



20" Low/Mid Bay 14100 Lm Warehouse Shade Refractor



WSDDH20LX

APPLICATION

Warehouse Shade for decorative area lighting.

FEATURES

Domed Fixture Housing (DDH) features a contemporary design and is easy to maintain. Lumen Max series fixtures offer contemporary style with functional luminaire performance. All fixtures are designed and manufactured in our factory. Electronic LED Driver in canopy for thermal management. Variety of mounting options.

FINISH

Multi-stage polyester powder-coat process applied on our dedicated paint lines. Variety of standard and custom finishes are available. All exposed materials are chromate pretreated to resist corrosion. Standard Matte White interior finish on reflectors.

ELECTRONICS

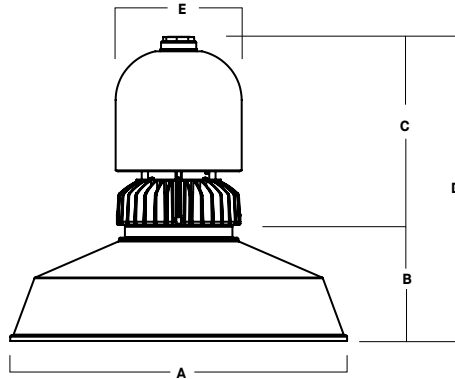
LED system features high brightness white Nichia LEDs. 3-step MacAdam Ellipse binning. Standard CRI: 80+. Higher CRI, R9 and custom LED configurations are available; consult factory. Variety of electronic 120V/277V and dimming drivers. LED module is 2 circuit with 2 drivers for multicircuit option as well as safety.

CONSTRUCTION

Fixtures are spun in our factory from 0.060" high purity aluminum. Die-cast aluminum heat sink. Reflector made of spun .060" aluminum.

CODE COMPLIANCE

BAA compliant. ETL certified to meet US and Canadian standards. Suitable for dry or damp locations. Manufactured and tested to UL standards No. 1598/8750.



A	B	C	D	E
20.0	71	10.6	177	7.5
508.0 mm	180.3 mm	269.0 mm	448.6 mm	448.6 mm

LUMENS / WATTAGE DATA			
PART NUMBER	DELIVERED LUMENS ¹	SYSTEM WATTS	LPW
WSDDH20LX65L	6631	56	118
WSDDH20LX100L	9988	81	123
WSDDH20LX130L	13099	104	126
WSDDH20LX140L	14122	112	126

¹ Nominal Delivered Lumens at 35K

SERIES	LUMENS ¹	CCT	DRIVER / DIMMING ²	SAFETY OPTIONS ³	MOUNTING ⁴	ENCLOSURE OPTIONS	OPTIONS	INTERIOR ⁹	FINISH ⁹	MOUNTING OPTION ¹¹
WSDDH20LX	65L 6650 Lm	27K 2700K	EX Electronic Driver, 120V/277V DS10X 10% 0-10V, 120V/277V DO10X 1% 0-10V, 120V/277V DO103 1%, 0-10V, 347V	FS Fusing 2CIR 2 Circuit SC1 Safety Cable	HM ₅ Hang Straight PM ₅ Rigid Pendant Mount CD ₅ Cord / Cable Mount HC _{5/8/7} Hook & Cord NM2 ^{6/7/8} 1/2" NPT Hub NM3 ^{6/7/8} 3/4" NPT Hub EM. BATTERY OPTIONS EMCR 10W Canopy Mounted EM EMRM 7W Remote EM EMEN 7W Remote with Enclosure	LENS FO White Optical Acrylic PP Prismatic Polycarbonate	SC2 Safety Cable, Refractor to Door	MWI ¹⁰ Matte White CCI Custom Color FCI Fixture Color Interior	MW ¹⁰ Matte White MB ¹⁰ Matte Black PT ¹⁰ Platinum Silver CC Custom Color	FCHMA Field Cuttable Mounting Kit for Hang Mount Fixtures
	100L 10000 Lm	30K 3000K								
	130L 13100 Lm	35K 3500K								
140L 14100 Lm	40K 4000K									

EXAMPLE: WSDDH20LX65L30KEX/HM36/FCI/MW

NOTES:
¹ Nominal Delivered Lumens at 35K ² Contact Factory for Additional Options ³ See Product Options Page For Details ⁴ See Mounting Pages for Options and Details on Components and Finishes ⁵ Specify Length in Inches, See Mounting Page for Available Lengths ⁶ Mounting Supplied by Others ⁷ Not Available with EMCR ⁸ 12" Leads Unless Specified ⁹ Reference Color Sheet Located on Product Webpage for Full List of Available Colors ¹⁰ Standard Finishes ¹¹ Field Cuttable Mounting Kit only Available with HM Stem



PROJECT: _____
 QUANTITY: _____ TYPE: _____



WAREHOUSE SHADE

DDH SERIES / FIXTURE OPTIONS

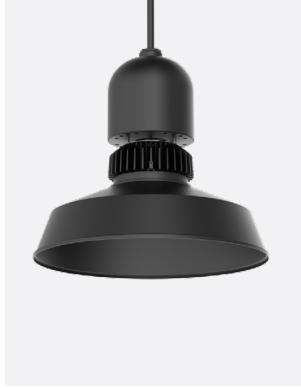


STANDARD FINISHES

MW
MATTE WHITE



MB
MATTE BLACK



PT
PLATINUM SILVER



MOUNTING TYPES

HM / PM
HANG STRAIGHT / PENDANT



WSDDH20LX SHOWN WITH PM

CD
CORD / CABLE MOUNT



WSDDH20LX SHOWN WITH CD

HC
HOOK CORD



WSDDH20LX SHOWN WITH HC



MOUNTING & ACCESSORIES

SOME OPTIONS NOT AVAILABLE ON ALL FIXTURES. CONSULT SPECIFICATION SHEETS. SEE INDIVIDUAL SPECIFICATION SHEETS OR CONSULT FACTORY FOR ADDITIONAL INFORMATION. NOTE: THIS IS TYPICAL OF RLM SPECIFICATION FOR MOUNTING. INDIVIDUAL FIXTURES OR PROJECTS MAY HAVE SPECIALIZED REQUIREMENTS.



ADDITIONS

FS - Fusing

Slow blow type fuse protects fixture against voltage surges. Factory installed.



SAFETY CABLE OPTIONS

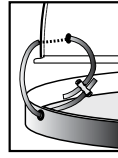
SC1 - Safety Cable

1/16" stainless steel safety cable for added support. Standard kit is 18" and double barrel locks are provided. Approved for California seismic requirements. Rated at 50 lbs.



SC2 - Safety Cable, Refractor to Door

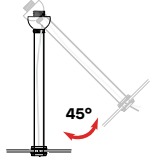
1/16" Stainless steel cable holds door to fixture



MOUNTING TYPES

HM* - Hang Straight

45° SWIVEL 5/8" OD STEM - 3/8" IP



ORDER: **HM** (Length)

SPECIFY LENGTH:

HM3 - 3" **HM24** - 24"

HM6 - 6" **HM36** - 36"

HM12 - 12" **HM48** - 48"

HM18 - 18" **HM72** - 72"

HMLC(XX)

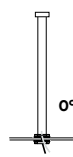
Custom Length

(Specify in Inches)

TO TRIM HM STEM IN FIELD ORDER FCHMA KIT.

PM* - Rigid Pendant Mount

RIGID 5/8" OD STEM - 3/8" IP



ORDER: **PM** (Length)

SPECIFY LENGTH:

PM3 - 3" **PM24** - 24"

PM6 - 6" **PM36** - 36"

PM12 - 12" **PM48** - 48"

PM18 - 18" **PM72** - 72"

PMLC(XX)

Custom Length

(Specify in Inches)

CD - Cord / Cable Mount

SJ CORD WITH 1/16 SS CABLE



ORDER: **CD** (Length)

SPECIFY LENGTH:

CD36 - 36"

CD72 - 72"

CD144 - 144"

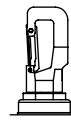
CDLC(XX)

Custom Length

(Specify in Inches)

HC - Hook & Cord

FOR INDEPENDENT MOUNTING



ORDER: **HC** (Length)

SPECIFY LENGTH:

HC36 - 36"

HC72 - 72"

HC144 - 144"

HCLC(XX)

Custom Length

(Specify in Inches)

NM2 - 1/2" NPT Hub

NM3 - 3/4" NPT Hub

FOR INDEPENDENT MOUNTING



ORDER: **NMX** (Length)

SPECIFY LENGTH:

NM2(12) - 12" Leads are

Standard

NM3(12) - 12" Leads are

Standard

NMXLC(XX)

Custom Length

(Specify in Inches)

*MAXIMUM ONE PIECE STEM LENGTH IS 72".

LONGER LENGTHS ARE POSSIBLE USING MULTIPLE STEMS AND COUPLERS.

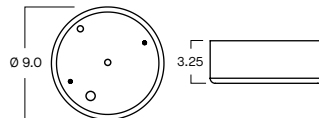
MOUNTING OPTION

FCHMA - Field Cuttable Mounting Kit For Hang Mount Fixtures



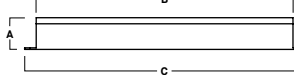
EMERGENCY BATTERY OPTIONS

EMCR - Large Driver Canopy For 10W Emergency Battery



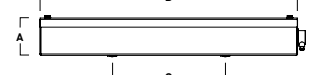
REMOTE EMERGENCY BATTERY OPTIONS

EMRM* - 7W Remote Emergency Battery (50' Max)



A	B	C
1.3	12.6	13.0

EMEN* - 7W Remote Emergency Battery with Enclosure (50' Max)



A	B	C
2.0	17.0	6.2

*OTHER EM BATTERY SIZES AVAILABLE. CONSULT FACTORY



WAREHOUSE SHADE

DDH SERIES / PHOTOMETRIC DATA



WSDDH20LEDLX-140L-35K-EX-MWI

CANDLEPOWER CURVE	INTENSITY	ZONAL LUMENS		SINGLE UNIT: PERFORMANCE INITIAL FOOTCANDLES BASED ON IES BEAM ANGLE				MULTIPLE UNITS: PERFORMANCE 80/50/20% REFLECTANCES INITIAL FOOTCANDLES AND WATTS PER SQUARE FOOT							
	CP at 0deg 0.00°	0° - 10°	583	4%	Mounting Height AFF	FC at Center on Floor	Beam Diameter	FC at Beam Edge	Ceiling Height	Fixture Spacing	RCR 2		RCR 4		
	0.00°	5,075													
	5.00°	5,094	0° - 20°	1,984	14%				22'	20' *	34	0.30	27	0.30	
	10.00°	5,104	0° - 30°	4,166	29%	10.0'	51 fc	34.3'	11 fc	26'	22' **	22	0.19	17	0.19
	15.00°	4,978	0° - 40°	6,860	48%	12.0'	35 fc	41.1'	7 fc	32'	24' ***	20	0.17	10	0.11
	20.00°	4,824	0° - 60°	12,347	87%	14.0'	26 fc	48.0'	6 fc	Delivered Illuminance Rating: (DIR)					
	30.00°	4,608	0° - 80°	14,081	99%	16.0'	20 fc	54.8'	4 fc	115 FC per W/Sq. Ft.					
	40.00°	3,989	0° - 90°	14,172	100%	20.0'	13 fc	68.5'	3 fc	90 FC per W/Sq. Ft.					
	50.00°	3,301	Total	14,172	100%	24.0'	9 fc	82.2'	2 fc	2' Suspension Length Square rooms used for multiple units: - RCR 2: Length & Width = Ceiling Ht. -6.5' x 5.00 - RCR 4: Length & Width = Ceiling Ht. - 6.5' x 2.50 * Average Footcandles at 2.5' Above Floor ** Exceeds spacing criteria by -2% *** Exceeds spacing criteria by -15%					
	60.00°	2,549				28.0'	6 fc	95.9'	1 fc	Lamp Multiplier: 65L x 0.471, 100L x 0.706, 130L x 0.93					
	70.00°	295				32.0'	5 fc	109.6'	1 fc	CCT Multiplier: 40K x 1.03, 30K x 0.979, 27K x 0.959					
	80.00°	151													
	90.00°	25													

Delivered Lumens: 14,172
Luminaire Watts: 111.89
LER: 126.66

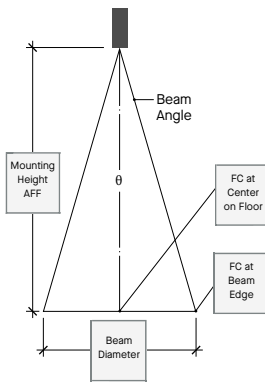
CP at 0deg (Nadir): 5,075
CRI: 85+

Beam Angle: 119.42
Spacing Ratio: 1.32

Lamp Multiplier: 65L x 0.471, 100L x 0.706, 130L x 0.93
CCT Multiplier: 40K x 1.03, 30K x 0.979, 27K x 0.959

HOW TO USE PERFORMANCE DATA

SINGLE UNIT



Cone of Light of a single, symmetrical beam luminaire. Direct initial illumination (FC) and Beam Angle diameter directly beneath fixture; shown at different distances from aperture to horizontal plane. Calculated using Inverse Square Law.

$$FC_H = CP \times (\cos \theta) \div D^2$$

$$\text{Beam Diam.} = \frac{1}{2} \text{Beam Angle (Tan)} \times 2D$$

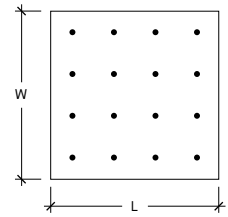
- CP Candela at 0° (Nadir)
- Cos θ Cosine of θ Angle
- D Distance (Mounting Height AFF)
- FC_H Footcandles, Horizontal
- Beam Angle Cone of light to 50% max. CP
- Beam Diam. Pattern of light at Beam Angle

MULTIPLE UNITS

Square grid layout of multiple luminaires in unfurnished, square rooms of different proportions (Room Cavity Ratios) with 80/50/20% room surface reflectances. 4' Suspension Length to aperture. Initial average illumination (FC) calculated at 2.5' above floor, using Zonal Cavity Method. W/Sq. Ft. of layout shown for each ceiling height and RCR.

Delivered Illuminance Rating (DIR®):
System performance indicator expressed as ratio of approximate initial FC per W/Sq. Ft. delivered to horizontal plane below, for the range of ceiling heights indicated.

- To estimate FC for Fixture Spacing that is different than shown (do not exceed Spacing Ratio):
 $FC = \text{Chart Spacing}^2 \div \text{Different Spacing}^2 \times \text{Chart FC}$
- To estimate Sq. Ft. per fixture for a specific target FC:
 $\text{Sq. Ft.} / \text{Fixture} = \text{Chart FC} \times \text{Chart Spacing}^2 \div \text{Target FC}$



- To estimate Fixture Quantity in a room:
 $\text{Fixture Qty.} = \text{Sq. Ft. of Rm.} \div \text{Sq. Ft. per fixture}$
- To estimate Watts/Sq. Ft.:
 $\text{W/ Sq. Ft.} = \text{Luminaire Watts} \times \text{Qty.} \div \text{Sq. Ft. of Rm.}$

