

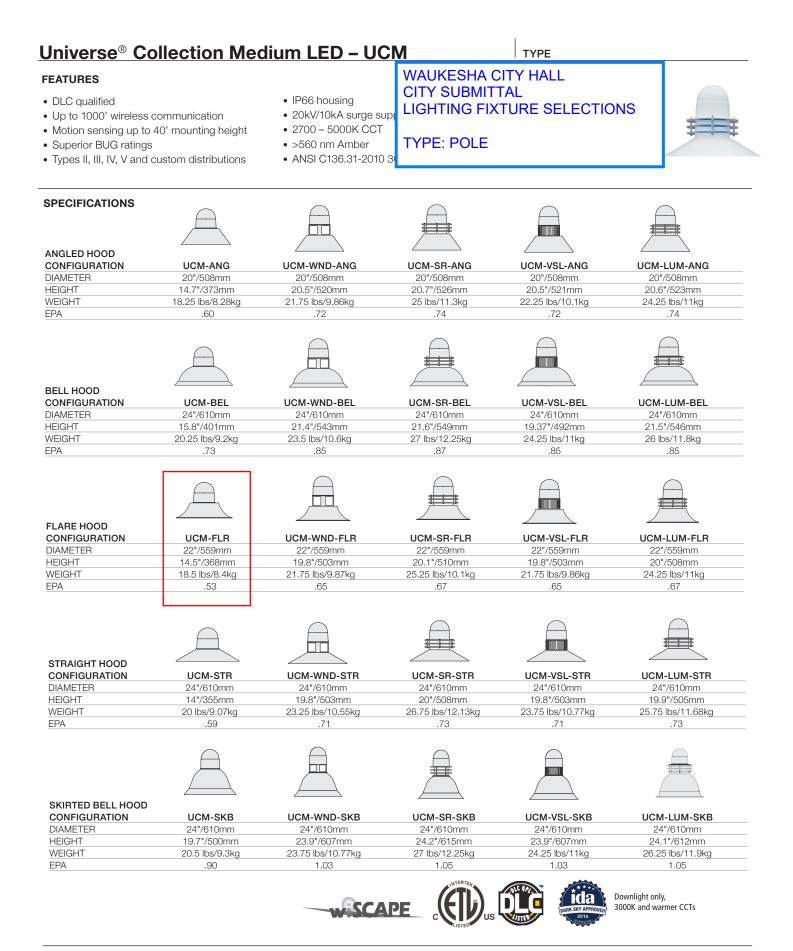
Conditional Use Permit Submittal Exterior Lighting Products

Waukesha City Hall Waukesha, WI

March 21, 2019

R&D Number: 218021.00

Ring & DuChateau Consulting Engineers 17400 West Capitol Drive, Brookfield, WI 53045 Phone: 414.778.1700 / Fax: 414.778.2360 / www.ringdu.com



architectural arealighting

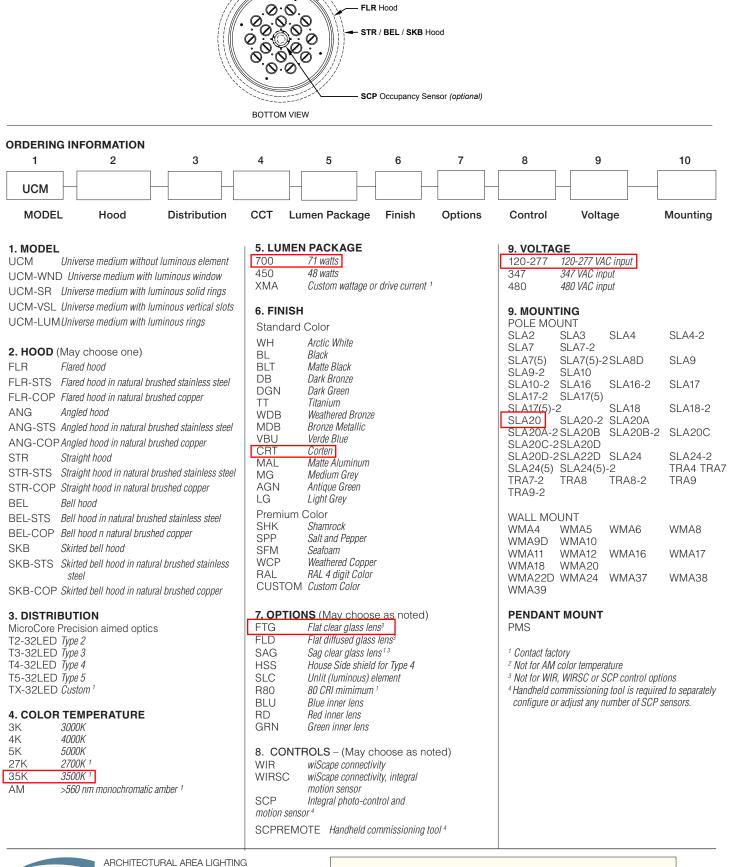
ARCHITECTURAL AREA LIGHTING 17760 Rowland Street | City of Industry | CA 91748 P 626.968.5666 | F 626.369.2695 | www.aal.net Copyright © 2014 May 11, 2017

JOB	
TYPE	
NOTES	

Universe® Collection Medium LED – UCM

<u>0</u>0

TYPE



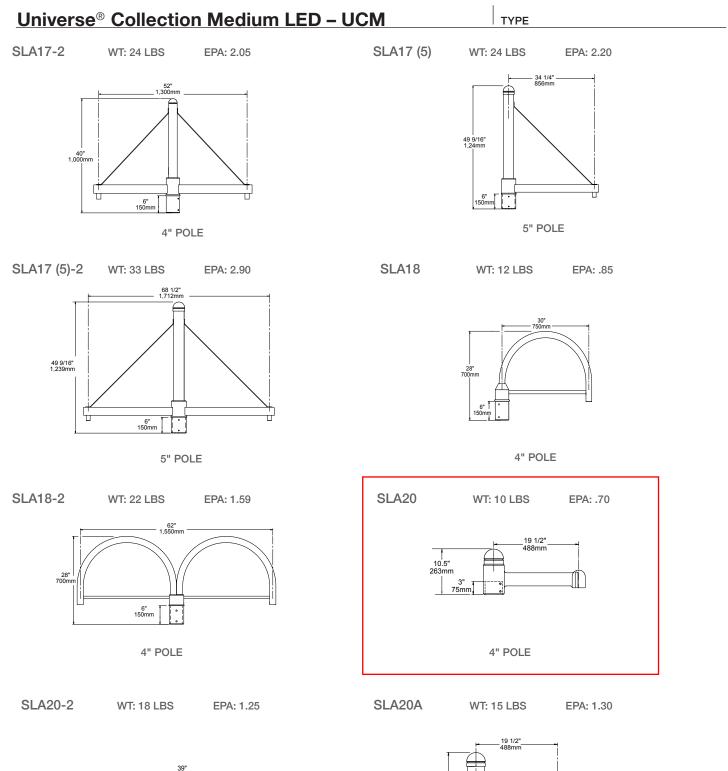
ANG Hood

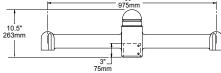
architectural 17760 Rowland Street | City of Industry | CA 91748

arealighting

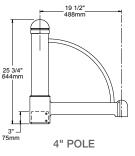
P 626.968.5666 | F 626.369.2695 | www.aal.net Copyright © 2014 May 11, 2017

JOB		
TYPE		
NOTES		



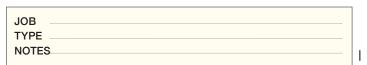








ARCHITECTURAL AREA LIGHTING 17760 Rowland Street | City of Industry | CA 91748 P 626.968.5666 | F 626.369.2695 | www.aal.net Copyright © 2014 May 11, 2017



Application

LED recessed wall luminaire with asymmetrical light distribution for the illumination of ground surfaces, building entrances, stairs and footpaths.

Materials

Luminaire housing constructed of die-cast aluminum marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy Clear safety glass

silicone applied robotically to casting, plasma treated for increased adhesion

High temperature silicone gasket

Mechanically captive stainless steel fasteners

Stainless steel screw clamps

Composite installation housing

NRTL listed to North American Standards, suitable for wet locations Protection class IP65 Weight: 4.0 lbs

Electrical

Operating voltage 120-277VAC Minimum start temperature -30° C 12.3W LED module wattage 15.0W System wattage Controlability 0-10V Color rendering index Ra>80 Luminaire lumens 1,000 lumens (3000K) Lifetime at Ta=15°C 230,000 h (L70) Lifetime at Ta=35°C 80,000 h (L70)

LED color temperature

2700K - Product number + K27	
3000K - Product number + K3	
3500K - Product number + K35	
4000K - Product number + K4	

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors	Black (BLK)	White (WHT)	RAL:
	Bronze (BRZ)	Silver (SLV)	CUS:

Type: BEGA Product: Project: Modified:

WAUKESHA CITY HALL CITY SUBMITTAL LIGHTING FIXTURE SELECTIONS

TYPE: OL



Fully enclosed luminaire with installation housing ensures seamless integration and weathertight operation.





LED recessed wall luminaires · asymmetrical						
	LED	А	В	С		
33 058	12.3 W	13	5	5 1/2		

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com

Housing: Luminaire constructed of a one piece die-cast aluminum housing. LED module paired with inner reverse-tapered casting to provide maximum heat transfer to outer housing. Die castings are marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy.

Enclosure: Optical system consists of a reflector of pure anodized aluminum. The lens and optical assembly are secured by a die cast aluminum trim ring using (3) stainless steel captive fasteners.

Mounting: Provided with two piece die-cast aluminum canopy supplied with universal mounting bracket for direct attachment to 3½" or 4" octagonal wiring box. Die-cast aluminum swivel.

Electrical: 19.2 W LED luminaire, 22 total system watts, -40° C start temperature. Integral 120 V or 277 V electronic LED driver, 0-10V, TRIAC and ELV dimmable. The LED module and driver are mounted on a removable inner assembly for easy replacement. Standard LED color temperature is 4000K with a 90 CRI. Available in 3000K (90 CRI); add suffix K3 to order.

Note: Due to the dynamic nature of LED technology, LED luminaire data in this catalog is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. These luminaires are available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards for wet locations. Protection class IP65.

Weight: 5.1 lbs. EPA (Effective projection area): 0.33 sq. ft.

Luminaire Lumens: 1851

WAUKESHA CITY HALL CITY SUBMITTAL LIGHTING FIXTURE SELECTIONS

TYPE: ON SIGNAGE

Compact floodlight · narrow	beam					Acces	sories		
Lamp	β	A	в	С	D	$\left(\right)$	۲	\square	
77701 19.2W LED	30°	61/4	87/8	61/2	37/8	70 060	70796	70757	
Exchangeable lenses flat beam	۲	Louver			° glare s			am angle	

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 www.bega-us.com ©copyright BEGA 2019 Updated 03/13/2019



Housing: Luminaire constructed of a one piece die-cast aluminum housing. LED module paired with inner reverse-tapered casting to provide maximum heat transfer to outer housing. Die castings are marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy.

Enclosure: Optical system consists of a reflector of pure anodized aluminum. The lens and optical assembly are secured by a die cast aluminum trim ring using (3) stainless steel captive fasteners.

Mounting: Provided with two piece die-cast aluminum canopy supplied with universal mounting bracket for direct attachment to 3½" or 4" octagonal wiring box. Die-cast aluminum swivel.

Electrical: 19.2 W LED luminaire, 22 total system watts, -40° C start temperature. Integral 120 V or 277 V electronic LED driver, 0-10V, TRIAC and ELV dimmable. The LED module and driver are mounted on a removable inner assembly for easy replacement. Standard LED color temperature is 4000K with a 90 CRI. Available in 3000K (90 CRI); add suffix K3 to order.

Note: Due to the dynamic nature of LED technology, LED luminaire data in this catalog is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. These luminaires are available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

CSA certified to U.S. and Canadian standards for wet locations. Protection class IP65.

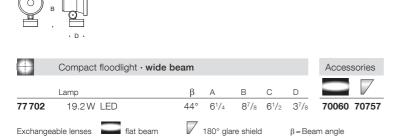
Weight: 5 lbs.

EPA (Effective projection area): 0.33 sq. ft.

Luminaire Lumens: 1782

WAUKESHA CITY HALL CITY SUBMITTAL LIGHTING FIXTURE SELECTIONS

TYPE: OM LANDSCAPE ACCENT





BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 www.bega-us.com ©copyright BEGA 2019 Updated 03/13/2019

Housing: Luminaire constructed of a one piece die-cast aluminum housing. LED module paired with inner reverse-tapered casting to provide maximum heat transfer to outer housing. Die castings are marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy.

Enclosure: Optical system consists of a reflector of pure anodized aluminum. The lens and optical assembly are secured by a die cast aluminum trim ring using (3) stainless steel captive fasteners.

Mounting: Provided with two piece die-cast aluminum canopy supplied with universal mounting bracket for direct attachment to 3½" or 4" octagonal wiring box. Die-cast aluminum swivel.

Electrical: 48.2W LED luminaire, 51 total system watts, -20°C start temperature. Integral 120V through 277V electronic LED driver, 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 4000K with a >90 CRI. Available in 3000K (>90 CRI); add suffix K3 to order.

Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data in this catalog is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. These luminaires are available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

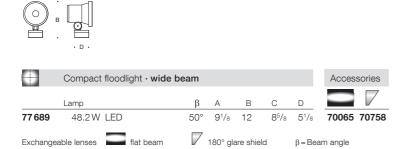
CSA certified to U.S. and Canadian standards for wet locations. Protection class IP65.

Weight: 9.7 lbs.

EPA (Effective projection area): 0.54 sq. ft.

Luminaire Lumens: 1723 Tested in accordance with LM-79-08 WAUKESHA CITY HALL CITY SUBMITTAL LIGHTING FIXTURE SELECTIONS

TYPE: OP FLAGPOLE





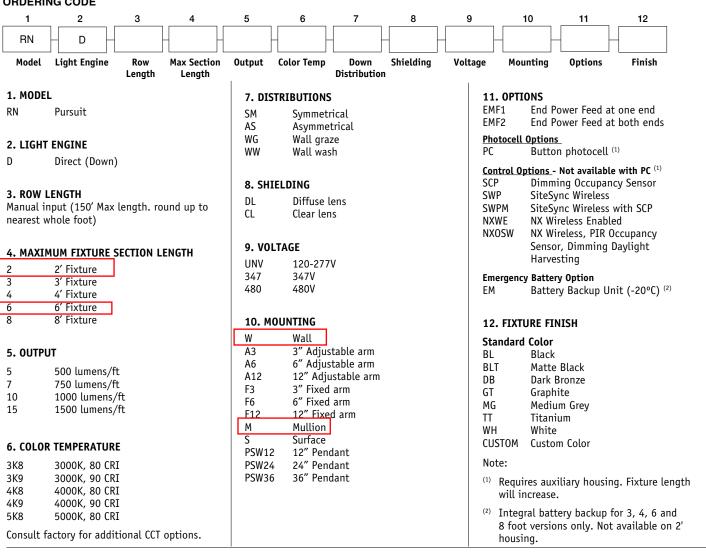
BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 www.bega-us.com ©copyright BEGA 2017 Updated 01/19

Pursuit[™] – Direct (Down)

FEATURES

- ٠ 2', 3', 4', 6' & 8' housing lengths
- Sections can be joined for runs up to 150' with . seamless lens
- IP66 Rated
- Light engine is independently rated IP67
- Electrical connections IP68 rated
- Symmetric, asymmetric & wall graze & wall wash distributions

ORDERING CODE



WAUKESHA CITY HALL **CITY SUBMITTAL**

TYPE: OD

wireless control

.

Output up to 1,500 lm/ft

wall mounting options

DISTRIBUTED INTELLIGENCE

LIGHTING FIXTURE SELECTIONS

Surface, fixed arm, adjustable arm, pendant, mullion &

SiteSund

CONTROL

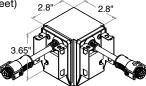
10.6

ACCESSORIES

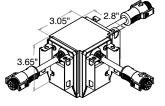
Non Illuminated Connectors - Enable Custom Shapes (see separate spec sheet)

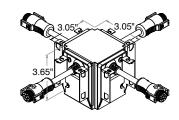
ORDERING PREFIX

RNLTX-L-D	L shape
RNLTX-T-D	T shape
RNLTX-X-D	X shape



L Shape





T Shape

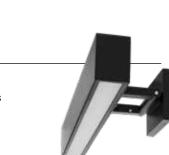
X Shape

T



ARCHITECTURAL AREA LIGHTING 17760 Rowland Street | City of Industry | CA 91748 P 626.968.5666 | F 626.369.2695 | www.aal.net Copyright © 2018 October 10, 2018 9:41 AM

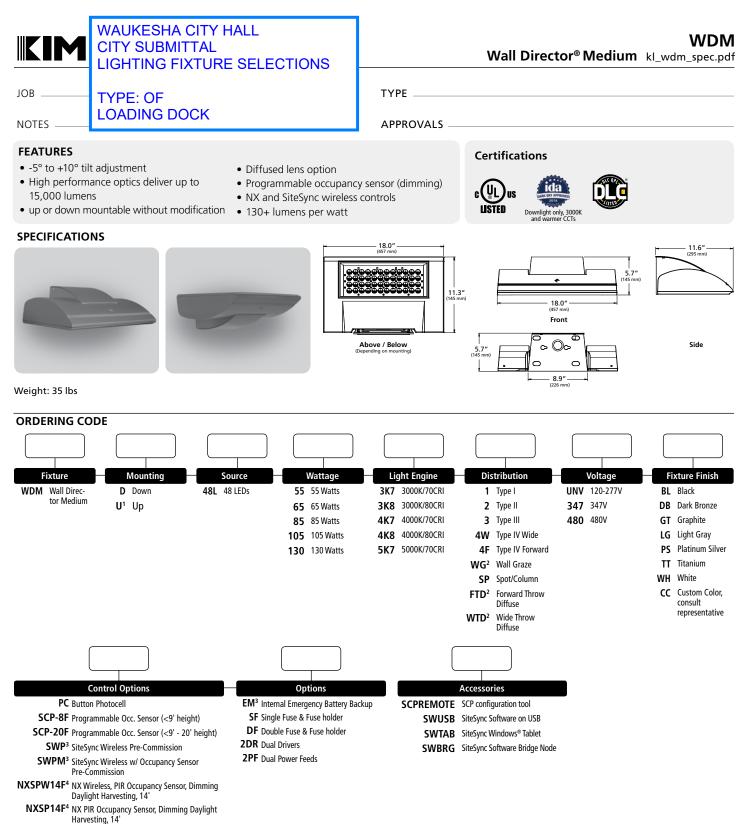
JOB	
ТҮРЕ	
NOTES	



IK08

ŰĽ,

US



NXWE⁴ NX Wireless Enabled

NX DISTRIBUTED

Microsoft, Encarta, MSN, and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

¹ Not available with EM option or with SCP & SWPM sensor options.

² WG, FTD, and WTD come with a diffused lens.

HUBBELL Lighting

³ Universal voltage only (120-277), not available with PC option.
 ⁴ 120-347V only

HUBBELL

Kim Lighting reserves the right to change specifications without notice.

© 2018 KIM LIGHTING | 17760 Rowland Street | City of Industry | CA 91748 P 626.968.5666 | F 626.369.2695 | www.kimlighting.com | Rev. Oct. 12, 2018





making light work"

WAUKESHA CITY HALL **CITY SUBMITTAL** LIGHTING FIXTURE SELECTIONS

2L-R-D MOD[™] 2 LED Recessed Direct

TYPE: OB

Feature	Code	Options	Description
Series		2L	MOD
Ceiling Type*		DW PT LG NG SS	Drywall Drywall with plaster trim (trimless finish) 15/16 Grid 9/16 Grid 9/16 Screw Slot & 9/16 Tegular *Ceiling Type cannot be retrofitted in the field
Fixture distribution		D AD	Direct Asymmetric Direct
Row length (in feet)		′	Enter in foot increments. Note fixture lengths below.
Row length adder (in inches)		.3 .6 .9	Row length +3" Row length +6" Row length +9"
Max length in row		02 03 04 05 06 08	2', 609mm 3', 914mm 4', 1219mm 5', 1524mm 6', 1829mm 8', 2438mm
Downlight diffuser		SOF REG BWO ASYM BAT DRP	Soft Diffuse Lens Regressed Diffuse Lens* Blade Baffle with Overlay* Asymmetric Diffuser Lens*/** Batwing Lens Drop Lens* *Not Available with Patterns **Must be ordered with AD
Finish/Color		C1 C2 C3 C4 C5 C6 CC	Matte White (Default) Textured Matte White Light Silver Machined Aluminum Carbon Black Textured Camera Black Custom Color
Color temperature		27K 30K 35K 40K 50K 27K9 30K9 35K9 40K9 50K9 2230TD 2750T 2765T	2700K ⁺ 3000K 3500K 4000K 5000K ⁺ 2700K, 90 CRI ⁺ 3500K, 90 CRI 3500K, 90 CRI 4000K, 90 CRI 2200K-3000K SpectraSync [™] Dim-to-Warm [*] 2200K-5000K SpectraSync [™] Dim-to-Warm [*] 2700K-5000K SpectraSync [™] Tunable White [*] *Must be ordered with D05 or DS5 Driver options; excludes 2' lengths and patterns
Direct output/ft (specifiable in 50 lumens/ft increments)		D030 D085	300 850





Page 1/8 Rev. 1/24/19

⁺Additional lead time may be applicable. Contact factory.





LED / 2L-R-D

• 2 SDCM color variation

Key Features

lumen output/wattage

ASYM

BAT

SOF/REG/

BWO/DRP

Performance

Nomenclature	Lumens/ft	W/ft	Efficacy	
D030 (min)	300	2.9	102	
D050	500 5.2		96	
D085 (max)	850	8.6	99	
(wattage may vary up to 5% from published)				

Variable Intensity technology provides specifiable

End cap design eliminates visible diffuser seams/gaps

	Alţ	bhabet by Ledra Brands, In		Gateway Circle PH: 714.259.9959 CA 92780 FAX: 714.259.9969
WAUKESHA CITY HALL CITY SUBMITTAL			DDE	see page 4
LIGHTING FIXTURE SELECTIONS		SERIES	NU4	
		ТҮРЕ	QD	square downlight
TYPE: OA		LED	XTM19	XTM19
	Downlight icato	DELIVERED LUMENS	07LM 10LM 13LM 20LM 30LM ³ 40LM ^{1,3}	600 lm 860 lm 1120 lm 1720 lm 2570 lm 3430 lm
	IdoLED your product our drive	сст	27K B27K ² 30K V30K 35K 40K	2700K 2700K beauty 3000K vibrant 3500K 4000K
		CRI	83 981	83CRI 98CRI
		REFLECTOR & LM MULTIPLIER	HE60 HE70 HE80 S60 D65 WH80	60° high efficiency diffused lens (0.97 70° high efficiency diffused lens (0.94 80° high efficiency diffused lens (0.98 60° specular with clear lens (1.00) 65° diffused with clear lens (0.98) 80° brilliant white with clear lens (0.99
		NO LENS OPTION	NL⁵	no lens
STATISTICS - 2		VOLTAGE	120 277 See Electric	120V 277V cal Options for 347V.
		DIMMING	DIM10 ⁶ DIM10Z ⁶ DALI ⁶ DALIZ ⁶ DMXZ LTE ⁹ LUT ⁹ LUTP ¹⁰ ELV ⁷	standard driver with flicker free 0-10V flicker free 0-10V dimming to 0% flicker free DALI dimming to 1% flicker free DALI dimming to 0% Lutron Hi-lume 2-Wire (Triac) dimming Lutron Hi-lume EcoSystem dimming to Soft-on & Fade-to-Black Lutron Hi-lume Premier EcoSystem d Soft-on & Fade-to-Black leading & trailing edge dimming (Triac
		MOUNTING OPTIONS	NC IC ³ ICAT ³ CP ³ RET	new construction with ceiling fitting pla insulation contact housing insulation contact / airtight housing chicago plenum housing retrofit, no ceiling fitting plate
			WH	white

DESCRIPTION

The NU4QD 4" recessed downlight by ALPHABET offers multiple cutting edge LED technologies, premium performance, thoughtful construction and pleasing aesthetics. Offered standard with premium dimming using EldoLED 1% flicker free drivers in 120V, 277V, and 347V. A minimalistic look is achieved with an ultrathin 1/16" trim that is only 5/16" wide. Color choices of both trim and bezel are offered for a customized look. Several beam angles available, plus an optional high-efficiency BrightView diffused lens for smooth light distribution and obscured LED image.

HOUSING

Electrocoated 16-gauge cold-rolled steel provides enhanced structural reinforcement and rust prevention. Superior, flame-retardant, UL-certified, injection-molded commercial-grade Lexan™ (PC) is used for the frame and regressed bezel trim. Lexan provides unmatched durability and impact resistance, 270°F heat deflection temperature, and is tested for UV resistance and water exposure in outdoor applications. The thermally-advanced, anodized heat sink uses 6063 aluminum alloy. Wet location rated is offered standard. A 90-minute constant-power IOTA emergency battery backup is available.

MOUNTING

An advanced mounting system allows for quick and secure installation with LED and driver serviceability from below the ceiling. The LED assembly uses die-cast aluminum mounting clamp grips (MCG) that swing out to tighten onto variable ceiling thicknesses ranging from 1/8" to 1-5/8". Integrated rubber feet on each MCG provide a non-slip vibration-resistant installation. The hidden MCG system is accessible from below ceiling by removing the snap-in lens/bezel assembly with either the included suction cup or a screwdriver blade. Integrated bar hangers feature integral toothed nails, T-bar mounting slots with locking holes, tabs for joist positioning, and extendibility from 14-3/4" to 26". Retrofit mounting option allows for installation from below ceiling by use of compact driver box. Ceiling cutout size is 4-1/4" square.

LISTINGS

- ETLus Listed to UL1598, cETL Listed to CSA C22.2 #250.0

- Type Non-IC, IC, CP, Airtight ASTM Standard E283
- Suitable for wet locations, IP65
- Non-conductive, Lexan dead-front construction

- Made in the USA - meets the requirements of the Buy American provision within the ARRA LED INFO

- SDCM = 1X2 MacAdam Ellipse, Duv +/- 0.001

SERIES	NU4	
TYPE	QD	square downlight
LED	XTM19	XTM19
DELIVERED LUMENS	07LM 10LM 13LM 20LM 30LM ³ 40LM ^{1,3}	600 lm 860 lm 1120 lm 1720 lm 2570 lm 3430 lm
сст	27K B27K ² 30K V30K 35K 40K	2700K 2700K beauty 3000K 3000K vibrant 3500K 4000K
CRI	83 981	83CRI 98CRI
REFLECTOR & LM MULTIPLIER	HE60 HE70 HE80 S60 D65 WH80	60° high efficiency diffused lens (0.97) 70° high efficiency diffused lens (0.94) 80° high efficiency diffused lens (0.98) 60° specular with clear lens (1.00) 65° diffused with clear lens (0.98) 80° brilliant white with clear lens (0.99)
NO LENS OPTION	NL⁵	no lens
VOLTAGE	120 277	120V 277V Options for 347V.
DIMMING	DIM10 ⁶ DIM10Z ⁶ DAL1 ⁶ DALZ ⁶ DMXZ LTE ⁹ LUT ⁹ LUTP ¹⁰ ELV ⁷	standard driver with flicker free 0-10V dimming to 1% flicker free 0-10V dimming to 0% flicker free DALI dimming to 1% flicker free DMX dimming to 0% flicker free DMX dimming to 0% Lutron Hi-lume 2-Wire (Triac) dimming to 1% Lutron Hi-lume EcoSystem dimming to 1%, Soft-on & Fade-to-Black Lutron Hi-lume Premier EcoSystem dimming to 0.1%, Soft-on & Fade-to-Black leading & trailing edge dimming (Triac/ELV)
MOUNTING OPTIONS	NC IC ³ ICAT ³ CP ³ RET	new construction with ceiling fitting plate insulation contact housing insulation contact / airtight housing chicago plenum housing retrofit, no ceiling fitting plate
TRIM COLOR	WH MC BK BZ WT	white matte chrome black bronze wheat
BEZEL COLOR	WH MC BK BZ WT	white matte chrome black bronze wheat
ELECTRICAL OPTIONS	EM7 ⁸ EM12 ^{4,8} FOR 347V OPTION	emergency battery backup, 90 minutes at 7 watts to LED emergency battery backup, 90 minutes at 12 watts to LED order separate "347V to 277V" step down transformer p/n: P70489

AlphabetLighting.com

LM-79

ORDERING CODE

Follow the steps to specify your fixture, example:

NU4 - QD - XTM19 - 13LM - 35K - 98 - HE60 - 120 - DIM10 - NC - WH - WH - EM7

XTM19	POWER	
DELIVERED LM	W (83CRI)	W (98CRI)
600	10	11
860	12	15
1120	17	21
1720	26	33
2570	37	43
3430	49	N/A

Power Factor ≥ 0.9

NOTES

- 9 BC RI not available for 40LM. B27K Beauty Series choose 98 CRI (actual 93). Available for 07LM, 10LM, 13LM, and 20LM only. IC/ICAT/CP not available for 99CR II in 30LM or 83/98CR II in 40LM. EM12 not available for 63CR II in 07LM, 10LM or 13LM. No lens option available for 560. DB5, or WH80 and is damp location rated. Driver uses logarithmic dimming curve as standard. For linear dimming curve add "LIN" after dimming code, i.e. DIM10LIN. Triac/ELV dimming available for 83/98cr II in 10LM, 13LM, 20LM, & 83cri only in 30LM. Dimmable to < 10% in 10LM, 13LM. Dimmable to < 1% in 20LM, 30LM.
- 8 For integrated test switch add "ITS" after emergency backup code, i.e. EM12ITS. Test switch is mounted in the bezel of the
- 9 LTE/LUT not available in 40LM.
 10 LUTP not available in 20LM, 30LM, or 40LM. 9