PARK AND RECREATION COMMITTEE – REGULAR AGENDA

TO: PARKS AND RECREATION COMMITTEE

FROM: SALLY BENTZ-DALTON – PARK MANAGER

DATE: FEBRUARY 5, 2020

SUBJECT: INPUT FOR NEW LIGHTING IN PARK UPDATE

DISCUSSION

Review and discuss new lighting options to replace 10 existing light poles in Holbrook-Palmer Park. Staff has provided a few more examples of the lighting designs with photos below. Included are attachments for the options below for 4, 5 and 6 from the manufacture.

BACKGROUND

As part of the Holbrook-Palmer Park Improvements Program to implement several proposed projects as recommended by the park & Recreation Committee and approved by City Council. The replacement of 10 poles and fixtures using mostly existing controls, conduit and wiring already existing is a project was proposed in the 5-year outlook.

The Town wishes to move ahead with LED lights. Town staff have considered the current WIFI, cameras and outlets currently on a few of the poles. Staff is looking for input for the design of the fixtures.

Existing and new fixtures designs:

Current light poles and fixtures:

PS4-11-15D2

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

New light pole:

New fixtures designs:

#1

Atlas Lighting Products® **Eagle Series**

2nd Generation LED Site Lighter

Project Information	
Job Name	
Fixture Type	Eagle Series
Catalog Number	SLPM
Approved by	

cULus LISTED   DLC PREMIUM   MANUFACTURED IN & TESTED IN USA

SPECIFICATIONS:

Construction:
Designed for commercial and industrial applications, providing cooler operating temperatures, brighter light and longer LED life. The die cast aluminum housing utilizes external airflow fins allow for greater heat dissipation. The easy access driver compartment is a thermally independent compartment, separate from LED generated heat, for cooler operation and longer driver life.

Optics:
Atlas Site Lighter Pro fixtures utilize precision engineered individual lenses for maximum light intensity. The lens is made of optical grade polycarbonate. Advanced one piece optic board engineered for maximum light intensity. Types II, III, V and Forward Throw distributions are available. Types II, III and Forward Throw optics are rotatable allowing for optimal placement of the fixtures on the perimeter of any layout.

Mounting:
The easy mount bracket makes installation to any style pole quick and easy. Tenon and other mounting accessories also available.

Thermal Management:
Atlas Site Lighter Pro fixtures are designed as a complete system to optimize LED life and light output. The thermal stacking heat removal technology extracts heat from within the housing moving it away from LEDs and components. The lower temperatures result in long LED life (200,000+ hrs[1]) and component life and also allows for higher light output.

Listings:
Luminaire is certified to UL/cUL Standards for Wet Locations
[2]The following qualify for DesignLights Consortium Premium: SLPM6L (All colors/options), SLPM9L (All colors/options), SLPM12L (All colors/options), SLPM18L (All colors/options), SLPM24L (All colors/options), all other luminaires are DesignLights Consortium qualified. All are eligible for rebates from DLC member utilities.

AC Input:
120/208/240/277/347/480 V

Driver:
Constant current, 120-277 VAC, 50-60 Hz
High Efficiency – min. 88%
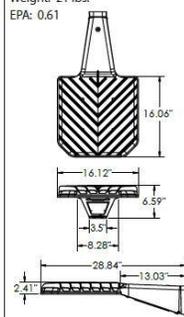Off-State Power: 0 Watts
0-10 V Dimming

DIMENSIONS:
Weight: 21 lbs.
EPA: 0.61

16.06"
16.12"
6.59"
3.5"
8.28"
28.84"
13.03"
2.41"

EAGLE SERIES

Atlas LED

#2

ALED26Y

RAB | Outdoor

Color: Bronze   Weight: 6.3 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type	Constant Current
120V	0.26A
208V	0.16A
240V	0.14A
277V	0.12A
Input Watts	29.50W
Efficiency	88%

LED Info

Watts	26.00W
Color Temp	3000K (Warm)
Color Accuracy	70 CRI
L70 Lifespan	100,000
Lumens	3,265
Efficacy	110.7 LPW

#3

KAD LED
LED Area Luminaire

Catalog Number	
Notes	
Type	

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.2 ft² (0.11 m²)
Length:	17-1/2" (44.5 cm)
Width:	17-1/2" (44.5 cm)
Height:	7-1/8" (18.1 cm)
Weight (max):	36 lbs. (16.4 kg)

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1

#4

ALED4T50Y/PCT

RAB Outdoor

Project:	Type:
Prepared By:	Date:

Color: Bronze   Weight: 32.0 lbs

Driver Info

Type	Constant Current
120V	0.46A
208V	0.27A
240V	0.23A
277V	0.20A
Input Watts	54.81W
Efficiency	91%

LED Info

Watts	50.00W
Color Temp	3000K (Warm)
Color Accuracy	71 CRI
L70 Lifespan	100,000
Lumens	7,127
Efficacy	130 LPW

Even more wattages.
LED area lights are also available in 78W, 105W and 125W.

Area Lights > ALED® Type II, III & IV 150W - 50W

ALED 150W - 50W

#5

IVAT4-45LPA730ZU/7PR

RAB | Outdoor

Project:

Type:

Prepared By:

Date:

Low profile, low glare. Edge-lit technology unlike any other.

Color: Bronze

Weight: 15.0 lbs

Driver Info

Type	Constant Current
120V	0.33A
208V	0.19A
240V	0.17A
277V	0.14A
Input Watts	37.40W
Efficiency	N/A

LED Info

Watts	38.00W
Color Temp	3000K (Warm)
Color Accuracy	80 CRI
L70 Lifespan	100,000
Lumens	4,533
Efficacy	121.2 LPW

Slipfitter Mount

Universal Pole Mount

Wall Mount

#6

LOT4T65Y/D10/PCT

RAB | Outdoor

Project:	Type:
Prepared By:	Date:

Specification grade area lights available in IES Type IV distributions. Best-in-class 5-G vibration rating. 5-year, limited warranty.

Color: Bronze   Weight: 20.9 lbs

Driver Info

Type	Constant Current
120V	0.55A
208V	0.33A
240V	0.29A
277V	0.25A
Input Watts	65.40W
Efficiency	99%

LED Info

Watts	65.00W
Color Temp	3000K (Warm)
Color Accuracy	71 CRI
L70 Lifespan	100,000
Lumens	6,300
Efficacy	96.3 LPW

ALED
150

Replaces 400 Watt MH Area Light!

RAB®
LIGHTING
RABWEB.COM • 888-722-1000

Specification-Grade Optics

ALED 150

RAB engineered "specification-grade" optics for the ALED150 that deliver efficient, clean, uniform light distributions at a reasonable cost. The vacuum-metalized specular reflector creates what is known as "repeatable" optics manufacturing, ensuring consistent, reliable distribution. The optics are factory installed and meet IES Lateral Distribution Types II, III and IV.

For assistance in choosing the distribution to match your application, please contact RAB's Lighting Design department by emailing lightingdesign@rabweb.com or calling 888 722-1000.

DLC QPL LISTED ™

Please visit rabweb.com to see which products are DLC listed.

Type II

The Type II distribution is ideal for wide walkways, on ramps and entrance roadways, bike paths and other long and narrow lighting applications. Meant for lighting larger areas and usually located near the roadside, this type of lighting is commonly found on smaller side streets or jogging paths.
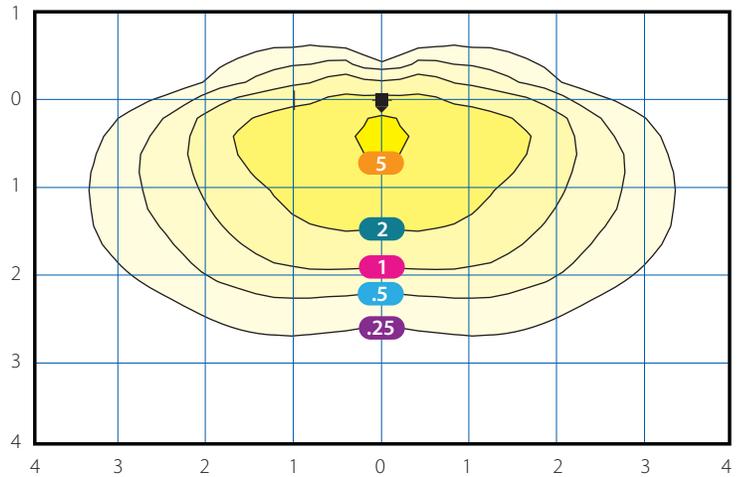
ALED2T150 Mounted at 25 ft.
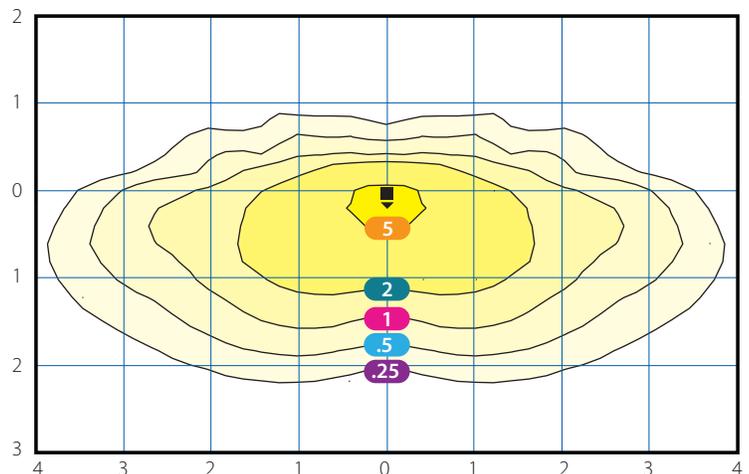
Grid Scale: Multiples of Mounting Height • Values shown in Footcandles
Photometric Report #RAB02266MOD15050

Type III

The Type III distribution is ideal for roadway, general parking, and other area lighting applications where a larger pool of lighting is required. It is intended to be located near the side of the area, allowing the light to project outward and fill the area.
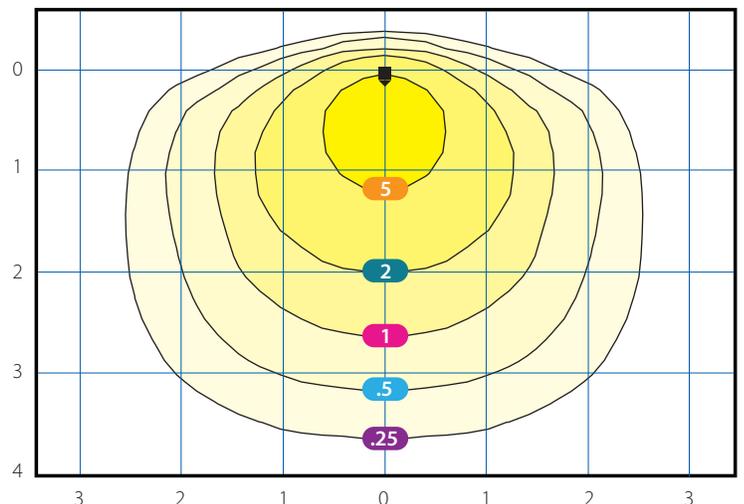

ALED3T150 Mounted at 25 ft.

Grid Scale: Multiples of Mounting Height • Values shown in Footcandles
Photometric Report #RAB02130

Type IV

The Type IV distribution (also known as a "Forward Throw") 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 degrees.

ALED4T150 Mounted at 25 ft.

Grid Scale: Multiples of Mounting Height • Values shown in Footcandles
Photometric Report #RAB02138MOD15050

ALED150

- Replaces 400W MH area lights
- 66% energy cost savings vs. HID
- 100,000-hour LED lifespan
- Type II, III and IV distribution
  (also available as a wallpack)
- Slipfitter mounting available
- Bi-level operation (optional)
- Various photocell options available
- 5-Year Warranty

Specifications

UL Listing: Suitable for wet locations.

LEDs: Multi-chip, high-output, long-life LEDs

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

Driver(s): Class 2, 2000mA, 100 - 277V and 480V, 50/60 Hz, Surge protection 4 kV

Bi-Level Operation (optional): Allows 50% and 100% output modes

Dimming: Available as On/Off or with 0-10V dimming driver *(all models except the ALED105 family)*

Cold Weather Starting: The minimum starting temperature is -40°C.

Thermal Management: Superior thermal management with external Air-Flow fins

Housing: Die-cast aluminum housing, lens frame and mounting arm

Mounting: Heavy-duty, with "O" ring seal & stainless steel screws

Gaskets: High-temperature silicone gaskets

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

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

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 C78.377-2011.

Reflector: Specular vacuum-metallized polycarbonate

Finish: Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color, and contain no VOC or toxic heavy metals.

Green Technology: Mercury and UV free. RoHS-compliant components.

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

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

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

Performance*

Cool Light (5000K)

Nominal Watts @ 120V	78W	105W	125W	150W
Output Lumens	10,157	13,680	16,328	18,464
Lumens Per Watt	132	125	121	119
Color Accuracy (CRI)	67	65	65	65

Neutral Light (4000K)

Nominal Watts @ 120V	78W	105W	125W	150W
Output Lumens	9804	13,204	15,760	17,822
Lumens Per Watt	129	122	118	116
Color Accuracy (CRI)	82	82	82	82

Warm Light (3000K)

Nominal Watts @ 120V	78W	105W	125W	150W
Output Lumens	9611	12,971	15,482	17,507
Lumens Per Watt	125	120	116	114
Color Accuracy (CRI)	71	81	81	81

* Values shown for Type IV. Visit rabweb.com for Type II and III.
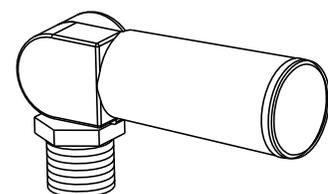
Accessories
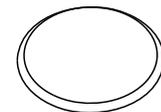
Button Photocell
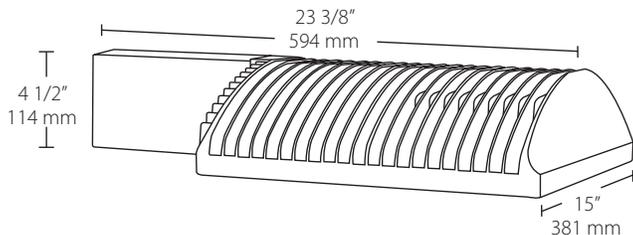*(not available for slipfitter mount)*
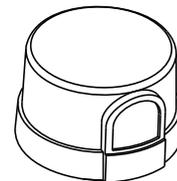
Twistlock Photocell
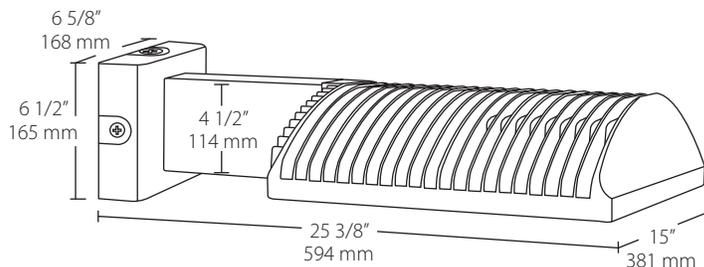*(not available for slipfitter mount)*
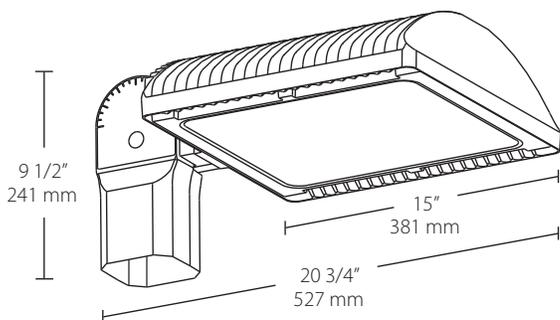

Swivel Photocell

Dimensions & Weight
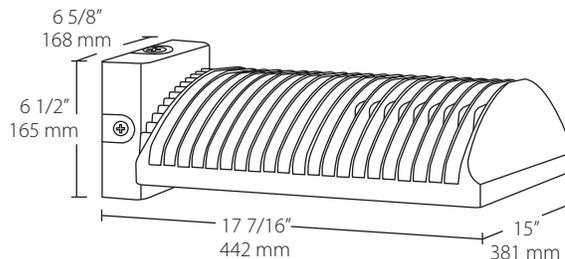
POLE MOUNT - Weight: 30 lbs. **EPA:** 0.75

23 3/8"
594 mm

4 1/2"
114 mm

15"
381 mm

WALLPACK - Weight: 34.8 lbs.

6 5/8"
168 mm

6 1/2"
165 mm

4 1/2"
114 mm

25 3/8"
594 mm

15"
381 mm

SLIPFITTER - Weight: 32 lbs. **EPA:** 2.2

9 1/2"
241 mm

15"
381 mm

20 3/4"
527 mm

WALLPACK (NO ARM) - Weight: 26 lbs.

6 5/8"
168 mm

6 1/2"
165 mm

17 7/16"
442 mm

15"
381 mm

Ordering Information

Product Family	Optics		Wattage		Mounting		Color Temp		Finish Color		Driver Options		Photocell Options	
ALED														
	2T	Type II	50	50W	Blank	Pole mount	Blank	5000K	Blank	Bronze	/480	480V	/PC	120V*
	3T	Type III	78	78W	SF	Slipfitter	N	4000K	RG	Gray	/BL	Bi-Level	/PC2	277V*
	4T	Type IV	105	105W			Y	3000K	W	White	/D10	0 - 10V Dimming	/PCT	120-277V Twistlock*
			125	125W									/PCT4	480V Twistlock*
			150	150W									/PCS	120V Swivel
													/PCS2	277V Swivel
													/PCS4	480V Swivel
													/WS2	Multi-level motion** sensor (20 ft. mt. ht.)
													/WS4	Multi-level motion** sensor (40 ft. mt. ht.)

*Pole mount models only.
**Only available with 0 - 10V dimming models.

Product Family	Optics		Wattage		Color Temp		Mounting		Finish Color		Driver Options		Photocell Options	
WPLED														
	2T	Type II	50	50W	Blank	5000K	Blank	Arm	Blank	Bronze	/480	480V	/PC	120V
	3T	Type III	78	78W	N	4000K	FX	No Arm	W	White	/BL	Bi-Level	/PC2	277V
	4T	Type IV	105	105W	Y	3000K					/D10	0 - 10V Dimming	/PCT	120-277V Twistlock
			125	125W									/PCT4	480V Twistlock
			150	150W									/PCS	120V Swivel
													/PCS2	277V Swivel
													/PCS4	480V Swivel
													/WS2	Multi-level motion** sensor (20 ft. mt. ht.)
													/WS4	Multi-level motion** sensor (40 ft. mt. ht.)

**Only available with 0 - 10V dimming models.

Low profile, low glare.
Edge-lit technology unlike any other.

IVELOT™

RAB | Outdoor

IVELOT™

- Available in 4,500lm (38W), 7,500lm (67W), 10,000lm (94W) and 13,000lm (117W) models
- Offered with 3 mounting options: universal pole adapter, wall or slipfitter
- Type II, III, IV, VS and Forward Throw distributions
- 0-10V Dimming, standard
- Motion sensor, photocell and Lightcloud® Controller options available
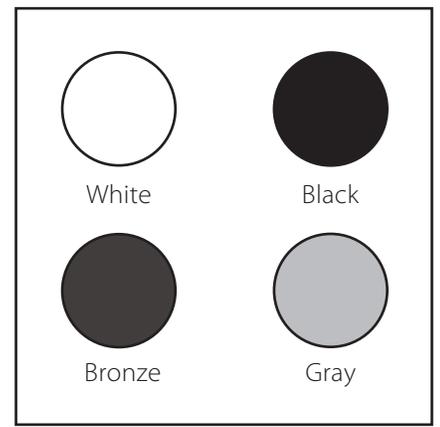- 100,000-Hour LED lifespan
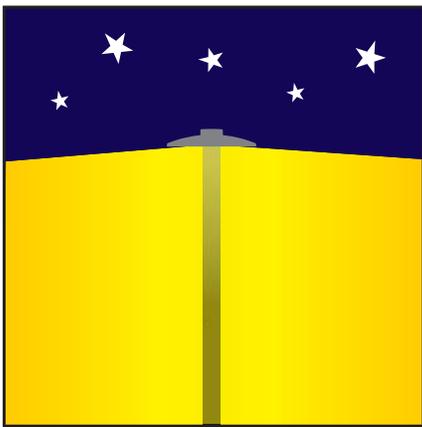
The IVELOT is a complete cutoff, fully shielded area light that minimizes glare, while reducing light trespass.

IVELOT offers several mounting options to support a variety of applications.
(Universal Pole Adapter shown)

Available in four color finishes: bronze, black, white and gray.
(gray has no texture)

White   Black

Bronze   Gray

Available with Lightcloud Controller.

Lightweight, low-profile design, and a low EPA help reduce the load on a pole.

Available with an optional, integrated motion sensor or photocell.

Specifications

UL:
Suitable for wet locations

LEDs:
Long-life, high-efficiency, micro-power, surface-mount LEDs

Drivers(s):
Class 2, 50/60Hz. 120 - 277V, 347-480V, 4kV standard, 10kV optional surge protection

Dimming Driver:
Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit.
Dims as low as 10%.

Lifespan:
100,000-hour LED lifespan based on IES LM-80 results & TM-21 calculations at 25°C

IP Rating:
Ingress Protection rating of IP66 for dust and water

Color Weather Starting:
Minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:
Suitable for use in 40°C (104°F) temperatures

Housing:
Die-cast aluminum housing

Mounting:
Universal pole adapter, slipfitter or wall mount options available

Lens:
Diffused Polymethyl Methacrylate (PMMA)

Vibration Rating:
3G vibration tested per ANSI C136.31

Effective Projected Area:
EPA = 0.61

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

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 C78.377-2017.

Title 24 Compliant:
An IVELOT edge-lit area light can be used with a motion sensor or photocell control option to comply with 2016 Title 24 Part 6 Section 130.2 (a,b,c).

Finish:
Formulated for high durability and long-lasting color

Green Technology:
Mercury and UV free. RoHS-compliant components

IESNA LM-79 Testing:
RAB LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79

Performance

Type II

	IVAT2 - 100L			IVAT2 - 75L			IVAT2 - 45L		
Color Temperature	5000K	4000K	3000K	5000K	4000K	3000K	5000K	4000K	3000K
Input Watts	92	93	93	66	67	67	37	38	38
Output Lumens	10,739	10,095	10,167	7,961	7,484	7,537	4,340	4,080	4,109
Lumens Per Watt	117	109	110	120	112	112	117	109	110
Color Accuracy (CRI)	75	73	80	75	73	80	75	73	81
	(Replaces 400W PSMH)			**(Replaces 320W PSMH)**			**(Replaces 175W PSMH)**		

Type III

	IVAT3 - 100L			IVAT3 - 75L			IVAT3 - 45L		
Color Temperature	5000K	4000K	3000K	5000K	4000K	3000K	5000K	4000K	3000K
Input Watts	96	96	91	70	70	66	40	40	38
Output Lumens	11,359	9,939	9,588	7,608	6,657	6,422	4,963	4,342	4,189
Lumens Per Watt	118	103	105	110	96	98	124	109	111
Color Accuracy (CRI)	75	73	81	75	73	80	75	73	80
	(Replaces 400W PSMH)			**(Replaces 320W PSMH)**			**(Replaces 175W PSMH)**		

Type IV

	IVAT4 - 130L			IVAT4 - 75L			IVAT4 - 45L		
Color Temperature	5000K	4000K	3000K	5000K	4000K	3000K	5000K	4000K	3000K
Input Watts	117	116	117	66	66	66	37	37	37
Output Lumens	14,322	14,174	13,232	7,429	7,353	6,864	4,906	4,856	4,533
Lumens Per Watt	123	122	113	113	112	104	132	131	121
Color Accuracy (CRI)	75	72	80	75	72	80	75	72	80
	(Replaces 450W PSMH)			**(Replaces 320W PSMH)**			**(Replaces 175W PSMH)**		

Type VS

	IVAT5S - 130L			IVAT5S - 45L			IVAT5S - 75L		
Color Temperature	5000K	4000K	3000K	5000K	4000K	3000K	5000K	4000K	3000K
Input Watts	118	115	116	38	37	38	66	64	65
Output Lumens	14,494	13,357	12,659	5,210	4,801	4,550	8,434	7,772	7,366
Lumens Per Watt	123	116	109	136	128	120	129	122	114
Color Accuracy (CRI)	74	72	80	74	72	80	74	72	80
	(Replaces 450W PSMH)			**(Replaces 320W PSMH)**			**(Replaces 300W PSMH)**		

Type FT (Forward Throw)

	IVAFT - 100L			IVAFT - 75L			Type FT - 45L		
Color Temperature	5000K	4000K	3000K	5000K	4000K	3000K	5000K	4000K	3000K
Input Watts	95	91	93	68	65	67	39	37	38
Output Lumens	10,594	9,999	9,970	7,927	7,482	7,460	4,928	4,651	4,638
Lumens Per Watt	111	110	108	116	115	112	127	125	122
Color Accuracy (CRI)	75	73	80	74	72	80	74	72	80
	(Replaces 400W PSMH)			**(Replaces 320W PSMH)**			**(Replaces 175W PSMH)**		

Photometrics

IVAT2-100L (Type II)
25' Mounting Ht.
Photometric Report
#DLF1810114-11A.IES

Mounting Height	15	20	25	30	35
Multiplier	2.8	1.6	1.0	0.7	0.5
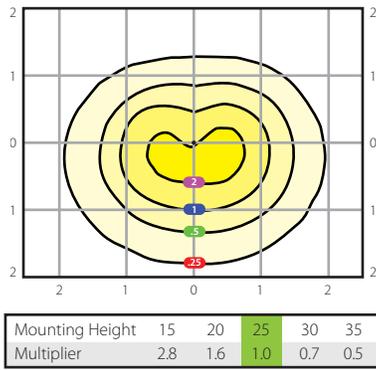
IVAT3-100L (Type III)
25' Mounting Ht.
Photometric Report
#DLF1810114-14A.IES

Mounting Height	15	20	25	30	35
Multiplier	2.8	1.6	1.0	0.7	0.5
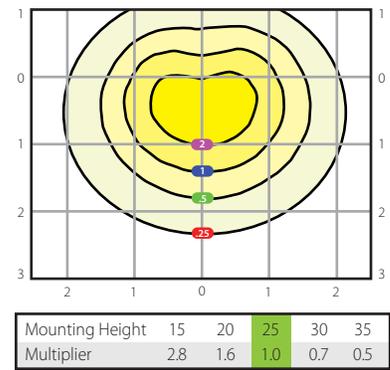
IVAFT-100L (Forward Throw)
25' Mounting Ht.
Photometric Report
#DLF1810114-17A.IES

Mounting Height	15	20	25	30	35
Multiplier	2.8	1.6	1.0	0.7	0.5
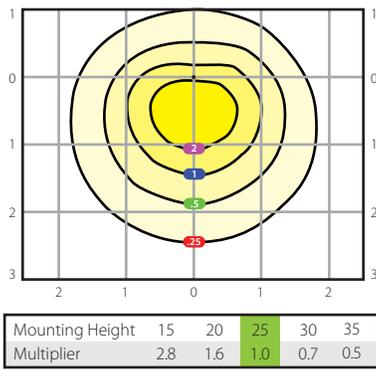
IVAT4-130L (Type IV)
25' Mounting Ht.
Photometric Report
#DLF1810114-20A.IES

Mounting Height	15	20	25	35	30
Multiplier	2.8	1.6	1.0	0.5	0.7
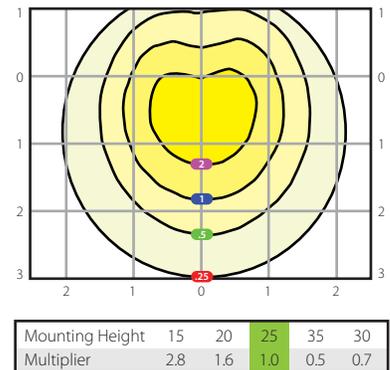
IVAT5S-130L (Type V Square)
25' Mounting Ht.
Photometric Report
#DLF1810114-23A.IES
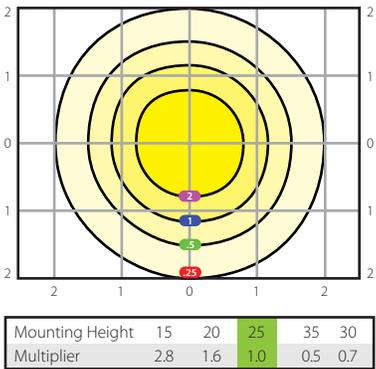
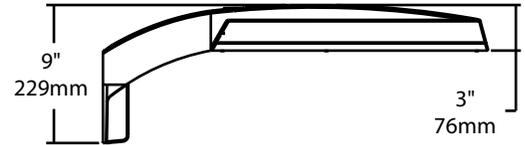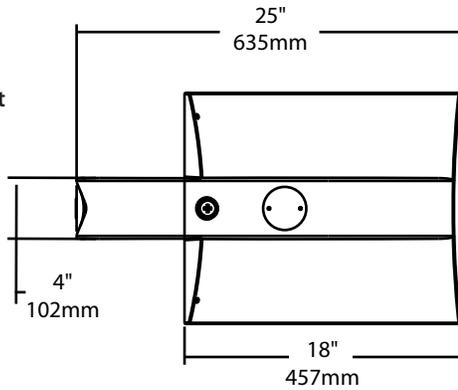| Mounting Height	15	20	25	35	30
Multiplier	2.8	1.6	1.0	0.5	0.7

Grid Scales: Multiples of Mounting Height Values Shown in Footcandles

Watts	Lumens Based on 5000K CCT @ 120Vac					Avg Lumens Across All Dist Types
	Type II	Type III	Type IV	Type VS	Forward Throw	
38W	4,340	4,963	4,906	5,210	4,928	4,869
67W	7,961	7,608	7,429	8,434	7,927	7,872
94W	10,739	11,359	n/a	n/a	10,594	10,897
117W	n/a	n/a	14,322	14,494	n/a	14,408

Mountings, Dimensions & Weights

PA - Universal Pole Mount
Weight: 15.0 lbs (7kg)

25"
635mm

4"
102mm

18"
457mm

9"
229mm

3"
76mm

WM - Wall Mount
Weight: 20.0 lbs (9kg)

27 1/2"
699mm

7 1/2"
191mm

18"
457mm

9 5/8"
244mm

2 5/8"
67mm

3"
76mm
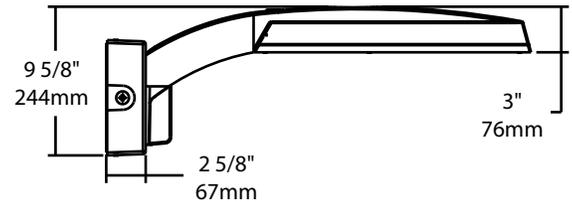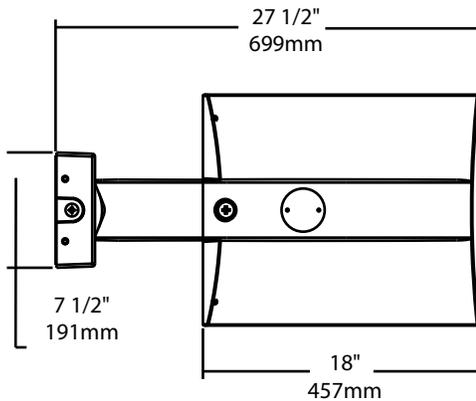
SF - Slipfitter Mount
Weight: 13.5 lbs (6kg)

22 1/4"
562mm

3 1/16"
78mm

18"
457mm

6 11/16"
170mm

3"
76mm
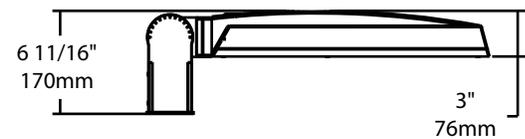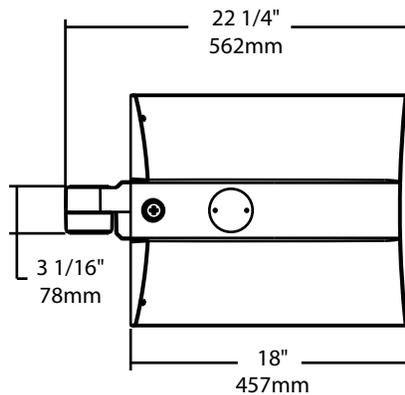
Ordering information

Product Family	Optics /Distribution		Lumen Output		Mounting		CCT/CRI		Finish		Voltage/Driver		Sensor Options		Lightcloud Option	
IVA																
	T2	Type II	**45L**	4500 lumens (38W)	**PA**	Universal Pole Adapter	**750**	5000K (Cool), 70 CRI	**Z**	Bronze	**U**	120-277V, 0-10V Dimming	**Blank**	No Sensor	**Blank**	No Lightcloud
	T3	Type III	**75L**	7500 lumens (67W)	**WM**	Wall Mount	**740**	4000K (Neutral), 70 CRI	**W**	White	**H**	347-480V, 0-10V Dimming	**/WS**	Multi-Level Motion Sensor, 8ft mounting	**/LC**	Lightcloud Controller[3]
	T4	Type IV	**100L**	10000 lumens (94W)[1]	**SF**	Slipfitter	**730**	3000K (Warm), 70 CRI	**G**	Roadway Gray			**/WS2**	Multi-Level Motion Sensor, 20ft mounting		
	T5S	Type V Sq	**130L**	13000 lumens (117W)[2]					**K**	Black			**/WS4**	Multi-Level Motion Sensor, 40ft mounting		
	FT	Forward Throw											**/7PR**	7Pin Receptacle		

MOUNTING ACCESSORIES

IVA-SF	Single Fuse (120V, 277V)
IVA-DF	Double Fuse (208V, 240V, 480V)
RSP10GI-277	10kV Surge Protector (120V & 277V)
RSP10GI-480	10kV Surge Protector (480V)

1.Applies to TYPE II, III, FT | 2.Applies to TYPE IV, V Square | 3.Applies to 120-277V
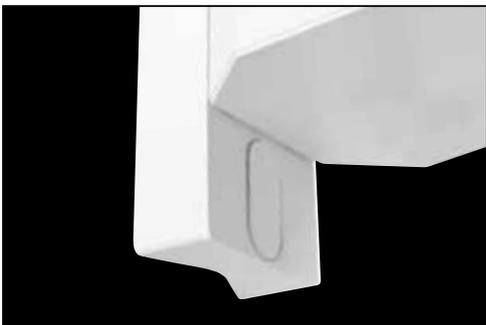
LOTBLASTER™ Area Light

- Delivers up to 18,000 lumens
- Available in IES Type II, III, IV and VS distributions
- Lightweight design and low EPA minimize pole load
- Best-in-class 5-G vibration rating
- 10kV surge protection available
- All models are DLC listed
- 100,000-hour LED lifespan

5 YEAR LIMITED WARRANTY

Multi-level lighting control with motion sensor and twistlock photocell options

Hassle-free installation with swing door access to the wiring box

Mounts to all square and round poles with universal pole adaptor (available with fixture or as an accessory)
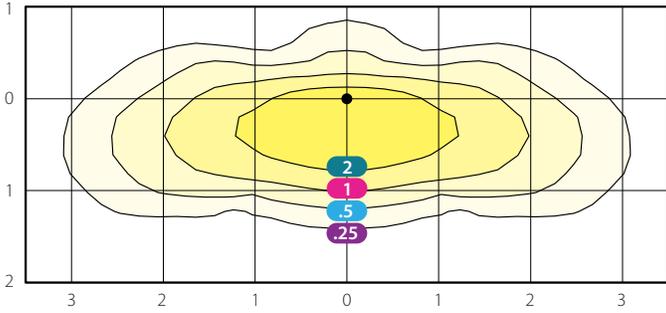

Optional, external house-side shield accessory available to reduce light trespass
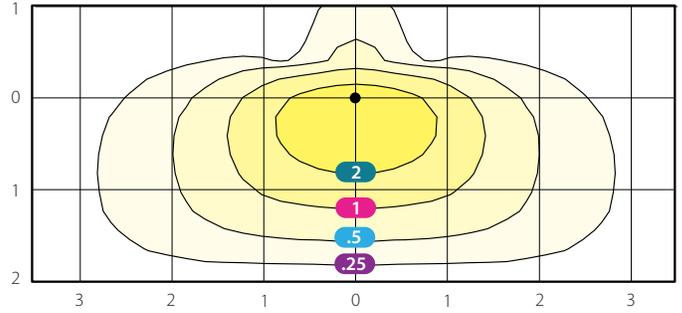
Photometrics

LOTBLASTER 160W

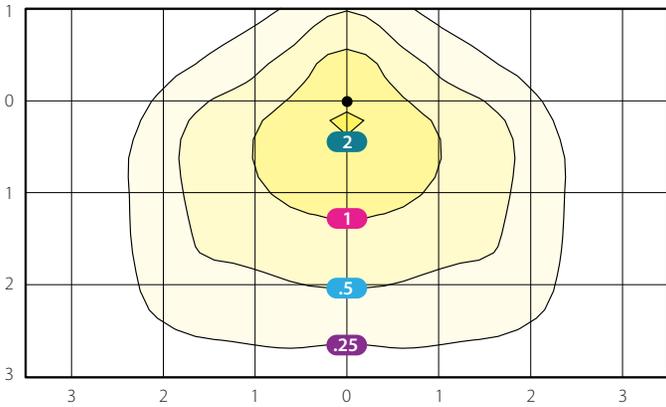**Type II -** 35 ft. mounting height
Photometric Report #RAB02511MOD16050

	2	
	1	
	.5	
	.25	

(horizontal axis: 3 2 1 0 1 2 3 — vertical axis: 1 0 1 2)

Type III - 35 ft. mounting height
Photometric Report #RAB02512MOD16050

	2	
	1	
	.5	
	.25	

(horizontal axis: 3 2 1 0 1 2 3 — vertical axis: 1 0 1 2)

Type IV - 35 ft. mounting height
Photometric Report #RAB02639MOD50

2	
1	
.5	
.25	

(horizontal axis: 3 2 1 0 1 2 3 — vertical axis: 1 0 1 2 3)

Type VS - 35 ft. mounting height
Photometric Report #RAB02643MOD50

1	
.5	
.25	

(horizontal axis: 3 2 1 0 1 2 3 — vertical axis: 2 1 0 1 2)
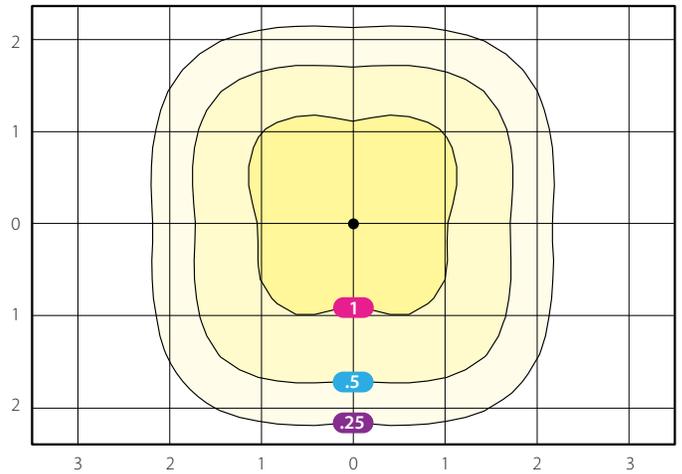
Mounting Height	Multiplier
15	5.4
20	3.1
25	2.0
30	1.4
35	1.0

Grid scales: Multiples of mounting height
Values shown in footcandles

| Watts	Lumens Based on 5000K CCT @ 120Vac				Avg Lumens Across All Dist Types	Factor to Apply
	Type II	Type III	Type IV	Type VS		
65	7,207	7,264	6,811	7,340	7,156	0.400
110	12,706	12,807	12,008	12,876	12,599	0.704
160	18,028	18,170	17,037	18,323	17,890	1.000

Wattage Adjustment Table:
Multiplying factor to adjust the iso-footcandle values when considering a lower wattage solution
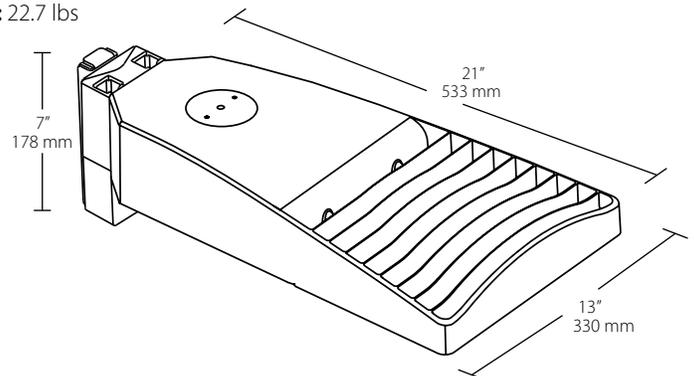
Dimensions & weights

WITHOUT POLE ADAPTOR
Weight: 20.9 lbs
EPA: 0.8

4"
101 mm

21"
533 mm

13"
330 mm
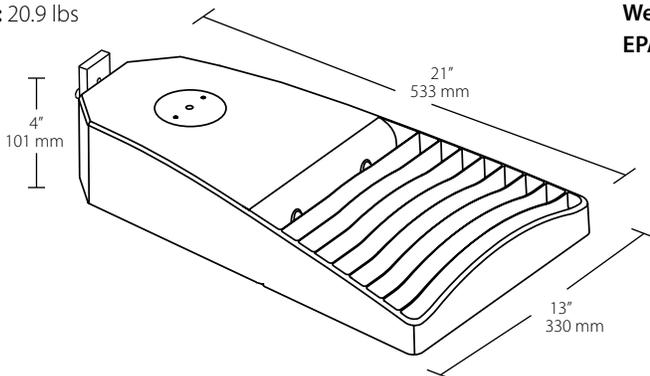
WITH POLE ADAPTOR
Weight: 22.7 lbs
EPA: 0.8

7"
178 mm

21"
533 mm

13"
330 mm

Specifications

UL Listing: Suitable for wet locations

IP Rating: Rated IP66. Completely dust tight and protected against powerful water jets.

Vibration Rating: Industry-leading 5G vibration rating per ANSI C136.31.

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

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

Driver: Class 2, constant current, 50/60 Hz., 120-277V or 480V
160W: 1.35A @ 120V, 0.83A @ 208V, 0.72A @ 240V, 0.61A @ 277V, 0.35A @ 480V
110W: 0.93A @ 120V, 0.56A @ 208V, 0.49A @ 240V, 0.42A @ 277V, 0.26A @ 480V
65W: 0.55A @ 120V, 0.33A @ 208V, 0.29A @ 240V, 0.25A @ 277V, 0.15A @ 480V

Dimming: 0-10V dimming, standard

Bi-Level Operation: 3 setting controls: 25%, 50% or 75% (optional)

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

Ambient Temperature: Suitable for use in 104° F (40° C) ambient temperatures

Housing: Precision die-cast aluminum housing. Optional Universal Pole Adaptor made from die-cast aluminum with high-tensile structural steel hardware.

Mounting: Mounts to RAB Square poles. Mounts to all square and round poles with universal pole adaptor (available with fixture or as an accessory) which will also fit pre-drilled bolt patterns from 2" - 5".

Lens: Clear acrylic lens with integrated optics

Optics: Available in IES Type II, III, IV and VS distributions

Gaskets: High-temperature silicone

Finish: Our environmentally friendly polyester powder coatings are formulated for high durability and long-lasting color, and contain no VOC or toxic heavy metals.

Green Technology: Mercury and UV free. RoHS-compliant components.

Cut Off: Full cutoff optics conform with dark sky requirements

LOTBLASTER 160W - TYPE III

Color Temperature	5000K	4000K	3000K
Input Watts	161	157	160
Output Lumens	18,170	16,994	16,807
Lumens Per Watt	113	108	105
Color Accuracy (CRI)	72	72	73

LOTBLASTER 110W - TYPE III

Color Temperature	5000K	4000K	3000K
Input Watts	110	108	110
Output Lumens	12,807	11,977	11,846
Lumens Per Watt	116	111	108
Color Accuracy (CRI)	72	72	72

LOTBLASTER 65W - TYPE III

Color Temperature	5000K	4000K	3000K
Input Watts	66	64	65
Output Lumens	7264	6794	6719
Lumens Per Watt	111	106	103
Color Accuracy (CRI)	72	72	71

Performance shown for Type III only. Visit rabweb.com for performance of Types II, IV and VS.
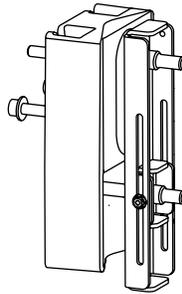
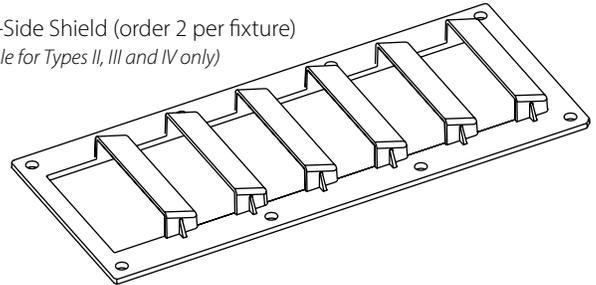## Accessories

LOT-UPA
Universal Pole Adaptor, Bronze
LOT-UPAW
Universal Pole Adaptor, White

LTHS
House-Side Shield (order 2 per fixture)
(available for Types II, III and IV only)

Ordering information

Product Family	IES Type	Wattage	Color Temp.	Finish	Driver Options	Mounting	Sensor Options	Accessories
LOT								

IES Type	Wattage	Color Temp.	Finish	Driver Options	Mounting	Sensor Options	Accessories
2T Type II	**160** 160W	**Blank** 5000K	**Blank** Bronze	**/D10** 120 - 277V, 0-10V Dimming (standard)	**Blank** Mounts to RAB square poles	**Blank** None	**/HS** 2 House-Side Shields*
3T Type III	**110** 110W	**N** 4000K	**W** White	**/480/D10** 480V, 0-10V Dimming	**/UPA** Universal Pole Adaptor	**/PCT** 120-277V Twistlock PC	
4T Type IV	**65** 65W	**Y** 3000K				**/PCT4** 480V Twistlock PC	
5T Type VS						**/WS2** Multi-Level Motion Sensor + 20ft lens, 120-277V	
						/WS4 Multi-Level Motion Sensor + 40ft lens, 120-277V	
						/5PR 5-Pin Receptacle, no PCT	
						/7PR 7-Pin Receptacle, no PCT	
						/BL Bi-Level Dimming, 120-277V	

Available for Types II, III and IV only