

**TYPE** \_\_\_\_\_

**FEATURES**

The NAS-1513 is one variation of a complete group of Recessed Direct and Indirect featuring a centered metal louver with two side metal perforated lamp shields with an acrylic overlay to obscure direct lamp image. The louver and side shield assembly is positioned above the ceiling plane. Lamp output is distributed over a computer designed reflector system to provide a direct accent lighting and a soft glare-free illumination from the metal perforated lamp shields. The NAS-1513 series can be used in any installation where high performance and comfortable lighting are required.

**SPECIFICATIONS**

- Housing:** Die formed 20-gauge cold rolled steel finished in baked white enamel. Housing has an access plate on top with two 7/8" diameter knockouts.
- Shielding:** Die formed 20-gauge 3/4" x 1" O.C. louver blades centered in fixture between two perforated steel lamp shields which have 41% opening with white acrylic .020 translucent overlay. The hinged lamp shield is removable for easy lamp access.
- Reflector:** Die formed .020 aluminum 90% minimum reflectivity finished in low glare matte baked white enamel.
- Electrical:** Ballast is electronic, high power factor, thermally protected class P, sound rated A, with less than 20% total harmonic distortion. The minimum number of ballasts will be used unless otherwise specified.
- Mounting:** Standard installation is 2 x 2 exposed inverted T-bar ceiling. Optional trims are also available for installations in miniature grid, drywall or plaster ceiling. For mounting detail information consult factory. Four support brackets are included with each fixture.
- Finish:** Fixture housing and steel components are finished in baked white enamel applied over a five-stage pretreatment process.
- Lamps:** Fixtures are provided for use with 40 or 50 compact fluorescent or 17 watt T8 lamps. ( Supplied by Others )
- Certification:** Luminaries are U. L. Listed, C. S. A. certified and are Union Made in the United States of America I. B. E. W.

**ORDERING GUIDE**

MODEL NO.	LAMPS	SIZE	MOUNTING	FINISH	VOLTAGE	OPTIONS
<b>NAS-1513</b>	—	<b>22</b>	—	—	—	—
<b>NAS-1513</b>	<b>340-CF</b> <b>350-CF</b> <b>317-T8</b>	<b>22=2X2</b>	<b>G=</b> Standard Lay-In Grid <b>MG=</b> Miniature Grid <b>F=</b> Flanged	<b>W=</b> White <b>CC=</b> Custom Color	<b>120v</b> <b>277v</b>	<b>See Options Below</b>
	<b>O=</b> Other Specify					

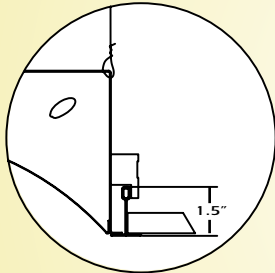
Example: **NAS-1513-340 CF-22-G-W-120V**  
New Age Series with direct and indirect lamp shield three 40 watt compact fluorescent 2 x 2 grid fixture finished in baked white enamel 120 volt electronic ballast less than 20% total harmonic distortion.

**OPTIONS**

- E10=** Electronic ballast, high power factor, thermally protected class P, sound rated A, < 10% total harmonic distortion.
- DIM=** Dimming Ballast
- EPC=** Emergency Battery Pack
- EMC=** Emergency Circuit
- DCW =** Dual Circuit
- ARS =** Air return system
- FWH =** Flexible wiring harness
- OTH=** See Accessories for other options available.

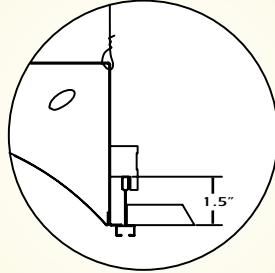
LINEAR SECTIONS AND SUSPENSION LOCATION

### MOUNTING "G"



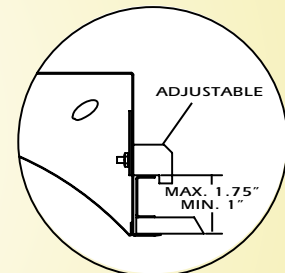
STD. 1 1/2" INVERTED "T" BAR

### MOUNTING "MG"



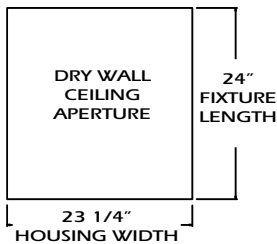
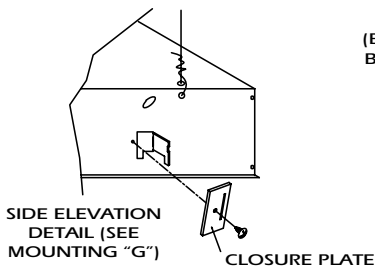
1 1/2" MINIATURE GRID CEILING

### MOUNTING "F"



PLASTER OR DRY WALL CEILING

INSTALLATION PREPARATION

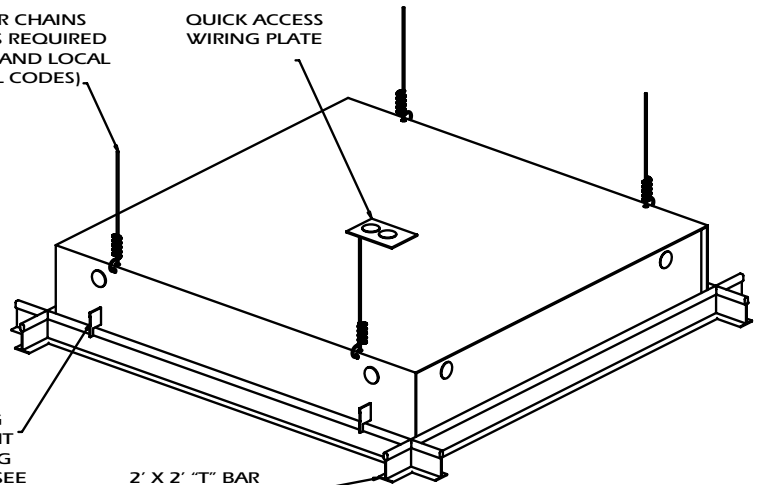


WIRE TIES OR CHAINS (BY OTHERS AS REQUIRED BY NATIONAL AND LOCAL ELECTRICAL CODES)

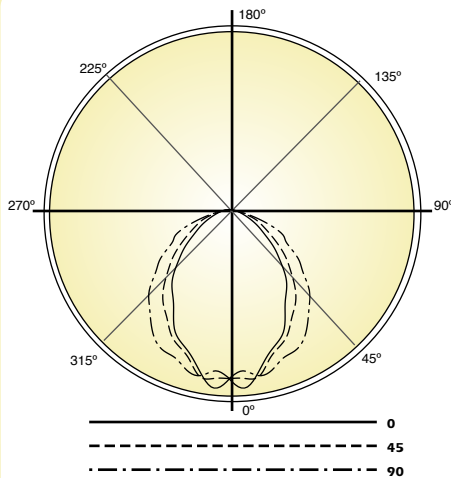
QUICK ACCESS WIRING PLATE

HOUSING ALIGNMENT MOUNTING BRACKETS (SEE MOUNTING "G")

2' X 2' "T" BAR CEILING GRID



PHOTOMETRY



#### Candela Distribution:

Vert. Angle	0	22.5	45	67.5	90
0	1543	1543	1543	1543	1543
5	1637	1562	1547	1576	1478
10	1519	1479	1552	1553	1539
15	1377	1393	1421	1465	1519
20	1294	1310	1338	1385	1445
25	1200	1184	1266	1323	1425
30	1029	1043	1149	1266	1370
35	917	926	1060	1155	1260
40	814	826	947	1077	1146
45	667	682	804	951	1044
50	542	565	682	821	886
55	408	453	548	685	774
60	314	335	426	556	614
65	230	247	334	468	547
70	158	169	256	354	386
75	107	108	147	195	206
80	70.7	68.5	61.7	78.0	82.5
85	36.4	28.1	22.6	25.6	32.2
90	5.79	4.45	6.56	5.18	6.26

Optical Distribution:  
100% Direct

#### Coefficients of Utilization - Zonal Cavity Method: pfc = 0.20

	.8	.7	.5	.3	.1	0
pcc	.8	.7	.5	.3	.1	0
pw	.7 .5 .3 .1	.7 .5 .3 .1	.5 .3 .1	.5 .3 .1	.5 .3 .1	0
RCR						
0	66 66 66 66	64 64 64 64	61 61 61	59 59 59	56 56 56	55
1	61 58 56 54	59 57 55 53	55 53 52	52 51 50	50 49 48	47
2	56 51 48 45	54 50 47 44	48 46 43	47 44 42	45 43 41	40
3	51 45 41 38	50 45 41 38	43 40 37	41 39 36	40 38 36	34
4	47 41 36 32	46 40 36 32	38 35 32	37 34 31	36 33 31	30
5	43 36 32 28	42 36 31 28	35 31 28	34 30 27	33 30 27	26
6	40 33 28 25	39 32 28 25	31 27 24	30 27 24	30 26 24	23
7	37 30 25 22	36 29 25 22	29 25 22	28 24 22	27 24 21	20
8	35 27 23 20	34 27 23 20	26 22 20	26 22 19	25 22 19	18
9	32 25 21 18	32 25 21 18	24 20 18	24 20 18	23 20 17	17
10	30 23 19 16	30 23 19 16	22 19 16	22 18 16	21 18 16	15



Total Luminaire Optical Efficiency = 55.5%