



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-835-SAF12125-(L40)-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] 07-06-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.64836  
 [LUMINAIRE] 2x4' LED TROFFER  
 [MORE] FROSTED ACRYLIC LENS  
 [LUMCAT] 50G-S24-L59-835-SAF12125-(L40)-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	4092
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	31
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	2220	2188	2158
55	1831	1770	1716
65	1473	1384	1366
75	1193	1143	1206
85	1192	1192	1406

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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>	1842.619	1842.619	1842.619	1842.619	1842.619
<b>5</b>	1824.481	1823.292	1821.805	1820.913	1820.913
<b>10</b>	1791.477	1789.395	1790.882	1791.477	1791.477
<b>15</b>	1718.331	1718.331	1718.331	1720.412	1721.304
<b>20</b>	1654.403	1654.403	1656.484	1659.457	1656.484
<b>25</b>	1514.950	1513.463	1517.923	1520.599	1520.005
<b>30</b>	1395.716	1394.230	1397.203	1397.203	1400.176
<b>35</b>	1255.669	1255.074	1252.696	1252.101	1257.750
<b>40</b>	1111.161	1108.485	1102.539	1097.781	1101.944
<b>45</b>	974.682	971.114	961.005	952.382	947.624
<b>50</b>	801.630	794.494	786.466	773.085	765.057
<b>55</b>	652.365	641.363	630.659	614.305	611.332
<b>60</b>	504.884	496.261	482.584	469.798	468.311
<b>65</b>	386.543	379.406	363.350	358.593	358.593
<b>70</b>	281.581	277.419	263.741	268.796	269.391
<b>75</b>	191.785	188.811	183.756	190.298	193.866
<b>80</b>	129.343	127.262	127.262	132.911	137.074
<b>85</b>	64.523	62.442	64.523	73.146	76.119
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 50G-S24-L59-835-SAF12125-(L40)-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	659.47	N.A.	16.10
0-30	1361.12	N.A.	33.30
0-40	2144.88	N.A.	52.40
0-60	3444.81	N.A.	84.20
0-80	4019.7	N.A.	98.20
0-90	4091.95	N.A.	100.00
10-90	3918.89	N.A.	95.80
20-40	1485.4	N.A.	36.30
20-50	2220.56	N.A.	54.30
40-70	1669.14	N.A.	40.80
60-80	574.89	N.A.	14.00
70-80	205.69	N.A.	5.00
80-90	72.25	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	4091.95	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	173.06
10-20	486.42
20-30	701.64
30-40	783.76
40-50	735.15
50-60	564.78
60-70	369.20
70-80	205.69
80-90	72.25
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	13.6	15.1	13.9	15.4	15.7	13.2	14.7	13.6	15.0	15.4
	3H	15.0	16.4	15.4	16.7	17.1	14.6	16.0	15.0	16.4	16.7
	4H	15.5	16.8	15.9	17.2	17.6	15.2	16.5	15.6	16.9	17.3
	6H	16.0	17.2	16.4	17.6	18.0	15.8	17.0	16.2	17.3	17.7
	8H	16.2	17.3	16.6	17.7	18.1	16.0	17.2	16.4	17.5	17.9
	12H	16.3	17.4	16.7	17.8	18.2	16.2	17.3	16.6	17.7	18.1

### UGR Viewed Endwise

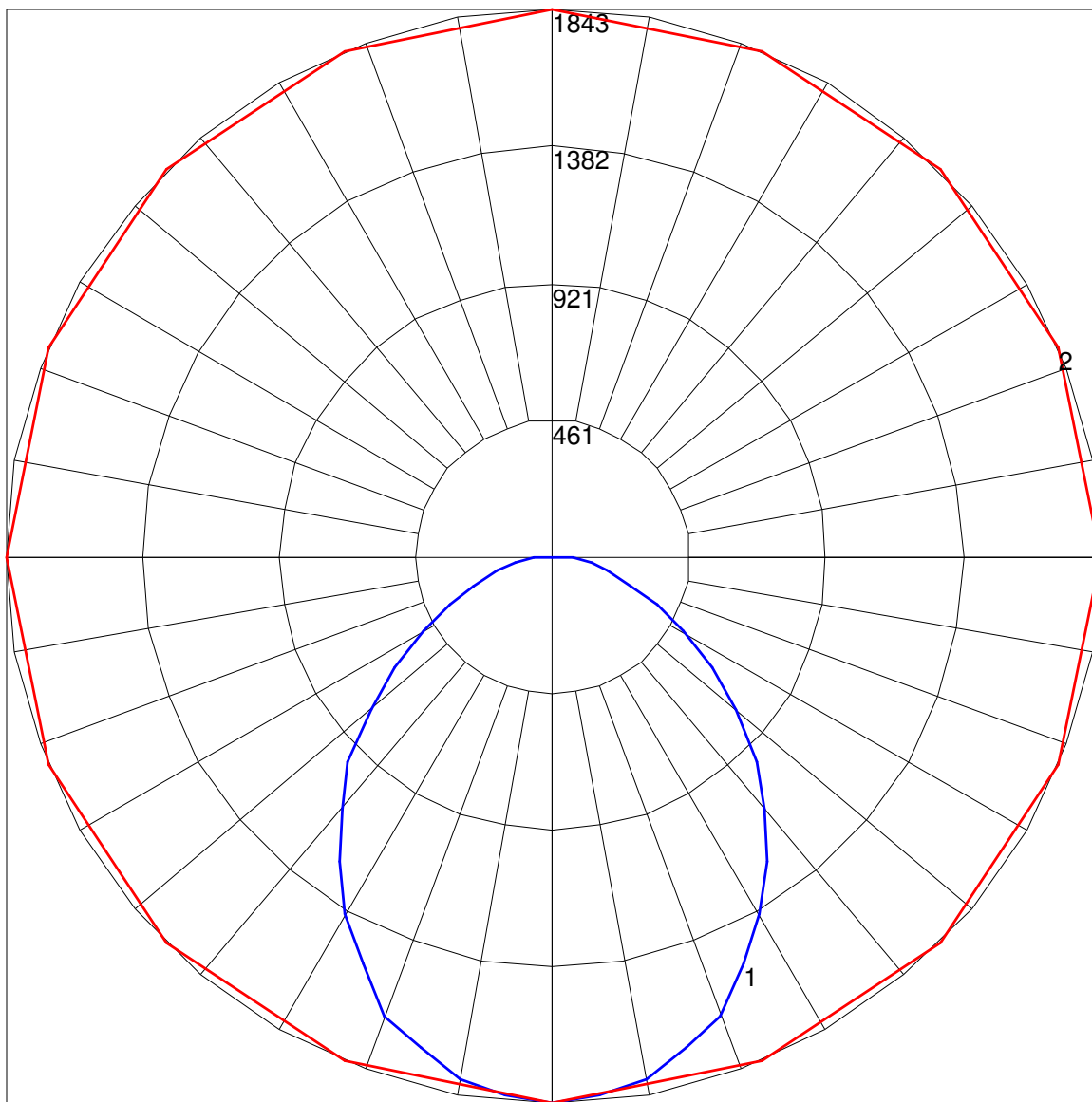
4H	2H	14.0	15.3	14.4	15.6	16.0	13.7	15.0	14.1	15.3	15.7
	3H	15.6	16.7	16.1	17.1	17.5	15.4	16.5	15.8	16.9	17.3
	4H	16.3	17.3	16.7	17.7	18.1	16.1	17.1	16.5	17.5	17.9
	6H	16.9	17.8	17.4	18.2	18.7	16.8	17.6	17.3	18.1	18.5
	8H	17.2	18.0	17.6	18.4	18.9	17.1	17.9	17.6	18.3	18.8
	12H	17.4	18.1	17.9	18.6	19.0	17.4	18.1	17.9	18.6	19.0

8H	4H	16.6	17.4	17.0	17.8	18.3	16.4	17.2	16.8	17.6	18.1
	6H	17.3	18.0	17.8	18.5	18.9	17.2	17.9	17.7	18.4	18.8
	8H	17.6	18.2	18.2	18.8	19.2	17.6	18.2	18.1	18.7	19.2
	12H	17.9	18.5	18.4	19.0	19.5	18.0	18.5	18.5	19.0	19.6

12H	4H	16.6	17.3	17.1	17.8	18.3	16.4	17.1	16.9	17.6	18.1
	6H	17.4	18.0	17.9	18.5	19.0	17.3	17.9	17.8	18.4	18.9
	8H	17.8	18.3	18.3	18.8	19.4	17.7	18.3	18.3	18.8	19.3

Maximum UGR = 19.6

POLAR GRAPH



Maximum Candela = 1842.619 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.)