

# JUNO®

Project: \_\_\_\_\_

Fixture Type: \_\_\_\_\_

Location: \_\_\_\_\_

Contact/Phone: \_\_\_\_\_

## 5" TC 1400 LUMEN LED DOWNLIGHT NEW CONSTRUCTION

TC20LED (G4 14LM) RECESSED HOUSING



## WALL WASH TRIMS

### PRODUCT DESCRIPTION

Dedicated LED new construction housing with integral light engine • Shallow housing allows for fit in 2 x 6 construction • TC housing design for use in non-insulated areas • If installed where insulation is present, the insulation must be pulled back 3" from all sides of the TC housing • LED housing is designed to provide 50,000 hours of life and is compatible with many standard Juno trims • 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 32W compact fluorescent while consuming 20W\*

### PRODUCT SPECIFICATIONS

**LED Light Engine** LED array integrated to one piece high purity aluminum, thermally conductive housing provides uninterrupted heat transfer to ensure long life of the LED • Replaceable light engine mounts directly to housing and incorporates the latest generation, high lumen output LED array • LEDs are binned within a 3-Step MacAdam Ellipse exceeding ENERGY STAR® requirements yielding superior fixture to fixture color uniformity • 2700K, 3000K, 3500K or 4000K color temperatures available • 90 CRI minimum.

**Optical System** Painted white scoop is designed to work with computer-optimized reflector design to direct light toward wall uniform illumination on vertical surfaces while concealing LED optic assembly and minimizing glare • LEDs are concealed by high transmission diffusing lens • Retention bar holds scoop assembly to trim • White or black baffle available.

**Aesthetic Trim Selections** Low profile scoop wall wash trim • Shadow free, knife edge design blends seamlessly into ceiling.

**LED Driver** Universal voltage drivers that accommodate input voltage from 120-277 volts AC at 50/60Hz are available and dimmable with the use of most 0-10V wall box dimmers • Power factor > 0.9 at 120V input • Optional Lutron Hi-Lume® A-Series driver accommodates 120-277 volts AC at 50/60Hz • Mounted between the j-box and housing for easy access and cool operation • For a list of compatible dimmers, see [JUNOTCLED-DIM](#).

**Emergency Battery Option** Battery factory assembled to housing with remote mounted test switch included • Drives LED array for 90 minutes to meet Life Safety Code (NFPA-LSC), National Electrical Code (NEC) and UL requirements • Provides 40% light output in emergency mode.

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

**Labels** UL listed for U.S. and Canada through-branch wiring, damp locations • Union made • UL and cUL listed.

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

Specifications subject to change without notice.

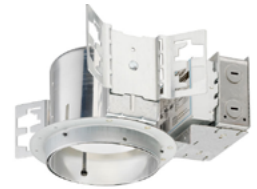
### HOUSING FEATURES

**Housing** Designed for use in TC applications (non-insulated) • Aluminum housing • Housing is vertically adjustable to accommodate up to a 2" ceiling thickness.

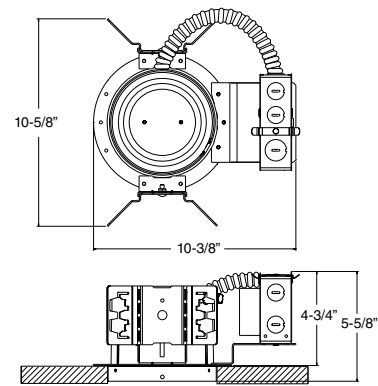
**Junction Box** Pre-wired junction box provided with (5) 1/2" and (1) 3/4" knockouts and ground wire, UL listed and cUL listed for through-branch wiring, maximum 8 No. 12 AWG 90° C branch circuit conductors (4 in, 4 out) • Junction box provided with removable access plates • Knockouts equipped with pryout slots.

**Mounting Frame** 16-gauge galvanized steel mounting ring equipped with vertically adjustable mounting brackets that accept 1/2" conduit or "C" channels (HB26 or HB50), linear flat bars (LB27) or Patented (US Patent D552,969) Real Nail® 3 bar hangers (HB1).

\*Nominal input wattage with universal voltage driver under stable operating conditions



### DIMENSIONS



5 5/8" CEILING CUTOUT

### ELECTRICAL DATA

#### STANDARD UNIVERSAL VOLTAGE DRIVER

##### (MVOLT EZ10, MVOLT ZT10, MVOLT EZ1 and MVOLT ZT1)

	120V	277V
Input Power	15.6W (+/-5%)	16.3W (+/-5%)
Input Current - Max	0.13A	0.06A
Frequency	50/60Hz	50/60Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class B (residential)	FCC Title 47 CFR, Part 15, Class B (residential)
Minimum starting temp	-20°C (-40°F)	-20°C (-40°F)

#### UNIVERSAL VOLTAGE DRIVER WITH EMERGENCY OPTION

##### (MVOLT ZT10 BR, EZ10 BR, ZT1 BR and EZ1 BR)

	120V	277V
Input Power	18.4W (+/-5%)	19.1W (+/-5%)
Input Current - Max	0.16A	0.07A
Frequency	50/60Hz	50/60Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class A (Commercial)	FCC Title 47 CFR, Part 15, Class A (Commercial)
Minimum starting temp	0°C (32°F)	0°C (32°F)

#### LUTRON HI-LUME® LED DRIVER (MVOLT ECOS3)

	120V	277V
Input Power	17.2W (+/-5%)	17.4W (+/-5%)
Input Current - Max	0.14A	0.07A
Frequency	50/60Hz	50/60Hz
EMI/RFI	FCC Title 47 CFR, Part 15, Class A (Commercial)	FCC Title 47 CFR, Part 15, Class A (Commercial)
Minimum starting temp	0°C (32°F)	0°C (32°F)

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**WALL WASH TRIMS**

**ORDERING INFORMATION** Housing and trim can be ordered together or separate, but will always ship separately.

**Example:** TC20LED G4 14LM 27K 90CRI MVOLT ZT BR

Series	Generation	Lumens	Color Temperature	CRI	Voltage/Driver
TC20LED 5" LED Downlight Non-IC Housing	G4 Generation 4	14LM 1400 Nominal Lumens	27K 2700K	90CRI 90+ CRI	MVOLT ZT10 Multi-Volt (120-277), 0-10V, 10% dim
			30K 3000K		MVOLT ZT1 Multi-Volt (120-277), 0-10V, 1% dim
			35K 3500K		MVOLT EZ10 Multi-Volt (120-277), eidoLED 0-10V, 10% dim
			40K 4000K		MVOLT EZ1 Multi-Volt (120-277), eidoLED 0-10V, 1% dim
					MVOLT ECOS3 Multi-Volt (120-277), Lutron Hi-Lume A series 3 wire fluorescent controls and Lutron Ecosystem

Emergency Battery	Territory
BR Emergency Battery	CP Chicago Plenum

Note: Chicago Plenum (CP) is not available with emergency option (BR)  
Note: Lutron driver (MVOLT ECOS3) is not available with emergency battery pack (BR)



A+ Capable options indicated by this color background

## Trim/Description



**213G3 WWH** 5" Wall Wash Scoop Trim - White Baffle, White Trim Ring  
**213G3 BWH** 5" Wall Wash Scoop Trim - Black Baffle, White Trim Ring

Trim Size: 6 1/4" O.D.

Note: In Canada, when insulation is present, Type IC fixtures must be used

## Accessories (ordered separately)

Catalog Number	Description
HB1	Two 13 1/2" - 25" Real Nail® 3 bar hangers
HB26	Two 26" C-channel bar hangers
HB50	Two 50" C-channel bar hangers
LB27	Two 27" linear bar hangers

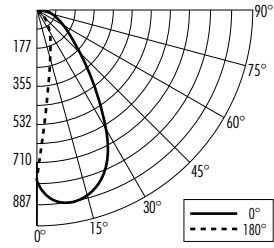
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## PHOTOMETRICS

### PHOTOMETRIC REPORT

Test Report#: PT10112701R  
Catalog No: TC20LED G4 14LM 35K 90CRI  
MVOLT with 213G3 WWH Wall Wash Trim  
Luminaire Spacing Criteria: 0.92  
Luminaire LPW: 62



### CANDLEPOWER DISTRIBUTION (Candelas)

Degrees	0°	180°
Vertical	Wall Wash	Downlight
0	782	782
5	865	557
10	887	329
15	879	227
20	837	179
25	760	145
30	644	114
35	484	91
40	331	72
45	252	59
50	207	53
55	179	43
60	159	33
65	138	22
70	119	14
75	86	3
80	53	0
85	31	0
90	0	0

Multiplier: 27K - 0.93  
30K - 0.97  
40K - 1.02

### ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixture
0-30°	456	N/A	47.1
0-40°	641	N/A	66.3
0-60°	851	N/A	88.0
0-90°	967	N/A	100.0

### LUMINANCE (Average cd/m<sup>2</sup>)

Degrees	Average 0° Luminance
45	28013
55	24600
65	25682
75	26210
85	28020

### FOOTCANDLES ON WALL FROM MULTIPLE FIXTURES

Fixture Distance to Wall	2'						3'					
	2'		3'		2'		3'		4'		10'	
Fixture Centers (spacing)	32	31	32	25	19	25	12	12	12	10	9	10
1'	32	31	32	25	19	25	12	12	12	10	9	10
2'	43	42	43	32	27	32	20	20	20	17	15	17
3'	43	43	43	32	27	32	21	20	21	17	15	17
4'	40	41	40	29	28	29	21	21	21	17	15	17
5'	33	34	33	23	24	23	21	21	21	17	16	17
6'	27	27	27	19	19	19	19	20	19	15	16	15
7'	21	21	21	16	16	16	18	18	18	14	14	14
8'	17	17	17	13	13	13	15	16	15	12	12	12
9'	13	14	13	10	11	10	13	13	13	10	10	10

\*For 262G3 BWH trim, use 0.84 multiplier.

\*Note: Multipliers are provided for estimating purposes only. Use IES photometric files for precise photometric information.