



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HETG-S24-L50-840-A-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from BALLABS TEST NO. 20210.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE]08-24-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836  
 [LUMINAIRE] 2x4' RECESSED LED TROFFER  
 [MORE] WITH FROSTED ACRYLIC LENS  
 [LUMCAT] HETG-S24-L50-840-A-DIM-UNV  
 [LAMPCAT] HLM 80 CRI, 4000K 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	5267
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	140
Total Luminaire Watts	37.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 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	2469	2642	2750
55	2074	2407	2524
65	1614	2058	1747
75	1148	1337	859
85	572	348	261

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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>	2098.218	2098.218	2098.218	2098.218	2098.218
<b>5</b>	2086.925	2086.925	2077.890	2075.632	2078.643
<b>10</b>	2053.046	2052.293	2048.529	2046.270	2048.529
<b>15</b>	2000.346	2000.346	2007.122	2000.346	2004.110
<b>20</b>	1925.060	1926.566	1945.387	1935.600	1940.117
<b>25</b>	1824.177	1830.953	1855.044	1850.527	1861.067
<b>30</b>	1707.484	1726.305	1738.351	1757.925	1761.690
<b>35</b>	1572.722	1596.061	1605.095	1640.479	1642.738
<b>40</b>	1407.846	1435.702	1459.793	1489.908	1505.718
<b>45</b>	1212.103	1245.228	1297.176	1321.267	1349.876
<b>50</b>	1014.854	1049.485	1127.783	1160.908	1189.517
<b>55</b>	825.886	861.270	958.389	1005.067	1005.067
<b>60</b>	645.953	679.079	794.266	830.403	771.680
<b>65</b>	473.548	511.944	603.793	598.523	512.697
<b>70</b>	328.246	362.878	414.825	371.159	297.379
<b>75</b>	206.283	229.622	240.162	190.473	154.336
<b>80</b>	106.153	115.187	104.647	79.803	64.746
<b>85</b>	34.632	28.609	21.080	18.821	15.810
<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	762.58	N.A.	14.50
0-30	1612.58	N.A.	30.60
0-40	2618.82	N.A.	49.70
0-60	4446.5	N.A.	84.40
0-80	5228.43	N.A.	99.30
0-90	5267.37	N.A.	100.00
10-90	5069.66	N.A.	96.20
20-40	1856.24	N.A.	35.20
20-50	2849.02	N.A.	54.10
40-70	2377.18	N.A.	45.10
60-80	781.93	N.A.	14.80
70-80	232.43	N.A.	4.40
80-90	38.94	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	5267.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	197.71
10-20	564.87
20-30	850.00
30-40	1006.24
40-50	992.77
50-60	834.90
60-70	549.50
70-80	232.43
80-90	38.94
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	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	81	98	91	85	80	88	83	78	84	80	77	81	78	75	73
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62
4	85	73	65	58	82	72	64	58	69	63	57	67	61	56	65	60	56	54
5	78	66	57	51	76	64	56	50	62	55	50	60	54	49	59	53	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	44	39	49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	43	36	32	42	36	31	41	36	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

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**UGR TABLE - CORRECTED**

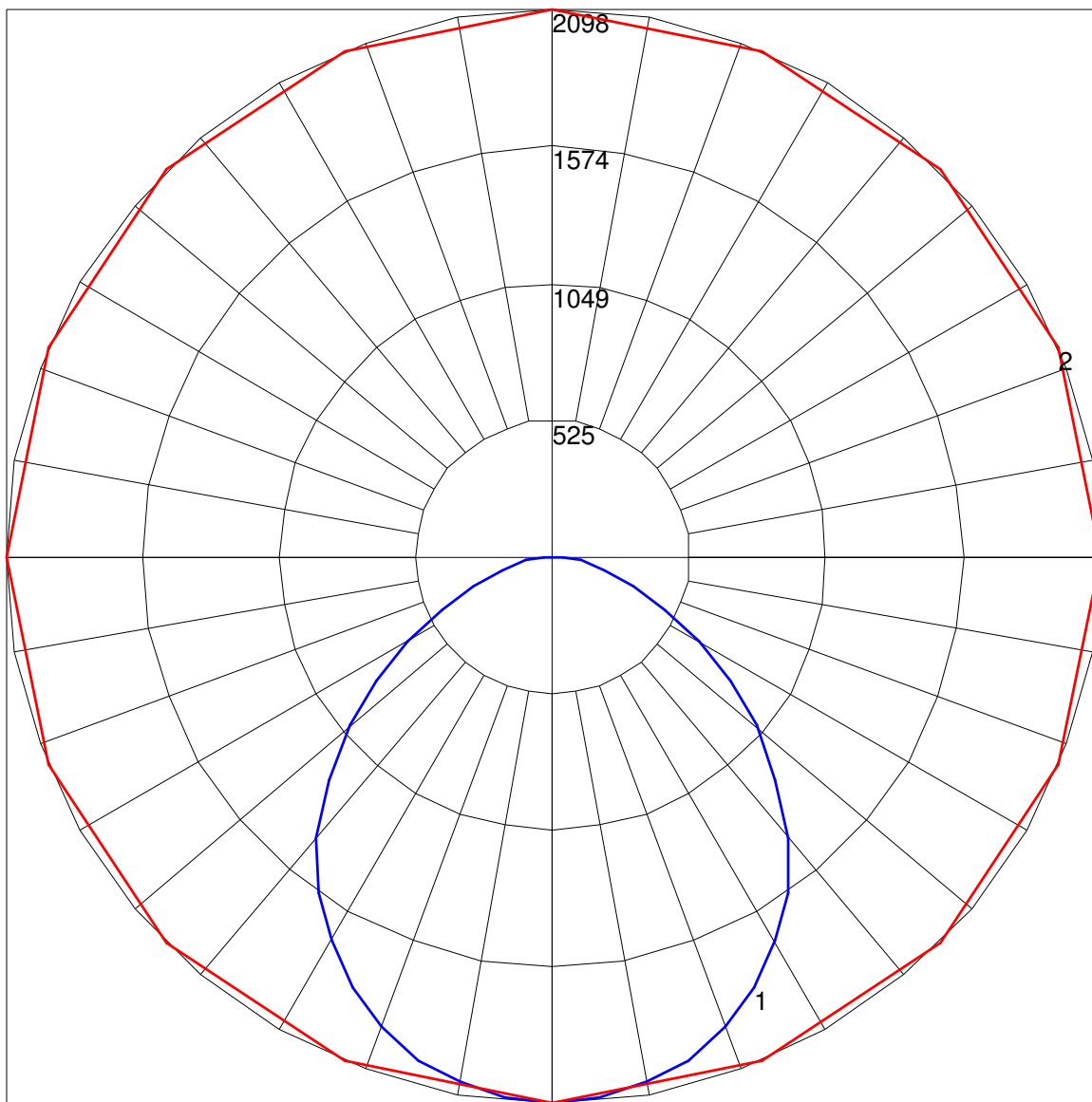
Reflectances

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	14.3	15.9	14.7	16.2	16.5	15.6	17.1	15.9	17.4	17.8
	3H	15.6	17.0	16.0	17.3	17.7	16.5	17.9	16.9	18.3	18.6
	4H	16.0	17.3	16.4	17.7	18.1	16.7	18.0	17.1	18.4	18.8
	6H	16.2	17.5	16.7	17.8	18.2	16.8	18.0	17.2	18.4	18.7
	8H	16.3	17.4	16.7	17.8	18.2	16.7	17.9	17.2	18.3	18.7
	12H	16.3	17.4	16.7	17.8	18.2	16.7	17.8	17.2	18.2	18.7
4H	2H	15.1	16.4	15.5	16.7	17.1	16.0	17.4	16.4	17.7	18.1
	3H	16.5	17.6	16.9	18.0	18.4	17.2	18.3	17.6	18.7	19.1
	4H	17.0	18.0	17.5	18.4	18.9	17.5	18.5	17.9	18.9	19.3
	6H	17.3	18.2	17.8	18.6	19.1	17.6	18.4	18.0	18.9	19.3
	8H	17.4	18.2	17.9	18.6	19.1	17.6	18.4	18.0	18.8	19.3
	12H	17.4	18.1	17.9	18.6	19.1	17.6	18.3	18.1	18.8	19.2
8H	4H	17.2	18.0	17.7	18.5	18.9	17.6	18.4	18.1	18.9	19.3
	6H	17.6	18.2	18.1	18.7	19.2	17.8	18.4	18.3	18.9	19.4
	8H	17.7	18.3	18.2	18.8	19.3	17.8	18.4	18.3	18.9	19.4
	12H	17.8	18.3	18.3	18.8	19.3	17.8	18.3	18.3	18.8	19.4
12H	4H	17.2	17.9	17.7	18.4	18.9	17.6	18.3	18.1	18.8	19.3
	6H	17.6	18.2	18.1	18.6	19.2	17.8	18.4	18.3	18.8	19.4
	8H	17.7	18.2	18.2	18.7	19.3	17.8	18.3	18.3	18.8	19.4

Maximum UGR = 19.4

POLAR GRAPH



Maximum Candela = 2098.218 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.)