



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HETG-S22-L69-835-A-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20211.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 31-JAN-2020

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 2-56 LED 22" ARRAYS DUAL APERATURE 2x2' RECESSED LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC RIBBED LENSES

[LUMCAT] HETG-S22-L69-835-A-DIM-UNV

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Architectural, Classroom, Commercial, Direct

[\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6984
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	128
Total Luminaire Watts	54.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.91 ft
Luminous Width (90-270)	1.91 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6616	7297	7717
55	5498	6419	7061
65	4323	5272	5004
75	3137	3429	2189
85	1517	921	379

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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>	2827.325	2827.325	2827.325	2827.325	2827.325
<b>5</b>	2816.162	2820.946	2819.352	2809.784	2812.973
<b>10</b>	2771.512	2779.485	2773.107	2768.323	2779.485
<b>15</b>	2693.374	2710.915	2706.131	2709.321	2722.078
<b>20</b>	2568.991	2607.263	2605.668	2626.398	2632.777
<b>25</b>	2423.877	2462.149	2494.042	2516.367	2521.151
<b>30</b>	2248.465	2286.737	2344.144	2369.659	2393.579
<b>35</b>	2049.133	2093.783	2163.948	2200.625	2237.302
<b>40</b>	1829.070	1878.505	1966.211	2009.267	2053.917
<b>45</b>	1580.304	1626.549	1742.959	1795.583	1843.422
<b>50</b>	1318.781	1366.620	1498.977	1567.547	1613.792
<b>55</b>	1065.230	1114.665	1243.832	1328.348	1368.215
<b>60</b>	830.816	875.466	1004.633	1039.716	1062.041
<b>65</b>	617.132	649.025	752.678	731.947	714.406
<b>70</b>	433.746	473.613	515.074	451.288	400.259
<b>75</b>	274.281	310.958	299.795	234.414	191.359
<b>80</b>	141.924	154.682	125.978	98.869	71.760
<b>85</b>	44.650	44.650	27.109	23.920	11.163
<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	1031.00	N.A.	14.80
0-30	2175.06	N.A.	31.10
0-40	3518.82	N.A.	50.40
0-60	5937.42	N.A.	85.00
0-80	6933.72	N.A.	99.30
0-90	6983.62	N.A.	100.00
10-90	6716.17	N.A.	96.20
20-40	2487.82	N.A.	35.60
20-50	3812.41	N.A.	54.60
40-70	3118.47	N.A.	44.70
60-80	996.30	N.A.	14.30
70-80	296.43	N.A.	4.20
80-90	49.89	N.A.	0.70
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	6983.62	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	267.45
10-20	763.55
20-30	1144.06
30-40	1343.76
40-50	1324.59
50-60	1094.01
60-70	699.87
70-80	296.43
80-90	49.89
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	215	215	215	215	210	210	210	210	201	201	201	192	192	192	184	184	184	181
1	198	191	184	178	194	187	180	175	179	174	169	172	168	164	166	162	159	156
2	182	168	157	147	177	165	154	146	158	150	142	153	145	139	147	141	136	132
3	167	149	135	124	162	146	133	123	141	130	121	136	127	119	131	124	117	113
4	153	133	118	106	149	130	116	106	126	114	104	122	111	103	118	109	101	98
5	141	119	104	92	137	117	103	92	113	101	91	110	99	90	107	97	89	85
6	131	108	92	81	127	106	91	81	103	90	80	100	88	79	97	87	79	75
7	121	98	83	72	118	96	82	72	94	81	71	91	79	71	89	78	70	67
8	113	89	75	64	110	88	74	64	86	73	64	84	72	63	82	71	63	60
9	106	82	68	58	103	81	67	58	79	66	58	77	66	57	75	65	57	54
10	99	76	62	53	97	75	62	53	73	61	52	72	60	52	70	60	52	49

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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	15.5	17.1	15.9	17.4	17.7	16.8	18.4	17.2	18.7	19.0
	3H	16.8	18.2	17.2	18.6	18.9	17.8	19.2	18.2	19.5	19.9
	4H	17.3	18.6	17.7	18.9	19.3	17.9	19.3	18.3	19.6	20.0
	6H	17.5	18.7	17.9	19.1	19.5	18.0	19.2	18.4	19.6	20.0
	8H	17.6	18.7	18.0	19.1	19.5	18.0	19.1	18.4	19.5	19.9
	12H	17.6	18.7	18.0	19.1	19.5	17.9	19.1	18.4	19.4	19.9

UGR Viewed Endwise

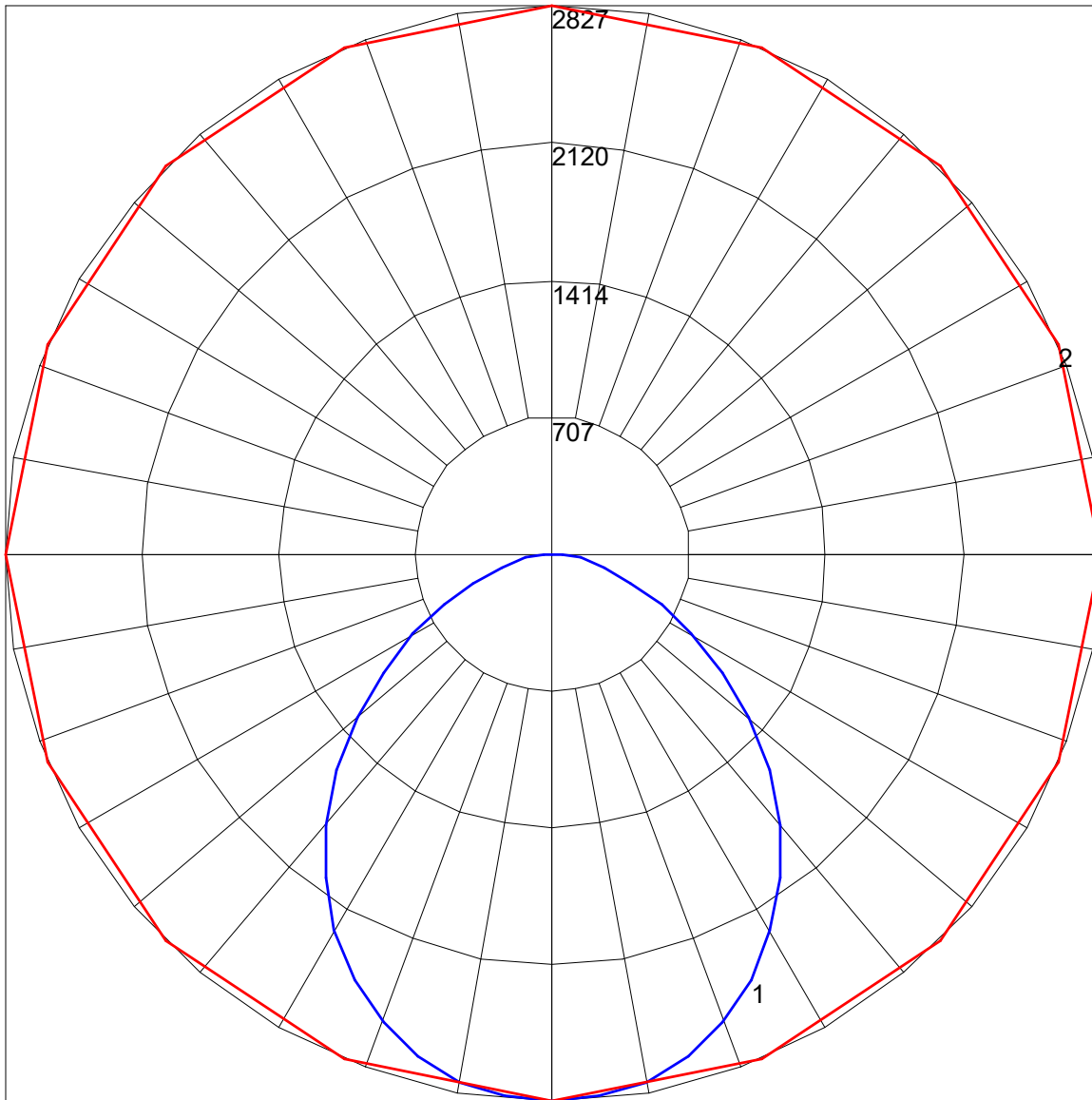
4H	2H	16.2	17.5	16.6	17.9	18.3	17.3	18.6	17.7	18.9	19.3
	3H	17.7	18.8	18.1	19.2	19.6	18.4	19.5	18.8	19.9	20.3
	4H	18.3	19.2	18.7	19.6	20.1	18.6	19.6	19.1	20.0	20.5
	6H	18.6	19.4	19.1	19.9	20.3	18.7	19.6	19.2	20.0	20.5
	8H	18.7	19.5	19.1	19.9	20.4	18.7	19.5	19.2	20.0	20.4
	12H	18.7	19.4	19.2	19.9	20.4	18.7	19.4	19.2	19.9	20.4

8H	4H	18.4	19.2	18.9	19.7	20.1	18.8	19.6	19.2	20.0	20.5
	6H	18.8	19.5	19.3	20.0	20.5	18.9	19.6	19.4	20.1	20.5
	8H	19.0	19.5	19.5	20.1	20.5	18.9	19.5	19.4	20.0	20.5
	12H	19.0	19.5	19.5	20.0	20.6	18.9	19.4	19.4	19.9	20.5

12H	4H	18.4	19.1	18.9	19.6	20.1	18.8	19.5	19.3	20.0	20.4
	6H	18.8	19.4	19.4	19.9	20.4	18.9	19.5	19.5	20.0	20.5
	8H	19.0	19.5	19.5	20.0	20.5	18.9	19.5	19.4	19.9	20.5

Maximum UGR = 20.6

POLAR GRAPH



Maximum Candela = 2827.325 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)