SAT IMAGE overlay

RAB LIGHTING

Scale: as noted	
Date: 06/19/09	
Drawn By: mjw	

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Therefore design parameters such as surface reflectances, size, mounting height, depreciation factors, orientation and tilt must be verified.
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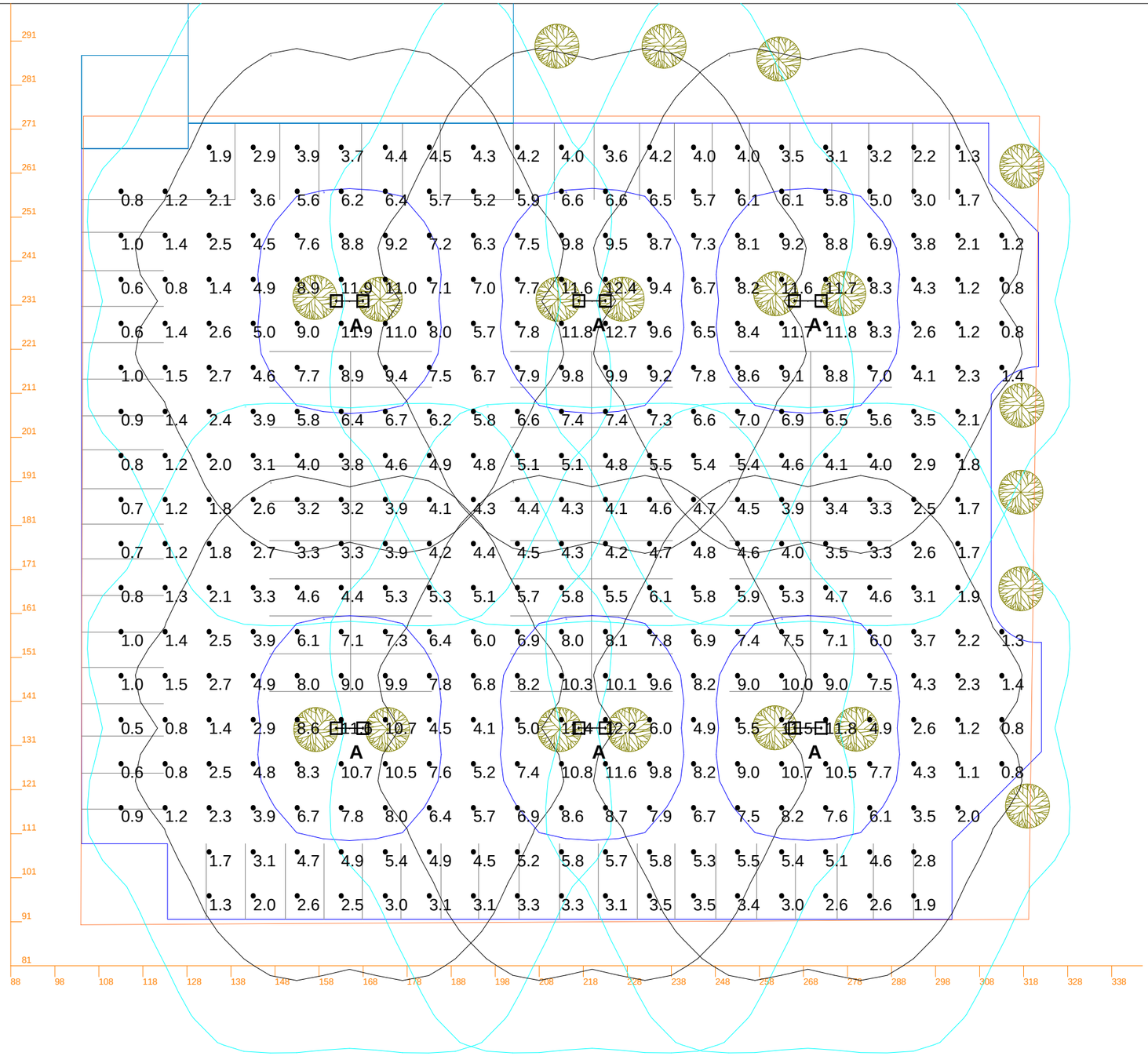

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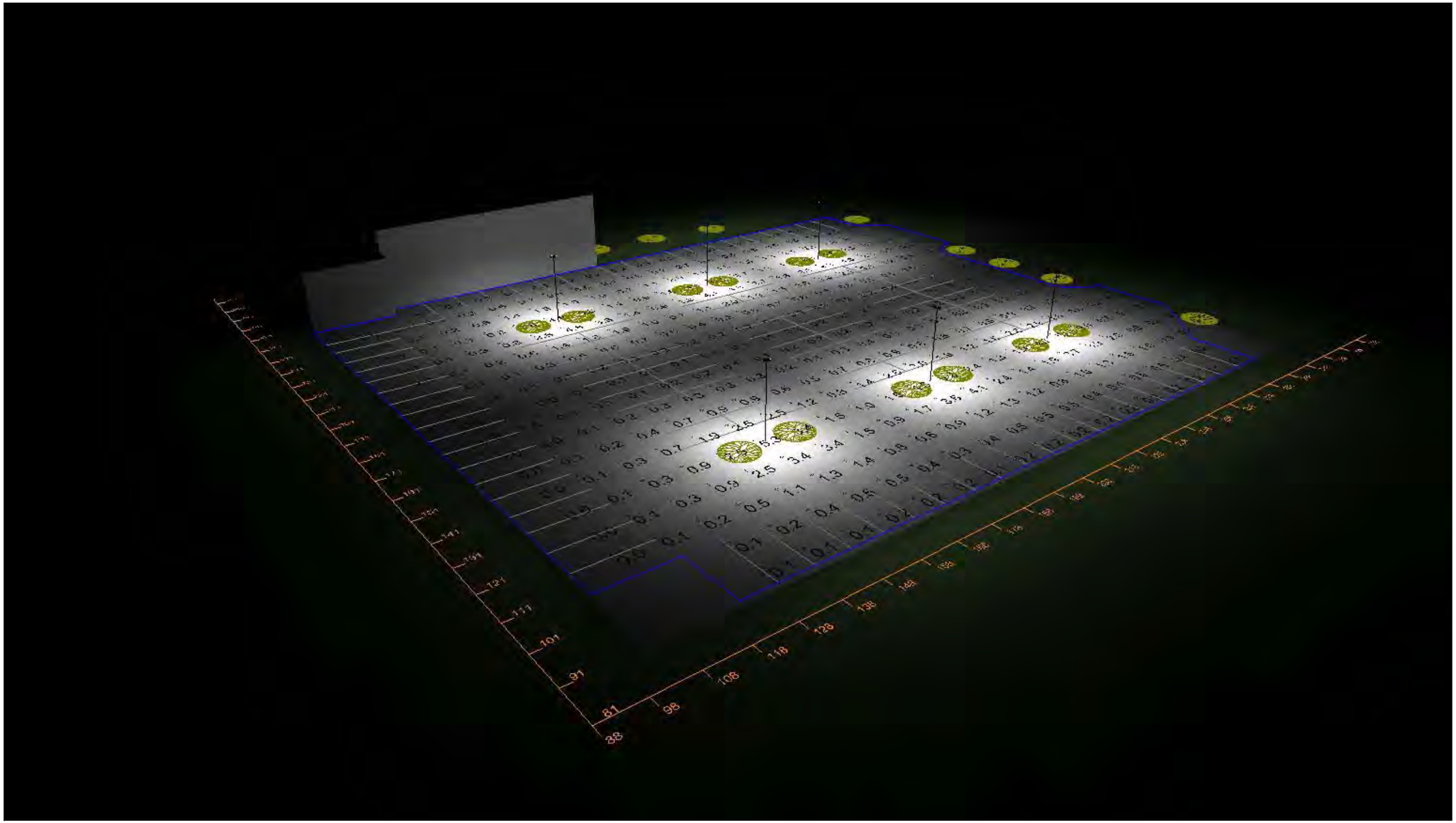

Image - Design Visualization LED

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RAB LIGHTING

ENERGY ENGINEERING

Energy Saving Analysis for:

Project:

Contact: 0

Tel: -

Email: 0

Prepared: November 1, 2010

Over 5 Years You will Save in

Proposal A	*Proposal B*
$ 13,337	
Energy Costs	*See details below…*

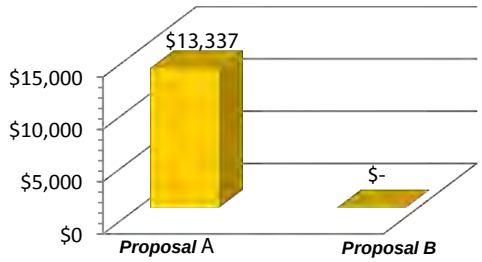
Project Assumptions

Square Feet Area	
Cost per kWh	$ 0.15
Daily Operating Hrs	10 Hrs
Days/Year	365
Annual Operating Hrs	3,650 Hrs

Input

Output

Period Energy Saving



	Existing	*Proposal A*	*Proposal B*
Fixture Catalog #	400w MH Area	ALED20	
Description	400w MH Area	22w LED Area	
Input Watts/ Fixture	450	22	
Quantity	12	24	
Total System Watts	5,400	528	
Total Load kW	5.4 kW	0.5 kW	
Annual kWh	19,710 kWh	1,927 kWh	
Annual Energy Cost	$ 2,957	$ 289	
Monthly Energy Cost	$ 246	$ 24	
Per Fixture Cost		$ 422	$ -
Total Equipment Cost		$ 10,128	
Install Labor & Materials		$ 3,600	
Annual Cost of Sys Maintenance	$ 239	$ -	
Annual Lamp Disposal Charges	$ -	$ -	
Rebate $$ per Fixture		$ 120	$ -
Total Project Rebate		- $ 2,880	
Total Cost of Ownership 5 yrs	15,976	12,293	

Energy Savings & Payback Analysis

Watts/ Square Foot			
Annual Energy Savings		$ 2,667	
Energy Saving Over 5 yrs		$ 13,337	
Monthly Energy Cost for Waiting		$ 222	
Annual Operating Savings		$ 2,906	
Years to Payback		**3.73 yrs**	
Your Rate of Return IRR	5% Annual Rate of Inflation	**14%**	
Period of Evaluation		**5 yrs**	**5 yrs**

Savings estimates are based on assumptions subject to change. Actual savings may vary.

ALED20

JOB NAME: _____

DATE: _____

TYPE: _____

DESCRIPTION

LED Area Lights

SPECIFICATIONS

Color Uniformity:

RAB's range of CCT (Correlated color temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2008.

Finish:
Chip and fade resistant polyester powder coat finish.

Gaskets:
High temperature silicone.

Green Technology:
RC LEDs are Mercury and UV free.

Housing:
Precision die cast aluminum housing, lens frame and moutning plate.

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

Lumen Maintenance:
The LED will deliver 70% of its initial lumens at 50,000 hours of operation.

UL Listing:
Suitable for wet locations. Suitable for mounting within 4' of the ground.

Warranty:
RAB LED fixtures give you peace of mind because both the fixture and light engine components are backed by RAB's 5 Year Warranty. For more information,

Ambient Temperature:
Suitable for use in 50C (122F) ambient temperatures

Cold Weather Starting:
The minimum starting temperature is -30°C

Color Accuracy:
70 CRI

Dark Sky Approved:
The International Dark Sky Association has approved this product as a full cutoff, fully shielded luminaire.

Driver:
Automatic Voltage Sensing Driver for 120 – 277 volts

EPA:
0.10

Fixture Efficacy:
63 Lumens per Watt

For use on LEED Buildings:
IDA Dark Sky Approval means that this fixture can be used to achieve LEED Credits for Light Pollution Reduction.

Heatsink:
Integral cast aluminum mounting pad and external fins for optimal heat sinking to ensure cool operation with maximum LED life and light output.

LED Light Engine:
Two Multi-chip 10W high output long life LED Driver: Constant Current, Class 2

Light Color:
5584 K (Daylight)

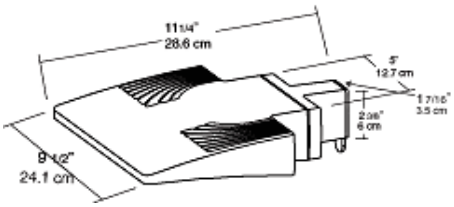
Patents:
The ALED20 design is protected under patents pending in Canada, U.S., China, Taiwan and Mexico.

Total Harmonic Distortion:
THD = 8.4%

Color:
Bronze

Weight:
5.1

DIMENSIONS



ORDERING INFORMATION

LED Lamp supplied with fixture	Total Watts	Lamp Type	Lamp Base	Ballast	Starting Amps/ Operating Amps 120V	208V	240V	277V	Input Watts	LAMP ANSI	Initial Lumens	Lamp Hours
	20	L.E.D.	Thermal Heatsink	Constant Current	0.5	0.5	0.5	0.125	22	N/A	1401	50000
Factory Installed Options Add suffix to Catalog Number	Photocontrol for 277V (/PC2)				Photocontrol for 120V (/PC)							

Note: Specifications may change without notice

JOB NAME: _____

DATE: _____

TYPE: _____

PS4-11-20D2

DESCRIPTION

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

SPECIFICATIONS

Base Plates:
Slotted base plates 36,000 p.s.i.

Color:
Bronze

Hand Holes:
Reinforced with grounding lug and removable cover.

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

Shipping Protection:
All poles are shipped in individual corrugated cartons to prevent finish damage.

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

Anchor Bolt:
3/4" x 17" x 3" Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook

Base Dimension:
8"

Bolt Circle:
8-9"

Gauge:
11

Hand Hole Dimensions:
3" x 5"

Height:
20 FT

MaxEPA's/Max Weights:
70MPH: 8.3 ft²/240 lb
80MPH: 5.6 ft²/165 lb
90MPH: 3.6 ft²/110 lb
100MPH: 2.2 ft²/75 lb
110MPH: 1.0 ft²/45 lb
120MPH: 0.2 ft²/20 lb

Pre-Shipped Anchor Bolts:
Bolts can be pre-shipped upon request for additional freight charge

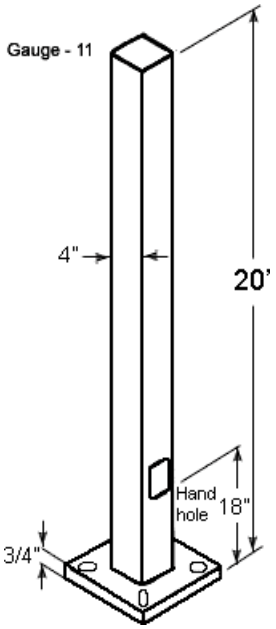
Shaft Size:
4"

Terms of Sale:
Pole Terms of Sale is available

Wall Thickness:
1/8"

Weight:
137

DIMENSIONS



Note: Specifications may change without notice