

## INVADER COMPACT TRIMLESS

### A35809-

base number    Color    Finishes    Ceiling    Reflector  
 Temperature    (Diamond)    Thickness    Options

- To build a product code in our configurator select the specify button on the base model # product page
- 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: Invader Compact  
 Subseries: Invader Compact  
 Brand: Prolight  
 Division: Architectural  
 Mounting Type: Trimless  
 Mounting Location: Ceiling  
 Subcategory: Downlight

#### PHYSICAL

Shape: Round  
 Diameter (mm): 75  
 Diameter (in): 2 15/16  
 Height (mm): 52  
 Height (in): 2 1/16  
 Ceiling Thickness (mm): 10 / 12.5 / 15 / 25  
 Ceiling Thickness (in): 3/8 or 1/2 or 9/16 or 1  
 Min. Recessing Depth (mm): 60  
 Min. Recessing Depth (in): 2 3/8  
 Light Distribution: Downlight  
 Fixture Finish: SSR / BKV / CWI / CRY / HAB / UFT / ITA / RUA / FTG / MYG / LOD / PUS / FRO / FUP / KIA / POP / BLS / SPG / MEY / GOH / GUM / CHC / COM / ABZ / JAG / OBR / MOS / ROR  
 Fixture Material: Aluminum  
 Cut-out Measurements: D. 86mm / 3 3/8"  
 Upon Request: Unique Sizes Unique Ceiling Thickness

#### ELECTRICAL

Lamp Type: LED (Zhaga Standard)  
 Input Wattage (W): 12  
 Total Output Wattage (W): 10.9  
 Dimming: Tri-Mode (Non-Dimming and Phase Dimming (120Vac only) and 0-10V Dimming)  
 Driver Included: No  
 Driver Location: Recessed Housing  
 Driver Type: Constant Current - 120Vac  
 Driver Class: Class 2  
 Housing: See components  
 Input Voltage (V): 120 - 277  
 Constant Current (MA): 500mA

#### LED

Number of LEDs: 1  
 Color Temperature (°K): 2700 / 3000 / 3500 / 4000  
 Max. Delivered Lumen (lm): 1012 / 1059 / 1089 / 1123  
 Nominal Lumen (lm): 1141 / 1195 / 1123 / 1266  
 CRI: >90 CRI  
 Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: 18 / 36 / 56  
 Upon Request: Special Beam Angles

#### RATINGS AND CERTIFICATIONS

Certified By: Certified for North American Standards  
 IP rating: IP44



Ø75mm 2 15/16"

Ø85mm 3 3/8"



## INVADER COMPACT TRIMLESS

A35809-

PROJECT

TYPE

SPECIFIER

QUANTITY

DATE



PROJECT	_____
TYPE	_____
SPECIFIER	_____
QUANTITY	_____
DATE	_____

## INVADER COMPACT TRIMLESS

### A35810-

base number    Finishes (Diamond)    Ceiling Thickness    Reflector Options

- To build a product code in our configurator select the specify button on the base model # product page
- 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: Invader Compact  
 Subseries: Invader Compact  
 Brand: Prolicht  
 Division: Architectural  
 Mounting Type: Trimless  
 Mounting Location: Ceiling  
 Subcategory: Downlight

#### PHYSICAL

Shape: Round  
 Diameter (mm): 75  
 Diameter (in): 2 15/16  
 Height (mm): 52  
 Height (in): 2 1/8  
 Ceiling Thickness (mm): 10 / 12.5 / 15 / 25  
 Ceiling Thickness (in): 3/8 or 1/2 or 9/16 or 1  
 Min. Recessing Depth (mm): 60  
 Min. Recessing Depth (in): 2 3/8  
 Light Distribution: Downlight  
 Fixture Finish: SSR / BKV / CWI / CRY / HAB / UFT / ITA / RUA / FTG / MYG / LOD / PUS / FRO / FUP / KIA / POP / BLS / SPG / MEY / GOH / GUM / CHC / COM / ABZ / JAG / OBR / MOS / ROR  
 Fixture Material: Aluminum  
 Cut-out Measurements: D. 86mm / 3 3/8"  
 Upon Request: Unique Sizes Unique Ceiling Thickness

#### ELECTRICAL

Lamp Type: LED (Zhaga Standard)  
 Input Wattage (W): 11  
 Total Output Wattage (W): 10  
 Dimming: Dali Dimming  
 Driver Included: No  
 Driver Location: Recessed Housing  
 Driver Type: Constant Current - 120Vac  
 Housing: See Components  
 Input Voltage (V): 120  
 Constant Current (MA): 250mA

#### LED

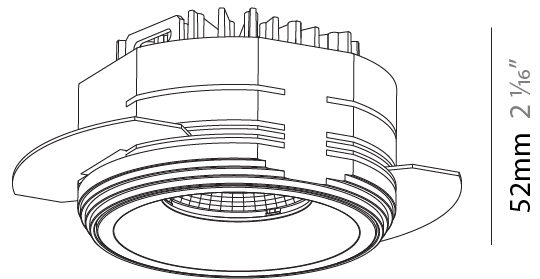
Number of LEDs: 1  
 Color Temperature (°K): Warm Dim  
 Max. Delivered Lumen (lm): 898  
 Nominal Lumen (lm): 1004  
 CRI: >90 CRI  
 Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: 16 / 36 / 56  
 Upon Request: Special Beam Angles

#### RATINGS AND CERTIFICATIONS

Certified By: Certified for North American Standards  
 IP rating: IP44



Ø75mm 2 15/16"

Ø85mm 3 3/8"

52mm 2 1/8"



## INVADER COMPACT TRIMLESS

A35810-

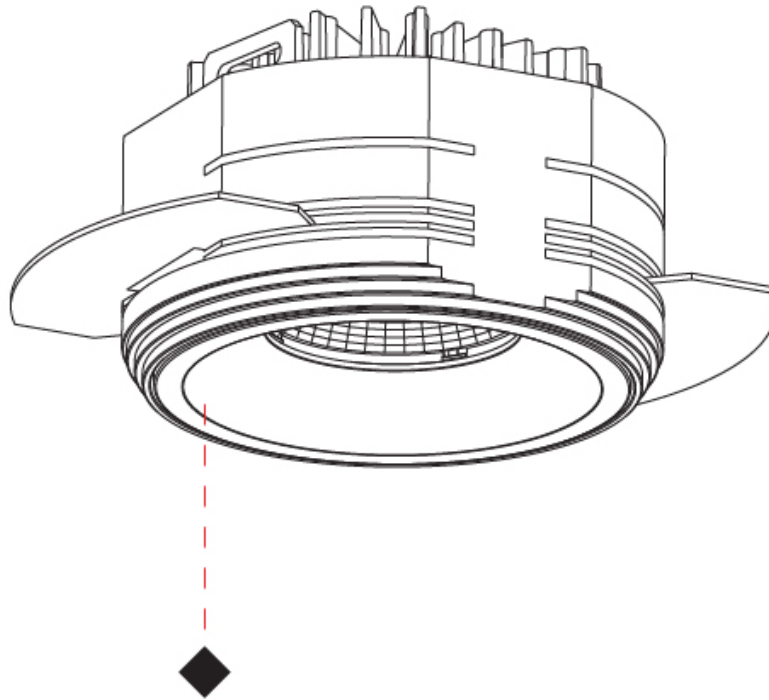
PROJECT

TYPE

SPECIFIER

QUANTITY

DATE



PROJECT
TYPE
SPECIFIER
QUANTITY
DATE

## INVADER COMPACT RECESSED

### A35811-

base number	Color Temperature	Finishes (Diamond)	Reflector Options	Lens Options
-------------	----------------------	-----------------------	----------------------	-----------------

- To build a product code in our configurator select the specify button on the base model # product page
- 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: Invader Compact  
 Subseries: Invader Compact  
 Brand: Prolicht  
 Division: Architectural  
 Mounting Type: Recessed  
 Mounting Location: Ceiling  
 Subcategory: Downlight

#### PHYSICAL

Shape: Round  
 Diameter (mm): 75  
 Diameter (in): 2 15/16  
 Height (mm): 52  
 Height (in): 2 1/16  
 Ceiling Thickness (mm): 1 - 25  
 Ceiling Thickness (in): 1/16 - 1  
 Min. Recessing Depth (mm): 55  
 Min. Recessing Depth (in): 2 3/16  
 Light Distribution: Downlight  
 Fixture Finish: SSR / BKV / CWI / CRY / HAB / UFT / ITA / RUA / FTG / MYG / LOD / PUS / FRO / FUP / KIA / POP / BLS / SPG / MEY / GOH / GUM / CHC / COM / ABZ / JAG / OBR / MOS / ROR  
 Fixture Material: Aluminum  
 Cut-out Measurements: D. 68mm / 2 11/16"

#### ELECTRICAL

Lamp Type: LED (Zhaga Standard)  
 Input Wattage (W): 12  
 Total Output Wattage (W): 9  
 Dimming: Tri-Mode (Non-Dimming and Phase Dimming (120Vac only) and 0-10V Dimming)  
 Driver Included: No  
 Driver Location: Recessed Housing  
 Driver Type: Constant Current - 120Vac  
 Driver Class: Class 2  
 Housing: See components  
 Input Voltage (V): 120 - 277  
 Constant Current (MA): 500mA

#### LED

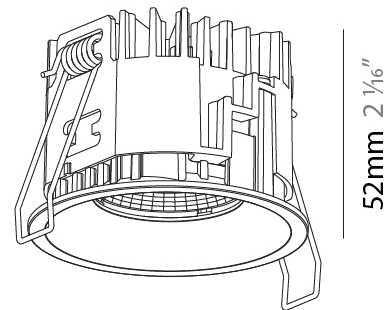
Number of LEDs: 1  
 Color Temperature (°K): 2700 / 3000 / 3500 / 4000  
 Max. Delivered Lumen (lm): 1012 / 1059 / 1098 / 1123  
 Nominal Lumen (lm): 1141 / 1194 / 1238 / 1266  
 CRI: >90 CRI  
 Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: 18 / 36 / 56

#### RATINGS AND CERTIFICATIONS

Certified By: Certified for North American Standards  
 IP rating: IP44



Ø75mm 2 15/16"



## INVADER COMPACT RECESSED

A35811-

PROJECT

TYPE

SPECIFIER

QUANTITY

DATE



PROJECT
TYPE
SPECIFIER
QUANTITY
DATE

## INVADER COMPACT RECESSED

### A35812-

base number    Finishes (Diamond)    Reflector Options

- To build a product code in our configurator select the specify button on the base model # product page
- 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: Invader Compact  
 Subseries: Invader Compact  
 Brand: Prolicht  
 Division: Architectural  
 Mounting Type: Recessed  
 Mounting Location: Ceiling  
 Subcategory: Downlight

#### PHYSICAL

Shape: Round  
 Diameter (mm): 75  
 Diameter (in): 2 15/16  
 Height (mm): 52  
 Height (in): 2 1/16  
 Ceiling Thickness (mm): 1 - 25  
 Ceiling Thickness (in): 1/16 - 1  
 Min. Recessing Depth (mm): 55  
 Min. Recessing Depth (in): 2 3/16  
 Light Distribution: Downlight  
 Fixture Finish: SSR / BKV / CWI / CRY / HAB / UFT / ITA / RUA / FTG / MYG / LOD / PUS / FRO / FUP / KIA / POP / BLS / SPG / MEY / GOH / GUM / CHC / COM / ABZ / JAG / OBR / MOS / ROR  
 Fixture Material: Aluminum  
 Cut-out Measurements: D. 68mm / 2 11/16"

#### ELECTRICAL

Lamp Type: LED (Zhaga Standard)  
 Input Wattage (W): 11  
 Total Output Wattage (W): 10  
 Dimming: Dali Dimming  
 Driver Included: No  
 Driver Location: Recessed Housing  
 Driver Type: Constant Current - 120Vac  
 Housing: See Components  
 Input Voltage (V): 120  
 Constant Current (MA): 250mA

#### LED

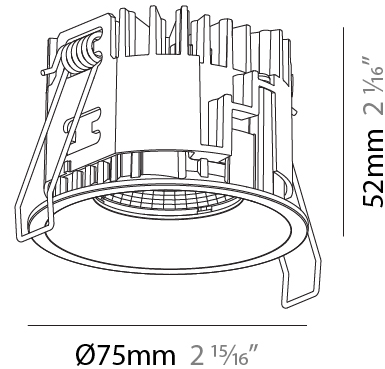
Number of LEDs: 1  
 Color Temperature (°K): Warm Dim  
 Max. Delivered Lumen (lm): 898  
 Nominal Lumen (lm): 1004  
 CRI: >90 CRI  
 Lamp Life (hrs): 50000

#### OPTICAL

Reflector: 16 / 36 / 56

#### RATINGS AND CERTIFICATIONS

Certified By: Certified for North American Standards  
 IP rating: IP44



## INVADER COMPACT RECESSED

A35812-

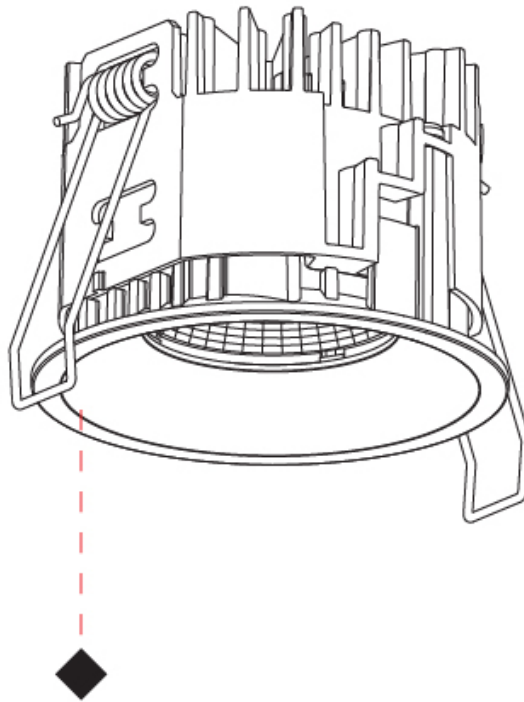
PROJECT

TYPE

SPECIFIER

QUANTITY

DATE





PROJECT	_____
TYPE	_____
SPECIFIER	_____
QUANTITY	_____
DATE	_____

## INVADER COMPACT ADJUSTABLE RECESSED

### A35813-

base number	Color Temperature	Finishes (Diamond)	Finishes (Triangle)	Finishes (Circle)	Reflector Options
-------------	-------------------	--------------------	---------------------	-------------------	-------------------

- To build a product code in our configurator select the specify button on the base model # product page
- 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: Invader Compact  
 Subseries: Invader Compact Adjustable  
 Brand: Prolight  
 Division: Architectural  
 Mounting Type: Recessed  
 Mounting Location: Ceiling  
 Subcategory: Downlight

#### PHYSICAL

Shape: Round  
 Diameter (mm): 75  
 Diameter (in): 2 15/16  
 Height (mm): 75  
 Height (in): 2 15/16  
 Ceiling Thickness (mm): 1 - 25  
 Ceiling Thickness (in): 1/16 - 1  
 Min. Recessing Depth (mm): 85  
 Min. Recessing Depth (in): 3 3/8  
 Light Distribution: Downlight  
 Fixture Finish: [SSR / BKV / CWI / CRY / HAB / UFT / ITA / RUA / FTG / MYG / LOD / PUS / FRO / FUP / KIA / POP / BLS / SPG / MEY / GOH / GUM / CHC / COM / ABZ / JAG / OBR / MOS / ROR](#)  
 Fixture Material: Aluminum  
 Cut-out Measurements: D. 68mm / 2 11/16"  
 Upon Request: Unique Sizes Unique Ceiling Thickness

#### ELECTRICAL

Lamp Type: LED (Zhaga Standard)  
 Input Wattage (W): 11  
 Total Output Wattage (W): 10  
 Dimming: Tri-Mode (Non-Dimming and Phase Dimming (120Vac only) and 0-10V Dimming)  
 Driver Included: No  
 Driver Location: Recessed Housing  
 Driver Type: Constant Current - 120Vac  
 Driver Class: Class 2  
 Housing: See Components  
 Input Voltage (V): 120 - 277  
 Constant Current (MA): 500

#### LED

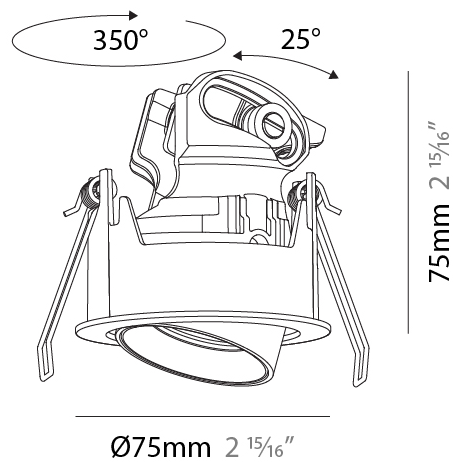
Number of LEDs: 1  
 Color Temperature (°K): [2700 / 3000 / 3500 / 4000](#)  
 Max. Delivered Lumen (lm): 812 / 860 / 892 / 911  
 Nominal Lumen (lm): 1141 / 1194 / 1238 / 1266  
 CRI: >90 CRI  
 Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: [22 / 38 / 48](#)  
 Adjustability: Rotational 350° / Tilt 25°  
 Upon Request: Special Beam Angles

#### RATINGS AND CERTIFICATIONS

Certified By: Certified for North American Standards  
 IP rating: IP40



## INVADER COMPACT ADJUSTABLE RECESSED

A35813-

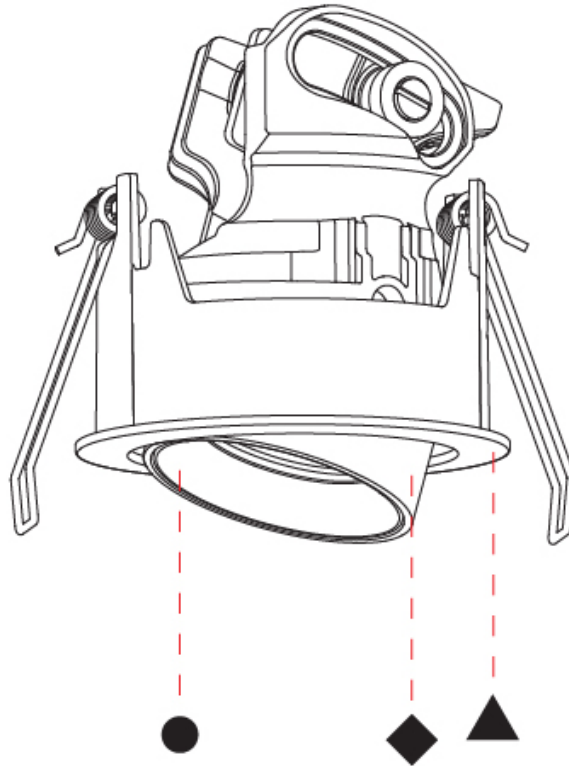
PROJECT \_\_\_\_\_

TYPE \_\_\_\_\_

SPECIFIER \_\_\_\_\_

QUANTITY \_\_\_\_\_

DATE \_\_\_\_\_



A

PROJECT	_____
TYPE	_____
SPECIFIER	_____
QUANTITY	_____
DATE	_____

## INVADER COMPACT ADJUSTABLE RECESSED

### A35814-

base number	Finishes (Diamond)	Finishes (Triangle)	Finishes (Circle)	Reflector Options
-------------	-----------------------	------------------------	----------------------	----------------------

- To build a product code in our configurator select the specify button on the base model # product page
- 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: Invader Compact  
 Subseries: Invader Compact Adjustable  
 Brand: Prolight  
 Division: Architectural  
 Mounting Type: Recessed  
 Mounting Location: Ceiling  
 Subcategory: Downlight

#### PHYSICAL

Shape: Round  
 Diameter (mm): 75  
 Diameter (in): 2 15/16  
 Height (mm): 75  
 Height (in): 2 15/16  
 Ceiling Thickness (mm): 1 - 25  
 Ceiling Thickness (in): 1/16 - 1  
 Min. Recessing Depth (mm): 85  
 Min. Recessing Depth (in): 3 3/8  
 Light Distribution: Downlight  
 Fixture Finish: SSR / BKV / CWI / CRY / HAB / UFT / ITA / RUA / FTG / MYG / LOD / PUS / FRO / FUP / KIA / POP / BLS / SPG / MEY / GOH / GUM / CHC / COM / ABZ / JAG / OBR / MOS / ROR  
 Fixture Material: Aluminum  
 Cut-out Measurements: D. 68mm / 2 11/16"

#### ELECTRICAL

Lamp Type: LED (Zhaga Standard)  
 Input Wattage (W): 11  
 Total Output Wattage (W): 10  
 Dimming: Dali Dimming  
 Driver Included: No  
 Driver Location: Recessed Housing  
 Driver Type: Constant Current - 120Vac  
 Housing: See Components  
 Input Voltage (V): 120  
 Constant Current (MA): 250

#### LED

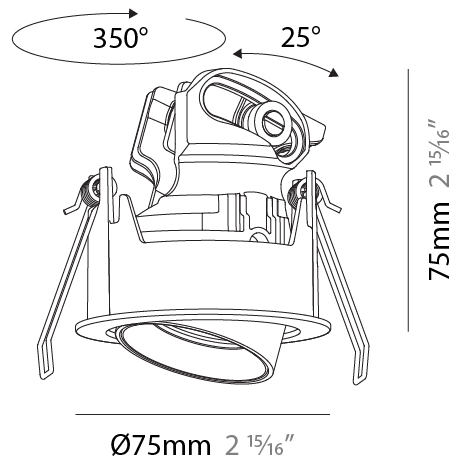
Number of LEDs: 1  
 Color Temperature (°K): Warm Dim  
 Max. Delivered Lumen (lm): 862  
 Nominal Lumen (lm): 1004  
 CRI: >90 CRI  
 Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: 24 / 40 / 54  
 Adjustability: Rotational 350° / Tilt 25°

#### RATINGS AND CERTIFICATIONS

Certified By: Certified for North American Standards  
 IP rating: IP40



## INVADER COMPACT ADJUSTABLE RECESSED

A35814-

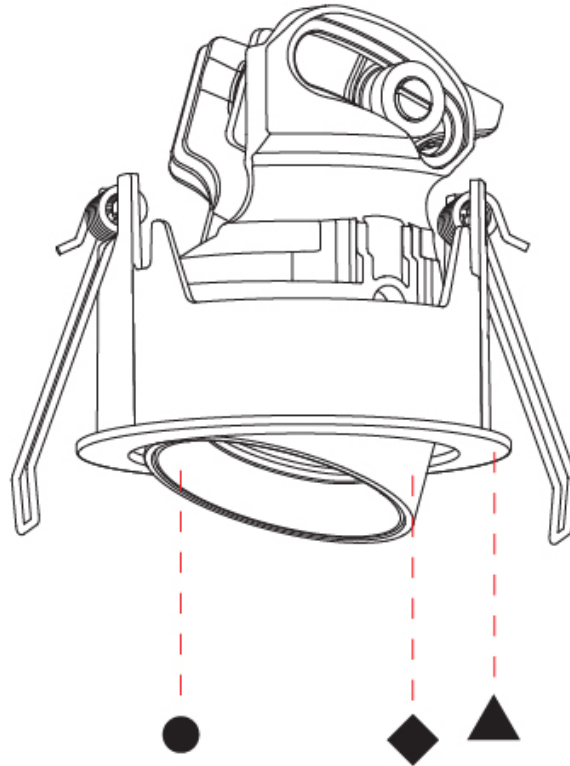
PROJECT

TYPE

SPECIFIER

QUANTITY

DATE



A

## INVADER COMPACT ADJUSTABLE TRIMLESS

### A35846-

base number    Color    Finishes    Finishes    Finishes    Ceiling    Reflector  
 Temperature    (Diamond)    (Triangle)    (Circle)    Thickness    Options

- To build a product code in our configurator select the specify button on the base model # product page
- 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: Invader Compact  
 Subseries: Invader Compact Adjustable  
 Brand: Prolicht  
 Division: Architectural  
 Mounting Type: Trimless  
 Mounting Location: Ceiling  
 Subcategory: Downlight

#### PHYSICAL

Shape: Round  
 Diameter (mm): 75  
 Diameter (in): 2 15/16  
 Height (mm): 75  
 Height (in): 2 15/16  
 Ceiling Thickness (mm): 10 / 12 / 15  
 Ceiling Thickness (in): 3/8 or 1/2 or 9/16  
 Min. Recessing Depth (mm): 85  
 Min. Recessing Depth (in): 3 3/8  
 Light Distribution: Downlight  
 Fixture Finish: SSR / BKV / CWI / CRY / HAB / UFT / ITA / RUA / FTG / MYG / LOD / PUS / FRO / FUP / KIA / POP / BLS / SPG / MEY / GOH / GUM / CHC / COM / ABZ / JAG / OBR / MOS / ROR  
 Fixture Material: Aluminum  
 Cut-out Measurements: D. 86mm / 3 3/8"  
 Upon Request: Unique Sizes Unique Ceiling Thickness

#### ELECTRICAL

Lamp Type: LED (Zhaga Standard)  
 Input Wattage (W): 11  
 Total Output Wattage (W): 10  
 Dimming: Tri-Mode (Non-Dimming and Phase Dimming (120Vac only) and 0-10V Dimming)  
 Driver Included: No  
 Driver Location: Recessed Housing  
 Driver Type: Constant Current - 120Vac  
 Driver Class: Class 2  
 Housing: See components  
 Input Voltage (V): 120 - 277  
 Constant Current (MA): 500

#### LED

Number of LEDs: 1  
 Color Temperature (°K): 2700 / 3000 / 3500 / 4000  
 Max. Delivered Lumen (lm): 821 / 860 / 892 / 911  
 Nominal Lumen (lm): 1141 / 1194 / 1238 / 1266  
 CRI: >90 CRI  
 Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: 22 / 38 / 48  
 Adjustability: Rotational 350° / Tilt 25°  
 Upon Request: Special Beam Angles

#### RATINGS AND CERTIFICATIONS

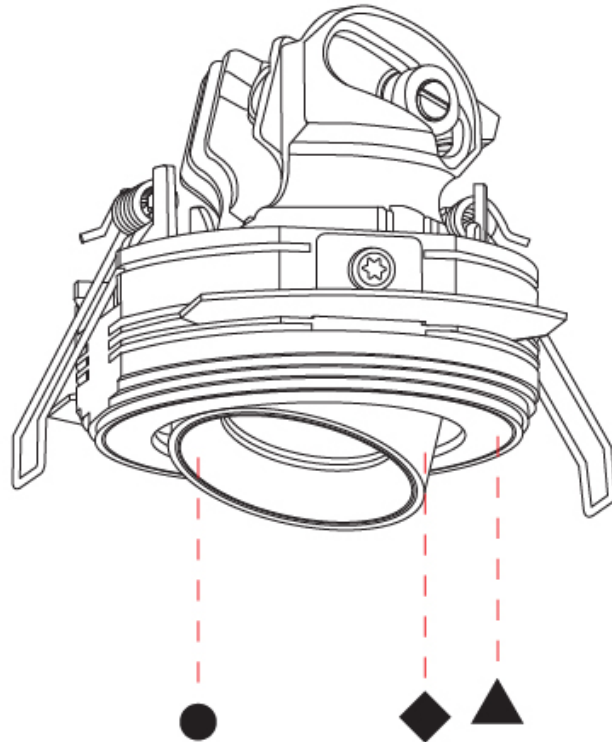
Certified By: Certified for North American Standards  
 IP rating: IP40



## INVADER COMPACT ADJUSTABLE TRIMLESS

A35846-

PROJECT	_____
TYPE	_____
SPECIFIER	_____
QUANTITY	_____
DATE	_____



A

PROJECT
TYPE
SPECIFIER
QUANTITY
DATE

## INVADER COMPACT ADJUSTABLE TRIMLESS

### A35847-

base number	Finishes (Diamond)	Finishes (Triangle)	Finishes (Circle)	Ceiling Thickness	Reflector Options
-------------	--------------------	---------------------	-------------------	-------------------	-------------------

- To build a product code in our configurator select the specify button on the base model # product page
- 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: Invader Compact  
 Subseries: Invader Compact Adjustable  
 Brand: Prolight  
 Division: Architectural  
 Mounting Type: Trimless  
 Mounting Location: Ceiling  
 Subcategory: Downlight

#### PHYSICAL

Shape: Round  
 Diameter (mm): 75  
 Diameter (in): 2 15/16  
 Height (mm): 75  
 Height (in): 2 15/16  
 Ceiling Thickness (mm): 10 / 12 / 15  
 Ceiling Thickness (in): 3/8 or 1/2 or 9/16  
 Min. Recessing Depth (mm): 85  
 Min. Recessing Depth (in): 3 3/8  
 Light Distribution: Downlight  
 Fixture Finish: SSR / BKV / CWI / CRY / HAB / UFT / ITA / RUA / FTG / MYG / LOD / PUS / FRO / FUP / KIA / POP / BLS / SPG / MEY / GOH / GUM / CHC / COM / ABZ / JAG / OBR / MOS / ROR  
 Fixture Material: Aluminum  
 Cut-out Measurements: D. 86mm / 3 3/8"

#### ELECTRICAL

Lamp Type: LED (Zhaga Standard)  
 Input Wattage (W): 11  
 Total Output Wattage (W): 10  
 Dimming: Dali Dimming  
 Driver Included: No  
 Driver Location: Recessed Housing  
 Driver Type: Constant Current - 120Vac  
 Housing: See Components  
 Input Voltage (V): 120  
 Constant Current (MA): 250

#### LED

Number of LEDs: 1  
 Color Temperature (°K): Warm Dim  
 Max. Delivered Lumen (lm): 862  
 Nominal Lumen (lm): 1004  
 CRI: >90 CRI  
 Lamp Life (hrs): 50000

#### OPTICAL

Reflector°: 24 / 40 / 54  
 Adjustability: Rotational 350° / Tilt 25°

#### RATINGS AND CERTIFICATIONS

Certified By: Certified for North American Standards  
 IP rating: IP40



## INVADER COMPACT ADJUSTABLE TRIMLESS

A35847-

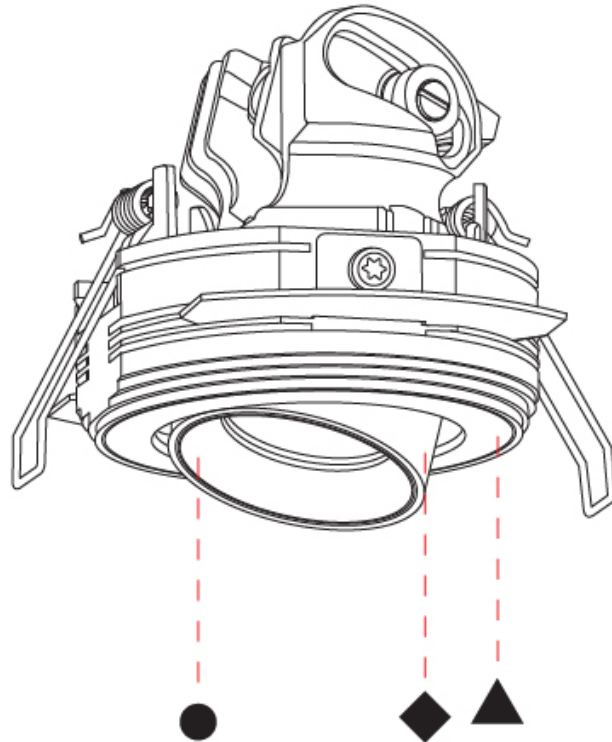
PROJECT

TYPE

SPECIFIER

QUANTITY

DATE



A



## INVADER COMPACT 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.

**Gun Metal:** No Gun Metal finish is alike. It combines a mixture of transparent and black color particles which ensures a highly individual effect and no luminaire being identical.

**Champagne Cream, Copper Mine, Ancient Bronze + Jazz Gold:** These finishes have slight fading from specific powder coating production. Each luminaire will slightly vary.



PROJECT	
TYPE	
SPECIFIER	
QUANTITY	
DATE	

### LEGEND

floor-mounted	pivotal	special LED (upon request) RGB, RGBW, tunable, gold+, meat+, art+, fashion+
wall and ceiling: recessed and surface mounted	rotating	warm dim / natural dimming LED
ceiling-mounted and wall-mounted	illuminate tilted	rechargeable battery powered
wall-mounted	color of suspension cable	fixture with natural vivid LED (upon request)
omni-directional light distribution	length of suspension cable	color rendering index
direct light distribution	reflector degree selection	color temperature
direct/indirect light distribution	super spot	lumen (luminous flux)
indirect light distribution	lens	efficacy (lumens per watt)
asymmetric light distribution	lens pack	Unified Glare Rating (UGR) range from 5-40
aura light distribution	shine ring	marine grade (AISI 316 stainless steel)
round wall or ceiling cut-out	integrated shine ring with diffuser	walk on
square wall or ceiling cut-out	free individual colors 01-29	drive on
the supplied jig specifies the cutout dimensions	individual colors: 00 (free of charge), 01-25 (extra charge)	Dark Sky Compliance
minimum distance (meters) lamp - object	luminaire part to be colored (F1)	Americans with Disabilities Act (less than 4" off the wall located between 27"-84" from floor)
recessed depth	luminaire part to be colored (F2)	lamp protected against explosion
ceiling thickness in mm	luminaire part to be colored (F3)	blown glass using traditional methods by master glass blower
ceiling thickness selection	luminaire part to be colored (F4)	acoustic material
dimmable DP (phase), DV (0-10V), DD (dali), DS (step-dim)	luminaire part to be colored (F5)	protection class I, protection insulation
included or excluded LED driver/transformer/control gear	color of 3-circuit adaptor	protection class II, protection insulation
separately switchable	indirect diffuser	ETL Certified to UL and CSA Standards
sensor	direct diffuser	UL Certified to UL and CSA Standards
remote control	ball-proof (upon request)	CSA Certified to UL and CSA Standards
available upon request	accessory	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

IK01	protected against 0.14 joules impact (equivalent to 0.25kg mass dropped from 56mm above the surface)
IK02	protected against 0.2 joules impact (equivalent to 0.25kg mass dropped from 80mm above the surface)
IK03	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)
IK10	protected against 20 joules impact (equivalent to 5.0kg mass dropped from 400mm above the surface)