

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : AHTG-24-L250-835-A-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] GEN FROM BALLABS TEST NO. 18091.0  
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
[ISSUE DATE] 27-JUN-2023  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836  
[LUMINAIRE] 2'x4' RECESSED LED TROFFER  
[MORE] FROSTED ACRYLIC DIFFUSER  
[LUMCAT] AHTG-24-L250-835-A-DIM-UNV  
[LAMPCAT] HLM 80 CRI, 3500K CCT  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] INDOOR, DIRECT  
[SEARCH\_MOUNTING] RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	25201
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	216.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	12120	12410	12350
55	10280	11065	10886
65	8584	9443	7519
75	6535	5949	4253
85	4986	3733	3298

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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>
<b>0</b>	10645.810	10645.810	10645.810	10645.810	10645.810
<b>5</b>	10600.688	10600.688	10592.908	10588.240	10588.240
<b>10</b>	10407.750	10395.302	10376.631	10353.292	10347.068
<b>15</b>	9979.864	9956.524	9911.402	9869.391	9858.499
<b>20</b>	9758.919	9737.135	9671.785	9597.100	9573.761
<b>25</b>	9016.731	9002.727	8934.265	8861.136	8805.121
<b>30</b>	8324.333	8300.993	8229.420	8134.507	8073.825
<b>35</b>	7645.939	7638.159	7589.924	7495.011	7463.892
<b>40</b>	6832.177	6847.736	6853.960	6787.054	6763.715
<b>45</b>	5984.184	6063.537	6127.331	6127.331	6097.768
<b>50</b>	5002.379	5094.180	5229.548	5290.230	5252.887
<b>55</b>	4117.044	4233.740	4431.346	4468.689	4359.772
<b>60</b>	3256.603	3385.747	3609.804	3370.188	3222.373
<b>65</b>	2533.087	2685.570	2786.707	2431.950	2218.785
<b>70</b>	1843.801	2014.955	1912.263	1518.607	1359.900
<b>75</b>	1180.966	1291.439	1075.161	837.101	768.639
<b>80</b>	700.178	715.737	560.142	462.117	446.558
<b>85</b>	303.410	269.179	227.169	203.829	200.718
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	3821.5	N.A.	15.20
0-30	7941.3	N.A.	31.50
0-40	12666.88	N.A.	50.30
0-60	21197.75	N.A.	84.10
0-80	24913.99	N.A.	98.90
0-90	25200.87	N.A.	100.00
10-90	24196.8	N.A.	96.00
20-40	8845.39	N.A.	35.10
20-50	13514.37	N.A.	53.60
40-70	11079.39	N.A.	44.00
60-80	3716.24	N.A.	14.70
70-80	1167.71	N.A.	4.60
80-90	286.88	N.A.	1.10
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	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	25200.87	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	1004.07
10-20	2817.43
20-30	4119.8
30-40	4725.59
40-50	4668.98
50-60	3861.89
60-70	2548.53
70-80	1167.71
80-90	286.88
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	0.00
160-170	0.00
170-180	0.00

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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	148	148	148	148	145	145	145	145	138	138	138	132	132	132	127	127	127	124
1	137	131	126	122	133	128	124	120	123	119	116	118	115	113	114	111	109	107
2	125	115	108	101	122	113	106	100	109	103	97	105	100	95	101	97	93	91
3	115	102	93	85	112	100	91	84	97	89	83	93	87	81	90	85	80	77
4	105	91	81	73	103	90	80	72	86	78	71	84	76	70	81	75	70	67
5	97	82	71	63	95	80	70	63	78	69	62	75	68	62	73	66	61	58
6	90	74	63	56	88	73	63	55	71	62	55	69	61	54	67	60	54	52
7	84	67	57	49	81	66	56	49	64	55	49	63	55	49	61	54	48	46
8	78	62	51	44	76	61	51	44	59	50	44	58	50	44	56	49	43	41
9	73	57	47	40	71	56	46	40	55	46	40	53	45	40	52	45	39	37
10	68	52	43	36	67	52	43	36	51	42	36	49	42	36	48	41	36	34

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**UGR TABLE - CORRECTED**

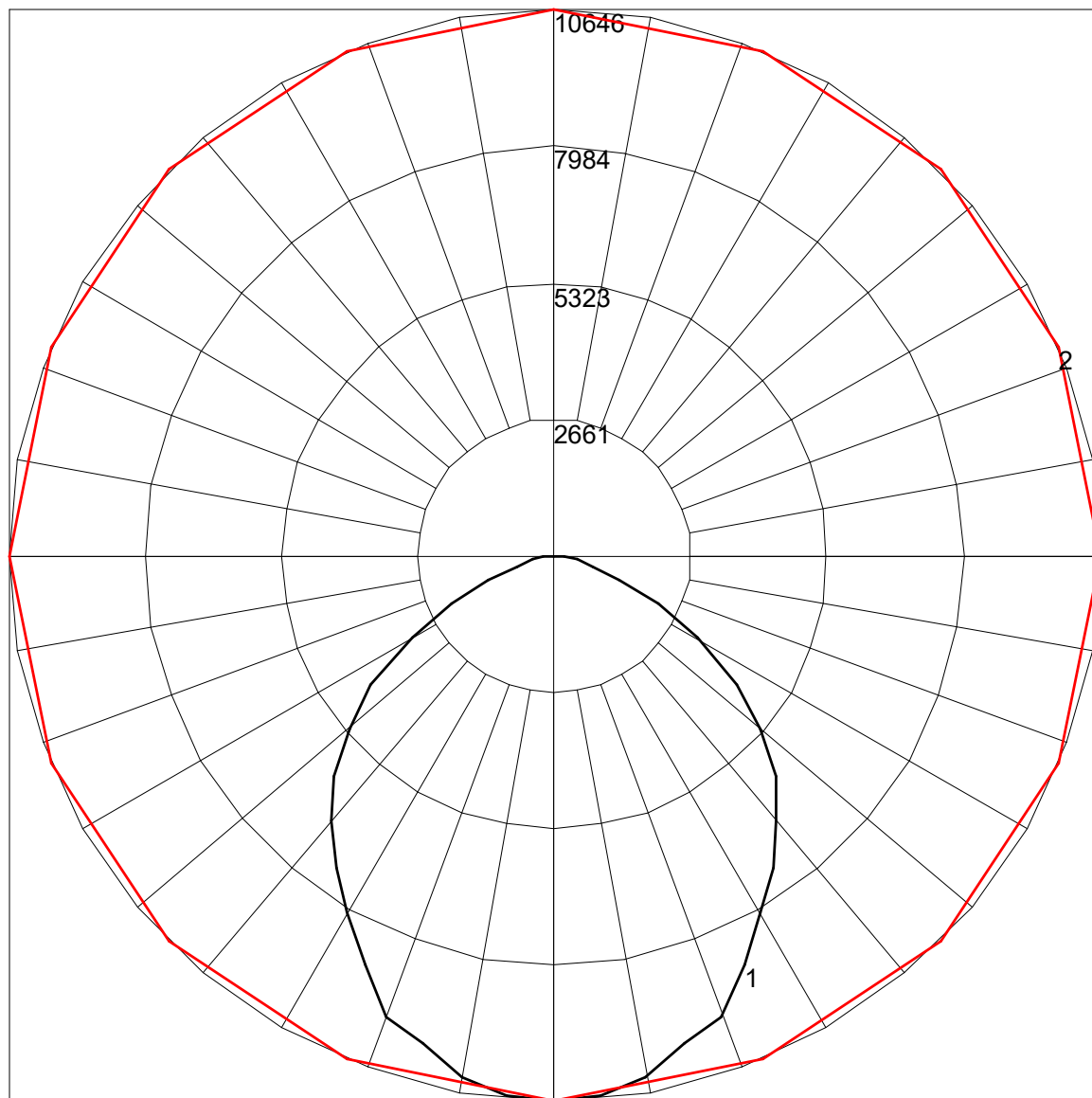
Reflectances

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	19.2	20.8	19.6	21.1	21.4	19.4	21.0	19.8	21.3	21.6
	3H	20.8	22.2	21.2	22.5	22.9	20.4	21.8	20.8	22.1	22.5
	4H	21.3	22.6	21.7	22.9	23.3	20.6	21.9	21.0	22.3	22.7
	6H	21.6	22.8	22.0	23.2	23.6	20.8	22.0	21.2	22.4	22.7
	8H	21.7	22.9	22.1	23.3	23.7	20.8	22.0	21.2	22.4	22.8
	12H	21.8	22.9	22.2	23.3	23.7	20.8	21.9	21.3	22.3	22.8
4H	2H	19.9	21.2	20.3	21.5	21.9	20.0	21.3	20.4	21.7	22.1
	3H	21.6	22.7	22.0	23.1	23.5	21.2	22.3	21.6	22.7	23.1
	4H	22.2	23.2	22.7	23.6	24.1	21.5	22.4	21.9	22.9	23.3
	6H	22.7	23.5	23.1	24.0	24.4	21.7	22.5	22.1	23.0	23.4
	8H	22.8	23.6	23.3	24.0	24.5	21.7	22.5	22.2	23.0	23.4
	12H	22.9	23.6	23.4	24.1	24.6	21.8	22.5	22.2	23.0	23.4
8H	4H	22.4	23.2	22.8	23.6	24.1	21.7	22.5	22.1	22.9	23.4
	6H	22.9	23.6	23.4	24.1	24.5	22.0	22.6	22.4	23.1	23.6
	8H	23.1	23.7	23.6	24.2	24.7	22.0	22.6	22.6	23.1	23.6
	12H	23.3	23.8	23.8	24.3	24.8	22.2	22.7	22.7	23.2	23.7
12H	4H	22.3	23.1	22.8	23.5	24.0	21.7	22.4	22.2	22.9	23.4
	6H	22.9	23.5	23.4	24.0	24.5	22.0	22.6	22.5	23.0	23.6
	8H	23.2	23.7	23.7	24.2	24.7	22.1	22.6	22.6	23.1	23.7

Maximum UGR = 24.8

POLAR GRAPH



Maximum Candela = 10645.81 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)