

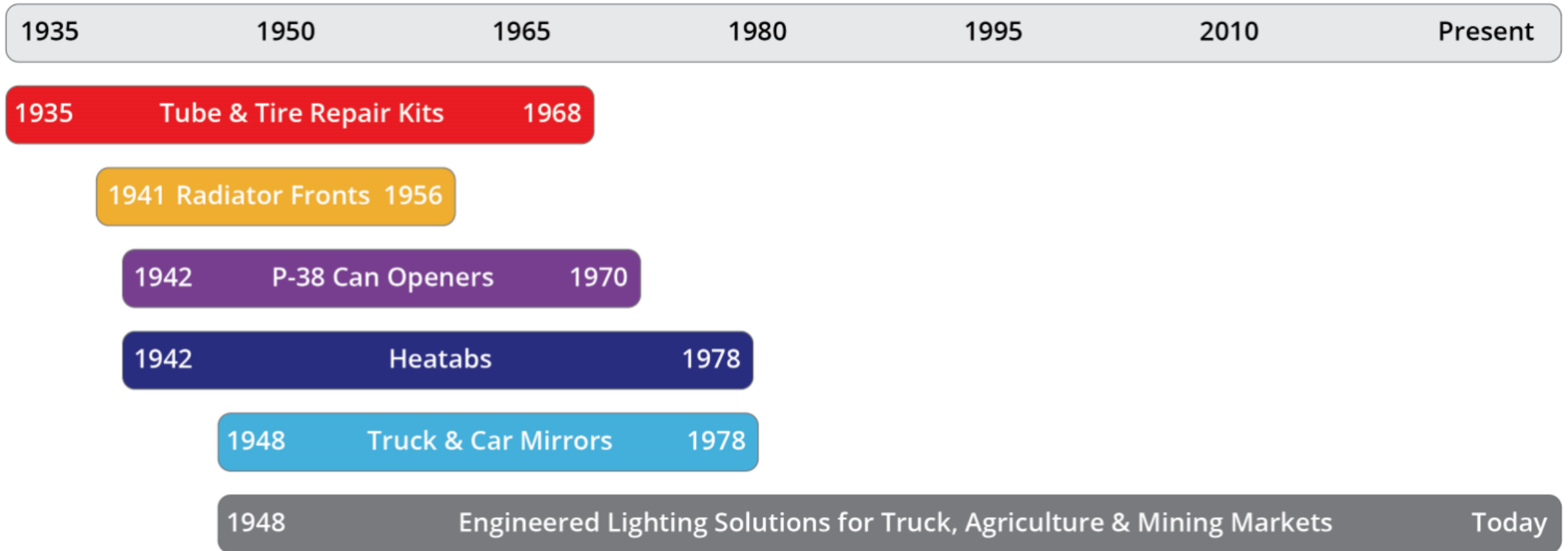


The Intersection of Science + Design

# Our History

- Today, J.W. Speaker Corporation is still family owned and ran business
- Lead by Tim and Jamie Speaker with their management team
- Development of world leading LED forward lighting for key OEM worldwide
- Growing into the aftermarket with the latest LED performance technology
- Expanding into different markets around the global as a key brand
- Work closely with our OEM and aftermarket distributor to develop the world first LED headlamps, work lamps and safety products
- To meet all our customers need and wants with latest technology in LED lighting

# Our History





***Design Manufacturing Innovative Products for Over 80 years***



# CAT 990 Wheel Loader illumination

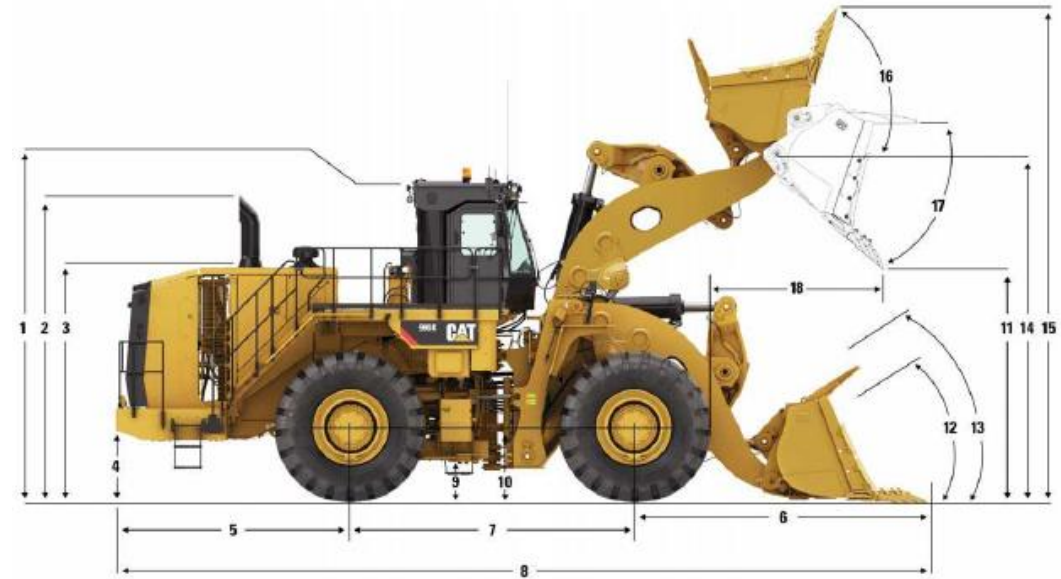
Safety Through Innovative Lighting Product

By **J.W. Speaker**

The Intersection of Science + Design



# CAT 990 Wheel Loader



	Standard Lift		High Lift	
1 Ground to Top of ROPS	5240 mm	17.2 ft	5240 mm	17.2 ft
2 Ground to Top of Exhaust Stacks	5049 mm	16.6 ft	5049 mm	16.6 ft
3 Ground to Top of Hood	3862 mm	12.7 ft	3862 mm	12.7 ft
4 Ground to Bumper Clearance	1079 mm	3.5 ft	1079 mm	3.5 ft
5 Rear Axle Centerline to Bumper	3795 mm	12.5 ft	3795 mm	12.5 ft
6 Front Axle Centerline to Bucket Tip	4677 mm	15.3 ft	5416 mm	17.8 ft
7 Wheelbase	4600 mm	15.1 ft	4600 mm	15.1 ft
8 Maximum Overall Length	13 072 mm	42.9 ft	13 811 mm	45.3 ft
9 Ground to Lower Hitch Clearance	596 mm	2.0 ft	596 mm	2.0 ft
10 Ground to Center of Front Axle	1290 mm	4.2 ft	1290 mm	4.2 ft
11 Clearance at Maximum Lift	4060 mm	13.3 ft	4521 mm	14.8 ft
12 Rack Back Angle at Ground Level	40.4 degrees		39.9 degrees	
13 Rack Back Angle at Carry	48.8 degrees		49.3 degrees	
14 B-Pin Height at Maximum Lift	6009 mm	19.7 ft	6470 mm	21.2 ft
15 Maximum Overall Height, Bucket Raised	8293 mm	27.2 ft	8754 mm	28.7 ft
16 Rack Angle at Maximum Lift	63.7 degrees		60.6 degrees	
17 Dump Angle at Maximum Lift	45 degrees		51 degrees	
18 Reach at Maximum Lift	2194 mm	7.2 ft	2583 mm	8.5 ft



Front View:

- ① Model 832 Flood
- ① Model 832 Trap

This combination will give full illumination for front





Left Side View:

① Model 832 Flood

For illumination on Side



Right Side View:

① Model 832 Flood

For illumination on Side



Rear View:

- ① Model 832 Flood
- ① Model 832 Trap

This combination will give full illumination for front







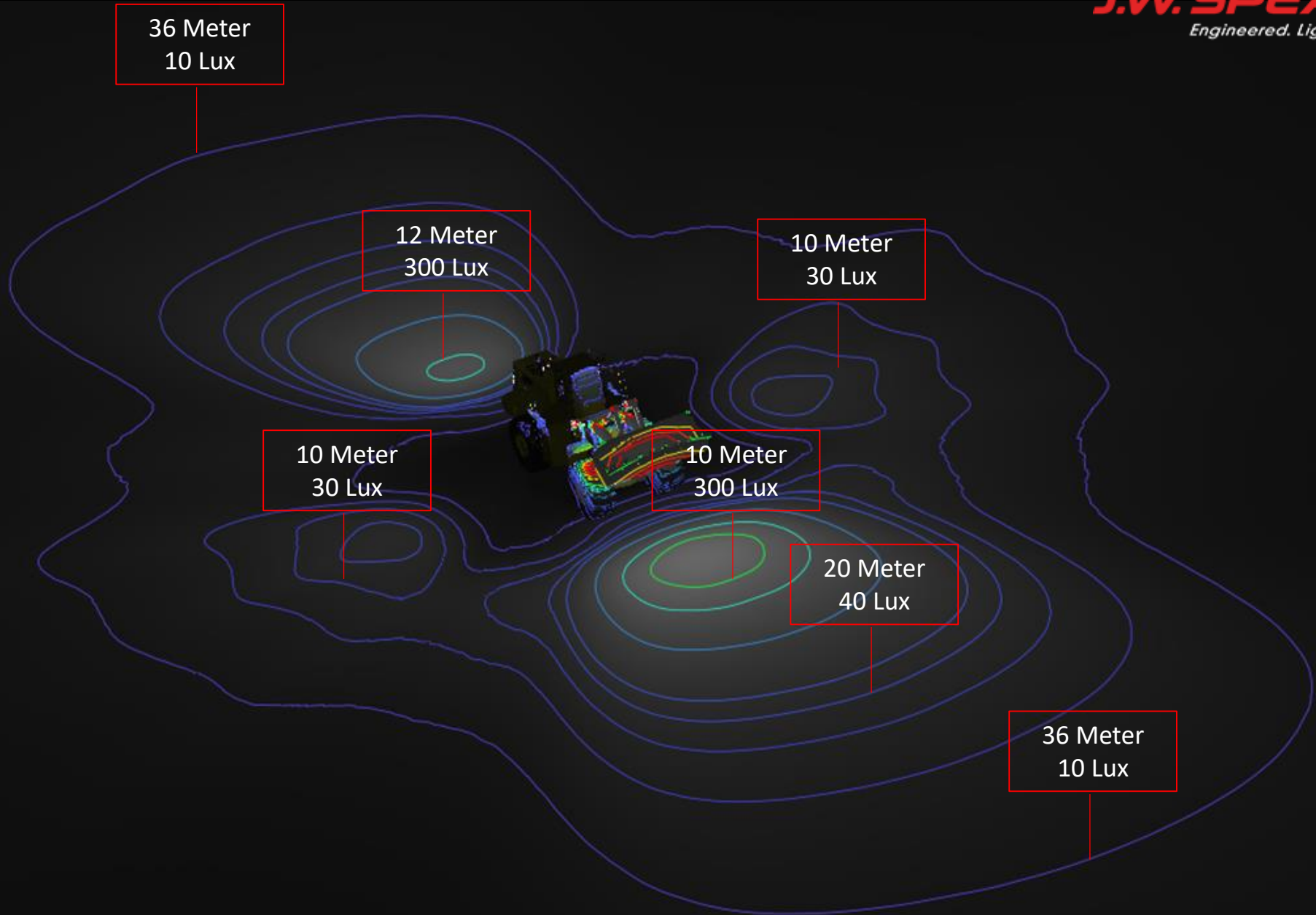
V.R.  
Mapping  
For CAT 990



# CAT 990 VR Mapping

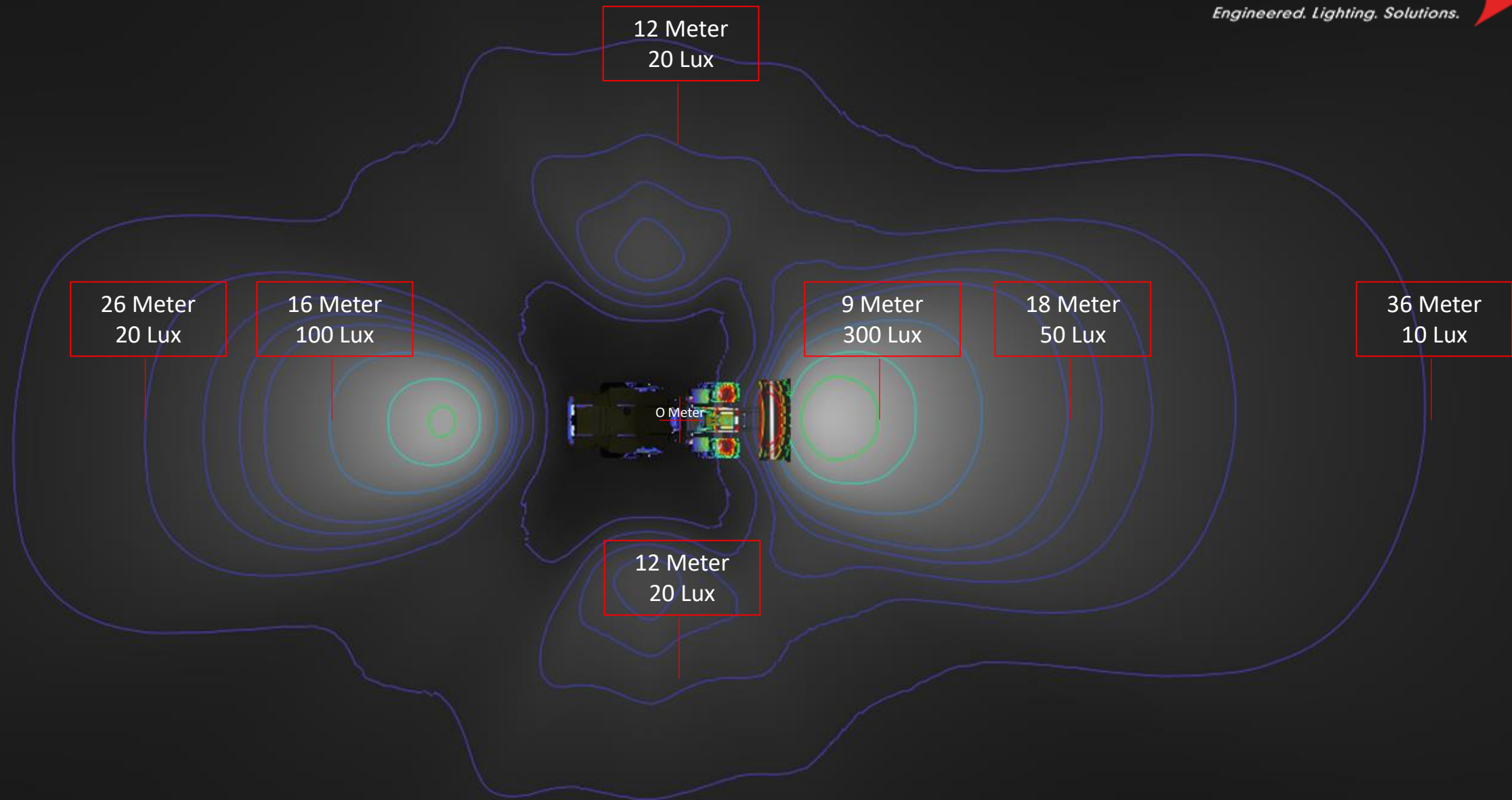
- Model 832 for illumination area
- Model 832 IP69K 10-32VDC, weight 0.83kg
- Raw Lumen 3,900 and Effective 2,400 Lumen
- Colour Temperature 5700K (Kelvin), Daylight at High Noon 5500k











# CAT 990 Product



## PRODUCT INFORMATION

Description	12-24V LED Auxiliary Light
Height	154.94 mm / 6.1 in
Width	115.06 mm / 4.53 in
Depth	68.58 mm / 2.7 in
Shape	Square
Outer Lens Material	Polycarbonate
Outer Lens Color	Clear
Housing Material	Die-Cast Aluminum
Housing Color	Black
Mounting Hardware Description	(x1) 5/16"-18 x 0.58" Mounting Bolt
Mounting Type	Universal Pedestal Mount
Minimum Operating Temperature	-40 °C / -40 °F
Maximum Operating Temperature	65 °C / 149 °F
Connector or Wiring	Integrated 2-Pin Deutsch Weather-Proof Socket (DT04-2P)
Mating Connector	2-Pin Deutsch Weather-Proof Plug (DT06-2S)
Product Weight	1.82 lbs / 0.83 kgs
Shipping Weight	1.82 lbs / 0.83 kgs

## ELECTRICAL SPECIFICATIONS

Input Voltage	12-24V DC
Operating Voltage	10-32V DC
Red Wire	Positive
Black Wire	Negative
Current Draw	3.5A @ 12V DC 1.75A @ 24V DC

## PHOTOMETRIC SPECIFICATIONS

Raw Lumen Output	3,900
Effective Lumen Output	2,400
Nominal LED Color Temperature	5700 K

## REGULATORY STANDARDS COMPLIANCE



Buy America Standards  
IEC IP69K



Eco Friendly  
UL Recognized



**Model 832**  
12 Flood 6 Trap



# Summary

- Illumination colour temperature of 5700K, Daylight at High Noon is 5500k
- CRI of 90+ reproduce the colours of various objects as "realistically" or "naturally"
- Design for industrial application
- Model 832 LED Work Lamp 5 year warranty
- Design and manufacture in USA



# CAT 990 Wheel Loader Red Zone

Safety Through Innovative Lighting Product

By **J.W. Speaker**

The Intersection of Science + Design

# CAT 990 Red Zone

- 10 Model 793 LED Red No Go Zone Lamps
- Mounted at 3m high
- 1 Model 793 to be mounted on the steering axle, can be mounted with the worklamps





Right Side View:

 Model 793

Red Zone Warning



Left Side View:

 Model 793

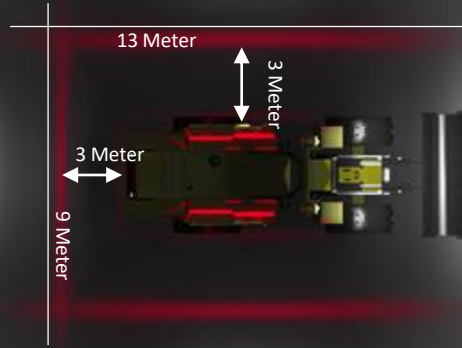
Red Zone Warning



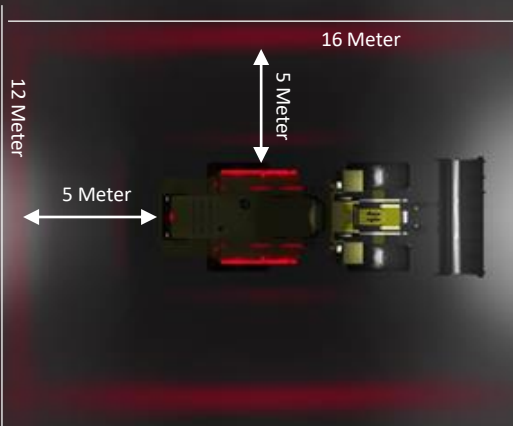
Rear View:

 Model 793

Red Zone Warning







# CAT 990 System

## PRODUCT INFORMATION

<b>Description</b>	12-36V LED Red Stripe Zone Light
<b>Height</b>	48.00 mm / 1.89 in
<b>Width</b>	150.00 mm / 5.91 in
<b>Depth</b>	63.00 mm / 2.48 in
<b>Shape</b>	Rectangular
<b>Outer Lens Material</b>	Polycarbonate
<b>Outer Lens Color</b>	Clear
<b>Housing Material</b>	Aluminum
<b>Housing Color</b>	Black
<b>Bezel Color</b>	Black
<b>Mounting Hardware Description</b>	(x1) 5/16"-18 x 1.00" Mounting Bolt Bracket
<b>Mounting Type</b>	Pedestal
<b>Minimum Operating Temperature</b>	-40 °C / -40 °F
<b>Maximum Operating Temperature</b>	65 °C / 149 °F
<b>Connector or Wiring</b>	Deutsch DT04-2P
<b>Mating Connector</b>	Deutsch DT06-2S with harness included with flying leads
<b>Product Weight</b>	0.79 lbs / 0.36 kgs
<b>Shipping Weight</b>	1.10 lbs / 0.5 kgs

## REGULATORY STANDARDS COMPLIANCE



Buy America Standards  
IEC IP67  
Tested to ECE Reg. 10  
(Radiated Emissions only)



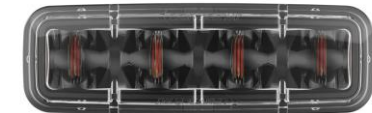
Eco Friendly  
IEC IP69K  
UL Recognized

## PHOTOMETRIC SPECIFICATIONS

<b>Raw Lumen Output</b>	1,130
<b>Effective Lumen Output</b>	317
<b>Candela Output</b>	3,150
<b>Beam Pattern(s)</b>	Warning - Keep Out Zone

## ELECTRICAL SPECIFICATIONS

<b>Input Voltage</b>	12-36V DC
<b>Operating Voltage</b>	10-45V DC
<b>Transient Spike Protection</b>	330V Peak @ 1 HZ-100 Pulses
<b>Black Wire</b>	Ground
<b>Red Wire</b>	Power
<b>Current Draw</b>	1.60A @ 12V DC 0.60A @ 24V DC 0.57A @ 36V DC



**Model 793**  
10 Red Zone

# Large Shovel with LED Scene Lighting and Red Zone in Action



# Summary

- Identify danger area around wheel loader with Red Warning Zone at night
- Increase night time Safety with easy identify the wheel loader
- Easy fitment around walkway or other trouble-free location
- Only require 10 Lamps
- Design for industrial application
- Model 793 LED Red Zone 5 year warranty
- Design and manufacture in USA



# Commitment

- J.W. Speaker are fully commit to the Safety in all mining equipment from the correct illumination and Red Zone area
- To work direct with the OEM and Industrial site to design and develop product to suit the industrial market
- All product are available worldwide through key distributions who comprehend the Industrial Market to meet all demand

*Thank you*

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