

SOLATUBE INTERNATIONAL

SMART LED 10" TUBULAR DAYLIGHT DEVICE

INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

1.

THE PRODUCT ANCHORAGE SHOWN HEREIN IS DESIGNED TO COMPLY WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) REQUIREMENTS, INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ) AT THE DESIGN PRESSURES STATED HEREIN.
2.

THE PRODUCT HAS BEEN TESTED TO TAS 201, TAS 202 AND TAS203 AND FOUND TO BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONE. THE DESIGN PRESSURES SHOWN IN DESIGN PRESSURE RATING TABLE ON SHEET 1 OF THIS DRAWING ARE BASED ON THOSE TEST RESULTS DIVIDED BY A FACTOR OF SAFETY OF 2 WHERE APPLICABLE.
3.

PLASTIC COMPONENTS OF THE SOLATUBE TUBULAR DAYLIGHT DEVICE HAVE BEEN EVALUATED TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE INCLUDING THE HIGH VELOCITY ZONE AND ARE IN COMPLIANCE AS DOCUMENTED IN PRODUCT EVALUATION REPORT NO. 2167, BY ROBERT J. AMORUSO, P.E.
4.

ADEQUACY OF THE EXISTING STRUCTURAL ROOF SHEATHING AND SUPPORTING 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
5.

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.
6.

THIS PRODUCT EVALUATION DOCUMENT ADDRESSES THE STRUCTURAL ATTACHMENT OF THE SKYLIGHT/TUBULAR DAYLIGHT DEVICE TO THE ROOF SHEATHING ONLY. PREPARATION OF THE ROOF SHEATHING AND ROOF COVERING(S) TO RECEIVE THE SKYLIGHT/TUBULAR DAYLIGHT DEVICE SHALL BE PER THE MANUFACTURER'S INSTRUCTIONS AND COMPLIANT WITH CHAPTER 15 OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE AND CHAPTER 9 OF THE CURRENT EDITION OF THE FLORIDA RESIDENTIAL CODE.
7.

IN ACCORDANCE WITH THE CURRENT EDITION FBC DISSIMILAR METALS INCLUDING FASTENERS THAT MAY COME INTO CONTACT WITH ALUMINUM FLASHING SHALL HAVE BEEN PROTECTED.

INSTALLATION NOTES:

1.

ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN ON SHEETS 2 AND 3.
2.

THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION. EIGHT (8) ANCHORS MINIMUM SHALL BE LOCATED AT EACH CORNER AS SHOWN ON SHEET 3 OF THIS DRAWING.
3.

FOR INSTALLATION INTO 2X WOOD ROOF FRAMING, USE A #10 PAN HEAD, ROUND HEAD OR TRUSS HEAD WOOD SCREW MEETING ANSI B18.6.1 OR #10 TYPE AB PAN HEAD, ROUND HEAD OR TRUSS HEAD TAPPING SCREWS MEETING ASME/ANSI B18.6.4 OF SUFFICIENT LENGTH TO ACHIEVE 1-1/2" DEPTH OF EMBEDMENT INTO 2X WOOD ROOF FRAMING. EDGE DISTANCE FROM CENTERLINE OF SCREW TO EDGE OF 2X WOOD ROOF FRAMING SHALL BE AT LEAST 3/4 INCH.
4.

MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE ROOF FINISHES.
5.

INSTALLATION ANCHORS MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
6.

INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES:

6.1.

2X WOOD FRAMING WITH A SPECIFIC GRAVITY ≥ 0.55 (HVHZ) AND 0.42 (OUTSIDE HVHZ).

6.2.

15/32" THICK PLYWOOD - SPECIES GROUP 1 OR 2 (APA VOLUNTARY PRODUCT STANDARD PS 1) MINIMUM.

6.3.

15/32" OSB - SHEATHING GRADE (APA VOLUNTARY PRODUCT STANDARD PS 2) MINIMUM.
7.

INSTALLATION/MOUNTING CONDITIONS AND LIMITATIONS OF USE AS REQUIRED BY THE FOLLOWING SECTIONS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) AND FLORIDA RESIDENTIAL CODE (FRC) SHALL BE MET.

7.1.

FBC CHAPTER 24, SLOPED GLAZING AND SKYLIGHTS

7.2.

FBC CHAPTER 26, LIGHT-TRANSMITTING PLASTIC SKYLIGHT GLAZING

7.3.

FRC CHAPTER 3, SKYLIGHTS AND SLOPED GLAZING
8.

A CURB CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS FOR THE TYPE OF CONSTRUCTION CLASSIFICATION, BUT AT LEAST 4 INCHES ABOVE THE PLANE OF THE ROOF BY OTHERS IS ALLOWED. ADDITIONAL INSTALLATION DETAILING AND ENGINEERED INSTALLATION EVALUATION BY A LICENSED DESIGN PROFESSIONAL WILL BE REQUIRED FOR SUBMITTAL IN ADDITION TO THIS PRODUCT EVALUATION DOCUMENT.

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SHEET	DESCRIPTION
1	GENERAL AND INSTALLATION NOTES
2	ELEVATIONS, SECTIONS AND BOM
3	INSTALLATION DETAILS
4	DIFFUSER ASSEMBLY OPTIONS

DESIGN PRESSURE RATING (PSF)		IMPACT RATING
WHERE WATER INFILTRATION TEST IS REQUIRED	WHERE WATER INFILTRATION TEST IS NOT REQUIRED	LARGE MISSLE IMPACT
±70.0	±70.0	

PROJECT # 417-0905

SOLATUBE INTERNATIONAL
2210 OAK RIDGE WAY
VISTA, CA 92081-9341

TITLE: SMART LED 10" TUBULAR DAYLIGHT DEVICE
GENERAL & INSTALL. NOTES/DP CHART/ANCHOR SCHEDULE

PREPARED BY:

DATE:

12/06/12

DRAWN BY:

RJA

DRAWING NO:

SOLA0008

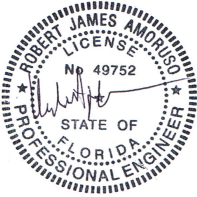
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1 OF 4

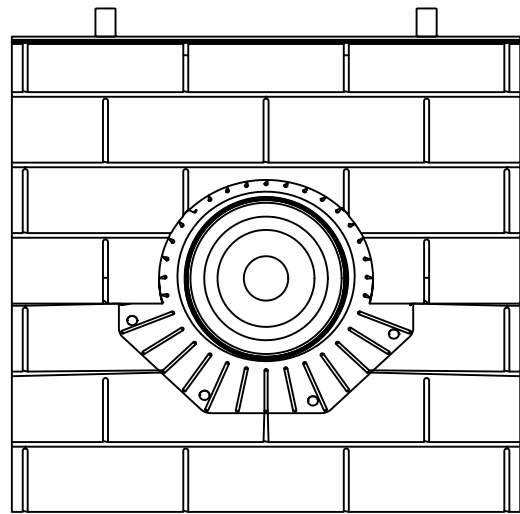
PTG Product Design Group, LLC
PO Box 520775
Longwood, FL 32752-0775
FBPE C.A. NO. 26935

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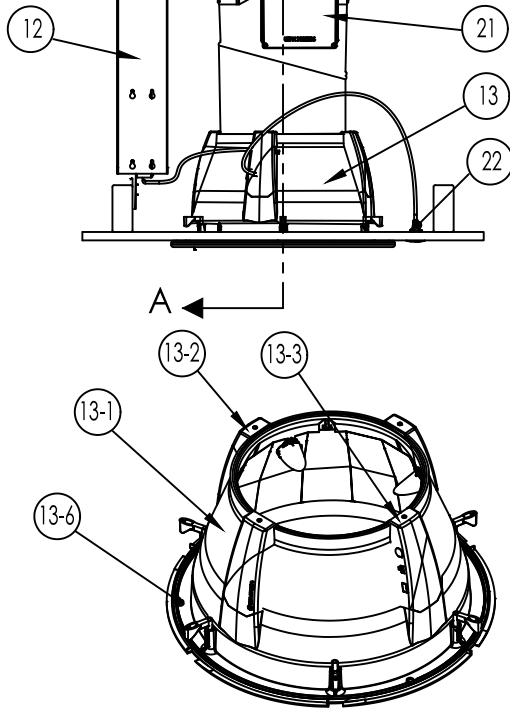
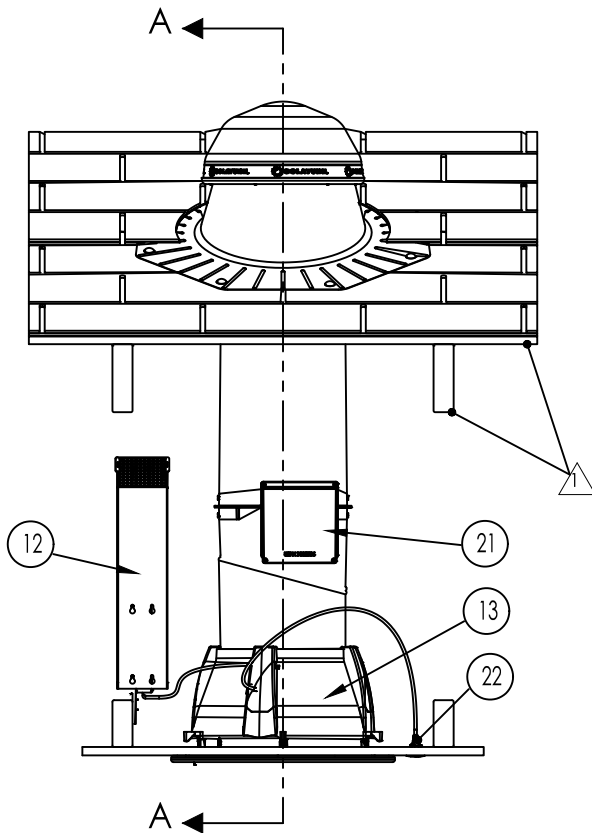
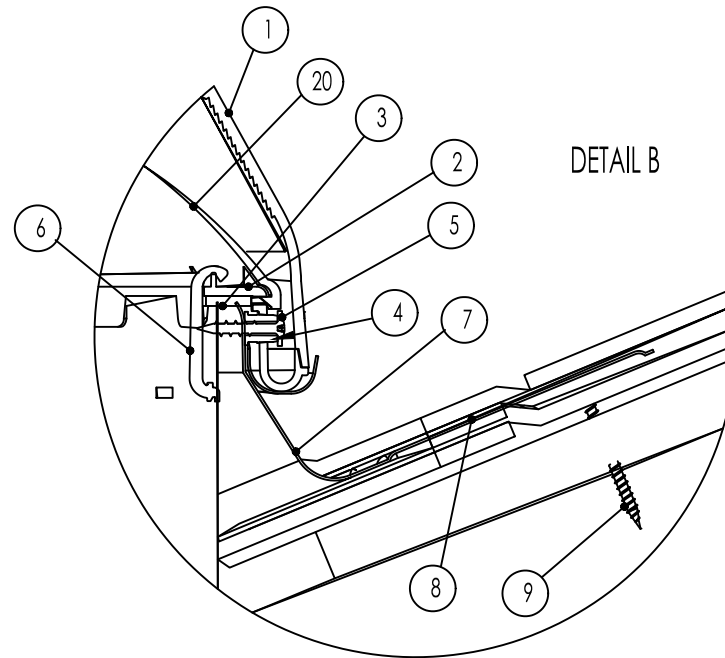
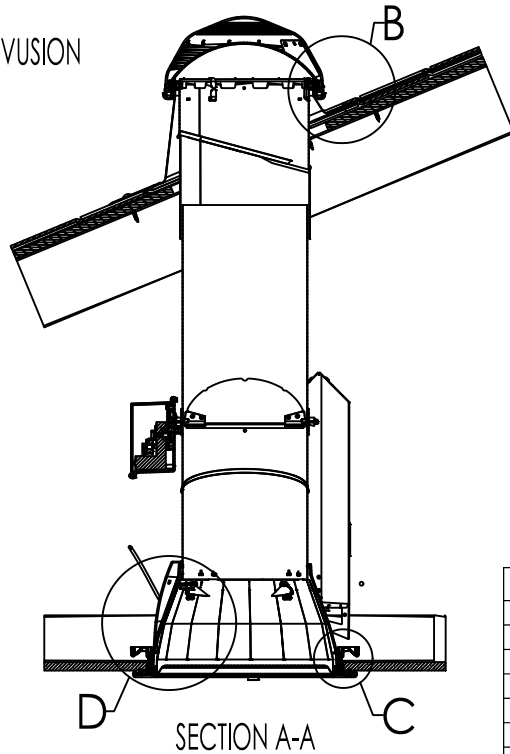
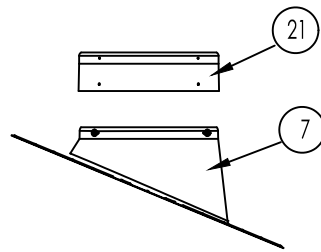
Robert J. Amoruso, P.E.
Florida P.E. No. 49752



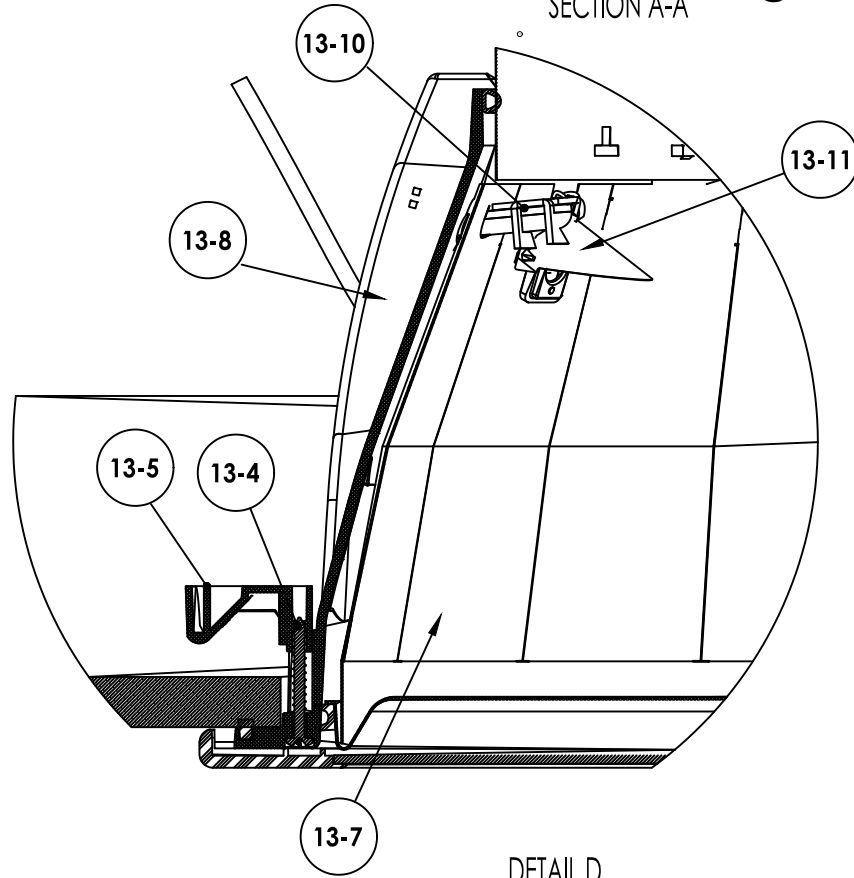
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SOLATUBE SMART LED
(10 IN/250 MM)
SELF-FLASHING
HARD CEILING W/CLASSIC VUSION



SMART LED BASE PRIMARY / SECONDARY



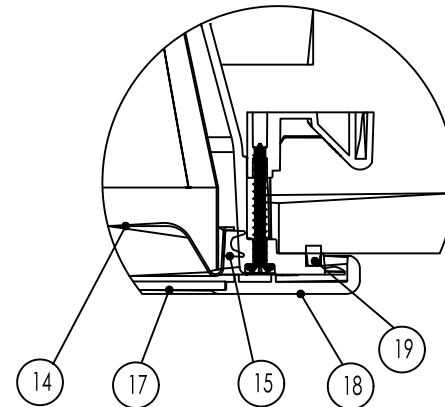
DETAIL D

NOTES:

1. STRUCTURAL ELEMENTS (PLYWOOD, RAFTERS, DRYWALL ETC.) BY OTHERS & SHOWN FOR REFERENCE ONLY
2. ALL TUBE JOINTS & SEAMS TAPED WITH 2" FOIL TAPE (NOT SHOWN)
3. DIMENSIONS IN BRACKETS ARE METRIC UNLESS OTHERWISE NOTED.
4. 6" MIN CLEARANCE SHOULD BE MAINTAINED FROM ALL SOLATUBE COMPONENTS AND OTHER PLENUM COMPONENTS.

ITEM NO.	QTY.	DESCRIPTION	MATERIAL
1	1	OUTER DOME 160 DS	PMMA
2	1	DOME RING 160 DS	PMMA
3	1	FOAM SEAL 1/8" X 9/16"	FOAM (VARIOUS)
4	4	DOME RING SPACER	POLYAMIDE
5	4	SCREW #8 X 1" MOD. TRUSS HEAD	STEEL
6	3	TOP TUBE CLIP	PMMA
7	1	FLASHING	STEEL
8	1	SEALANT	URETHANE
9	8	SCREW #10 X 2" SMS MOD TRUSS HEAD	STEEL
10	1	TOP TUBE 160 DS	ALUMINUM LAMINATE
11	1	TUBE 16" EXTENSION 160 DS	ALUMINUM LAMINATE
12	1	DRIVER ENCLOSURE ASSEMBLY	STEEL
13	1	SMART LED BASE PRIMARY/SECONDARY	
13-1	1	AMPLIFIER HOUSING	PC
13-2	1	AMPLIFIER COVER	PC
13-3	1	AMPLIFIER COVER PCBM	PC
13-4	6	SCREW #8 X 1-3/4" SMS PHIL PAN A/B THREAD	STEEL
13-5	6	CLAMP	POLYAMIDE
13-6	4	SCREW 1-5/8" PHIL BUGLE (NOT SHOWN)	STEEL
13-7	1	AMPLIFIER PRIMARY/SECONDARY	ALUMINUM LAMINATE
13-8	1	CONTROLLER LED PCBM	
13-9	1	WIRE HARNESS LED ARRAY (NOT SHOWN)	
13-10	1	LIGHT SENSOR	
13-11	1	LIGHT OPTIMIZATION LENS ASSEMBLY	PMMA
14	1	NATURAL/SOFTENING EFFECT LENS 290 DS	PET
15	1	DIFFUSER SEAL 290 DS	FOAM (VARIOUS)
16	1	D SEAL HOLLOW (NOT SHOWN)	FOAM (VARIOUS)
17	1	DIFFUSER PANEL 290 DS	PMMA
18	1	DRESS RING 290 DS	PMMA
19	1	FOAM SEAL 3/16" X 1/4"	FOAM (VARIOUS)
20	1	160 DS DOME SHOCK INNER	PMMA

OPTIONAL COMPONENTS			
ITEM NO.	QTY.	DESCRIPTION	MATERIAL
21	1	TURRET EXTENSION	STEEL
22	1	160 DS DAYLIGHT DIMMER	
23	1	OCCUPANCY SENSOR	



DETAIL C

ASSEMBLY ELEVATIONS AND SECTIONS

PROJECT # 417-0905

SOLATUBE INTERNATIONAL
2210 OAK RIDGE WAY
VISTA, CA 92081-9341

TITLE:
SMART LED 10" TUBULAR DAYLIGHT DEVICE
ELEVATIONS, SECTIONS AND BOM

DATE:
12/06/12

DRAWN BY:
RJA

SCALE:
N.T.S.

REV:
C

DRAWING NO:
SOLA0008

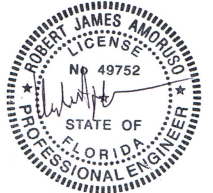
SHEET:
2 OF 4

DESCRIPTION
REV

DATE
2/7/18

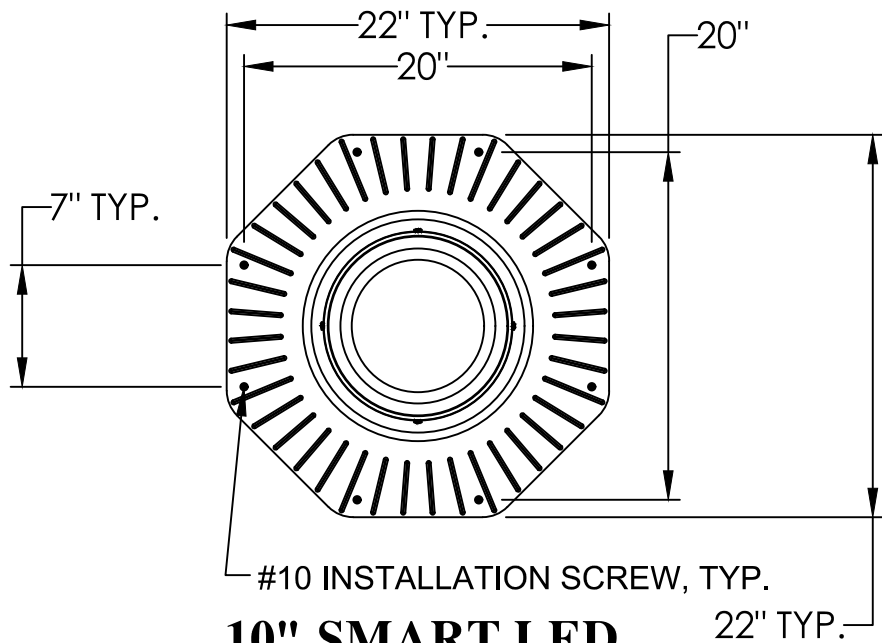
BY
RJA

Robert J. Amoruso, P.E.
Florida P.E. No. 49752

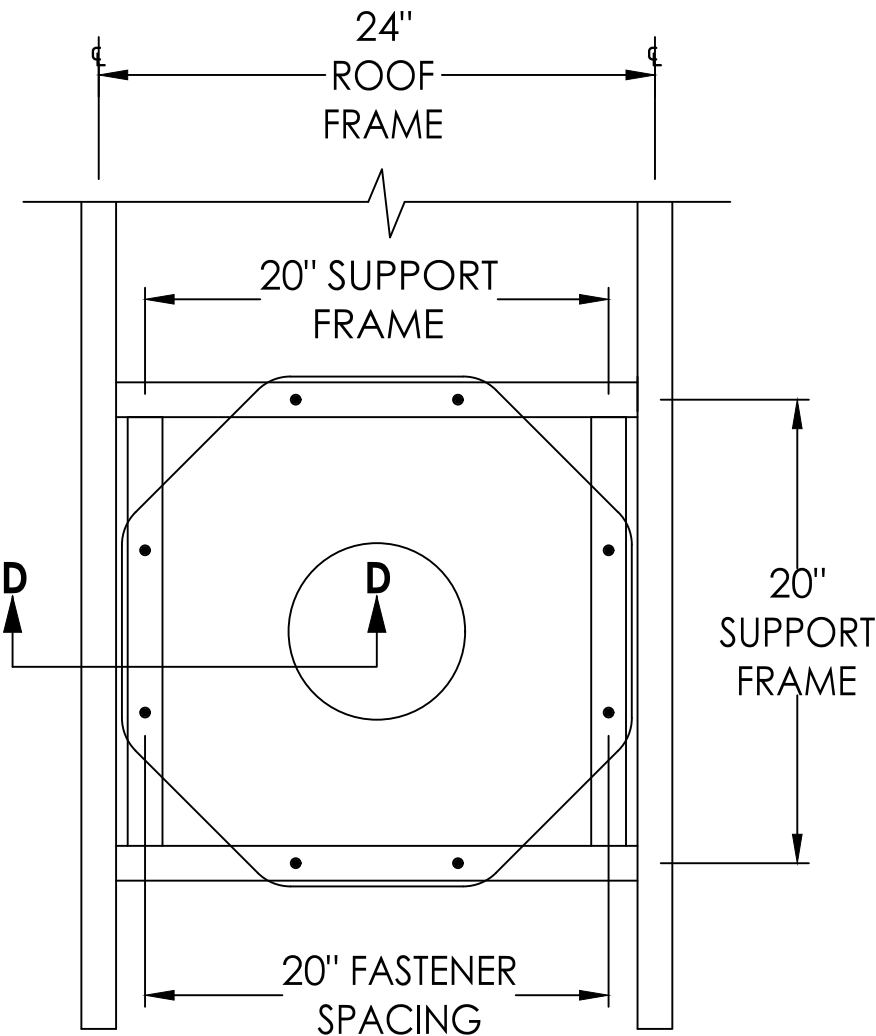


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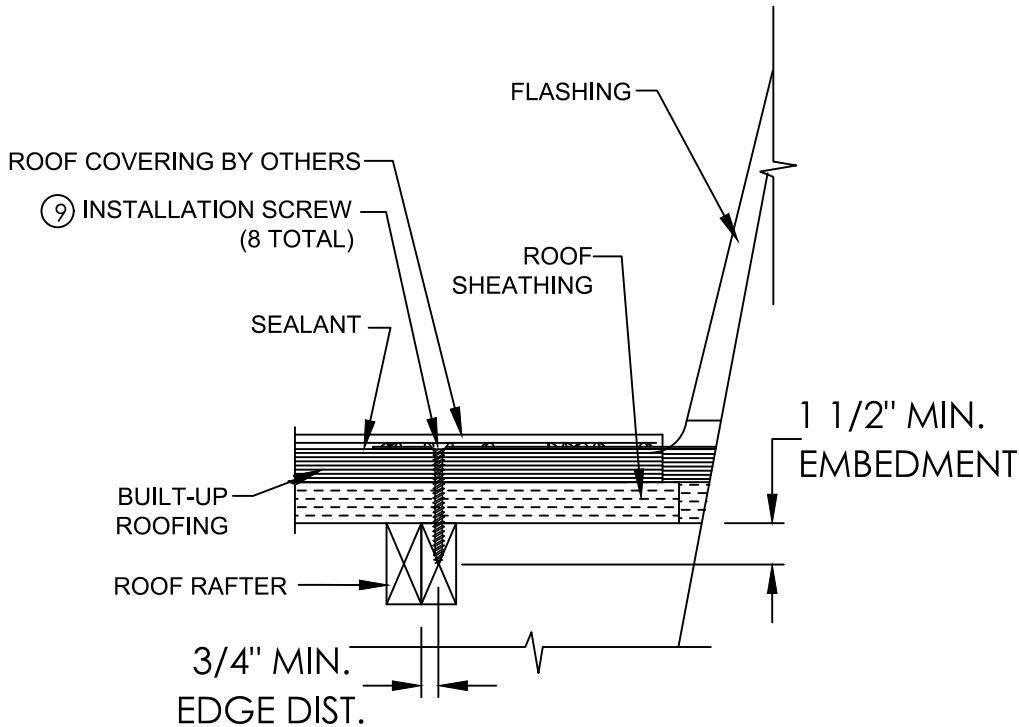
INSTALLATION
DETAILS



10" SMART LED
SOLATUBE FLASHING
PLAN



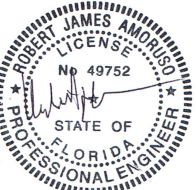
FRAMING DETAIL 10"



SECTION D - D

PROJECT # 417-0905							
SOLATUBE INTERNATIONAL 2210 OAK RIDGE WAY VISTA, CA 92081-9341		TITLE: SMART LED 10" TUBULAR DAYLIGHT DEVICE ELEVATION & ANCHOR LAYOUTS		DRAWN BY: RJA	DATE: 12/06/12	UPDATE TO CURRENT EDITION OF FBC	RJA
				SCALE: N.T.S.	DRAWING NO: SOLA0008	C	2/7/18
				REV: C	SHEET: 3 OF 4	DESCRIPTION	BY
						REV	DATE

Robert J. Amoruso, P.E.
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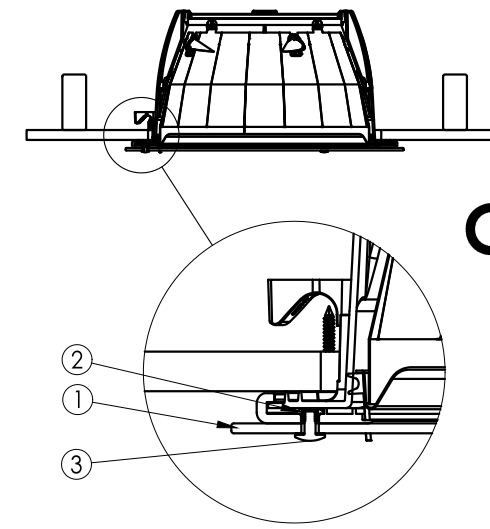
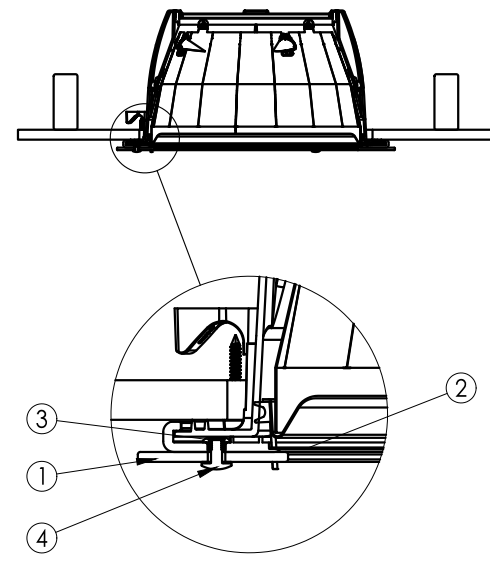
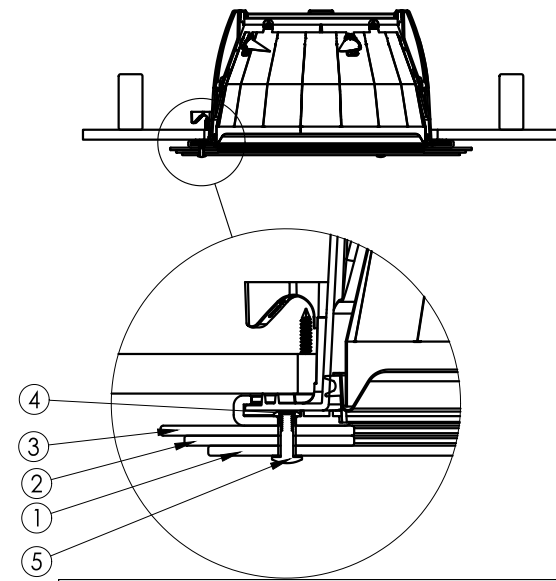
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DIFFUSER ASSEMBLY CONFIGURATIONS

'TIER DROP' DIFFUSER ASSEMBLY

'OPTIVIEW' DIFFUSER ASSEMBLY

'JUST FROST' DIFFUSER ASSEMBLY



TIER DROP DIFFUSER ASSEMBLY COMPONENTS				
ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	400295	GLASS DISK 290 DS	TEMPERED GLASS
2	1	400296	MIDDLE GLASS RING 290 DS	TEMPERED GLASS
3	1	400297	TOP GLASS RING 290 DS	TEMPERED GLASS
4	3	700915	SPANNER NUT	STAINLESS STEEL
5	3	700925	SHOULDER SCREW M5	STAINLESS STEEL

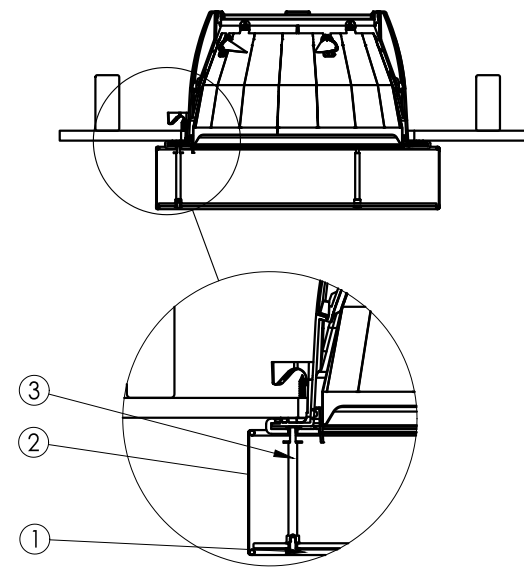
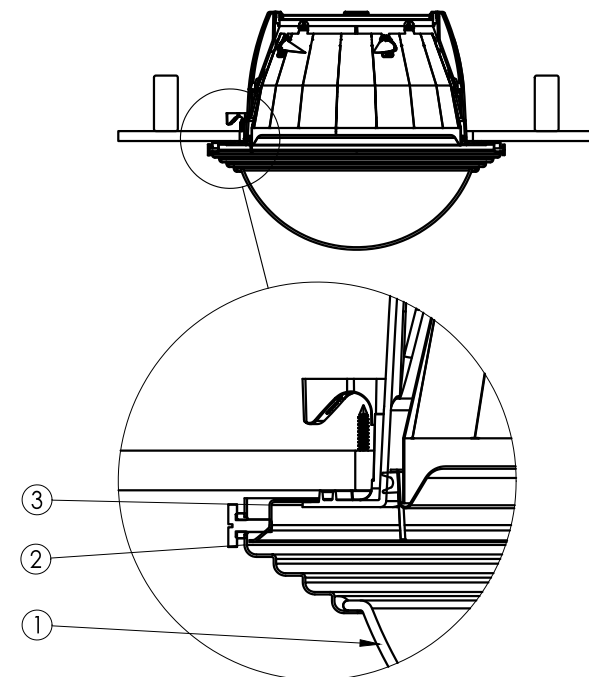
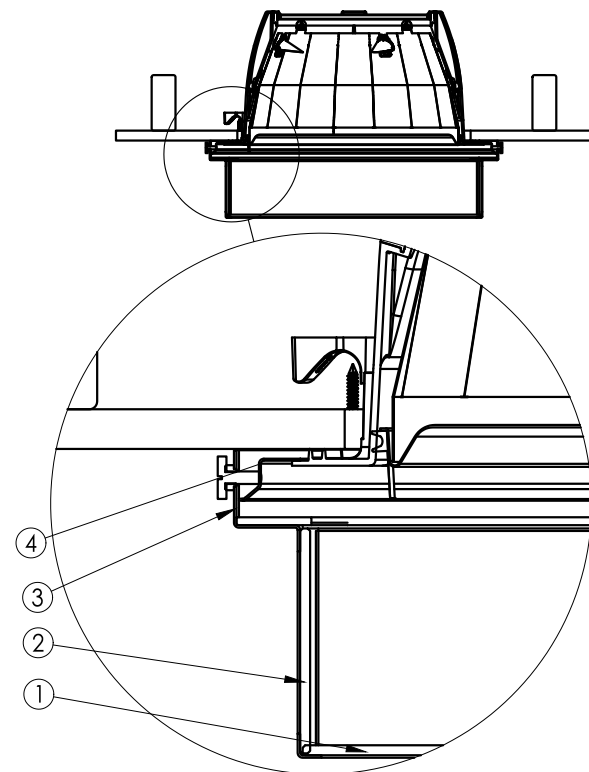
OPTIVIEW DIFFUSER ASSEMBLY COMPONENTS				
ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	400290	GLASS DISK CENTER CLEAR 290 DS	TEMPERED GLASS
2	1	420080	DIFFUSER 290 PANEL OPTIVIEW	PC
3	3	700915	SPANNER NUT	STAINLESS STEEL
4	3	700925	SHOULDER SCREW M5	STAINLESS STEEL

JUST FROST DIFFUSER ASSEMBLY COMPONENTS				
ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	400295	GLASS DISK 290 DS	TEMPERED GLASS
2	3	700915	SPANNER NUT	STAINLESS STEEL
3	3	700925	SHOULDER SCREW M5	STAINLESS STEEL

'QUADRA FROST' DIFFUSER ASSEMBLY

'AURORA GLO' DIFFUSER ASSEMBLY

'VIVID SHADE' DIFFUSER ASSEMBLY



QUADRA FROST DIFFUSER ASSEMBLY COMPONENTS				
ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	400299	290 DS SQ. BOTTOM GLASS	TEMPERED GLASS
2	4	400294	290 DS SQ. SIDE GLASS	TEMPERED GLASS
3	1	492914	290 DS SQ. FRAME BRACKET ASSY.	STEEL
4	1	492900	290DS CEILING RING BELT	STEEL

AURORA GLO DIFFUSER ASSEMBLY COMPONENTS				
ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	400292	290 DS GLASS ROUND	TEMPERED GLASS
2	4	492902	290 DS ROUND BOWL ROSE ASSY.	STEEL
3	1	492900	290DS CEILING RING BELT	STEEL

VIVID SHADE DIFFUSER ASSEMBLY COMPONENTS				
ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	400295	290 DS GLASS DISK	TEMPERED GLASS
2	1	492905	290DS SHADE FABRIC	FABRIC
3	1	701060	STAND-OFF 10CM	STEEL

PROJECT # 417-0905

SOLATUBE INTERNATIONAL
2210 OAK RIDGE WAY
VISTA, CA 92081-9341

SMART LED 10" TUBULAR DAYLIGHT DEVICE
DIFFUSER ASSEMBLY OPTIONS

PREPARED BY: RJA
DATE: 12/06/12
DRAWING NO: SOLA0008
SCALE: N.T.S.
REV: C

4 OF 4

UPDATE TO CURRENT EDITION OF FBC

2/7/18

RJA

DATE

Robert J. Amoruso, P.E.
Florida P.E. No. 49752

ROBERT JAMES AMORUSO
LICENSE
No. 49752
STATE OF FLORIDA
PROFESSIONAL ENGINEER

Digitally signed by Robert J Amoruso
Date: 2018.02.07 10:29:27 -05'00'