



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-840-FAF12125-(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] 07-12-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' LED TROFFER

[MORE] FROSTED ACRYLIC LENS

[LUMCAT] 50G-S24-L59-840-FAF12125-(L40)-DIM-UNV

[LAMPCAT] HLM 80 CRI, 4000K CCT

[\_SEARCH\_SOURCE]TYPE]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	4016
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	145
Total Luminaire Watts	27.78
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	2178	2148	2118
55	1797	1738	1684
65	1445	1359	1341
75	1171	1122	1184
85	1170	1170	1380

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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>	1808.396	1808.396	1808.396	1808.396	1808.396
<b>5</b>	1790.595	1789.428	1787.969	1787.093	1787.093
<b>10</b>	1758.203	1756.161	1757.620	1758.203	1758.203
<b>15</b>	1686.416	1686.416	1686.416	1688.459	1689.334
<b>20</b>	1623.675	1623.675	1625.718	1628.636	1625.718
<b>25</b>	1486.813	1485.354	1489.731	1492.357	1491.774
<b>30</b>	1369.794	1368.335	1371.253	1371.253	1374.171
<b>35</b>	1232.347	1231.764	1229.429	1228.846	1234.390
<b>40</b>	1090.524	1087.897	1082.061	1077.392	1081.477
<b>45</b>	956.579	953.078	943.156	934.693	930.024
<b>50</b>	786.741	779.738	771.859	758.727	750.848
<b>55</b>	640.249	629.451	618.946	602.896	599.978
<b>60</b>	495.507	487.044	473.621	461.072	459.613
<b>65</b>	379.363	372.360	356.602	351.932	351.932
<b>70</b>	276.352	272.266	258.843	263.803	264.387
<b>75</b>	188.223	185.304	180.344	186.764	190.265
<b>80</b>	126.941	124.898	124.898	130.443	134.528
<b>85</b>	63.325	61.282	63.325	71.787	74.705
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 50G-S24-L59-840-FAF12125-(L40)-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	647.23	N.A.	16.10
0-30	1335.84	N.A.	33.30
0-40	2105.04	N.A.	52.40
0-60	3380.83	N.A.	84.20
0-80	3945.04	N.A.	98.20
0-90	4015.95	N.A.	100.00
10-90	3846.11	N.A.	95.80
20-40	1457.82	N.A.	36.30
20-50	2179.32	N.A.	54.30
40-70	1638.13	N.A.	40.80
60-80	564.22	N.A.	14.00
70-80	201.87	N.A.	5.00
80-90	70.91	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	4015.95	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	169.85
10-20	477.38
20-30	688.61
30-40	769.20
40-50	721.50
50-60	554.29
60-70	362.35
70-80	201.87
80-90	70.91
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	101	101	101	101	98	98	98	98	94	94	94	90	90	90	86	86	86	84
1	93	89	85	82	90	87	84	81	83	81	79	80	78	76	77	75	74	72
2	85	78	73	69	83	77	72	68	74	70	66	71	68	65	69	66	63	62
3	78	70	63	58	76	68	62	58	66	61	57	64	59	56	61	58	55	53
4	72	62	55	50	70	61	55	50	59	54	49	57	52	48	55	51	48	46
5	66	56	49	44	65	55	49	43	53	48	43	52	47	43	50	46	42	40
6	62	51	44	39	60	50	43	38	49	43	38	47	42	38	46	41	37	36
7	57	46	39	34	56	46	39	34	44	38	34	43	38	34	42	37	34	32
8	54	43	36	31	52	42	35	31	41	35	31	40	34	31	39	34	30	29
9	50	39	33	28	49	39	32	28	38	32	28	37	32	28	36	31	28	26
10	47	36	30	26	46	36	30	26	35	29	25	34	29	25	34	29	25	24

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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

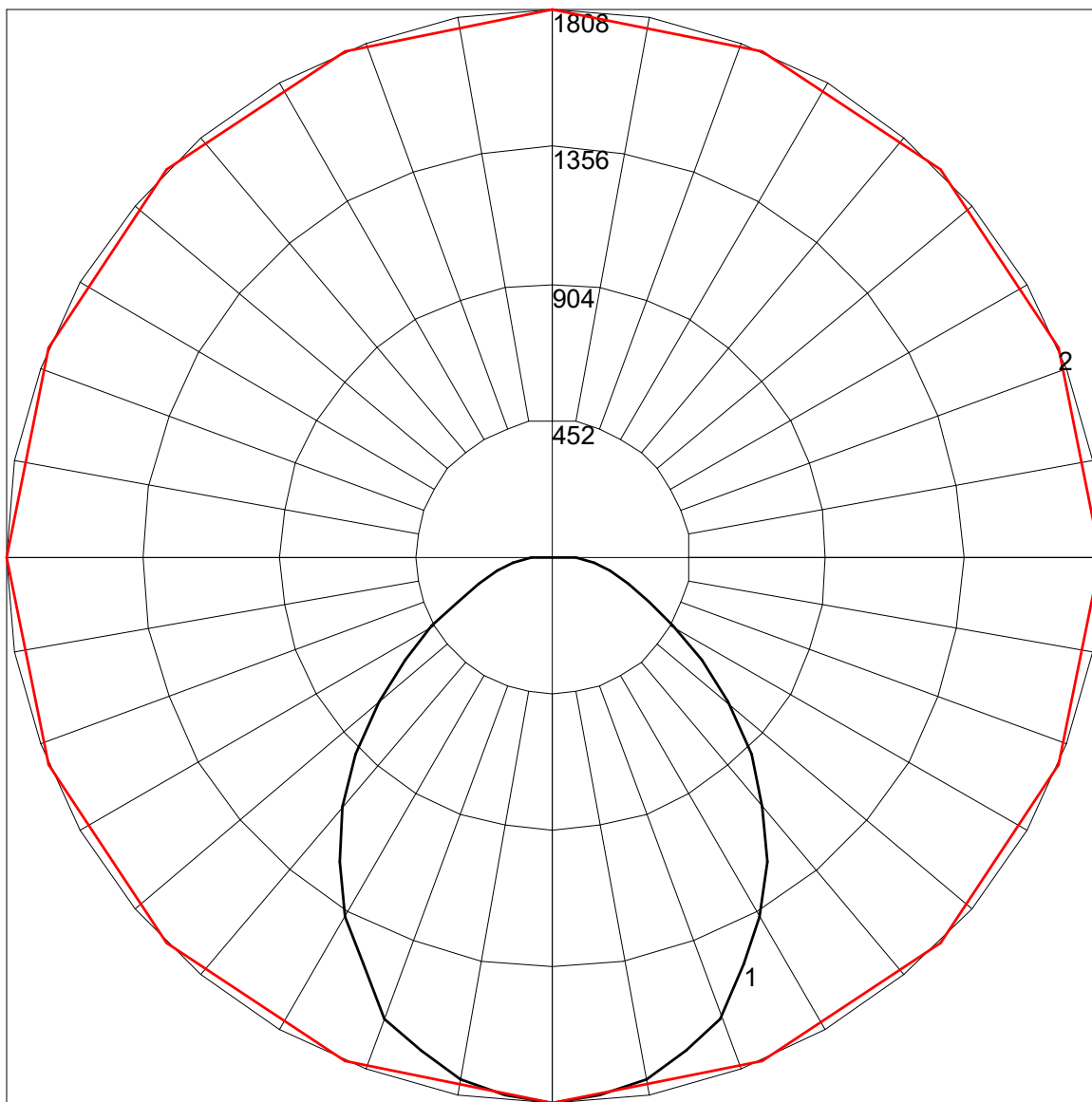
X=2H	Y=2H	14.1	15.6	14.4	15.9	16.2	13.7	15.2	14.1	15.5	15.9
	3H	15.5	16.9	15.9	17.2	17.6	15.1	16.5	15.5	16.9	17.2
	4H	16.0	17.3	16.4	17.7	18.1	15.7	17.0	16.1	17.4	17.8
	6H	16.5	17.7	16.9	18.1	18.5	16.3	17.5	16.7	17.8	18.2
	8H	16.7	17.8	17.1	18.2	18.6	16.5	17.7	16.9	18.0	18.4
	12H	16.8	17.9	17.2	18.3	18.7	16.7	17.8	17.1	18.2	18.6

### UGR Viewed Endwise

4H	2H	14.5	15.8	14.9	16.1	16.5	14.2	15.5	14.6	15.8	16.2
	3H	16.1	17.2	16.6	17.6	18.0	15.9	17.0	16.3	17.4	17.8
	4H	16.8	17.8	17.2	18.2	18.6	16.6	17.6	17.0	18.0	18.4
	6H	17.4	18.3	17.9	18.7	19.2	17.3	18.1	17.8	18.6	19.0
	8H	17.7	18.5	18.1	18.9	19.4	17.6	18.4	18.1	18.8	19.3
	12H	17.9	18.6	18.4	19.1	19.5	17.9	18.6	18.4	19.1	19.5
8H	4H	17.1	17.9	17.5	18.3	18.8	16.9	17.7	17.3	18.1	18.6
	6H	17.8	18.5	18.3	19.0	19.4	17.7	18.4	18.2	18.9	19.3
	8H	18.1	18.7	18.7	19.3	19.7	18.1	18.7	18.6	19.2	19.7
	12H	18.4	19.0	18.9	19.5	20.0	18.5	19.0	19.0	19.5	20.1
12H	4H	17.1	17.8	17.6	18.3	18.8	16.9	17.6	17.4	18.1	18.6
	6H	17.9	18.5	18.4	19.0	19.5	17.8	18.4	18.3	18.9	19.4
	8H	18.3	18.8	18.8	19.3	19.9	18.2	18.8	18.8	19.3	19.8

Maximum UGR = 20.1

POLAR GRAPH



Maximum Candela = 1808.396 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)