### **OLODUM ROUND RECESSED**

#### E1010019-

base number

Color Temperature

1.To build a product code in our configurator select the specify button on the base model # product page

2. To build a manual product code on this datasheet choose from the options listed below in blue font and add the suffix to the base model #

#### **GENERAL**

Series: Olodum	
Subseries: Olodum Round	
Brand: Side	
Division: Exterior	
Mounting Type: Recessed	
Mounting Location: In-Ground	
Subcategory: Uplight	

PHYSICAL	
Shape: Round	
Diameter (mm): 76	
Diameter (in): 3	
Height (mm): 62	
Height (in): 2 1/16	
Light Distribution: Uplight	
Weight (kg): 0.3	
Weight (lbs): 0.66	
Diffuser: Clear tempered glass	
Gasket: Silicon rubber	
Fixture Finish: SSS	
Fixture Material: Stainless Steel	

#### **ELECTRICAL**

Lamp Type: LED (Zhaga Standard) Total Output Wattage (W): 3.5 Dimming: Non-Dimming / Phase Dimming (120Vac only) / 0-10V Dimming Driver Included: No Driver Location: Remote Driver Type: Constant Current - 120 / 277Vac Driver Class: Class 2 Input Voltage (V): 120 - 277 Constant Current (MA): 350

Color Temperature (°K): 3000 / 4000 Max. Delivered Lumen (lm): 285 / 300 CRI: >80 CRI Lamp Life (hrs): 50000

### OPTICAL

Reflector°: Polycarbonate Metallized Reflector Optic°: 45

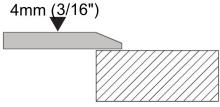
Upon Request: Dimming requires 2 fixture minimum

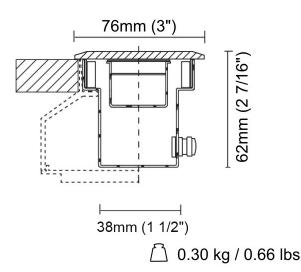
#### RATINGS AND CERTIFICATIONS

Certified By: Certified for North American Standards IP rating: IP67 IK Rating: IK07

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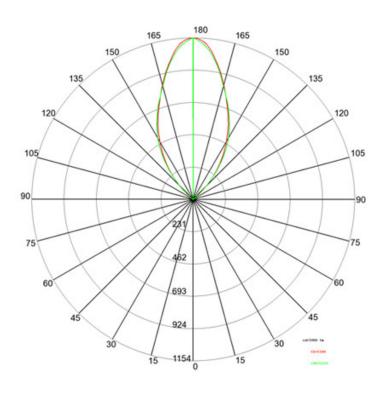


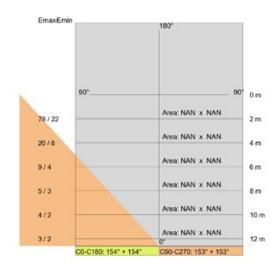


# **OLODUM ROUND RECESSED**

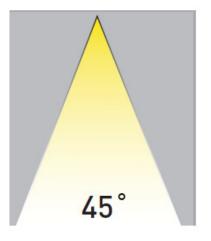
E10I0019-

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TYPE		
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#### **OLODUM RECESSED**

#### E10I0047-

base number

Color BA Options

1.To build a product code in our configurator select the specify button on the base model # product page

2. To build a manual product code on this datasheet choose from the options listed below in blue font and add the suffix to the base model #

#### **GENERAL**

Series: Olodum
Brand: Side
Division: Exterior
Mounting Type: Recessed
Mounting Location: In-Ground
Subcategory: Drive Over

#### PHYSICAL

Shape: Round Diameter (mm): 220

Diameter (in): 8 11/16 Height (mm): 242

Height (in): 9 ½

Light Distribution: Adjustable / Direct

Weight (kg): 3.8 Weight (lbs): 8.38

Diffuser: Clear tempered glass

Fixture Finish: SSS

Fixture Material: Aluminum Die Cast

#### **ELECTRICAL**

Lamp Type: LED (Zhaga Standard)
Input Wattage (W): 20
Total Output Wattage (W): 17
Dimming: Non-Dimming / Phase Dimming (120vac Only)
Driver Included: Yes
Driver Location: Integrated
Driver Type: Constant Current - Universal
Driver Class: Class 2

Input Voltage (V): 120 - 277

input voitage (v): 120 - 27

Constant Current (MA): 500

Upon Request: (Not included - see components [IP65 or higher enclosure to be supplied by others]) Remote: 0-10Vdc dimming / (Included) Integral: Phase dimming @120Vac only / 277Vac

#### LED

Color Temperature (°K): 3000 / 4000

Max. Delivered Lumen (lm): 2434.9 / 2607.5

Nominal Lumen (lm): 2750 / 2945

CRI: >80 CRI

Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: Metallised polycarbonate reflector - Pivoting 350° and adjustable +/-  $15^\circ$  reflector

Optic°: 15 / 45 / 65 / ASY

### RATINGS AND CERTIFICATIONS

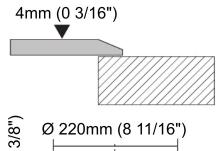
Certified By: Certified for North American Standards

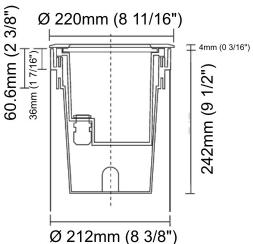
IP rating: IP67

IK Rating: IK10

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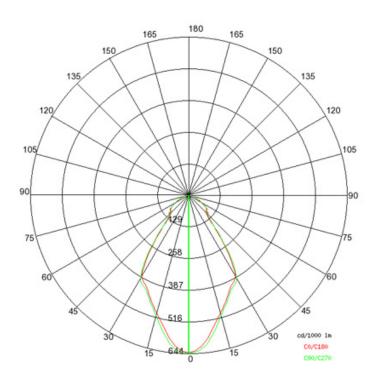
3.80 kg / 8.38 lbs

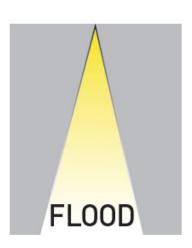


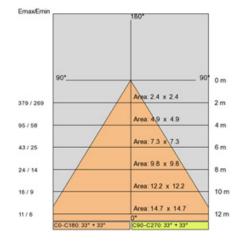


E10I0047-

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#### **OLODUM RECESSED**

#### E10I0059-

base number

olor	BA Options

1.To build a product code in our configurator select the specify button on the base model # product page

2. To build a manual product code on this datasheet choose from the options listed below in blue font and add the suffix to the base model #

#### **GENERAL**

V	
Series: Olodum	
Brand: Side	
Division: Exterior	
Mounting Type: Recessed	
Mounting Location: In-Ground	
Subcategory: Unlight	

#### PHYSICAL

Shape: Round
Diameter (mm): 220
Diameter (in): 8 <sup>11</sup> / <sub>16</sub>
Height (mm): 242

Height (in): 9 ½
Light Distribution: Adjustable / Direct

Weight (kg): 3.8 Weight (lbs): 8.38

Diffuser: Clear tempered glass

Gasket: Silicon rubber Fixture Finish: SSS

Fixture Material: Aluminum Die Cast

#### ELECTRICAL

Lamp Type: LED (Zhaga Standard)

Input Wattage (W): 20

Total Output Wattage (W): 17

Dimming: Tri-Mode (Non-Dimming and Phase Dimming (120Vac only)

and 0-10V Dimming)

**Driver Included: Yes** 

Driver Location: Integrated

Driver Type: Constant Current - Universal

Driver Class: Class 2

Input Voltage (V): 120 - 277

Constant Current (MA): 500

Upon Request: (Not included - see components [IP65 or higher enclosure to be supplied by others]) Remote: 0-10Vdc dimming / (Included) Integral: Phase dimming @120Vac only / 277Vac

#### LED

Color Temperature (°K): 3000 / 4000

Max. Delivered Lumen (lm): 2434.9 / 2607.5

Nominal Lumen (lm): 2750 / 2945

CRI: >80 CRI

Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: Polycarbonate metallized reflector

Optic°: 15 / 45 / 65 / ASY

#### **RATINGS AND CERTIFICATIONS**

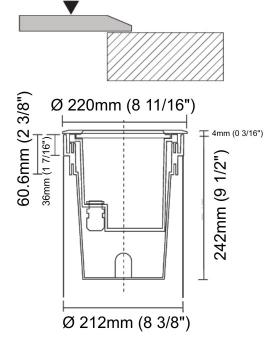
Certified By: Certified for North American Standards

IP rating: IP67

IK Rating: IK10

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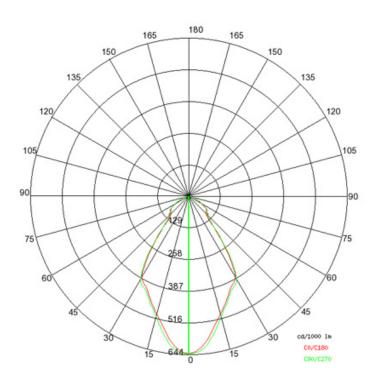


3.80 kg / 8.38 lbs

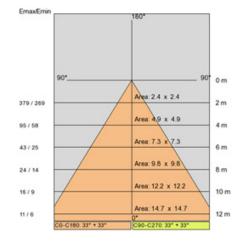


E10I0059-

PROJECT	
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SPECIFIER	
QUANTITY	
DATE	









### **OLODUM ROUND RECESSED**

E1010071-		-
base number	Color Temperature	BA Options

1.To build a product code in our configurator select the specify button on the base model # product page

2. To build a manual product code on this datasheet choose from the options listed below in blue font and add the suffix to the base model #

#### GENERAL

Series: Olodum
Subseries: Olodum Round
Brand: Side
Division: Exterior
Mounting Type: Recessed
Mounting Location: In-Ground
Subcategory: Uplight

PHYSICAL	
Shape: Round	
Diameter (mm): 130	
Diameter (in): 5 1/8	
Height (mm): 146	
Height (in): 5 <sup>3</sup> / <sub>4</sub>	
Light Distribution: Adjustable / Direct	

Weight (kg): 1.9 Weight (lbs): 4.19

Diffuser: Clear tempered glass

Gasket: Silicon rubber Fixture Finish: SSS

Fixture Material: Aluminum Die Cast

**ELECTRICAL** Lamp Type: LED (Zhaga Standard) Input Wattage (W): 6.8 Total Output Wattage (W): 5.8 Dimming: 0-10V Dimming / Phase Dimming (120Vac Only) Driver Included: No Driver Location: Remote Driver Type: Constant Current - Universal Input Voltage (V): 120 - 277 Constant Current (MA): 203 Upon Request: (Not included - see components [IP65 or higher enclosure to be supplied by others]) 0-10Vdc dimming / Phase dimming @120Vac only / 277Vac

Color Temperature (°K): 3000 / 4000 Max. Delivered Lumen (lm): 814.5 / 868.8 Nominal Lumen (lm): 1050 / 1120 CRI: >80 CRI Lamp Life (hrs): 50000

#### OPTICAL

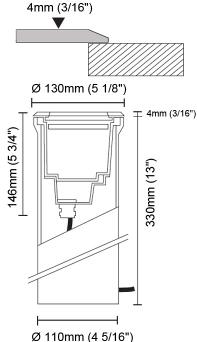
Reflector°: Metallized polycarbonate Optic°: 15 / 30 / 45 Adjustability: Rotational 350°; Tilt ±15°

#### **RATINGS AND CERTIFICATIONS**

Certified By: Certified for North American Standards IP rating: IP67 IK Rating: IK10

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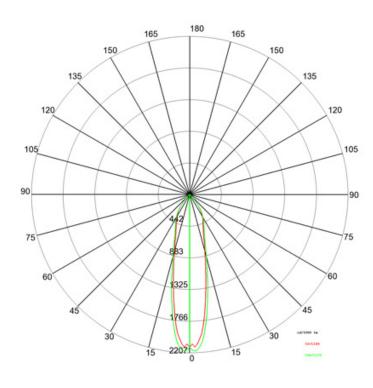
∫ 1.9kg / 4.19lbs

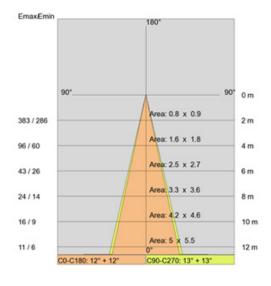




E10I0071-

PROJECT	
ТҮРЕ	
SPECIFIER	
QUANTITY	
DATE	









# **ZANEEN**<sub>®</sub>

# **OLODUM ROUND RECESSED**

#### E1010093-

base number

Temperature

1.To build a product code in our configurator select the specify button on the base model # product page

2. To build a manual product code on this datasheet choose from the options listed below in blue font and add the suffix to the base model #

#### **GENERAL**

Series: Olodum	
Subseries: Olodum Round	
Brand: Side	
Division: Exterior	
Mounting Type: Recessed	
Mounting Location: In-Ground	
Subcategory: Walk Over	

Division: Exterior	
Mounting Type: Recessed	
Mounting Location: In-Ground	
Subcategory: Walk Over	
PHYSICAL	
Shape: Round	
Diameter (mm): 65	
Diameter (in): 2 % 16	
Height (mm): 62	
Height (in): 2 1/16	
Light Distribution: Uplight	
Weight (kg): 0.3	
Weight (lbs): 0.66	
Load Resistance (kg): 500	
Load Resistance (lbs): 1102	
Diffuser: Clear tempered glass	
Gasket: Silicon rubber	
Fixture Finish: SSS	
Fixture Material: Stainless Steel	
ELECTRICAL	
Lamp Type: LED (Zhaga Standard)	

Lamp Type: LED (Zhaga Standard)
Input Wattage (W): 3.5
Total Output Wattage (W): 3
Driver Included: No
Input Voltage (V): 120
Constant Current (MA): 350

#### LED

Color Temperature (°K): 3000 / 4000

Max. Delivered Lumen (lm): 285 / 300

CRI: >80 CRI

Number of LEDs: 1

**OPTICAL** 

Reflector°: Polycarbonate metallized reflector

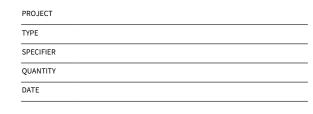
Optic°: 45

**RATINGS AND CERTIFICATIONS** 

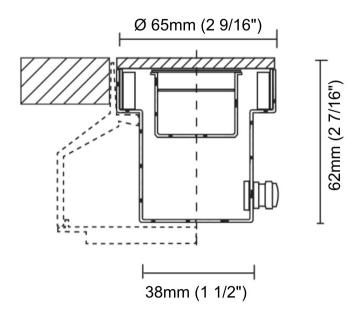
Certified By: Certified for North American Standards

IP rating: IP67

IK Rating: IK07







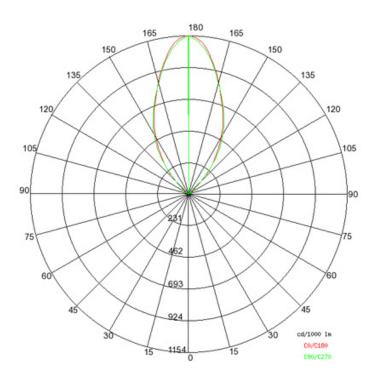
△ 0.3kg / 0.66lbs

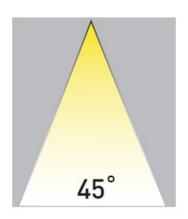


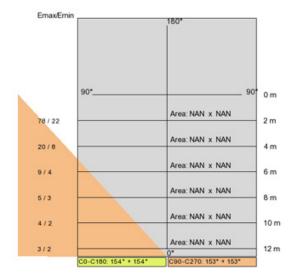


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# **OLODUM ROUND RECESSED**

## E10Q0034-

base number

Temperature

1.To build a product code in our configurator select the specify button on the base model # product page

2. To build a manual product code on this datasheet choose from the options listed below in blue font and add the suffix to the base model #

#### **GENERAL**

Series: Olodum
Subseries: Olodum Round
Brand: Side
Division: Exterior
Mounting Type: Recessed
Mounting Location: Ceiling
Subcategory: Downlight

Mounting Type: Recessed
Mounting Location: Ceiling
Subcategory: Downlight
PHYSICAL
Shape: Round
Diameter (mm): 76
Diameter (in): 3
Height (mm): 58
Height (in): 2 <sup>5</sup> / <sub>16</sub>
Min. Recessing Depth (mm): 63
Min. Recessing Depth (in): 2 ½
Light Distribution: Direct
Weight (kg): 0.4
Weight (lbs): 0.88
Diffuser: Clear tempered glass
Gasket: Silicon rubber
Fixture Finish: SSS
Fixture Material: Stainless Steel
ELECTRICAL

ELECTRICAL
Lamp Type: LED (Zhaga Standard)
Input Wattage (W): 4.4
Total Output Wattage (W): 3.1
Dimming: Non-Dimming / Phase Dimming (120Vac only) / 0-10V Dimming
Driver Included: No
Driver Location: Remote
Driver Type: Constant Current - 120 / 277Vac
Driver Class: Class 2
Input Voltage (V): 120 - 277
Constant Current (MA): 350

LED
Color Temperature (°K): 3000 / 4000
Max. Delivered Lumen (lm): 285 / 300
Nominal Lumen (lm): 350 / 380
CRI: >80 CRI
Lamp Life (hrs): 50000
OPTICAL

Optic°: 45

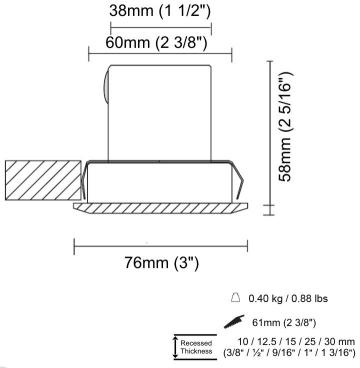
#### RATINGS AND CERTIFICATIONS

Certified By: Certified for North American Standards

IP rating: IP67
IK Rating: IK07

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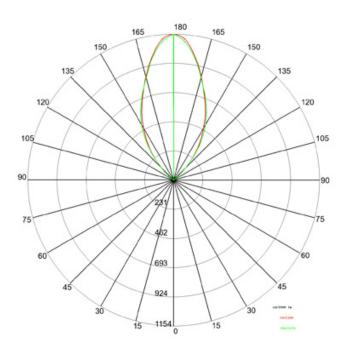




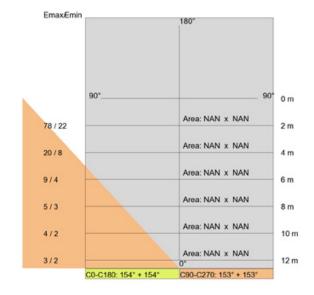


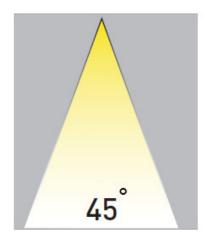
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#### **OLODUM RECESSED**

E10Q0040-

base number

1.To build a product code in our configurator select the specify button on the base model # product page

2. To build a manual product code on this datasheet choose from the options listed below in blue font and add the suffix to the base model #

#### **GENERAL**

Series: Olodum Brand: Side Division: Exterior Mounting Type: Recessed Mounting Location: Ceiling Subcategory: Downlight

**PHYSICAL** Shape: Round Diameter (mm): 220 Diameter (in): 8 11/16 Height (mm): 215 Height (in): 8 1/16 Light Distribution: Adjustable / Direct Weight (kg): 3.6 Weight (lbs): 7.94 Diffuser: Clear tempered glass Fixture Finish: SSS

#### **ELECTRICAL**

Lamp Type: LED (Zhaga Standard) Input Wattage (W): 20 Total Output Wattage (W): 17 Dimming: Tri-Mode (Non-Dimming and Phase Dimming (120Vac only) and 0-10V Dimming)

Driver Included: Yes

Driver Location: Integrated

Driver Type: Constant Current - Universal

Fixture Material: Aluminum Die Cast

Driver Class: Class 2

Input Voltage (V): 120 - 277

Constant Current (MA): 500

Upon Request: (Not included - see components [IP65 or higher enclosure to be supplied by others]) 0-10Vdc dimming / (Included) Integral: Phase dimming @120Vac only / 277Vac

#### **LED**

Color Temperature (°K): 3000 / 4000

Max. Delivered Lumen (lm): 2434.9 / 2607.5

Nominal Lumen (lm): 2750 / 2945

CRI: >80 CRI

Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: Polycarbonate metallized reflector

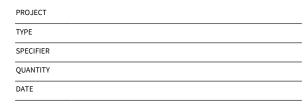
Opticº: 15 / 45 / 65 / ASY

### RATINGS AND CERTIFICATIONS

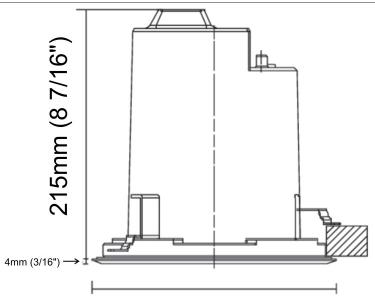
Certified By: Certified for North American Standards

IP rating: IP67

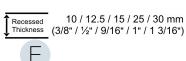
IK Rating: IK10

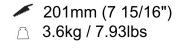






220mm (8 11/16")

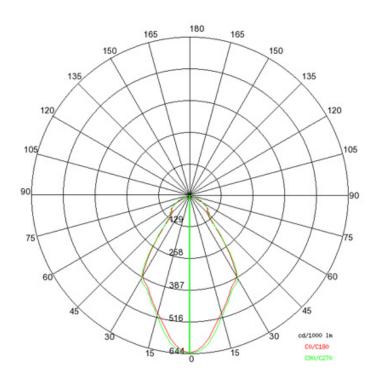




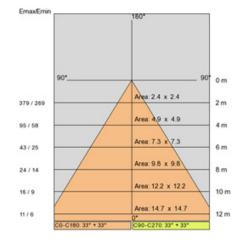


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### **OLODUM RECESSED**

E10Q0046-

base number

Color BA Options

1.To build a product code in our configurator select the specify button on the base model # product page

2. To build a manual product code on this datasheet choose from the options listed below in blue font and add the suffix to the base model #

#### **GENERAL**

Series: Olodum
Brand: Side
Division: Exterior
Mounting Type: Recessed
Mounting Location: Ceiling
Subcategory: Downlight

PHYSICAL

Shape: Round

Diameter (im): 220

Diameter (in): 8 11/15

Height (mm): 215

Height (in): 8 7/16

Light Distribution: Adjustable / Direct

Weight (kg): 3.6

Weight (lbs): 7.94

Diffuser: Clear tempered glass

Fixture Finish: SSS

#### **ELECTRICAL**

Lamp Type: LED (Zhaga Standard)
Input Wattage (W): 20
Total Output Wattage (W): 17
Dimming: Tri-Mode (Non-Dimming and Phase Dimming (120Vac only) and 0-10V Dimming)
Driver Included: Yes

Driver Location: Integrated

Driver Type: Constant Current - Universal

Driver Class: Class 2

Fixture Material: Aluminum Die Cast

Input Voltage (V): 120 - 277 Constant Current (MA): 500

Upon Request: (Not included - see components [IP65 or higher enclosure to be supplied by others]) 0-10Vdc dimming / (Included)

Integral: Phase dimming @120Vac only / 277Vac

#### LED

Color Temperature (°K): 3000 / 4000

Max. Delivered Lumen (lm): 2434.9 / 2587.5

Nominal Lumen (lm): 2750 / 2945

CRI: >80 CRI

Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: Polycarbonate metallized reflector

Beam Angle: Spot -  $15^{\circ}$  / Flood -  $45^{\circ}$  / Wide Flood -  $65^{\circ}$  / Asymmetric

#### **RATINGS AND CERTIFICATIONS**

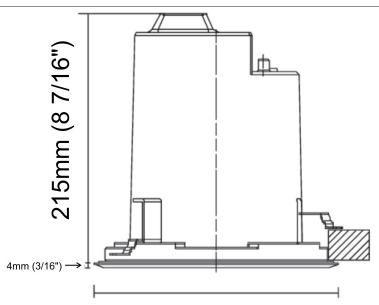
Certified By: Certified for North American Standards

IP rating: IP67

IK Rating: IK10

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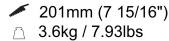




220mm (8 11/16")



10 / 12.5 / 15 / 25 / 30 mm (3/8" / ½" / 9/16" / 1" / 1 3/16")

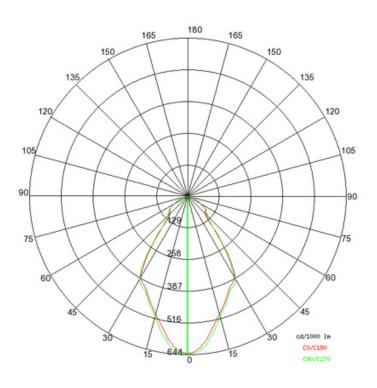


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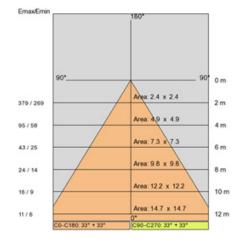


E10Q0046-

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# E10Q0052-

base number

Color BA Options Temperature

1.To build a product code in our configurator select the specify button on the base model # product page

2. To build a manual product code on this datasheet choose from the options listed below in blue font and add the suffix to the base model #

#### **GENERAL**

Series: Olodum	
Subseries: Olodum Round	
Brand: Side	
Division: Exterior	
Mounting Type: Recessed	
Mounting Location: Ceiling	
Subcategory: Downlight	

Mounting Location: Ceiling
Subcategory: Downlight
PHYSICAL
Shape: Round
Diameter (mm): 130
Diameter (in): 5 1/8
Height (mm): 132
Height (in): 5 <sup>3</sup> / <sub>16</sub>
Light Distribution: Downlight
Weight (kg): 1.450
Weight (lbs): 3.2
Diffuser: Clear tempered glass
Gasket: Silicon rubber
Fixture Finish: SSS
Fixture Material: Aluminum Die Cast
ELECTRICAL
Laman Tunas LED (Zhana Standard)

Lamp Type: LED (Zhaga Standard)
Input Wattage (W): 6.8

Total Output Wattage (W): 5.8

Dimming: 0-10V Dimming / Phase Dimming (120Vac Only)

Driver Included: No

Driver Location: Remote

Driver Type: Constant Current - Universal

Driver Class: Class 2

Input Voltage (V): 120 - 277

Constant Current (MA): 203

Upon Request: (Not included - see components [IP65 or higher enclosure to be supplied by others]) 0-10Vdc dimming / Phase dimming @120Vac only / 277Vac

#### LED

Color Temperature (°K): 3000 / 4000

Max. Delivered Lumen (lm): 814.5 / 868.5

CRI: >80 CRI

Lamp Life (hrs): 50000

# OPTICAL

Reflector°: Polycarbonate metallized reflector

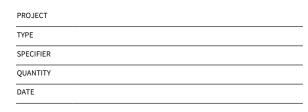
Optic°: 15 / 30 / 45

#### RATINGS AND CERTIFICATIONS

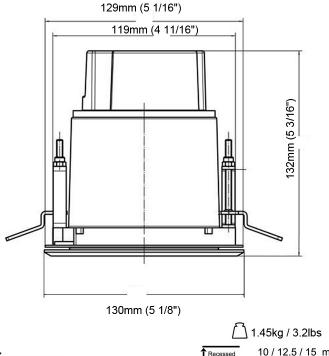
Certified By: Certified for North American Standards

IP rating: IP67

IK Rating: IK10







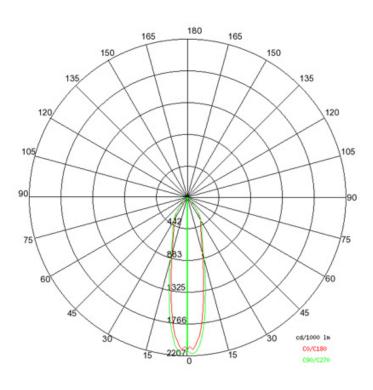


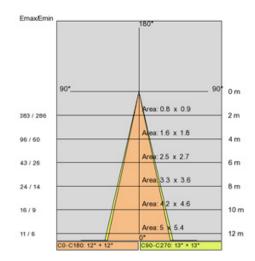
Recessed Thickness (3/8" / ½" / 9/16" )



E10Q0052-

PROJECT	
ТҮРЕ	
SPECIFIER	
QUANTITY	
DATE	









# **OLODUM RECESSED**

## E10Q0058-

base number

Color	Lens
Temperature	Options

1.To build a product code in our configurator select the specify button on the base model # product page

2. To build a manual product code on this datasheet choose from the options listed below in blue font and add the suffix to the base model #

#### **GENERAL**

Series: Olodum	
Brand: Side	
Division: Exterior	
Mounting Type: Recessed	
Mounting Location: Ceiling	

Mounting Type: Recessed
Mounting Location: Ceiling
PHYSICAL
Shape: Round
Diameter (mm): 180
Diameter (in): 7 ½
Height (mm): 250
Height (in): 9 13/16
Light Distribution: Direct
Weight (kg): 3.4
Weight (lbs): 7.5
Diffuser: Clear Tempered Glass
Fixture Finish: SSS
Fixture Material: Aluminum Die Cast
ELECTRICAL

Lamp Type: LED (Zhaga Standard)

Input Wattage (W): 9.1

#### LED

Number of LEDs: 1 Color Temperature (°K): 3000 / 4000 Max. Delivered Lumen (lm): 1157 / 1239 Nominal Lumen (lm): 1410 / 1510 CRI: >90 CRI

### OPTICAL

Reflector°: Polycarbonate metallized reflector

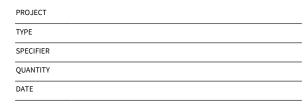
Optic°: 15° / 30° / 45°

#### **RATINGS AND CERTIFICATIONS**

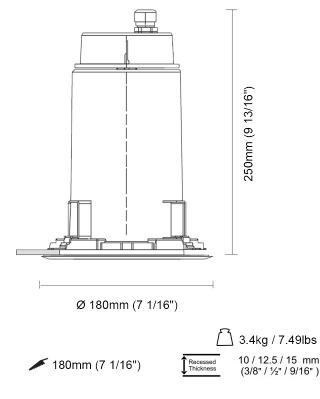
Certified By: CSA Certified to UL and CSA Standards

IP rating: IP67

IK Rating: IK10









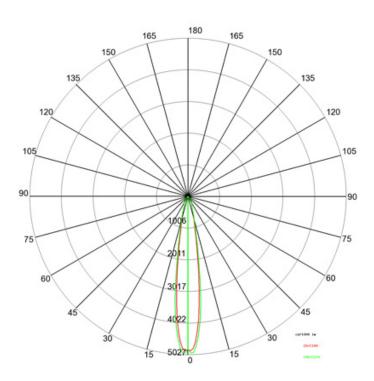


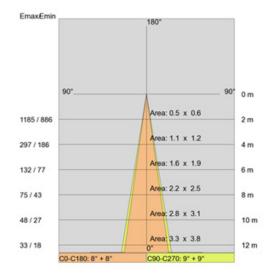
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E10Q0058-

PROJECT	
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# **OLODUM**

COLOR FINISH CHART

PROJECT		
TYPE		
SPECIFIER		
QUANTITY		
DATE		

#### **Fixture Finish**



**Digital:** Not all screens are calibrated the same, and therefore, colors will appear differently between screens. **Physical:** When texture is involved, there will be variations in color, character and tone within a product series and between product families.





# **OLODUM**

	PROJECT
	ТҮРЕ
	SPECIFIER
	QUANTITY
	DATE
	QUANTITY

# **LEGEND**

<u></u>	floor-mounted	¥	pivotable	⊛	special LED (upon request) RGB, RGBW, tunable, gold+, meat+, art+, fashion+
7	wall and ceiling: recessed and surface mounted	S	rotating	0	warm dim / natural dimming LED
$\uparrow$	ceiling-mounted and wall-mounted	Œ	illuminate tilted	0	rechargeable battery powered
$\rightarrow$	wall-mounted	I	color of suspension cable	In-sec	fixture with natural vivid LED (upon request)
Y	omni-directional light distribution	<b>←…</b>	length of suspension cable	CRI	color rendering index
	direct light distribution		reflector degree selection	(K)	color temperature
X	direct/indirect light distribution	s s	super spot	LM	lumen (luminous flux)
Y	indirect light distribution	*	lens	₩	efficacy (lumens per watt)
	asymmetric light distribution	8	lens pack	UGR	Unified Glare Rating (UGR) range from 5-40
A	aura light distribution	0	shine ring	*	marine grade (AISI 316 stainless steel)
R	round wall or ceiling cut-out	$\odot$	integrated shine ring with diffuser	30	walk on
Z)	square wall or ceiling cut-out		free individual colors 01-29	<b>9</b>	drive on
4	the supplied jig specifies the cutout dimensions	0	individual colors: 00 (free of charge), 01-25 (extra charge)	DSC	Dark Sky Compliance
<b>□</b> *,*	minimum distance (meters) lamp - object	<b>♦</b>	luminaire part to be colored (F1)	Ġ	Americans with Disabilities Act (less than 4" off the wall located between 27"-84" from floor)
$\hat{\pm}$	recessed depth	lack	luminaire part to be colored (F2)		lamp protected against explosion
<b>1</b>	ceiling thickness in mm		luminaire part to be colored (F3)	4	blown glass using traditional methods by master glass blower
1	ceiling thickness selection		luminaire part to be colored (F4)	<b>(</b> )	acoustic material
	dimmable DP (phase), DV (0-10V), DD (dali), DS (step-dim)		luminaire part to be colored (F5)		protection class I, protection insulation
<u>جه</u>	included or excluded LED driver/transformer/ control gear	•	color of 3-circuit adaptor		protection class II, protection insulation
8	separately switchable	$\odot$	indirect diffuser		ETL Certified to UL and CSA Standards
<b>9</b>	sensor	0	direct diffuser	շ <b>(Մ</b> ) սո	UL Certified to UL and CSA Standards
	remote control	0	ball-proof (upon request)	<b>(1)</b>	CSA Certified to UL and CSA Standards
J	available upon request	9	accessory	<b>(Z</b> )	Certified for North American Standards

### **IP RATING**

IP20	protected against ingress of solid bodies greater than 12.5mm (finger)
IP33	protected against ingress of solid bodies greater than 2.5mm protected against sprays of water up to 60 degrees from the vertical (rain)
IP40	protected against ingress of solid bodies greater than 1mm (wire) no protection against the ingress of moisture
IP43	protected against ingress of solid bodies greater than 1mm (wire) protected against sprays of water up to 60 degrees from the vertical (rain)
IP44	protected against ingress of solid bodies greater than 1mm (wire) protected against water splashed from all directions
IP54	protected against limited ingress of dust (wet rooms/covered outdoor areas) protected against water splashed from all directions
IP65	protected against ingress of dust protected against jets of water
IP66	protected against ingress of dust protected against powerful jets of water or heavy seas
IP67	protected against ingress of dust protected against immersion of water between 15cm - 1m for 30 minutes
IP68	protected against ingress of dust protected against immersion of water under pressure for long periods

### **IK RATING**

IK02	protected against 0.2 joules impact (equivalent to 0.25kg mass dropped from 80mm above the surface)
ІКОЗ	protected against 0.35 joules impact (equivalent to 0.25kg mass dropped from 140mm above the surface)
IK04	protected against 0.5 joules impact (equivalent to 0.25kg mass dropped from 200mm above the surface)
IK05	protected against 0.7 joules impact (equivalent to 0.25kg mass dropped from 280mm above the surface)
IK06	protected against 1 joules impact (equivalent to 0.25kg mass dropped from 400mm above the surface)
IK07	protected against 2 joules impact (equivalent to 0.5kg mass dropped from 400mm above the surface) $$
IK08	protected against 5 joules impact (equivalent to 1.7kg mass dropped from 300mm above the surface)
IK09)	protected against 10 joules impact (equivalent to 5.0kg mass dropped from 200mm above the surface)

protected against 20 joules impact (equivalent to 5.0kg mass dropped from 400mm above the surface)

protected against 0.14 joules impact (equivalent to 0.25kg mass dropped from 56mm above the surface)