# JUNO

Contact/Phone:

# MINI LED DOWNLIGHT

LOW VOLTAG
MD1LWG2 RECESSED HOUSING AND TRIM
OUTDOOR/WET LOCATION

#### PRODUCT DESCRIPTION

The MD1LW mini LED recessed downlight is for use in wet locations and is IC rated for insulated or non-insulated applications • Sleek, compact form factor provides direct accent lighting with low glare optic system that approximates the light output and distribution of 20W halogen lamps • Ideal for both residential and commercial wet location applications including bathrooms and eave lighting • Remote mount Class 2 120V to 12V AC electronic or magnetic transformer required • Designed to provide 50,000 hours of life • 5 year limited warranty on LED components.

# **ENVIRONMENTALLY FRIENDLY, ENERGY EFFICIENT**

- No harmful ultraviolet or infrared wavelengths
- No lead or mercury
- Comparable light output to 20W MR11 halogen lamps while consuming 5W

#### PRODUCT SPECIFICATIONS

**LED Light Engine** High performance, low power LEDs provide outstanding reliability, performance and color quality/consistency

- 2700K, 3000K, 3500K or 4100K color temperatures available
- 80 or 90 CRI minimum.

Optical System Fixtures are offered with a choice of spot, narrow flood or flood beam patterns • LED source concealed with lensed optic is deeply regressed into an internal reflector to produce a low glare system

- Reflectors finished to match trim ring color for uniform appearance
- Field replacement of optical lenses is NOT recommended.

Transformer Requires remote mount Class 2, 120V to 12V AC electronic or magnetic transformer for operation • Juno TL602E electronic transformer and TL576 magnetic transformer are designed specifically for use with these fixtures.

**Dimming** May be dimmed with dimmers tested and qualified by Juno for use with <u>TL602E</u> and <u>TL576</u> – see transformer specifications for compatible dimmers • Color temperature remains constant over dimming range • Consult factory for additional information.

**Life** Rated for 50,000 hours at 70% lumen maintenance.

Labels UL Listed for wet locations and daisy chaining • Union made • UL and cUL listed • RoHS compliant.

**Testing** All reports are based on published industry procedures; field performance may differ from laboratory performance.

Product specifications subject to change without notice.

### **HOUSING FEATURES**

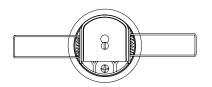
Housing Designed for use in IC (insulated ceiling) or non-IC construction • Die cast aluminum housing • Finished with either corrosion resistant painted finishes or E-coat for decorative plated finishes.

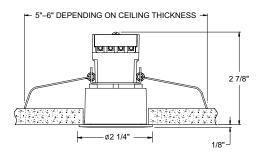
Wiring Compartment Provided with removable access plate • Four pole terminal block allows for quick, secure connection • UL /cUL listed for daisy chaining • Easy to wire with commonly available low voltage cable (Type CL2 or NEC equivalent, 18-12 AWG). Consult local codes for compliant wiring methods.

Mounting Zinc plated torsion clips are provided fully assembled to housing • Springs allow for fast, secure installation or removal in mounting surfaces from 1/8" to 1" thick material • 2" Cutout dimension corresponds to common hole saw size.



#### **DIMENSIONS**





2" CUTOUT

### **ELECTRICAL DATA**

Input Voltage	12VAC
Input Power	4.8W
Input Current	0.42A
Frequency	Varies with Transformer

### **ORDERING INFORMATION:**

Example: MD1LWG2-27K-FL-WH

Fixture						
Catalog No.	Col	or Temp./CRI		Optic		Finish
	-		-		-	
MD1LWG2	27K	2700K-80CRI	SP	Spot	WH	White
	3K	3000K-80CRI	NFL	Narrow	BL	Black
	35K	3500K-80CRI		Flood	SN	Satin
	41K	4100K-80CRI	FL	Flood		Nickel
	927	2700K-90CRI			ΒZ	Bronze
	930	3000K-90CRI				
	935	3500K-90CRI				
	940	4000K-90CRI				

### Transformer

White	10W 12V AC Electronic Driver/Transformer
White	25W 12V AC Electronic Driver/Transformer
White	60W 12V AC Electronic Driver/Transformer
Black	10W 12V AC Magnetic Driver/Transformer
Black	25W 12V AC Magnetic Driver/Transformer
Black	60W 12V AC Magnetic Driver/Transformer
	White White Black Black



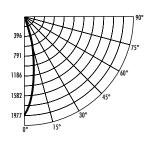
# MINI LED DOWNLIGHT

# MD1LWG2 OUTDOOR/WET LOCATION RECESSED HOUSING AND TRIM

# **LOW VOLTAGE**

#### PHOTOMETRIC REPORT

Test Report #: PT10130702R Catalog No: MD1LWG2-35K-SP-WH **Luminaire Spacing Criterion:** 0.34 Luminaire LPW: 64



#### **CANDLEPOWER** DISTRIBUTION (Candalas)

(Canaeias)				
Degree: Vertical		0°		
0		1977		
5		1648		
15		421		
25		80		
35	17			
45		6		
55		3		
65		1		
75		1		
85		0		
90		0		
Multiplier:	80CRI 27K - 0.91	90CRI 927 - 0.67		

# **AVERAGE INITIAL FOOTCANDLES**

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Ceiling 80%, Wall 50%, Floor 20%					
Spacing	RCR1	RCR4	RCR8		
4′	23	21	19		
5′	14	13	12		
6′	10	9	9		
7′	8	7	7		
8′	6	6	5		
9′	5	4	4		
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## **INITIAL FOOTCANDLES**

One Unit, 5W, 19.4° Beam

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	123.6	1.4′
6	54.9	2.1′
8	30.9	2.7′
10	19.8	3.4'

#### **ZONAL LUMEN SUMMARY**

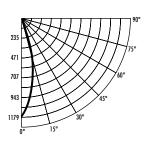
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Lumens	%Lamp	%Fixture
297	N/A	93.3
309	N/A	96.9
316	N/A	99.2
319	N/A	100.0
	297 309 316	297 N/A 309 N/A 316 N/A

## LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	12095
55	6710
65	4720
75	4407
85	1634

#### PHOTOMETRIC REPORT

Test Report #: PT10130703R Catalog No: MD1LWG2-35K-NFL-WH **Luminaire Spacing Criterion:** 0.42 Luminaire LPW: 61



### **CANDLEPOWER DISTRIBUTION**

(Candelas)			
Degrees	5		
Vertical		0°	
0		1179	
5		1044	
15		436	
25		122	
35		30	
45		9	
55		3	
65		2	
75		1	
85		0	
90		0	
Multiplier:	80CRI	90CRI	
	27K - 0.91 3K - 0.95	927 - 0.67 930 - 0.72	
	3K - U.95 35K - 1.00	930 - 0.72	
	41K - 1.01	940 - 0.80	

### **AVERAGE INITIAL FOOTCANDLES**

Multiple Units (Square Array, 60' x 60' room)						
Ceiling 80%	Ceiling 80%, Wall 50%, Floor 20%					
Spacing	RCR1	RCR4	RCR8			
4′	21	19	17			
5′	14	12	11			
6′	9	9	8			
7′	8	7	6			
8′	6	5	5			
9′	5	4	4			
10'	3	3	3			

#### **INITIAL FOOTCANDLES**

One Unit, 5W, 24.6° Beam

Distance to Illuminated Plane (Feet)	Footcandles Beam Center	Beam Diameter
4	73.7	1.7′
6	32.8	2.6'
8	18.4	3.5'
10	11.8	4.4'

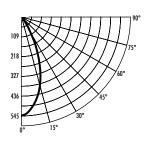
ZUNAL LUMEN SUMMAK I			
Zone	Lumens	%Lamp	%Fixture
0 - 30°	270	N/A	88.9
0 - 40°	290	N/A	95.5
0-60°	300	N/A	98.9
0 - 90°	304	N/A	100.0

# LUMINANCE (Average cd/m²)

Degrees	Average 0° Luminance
45	17336
55	7952
65	6071
75	5507
85	3268

#### PHOTOMETRIC REPORT

Test Report #: PT10130704R Catalog No: MD1LWG2-35K-FL-WH **Luminaire Spacing Criterion: 0.64** Luminaire LPW: 55



# **CANDLEPOWER DISTRIBUTION**

(Candelas)			
Degrees			
Vertical		0°	
0	545		
5	527		
15		366	
25	158		
35		44	
45		14	
55		6	
65	3		
75		2	
85	0		
90		0	
Multiplier:	80CRI	90CRI	
	27K - 0.91 3K - 0.95	927 - 0.67 930 - 0.72	

#### AVERAGE INITIAL FOOTCANDLES Multiple Units (Square Array, 60' x 60' room)

Ceiling 80%, Wall 50%, Floor 20%			
Spacing	RCR1	RCR4	RCR8
4′	19	17	15
5′	12	11	10
6′	8	7	7
7′	7	6	5
8′	5	5	4
9′	4	4	3
10′	3	3	2

# One Unit 5W 38 3° Beam

One Onii, 544, 36.3 Deani		
Distance to Illuminated	Footcandles	Beam
Plane (Feet)	Beam Center	Diameter
4	34.1	2.8′
6	15.1	4.2'
8	8.5	5.6'
10	5.5	6.9'

#### ZONAL LUMEN SUMMARY

ZONAL LOMEN SOMMAKI			
Zone	Lumens	%Lamp	%Fixture
0 - 30°	221	N/A	81.2
0 - 40°	251	N/A	91.9
0-60°	267	N/A	98.0
0 - 90°	273	N/A	100.0

#### LUMINANCE (Average cd/m²)

Degrees	Average U* Luminance
45	26205
55	13917
65	10455
75	9364
85	4902

Fixtures tested to IES recommended standard for solid state lighting per LM-79-08. Photometric performance on a single unit at 12VAC in a 25°C ambient represents a baseline of performance for the fixture. Results may vary in the field and when multiple fixtures are used in a system.

