

application

- Highly efficient, highly flexible recessed air handling luminaire with an upscale architectural appearance.
- Excellent visual comfort, ideal for modern high-tech offices.
- Other applications include schools and retail environments.
- Many ballast/lamp systems are available, providing flexibility to tailor the luminaire to specific applications.
- Standard distribution works well for conventional applications, while the wide "batwing" distribution allows wider luminaire spacing and improves uniformity for more even lighting.
- High optical efficiency increases energy savings.
- Step dimming ballasts can be switched to less than 50% input power for energy savings to meet most energy codes while maintaining symmetrical illumination.
- Multiple shielding options create a wide variety of photometric variations and aesthetic effects.
- Specific models are available for Grid, Flange, Z-spline/Modular or Screw Slot ceiling systems.
- Designed for air supply/return through side slots in reveal.

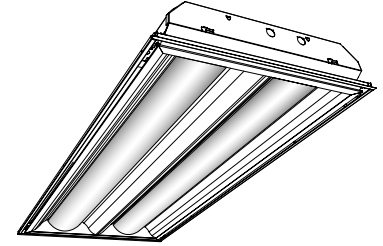
- Integral T-bar grid clips are built into luminaire ends.
- K.O. in luminaire ends for thru wiring or conduit entry in shallow plenums.

electrical

- UL listed for damp locations. Canadian certified optional.
- Standard size fluorescent emergency ballasts can be incorporated, UL listed for dry locations.
- Systems are available offering electrical system efficacy ratings up to 102 Lumens/Watt.

enclosure

- One-piece enclosure hinges down as an assembly for easy access to lamps and ballast from below.
- T-hinges provide secure retention of enclosure and eliminate non-captive parts to hold during servicing.
- Guide-post spring loaded latches allow easy opening and closing of the enclosure.
- Choice of shielding includes diffuse acrylic with or without overlay, white radial louver with overlay, round or linear perforated steel with overlay.



construction/finish

- One piece die-formed embossed steel housing provides added rigidity, resists damage during shipment/handling.
- Black reveal around enclosure provides floating appearance and disguises air slots. White reveal is available.
- Wireway cover is easily removable without tools for quick ballast or wiring access from below.

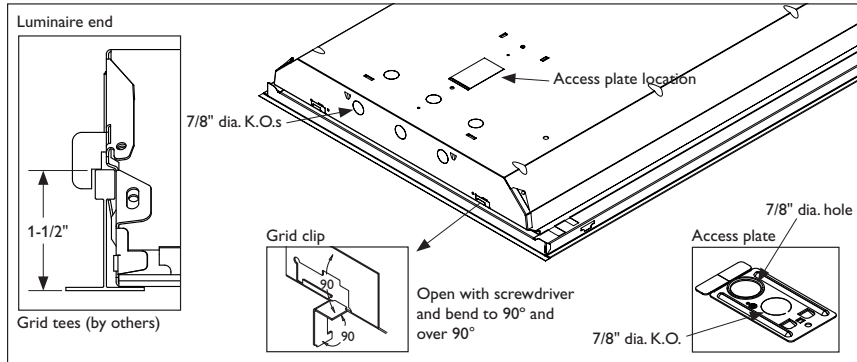
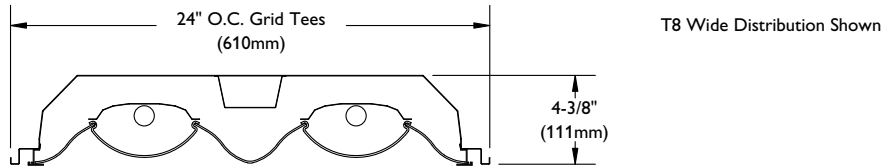
Specifier's Reference

Project
Type
Model No.
Comments

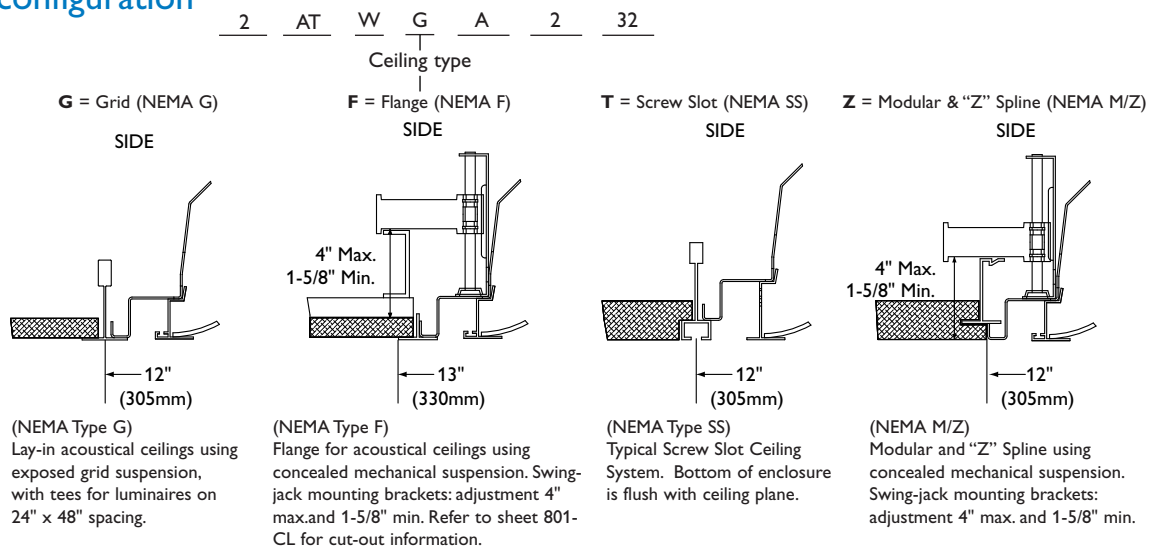
Green Choice: 2ATNGA232-D-UNV-1/2EBLHE-LPT835HL

Width	Distribution	Air Function	Lamp Type/ Wattage	Ballast	Options
2 - 2'	N - Standard W - Wide (Batwing)*	A - Air supply/return	28 - 28WT5 (46") 32 - 32WT8 (48") 54HO - 54WT5HO (46")	1/2 - One 2-lamp ballast	CM - Canadian Market CC - Custom Color F1 - 3/8" flex, 3 wire 18 gauge F2 - 3/8" flex, 4 wire 18 gauge E1 - DEB-1 emerg. ballast, CF/T8, 350-450 lumens E7 - DEB-7 emerg. ballast, CF/T8, 600-700 lumens E5 - DEB-5 emerg. ballast, CF/T8, 1100-1400 lumens E7LP - DEB-7LP emerg. ballast T8/T5/T5HO, 430-700 lumens E6LP - DEB-6LP emerg. ballast, T8/T5/T5HO, 750-1325 lumens
Family	Ceiling Type	No. of Lamps	Diffusers	Ballast Type	GLR#
AT - Attune ATCP - Chicago Plenum Model	G - Grid F - Flange Z - Z Spline/Modular T - Screw Slot.	(not included) 2	D - Diffuse DO - Diffuse w/overlay WO - White Radial Louver w/overlay PMW - Round Perf. w/white overlay SMW - Slotted (Linear) Perf. w/white overlay	EB95 - T5 electronic ballast, .95 ballast factor EB115 - T5 electronic ballast, 1.15 ballast factor EBS095 - T5 electronic step dimming ballast, .95 ballast factor EBS0115 - T5 electronic step dimming ballast, 1.15 ballast factor EBS080 - 54WT5HO electronic step dimming ballast, .80 ballast factor	LPT730 - Installed T8 lamps, 70+ CRI, 3000K LPT735 - Installed T8 lamps, 70+ CRI, 3500K LPT741 - Installed T8 lamps, 70+ CRI, 4100K LPT830HL - Installed T8 hi lumen lamps, 80+ CRI, 3000K LPT835HL - Installed T8 hi lumen lamps, 80+ CRI, 3500K LPT841HL - Installed T8 hi lumen lamps, 80+ CRI, 4100K LPT830 - Installed CF/T8/T5/T5HO lamps, 80+ CRI, 3000K LPT835 - Installed CF/T8/T5/T5HO lamps, 80+ CRI, 3500K LPT841 - Installed CF/T8/T5/T5HO lamps, 80+ CRI, 4100K PAF - Housing painted after fabrication
Accessories					
FKDP24 - Flange conversion kit 2x4 FMA24 - 2'x4" "F" mounting frame for NEMA "F" mounting					

dimensions



ceiling configuration



energy data

Lamp Type	Ballast Type	Input Power (120/277V)	Electrical System Lumens/Watt	
			Std. Lamps*	Hi-Lumen Lamps
28	EB95	59W / 58W	95	100
	EBSD95@hi	59W / 58W	95	100
	EBSD95@lo	28W / 28W	73	76
	EB115	71W / 69W	97	102
	EBSD115@hi	71W / 71W	94	99
	EBSD115@lo	35W / 35W	80	81
	EB	66W / 64W	91	95
32	EB	58W / 58W	85	94
	EBHE	55W / 54W	90	100
	EB10I	59W / 58W	85	94
	EB10R	62W / 60W	82	91
	EBL	50W / 49W	88	97
	EBLHE	47W / 47W	92	102
	EBH	77W / 77W	87	97
	EBHHE	74W / 73W	91	100
	EBSD@hi	57W / 56W	88	97
	EBSD@lo	28W / 28W	60	66
	54HO	EB	120W / 117W	85
EBSD80@hi		96W / 93W	86	-
EBSD80@lo		52W / 51W	78	-

*Standard Lamp T8 values assume 70+CRI 32W lamp. 80+CRI lamps or energy savings lamps are also available.

photometry

ATWGA 2x4 2 Lamp T5

Efficiency – 90.2%

LER – 70

TER – 61

Catalog No. 2ATWGA228-D-1/2-EB Test No. 25469D1 S/MH 1.5 Lamp Type F28T5 Lumens/Lamp 2600 Ballast Factor 1.00 Input Watts 67 Comparative yearly lighting energy cost per 1000 lumens – \$3.43 based on 3000 hrs. and \$.08 pwr KWH. The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.	Candlepower <table border="1"> <thead> <tr> <th>Angle</th> <th>End</th> <th>45</th> <th>Cross</th> </tr> </thead> <tbody> <tr><td>0</td><td>1510</td><td>1510</td><td>1510</td></tr> <tr><td>5</td><td>1520</td><td>1522</td><td>1515</td></tr> <tr><td>10</td><td>1501</td><td>1543</td><td>1579</td></tr> <tr><td>15</td><td>1467</td><td>1569</td><td>1649</td></tr> <tr><td>20</td><td>1422</td><td>1584</td><td>1699</td></tr> <tr><td>25</td><td>1362</td><td>1577</td><td>1699</td></tr> <tr><td>30</td><td>1288</td><td>1540</td><td>1639</td></tr> <tr><td>35</td><td>1200</td><td>1459</td><td>1527</td></tr> <tr><td>40</td><td>1095</td><td>1348</td><td>1378</td></tr> <tr><td>45</td><td>982</td><td>1210</td><td>1218</td></tr> <tr><td>50</td><td>854</td><td>1057</td><td>1059</td></tr> <tr><td>55</td><td>726</td><td>897</td><td>901</td></tr> <tr><td>60</td><td>594</td><td>747</td><td>737</td></tr> <tr><td>65</td><td>467</td><td>590</td><td>551</td></tr> <tr><td>70</td><td>342</td><td>428</td><td>348</td></tr> <tr><td>75</td><td>230</td><td>263</td><td>185</td></tr> <tr><td>80</td><td>131</td><td>128</td><td>85</td></tr> <tr><td>85</td><td>51</td><td>35</td><td>21</td></tr> </tbody> </table>				Angle	End	45	Cross	0	1510	1510	1510	5	1520	1522	1515	10	1501	1543	1579	15	1467	1569	1649	20	1422	1584	1699	25	1362	1577	1699	30	1288	1540	1639	35	1200	1459	1527	40	1095	1348	1378	45	982	1210	1218	50	854	1057	1059	55	726	897	901	60	594	747	737	65	467	590	551	70	342	428	348	75	230	263	185	80	131	128	85	85	51	35	21	Light Distribution <table border="1"> <thead> <tr> <th>Degrees</th> <th>Lumens</th> <th>% Lamp</th> <th>% Luminaire</th> </tr> </thead> <tbody> <tr><td>0-30</td><td>1304</td><td>25.1</td><td>27.8</td></tr> <tr><td>0-40</td><td>2184</td><td>42.0</td><td>46.6</td></tr> <tr><td>0-60</td><td>3840</td><td>73.9</td><td>81.9</td></tr> <tr><td>0-90</td><td>4691</td><td>90.2</td><td>100.0</td></tr> </tbody> </table>				Degrees	Lumens	% Lamp	% Luminaire	0-30	1304	25.1	27.8	0-40	2184	42.0	46.6	0-60	3840	73.9	81.9	0-90	4691	90.2	100.0																																					
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ATNGA 2x4 2 Lamp T5

Efficiency – 85.0%

LER – 70

TER – 63

Catalog No. 2ATNGA228-D-1/2-EB Test No. 25459D1 S/MH 1.2 Lamp Type F28T8 Lumens/Lamp 2600 Ballast Factor 1.00 Input Watts 63 Comparative yearly lighting energy cost per 1000 lumens – \$3.43 based on 3000 hrs. and \$.08 pwr KWH. The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.	Candlepower <table border="1"> <thead> <tr> <th>Angle</th> <th>End</th> <th>45</th> <th>Cross</th> </tr> </thead> <tbody> <tr><td>0</td><td>1941</td><td>1941</td><td>1941</td></tr> <tr><td>5</td><td>1936</td><td>1936</td><td>1901</td></tr> <tr><td>10</td><td>1901</td><td>1901</td><td>1868</td></tr> <tr><td>15</td><td>1846</td><td>1845</td><td>1814</td></tr> <tr><td>20</td><td>1763</td><td>1768</td><td>1738</td></tr> <tr><td>25</td><td>1663</td><td>1666</td><td>1630</td></tr> <tr><td>30</td><td>1538</td><td>1542</td><td>1504</td></tr> <tr><td>35</td><td>1401</td><td>1398</td><td>1356</td></tr> <tr><td>40</td><td>1242</td><td>1246</td><td>1187</td></tr> <tr><td>45</td><td>1077</td><td>1080</td><td>1009</td></tr> <tr><td>50</td><td>911</td><td>914</td><td>834</td></tr> <tr><td>55</td><td>748</td><td>748</td><td>637</td></tr> <tr><td>60</td><td>594</td><td>595</td><td>430</td></tr> <tr><td>65</td><td>451</td><td>430</td><td>283</td></tr> <tr><td>70</td><td>323</td><td>283</td><td>185</td></tr> <tr><td>75</td><td>211</td><td>170</td><td>118</td></tr> <tr><td>80</td><td>116</td><td>88</td><td>65</td></tr> <tr><td>85</td><td>46</td><td>29</td><td>19</td></tr> </tbody> </table>				Angle	End	45	Cross	0	1941	1941	1941	5	1936	1936	1901	10	1901	1901	1868	15	1846	1845	1814	20	1763	1768	1738	25	1663	1666	1630	30	1538	1542	1504	35	1401	1398	1356	40	1242	1246	1187	45	1077	1080	1009	50	911	914	834	55	748	748	637	60	594	595	430	65	451	430	283	70	323	283	185	75	211	170	118	80	116	88	65	85	46	29	19	Light Distribution <table border="1"> <thead> <tr> <th>Degrees</th> <th>Lumens</th> <th>% Lamp</th> <th>% Luminaire</th> </tr> </thead> <tbody> <tr><td>0-30</td><td>1465</td><td>28.2</td><td>33.2</td></tr> <tr><td>0-40</td><td>2332</td><td>44.8</td><td>52.8</td></tr> <tr><td>0-60</td><td>3795</td><td>73.0</td><td>85.9</td></tr> <tr><td>0-90</td><td>4417</td><td>85.0</td><td>100.0</td></tr> </tbody> </table>				Degrees	Lumens	% Lamp	% Luminaire	0-30	1465	28.2	33.2	0-40	2332	44.8	52.8	0-60	3795	73.0	85.9	0-90	4417	85.0	100.0																																					
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10	46	36	29	46	35	29	34	29																																																																																																																																					

ATWGA 2x4 2 Lamp T8

Efficiency – 84.3%

LER – 72

TER – 63

Catalog No. 2ATWGA232-D-1/2-EB Test No. 25445D1 S/MH 1.5 Lamp Type F32T8 Lumens/Lamp 2850 Ballast Factor 0.88 Input Watts 59 Comparative yearly lighting energy cost per 1000 lumens – \$3.33 based on 3000 hrs. and \$.08 pwr KWH. The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.	Candlepower <table border="1"> <thead> <tr> <th>Angle</th> <th>End</th> <th>45</th> <th>Cross</th> </tr> </thead> <tbody> <tr><td>0</td><td>1524</td><td>1524</td><td>1524</td></tr> <tr><td>5</td><td>1535</td><td>1529</td><td>1518</td></tr> <tr><td>10</td><td>1515</td><td>1535</td><td>1551</td></tr> <tr><td>15</td><td>1480</td><td>1540</td><td>1590</td></tr> <tr><td>20</td><td>1433</td><td>1538</td><td>1621</td></tr> <tr><td>25</td><td>1372</td><td>1522</td><td>1633</td></tr> <tr><td>30</td><td>1300</td><td>1492</td><td>1624</td></tr> <tr><td>35</td><td>1210</td><td>1433</td><td>1568</td></tr> <tr><td>40</td><td>1102</td><td>1352</td><td>1487</td></tr> <tr><td>45</td><td>990</td><td>1251</td><td>1378</td></tr> <tr><td>50</td><td>865</td><td>1127</td><td>1236</td></tr> <tr><td>55</td><td>738</td><td>990</td><td>1038</td></tr> <tr><td>60</td><td>606</td><td>838</td><td>779</td></tr> <tr><td>65</td><td>477</td><td>644</td><td>526</td></tr> <tr><td>70</td><td>352</td><td>438</td><td>319</td></tr> <tr><td>75</td><td>238</td><td>255</td><td>175</td></tr> <tr><td>80</td><td>138</td><td>122</td><td>83</td></tr> <tr><td>85</td><td>54</td><td>34</td><td>22</td></tr> </tbody> </table>				Angle	End	45	Cross	0	1524	1524	1524	5	1535	1529	1518	10	1515	1535	1551	15	1480	1540	1590	20	1433	1538	1621	25	1372	1522	1633	30	1300	1492	1624	35	1210	1433	1568	40	1102	1352	1487	45	990	1251	1378	50	865	1127	1236	55	738	990	1038	60	606	838	779	65	477	644	526	70	352	438	319	75	238	255	175	80	138	122	83	85	54	34	22	Light Distribution <table border="1"> <thead> <tr> <th>Degrees</th> <th>Lumens</th> <th>% Lamp</th> <th>% Luminaire</th> </tr> </thead> <tbody> <tr><td>0-30</td><td>1279</td><td>22.4</td><td>26.6</td></tr> <tr><td>0-40</td><td>2161</td><td>37.9</td><td>45.0</td></tr> <tr><td>0-60</td><td>3933</td><td>69.0</td><td>81.8</td></tr> <tr><td>0-90</td><td>4806</td><td>84.3</td><td>100.0</td></tr> </tbody> </table>				Degrees	Lumens	% Lamp	% Luminaire	0-30	1279	22.4	26.6	0-40	2161	37.9	45.0	0-60	3933	69.0	81.8	0-90	4806	84.3	100.0																																					
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10	44	33	27	42	33	26	32	26																																																																																																																																					

ATNGA 2x4 2 Lamp T8

Efficiency – 88.0%

LER – 74

TER – 66

Catalog No. 2ATNGA232-D-1/2-EB Test No. 25418D1 S/MH 1.2 Lamp Type F32T8 Lumens/Lamp 2850 Ballast Factor 0.88 Input Watts 60 Comparative yearly lighting energy cost per 1000 lumens – \$3.24 based on 3000 hrs. and \$.08 pwr KWH. The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.	Candlepower				Light Distribution								
	Angle	End	45	Cross	Degrees	Lumens	% Lamp	% Luminaire					
	0	2052	2052	2052	0-30	1576	27.6	31.4					
	5	2063	2042	2028	0-40	2539	44.5	50.6					
	10	2026	2015	2005	0-60	4243	74.4	84.6					
	15	1966	1964	1963	0-90	5017	88.0	100.0					
	20	1886	1897	1900									
	25	1783	1803	1810									
	30	1651	1688	1696									
	35	1512	1560	1561									
	40	1353	1398	1396									
45	1179	1231	1226										
50	1005	1060	1045										
55	833	891	827										
60	666	722	595										
65	511	540	396										
70	368	362	254										
75	242	219	159										
80	137	117	86										
85	54	37	24										
Coefficients of Utilization					EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)								
pcc					80			70			50		
pw					70	50	30	70	50	30	50	30	
RCR													
0					105	105	105	102	102	102		97	97
1					96	93	89	93	91	88		86	84
2					89	81	76	85	80	75		77	72
3					81	71	66	79	70	65		68	63
4					75	65	56	72	63	56		60	55
5					68	57	50	67	56	50		55	48
6					64	52	45	61	52	44		50	44
7					58	47	40	57	46	40		46	39
8					55	44	35	54	42	35		41	35
9					52	40	33	50	40	33		39	32
10					47	36	29	46	36	29		35	29

ATWGA 2x4 2 Lamp T8

Efficiency – 69.7%

LER – 59

TER – 52

Catalog No. 2ATWGA232-WO-1/2-EB Test No. 25793D1 S/MH 1.3 Lamp Type F32T8 Lumens/Lamp 2850 Ballast Factor 0.88 Input Watts 59 Comparative yearly lighting energy cost per 1000 lumens – \$4.07 based on 3000 hrs. and \$.08 pwr KWH. The photometric results were obtained in the Philips Day-Brite laboratory which is NVLAP accredited by the National Institute of Standards and Technology.	Candlepower				Light Distribution								
	Angle	End	45	Cross	Degrees	Lumens	% Lamp	% Luminaire					
	0	1695	1695	1695	0-30	1260	22.1	31.7					
	5	1683	1678	1676	0-40	2011	35.3	50.6					
	10	1609	1635	1674	0-60	3330	58.4	83.8					
	15	1520	1575	1666	0-90	3972	69.7	100.0					
	20	1415	1503	1644									
	25	1286	1410	1586									
	30	1174	1319	1504									
	35	1034	1195	1404									
	40	890	1064	1288									
45	742	927	1163										
50	592	790	1041										
55	437	669	906										
60	299	554	760										
65	225	454	551										
70	169	340	340										
75	121	216	130										
80	75	109	31										
85	32	47	11										
Coefficients of Utilization					EFFECTIVE FLOOR CAVITY REFLECTANCE 20 PER (pfc=0.20)								
pcc					80			70			50		
pw					70	50	30	70	50	30	50	30	
RCR													
0					82	82	82	81	81	81		77	77
1					76	72	70	75	71	68		68	67
2					69	65	59	68	63	58		60	57
3					64	56	52	61	56	51		54	50
4					58	51	45	56	50	45		47	44
5					54	46	40	53	45	39		44	39
6					50	40	35	48	40	34		40	34
7					46	38	32	46	36	32		35	30
8					44	34	28	42	34	28		33	28
9					40	32	26	40	30	26		30	26
10					38	28	23	36	28	23		28	23



Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled, "Contain Mercury" and/or the symbol "HG". Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycling and disposal can be found at www.lamprecycle.org



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www.philips.com/luminaires

0019-AR 04/13

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