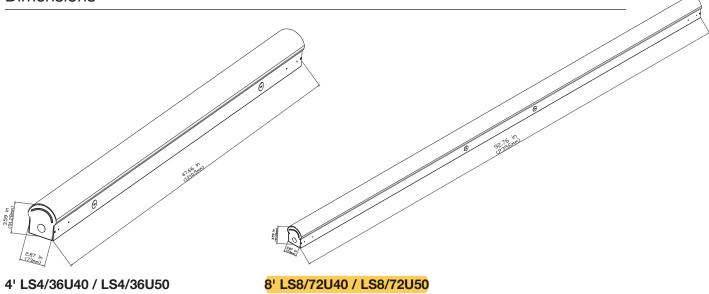


	ZUNAL L	OMEN SOM	WARY
ZONE	LUMENS	% LAMP% L	LUMINAIRE
0-30	923.7	20.4%	20.4%
0-40	1,532.7	33.8%	33.8%
0-60	2,816.9	62.1%	62.1%
60-90	1,251.5	27.6%	27.6%
70-100	901.1	19.9%	19.9%
90-120	346.6	7.6%	7.6%
0-90	4,068.4	89.6%	89.6%
90-180	470.4	10.4%	10.4%
0-180	4,538.8	100%	100%

ZONAL LUMEN CUMMA DV

#### **LUMENS PER ZONE** ZONE LUMENS% TOTAL ZONE LUMENS% TOTAL 0-10 110.8 2.4% 90-100 191.4 4.2% 10-20 320.0 7.1% 100-110 91.0 2% 20-30 492.9 10.9% 110-120 64.2 1.4% 30-40 609.0 13.4% 120-130 43.8 1% 40-50 655.1 14.4% 130-140 35.9 0.8% 50-60 629.1 13.9% 140-150 0.5% 60-70 541.9 11.9% 150-160 13.5 0.3% 70-80 417.9 9.2% 160-170 6.2 0.1% 80-90 291.8 6.4% 170-180 0%

#### **Dimensions**





# LED Lamps

# ProLED® T8 Series

- No External Ballast Required
- Single or Double ended Power Ensures
   Ease of Installation and Safety
- Suitable for totally enclosed fixtures
- 2', 3' and 4' Lengths for Multiple Product Applications
- Thermal limitation causes lamp to turn off if ballast was left connected

# **Specifications**

# Line CONNECT TypeB (4)

#### **Description**

Reliable and efficient linear fluorescent T8 replacement with ease of installation wiring for either single or double-ended line voltage input in a single replacement LED lamp.

#### Construction

- Glass Lens
- Thermal limitation causes lamp to turn off if ballast is left connected

#### Installation

- Single or double ended power
- T8 Linear Bypass will eliminate the need for a ballast
- AC line voltage wired to either single end or double end of the lamp

#### **Performance**

Operates on 120-277V line voltage

LOCATION:

PROJECT:

DATE:

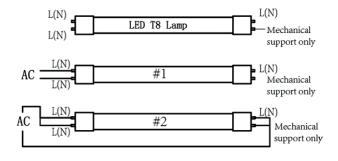
CATALOG #:

- 7W, 12W and 12.5W option
- L70 >50.000 hrs
- 83 CRI

#### Certifications

- cUL approved for damp locations
- ETL Sanitation Certificate
- DLC 5.0 Qualified. Refer to designlights.org for full list of qualified products.

# **Bypass Wiring**





DATE: LOCATION:

TYPE: PROJECT:

CATALOG #:

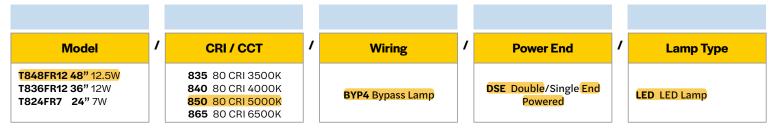
LED Lamps

# **ProLED® T8 Series**



# **Product Description**

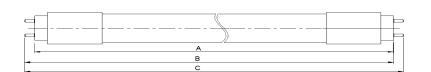
**Ordering Logic** 



# **Ordering Information**

Watt	Base	Product #	Product Code	Voltage	ССТ	CRI	Lumens	Useful Life	Beam Spread	Pkg. Qty	MOL	PF	Equivalent Wattage
12.5	Medium Bi Pin	84886	T848FR12/835/BYP4/DSE/LED	120- 277V	3500	83	1650	50,000	160	25	48"	0.98	32
12.5	Medium Bi Pin	84887	T848FR12/840/BYP4/DSE/LED	120- 277V	4000	83	1750	50,000	160	25	48"	0.98	32
12.5	Medium Bi Pin	84888	T848FR12/850/BYP4/DSE/LED	120- 277V	5000	83	1800	50,000	160	25	48"	0.98	32
12.5	Medium Bi Pin	84889	T848FR12/865/BYP4/DSE/LED	120- 277V	6500	83	1650	50,000	160	25	48"	0.98	32
12	Medium Bi Pin	84875	T836FR12/835/BYP4/DSE/LED	120- 277V	3500	83	1450	50,000	160	25	36"	0.98	25
12	Medium Bi Pin	84876	T836FR12/840/BYP4/DSE/LED	120- 277V	4000	83	1500	50,000	160	25	36"	0.98	25
12	Medium Bi Pin	84877	T836FR12/850/BYP4/DSE/LED	120- 277V	5000	83	1550	50,000	160	25	36"	0.98	25
12	Medium Bi Pin	84878	T836FR12/865/BYP4/DSE/LED	120- 277V	6500	83	1450	50,000	160	25	36"	0.98	25
7	Medium Bi Pin	84871	T824FR7/835/BYP4/DSE/LED	120- 277V	3500	83	900	50,000	160	25	24"	0.98	17
7	Medium Bi Pin	84872	T824FR7/840/BYP4/DSE/LED	120- 277V	4000	83	950	50,000	160	25	24"	0.98	17
7	Medium Bi Pin	84873	T824FR7/850/BYP4/DSE/LED	120- 277V	5000	83	1000	50,000	160	25	24"	0.98	17
7	Medium Bi Pin	84874	T824FR7/865/BYP4/DSE/LED	120- 277V	6500	83	900	50,000	160	25	24"	0.98	17

# **Dimensions**



	Α	В	С
2'	23.22	23.5	23.78
3'	35.22	35.5	35.78
4'	47.22	47.5	47.78



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#### **TAX INCENTIVES**

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