

Not to Scale



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

Job Name:
22 Waverly Street
Worcester, MA

Scale: as noted

Project ID: 238872

Date: 10/1/2024

Rep: SS

Filename: 22 Waverly Street.AGI

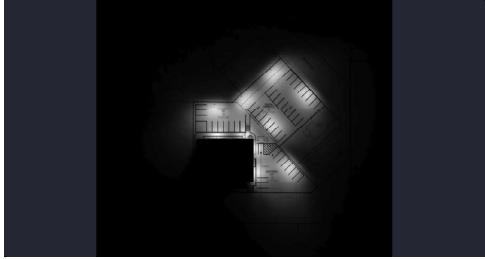
Drawn By: J.Haines

Filename: C:\Users\jholbrook\Documents\AGB2 - Designs\2024 Designs\Steve Salvucci\22 Waverly Street\22 Waverly Street.AGI

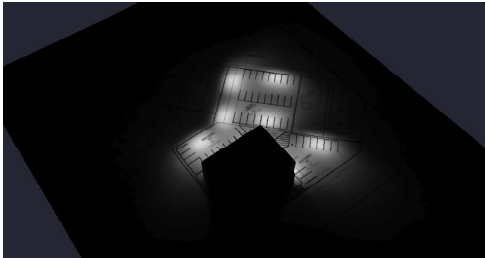
Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PTSpLr	PTSpTb	Meter Type
Site	Illuminance	Fc	0.33	8.3	0.0	N.A.	N.A.	Readings Taken @ 0'-0" AFG	10	10	Horizontal
Existing Parking Lot	Illuminance	Fc	1.71	5.3	0.2	8.55	26.50				
New Parking Lot 1	Illuminance	Fc	1.99	5.3	0.2	9.95	26.50				
New Parking Lot 2	Illuminance	Fc	1.81	4.9	0.4	4.53	12.25				

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	
	6	A1	ALEDS4TY + ALEDSSH	Single	1,000	ALEDSSH4TY	B1-U0-G2	
	4	S1	SLIM17FAFC40	Single	1,000	SLIM17FAFC40_3K at 0_ CCT Setting	B2-U0-G1	

Expanded Luminaire Location Summary						
LumNo	Tag	X	Y	MTG HT	Orient	Tilt
1	S1	198	299	15	90	0
4	S1	258	281	15	0	0
5	S1	243	299	15	90	0
6	S1	258	242	15	0	0
7	A1	195	353.5	15	270	0
8	A1	322.879	256.003	15	221.634	0
10	A1	238	365.882	15	311.82	0
11	A1	285	409.882	15	311.82	0
12	A1	280.061	312.061	15	45	0
13	A1	350.873	376.01	15	221.285	0
Total Quantity: 10						



Render Image - Top View



Render Image - Side View

NOTES:

- The Light Loss Factor (LLF) is a product of many variables, including luminaire depreciation (LDD) has been applied to the calculated results unless otherwise noted. The LLF is the result (quotient) of mean luminaire and lamp maintenance specifications.
- Illumination values shown (in footcandles) are the predicted results for planes of calculation other 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 (mounting point of the luminaire symbol) to be located 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 cables and hoses to support the proposed fixtures based on the weight and EPC of the proposed fixture and the owner's site 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 herein 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 plants shown are for illustrative purposes only. The actual illumination values measured in the field will vary.
- Photometric model elements such as buildings, terrain, plants, landscape or any architectural details which require the dispersion of light must be supplied 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 transferring customer requests into photometric studies.
- All lighting fixtures, luminaires and product designs are protected under U.S. and International Intellectual Property Rights. Patents issued or pending apply.

	Prepared By: Holbrook-Associated 35 Reservoir Park Drive Rockland, MA 02370	Job Name: 22 Waverly Street Worcester, MA	Scale: as noted	Project ID: 238872
			Date: 10/1/2024	Rep: SS
			Filename: 22 Waverly Street, AGI	
			Drawn By: J.Hailey	

The Lighting Analysis, eLxpoint, 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 fully 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 fully verified to reduce variation.

Holbrook-Associated neither warrants, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those generated by the Lighting Design. Holbrook-Associated neither warrants, either implied or stated, the appropriateness, completeness or suitability of the Lighting Design input as 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 or as being part of a project's construction documentation package.

Filename: C:\Users\holbrook\Documents\AGI\B2 - Designs\2024 Designs\Steve Salviucci\22 Waverly Street\22 Waverly Street,AGI



Color: Bronze

Weight: 13.2 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	0.67A
208V	0.40A
240V	0.34A
277V	0.30A
Input Watts	81.1/57.2/40.4W

LED Info

Watts	80W
Color Temp	N/A
Color Accuracy	N/A
L70 Lifespan	N/A
Lumens	10,172/7,517/5,468 lm
Efficacy	125.4/131.4/135.3 lm/W

Technical Specifications

Field Adjustability

Field Adjustable (Wattage):

Field adjustable light output in 3 discrete steps:
Small Housing: 80W/60W/40W (factory default 80W)

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.

Dark Sky Conformance:

Dark Sky Approved in 3000K. Conforms to (allows for conformance to) the IDA's fully shielding requirement, emitting no light above 90 degrees (with the exclusion of incidental light reflecting from fixture housing, mounts, and pole).

Light Usage for Night Applications:

This product has received the Design Lights Consortium's LUNA listing for 3000K Models. Designed to meet LUNA 5.1 requirements.
LUNA Product Code: S-FMQH1N

Trade Agreements Act Compliant:

This product is a product of Cambodia and a "designated country" end product that complies with the Trade Agreements Act

DLC Listed:

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 5.1 requirements.
DLC Product Code: S-FMQH1N

LUNA:

This product has received the Design Lights Consortium's LUNA listing for 3000K Models. Designed to meet LUNA 5.1 requirements.
LUNA Product Code: S-FMQH1N

LED Characteristics

LEDs:

Long-life, high-efficacy, discrete, surface-mount LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture 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 Correlated Color Temperature follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2017.

Electrical

Driver:

40W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.34A, 208V: 0.20A, 240V: 0.17A, 277V: 0.15A

60W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.50A, 208V: 0.30A, 240V: 0.25A, 277V: 0.22A

80W: Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.67A, 208V: 0.40A, 240V: 0.34A, 277V: 0.30A

Dimming Driver:

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

THD:

2.32% at 120V, 7.28% at 277V

Power Factor:

99.9% at 120V, 96.5% at 277V

Surge Protection:

Line to Line: 10kV
Line to Ground: 6kV

Technical Specifications (continued)

Performance

Lifespan:

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

Wattage Equivalency:

Equivalent to 250W Metal Halide

Construction

IES Classification:

The Type IV distribution is especially suited for mounting on the sides of buildings and walls, and for illuminating the perimeter of parking areas. It produces a semicircular distribution with essentially the same candlepower at lateral angles from 90° to 270°.

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Ambient Temperature :

Max Power Temp Rating: 40°C (104°F)

Middle Power Temp Rating: 52°C (125°F)

Low Power Temp Rating: 58°C (137°F)

Housing:

Die-cast aluminum

Mounting:

Universal mounting arm compatible for hole spacing patterns from 1" to 5 1/2" center to center. Round Pole Adaptor plate included as a standard. Easy slide and lock to mount fixture with ease.

Reflector:

Aluminum reflector with white polycarbonate

Vibration Rating:

3G vibration rating per ANSI C136.31

Effective Projected Area:

1 Fixture: 0.35

2 Fixtures at 90°: 0.54

2 Fixtures at 180°: 0.7

3 Fixtures at 90°: 0.9

4 Fixtures at 90°: 0.9

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Optical

BUG Rating:

40W: B1 U0 G2

60W: B1 U0 G2

40W: B1 U0 G2

Other

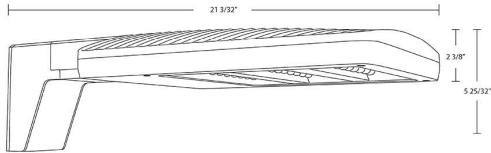
Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of ten (10) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

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

- 0-10V dimmable standard
- IP66 Rated
- 100,000-Hour LED lifespan
- 10-Year, No-Compromise Warranty

Ordering Matrix

Family	Housing Size	Distribution	Mounting	Color Temp	Finish	Voltage	Options
ALED	S	4T		Y			
	M = Medium (150W/90W/78W) L = Large (260W/220W/170W) XL = Extra Large (385W/345W/300W) S = Small (80W/60W/40W)	2T = Type II 3T = Type III 4T = Type IV 5T = Type V AT = Auto Dealership Optic	Blank = Universal Pole Mount SF = Slipfitter WM = Wall Mount	Blank = 5000K Cool Y = 3000K Warm N = 4000K Neutral	Blank = Bronze W = White B = Black	Blank = 120-277V, 0-10V Dimming /480 = 480V, 0-10V Dimming ¹	Blank = No Option /7PR = 7 Pin Twistlock Receptacle /WS2 = Wattstopper, 20ft lens /WS4 = Wattstopper, 40ft lens ²

¹ 480V available in Medium, Large & Extra Large fixtures only
² Wattstopper option available in Large & Extra Large fixtures only



Color: Bronze

Weight: 1.0 lbs

Project:

Type:

Prepared By:

Date:

Technical Specifications

Performance

Description:

ALED house side shield with 4 screws

Compatible Products:

ALED Small Field Adjustable

Construction

Dimensions (LxWxH):

10 3/8" x 10 1/4" x 6"

Finish:

Formulated for high durability and long-lasting color

Other

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.



Square steel poles drilled for 2 Area Lights at 180°. Designed for ground mounting. Poles are stocked nationwide for quick shipment. Protective packaging ensures poles arrive at the job site good as new.

Color: Bronze

Weight: 105.8 lbs

Project:

Type:

Prepared By:

Date:

Technical Specifications

Compliance

CSA Listed:

Suitable for wet locations

Construction

Shaft:

46,000 p.s.i. minimum yield.

Hand Holes:

Reinforced with grounding lug and removable cover

Base Plates:

Slotted base plates 36,000 p.s.i.

Shipping Protection:

All poles are shipped in individual corrugated cartons to prevent finish damage

Color:

Bronze powder coating

Height:

15 ft

Weight:

106 lbs

Gauge:

11

Wall Thickness:

1/8"

Shaft Size:

4"

Hand Hole Dimensions:

3" x 5"

Bolt Circle:

8 1/2"

Base Dimension:

8"

Anchor Bolt:

Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook.

Anchor Bolt Templates:

WARNING Template must be printed on 11" x 17" sheet for actual size. CHECK SCALE BEFORE USING. Templates shipped with anchor bolts and available [online](#).

Pre-Shipped Anchor Bolts:

Bolts can be pre-shipped upon request for additional freight charge

Max EPA's/Max Weights:

70MPH 17.4 ft/450 lb.
 80MPH 12.5 ft/440 lb.
 90MPH 9.0 ft/440 lb.
 100MPH 6.6 ft/440 lb.
 110MPH 4.8 ft/435 lb.
 120MPH 3.4 ft/435 lb.
 130MPH 2.3 ft/435 lb.
 140MPH 1.4 ft/430 lb.
 150MPH 0.8 ft/420 lb

Other

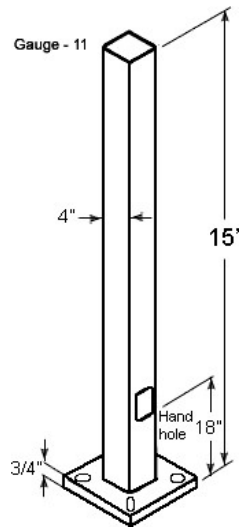
Terms of Sale:

Pole Terms of Sale is available [online](#).

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

- Designed for ground mounting
- Heavy duty TGIC polyester coating
- Reinforced hand holes with grounding lug and removable cover for easy wiring access
- Pole caps, base covers & bolts are sold separately
- Custom manufactured for each application



Color: Bronze

Weight: 6.8 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	0.40A
208V	0.30A
240V	0.20A
277V	0.15A
Input Watts	37.7/38.2/38.2W

LED Info

Watts	40W
Color Temp	3000K/4000K/5000K
Color Accuracy	80 CRI
L70 Lifespan	100,000 Hours
Lumens	4595/5421/4826 lm
Efficacy	121.9/141.8/126.5 lm/W

Technical Specifications

Field Adjustability

Field Adjustable:

Color temperature selectable by 3000K, 4000K and 5000K

Compliance

UL Listed:

Suitable for wet locations

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

IP Rating:

Ingress protection rating of IP65 for dust and water

DLC Listed:

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 5.1 requirements.

DLC Product Code: PL3FKMCN0SFO

Performance

Lifespan:

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

Wattage Equivalency:

Equivalent to 200W Metal Halide

LED Characteristics

LEDs:

Long-life, high-efficiency, surface-mount LEDs

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60 Hz, 120V: 0.40A, 208V: 0.30A, 240V: 0.20A, 277V: 0.15A

Dimming Driver:

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

Photocell:

120-277V selectable photocell that can be turned on and off.

Construction

Cold Weather Starting:

The minimum starting temperature is -40°C (-40°F)

Ambient Temperature :

Max Power Temp Rating: 50°C (122°F)
Middle Power Temp Rating: 50°C (122°F)
Low Power Temp Rating: 50°C (122°F)

Housing:

Precision die-cast aluminum housing and door frame

Lens:

Polycarbonate lens

Mounting:

Hinged wiring access and conduit entries on the back, sides, top and bottom make installation a snap

Cut Off:

Full cutoff (0°)

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Other

Note:

All values are typical (tolerance +/- 10%)

5 Yr Limited Warranty:

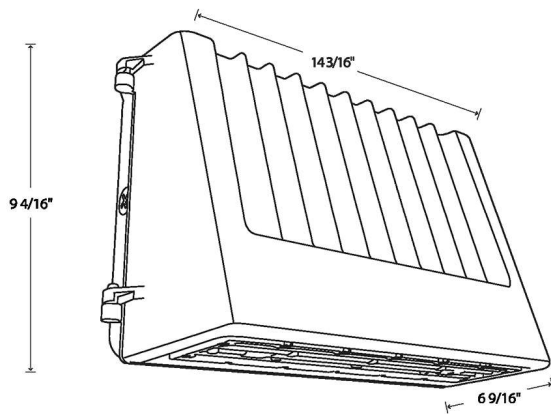
The RAB 5-year, limited warranty covers light output, driver performance and paint finish. RAB's warranty is subject to all terms and conditions found at rablighting.com/warranty.

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	40
	FC = Full cutoff	40 = 40W 60 = 60W