



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AHTG-22-L76-835-A-DIM-UNV\_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TESTLAB] Generated From Intertek  
[ISSUEDATE] 17-NOV-2020  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.64836  
[LUMINAIRE] 2'x2' LED TROFFER  
[MORE] FROSTED ACRYLIC DIFFUSER  
[LUMCAT] AHT-22-L76-835-A-DIM-UNV  
[LAMPCAT] HLM 80 CRI, 3500K CCT  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] INDOOR, DIRECT, OFFICE, EDUCATION  
[SEARCH\_MOUNTING] RECESSED

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7645
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	62.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	2.00 ft
Luminous Width (90-270)	2.00 ft
Luminous Height	0.00 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6883	6877	7133
55	5714	6156	6382
65	4453	5122	4223
75	3310	3299	2451
85	2127	1623	1310

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AHTG-22-L76-835-A-DIM-UNV\_.IES**

**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	3332.167	3332.167	3332.167	3332.167	3332.167
2.5	3330.107	3323.926	3321.073	3328.363	3332.325
5.0	3320.915	3312.991	3306.969	3308.871	3312.674
7.5	3300.788	3289.219	3280.978	3278.760	3274.481
10.0	3269.251	3255.939	3240.408	3234.544	3229.631
12.5	3226.462	3212.516	3192.072	3179.077	3168.776
15.0	3170.360	3155.463	3130.265	3112.040	3099.204
17.5	3103.324	3084.624	3056.731	3036.129	3021.391
20.0	3023.926	3003.958	2972.262	2949.917	2932.960
22.5	2933.594	2911.248	2878.602	2856.732	2840.725
25.0	2835.496	2809.347	2773.689	2754.672	2740.409
27.5	2730.741	2701.264	2665.448	2651.661	2641.201
30.0	2621.550	2590.805	2556.415	2546.114	2539.458
32.5	2505.385	2474.323	2442.945	2439.617	2435.179
35.0	2380.029	2351.186	2324.561	2331.059	2330.425
37.5	2246.273	2220.916	2200.948	2214.419	2219.015
40.0	2107.763	2085.417	2072.739	2095.401	2105.544
42.5	1961.329	1944.688	1941.519	1974.958	1993.500
45.0	1810.299	1799.364	1808.872	1853.880	1876.067
47.5	1659.744	1658.635	1676.860	1733.912	1759.110
50.0	1509.348	1519.332	1551.345	1616.480	1632.803
52.5	1362.439	1382.566	1430.743	1493.659	1502.375
55.0	1219.016	1249.602	1313.311	1359.745	1361.488
57.5	1080.664	1119.174	1196.037	1213.786	1174.959
60.0	946.433	992.550	1072.899	1033.121	998.097
62.5	818.224	871.314	946.750	874.484	825.197
65.0	699.999	759.112	805.229	718.858	663.866
67.5	590.491	652.773	664.817	570.522	523.771
70.0	491.442	554.357	539.460	444.849	406.022
72.5	400.316	458.636	421.553	338.827	310.142
75.0	318.700	363.391	317.591	254.992	235.974
77.5	244.215	272.741	229.318	188.906	177.496
80.0	178.288	193.185	158.478	135.499	129.160
82.5	119.968	122.345	100.317	88.431	83.201
85.0	68.938	63.708	52.615	46.276	42.472
87.5	24.247	20.127	18.383	18.700	18.542
90.0	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : AHTG-22-L76-835-A-DIM-UNV\_.IES

CANDELA TABULATION - (Cont.)

135.0	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.158	0.000	0.158
152.5	0.000	0.000	0.158	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000
157.5	0.317	0.158	0.000	0.634	0.158
160.0	0.158	0.000	0.475	0.317	0.158
162.5	0.634	0.158	0.158	0.158	0.475
165.0	0.158	0.158	0.475	0.317	0.634
167.5	0.634	0.158	0.317	0.317	0.158
170.0	0.158	0.158	0.475	0.317	0.317
172.5	0.000	0.158	0.634	0.792	0.000
175.0	0.475	0.000	0.317	0.475	0.634
177.5	0.475	0.317	0.475	0.475	0.158
180.0	0.475	0.475	0.475	0.475	0.475

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AHTG-22-L76-835-A-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1195.85	N.A.	15.60
0-30	2476.27	N.A.	32.40
0-40	3937.85	N.A.	51.50
0-60	6507.36	N.A.	85.10
0-80	7575.15	N.A.	99.10
0-90	7645.17	N.A.	100.00
10-90	7331.19	N.A.	95.90
20-40	2742.01	N.A.	35.90
20-50	4151.34	N.A.	54.30
40-70	3307.77	N.A.	43.30
60-80	1067.79	N.A.	14.00
70-80	329.52	N.A.	4.30
80-90	70.02	N.A.	0.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.17	N.A.	0.00
110-180	0.17	N.A.	0.00
0-180	7645.33	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	313.97
10-20	881.87
20-30	1280.42
30-40	1461.58
40-50	1409.34
50-60	1160.17
60-70	738.27
70-80	329.52
80-90	70.02
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.05
160-170	0.08
170-180	0.03

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AHTG-22-L76-835-A-DIM-UNV\_.IES**

**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	223	223	223	223	218	218	218	218	208	208	208	199	199	199	191	191	191	187
1	206	198	191	184	201	193	187	181	186	180	175	178	174	170	172	168	165	161
2	189	174	163	153	184	171	160	151	164	155	148	158	151	144	153	147	141	137
3	173	155	141	129	169	152	139	128	146	135	126	141	132	124	137	129	122	118
4	159	138	123	111	155	136	121	110	131	119	109	127	116	107	123	114	106	102
5	147	124	108	97	143	122	107	96	118	105	95	115	103	94	111	101	93	89
6	136	112	96	85	133	111	96	85	107	94	84	104	92	83	101	91	83	79
7	127	102	87	76	123	101	86	75	98	85	75	95	83	74	93	82	74	70
8	118	94	78	68	115	92	78	68	90	77	67	88	76	67	86	75	67	63
9	110	86	71	61	108	85	71	61	83	70	61	81	69	61	79	68	60	57
10	104	80	66	56	101	79	65	56	77	64	56	75	64	55	74	63	55	52

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : AHTG-22-L76-835-A-DIM-UNV\_.IES**

**UGR TABLE - CORRECTED**

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	15.6	17.2	16.0	17.5	17.8	UGR Viewed Endwise			
	3H	17.0	18.4	17.4	18.7	19.0	16.2	17.7	16.5	18.0
	4H	17.4	18.7	17.8	19.1	19.4	17.0	18.4	17.4	18.7
	6H	17.7	18.9	18.1	19.3	19.7	17.3	18.6	17.7	18.9
	8H	17.8	18.9	18.2	19.3	19.7	17.4	18.6	17.8	18.9
	12H	17.8	18.9	18.2	19.3	19.7	17.4	18.5	17.8	18.9

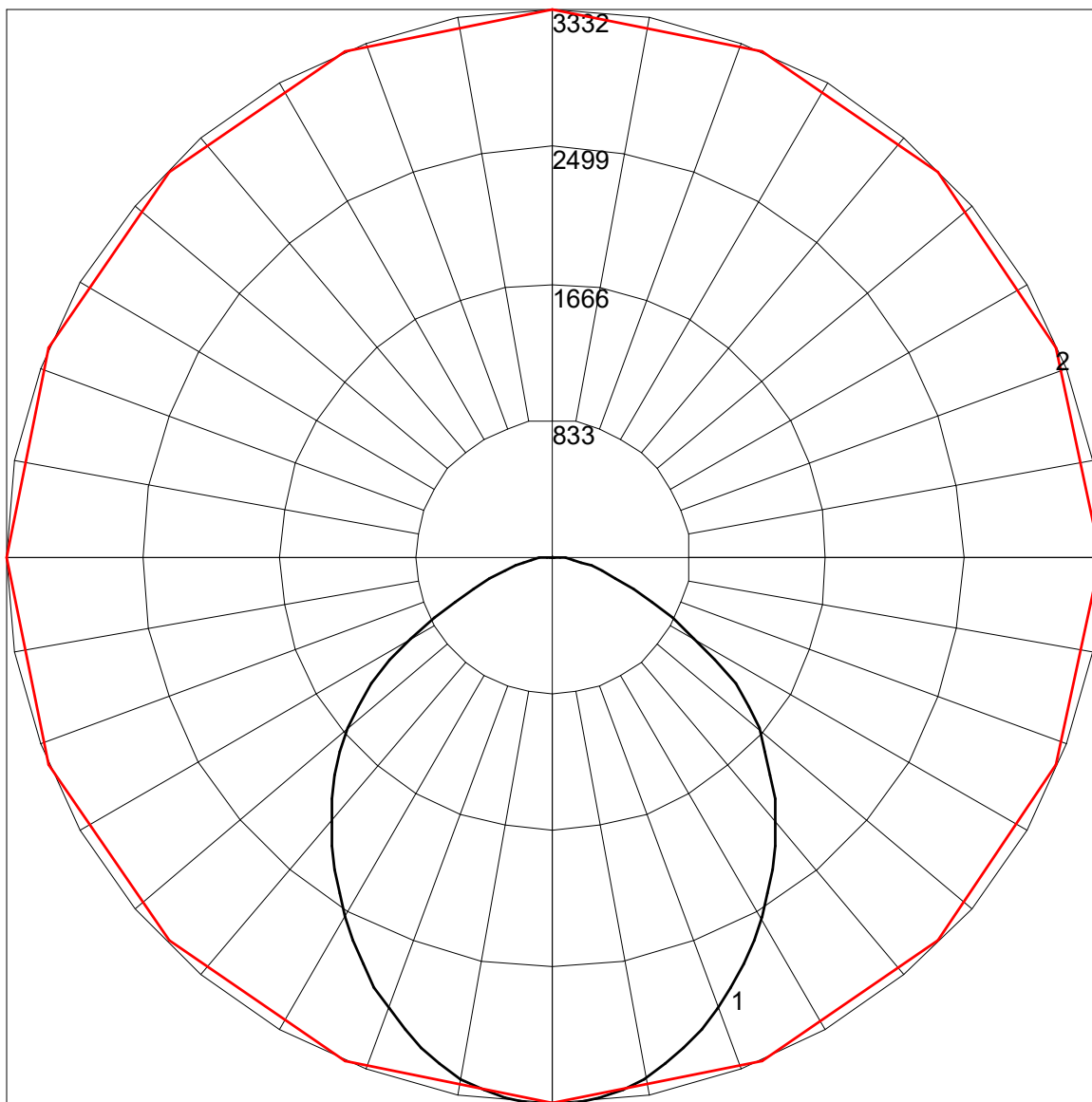
4H	2H	16.2	17.5	16.6	17.9	18.3	16.7	18.0	17.1	18.3
	3H	17.8	18.9	18.2	19.3	19.7	17.7	18.8	18.1	19.2
	4H	18.3	19.3	18.8	19.7	20.2	18.0	19.0	18.4	19.4
	6H	18.7	19.6	19.2	20.0	20.5	18.2	19.0	18.6	19.5
	8H	18.8	19.6	19.3	20.1	20.5	18.2	19.0	18.7	19.5
	12H	18.9	19.6	19.4	20.1	20.5	18.3	19.0	18.7	19.4

8H	4H	18.5	19.3	19.0	19.7	20.2	18.2	19.0	18.6	19.4
	6H	19.0	19.6	19.4	20.1	20.6	18.4	19.1	18.9	19.6
	8H	19.1	19.7	19.6	20.2	20.7	18.5	19.1	19.0	19.6
	12H	19.2	19.7	19.7	20.2	20.8	18.6	19.1	19.1	19.6

12H	4H	18.5	19.2	19.0	19.7	20.1	18.2	18.9	18.7	19.4
	6H	19.0	19.6	19.5	20.0	20.6	18.5	19.0	19.0	19.5
	8H	19.1	19.7	19.7	20.2	20.7	18.6	19.1	19.1	19.6

Maximum UGR = 20.8

POLAR GRAPH



Maximum Candela = 3332.325 Located At Horizontal Angle = 90, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)