



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L90-935-FAF12125-(L75)-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 18022.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 04-07-2022  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836  
 [LUMINAIRE] 2x4' LED TROFFER  
 [MORE] FROSTED ACRYLIC LENS  
 [LUMCAT] 50G-S24-L90-935-FAF12125-(L75)-DIM-UNV  
 [LAMPCAT] HLM 90 CRI 3500K CCT  
 [ \_SEARCH\_SOURCETYPE]LED  
 [ \_SEARCH\_APPLICATION]INDOOR,CLASSROOM, COMMERCIAL, EDUCATIONAL,OFFICE, DIRECT  
 [ \_SEARCH\_MOUNTING]RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6421
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	60.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.77 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3511	3468	3413
55	2879	2774	2694
65	2315	2197	2143
75	1865	1795	1877
85	1906	1888	2166

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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>	2888.161	2888.161	2888.161	2888.161	2888.161
<b>5</b>	2843.885	2842.912	2839.992	2839.992	2839.992
<b>10</b>	2798.636	2796.689	2796.689	2798.636	2798.636
<b>15</b>	2681.377	2681.377	2682.350	2685.756	2685.756
<b>20</b>	2587.473	2586.500	2588.446	2591.365	2591.365
<b>25</b>	2365.606	2364.633	2366.579	2371.931	2373.877
<b>30</b>	2193.367	2192.394	2192.394	2193.367	2196.287
<b>35</b>	1965.662	1964.689	1962.743	1961.770	1964.689
<b>40</b>	1752.067	1745.255	1743.309	1734.064	1732.118
<b>45</b>	1541.877	1531.659	1522.902	1502.466	1498.574
<b>50</b>	1258.218	1247.028	1231.945	1207.131	1201.779
<b>55</b>	1025.647	1010.564	988.183	965.315	959.477
<b>60</b>	791.130	781.886	755.612	737.610	730.798
<b>65</b>	607.701	597.483	576.562	565.371	562.452
<b>70</b>	443.247	435.949	419.893	422.812	424.272
<b>75</b>	299.715	296.796	288.524	295.822	301.661
<b>80</b>	203.378	200.459	198.512	209.703	214.569
<b>85</b>	103.149	102.176	102.176	114.339	117.259
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	1029.84	N.A.	16.00
0-30	2127.01	N.A.	33.10
0-40	3357.25	N.A.	52.30
0-60	5402.69	N.A.	84.10
0-80	6306.9	N.A.	98.20
0-90	6420.94	N.A.	100.00
10-90	6150.73	N.A.	95.80
20-40	2327.41	N.A.	36.20
20-50	3486.46	N.A.	54.30
40-70	2626.77	N.A.	40.90
60-80	904.21	N.A.	14.10
70-80	322.88	N.A.	5.00
80-90	114.04	N.A.	1.80
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	6420.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	270.21
10-20	759.63
20-30	1097.17
30-40	1230.24
40-50	1159.05
50-60	886.39
60-70	581.33
70-80	322.88
80-90	114.04
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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	85
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63
4	85	74	66	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50	48
6	73	60	52	46	71	59	51	45	58	50	45	56	50	45	54	49	44	42
7	68	55	47	41	66	54	46	41	53	45	40	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34
9	59	46	39	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	41	34	30	40	34	30	28

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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	15.2	16.7	15.5	17.0	17.3	14.8	16.3	15.1	16.6	17.0
	3H	16.6	18.0	17.0	18.3	18.7	16.3	17.6	16.6	18.0	18.3
	4H	17.1	18.4	17.5	18.8	19.2	16.8	18.1	17.2	18.5	18.9
	6H	17.6	18.8	18.0	19.2	19.6	17.4	18.6	17.8	18.9	19.3
	8H	17.8	18.9	18.2	19.3	19.7	17.6	18.7	18.0	19.1	19.5
	12H	17.9	19.0	18.4	19.4	19.8	17.8	18.9	18.2	19.3	19.7

### UGR Viewed Endwise

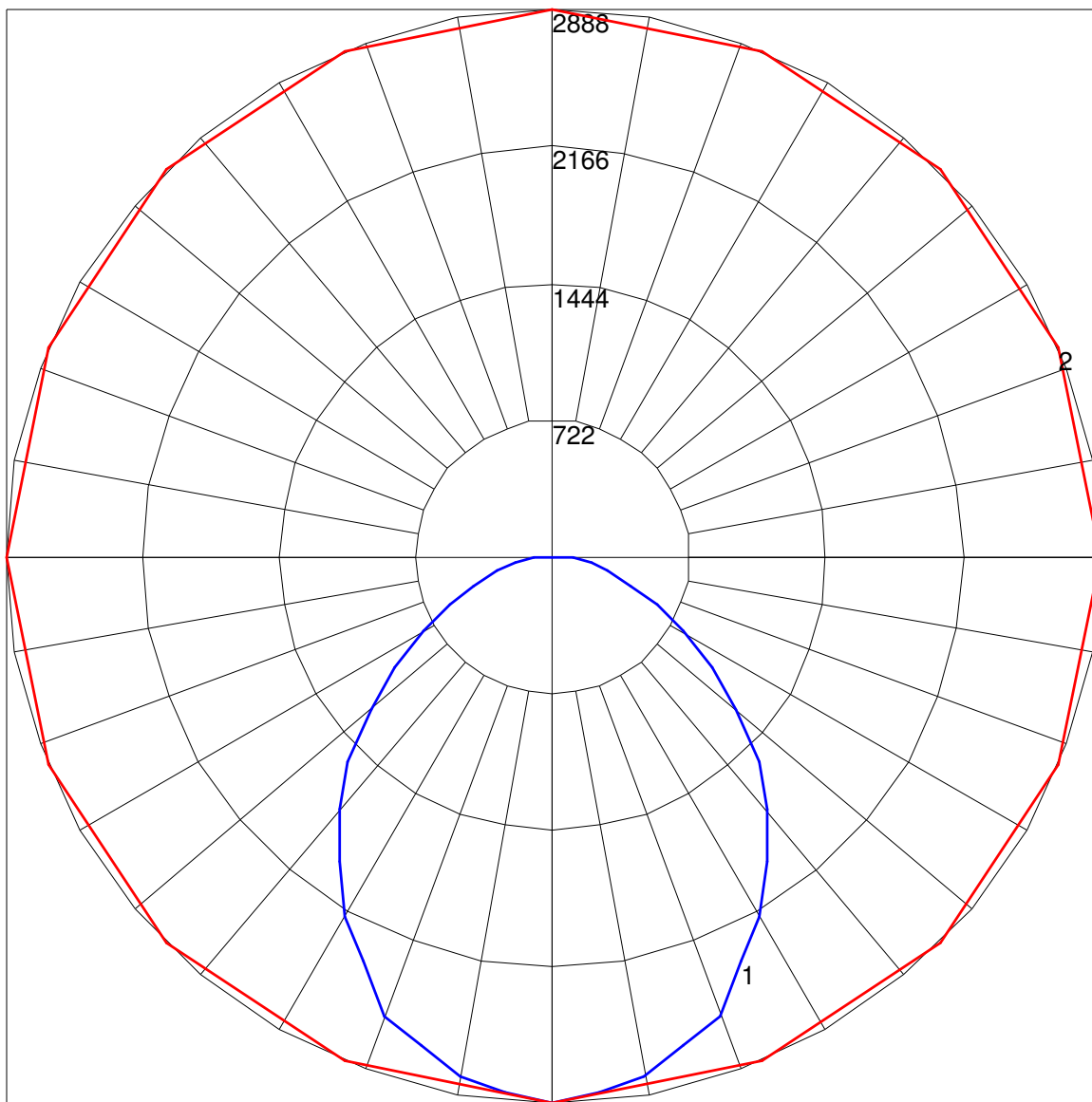
4H	2H	15.6	16.9	16.0	17.3	17.6	15.3	16.6	15.7	17.0	17.3
	3H	17.3	18.4	17.7	18.8	19.2	17.0	18.1	17.4	18.5	18.9
	4H	17.9	18.9	18.4	19.3	19.8	17.7	18.7	18.1	19.1	19.5
	6H	18.6	19.4	19.0	19.8	20.3	18.4	19.2	18.9	19.7	20.2
	8H	18.8	19.6	19.3	20.0	20.5	18.7	19.5	19.2	19.9	20.4
	12H	19.0	19.7	19.5	20.2	20.7	19.0	19.7	19.5	20.2	20.6

8H	4H	18.2	19.0	18.7	19.4	19.9	18.0	18.8	18.4	19.2	19.7
	6H	18.9	19.6	19.4	20.1	20.6	18.8	19.5	19.3	20.0	20.4
	8H	19.3	19.9	19.8	20.4	20.9	19.2	19.8	19.7	20.3	20.8
	12H	19.6	20.1	20.1	20.6	21.2	19.6	20.1	20.1	20.6	21.2

12H	4H	18.2	18.9	18.7	19.4	19.9	18.0	18.7	18.5	19.2	19.7
	6H	19.0	19.6	19.5	20.1	20.6	18.9	19.5	19.4	20.0	20.5
	8H	19.4	19.9	19.9	20.4	21.0	19.3	19.9	19.9	20.4	20.9

Maximum UGR = 21.2

POLAR GRAPH



Maximum Candela = 2888.161 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.)