

IES INDOOR REPORT

PHOTOMETRIC FILENAME : AHTG-22-L125-835-A-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TESTLAB] Generated From Intertek
[ISSUE DATE] 27-JUN-2023
[MANUFACTURER] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836
[LUMINAIRE] 2'x2' LED TROFFER
[MORE] FROSTED ACRYLIC DIFFUSER
[LUMCAT] AHT-22-L125-835-A-DIM-UNV
[LAMPCAT] HLM 80 CRI, 3500K CCT
[SEARCH_SOURCE TYPE] 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	12600
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	108.1
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	11344	11335	11756
55	9417	10145	10517
65	7339	8442	6960
75	5456	5437	4040
85	3505	2675	2159

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	5491.781	5491.781	5491.781	5491.781	5491.781
2.5	5488.386	5478.199	5473.498	5485.513	5492.042
5.0	5473.237	5460.177	5450.252	5453.386	5459.655
7.5	5440.066	5420.999	5407.417	5403.760	5396.708
10.0	5388.089	5366.149	5340.552	5330.888	5322.791
12.5	5317.567	5294.583	5260.889	5239.472	5222.494
15.0	5225.106	5200.554	5159.025	5128.988	5107.832
17.5	5114.623	5083.802	5037.833	5003.878	4979.588
20.0	4983.767	4950.857	4898.619	4861.791	4833.843
22.5	4834.888	4798.060	4744.255	4708.211	4681.831
25.0	4673.212	4630.115	4571.348	4540.005	4516.498
27.5	4500.565	4451.984	4392.955	4370.231	4352.993
30.0	4320.605	4269.934	4213.256	4196.279	4185.309
32.5	4129.153	4077.960	4026.244	4020.759	4013.446
35.0	3922.552	3875.015	3831.135	3841.844	3840.799
37.5	3702.107	3660.317	3627.407	3649.608	3657.183
40.0	3473.827	3436.999	3416.104	3453.454	3470.170
42.5	3232.488	3205.063	3199.839	3254.950	3285.509
45.0	2983.573	2965.551	2981.223	3055.401	3091.967
47.5	2735.443	2733.615	2763.651	2857.680	2899.209
50.0	2487.574	2504.029	2556.789	2664.138	2691.041
52.5	2245.451	2278.622	2358.023	2461.716	2476.081
55.0	2009.074	2059.483	2164.482	2241.010	2243.883
57.5	1781.055	1844.524	1971.201	2000.454	1936.463
60.0	1559.827	1635.833	1768.256	1702.698	1644.975
62.5	1348.524	1436.023	1560.349	1441.246	1360.016
65.0	1153.676	1251.100	1327.106	1184.758	1094.125
67.5	973.194	1075.842	1095.692	940.284	863.233
70.0	809.950	913.643	889.091	733.160	669.169
72.5	659.766	755.884	694.765	558.424	511.149
75.0	525.253	598.909	523.425	420.255	388.912
77.5	402.494	449.508	377.942	311.338	292.533
80.0	293.839	318.391	261.190	223.317	212.870
82.5	197.721	201.639	165.333	145.744	137.125
85.0	113.618	104.998	86.715	76.267	69.999
87.5	39.962	33.171	30.298	30.820	30.559
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

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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	0.261	0.000	0.261
152.5	0.000	0.000	0.261	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000
157.5	0.522	0.261	0.000	1.045	0.261
160.0	0.261	0.000	0.784	0.522	0.261
162.5	1.045	0.261	0.261	0.261	0.784
165.0	0.261	0.261	0.784	0.522	1.045
167.5	1.045	0.261	0.522	0.522	0.261
170.0	0.261	0.261	0.784	0.522	0.522
172.5	0.000	0.261	1.045	1.306	0.000
175.0	0.784	0.000	0.522	0.784	1.045
177.5	0.784	0.522	0.784	0.784	0.261
180.0	0.784	0.784	0.784	0.784	0.784

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1970.89	N.A.	15.60
0-30	4081.17	N.A.	32.40
0-40	6490.02	N.A.	51.50
0-60	10724.85	N.A.	85.10
0-80	12484.68	N.A.	99.10
0-90	12600.08	N.A.	100.00
10-90	12082.62	N.A.	95.90
20-40	4519.13	N.A.	35.90
20-50	6841.88	N.A.	54.30
40-70	5451.57	N.A.	43.30
60-80	1759.83	N.A.	14.00
70-80	543.09	N.A.	4.30
80-90	115.40	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	0.01	N.A.	0.00
90-180	0.28	N.A.	0.00
110-180	0.28	N.A.	0.00
0-180	12600.36	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	517.46
10-20	1453.43
20-30	2110.28
30-40	2408.85
40-50	2322.75
50-60	1912.08
60-70	1216.74
70-80	543.09
80-90	115.40
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.01
150-160	0.08
160-170	0.13
170-180	0.06

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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	196	196	196	196	192	192	192	192	183	183	183	175	175	175	168	168	168	165
1	181	174	168	162	177	170	165	159	163	159	154	157	153	150	151	148	145	142
2	166	154	143	135	162	151	141	133	145	137	130	140	133	127	135	129	124	121
3	152	136	124	114	148	134	122	113	129	119	111	125	116	109	120	113	107	104
4	140	122	108	98	137	120	107	97	116	105	96	112	102	95	108	100	93	90
5	129	109	95	85	126	108	94	85	104	93	84	101	91	83	98	89	82	79
6	120	99	85	75	117	97	84	75	95	83	74	92	81	73	89	80	73	69
7	111	90	76	67	109	89	76	66	86	75	66	84	73	65	82	72	65	62
8	104	83	69	60	101	81	69	60	79	68	59	77	67	59	75	66	59	56
9	97	76	63	54	95	75	63	54	73	62	54	71	61	53	70	60	53	50
10	91	70	58	49	89	69	57	49	68	57	49	66	56	49	65	55	49	46

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UGR TABLE - CORRECTED

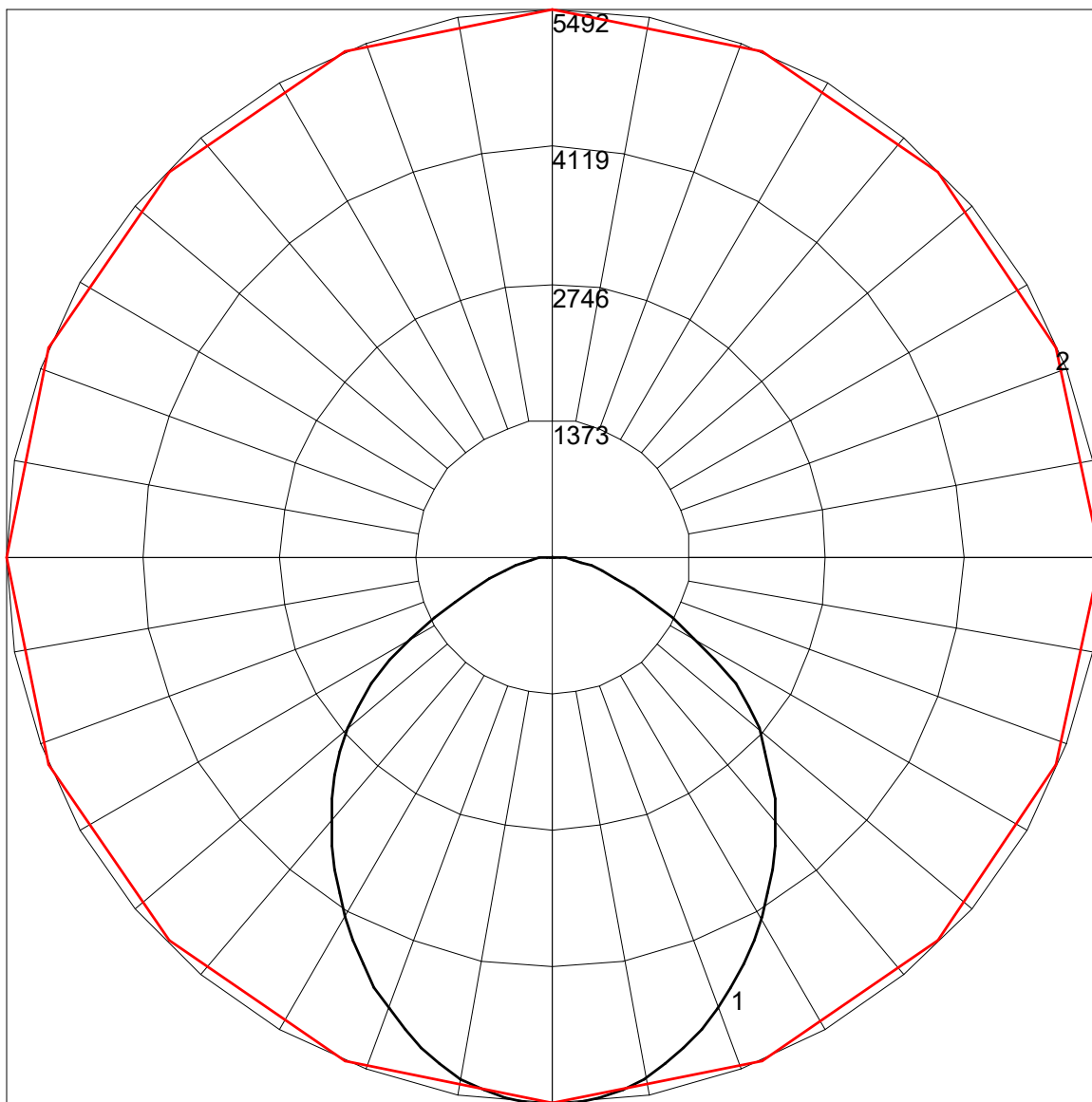
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	17.8	19.4	18.2	19.7	20.0	18.4	19.9	18.7	20.2	20.5
	3H	19.2	20.6	19.6	20.9	21.2	19.2	20.6	19.6	20.9	21.3
	4H	19.6	20.9	20.0	21.3	21.6	19.5	20.8	19.9	21.1	21.5
	6H	19.9	21.1	20.3	21.5	21.9	19.6	20.8	20.0	21.1	21.5
	8H	20.0	21.1	20.4	21.5	21.9	19.6	20.7	20.0	21.1	21.5
	12H	20.0	21.1	20.4	21.5	21.9	19.6	20.7	20.0	21.1	21.5
4H	2H	18.4	19.7	18.8	20.1	20.5	18.9	20.2	19.3	20.5	20.9
	3H	20.0	21.1	20.4	21.5	21.9	19.9	21.0	20.3	21.4	21.8
	4H	20.5	21.5	21.0	21.9	22.4	20.2	21.2	20.6	21.6	22.0
	6H	20.9	21.8	21.4	22.2	22.7	20.4	21.2	20.8	21.7	22.1
	8H	21.0	21.8	21.5	22.3	22.7	20.4	21.2	20.9	21.7	22.1
	12H	21.1	21.8	21.6	22.3	22.7	20.5	21.2	20.9	21.6	22.1
8H	4H	20.7	21.5	21.2	21.9	22.4	20.4	21.2	20.8	21.6	22.1
	6H	21.2	21.8	21.6	22.3	22.8	20.6	21.3	21.1	21.8	22.3
	8H	21.3	21.9	21.8	22.4	22.9	20.7	21.3	21.2	21.8	22.3
	12H	21.4	21.9	21.9	22.4	23.0	20.8	21.3	21.3	21.8	22.3
12H	4H	20.7	21.4	21.2	21.9	22.3	20.4	21.1	20.9	21.6	22.0
	6H	21.2	21.8	21.7	22.2	22.8	20.7	21.2	21.2	21.7	22.2
	8H	21.3	21.9	21.9	22.4	22.9	20.8	21.3	21.3	21.8	22.3

Maximum UGR = 23.0

POLAR GRAPH



Maximum Candela = 5492.042 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.)