



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AHTG-24-L200-835-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
 [ISSUEDATE] 17-NOV-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 2'x4' RECESSED LED TROFFER
 [MORE] FROSTED ACRYLIC DIFFUSER
 [LUMCAT] AHTG-24-L200-835-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	20253
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
Total Luminaire Watts	171.1
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	9740	9973	9925
55	8261	8892	8748
65	6898	7589	6043
75	5252	4781	3418
85	4007	3000	2651

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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	8555.456	8555.456	8555.456	8555.456	8555.456
5	8519.193	8519.193	8512.941	8509.190	8509.190
10	8364.140	8354.136	8339.131	8320.375	8315.373
15	8020.271	8001.514	7965.252	7931.490	7922.737
20	7842.710	7825.204	7772.685	7712.665	7693.908
25	7246.254	7235.000	7179.981	7121.210	7076.195
30	6689.811	6671.055	6613.535	6537.259	6488.492
35	6144.623	6138.371	6099.607	6023.331	5998.322
40	5490.647	5503.151	5508.153	5454.384	5435.628
45	4809.162	4872.934	4924.201	4924.201	4900.443
50	4020.139	4093.914	4202.702	4251.469	4221.458
55	3308.643	3402.426	3561.230	3591.241	3503.711
60	2617.154	2720.940	2901.002	2708.436	2589.645
65	2035.703	2158.246	2239.524	1954.425	1783.116
70	1481.762	1619.309	1536.781	1220.422	1092.878
75	949.078	1037.859	864.049	672.732	617.713
80	562.694	575.199	450.156	371.378	358.874
85	243.834	216.325	182.563	163.807	161.306
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3071.13	N.A.	15.20
0-30	6381.99	N.A.	31.50
0-40	10179.68	N.A.	50.30
0-60	17035.47	N.A.	84.10
0-80	20022.01	N.A.	98.90
0-90	20252.56	N.A.	100.00
10-90	19445.65	N.A.	96.00
20-40	7108.56	N.A.	35.10
20-50	10860.76	N.A.	53.60
40-70	8903.9	N.A.	44.00
60-80	2986.54	N.A.	14.70
70-80	938.43	N.A.	4.60
80-90	230.55	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	20252.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	806.92
10-20	2264.21
20-30	3310.86
30-40	3797.69
40-50	3752.2
50-60	3103.59
60-70	2048.11
70-80	938.43
80-90	230.55
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	614	614	614	614	600	600	600	600	573	573	573	549	549	549	527	527	527	516
1	566	544	524	505	552	532	514	497	510	495	481	490	478	467	472	462	453	442
2	519	479	446	419	505	469	439	414	451	426	404	435	414	395	419	402	386	376
3	475	424	384	353	463	416	379	350	401	369	344	387	360	338	374	351	332	321
4	437	378	335	302	425	371	331	300	359	324	296	347	317	292	336	310	288	278
5	403	340	295	263	392	334	292	261	323	286	258	313	281	256	304	276	253	242
6	373	307	263	231	363	302	260	230	293	256	228	284	251	226	276	247	224	214
7	347	279	236	205	338	275	234	204	267	230	203	260	226	201	253	223	200	190
8	323	256	213	184	315	252	212	183	245	209	182	239	206	181	233	203	180	171
9	302	235	194	166	295	232	193	166	226	190	165	221	188	164	216	185	163	154
10	284	217	178	151	277	215	177	151	210	175	150	205	173	150	200	171	149	140

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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

X=2H	Y=2H	13.4	15.0	13.8	15.3	15.6	UGR Viewed Endwise			
	3H	15.0	16.4	15.4	16.7	17.1	13.6	15.2	14.0	15.5
	4H	15.5	16.8	15.9	17.1	17.5	14.6	16.0	15.0	16.3
	6H	15.8	17.0	16.2	17.4	17.8	14.8	16.1	15.2	16.5
	8H	15.9	17.1	16.3	17.5	17.9	15.0	16.2	15.4	16.6
	12H	16.0	17.1	16.4	17.5	17.9	15.0	16.2	15.4	16.6

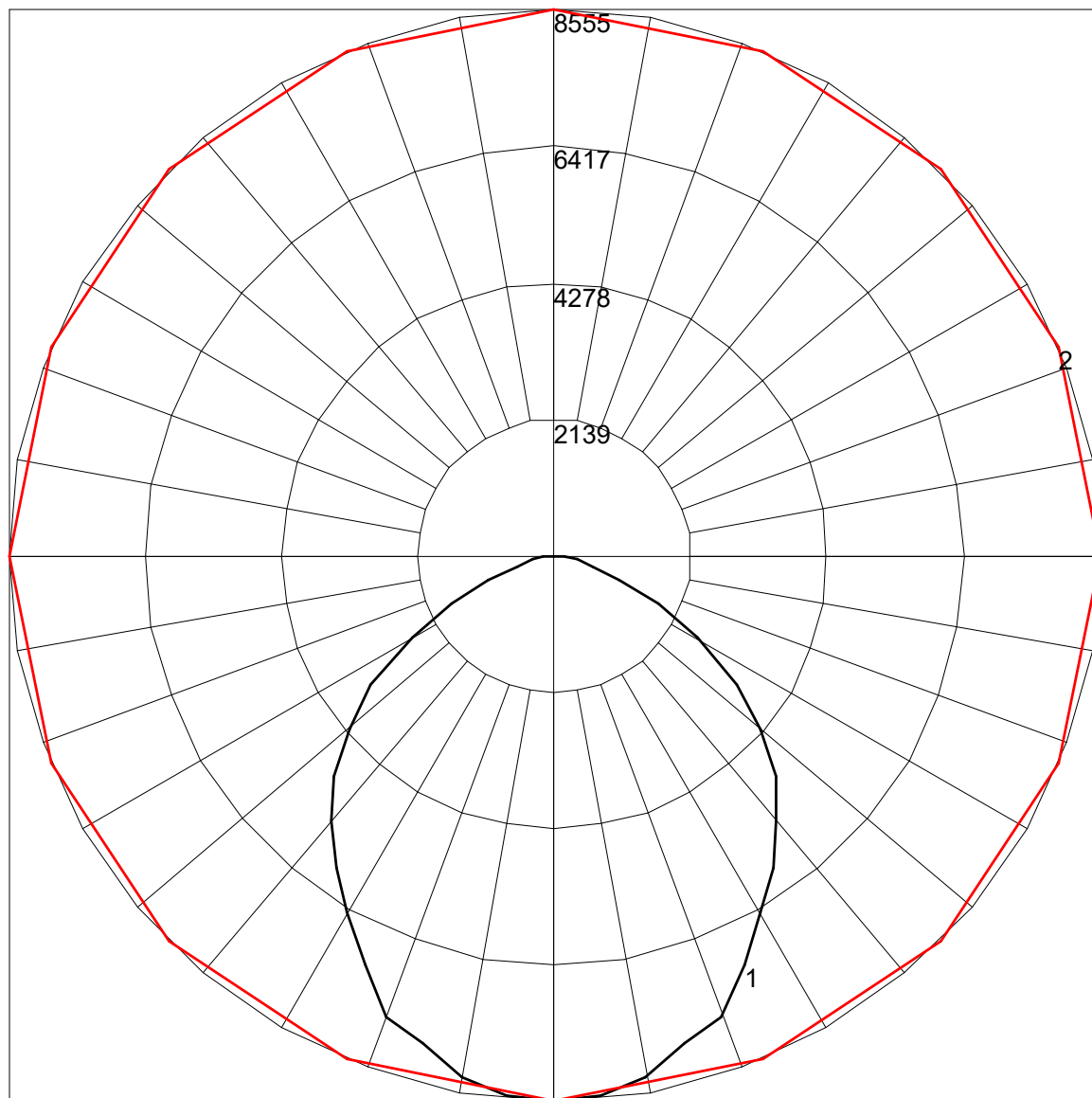
4H	2H	14.1	15.4	14.5	15.7	16.1	13.6	15.2	14.0	15.5
	3H	15.8	16.9	16.2	17.3	17.7	14.6	16.0	15.0	16.3
	4H	16.4	17.4	16.9	17.8	18.3	14.8	16.1	15.2	16.5
	6H	16.9	17.7	17.3	18.2	18.6	15.0	16.2	15.4	16.6
	8H	17.0	17.8	17.5	18.2	18.7	15.0	16.2	15.4	16.6
	12H	17.1	17.8	17.6	18.3	18.8	15.0	16.1	15.5	16.5

8H	4H	16.6	17.4	17.0	17.8	18.3	15.9	16.7	16.3	17.1
	6H	17.1	17.8	17.6	18.3	18.7	15.9	16.7	16.4	17.2
	8H	17.3	17.9	17.8	18.4	18.9	15.9	16.7	16.4	17.2
	12H	17.5	18.0	18.0	18.5	19.0	15.9	16.7	16.3	17.1

12H	4H	16.5	17.3	17.0	17.7	18.2	16.2	16.8	16.6	17.3
	6H	17.1	17.7	17.6	18.2	18.7	16.2	16.8	16.6	17.3
	8H	17.4	17.9	17.9	18.4	18.9	16.2	16.8	16.6	17.3

Maximum UGR = 19.0

POLAR GRAPH



Maximum Candela = 8555.456 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.)