MEDIUS LED

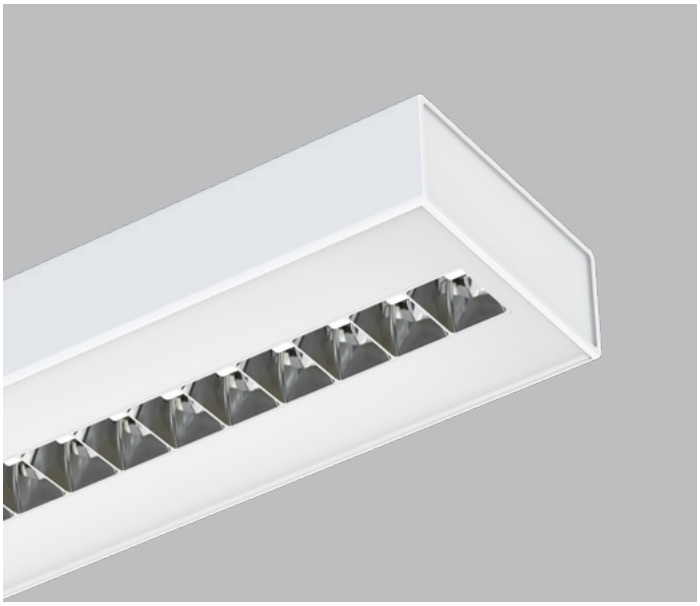
PENDANT DIRECT

5 YEARS WARRANTY

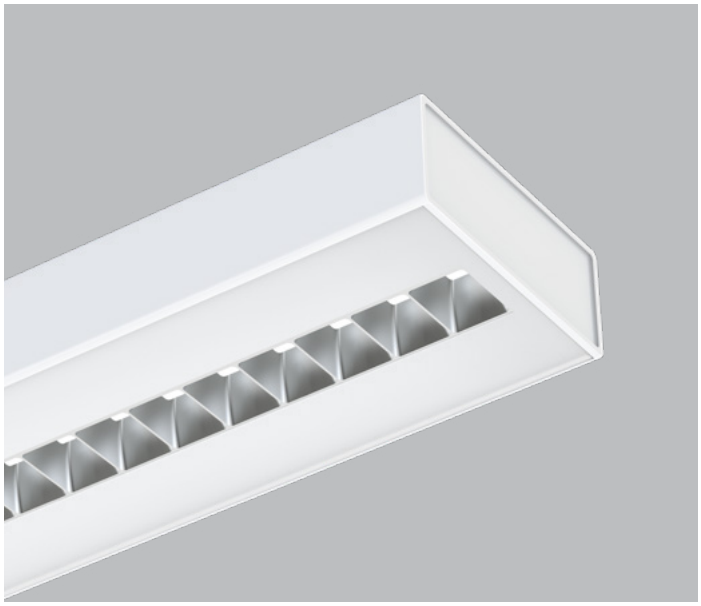
LUMENWERX
WWW.LUMENWERX.COM

DESCRIPTION

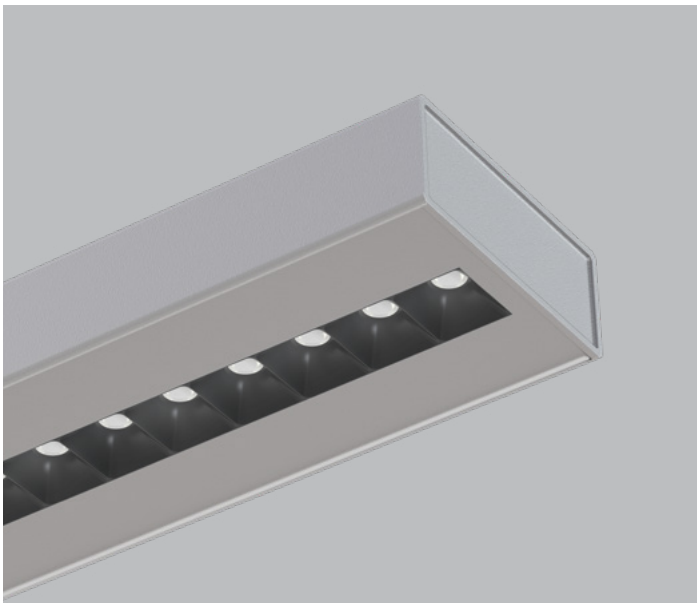
Within its compact 1 15/16" x 4 ¾" profile, Medius supports a choice of outstanding optics for high performance direct lighting. The result is excellent visual comfort with UGR better than 16, smooth ceiling uniformity, and efficacy up to 134 LPW. A new sliding cable arrangement simplifies installation in existing spaces. Medius configures as individual luminaires or continuous runs and features the full range of electrical and control options. Medius offers ChromaWerx for tunable white applications (see separate specification sheet).



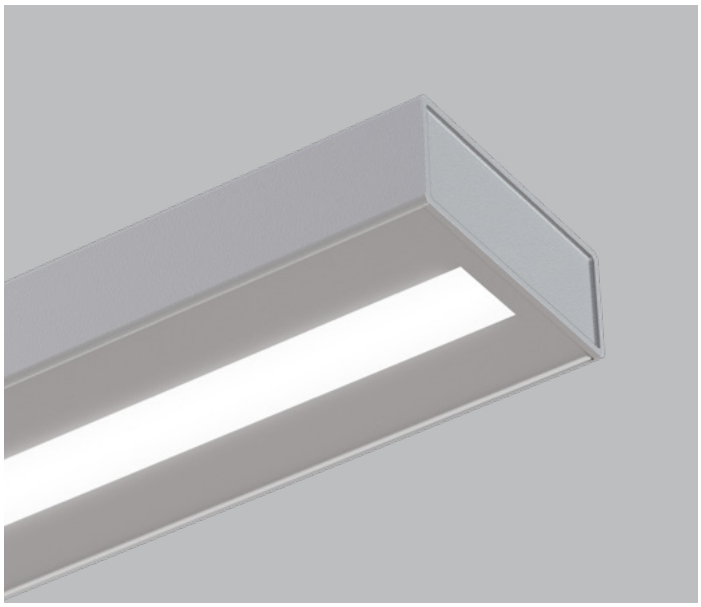
SPL - Specular parabolic louver



MPL - Matte parabolic louver



MRO - Miniature Reflector Optics



HLO - High-Efficiency Lambertian Optic

MEDIUS LED

PENDANT DIRECT

LUMENWERX
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PROJECT: _____
TYPE: _____
NOTES: _____

ORDER GUIDE

up to 134 lm/w performance

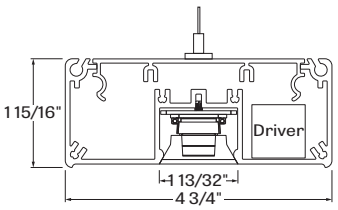
MEDD			LED	
LUMINAIRE ID	**OPTICS**	**MRO COLOR**	**LIGHT SOURCE**	**CRI**
MEDD - Medius pendant direct	**MRO18** - 18 degrees miniature reflector optics **MRO35** - 35 degree miniature reflector optics **MRO55** - 55 degree miniature reflector optics **SPL** - Specular parabolic louver **MPL** - Matte parabolic louver **HLO** - High-Efficiency Lambertian Optic	**W** - White **B** - Black **NA** - Not applicable	**LED** - high performance LED	**80** - 80CRI **90** - 90CRI

LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER
350 - min. eco low output 350lm/ft **500** - low output 500lm/ft **750** - medium output 750lm/ft **1000** - max. high output 1000lm/ft **####** - other required lm/ft	**27** - 2700k **30** - 3000k **35** - 3500k **40** - 4000k	Standard sections - 4', 8' & 12' For all other specify length **#FT** - nominal length in feet only Continuous Run - for luminaires over 12' Minimum Individual section 4'	**120** - 120V **277** - 277V **UNV** - 120V-277V **347** - 347V (not available with Lutron)	**D1** - 1% dimming 0-10V **DA** - Dali **LTEA2W** - Lutron 1% - 2 wire FF 120V **LDE1** - Lutron Hi-lume 1% Eco **LDE5** - Lutron 5% EcoSystem

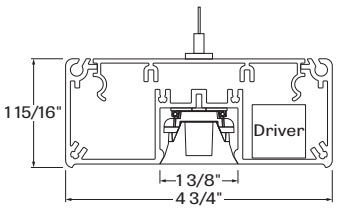
ELECTRICAL	MOUNTING	FINISH	CONTROLS	OPTIONS
1 - 1 circuit **+#EB** - emergency battery (min 8' fixture, except Lutron) **+#EM** - emergency light circuit **+#NL** - night light circuit	**53WAC36** - Fixed cables suspenion power 5" + non power 3" white canopy (36" air craft cable) **SC53WAC36** - Sliding cables suspenion , power 5" + non power 3" white canopy (36" air craft cable) **55WSW18** - power 5" + non power 5" white canopy & stem (18" stem) For all other options refer to our Pendant Mounting Guide	**W** - matte white **AL** - aluminum **CF#** - custom finish specify RAL#	STANDALONE CONTROLS **OMS** - Onboard Occupancy **ODS** - Onboard Daylight **OCS** - Onboard Occupancy & Daylight CONNECTED CONTROLS **CCS()** - **LU**-Lutron, **EN**-Enlighted, **OS**-Osram, **CR**-Crestron. To specify see information on page 4	**FU** - fuse **TB#** - T-bar caddy clip specify grid size **TG#** - Tegular caddy clip specify grid size **ST** - Screw Slots caddy clip **CU** - custom

See page 2 for ordering code detailed information

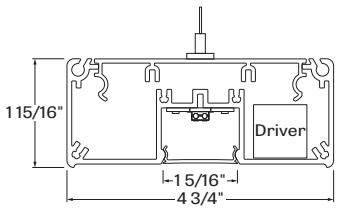
CROSS SECTION



MEDD - MRO
Miniature reflector optics



MEDD - SPL & MPL
Specular & Matte parabolic louver



MEDD - HLO
High Efficiency Lambertian Optic

OPTICS

Parabolic Louvers (SPL and MPL)

Parabolic louvers provide excellent shielding and a pleasing crisp visual texture. The precisely molded louvers consist of 1" deep blades and side reflectors with shielding of 50° lengthwise and 45° cross wise. Precise brightness control provides excellent UGR and satisfies the recommendations of ANSI IES RP1-12 for intensive VDT viewing with practical spacing criteria of 1.1. Choose from Specular (SPL) or Matte (MPL) louver finish.

MINIATURE REFLECTOR OPTICS (MRO) locates individual, precisely molded TIR elements over each LED emitter, and further shield the source with precise parabolic reflectors. The controlled beam is remarkably comfortable – especially in a small LED luminaire.

MRO is available in a specular black or gloss white finish and creates a distinctive visual texture. Different TIR elements offer a choice of beam spreads: narrow (18° with SC of 0.3), medium (35° with SC of 0.6), and wide (55° with SC of 0.9). These concentrated distributions can provide effective task illumination in a variety of applications.

Each MRO module is 6" long with five optical chambers.

HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO)

The High-Efficiency Lambertian Optic (HLO) shielding of diffusing 0.075" thick acrylic with up to 88% transmission and good source obscuration is combined with matte white side reflectors to create an efficient optical chamber with uniform luminosity. Luminaire brightness is controlled by the flux-to-shielding area ratio. For visual comfort, avoid high lumen output unless Medius is installed in a high ceiling application. Spacing criteria: 1.2 (longitudinal) x 1.1 (lateral).

LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE PER 4' AT 4000K

MRO - 35 DEGREES

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
eco low output	4000K	10.5	1400	134
low output	4000K	15.5	2000	128
medium output	4000K	25	3000	120
high output	4000K	35.5	4000	113

SPL

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
eco low output	4000K	11.5	1400	121
low output	4000K	17	2000	117
medium output	4000K	26.5	3000	113
high output	4000K	36.5	4000	109

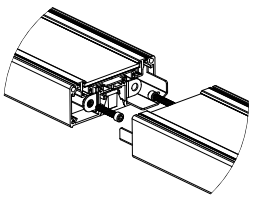
MPL

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
eco low output	4000K	12.5	1400	110
low output	4000K	18.5	2000	107
medium output	4000K	29	3000	103
high output	4000K	40.5	4000	99

LUMINAIRE LENGTH

Medius is made up of standard 4, 8 and 12 foot sections that may be joined together to create longer continuous run lengths. Nominal run length must be noted in the product code. The minimum individual section available is 4 foot.

All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.



joining system for Medius Direct

ELECTRICAL

Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Dimmable from 100% to 1% with 0-10V dimming control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency>84%, PF>0.9, THD<20%. Other specifiable options include Lutron Hi-Lume 1% (specify 2-wire, or Ecosystem Dim-to-Off), Lutron 5-Series (5% Ecosystem), DMX (RDM compatible) and DALI protocol drivers. All of our standard 0-10V drivers are NEMA 410 compliant.

Access: Driver is accessible for field service by removing the uplight LED and light guide cartridge

EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

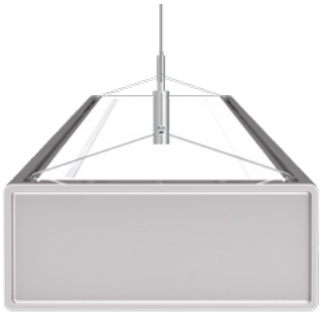
MOUNTING OPTIONS

Fixtures can be pendant-mounted, using aircraft cables, or stem-mounted. Unless otherwise specified, LumenWerx provides the following hardware:

Fixed Cable Suspension: aircraft cable mounts at luminaire ends or between modules in continuous runs and is secured by Griplock fastener for leveling.

53WAC36 - Fixed Cables suspensions

Sliding Cable Suspension: Two-part cable assembly slides horizontally for flexible mounting. Griplock fastener secures and levels suspension.



HS53WAC36 - Sliding Cables suspensions

For cable-mounted fixtures - 53WAC36 (5" white canopy for all power mounting point, 3" white canopy for non power mounting point, and a 36" cable)

For stem mounted fixtures - 55WSW18 (5" white canopy for all power mounting point, and non power mounting point, and a 18" white stem)

Caddy clips, if required specify under **OPTIONS**

For all other options, see our website for a detailed Pendant Mounting Guide

FINISH

Interior - 95%, reflective matte powder coated white paint

Exterior - matte white, matte black or aluminum powder coating

Side reflector - high reflective white coating

Custom finishes are also available.

CONTROLS

LumenWerx offers several options for integrating occupancy and daylight harvesting controls in our luminaires.

STANDALONE CONTROLS

An integrated standalone sensor controls the luminaire in which it is installed. Depending on the length, more than one sensor may be necessary and may control the entire luminaire, or just a section of it. These controls operate independently. Unless otherwise agreed, location and functionality of the sensor within the luminaire are selected by LumenWerx.

Three types are available:

OMS: An integral Passive InfraRed (PIR) sensor turns luminaires on and off automatically with field-adjustable time out period. No wall control is used. Coverage pattern for large motion has a 12' diameter with the sensor mounted 8' above the floor; for small motion, the pattern has an 8' diameter. Typically, one sensor is required for every 10' of a continuous luminaire run.

ODS: An integral, daylight harvesting sensor with closed-loop operation dims the luminaire in which it is installed in order to compensate for available daylight. The sensor measures the combination of daylight and luminaire light reflected from horizontal surfaces below the luminaire. Initial onsite calibration is required via the use of provided remote control.

OCS: Both an occupancy and a daylight sensor are installed in the luminaire.

CONNECTED CONTROLS

With Connected Controls, sensors or nodes installed in the luminaire form part of a larger control system infrastructure from manufacturers such as: Lutron*, Enlighted, Osram ENCELIUM, Acuity nLight, Crestron and others. These connected controls allow for a scalable system providing features like occupancy and daylight control, manual control, scheduling and configuration of various zones and scenes. Energy reporting and system monitoring are also possible. Specific capabilities depend on the control system being used.

LumenWerx installs the components (sensors, nodes, power packs, etc) which may be supplied to us by a third party, or procured directly by LumenWerx, depending on the control system manufacturer.

LumenWerx is solely responsible for the installation of specified components; the controls manufacturer is responsible for performance of the control system.

To indicate a LumenWerx luminaire with Connected Controls, identify the specific onsite control system to be integrated into the luminaires using the ordering code. Due to the diversity of components, you must contact controls@lumenwerx.com to assure complete compatibility with intended control system and to fully specify the luminaire.

Complete control specifications, sensor/node/power pack layout, and narrative for the control system are required for LumenWerx to create shop drawings and submittals.

* Lumenwerx offers a Lutron Vive-Enabled fixture option using either the DFCSJ-OEM-OCC (OCS Option) or DFCSJ-OEM-RF (wireless only, no sensor) Integral Fixture Modules and a DALI or EcoSystem LED driver based on customer dimming requirements.

Please contact our controls department at controls@lumenwerx.com for further assistance.

CONSTRUCTION

Housing - Extruded aluminum 0.085" nominal, matte white or aluminum powder coating

Custom finishes are also available.

End cap - Die cast Aluminum (0.95" nominal)

Joiners - Die cast Aluminum (0.95" nominal)

Reflectors - High reflective white coated bent aluminum

MRO - Injection Molded Optical Grade Polycarbonate (0.100" nominal) up to 95% reflective

Parabolic louvers - Injection Molded Optical Grade Polycarbonate Vacuum Metalized, up to 95% reflective

Hanger - Chromed Griplock securely attached in end caps and/or joiners with a hex nut

Air craft cable suspension - Fixed 7x7 braids Aluminum air craft cable 0.06" thick Cable Suspension: aircraft cable mounts at luminaire ends or between modules in continuous runs and is secured by Griplock fastener for leveling.

Sliding Cable Suspension - Two-part cable assembly slides horizontally for flexible mounting. Griplock fastener secures and levels suspension.

Stem - 0.5" diameter threaded steel tube matte white or aluminum powder coating. Custom finishes are also available

WEIGHT

Medius 4 ft - 8.16 lbs, 3.7kg

Medius 8 ft - 15.09 lbs, 6.9kg

Medius 12 ft - 22.02 lbs, 10kg

CERTIFICATIONS

ETL - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

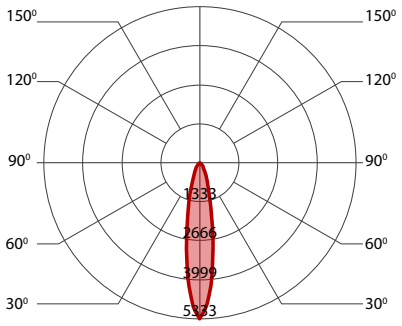
WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

Intertek

PERFORMANCE WITH MINIATURE REFLECTOR OPTICS (MRO) 18 DEGREES

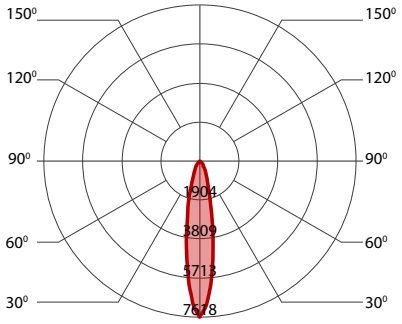
350 LUMEN AT 80CRI - ECO LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
eco low output	3000K	10.5	1400	132
eco low output	3500K	10.5	1400	132
eco low output	4000K	10.5	1400	134

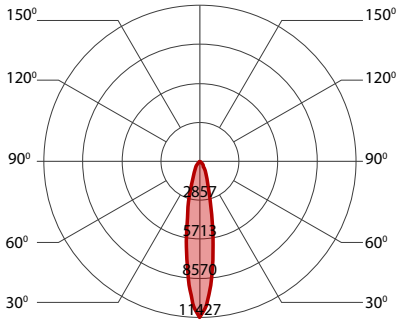
500 LUMEN AT 80CRI - LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	16	2000	126
low output	3500K	16	2000	126
low output	4000K	15.5	2000	128

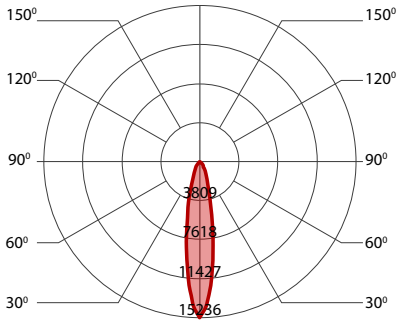
750 LUMEN AT 80CRI - MEDIUM OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	25.5	3000	118
medium output	3500K	25.5	3000	118
medium output	4000K	25	3000	120

1000 LUMEN AT 80CRI - HIGH OUTPUT

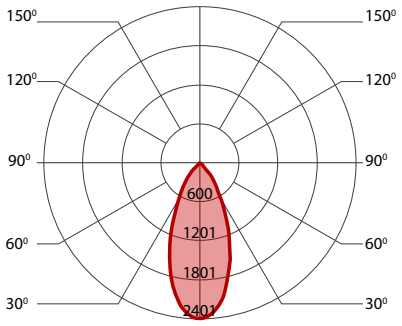


PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	36	4000	111
high output	3500K	36	4000	111
high output	4000K	35.5	4000	113

PERFORMANCE WITH MINIATURE REFLECTOR OPTICS (MRO) 35 DEGREES

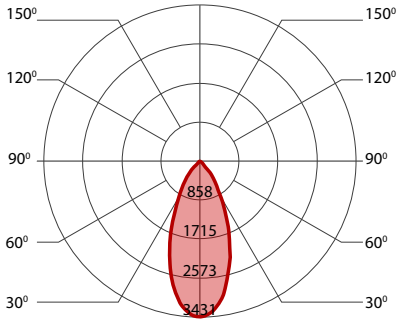
350 LUMEN AT 80CRI - ECO LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
eco low output	3000K	11	1400	127
eco low output	3500K	11	1400	127
eco low output	4000K	11	1400	129

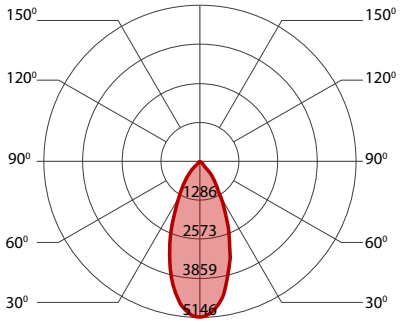
500 LUMEN AT 80CRI - LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	16.5	2000	122
low output	3500K	16.5	2000	122
low output	4000K	16	2000	124

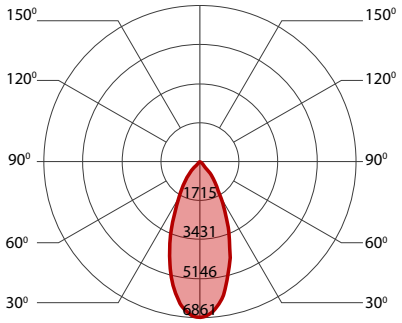
750 LUMEN AT 80CRI - MEDIUM OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	26.5	3000	114
medium output	3500K	26.5	3000	114
medium output	4000K	26	3000	116

1000 LUMEN AT 80CRI - HIGH OUTPUT

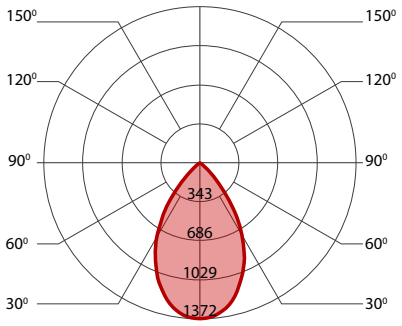


PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	37.5	4000	107
high output	3500K	37.5	4000	107
high output	4000K	36.5	4000	109

PERFORMANCE WITH MINIATURE REFLECTOR OPTICS (MRO) 55 DEGREES

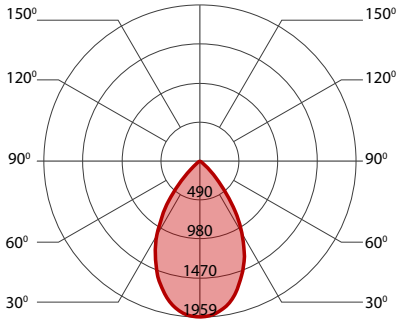
350 LUMEN AT 80CRI - ECO LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
eco low output	3000K	12	1400	116
eco low output	3500K	12	1400	116
eco low output	4000K	12	1400	117

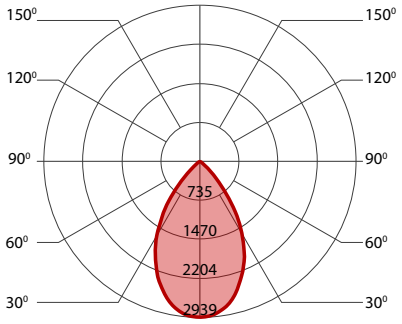
500 LUMEN AT 80CRI - LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	18	2000	111
low output	3500K	18	2000	111
low output	4000K	18	2000	112

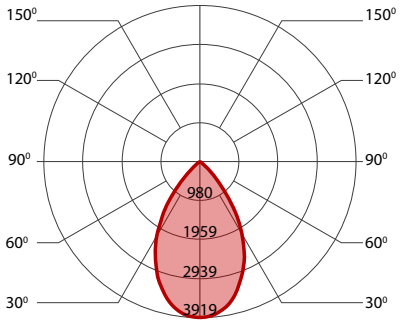
750 LUMEN AT 80CRI - MEDIUM OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	29	3000	103
medium output	3500K	29	3000	103
medium output	4000K	28.5	3000	105

1000 LUMEN AT 80CRI - HIGH OUTPUT

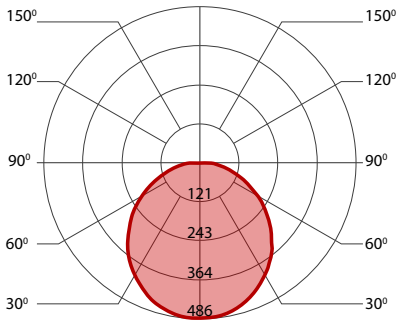


PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	42	4000	95
high output	3500K	42	4000	95
high output	4000K	41	4000	97

PERFORMANCE WITH HIGH-EFFICIENCY LAMBERTIAN OPTIC (HLO)

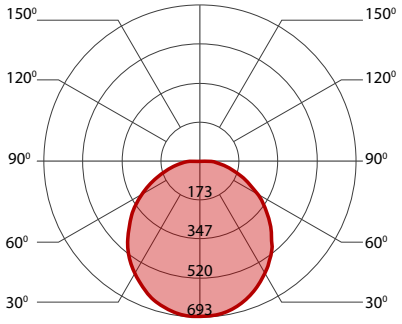
350 LUMEN AT 80CRI - ECO LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
eco low output	3000K	12.5	1400	113
eco low output	3500K	12	1400	115
eco low output	4000K	12	1400	119

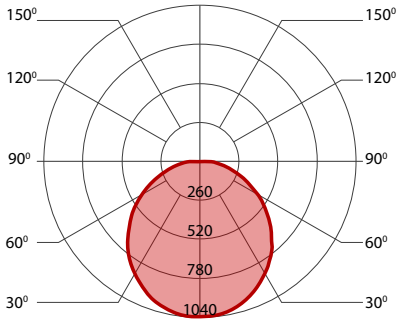
500 LUMEN AT 80CRI - LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	18	2000	110
low output	3500K	18	2000	111
low output	4000K	17.5	2000	115

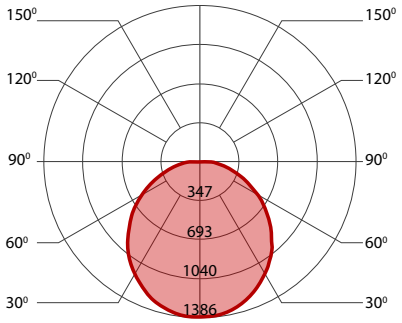
750 LUMEN AT 80CRI - MEDIUM OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	28	3000	107
medium output	3500K	27.5	3000	109
medium output	4000K	27	3000	112

1000 LUMEN AT 80CRI - HIGH OUTPUT

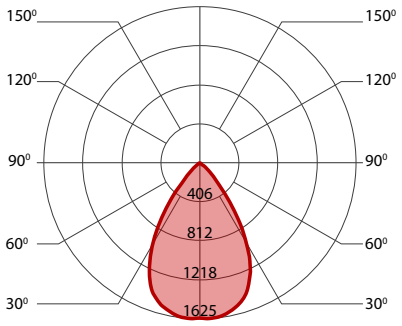


PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	38	4000	105
high output	3500K	37.5	4000	106
high output	4000K	36.5	4000	110

PERFORMANCE WITH SPECULAR PARABOLIC LOUVER (SPL)

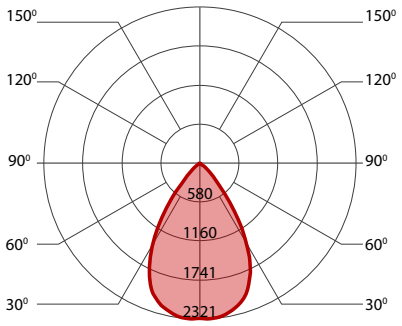
350 LUMEN AT 80CRI - ECO LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
eco low output	3000K	12	1400	119
eco low output	3500K	12	1400	119
eco low output	4000K	11.5	1400	121

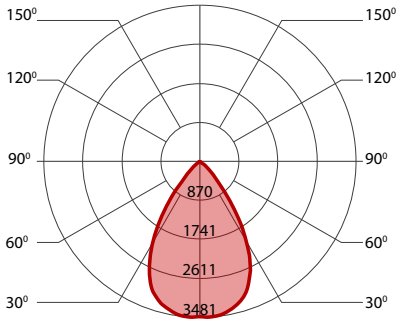
500 LUMEN AT 80CRI - LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	17.5	2000	115
low output	3500K	17.5	2000	115
low output	4000K	17	2000	117

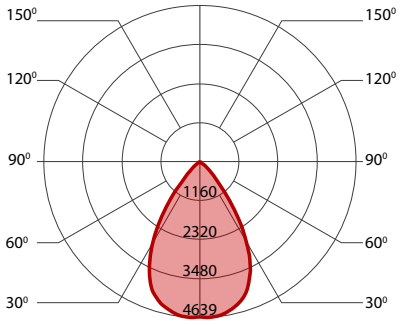
750 LUMEN AT 80CRI - MEDIUM OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	27	3000	111
medium output	3500K	27	3000	111
medium output	4000K	26.5	3000	113

1000 LUMEN AT 80CRI - HIGH OUTPUT

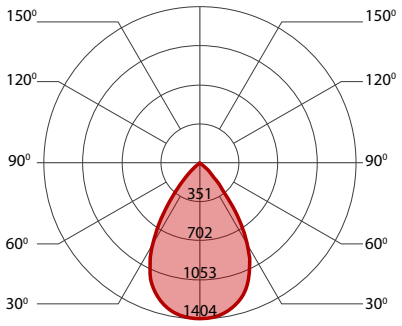


PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	37.5	4000	107
high output	3500K	37.5	4000	107
high output	4000K	36.5	4000	109

PERFORMANCE WITH MATTE PARABOLIC LOUVER (MPL)

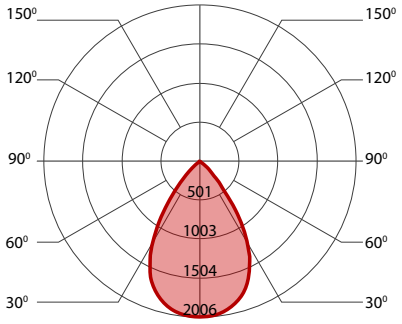
350 LUMEN AT 80CRI - ECO LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
eco low output	3000K	13	1400	108
eco low output	3500K	13	1400	108
eco low output	4000K	12.5	1400	110

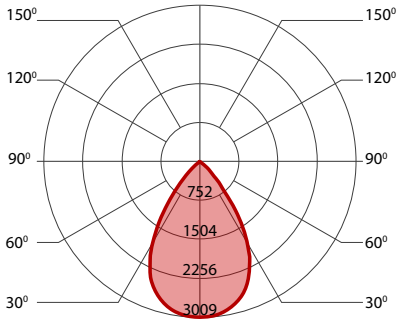
500 LUMEN AT 80CRI - LOW OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	19	2000	105
low output	3500K	19	2000	105
low output	4000K	18.5	2000	107

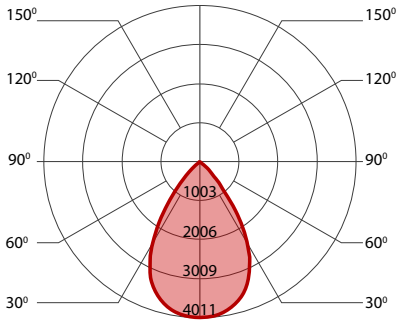
750 LUMEN AT 80CRI - MEDIUM OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	29.5	3000	101
medium output	3500K	29.5	3000	101
medium output	4000K	29	3000	103

1000 LUMEN AT 80CRI - HIGH OUTPUT



PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	41	4000	98
high output	3500K	41	4000	98
high output	4000K	40.5	4000	99