



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L90-835-SAF12125-(L60)-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18125.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 04-25-2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836

[LUMINAIRE] 2x4' LED TROFFER

[MORE] FROSTED ACRYLIC LENS

[LUMCAT] 50G-S24-L90-835-SAF12125-(L60)-DIM-UNV

[LAMPCAT] HLM 80 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	6059
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	44.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
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	3286	3240	3195
55	2712	2622	2541
65	2181	2050	2023
75	1767	1693	1786
85	1765	1765	2082

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	2728.355	2728.355	2728.355	2728.355	2728.355
<b>5</b>	2701.499	2699.738	2697.536	2696.215	2696.215
<b>10</b>	2652.629	2649.547	2651.748	2652.629	2652.629
<b>15</b>	2544.322	2544.322	2544.322	2547.404	2548.725
<b>20</b>	2449.664	2449.664	2452.746	2457.149	2452.746
<b>25</b>	2243.177	2240.976	2247.580	2251.542	2250.662
<b>30</b>	2066.629	2064.427	2068.830	2068.830	2073.233
<b>35</b>	1859.261	1858.381	1854.859	1853.978	1862.343
<b>40</b>	1645.290	1641.328	1632.522	1625.478	1631.642
<b>45</b>	1443.206	1437.923	1422.954	1410.186	1403.141
<b>50</b>	1186.969	1176.402	1164.515	1144.703	1132.815
<b>55</b>	965.953	949.663	933.813	909.598	905.196
<b>60</b>	747.579	734.811	714.559	695.627	693.426
<b>65</b>	572.351	561.785	538.010	530.966	530.966
<b>70</b>	416.936	410.772	390.520	398.004	398.885
<b>75</b>	283.974	279.572	272.087	281.773	287.056
<b>80</b>	191.518	188.436	188.436	196.801	202.965
<b>85</b>	95.539	92.457	95.539	108.306	112.709
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 50G-S24-L90-835-SAF12125-(L60)-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	976.48	N.A.	16.10
0-30	2015.4	N.A.	33.30
0-40	3175.91	N.A.	52.40
0-60	5100.71	N.A.	84.20
0-80	5951.95	N.A.	98.20
0-90	6058.93	N.A.	100.00
10-90	5802.68	N.A.	95.80
20-40	2199.43	N.A.	36.30
20-50	3287.97	N.A.	54.30
40-70	2471.48	N.A.	40.80
60-80	851.24	N.A.	14.00
70-80	304.56	N.A.	5.00
80-90	106.98	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	6058.93	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	256.25
10-20	720.23
20-30	1038.92
30-40	1160.51
40-50	1088.54
50-60	836.26
60-70	546.68
70-80	304.56
80-90	106.98
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	86
2	101	93	87	81	98	91	85	80	88	83	78	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	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	46	58	50	45	56	50	45	54	49	44	42
7	68	55	47	41	66	54	46	41	53	46	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	55	43	35	30	42	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	15.0	16.5	15.3	16.8	17.1	14.6	16.1	15.0	16.4	16.8
	3H	16.4	17.8	16.8	18.1	18.5	16.0	17.4	16.4	17.8	18.1
	4H	16.9	18.2	17.3	18.6	19.0	16.6	17.9	17.0	18.3	18.7
	6H	17.4	18.6	17.8	19.0	19.4	17.2	18.4	17.6	18.7	19.1
	8H	17.6	18.7	18.0	19.1	19.5	17.4	18.6	17.8	18.9	19.3
	12H	17.7	18.8	18.1	19.2	19.6	17.6	18.7	18.0	19.1	19.5

### UGR Viewed Endwise

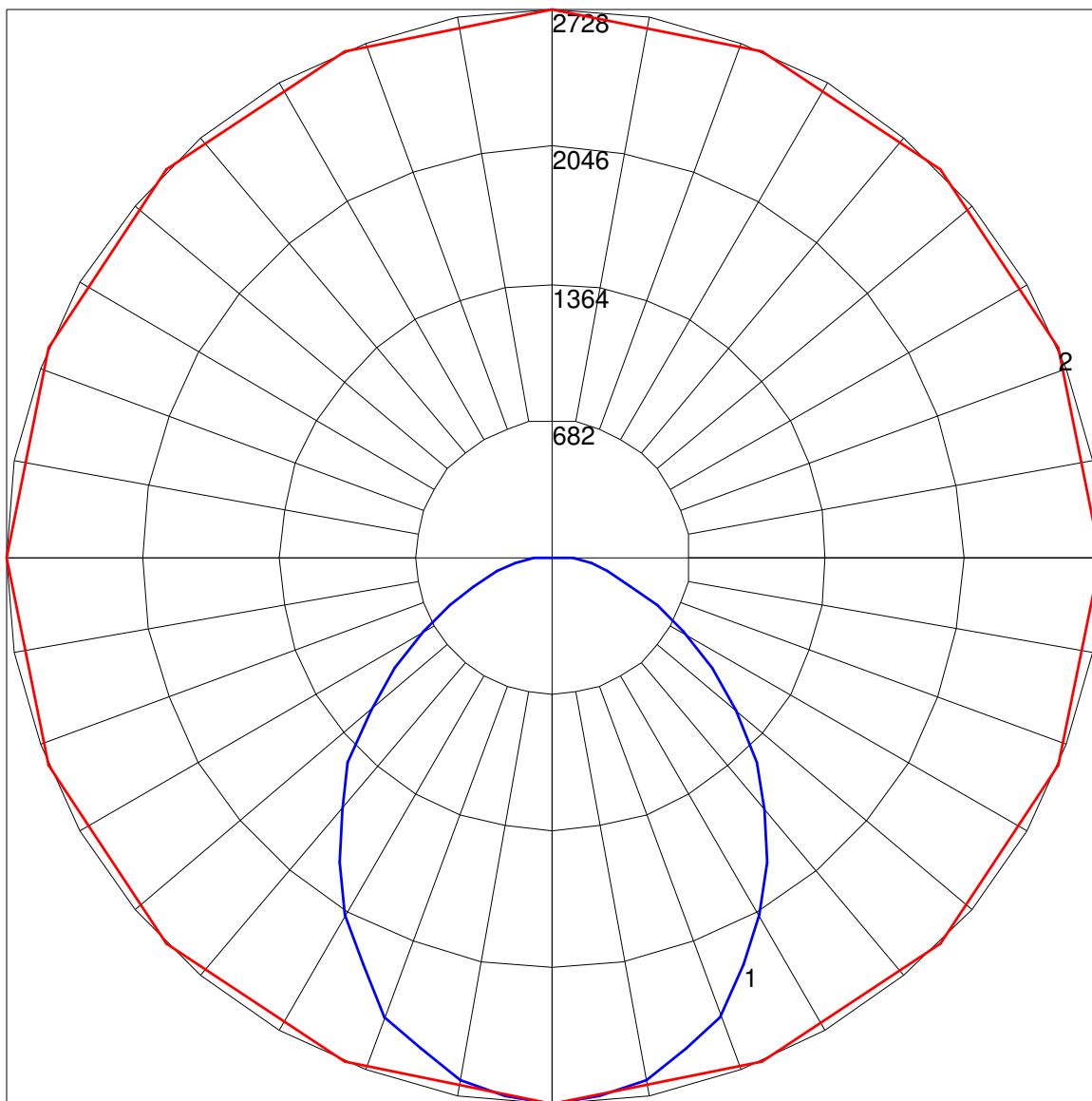
4H	2H	15.4	16.7	15.8	17.0	17.4	15.1	16.4	15.5	16.7	17.1
	3H	17.0	18.1	17.5	18.5	18.9	16.8	17.9	17.2	18.3	18.7
	4H	17.7	18.7	18.1	19.1	19.5	17.5	18.5	17.9	18.9	19.3
	6H	18.3	19.2	18.8	19.6	20.1	18.2	19.0	18.7	19.5	19.9
	8H	18.6	19.4	19.0	19.8	20.3	18.5	19.3	19.0	19.7	20.2
	12H	18.8	19.5	19.3	20.0	20.4	18.8	19.5	19.3	20.0	20.4

8H	4H	18.0	18.8	18.4	19.2	19.7	17.8	18.6	18.2	19.0	19.5
	6H	18.7	19.4	19.2	19.9	20.3	18.6	19.3	19.1	19.8	20.2
	8H	19.0	19.6	19.6	20.2	20.6	19.0	19.6	19.5	20.1	20.6
	12H	19.3	19.9	19.8	20.4	20.9	19.4	19.9	19.9	20.4	21.0

12H	4H	18.0	18.7	18.5	19.2	19.7	17.8	18.5	18.3	19.0	19.5
	6H	18.8	19.4	19.3	19.9	20.4	18.7	19.3	19.2	19.8	20.3
	8H	19.2	19.7	19.7	20.2	20.8	19.1	19.7	19.7	20.2	20.7

Maximum UGR = 21.0

POLAR GRAPH



Maximum Candela = 2728.355 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.)