



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-835-SAF12125-(L38)-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-(L38)-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	3937
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	28.9
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	2135	2106	2076
55	1762	1703	1651
65	1417	1332	1315
75	1148	1100	1160
85	1147	1147	1353

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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>	1772.823	1772.823	1772.823	1772.823	1772.823
<b>5</b>	1755.372	1754.228	1752.797	1751.939	1751.939
<b>10</b>	1723.617	1721.615	1723.045	1723.617	1723.617
<b>15</b>	1653.242	1653.242	1653.242	1655.245	1656.103
<b>20</b>	1591.736	1591.736	1593.738	1596.599	1593.738
<b>25</b>	1457.565	1456.135	1460.426	1463.001	1462.429
<b>30</b>	1342.848	1341.418	1344.279	1344.279	1347.139
<b>35</b>	1208.106	1207.534	1205.245	1204.673	1210.108
<b>40</b>	1069.072	1066.497	1060.776	1056.198	1060.204
<b>45</b>	937.762	934.329	924.603	916.307	911.729
<b>50</b>	771.265	764.399	756.675	743.802	736.078
<b>55</b>	627.654	617.069	606.771	591.036	588.176
<b>60</b>	485.760	477.463	464.304	452.003	450.572
<b>65</b>	371.901	365.035	349.587	345.010	345.010
<b>70</b>	270.915	266.910	253.751	258.614	259.186
<b>75</b>	184.520	181.659	176.796	183.090	186.523
<b>80</b>	124.444	122.441	122.441	127.877	131.882
<b>85</b>	62.079	60.076	62.079	70.375	73.236
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	634.49	N.A.	16.10
0-30	1309.56	N.A.	33.30
0-40	2063.63	N.A.	52.40
0-60	3314.32	N.A.	84.20
0-80	3867.44	N.A.	98.20
0-90	3936.95	N.A.	100.00
10-90	3770.45	N.A.	95.80
20-40	1429.14	N.A.	36.30
20-50	2136.45	N.A.	54.30
40-70	1605.91	N.A.	40.80
60-80	553.12	N.A.	14.00
70-80	197.90	N.A.	5.00
80-90	69.51	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	3936.95	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	166.50
10-20	467.99
20-30	675.07
30-40	754.07
40-50	707.31
50-60	543.38
60-70	355.22
70-80	197.90
80-90	69.51
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	13.5	15.0	13.8	15.3	15.6	13.1	14.6	13.5	14.9	15.3
	3H	14.9	16.3	15.3	16.6	17.0	14.5	15.9	14.9	16.3	16.6
	4H	15.4	16.7	15.8	17.1	17.5	15.1	16.4	15.5	16.8	17.2
	6H	15.9	17.1	16.3	17.5	17.9	15.7	16.9	16.1	17.2	17.6
	8H	16.1	17.2	16.5	17.6	18.0	15.9	17.1	16.3	17.4	17.8
	12H	16.2	17.3	16.6	17.7	18.1	16.1	17.2	16.5	17.6	18.0

### UGR Viewed Endwise

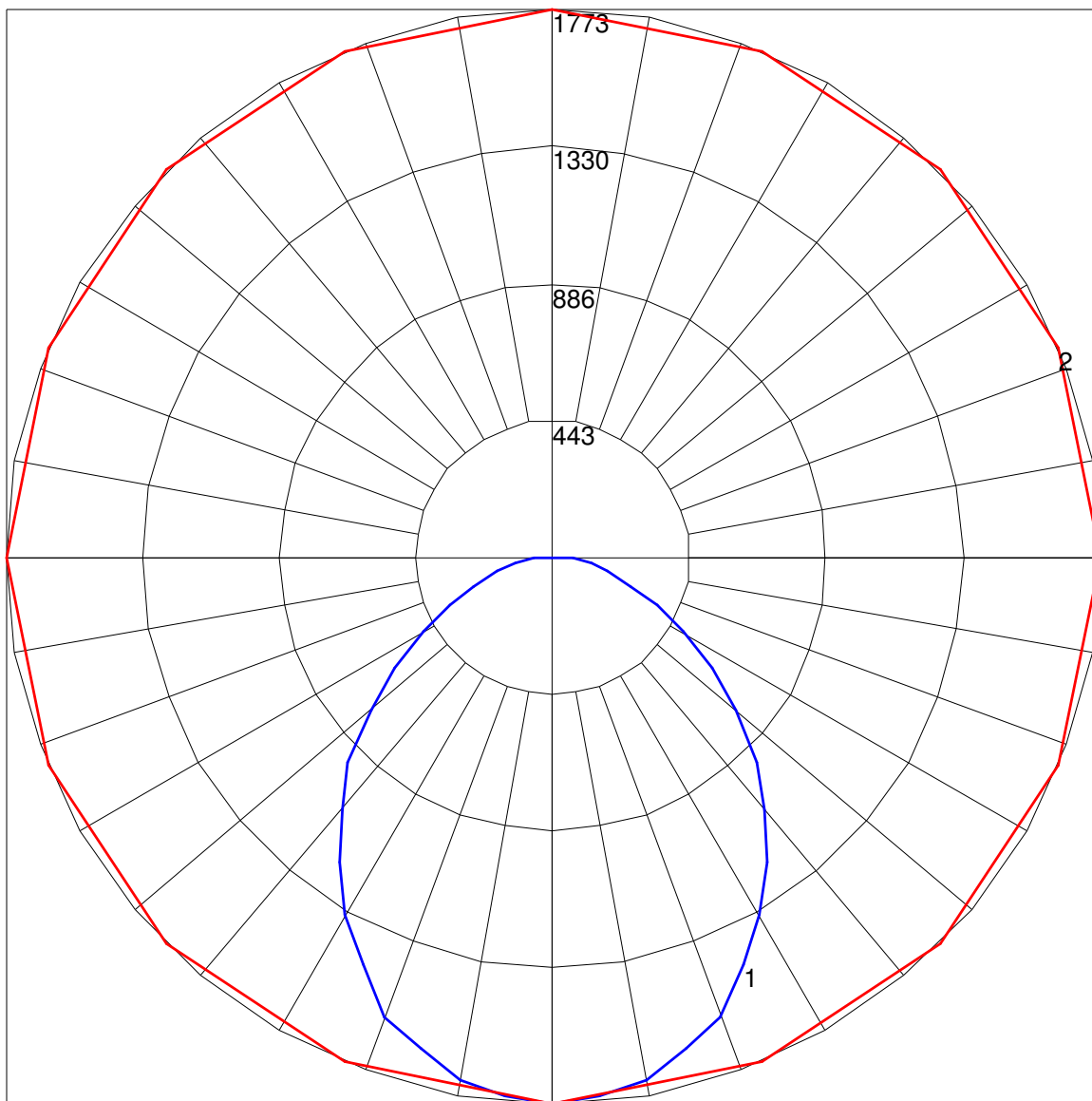
4H	2H	13.9	15.2	14.3	15.5	15.9	13.6	14.9	14.0	15.2	15.6
	3H	15.5	16.6	16.0	17.0	17.4	15.3	16.4	15.7	16.8	17.2
	4H	16.2	17.2	16.6	17.6	18.0	16.0	17.0	16.4	17.4	17.8
	6H	16.8	17.7	17.3	18.1	18.6	16.7	17.5	17.2	18.0	18.4
	8H	17.1	17.9	17.5	18.3	18.8	17.0	17.8	17.5	18.2	18.7
	12H	17.3	18.0	17.8	18.5	18.9	17.3	18.0	17.8	18.5	18.9

8H	4H	16.5	17.3	16.9	17.7	18.2	16.3	17.1	16.7	17.5	18.0
	6H	17.2	17.9	17.7	18.4	18.8	17.1	17.8	17.6	18.3	18.7
	8H	17.5	18.1	18.1	18.7	19.1	17.5	18.1	18.0	18.6	19.1
	12H	17.8	18.4	18.3	18.9	19.4	17.9	18.4	18.4	18.9	19.5

12H	4H	16.5	17.2	17.0	17.7	18.2	16.3	17.0	16.8	17.5	18.0
	6H	17.3	17.9	17.8	18.4	18.9	17.2	17.8	17.7	18.3	18.8
	8H	17.7	18.2	18.2	18.7	19.3	17.6	18.2	18.2	18.7	19.2

Maximum UGR = 19.5

POLAR GRAPH



Maximum Candela = 1772.823 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.)