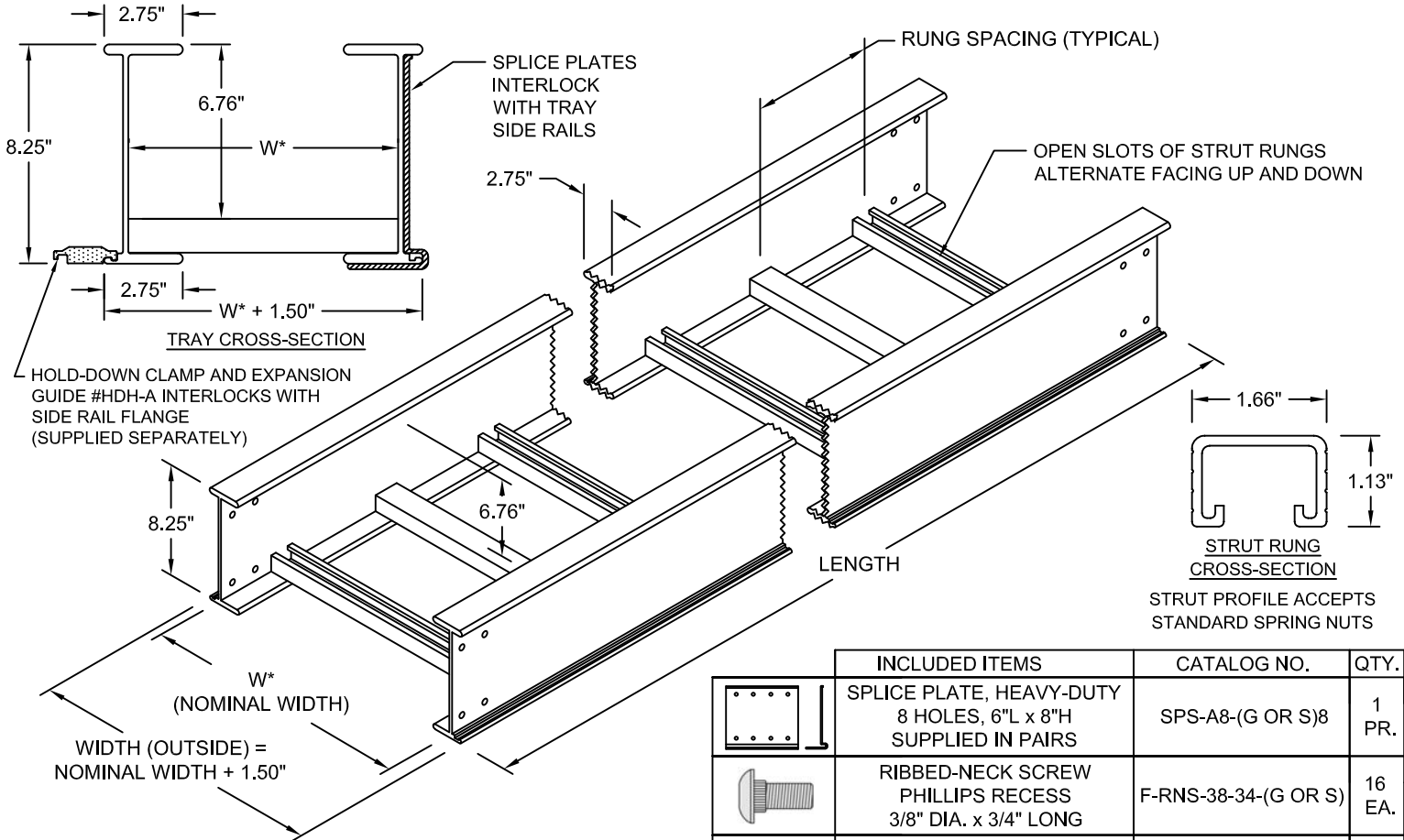




NO.	REVISION	BY	DATE	MATERIAL I.D.
0	APPROVED	TM	04-08-13	A820E-LA
1	ADDED 40' LENGTH, CHANGED FTG. CLASS TO 4, TITLE BLOCK	TM	06-15-15	
2	ADDED RUNG OPTIONS	TM	10-06-15	



	INCLUDED ITEMS	CATALOG NO.	QTY.
	SPLICE PLATE, HEAVY-DUTY 8 HOLES, 6\" L x 8\" H SUPPLIED IN PAIRS	SPS-A8-(G OR S)8	1 PR.
	RIBBED-NECK SCREW PHILLIPS RECESS 3/8\" DIA. x 3/4\" LONG	F-RNS-38-34-(G OR S)	16 EA.
	FLANGED HEX NUT 3/8\" DIA., SERRATED FACE 9/16\" SOCKET SIZE	F-FHN-38-(G OR S)	16 EA.

**SPLICE PLATES:** NECESSARY SPLICE CONNECTORS AND FASTENERS ARE AUTOMATICALLY SUPPLIED WITH ALL STRAIGHT TRAY SECTIONS AND FITTINGS. FASTENER MATERIALS ARE GEOMET-PLATED STEEL (G) AND TYPE 316 STAINLESS STEEL (S).



CLASSIFIED BY UNDERWRITERS LABORATORIES AS TO IT'S SUITABILITY AS AN EQUIPMENT GROUNDING CONDUCTOR ONLY PER NEC 392. METAL CABLE TRAY IN ACCORDANCE WITH THE STANDARD FOR CABLE TRAY SYSTEMS CANADA CSA-C22.2 NO. 126. (UL FILE NO. E341872)

<b>MATERIAL:</b> EXTRUDED ALUMINUM ALLOY 6063-T6
<b>FINISH:</b> PLAIN (POWDER COATED PAINTS AVAILABLE)
<b>CABLE TRAY TYPE:</b> LADDER, TWO RAILS
<b>LOAD RATING (NEMA):</b> 114 LBS/FT, 40' SPAN, CLASS 20C+
<b>LOAD RATING (CSA):</b> 302 KG/M, 12.2 METER SPAN, CLASS E
<b>SIDE RAIL HEIGHT:</b> 8" NOMINAL (8.25" ACTUAL)
<b>INSIDE LOAD DEPTH:</b> 7" NOMINAL (6.76" ACTUAL)
<b>BOTTOM:</b> 1.66" WIDE RUNGS (TUBULAR STRUT PROFILE)
<b>CONSTRUCTION:</b> ARC-WELDED ON BOTH SIDES OF RUNGS
<b>MIN. CROSS-SECTIONAL AREA PER NEC 392:</b> 2.00 IN <sup>2</sup>
<b>AMPERAGE RATING PER NEC 392:</b> 2,000 AMPERES

<b>TRAY FITTING CLASS:</b> 4 (2.75" WIDE FLANGES)
<b>MOMENT OF INERTIA (EACH SIDE RAIL):</b> 35,503 IN <sup>4</sup> (x-x)
<b>SECTION MODULUS (EACH SIDE RAIL):</b> 8,407 IN <sup>3</sup> (x-x)

THIS CABLE TRAY SYSTEM IS IN FULL COMPLIANCE WITH ALL ASPECTS OF THE LATEST REVISIONS OF NEMA STANDARD VE1, CSA C22.2 NO. 126 AND NATIONAL ELECTRICAL CODE ART. 392.

**CATALOG NUMBERS**

EXAMPLE: **A820E - 09 (†) - SL40 - 36 - S** † MARK "†" IN BOX TO INCLUDE IN SUBMITTAL

CABLE TRAY SYSTEM NO.	RUNG SPACING †	ITEM CODE	LENGTH †		WIDTH (W) †		FASTENER MATERIAL †
			20'	30'	12"	18"	
A820E	06 6"	SL	20	20'-0"	12	12"	G GEOMET PLATED STEEL
	09 9"	STRAIGHT LENGTH	30	30'-0"	18	18"	
	12 12"		35	35'-0"	24	24"	
			40	40'-0"	30	30"	
					36	36"	

† RUNG TYPE	RUNG AND BOTTOM DESIGN OPTIONS
BLANK	1.66" STRUT RUNG ALTERNATING UP/DOWN
	OPTIONAL RUNG OR BOTTOM DESIGN AS SHOWN ON DRAWING USP-AL-RB-2

CUSTOM TRAY LENGTHS AND WIDTHS ARE AVAILABLE; CONSULT FACTORY.



**United Structural Products, LLC**  
560 WHARTON CIRCLE, SUITE E PHOENIX: 404-696-8585  
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SHEET NO.	1 OF 1
DIMENSIONS	INCHES

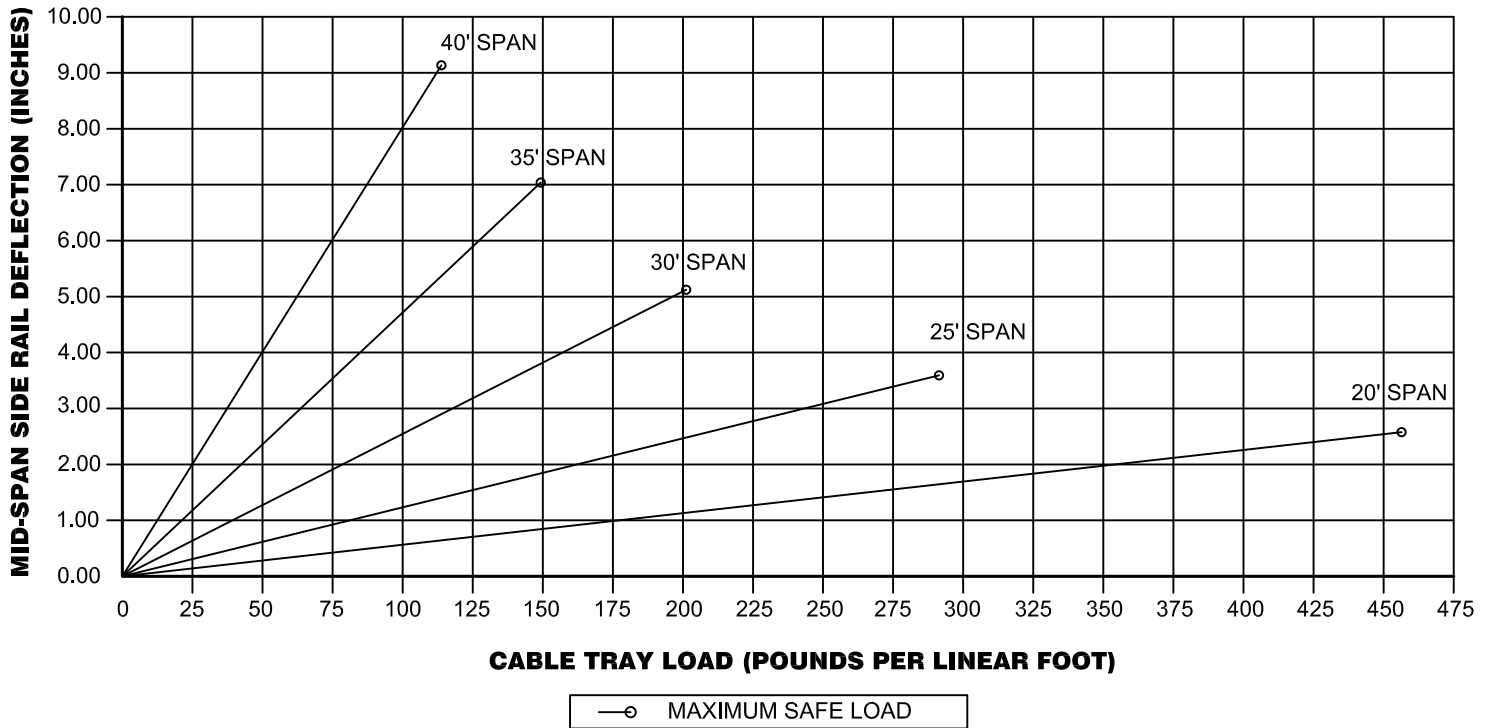
**DESCRIPTION**  
CABLE TRAY STRAIGHT SECTION, LADDER, ALUM. 8" HIGH, CLASS 20C+

**DRAWING NUMBER**  
USP-A820E-LA-SL40



NO.	REVISION	BY	DATE	MATERIAL I.D.
0	APPROVED	TM	04-08-13	A820E-LC
1	ADDED 40' LENGTH, REVISED TITLE BLOCK	TM	06-15-15	
2	REVISED LOAD DATA PER TESTS WITNESSED & CERTIFIED BY U.L.	TM	10-06-15	

## SAFE LOAD AND DEFLECTION OF CABLE TRAY SIDE RAILS ALUMINUM CABLE TRAY SYSTEM A820E



TRAY SYSTEM	SAFETY FACTOR	TRAY SAFE LOAD DATA TESTED PER NEMA VE-1	SUPPORT SPAN (FEET)				
			20	25	30	35	40
A820E	1.5	MAX. SAFE LOAD (LBS/FT)	456	292	203	149	114
		DEFLECTION (INCHES)	2.29	3.58	5.15	7.01	9.16
		DEFLECTION MULTIPLIER	0.00502	0.01226	0.02542	0.04707	0.08035

1. THIS DATA APPLIES TO ALL LADDER, VENTED/TROUGH, AND FLAT-SHEET SOLID BOTTOM CABLE TRAYS THAT EMPLOY SIDE RAIL SYSTEM A820E. ALL OF THESE TRAY TYPES ARE CONSTRUCTED WITH RUNGS.
2. DATA IS BASED ON SIMPLE-BEAM TYPE SUPPORTS WITH EVENLY DISTRIBUTED LOADS.
3. MAXIMUM SAFE LOAD IS BASED ON A SAFETY FACTOR OF 1.5 APPLIED TO COLLAPSE.
4. WHEN SUPPORTED ON MULTIPLE-SPAN ARRANGEMENTS, ACTUAL DEFLECTION WILL BE UP TO 60% LESS THAN THE SIMPLE-BEAM DEFLECTION SHOWN.
5. ALL LOAD TESTS WERE CONDUCTED IN ACCORDANCE WITH NEMA STD. VE1, CSA C22.2 NO. 126. 36" WIDE TRAYS WERE TESTED ON 40'-0" SUPPORT SPANS. DATA SHOWN FOR SPANS LESS THAN 40' ARE EXTRAPOLATED PER NEMA VE1. DETAILED TEST REPORTS ARE AVAILABLE UPON REQUEST; CONTACT ENGINEERING DEPT.
6. MULTIPLY THE DEFLECTION MULTIPLIER BY THE ACTUAL LOAD (LBS/FT) TO CALCULATE THE DEFLECTION (INCHES) AT LOADS LESS THAN THE MAXIMUM SAFE LOAD.
7. THIS TRAY SYSTEM WILL SUPPORT A 200 POUND CONCENTRATED STATIC LOAD APPLIED AT THE CENTER OF ANY RUNG, IN ADDITION TO THE FULL SAFE CABLE LOAD, WITHOUT FAILURE OF THE RUNG OR THE SIDE RAILS.



THE LOAD AND DEFLECTION DATA OF THIS CABLE TRAY SYSTEM IS BASED ON DESTRUCTION LOAD TESTS PER NEMA VE1, CSA C22.2 NO. 126 THAT WERE WITNESSED AND CERTIFIED ACCURATE BY UNDERWRITERS LABORATORIES, INC.



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SHEET NO.  
1 OF 1  
DIMENSIONS  
INCHES

DESCRIPTION

LOADING DATA FOR CABLE TRAY SYSTEM A820E

DRAWING NUMBER

USP-A820E-LDATA15-40