



9300 73rd Avenue North  
Brooklyn Park, MN 55428



Right to site.

# LSA6D38DC DRAINABLE STATIONARY LOUVER

MIAMI-DADE APPROVED

MIAMI-DADE COUNTY, FLORIDA NOTICE OF ACCEPTANCE NUMBER: 12-0607.02

Expiration date: July 9, 2016

## STANDARD CONSTRUCTION

### FRAME

Universal Flange Frame with front flange: 6" (152) deep, .081" (2.1) nominal wall thickness. Downspouts and caulking surfaces provided.

Optional Box Frame: Same material and gauges as above without front flange. For masonry walls only.

Optional Sleeved Box Frame (for louver/ damper combination units only): box frame with factory installed .125" thick aluminum sleeve around perimeter. Sleeve depth: 33" (838). Reference back page for frame details.

### BLADES

6063T5 extruded aluminum. 081" (2.1) nominal wall thickness. Drainable blades are positioned at 37 1/2° angle and spaced approximately 5 29/32" (150) center to center.

### SCREEN

3/4" x .051" (19 x 1.3) expanded, flattened aluminum bird screen in removable frame.

### FINISH

Mill.

### APPROXIMATE SHIPPING WEIGHT

14 lbs./ft.<sup>2</sup> (68 kg per m<sup>2</sup>)

### MINIMUM SIZE

12"w x 12"h (305 x 305).

### MAXIMUM SIZE

**Universal Installation Frame:** 84"w x 120"h (1234 x 3048) factory assembly, unlimited width x 120"h (3048) field assembly.

**Optional Box Frame (for masonry walls only):** 47 1/4"w x 71 1/4"h (1200 x 1810) factory and field assembly.

**Optional Sleeved Box Frame (for louver/ damper combination):** 78"w x 96"h (1981 x 2438) factory assembly, 156" x 96" (3962 x 2438) field assembly.

### INSTALLATION

The LSA6D38DC must be installed per the appropriate Installation Detail. Reference the appropriate Installation Instruction Sheets.

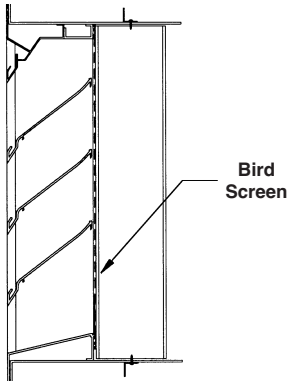
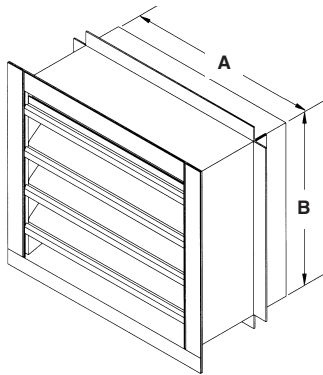
Consult Reliable for additional information.

## FEATURES

- Approved for use in open structures with provisions to manage weather infiltration (wet rooms).
- Maximum windload ±148 PSF (7.08 kPa).
- Universal Flange Frame allows installation in walls up to 10" deep (254) and in any wall material. Also available for walls up to 15" (381) deep with UFF15 frame.
- No additional installation angles or fasteners are required with the Universal Installation Frame. Fasteners penetrating the wall are not utilized.
- Approved for use in closed structures with provisions to manage weather infiltration when combined with optional control damper.
- Optional Box Frame construction available for use in masonry walls only. Maximum windload for Box Frame construction is ±138 psf.
- Optional Sleeved Box Frame construction available for combination units. Optional frame construction available for combination units. Dampers are shipped separately for field installation in sleeves.
- 57% Free Area.
- Published performance ratings based on testing in accordance with AMCA Publication 500-L.
- Optional finishes available at additional cost: prime coat, baked enamel (modified fluoropolymer), epoxy, Acrodize, Kynar, clear and color anodize. (Some variation in anodize color consistency is possible.)

Consult Nystrom for other special requirements.

**Louvers ordered as Actual Size will not be undersized. Order acknowledgements for actual size orders or orders with engineering drawings may show actual louver frame dimensions less sleeve thickness.**



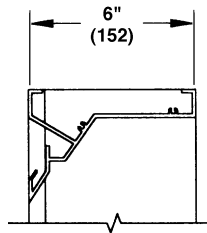
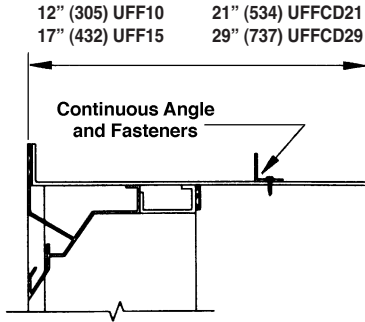
\*Please provide Rough Opening Dimensions for A & B dimensions. Unless ordered as actual size, louvers will be provided smaller than the A & B dimensions provided. Universal Flange Frame louvers will be undersized 1/2" (12) from the rough opening dimensions provided. Louvers with the optional Box Frame will be undersized 1" (25) from the rough opening dimensions provided. Louvers with the optional Sleeved Box Frame will be undersized 1 3/4" (45) in width and 7/8" (22) in height from the rough opening dimensions provided.

Dimensions in inches, parenthesis ( ) indicate millimeters.

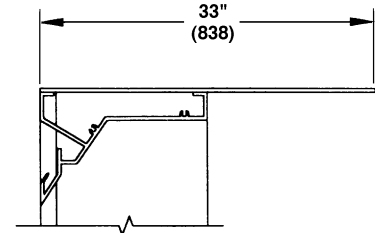
TAG	QTY.	SIZE		FRAME	WALL DEPTH	VARIATIONS
		A*-WIDE	B*-HIGH			
PROJECT ARCH./ENGR. REPRESENTATIVE				LOCATION CONTRACTOR DATE		

ALL STATED SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE OR OBLIGATION.

## FRAME CONSTRUCTION

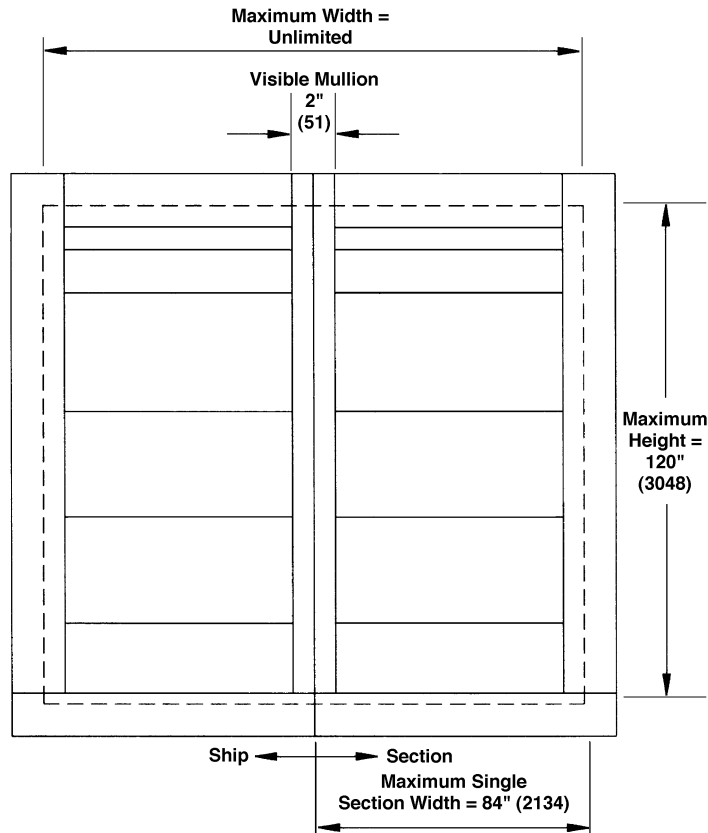


**Box Frame (BX)**  
See general note #4.



**Sleeved Box (SB)**

## UNIVERSAL FLANGE FRAME CONSTRUCTION

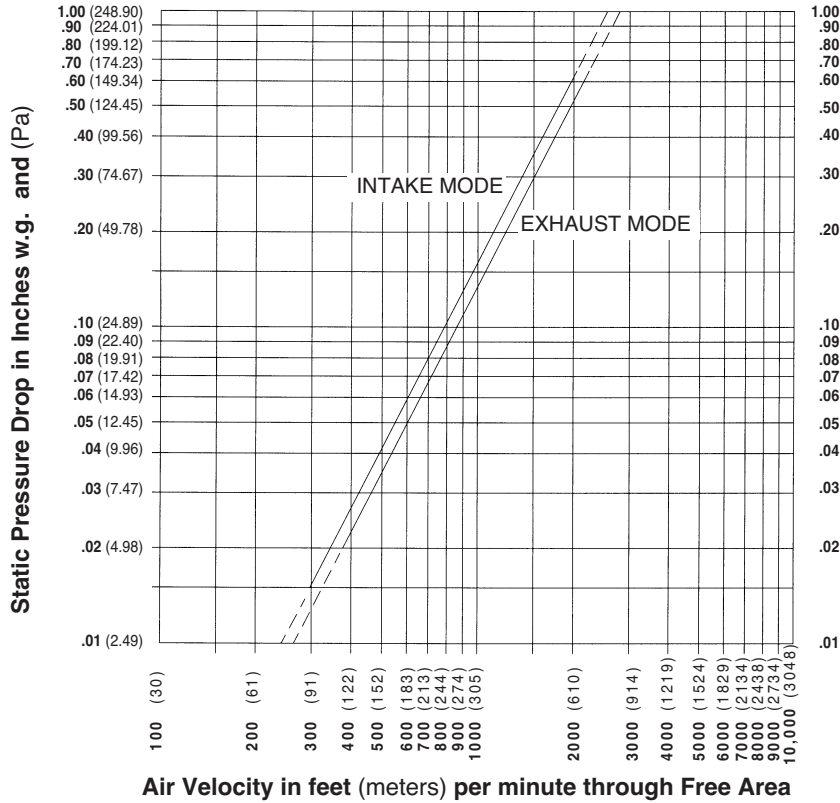


### FRONT ELEVATION OF LSA6D38DC LOUVER W/UFF

#### GENERAL NOTES:

1. Reference separate Installation Instruction sheets for installation details. Each frame style has a distinct installation method that must be compiled with for Miami-Dade Approval. It is the responsibility of the installing contractor to properly install the louvers per the appropriate detail.
2. On special orders, Nystrom may provide submittal and/or shop drawings. Reference these drawings for additional installation information.
3. Continuous angles and fasteners supplied with UFF louvers are shipped loose.
4. Louvers may be provided with hidden vertical blade supports (HVBS) that increase overall installation depth by several inches. Consult Reliable Louver Engineering for exact HVBS depth.
5. Louvers wider than the maximum single section width will be shipped in multiple sections and will require field assembly.

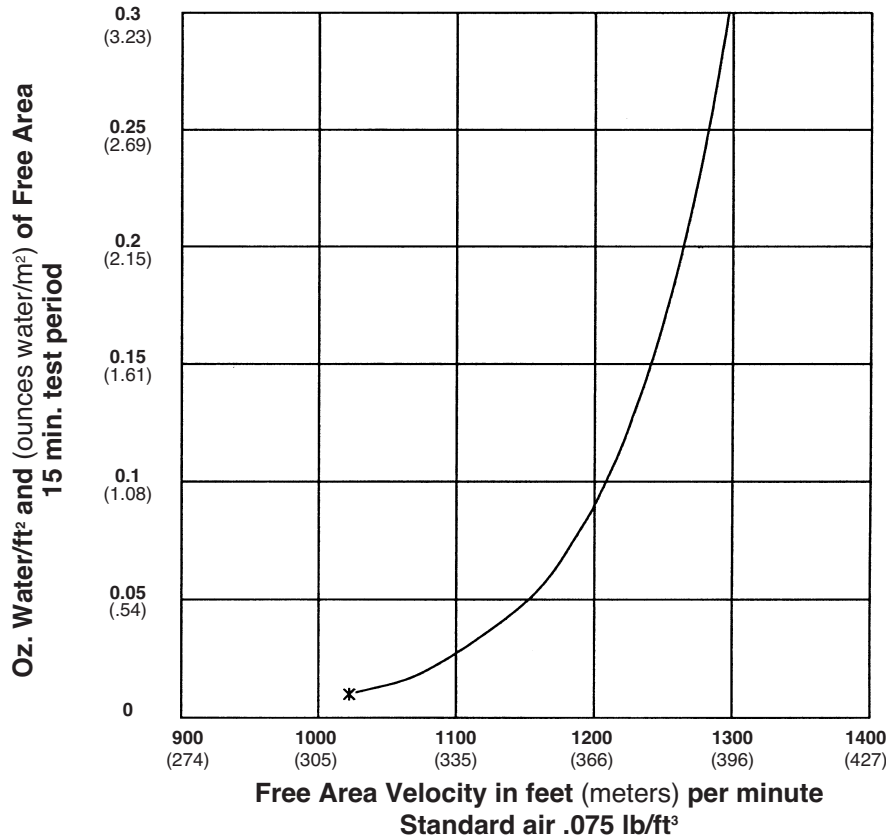
## PRESSURE DROP



## WATER PENETRATION GRAPH

Test size 48" wide x 48" high (1219 x 1219)

Beginning point of water penetration at .01 oz./sq. ft. is 1023 fpm (312 m/min).



Ratings do not include the effect of a bird screen.



Nystrom certifies that the LSA6D38DC Louvers shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings and water penetration ratings only.

# MIAMI-DADE COUNTY HURRICANE STRUCTURAL TEST PERFORMANCE

SIZE TESTED: 251<sup>3</sup>/<sub>4</sub> W X 119<sup>3</sup>/<sub>4</sub> H (6394 X 3042)

## PA 201-94 LARGE MISSILE IMPACT TEST (LOUVER ONLY):

MISSILE TYPE	VELOCITY IN FT/SEC (M/SEC)	IMPACTS
9 lb (4kg) Southern Pine 2" x 4" (51 x 102)	50 (15.24)	7

## PA 202-94 UNIFORM STATIC AIR PRESSURE TEST (LOUVER ONLY)

LOAD IN PSF (kPA)	LOAD DURATION	LOUVER/DAMPER RECOVERY
+111 (+5.3)	30 seconds	100%
-111 (-5.3)	30 seconds	100%
+148 (+7.1)	30 seconds	100%
-148 (-7.1)	30 seconds	100%
+222 (+10.6)	30 seconds	100%
-222 (-10.6)	30 seconds	100%

## PA 203-94 CYCLIC WIND PRESSURE TEST (LOUVER ONLY)

CYCLES	LOAD IN PSF (kPA)	LOAD DURATION CYCLE	LOUVER RECOVERY
600	+74 (+3.54)	1 to 3 seconds	100%
600	-74 (-3.54)	1 to 3 seconds	100%
70	+88.8 (+4.25)	1 to 3 seconds	100%
70	-88.8 (-4.25)	1 to 3 seconds	100%
1	+192.4 (+9.21)	1 to 3 seconds	100%
1	-192.4 (-9.21)	1 to 3 seconds	100%

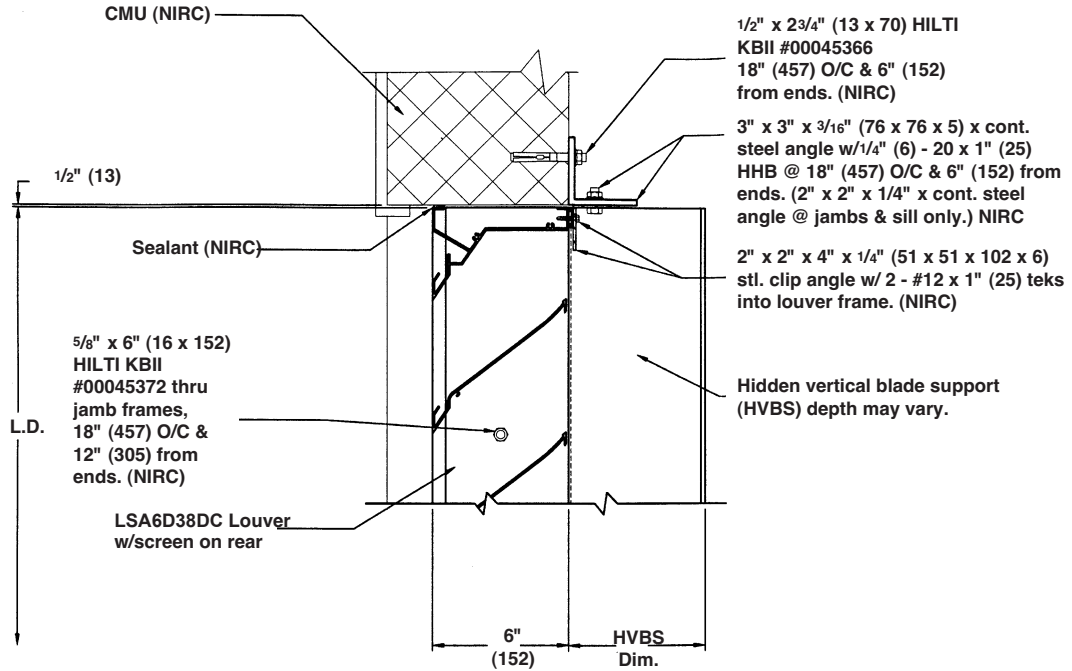
## FREE AREA GUIDE

Free Area Guide shows free area in ft<sup>2</sup> and m<sup>2</sup> for various sizes of  
LSA6D38DC. Width – Inches and Meters

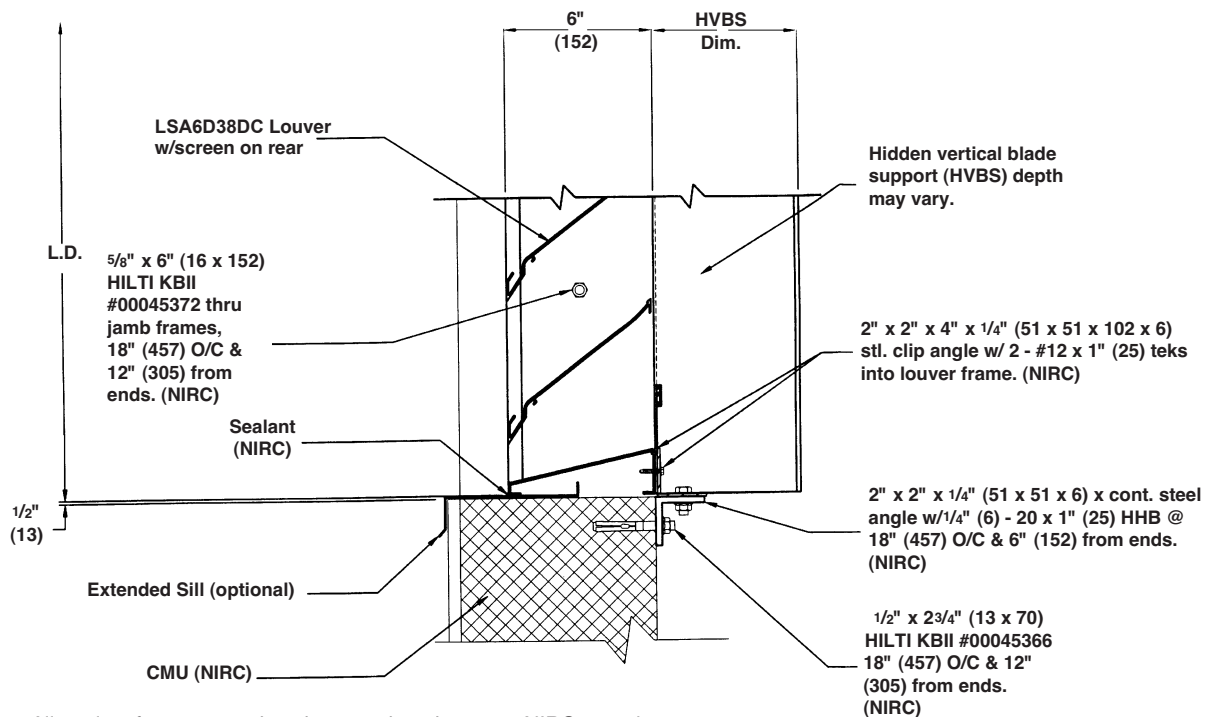
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
	0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52	1.68	1.83	1.98	2.13	2.29	2.44	2.59	2.74	2.90	3.05
12	0.31	0.49	0.67	0.86	1.04	1.22	1.41	1.59	1.77	1.96	2.14	2.32	2.51	2.69	2.88	3.06	3.25	3.43	3.61
0.30	0.03	0.05	0.06	0.08	0.10	0.11	0.13	0.15	0.16	0.18	0.20	0.22	0.23	0.25	0.27	0.28	0.30	0.32	0.34
18	0.58	0.93	1.28	1.63	1.98	2.32	2.68	3.03	3.37	3.73	4.08	4.42	4.77	5.13	5.48	5.82	6.18	6.52	6.87
0.46	0.05	0.09	0.12	0.15	0.18	0.22	0.25	0.28	0.31	0.35	0.38	0.41	0.44	0.48	0.51	0.54	0.57	0.61	0.64
24	0.86	1.38	1.89	2.40	2.92	3.43	3.96	4.47	4.98	5.50	6.02	6.53	7.05	7.57	8.09	8.60	9.12	9.63	10.15
0.61	0.08	0.13	0.18	0.22	0.27	0.32	0.37	0.42	0.46	0.51	0.56	0.61	0.66	0.70	0.75	0.80	0.85	0.89	0.94
30	1.14	1.82	2.50	3.18	3.87	4.54	5.24	5.92	6.59	7.28	7.97	8.64	9.33	10.01	10.70	11.37	12.06	12.74	13.42
0.76	0.11	0.17	0.23	0.30	0.36	0.42	0.49	0.55	0.61	0.68	0.74	0.80	0.87	0.93	0.99	1.06	1.12	1.18	1.25
36	1.41	2.26	3.11	3.95	4.80	5.64	6.52	7.35	8.18	9.04	9.89	10.73	11.58	12.44	13.29	14.13	14.98	15.82	16.67
0.91	0.13	0.21	0.29	0.37	0.45	0.52	0.61	0.68	0.76	0.84	0.92	1.00	1.08	1.16	1.24	1.31	1.39	1.47	1.55
42	1.69	2.70	3.72	4.72	5.75	6.74	7.79	8.79	9.79	10.81	11.83	12.83	13.86	14.88	15.89	16.90	17.92	18.92	19.94
1.07	0.16	0.25	0.35	0.44	0.53	0.63	0.72	0.82	0.91	1.00	1.10	1.19	1.29	1.38	1.48	1.57	1.67	1.76	1.85
48	1.97	3.15	4.33	5.50	6.69	7.86	9.08	10.24	11.40	12.59	13.78	14.95	16.14	17.33	18.51	19.68	20.87	22.04	23.23
1.22	0.18	0.29	0.40	0.51	0.62	0.73	0.84	0.95	1.06	1.17	1.28	1.39	1.50	1.61	1.72	1.83	1.94	2.05	2.16
54	2.24	3.59	4.94	6.27	7.63	8.96	10.35	11.67	13.00	14.35	15.71	17.04	18.40	19.75	21.10	22.44	23.79	25.12	26.48
1.37	0.21	0.33	0.46	0.58	0.71	0.83	0.96	1.08	1.21	1.33	1.46	1.58	1.71	1.84	1.96	2.09	2.21	2.33	2.46
60	2.52	4.03	5.55	7.05	8.57	10.06	11.62	13.12	14.60	16.13	17.65	19.14	20.67	22.19	23.71	25.21	26.73	28.22	29.75
1.52	0.23	0.37	0.52	0.66	0.80	0.93	1.08	1.22	1.36	1.50	1.64	1.78	1.92	2.06	2.20	2.34	2.48	2.62	2.76
66	2.80	4.47	6.16	7.82	9.51	11.17	12.90	14.56	16.20	17.90	19.59	21.24	22.94	24.63	26.31	27.98	29.67	31.32	33.01
1.68	0.26	0.42	0.57	0.73	0.88	1.04	1.20	1.35	1.51	1.66	1.82	1.97	2.13	2.29	2.44	2.60	2.76	2.91	3.07
72	3.08	4.92	6.76	8.59	10.45	12.27	14.18	16.00	17.81	19.67	21.53	23.35	25.21	27.07	28.91	30.74	32.60	34.42	36.28
1.83	0.29	0.46	0.63	0.80	0.97	1.14	1.32	1.49	1.66	1.83	2.00	2.17	2.34	2.52	2.69	2.86	3.03	3.20	3.37
78	3.35	5.36	7.37	9.37	11.40	13.38	15.45	17.44	19.41	21.44	23.47	25.45	27.48	29.51	31.52	33.51	35.54	37.52	39.55
1.98	0.31	0.50	0.68	0.87	1.06	1.24	1.44	1.61	1.80	1.99	2.18	2.37	2.55	2.74	2.93	3.11	3.30	3.49	3.68
84	3.63	5.80	7.98	10.14	12.34	14.48	16.73	18.88	21.02	23.21	25.41	27.55	29.75	31.94	34.12	36.28	38.48	40.62	42.82
2.13	0.34	0.54	0.74	0.94	1.15	1.35	1.55	1.75	1.95	2.16	2.36	2.56	2.76	2.97	3.17	3.37	3.58	3.77	3.98
90	3.91	6.25	8.59	10.92	13.28	15.59	18.01	20.32	22.62	24.98	27.35	29.65	32.02	34.38	36.73	39.05	41.41	43.72	46.09
2.29	0.36	0.58	0.80	1.01	1.23	1.45	1.67	1.89	2.10	2.32	2.54	2.76	2.98	3.19	3.41	3.63	3.85	4.06	4.28

# INSTALLATION DETAILS

## HEAD & JAMB DETAIL



## SILL DETAIL



NOTES: 1. All angles, fasteners and anchors are by others. 2. NIRC = not in contract.