16" Low/Mid/High Bay 12800 Lm

Wide Distribution

LUMEN MAX HIGH BAY LUMINAIRES

PR1605LX

APPLICATION

16" Lumen Max LX Series high bay for wide area lighting in retail, gymnasiums, and open office areas.

FEATURES

PR1605LX single-stage optical system features smooth wide distribution. LED module and driver designed for ease of maintenance and replacement. Variety of mounting methods. Emergency battery backup option. Optional Safety Cable. See PR2405 and PR3005 for 24" and 30" options.

FINISH

Multi-stage polyester powder-coat process applied by our dedicated paint lines. A wide variety of standard and custom finishes are available. All exposed materials are chromate pretreated to resist corrosion.

ELECTRONICS

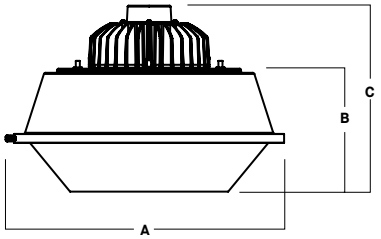
LED module features high brightness white Nichia LEDs. 3-step MacAdam Ellipse binning and CRI 80 minimum. Higher CRI, R9 and custom LED configurations are available; consult factory. Variety of electronic 120V/277V and dimming devices. Dual voltage 120V/277V drivers standard. LED module is 2 circuit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

CONSTRUCTION

Housing constructed of spun and formed aluminum to resist corrosion. Die-cast aluminum heat sink. Graphite gasket for optimal thermal management. Refractor made of cast UV stabilized acrylic.

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
16.4 416.6 mm	7.5 190.5 mm	11.0 279.4 mm

LUMENS / WATTAGE DATA			
PART NUMBER	DELIVERED LUMENS[1]	SYSTEM WATTS	LPW
PR1605LX65L	6018	56.2	107
PR1605LX100L	9020	81.1	111
PR1605LX130L	11882	103.9	114
PR1605LX140L	12777	109.1	117

1 Nominal Delivered Lumens 35K at 80 CRI

SERIES	LUMENS[1]		CCT		DRIVER / DIMMING[2]		OPTIONS[3]		MOUNTING[4]		FINISH[7]		MOUNTING OPTION[9]	
PR1605LX	65L	6000 Lm	27K	2700K	EX	Electronic Driver, 120V/277V	FS	Fusing	CP113[5]	Driver Compartment with Leads	MW[8]	Matte White	FCHMA	Field Cuttable Mounting Kit for Hang Mount Fixtures
	100L	9000 Lm	30K	3000K	DS10X	10% 0-10V, 120V/277V	WG16	16" Wire Guard	HM_[6]	Hang-Straight	MB[8]	Matte Black		
	130L	11900 Lm	35K	3500K	DO10X	1% 0-10V, 120V/277V	SC1	Safety Cable	PM_[6]	Rigid Pendant Mount	PT[8]	Platinum Silver		
	140L	12800 Lm	40K	4000K	DO103	1% 0-10V, 347V			CD3X_[6]	3 Cable Mount with Cord	CC	Custom Color		
									EMERGENCY BATTERY OPTIONS					
									EMRM	7W Remote EM				
									EMEN	7W Remote with Enclosure				

EXAMPLE: PR1605LX130L35KEX/CP113CD3×36/MW

NOTES:
1 Nominal Delivered Lumens 35K at 80 CRI **2** Contact Factory for Additional Options **3** See Product Options Page for Details **4** See Mounting Page for Details on Components and Finishes **5** CP113 Required **6** Specify Length in Inches: See Mounting Page for Available Lengths **7** Reference Color Sheet Located on Product Webpage for Full List of Available Colors **8** Standard Finishes **9** Field Cuttable Mounting Kit only Available with HM Stem

Spectrum Lighting

PROJECT:

QUANTITY: TYPE:

16" PRISMATIC DISC

DISCO SERIES / FIXTURE OPTIONS

LUMEN MAX
HIGH BAY LUMINAIRES

STANDARD FINISHES

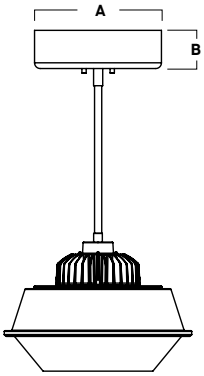
MW
MATTE WHITE

MB
MATTE BLACK

PT
PLATINUM SILVER

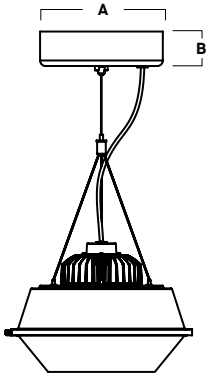
MOUNTING TYPES

HM / PM
HANG STRAIGHT / PENDANT



A	B
11.1 281.9 mm	3.3 84.8 mm

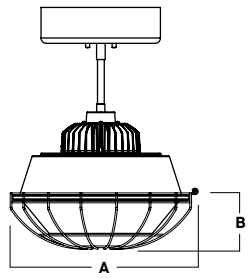
CD3X
3X CORD / CABLE MOUNT



A	B
11.1 281.9 mm	3.3 84.8 mm

ACCESSORIES

WG16
WIRE GUARD



A	B
17.2 436.9 mm	5.5 139.7 mm

Spectrum Lighting

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.

LUMEN MAX
HIGH BAY LUMINAIRES

ADDITIONS

FS - Fusing

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

SAFETY CABLE OPTIONS

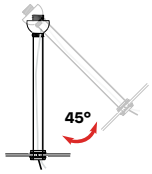
SC1 - Safety Cable

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.

MOUNTING TYPES

HM* - Hang Straight

45° SWIVEL 5/8" OD STEM - 3/8" IP



ORDER: **HM** (Length)
SPECIFY LENGTH:

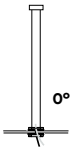
HM3 - 3"	**HM24 -** 24"
HM6 - 6"	**HM36 -** 36"
HM12 - 12"	**HM48 -** 48"
HM18 - 18"	**HM72 -** 72"

HMLC(XX)
Custom Length
(Specify in Inches)

TO TRIM HM STEM IN FIELD ORDER FCHMA KIT.

PM* - Ridgid Pendant Mount

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



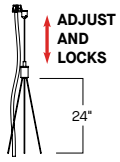
ORDER: **PM** (Length)
SPECIFY LENGTH:

PM3 - 3"	**PM24 -** 24"
PM6 - 6"	**PM36 -** 36"
PM12 - 12"	**PM48 -** 48"
PM18 - 18"	**PM72 -** 72"

PMLC(XX)
Custom Length
(Specify in Inches)

CD3X - Cord / Cable Mount

SJ CORD WITH 1/16 SS CABLE



ORDER: **CDX3** (Length)
SPECIFY LENGTH:
CD3×36 - 36"
CD3×72 - 72"
CD3×144 - 144"
CDLC3X(XX)
Custom Length
(Specify in Inches)

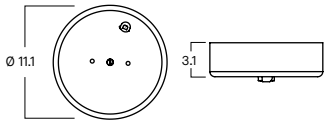
*MAXIMUM ONE PIECE STEM LENGTH IS 72".
LONGER LENGTHS ARE POSSIBLE USING MULTIPLE STEMS AND COUPLERS.

MOUNTING OPTION

FCHMA - Field Cuttable Mounting Kit For Hang Mount Fixtures

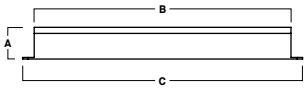
CEILING MOUNT CANOPY

CP113 - Driver Compartment with Leads (REQUIRED)



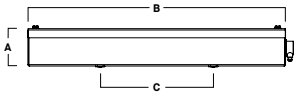
REMOTE EMERGENCY BATTERY OPTIONS

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

Spectrum Lighting

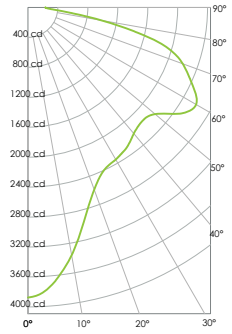
16" PRISMATIC DISC

DISCO SERIES / PHOTOMETRIC DATA

LUMEN MAX HIGH BAY LUMINAIRES

PR1605LX140L35KEX

CANDLEPOWER CURVE



Delivered Lumens: 12,774
Luminaire Watts: 109.1
LER: 117.09

INTENSITY

	0.00°
0.00°	3,875
5.00°	3,716
10.00°	3,363
15.00°	2,929
20.00°	2,589
30.00°	2,346
40.00°	2,200
50.00°	2,217
60.00°	2,595
70.00°	2,200
80.00°	998
90.00°	231

CP at 0deg (Nadir): 3,875
CRI: 80

ZONAL LUMENS

0° - 10°	347	3%
0° - 20°	1,166	9%
0° - 30°	2,286	18%
0° - 40°	3,724	29%
0° - 60°	7,631	60%
0° - 80°	11,861	93%
0° - 90°	12,366	97%
Total	12,774	100%

SINGLE UNIT: PERFORMANCE
INITIAL FOOTCANDLES
BASED ON IES BEAM ANGLE

Mounting Height AFF	FC at Center on Floor	Beam Diameter	FC at Beam Edge
10.0 '	39 fc	68.1 '	-10 fc
12.0 '	27 fc	81.7 '	-7 fc
14.0 '	20 fc	95.3 '	-5 fc
16.0 '	15 fc	108.9 '	-4 fc
20.0 '	10 fc	136.2 '	-3 fc
24.0 '	7 fc	163.4 '	-2 fc
28.0 '	5 fc	190.6 '	-1 fc
32.0 '	4 fc	217.9 '	-1 fc

Beam Angle: 147.42
Spacing Ratio: 0.83

MULTIPLE UNITS: PERFORMANCE
80/50/20% REFLECTANCES
INITIAL FOOTCANDLES AND WATTS PER SQUARE FOOT

Ceiling Height	Fixture Spacing	RCR 2		RCR 4	
		FC +	W/Sq. Ft.	FC +	W/Sq. Ft.
22'	12' *	61	0.65	45	0.65
26'	14' **	52	0.56	29	0.41
32'	16' ***	40	0.43	30	0.43
Delivered Illuminance Rating: (DIR)		93 FC per W/Sq. Ft.		69 FC per W/Sq. Ft.	

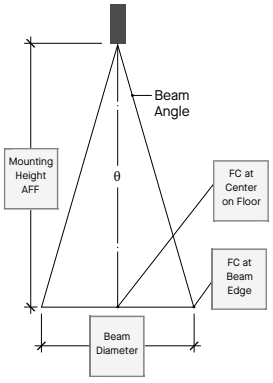
2' Suspension Length
Square rooms used for multiple units:
- RCR 2: Length & Width = Ceiling Ht. -6.5' x 5.00
- RCR 4: Length & Width = Ceiling Ht. - 6.5' x 2.50

\+ Average Footcandles at 2.5' Above Floor
* Exceeds spacing criteria by -7%
** Exceeds spacing criteria by -14%
*** Exceeds spacing criteria by -24%

Lamp Multiplier: 65L x 0.47, 100L x 0.71, 130L x 0.93
CCT Multiplier: 27K x 0.47, 30K x 0.45, 35K x 0.41, 40K x 0.39

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.

$FC_H = CP \times (\text{Cos } \theta) \div D^2$

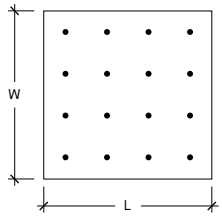
Beam Diam. = ½ Beam Angle (Tan) x 2D

- 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 = Chart Spacing^2 ÷ Different Spacing^2 x Chart FC
- To estimate Sq. Ft. per fixture for a specific target FC:
  Sq. Ft. / Fixture = Chart FC x Chart Spacing^2 ÷ Target FC
- To estimate Fixture Quantity in a room:
  Fixture Qty. = Sq. Ft. of Rm. ÷ Sq. Ft. per fixture
- To estimate Watts/Sq. Ft.:
  W/ Sq. Ft. = Luminaire Watts x Qty. ÷ Sq. Ft. of Rm.

Spectrum Lighting