



IES INDOOR REPORT

PHOTOMETRIC FILENAME : HETG-S22-L38-835-A-(L30)-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] 12-23-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] DUAL APERATURE 2x2 'RECESSED LED LUMINAIRE
 [MORE] WHITE REFLECTOR w/FROSTED ACRYLIC RIBBED LENSES
 [LUMCAT] HETG-S22-L38-835-A-(L30)-DIM-UNV
 [LAMPCAT] HLM 80 CRI 3500K CCT
 [_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	3142
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	23.8
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	2977	3283	3472
55	2474	2888	3177
65	1945	2372	2252
75	1412	1543	985
85	682	414	171

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HETG-S22-L38-835-A-(L30)-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	1272.155	1272.155	1272.155	1272.155	1272.155
5	1267.132	1269.285	1268.567	1264.262	1265.697
10	1247.042	1250.629	1247.759	1245.607	1250.629
15	1211.884	1219.776	1217.624	1219.059	1224.799
20	1155.917	1173.138	1172.420	1181.748	1184.618
25	1090.623	1107.844	1122.194	1132.239	1134.392
30	1011.697	1028.917	1054.748	1066.228	1076.991
35	922.007	942.098	973.668	990.171	1006.674
40	822.990	845.233	884.696	904.069	924.160
45	711.058	731.866	784.244	807.922	829.448
50	593.385	614.911	674.464	705.318	726.126
55	479.300	501.543	559.662	597.690	615.628
60	373.826	393.916	452.035	467.820	477.865
65	277.678	292.029	338.667	329.340	321.447
70	195.164	213.102	231.757	203.057	180.096
75	123.413	139.916	134.893	105.475	86.102
80	63.859	69.599	56.684	44.486	32.288
85	20.090	20.090	12.198	10.763	5.023
90	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HETG-S22-L38-835-A-(L30)-DIM-UNV_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	463.90	N.A.	14.80
0-30	978.67	N.A.	31.10
0-40	1583.29	N.A.	50.40
0-60	2671.54	N.A.	85.00
0-80	3119.83	N.A.	99.30
0-90	3142.28	N.A.	100.00
10-90	3021.94	N.A.	96.20
20-40	1119.39	N.A.	35.60
20-50	1715.4	N.A.	54.60
40-70	1403.16	N.A.	44.70
60-80	448.28	N.A.	14.30
70-80	133.38	N.A.	4.20
80-90	22.45	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	3142.28	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	120.34
10-20	343.56
20-30	514.77
30-40	604.62
40-50	596.00
50-60	492.25
60-70	314.90
70-80	133.38
80-90	22.45
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

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HETG-S22-L38-835-A-(L30)-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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47
6	72	60	51	45	70	59	51	45	57	50	44	55	49	44	54	48	43	42
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30
10	55	42	34	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27

IES INDOOR REPORT
PHOTOMETRIC FILENAME : HETG-S22-L38-835-A-(L30)-DIM-UNV_.IES

UGR TABLE - CORRECTED

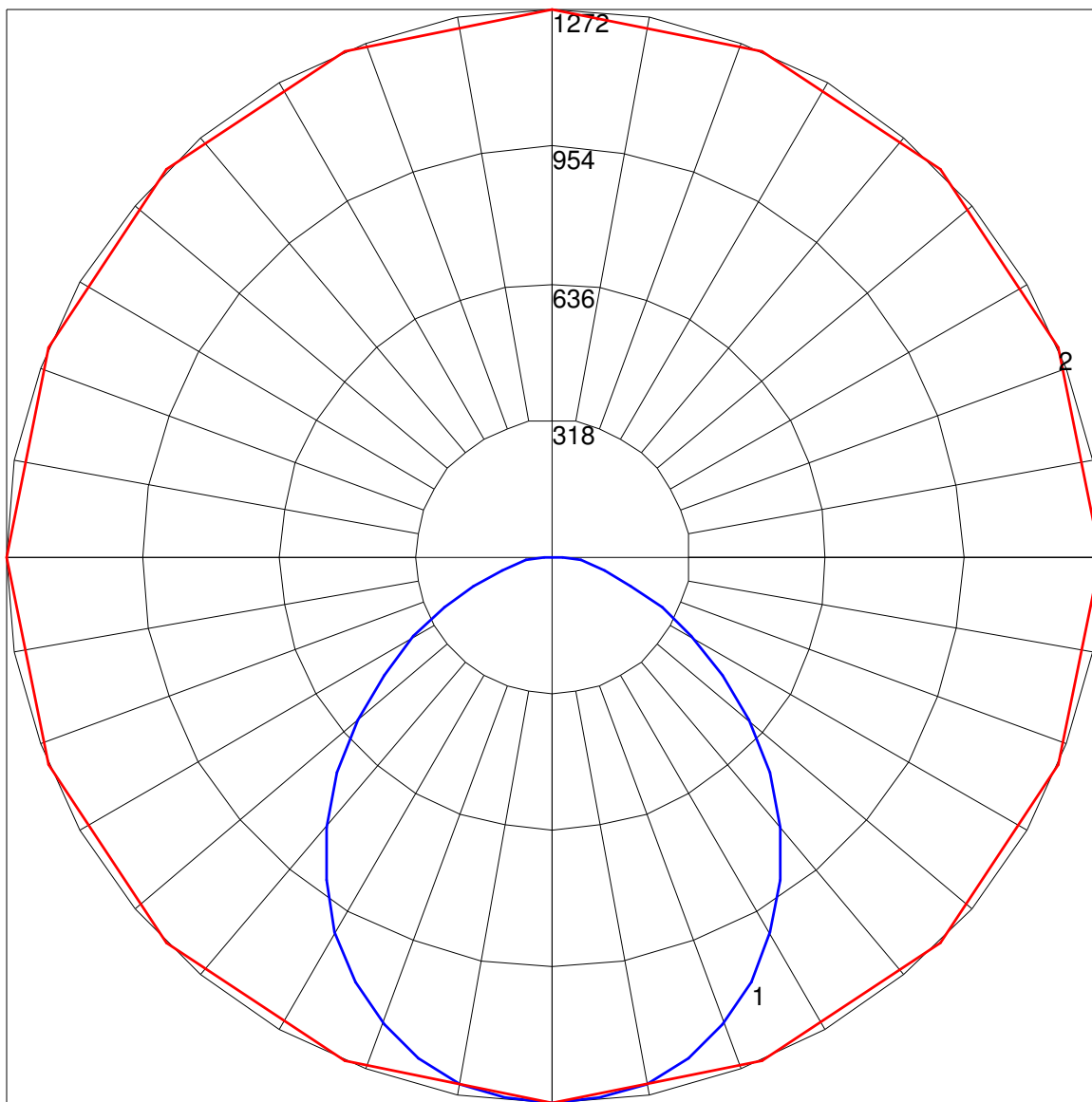
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	14.8	16.4	15.2	16.7	17.0	16.1	17.7	16.5	18.0	18.3
	3H	16.1	17.5	16.5	17.9	18.2	17.1	18.5	17.5	18.8	19.2
	4H	16.6	17.9	17.0	18.2	18.6	17.2	18.6	17.6	18.9	19.3
	6H	16.8	18.0	17.2	18.4	18.8	17.3	18.5	17.7	18.9	19.3
	8H	16.9	18.0	17.3	18.4	18.8	17.3	18.4	17.7	18.8	19.2
	12H	16.9	18.0	17.3	18.4	18.8	17.2	18.4	17.7	18.7	19.2
4H	2H	15.5	16.8	15.9	17.2	17.6	16.6	17.9	17.0	18.2	18.6
	3H	17.0	18.1	17.4	18.5	18.9	17.7	18.8	18.1	19.2	19.6
	4H	17.6	18.5	18.0	18.9	19.4	17.9	18.9	18.4	19.3	19.8
	6H	17.9	18.7	18.4	19.2	19.6	18.0	18.9	18.5	19.3	19.8
	8H	18.0	18.8	18.4	19.2	19.7	18.0	18.8	18.5	19.3	19.7
	12H	18.0	18.7	18.5	19.2	19.7	18.0	18.7	18.5	19.2	19.7
8H	4H	17.7	18.5	18.2	19.0	19.4	18.1	18.9	18.5	19.3	19.8
	6H	18.1	18.8	18.6	19.3	19.8	18.2	18.9	18.7	19.4	19.8
	8H	18.3	18.8	18.8	19.4	19.8	18.2	18.8	18.7	19.3	19.8
	12H	18.3	18.8	18.8	19.3	19.9	18.2	18.7	18.7	19.2	19.8
12H	4H	17.7	18.4	18.2	18.9	19.4	18.1	18.8	18.6	19.3	19.7
	6H	18.1	18.7	18.7	19.2	19.7	18.2	18.8	18.8	19.3	19.8
	8H	18.3	18.8	18.8	19.3	19.8	18.2	18.8	18.7	19.2	19.8

Maximum UGR = 19.9

POLAR GRAPH



Maximum Candela = 1272.155 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.)