

- GENERAL NOTES:
1. SUBJECT PROPERTY LOCATED ON HAVERHILL ASSESSORS PARCEL 585-431-22 (LOT A).
  2. SUBJECT PROPERTY LOCATED IN ZONING DISTRICT BP - BUSINESS PARK.
  3. DELINEATED WETLAND LINES SHOWN HEREON AS FLAGGED BY MERIDIAN ASSOCIATES IN NOVEMBER OF 2017, AND LOCATED BY AN ON-THE-GROUND FIELD SURVEY CONDUCTED BY DANA F. PERKINS, INC. IN FEBRUARY OF 2018.
  4. WETLAND FLAGS REESTABLISHED IN THE FIELD THROUGH AN ON-THE-GROUND FIELD SURVEY CONDUCTED BY DANA F. PERKINS, INC. IN DECEMBER OF 2024.
  5. EXISTING TOPOGRAPHY SHOWN HEREON IS THE RESULT OF AN ON-THE-GROUND FIELD SURVEY CONDUCTED BY DANA F. PERKINS, INC. IN FEBRUARY OF 2018.
  6. PROPERTY LINES SHOWN HEREON TAKEN FROM AVAILABLE PLANS OF RECORD AND SHOWN AS "LOT A" ON A SUBDIVISION PLAN PROVIDED BY MERIDIAN ASSOCIATES TITLED, "1050 HILDALE AVENUE, PLAN OF LAND, LOCATED IN HAVERHILL, MASSACHUSETTS" DATED FEBRUARY 8, 2018.

RECORD OWNER:  
DIXIELAND, LLC  
69 WILDWOOD STREET  
WILMINGTON, MA

Not to Scale

**HOLBROOK-ASSOCIATED**

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

Job Name:  
Tractor Trailer Storage Yard  
1050 Hilldale Ave  
Haverhill, MA

Scale: as noted

Project ID: 244599

Date: 1/20/2025

Rep: SD

Filename: 1400 Hilldale Trailer Lot Lg.AGI


Drawn By: CRussell

The Lighting Analysis, ezLayout, 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 variation.

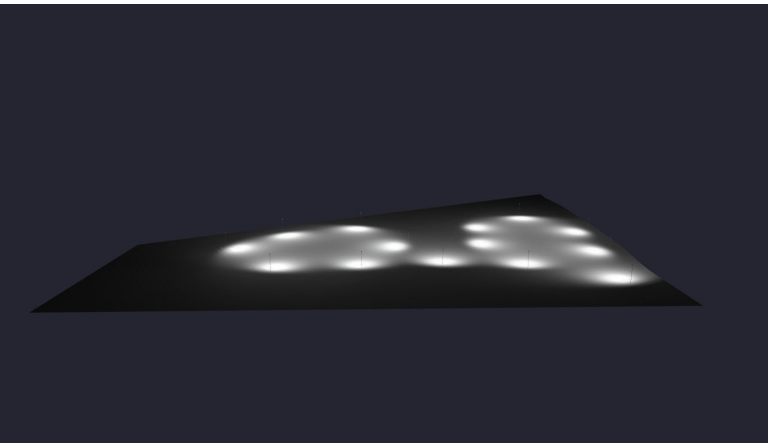
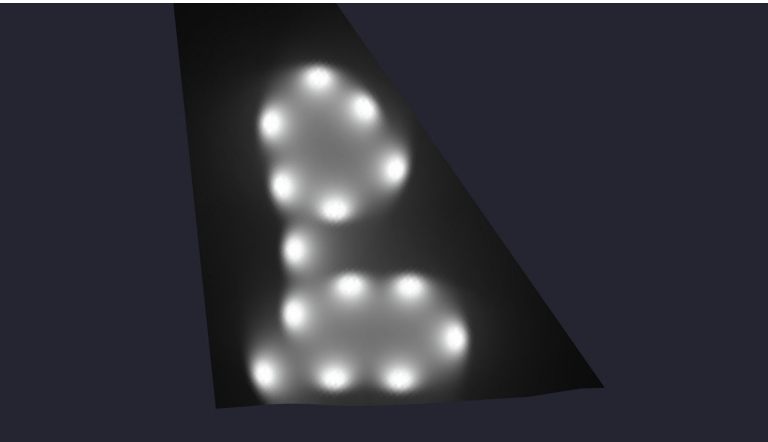
Holbrook-Associated neither warranties, either implied or stated with regard to actual measured light levels or energy consumption levels as compared to those illustrated by the Lighting Design. Holbrook-Associated neither warranties, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design intent 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 nor as being part of a project's construction documentation package.

Filename: C:\Projects Nov 24-Dec 24\1400 Hilldale ESC\1400 Hilldale Trailer Lot Lg.AGI

Calculation Summary											
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description	PtSpcLr	PtSpcTb	Meter Type
Property Line_Planar	Illuminance	Fc	0.50	5.8	0.0	N.A.	N.A.	Readings taken @ 0'-0" AFG	10	10	Normal
Lot 1	Illuminance	Fc	1.30	5.8	0.1	13.00	58.00	Readings taken @ 0'-0" AFG			
Lot 2	Illuminance	Fc	1.24	5.8	0.1	12.40	58.00	Readings taken @ 0'-0" AFG			

Luminaire Schedule								All quotes/orders generated from this layout must be forwarded to Holbrook-Associated			
Symbol	Qty	Tag	Label	Arrangement	LLF	Description			BUG Rating		
	14		X22-250-90deg	Single	1.000	190w, 5000k, 90 deg optics			B5-U0-G3		

Expanded Luminaire Location Summary						
LumNo	Tag	X	Y	Z	Orient	Tilt
1		708.41	264.46	28	21.554	75
2		909.53	483.71	28	272.294	75
3		1014.61	238.02	28	90	75
4		877.41	240.23	28	89.39	75
5		1037.4	481.13	28	265.722	75
6		1154.97	350.74	28	184.639	75
7		879.39	593.73	28	90.134	75
8		1029.09	697.61	28	166.429	75
9		959.58	846.06	28	217.642	75
10		846.44	918.34	28	265.152	75
11		721.09	801.2	28	355.086	75
12		745.02	661.9	28	11.981	75
13		768.46	399.99	28	0.138	75
14		770.13	534.1	28	0	75
Total Quantity: 14						



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 LLD is the result (quotient) of mean lumens / initial lumens per lamp manufacturers' 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 (insertion 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 poles and bases to support the proposed fixtures, based on the weight and EPA of the proposed fixtures and the owner'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 dispersion 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 judgement when translating 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.

	Prepared By: Holbrook-Associated 35 Reservoir Park Drive Rockland, MA 02370	Job Name: Tractor Trailer Storage Yard 1050 Hilldale Ave Haverhill, MA	Scale: as noted	Project ID: 244599	The Lighting Analysis, ezLayout, 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 r esults may vary from the actual field conditions. Holbrook-Associated recommends that design parameters and other information be field verified to reduce variation.  Holbrook-Associated neither warranties, 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 warranties, either implied or stated, nor represents the appropriateness, completeness or suitability of the Lighting Design intent 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 nor as being part of a project's construction documentation package.
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			Drawn By:CRussell		
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Color: Bronze

Weight: 20.7 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant
120V	2.10A
208V	1.25A
240V	1.08A
277V	0.95A
Input Watts	156.9-242.1W

LED Info

Watts	250/220/190/160W
Color Temp	3000/4000/5000K
Color Accuracy	83-84 CRI
L70 Lifespan	100,000 Hours
Lumens	23,859-36,299 lm
Efficacy	138.3-162.3 lm/W

Technical Specifications

Field Adjustability

**Optical Field Adjustability:**  
90°, 75° and 55°

**Field Adjustable:**

Field Adjustable Light Output:  
250W/220W/190W/160W (factory default 250W)  
Color Temperature Selectable:  
3000K, 4000K and 5000K (factory default 4000K)

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: S-2HBM9K

Electrical

**Driver:**

250W: Constant Current, Class 1, 120-277V, 50/60Hz, 120V: 2.10A, 208V: 1.25A, 240V: 1.08A, 277V: 0.95A

220W: Constant Current, Class 1, 120-277V, 50/60Hz, 120V: 1.85A, 208V: 1.10A, 240V: 0.95A, 277V: 0.83A

190W: Constant Current, Class 1, 120-277V, 50/60Hz, 120V: 1.60A, 208V: 0.95A, 240V: 0.82A, 277V: 0.72A

160W: Constant Current, Class 1, 120-277V, 50/60Hz, 120V: 1.36A, 208V: 0.80A, 240V: 0.69A, 277V: 0.61A

**Dimming Driver:**

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

**THD:**

2.42% at 120V, 5.9% at 277V

**Power Factor:**

99.9% at 120V, 94.2% at 277V

**Surge Protection:**

L/N-PE: 2.5kV, L-N: 2.5kV

**Photocell:**

Integrated photocell included with on/off switch

LED Characteristics

**LEDs:**

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

**Color Uniformity:**

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

**Color Consistency:**

3000K & 5000K: 5-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color  
4000K: 7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Performance

**Lifespan:**

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

**Performance Data:**

[Click here for the X22-250 performance data](#)

## Technical Specifications (continued)

**Wattage Equivalency:**

250W: Replaces up to 1000W Metal Halide (MH) or 750W High Pressure Sodium (HPS)

220W: Replaces up to 1000W Metal Halide (MH) or 600W High Pressure Sodium (HPS)

190W: Replaces up to 750W Metal Halide (MH) or 600W High Pressure Sodium (HPS)

160W: Replaces up to 750W Metal Halide (MH) or 400W High Pressure Sodium

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**Construction****Cold Weather Starting:**

The minimum starting temperature is -30°C (-22°F)

**Maximum Ambient Temperature:**

Suitable for use in up to 50°C (122°F)

**Housing:**

Die-cast aluminum

**Lens:**

Tempered glass

**Effective Projected Area:**

1 Fixture: 0.759 ft<sup>2</sup>

2 Fixtures at 90°: 1.985 ft<sup>2</sup>

2 Fixtures at 180°: 1.517 ft<sup>2</sup>

3 Fixtures at 90°: 2.744 ft<sup>2</sup>

4 Fixtures at 90°: 2.744 ft<sup>2</sup>

**Finish:**

Formulated for high durability and long-lasting color

**Green Technology:**

Mercury and UV free. RoHS-compliant components.

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**Installation****Mounting:**

Slipfitter with tilt angle in 10° increments. Trunnion kit is included.

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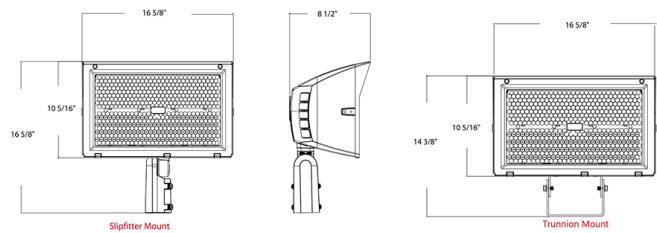
**Other****5 Yr Limited Warranty:**

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](http://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

- DLC Premium listed
- IP65 Rated
- 100,000-Hour LED lifespan
- 5-Year, limited warranty

Ordering Matrix

Family		Wattage	Color Temp	Mounting	Finish	Beam Angle	Driver	Options
X22	-	250		Blank				
		35 = 35/30/25/20W 60 = 60/50/40/30W 80 = 80/70/60/50W 150 = 150/125/100/75W 250 = 250/220/190/160W 320 = 320/280/240/200W 420 = 420/380/340/300W 500 = 500/450/420/380W 20 = 20/17/13/10W	Blank = 3000/4000/5000K CCT Adjustable	Blank = Knuckle Mount Installed with Yoke Kit Included Blank = Knuckle Mount Installed with Trunnion Kit Included Blank = Slipfitter Mount Installed with Trunnion Kit Included	Blank = Bronze W = White	Blank = Selectable Beam Angle (Medium to Very Wide Flood 55-100°)	Blank = 120-277V /480 = 480V, 0-10V Dimming	Blank = Selectable On/Off Photocell

X22-20 & X22-35: Knuckle mount installed with yoke mount included.  
 X22-60 & X22-80: Knuckle mount installed with trunnion mount included.  
 150W: Slipfitter mount installed with trunnion mount included.





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: 240.0 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:

36,000 p.s.i. minimum yield.

Shipping Protection:

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

Color:

Bronze powder coating

Height:

25 ft

Weight:

240 lbs

Gauge:

7

Wall Thickness:

3/16"

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 9.0 ft/330 lb.  
80MPH 5.2 ft/325 lb.  
90MPH 2.6 ft/325 lb.  
100MPH 0.8 ft/310 lb

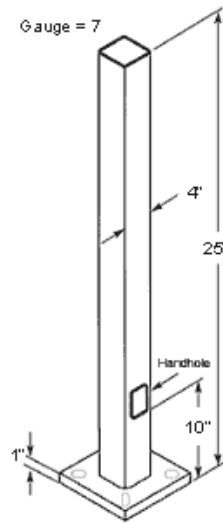
Other

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