



# Blackhawk ♦ Neff

**I N C O R P O R A T E D**

805 Northgate Circle  
New Castle, Pa 16105

724 658-8186 Phone  
724 658-2635 Fax

July 16, 2015

Hallgren, Restifo, Loop, and Coughlin  
Attn: Chris Coughlin  
4380 West 12<sup>th</sup> Street  
Erie, PA 16505

Re: Sheffield Elementary School

Dear Mr. Coughlin:

Listed below is a cost to change the lighting in the gym from 400 watt metal halide high bay to a 200 watt LED high bay.

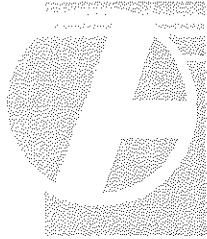
## COST

40 LED High bays	\$24,760.00
Blackhawk Neff OH & P 5%	1,238.00
Material 12 x 40	480.00
Lift 26'	1,200.00
Labor 2 men, 1 week. 80 hrs. @ \$75/hr.	<u>6,000.00</u>
<b>TOTAL</b>	<b>\$33,678.00</b>

Note: Blackhawk Neff will do this on a time and material basis not to exceed the above price.

Sincerely,

Robert W. Neff RCDD/NTS/OSP/WD  
C.E.O.



## Architectural Lighting Sales, Inc.

2598 Washington Road  
Canonsburg, PA 15317

Phone: (724) 916-2200  
Fax: (724) 916-2214

<b>To:</b> Bob Neff Blackhawk Neff - New Castle 805 Northgate Circle New Castle, PA 16105			<b>Job/Project Name:</b> SHEFFIELD SCHOOL GYMNASIUM LED RETROFIT	
			<b>Bid Date:</b> 7/15/2015	
Qty	Type	Mfg	Description	Price
			- LED FIXTURES QUOTED	
			- FREIGHT ALLOWED SINGLE RELEASE	
			- SUBJECT TO APPROVAL	
			- QUOTE BASED ON INFORMATION SUPPLIED	
			- NO WRITTEN SPECS RECEIVED	
			- ANY CHANGES REQUIRES A REQUOTE	
			- APPLICABLE TAXES MAY APPLY	
40	HB	LIGS	HBXA-200-5000K-120-120/277-AL / WGHB	
			<b>TOTAL:</b>	<b>\$24,760.00</b>
<b>MFG Code</b>		<b>F.O.B</b>		<b>Lead Time</b>
<b>Prices firm for entry by: 45 Days</b>			<b>TERMS</b>	
			<b>Shipment by: Per MFG</b>	
1) IT IS THE RESPONSIBILITY OF THE DISTRIBUTOR AND ELECTRICAL CONTRACTOR TO VERIFY ALL VOLTAGES AND FINISHES BEFORE ORDERS ARE PLACED. 2) Subject to manufacturer's published terms and conditions of sale. 3) Quotation is void if changed. 4) Complete quote must be used. 5) All Recessed fixtures quoted as STD "Grid" Style, unless otherwise noted. Drywall kits and flanged fixtures available at add'l cost 6) Choice of STD Factory Colors 7) No minority participation included 8) Quote Includes STD factory warranties only. Any "Special" warranty by others. 9) Pre-Shipment of Anchor Bolts is plus freight 10) Lamps are not Included unless otherwise specified 11) Fuses, Hanging Hardware, and other accessories are not included unless noted 12) Standard Factory Freight Terms Apply 13) Delinquent factory invoices are subject to incurred freight charges 14) Liquidated damages are NOT the responsibility of ALS or MFG's 15) Lamp/Ballast compatibility to verified by others 16) All items subject to approval & based on quantities listed 17) Lamp Color to be verified by Distributor Prior to ordering				
<b>Printed: 07/15/15 16:09:03 Per: John Boland Email:</b>				



# HBX & HBXA HIGH BAYS

150W & 200W

LED





AVAILABLE  
IN 1000W



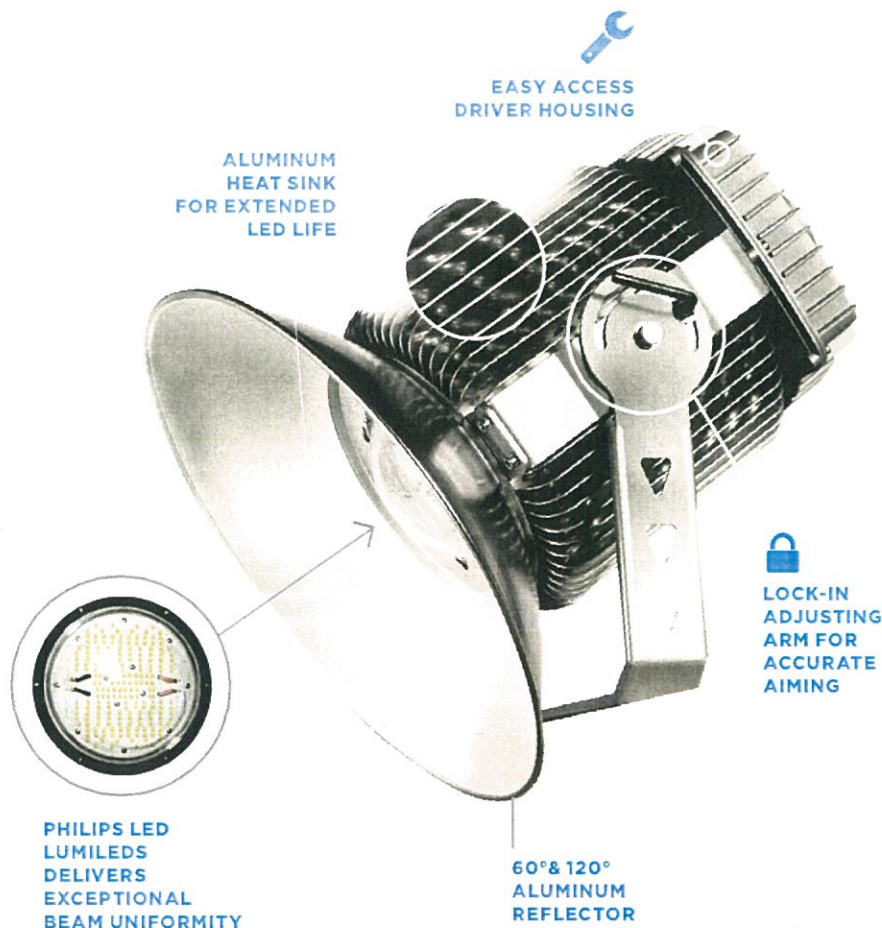
EXPECTED LIFE  
OVER 100,000 HRS.



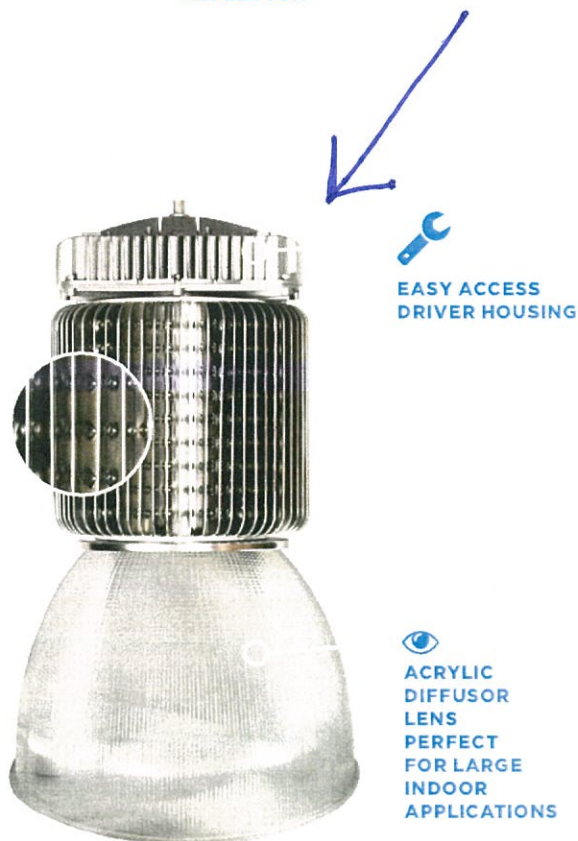
REVIT & IES FILES  
AVAILABLE AT [WWW.SPECGRADELED.COM](http://WWW.SPECGRADELED.COM)



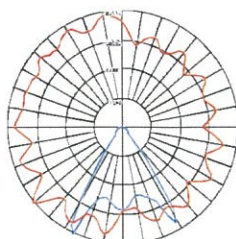
RATED IP 65



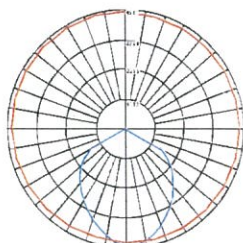
ALUMINUM  
HEAT SINK  
FOR EXTENDED  
LED LIFE



#### PHOTOMETRICS



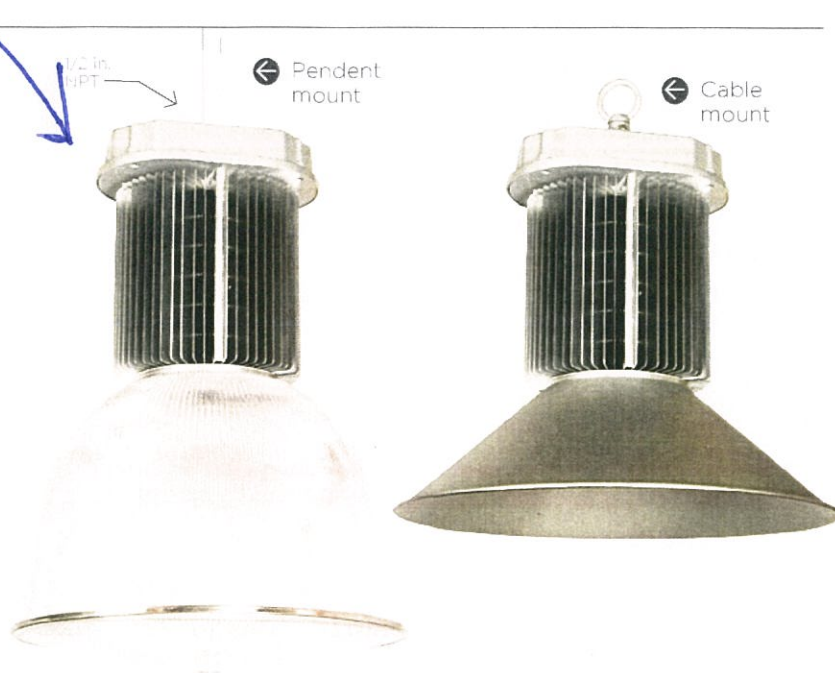
HBXSL-H  
(ACRYLIC)  
120° BEAM



HBXSL  
120° BEAM

# HBX & HBXA HIGH BAY

REPLACES UP TO A  
500-WATT METAL HALIDE FIXTURE



## SPECIFICATIONS

Expected life: over 100,000 hrs.  
Rating: IP 65  
Color Rendering Index (CRI): >80  
Operating temp: -4°F-131°F  
Power factor: >0.95%  
Input line voltage: 120-277 VAC  
Input line frequency: 50/60 Hz  
LED efficiency:  
- warm white, 83 lm/w  
- natural white, 88 lm/w  
- cool white, 93 lm/w

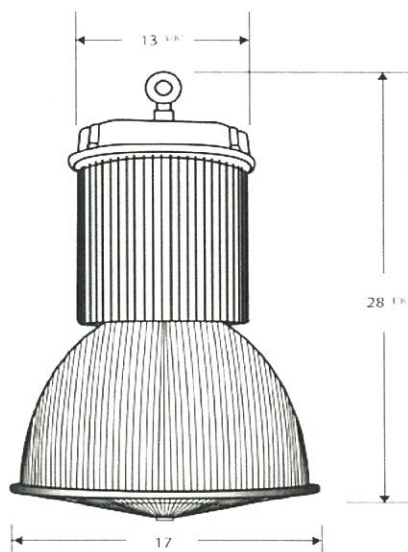
## MISC SPECS

LED chips: Samsung  
Driver: UL approved Meanwell  
Dimmable: 0-10V  
Occupancy sensor: optional  
Hanging weight: 18 lbs.

## MATERIALS

Heat sink housing: Anodized aluminum  
Reflector: Aluminum  
Lens: Acrylic  
LED Shield: Lexan  
Finish: Powder coating (optional)

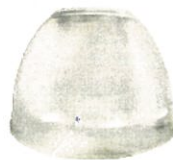
## ↓ DIMENSIONS



## ↓ ACCESSORIES



120° reflector

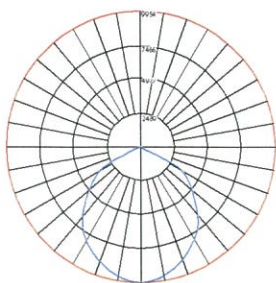


Acrylic diffuser

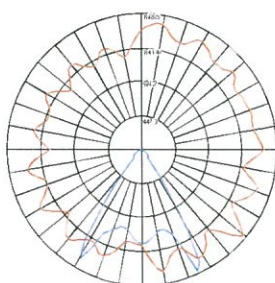


Wire guard

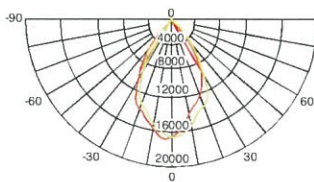
## ↓ PHOTOMETRICS



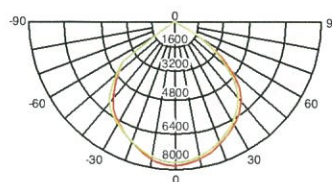
HBX - 120° BEAM



HBXA - ACRYLIC



HBX - 45° BEAM



HBX - 90° BEAM





## COLOR TEMPERATURES/DELIVERED LUMENS

## PRODUCT SPECIFICATIONS

SERIES	WATTS	SYSTEM POWER [w]	WW 3500K	NW 4100K	CW 5000K	BEAM	INPUT VOLT.	FINISH	OPTIONS/ACCESSORIES	
HBX	150W	165W	11710 lm	12327 lm	12976 lm	60°	120-277V	AL ALUMINIUM	OS	OCCUPANCY SENSOR
	200W	220W	16739 lm	17611 lm	18538 lm	120°	480V (OPT)	RAL CUSTOM FINISH W/ RAL # (OPT)	CM	CABLE MOUNT
HBXA (ACRYLIC LENS)						360° (ACRYLIC LENS)			WR	120° REFLECTOR
									AD	ACRYLIC DIFFUSER
									WG	WIRE GUARD
									PM	PENDENT MOUNT

WW = WARM WHITE NW = NATURAL WHITE CW = COOL WHITE

REVIT & IES FILES are located at [www.SpecGradeLED.com](http://www.SpecGradeLED.com)

## PRODUCT CERTIFICATIONS, WARRANTIES &amp; APPROVALS

