



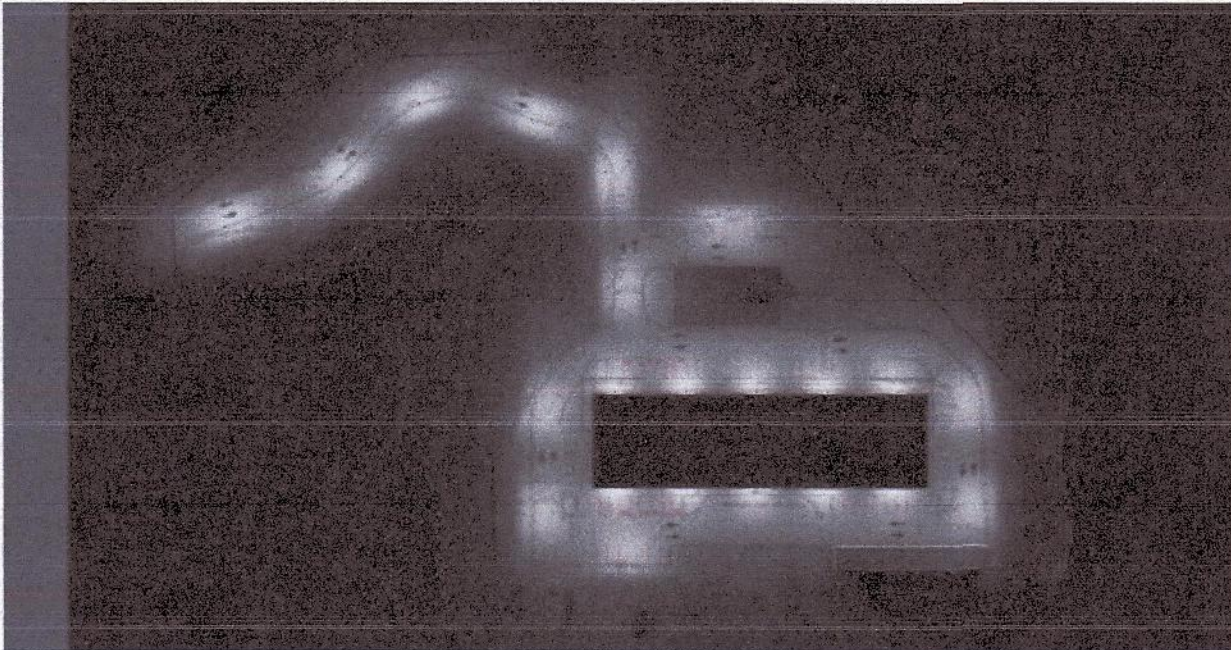


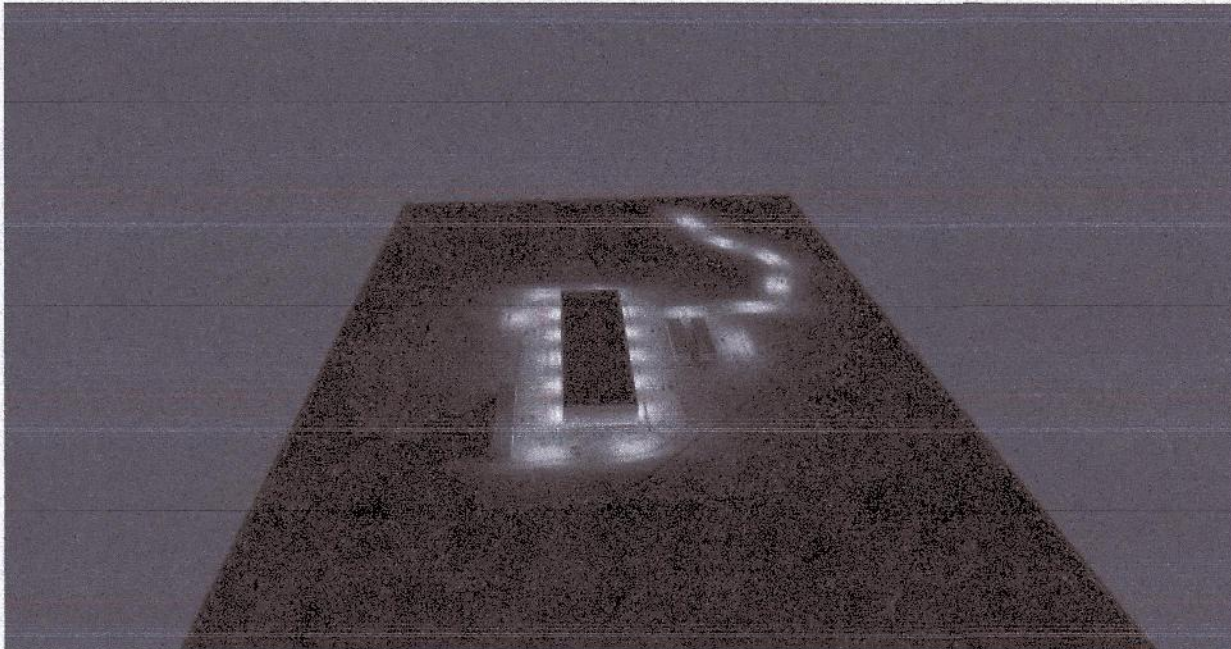
| Calculation Summary | | | | | | | | | |
|---------------------|-------------|-------|------|------|-----|---------|---------|----------------------------|------------|
| Label | CalcType | Units | Avg | Max | Min | Avg/Min | Max/Min | Description | |
| Site | Illuminance | Fc | 0.41 | 13.8 | 0.0 | N.A. | N.A. | Readings Taken @ 0'-0" AFG | PtSpcLr |
| Parking Lot | Illuminance | Fc | 2.88 | 13.8 | 0.5 | 5.76 | 27.60 | | PtSpcTb |
| | | | | | | | | | Meter Type |
| | | | | | | | | | Horizontal |

| Luminaire Schedule | | | | | | | | | |
|--|-----|-----|---------------|-------------|-------|------------------------------------|------------|--|--|
| All quotes/orders generated from this layout must be forwarded to the Local Rep Agency | | | | | | | | | |
| Symbol | Qty | Tag | Label | Arrangement | LLF | Description | BUG Rating | | |
|  | 5 | A2 | ALEDM2T | Single | 1.000 | ALEDM2T, 90W | B3-U0-G2 | | |
|  | 1 | A3 | ALEDM3T | Single | 1.000 | ALEDM3T, 90W | B1-U0-G2 | | |
|  | 6 | A4 | ALEDM4T | Single | 1.000 | ALEDM4T, 90W | B1-U0-G3 | | |
|  | 10 | S1 | SLIM17FAFC100 | Single | 1.000 | SLIM17FAFC100_5K at 0_ CCT Setting | B3-U0-G2 | | |

| Expanded Luminaire Location Summary | | | | | | |
|-------------------------------------|-----|---------|---------|--------|---------|------|
| LumNo | Tag | X | Y | MTG HT | Orient | Tilt |
| 1 | A2 | 143 | 507 | 20 | 107.65 | 0 |
| 2 | A2 | 237.106 | 549 | 20 | 127.349 | 0 |
| 3 | A2 | 306 | 610 | 20 | 111.448 | 0 |
| 4 | A2 | 400 | 596.495 | 20 | 72.072 | 0 |
| 5 | A2 | 461.866 | 553 | 20 | 0 | 0 |
| 6 | A3 | 565.852 | 519.783 | 20 | 270 | 0 |
| 7 | A4 | 462.591 | 457 | 20 | 0 | 0 |
| 9 | A4 | 787.867 | 363.136 | 20 | 192.128 | 0 |
| 10 | A4 | 792.367 | 271.142 | 20 | 180 | 0 |
| 14 | A4 | 392 | 266.67 | 20 | 0 | 0 |
| 15 | A4 | 480.486 | 214 | 20 | 90 | 0 |
| 19 | S1 | 470 | 369.358 | 20 | 90 | 0 |
| 26 | S1 | 470.687 | 287.34 | 20 | 270 | 0 |
| 28 | S1 | 529.505 | 369.358 | 20 | 90 | 0 |
| 29 | S1 | 589.009 | 369.358 | 20 | 90 | 0 |
| 30 | S1 | 648.514 | 369.358 | 20 | 90 | 0 |
| 31 | S1 | 708.019 | 369.358 | 20 | 90 | 0 |
| 32 | S1 | 530.132 | 287.34 | 20 | 270 | 0 |
| 33 | S1 | 589.577 | 287.34 | 20 | 270 | 0 |
| 34 | S1 | 649.021 | 287.34 | 20 | 270 | 0 |
| 35 | S1 | 708.466 | 287.34 | 20 | 270 | 0 |
| 36 | A4 | 395.437 | 358.157 | 20 | 345.619 | 0 |
| Total Quantity: 22 | | | | | | |



Render Image - Top View



Render Image - Side View

NOTES:

* The light loss factor (LLF) is a product of many variables, only lamp lumen depreciation (LLD) has been applied to the calculated results unless otherwise noted. The LLF is the result (quotient) of mean lumen / initial lumen per lamp manufacturer's specifications.

* Illumination values shown (in footcandles) are the predicted results for planes of calculation, either horizontal, vertical or inclined as designated in the calculation summary. Meter orientation is normal to the plane of calculation.

* The calculated results of this lighting simulation represent an anticipated prediction of system performance. Actual measured results may vary from the anticipated performance and are subject to means and methods which are beyond the control of Holbrook-Associated.

* Mounting height determination is job site specific, our lighting simulations assume a mounting height (projection point of the luminaire symbol) to be taken at the top of the symbol for ceiling mounted luminaires and at the bottom of the symbol for all other luminaire mounting configurations.

* It is the Owner's responsibility to confirm the suitability of the existing or proposed pole and bases to support the proposed luminaire, based on the weight and EPIA of the proposed luminaire and the corner's site soil conditions and wind zone. It is recommended that a professional engineer licensed to practice in the state the site is located be engaged to assist in this determination.

* The landscape material shown hereon is conceptual, and is not intended to be an accurate representation of any particular plant, shrub, bush, or tree, as these materials are living objects, and subject to constant change. The conceptual objects shown are for illustrative purposes only. The actual illumination values measured in the field will vary.

* Photometric model elements such as buildings, rooms, plants, furnishings or any architectural details which impact the disposition of light must be detailed by the customer documents for inclusion in the Holbrook-Associated lighting design model. Holbrook-Associated is not responsible for any inaccuracies caused by incomplete information on the part of the customer, and reserves the right to use best judgment when building customer requests into photometric studies.

* RAB Lighting Inc. luminaire and product designs are protected under U.S. and International intellectual property laws. Patents issued or pending apply.

The Lighting Analysis, w/Layout, Energy Analysis and/or Visual Simulation ("Lighting Design") provided by Holbrook-Associated represent an anticipated prediction of lighting system performance based upon design parameters and information supplied by others. These design parameters and information provided by others have not been field verified by Holbrook-Associated and therefore actual measured results may vary from the actual field conditions. Holbrook-Associated recommends that design parameters and other information be field verified to reduce variance.

Holbrook-Associated neither warrants, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. Holbrook-Associated neither warrants, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design that is compliant with any applicable regulatory code requirements with the exception of those specifically stated on drawings created and submitted by Holbrook-Associated. The Lighting Design is issued, in whole or in part, as advisory documents for informational purposes and is not intended for construction nor as being part of a project's construction documentation package.

HOLBROOK-ASSOCIATED

Prepared By:
Holbrook-Associated
35 Reservoir Park Drive
Rockland, MA 02370

Job Name:
Upton Apartments
Upton, MA

Scale: as noted
Date: 9/12/2023

Project ID: 216889
Rep: AH / SS


Filename: Upton Apartments.AGI

Drawn By: J.Hainey

Filename: C:\Users\holbrook\Documents\AGI32 - Design\2023 Design\Andrew Holbrook\Upton Apartments\Upton Apartments.AGI

ALEDM2T

RAB



Color: Bronze

Weight: 16.5 lbs

Project: _____ Type: _____

Prepared By: _____ Date: _____

Driver Info

Type: Constant Current

120V: 1.25A

208V: 0.73A

240V: 0.62A

277V: 0.55A

Input Watts: 76.2/91.8/148.6W

Efficiency: 139/137/124 lm/W

LED Info

Watts: 90W

Color Temp: 5000K (Cool)

Color: 85 CRI

Accuracy: ±1%

L70: 100,000 Hours

LifeSpan: 100,000 Hours

Lumens: 10520/12641/19172 lm

Efficiency: 119/137/124 lm/W

Technical Specifications

Field Adjustability
Field Adjustable (Wattage): Field adjustable light output in 3 discrete steps: Medium (50W), 100W/100W/100W (factory default 100W)

Compliance
UL Listed: Suitable for wet locations.

IP Rating: Ingress protection rating of IP66 for dust and water.

IESNA LM-79 & LM-80 Testing: RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DECLINER: This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC E-1 requirements.

DLC Product Code: S-530734

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

Color Stability: LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period.

Color Uniformity: RAB's range of Consistent Color Temperature follows the guidelines of the American National Standard for (ANSI) Products, ANSI C18.37-2017.

Power Factor: 100% at 120V, 95.7% at 277V

Surge Protection: Line to Ground 6kV

Performance
Lifespan: 100,000 hour LED lifespan based on B5 LM-80 results and TM-21 calculations

Warranty: Equivalent to 5-year warranty

Construction
IS Classification: The Type II Classification is meant for lighting large areas, located by the customer. Typically found in walkways, on ramps, entrance canopies and lake paths.

Cold Weather Starting: The minimum starting temperature is -40°C (-40°F)


Ambient Temperature: Max Power Temp Rating: 40°C (104°F)
Medium Power Temp Rating: 35°C (95°F)
Low Power Temp Rating: 34°C (93°F)

Dimming Driver: Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dim down to 10%.

THD: 3.6% at 120V, 8.33% at 277V

ALEDM3T

RAB



Color: Bronze

Weight: 16.5 lbs

Project: _____ Type: _____

Prepared By: _____ Date: _____

Driver Info

Type: Constant Current

120V: 1.25A

208V: 0.73A

240V: 0.62A

277V: 0.55A

Input Watts: 76.2/91.8/148.6W

Efficiency: 139/137/124 lm/W

LED Info

Watts: 150W

Color Temp: 5000K (Cool)

Color: 85 CRI

Accuracy: ±1%

L70: 100,000 Hours

LifeSpan: 100,000 Hours

Lumens: 11845/13271/26130 lm

Efficiency: 118/132/126 lm/W

Technical Specifications

Field Adjustability
Field Adjustable (Wattage): Field adjustable light output in 3 discrete steps: Medium (50W), 100W/100W/100W (factory default 100W)

Compliance
UL Listed: Suitable for wet locations.

IP Rating: Ingress protection rating of IP66 for dust and water.

IESNA LM-79 & LM-80 Testing: RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DECLINER: This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC E-1 requirements.

DLC Product Code: S-530736

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

Color Stability: LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period.

Color Uniformity: RAB's range of Consistent Color Temperature follows the guidelines of the American National Standard for (ANSI) Products, ANSI C18.37-2017.

Power Factor: 100% at 120V, 95.7% at 277V

Surge Protection: Line to Line 15kV
Line to Ground 6kV

Performance
Lifespan: 100,000 hour LED lifespan based on B5 LM-80 results and TM-21 calculations

Warranty: Equivalent to 5-year warranty

Construction
IS Classification: The Type II Classification is meant to be located near the side of an area, projecting the light outward to fill the area. Used for customer, general parking areas, lighting applications and where a large pool of light is required.

Cold Weather Starting: The minimum starting temperature is -40°C (-40°F)


Ambient Temperature: Max Power Temp Rating: 40°C (104°F)
Medium Power Temp Rating: 35°C (95°F)
Low Power Temp Rating: 34°C (93°F)

Dimming Driver: Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dim down to 10%.

THD: 3.9% at 120V, 8.33% at 277V

ALEDM4T

RAB



Color: Bronze

Weight: 16.5 lbs

Project: _____ Type: _____

Prepared By: _____ Date: _____

Driver Info

Type: Constant Current

120V: 1.25A

208V: 0.73A

240V: 0.62A

277V: 0.55A

Input Watts: 76.2/91.8/148.6W

Efficiency: 139/137/124 lm/W

LED Info

Watts: 150W

Color Temp: 5000K (Cool)

Color: 85 CRI

Accuracy: ±1%

L70: 100,000 Hours

LifeSpan: 100,000 Hours

Lumens: 11845/13271/26130 lm

Efficiency: 118/132/126 lm/W

Technical Specifications

Field Adjustability
Field Adjustable (Wattage): Field adjustable light output in 3 discrete steps: Medium (50W), 100W/100W/100W (factory default 100W)

Compliance
UL Listed: Suitable for wet locations.

IP Rating: Ingress protection rating of IP66 for dust and water.

IESNA LM-79 & LM-80 Testing: RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DECLINER: This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC E-1 requirements.

DLC Product Code: S-540816

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

Color Stability: LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period.

Color Uniformity: RAB's range of Consistent Color Temperature follows the guidelines of the American National Standard for (ANSI) Products, ANSI C18.37-2017.

Power Factor: 100% at 120V, 95.7% at 277V

Surge Protection: Line to Line 15kV
Line to Ground 6kV

Performance
Lifespan: 100,000 hour LED lifespan based on B5 LM-80 results and TM-21 calculations

Warranty: Equivalent to 5-year warranty

Construction
IS Classification: The Type II Classification is meant to be located near the side of an area, projecting the light outward to fill the area. Used for customer, general parking areas, lighting applications and where a large pool of light is required.

Cold Weather Starting: The minimum starting temperature is -40°C (-40°F)

Ambient Temperature: Max Power Temp Rating: 40°C (104°F)
Medium Power Temp Rating: 35°C (95°F)
Low Power Temp Rating: 34°C (93°F)

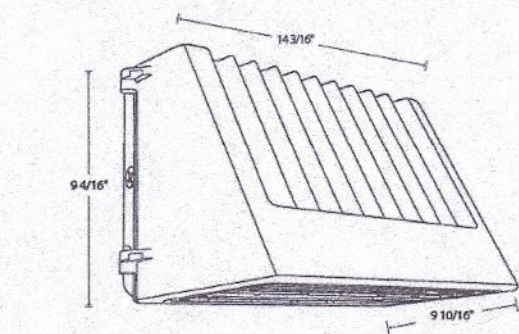
Dimming Driver: Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dim down to 10%.

THD: 3.6% at 120V, 8.33% at 277V

Technical Specifications (continued)

Buy American Act Compliance:
RAB values USA manufacturing upon request. RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

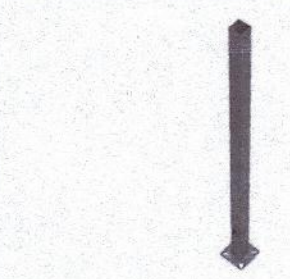
Selectable CCT
Full cutoff
Selectable on/off photocell
0-10V dimming, standard

Ordering Matrix

| Family | Style | Wattage |
|------------------|-------|------------|
| SLIM17FA | FC | 100 |
| FC = Full cutoff | | |
| | | 100 = 100W |
| | | 120 = 120W |
| | | 150 = 150W |

Need help? Tech help line: (888) 722-1000 Email: sales@rablighting.com Website: www.rablighting.com

PS4-11-20D2



Square steel pole drilled for 2 Ave Lights in 180°. Designed for ground mounting. Poles are standard materials for quick shipment. Protection: Protection against corrosion paint system at the pole also good as here.

Color: Bronze

Weight: 19.5 lbs

Project: _____

Type: _____

Prepared By: _____

Date: _____

Technical Specifications

Compliance
UL Listed: Suitable for wet locations.

Construction
Shelf: 180°/360° minimum pivot.

Hand Holes: Hand holes with pre-drilled tag and removable cover.

Base Plates: Base plate base plate 30.00 x 30.00.

Shipping Protection: All poles are shipped in individual wrapped containers to prevent field damage.

Color: Bronze powder coating.

Height: 20 ft.

Weight: 19.5 lbs.

Gauge: 11

Wall Thickness: 1/8"

Shelf Size: 4"

Hand Hole Dimensions: 4" x 4"

Base Choke: 4" x 4"

Base Dimensions: 4" x 4"

Anchor Bolt: Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 7" hook.

Anchor Bolt Template: 180°/360° Template must be printed on 11" x 17" sheet for anchor size. CHECK SCALE BEFORE USING. Template shipped with anchor bolts and anchor nuts.

Pre-Drilled Anchor Bolts: RAB has pre-drilled anchor bolts for additional height change.

Max EPIA/Max Wattage:
100W/120W/150W
100W/120W/150W
100W/120W/150W
100W/120W/150W
100W/120W/150W

Other:
Type of Sale: Full
Price Terms of Sale: Net 30 days

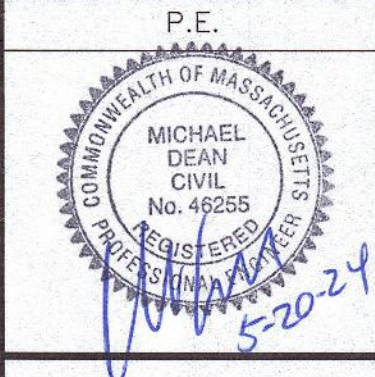
Buy American Act Compliance:
RAB values USA manufacturing upon request. RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

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D&L Design Group
Civil Engineering & Land Surveying

115 Water Street • Milford, MA 01757
P: (608) 408-2577
www.danddesigngroup.com



P.L.S.

GRAPHIC SCALE

REVISIONS

| REV. | DATE | DESCRIPTION |
|------|--------|----------------|
| 1 | 1/8/24 | REVISED PLANS. |

PROJECT NO. J-016

DESIGNED BY PML

CHECKED BY MD

DATE 9/13/23

CAD FILE J-016 SITE PLAN

PLAN NO.

APPLICANT/DEVELOPER:

LOBISSER BUILDING CORP.

1 Charlesview Road • Hopedale, MA 01747
P: (608) 478-6235

TITLE:

Upton Apartments
47 Main Street,
Upton Massachusetts
Preliminary
Residential Development Plans
Comprehensive Permit Application
Upton Zoning Board of Appeals

SHEET TITLE

LIGHTING
DETAILS

SHEET NO.

C-10.2

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