



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-827-FAF12125-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

[ISSUE DATE] 06-15-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' LED TROFFER

[MORE] FROSTED ACRYLIC LENS

[LUMCAT] 50G-S24-L59-827-FAF12125-DIM-UNV

[LAMPCAT] HLM 80 CRI, 2700K 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	6052
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	48
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	3283	3237	3192
55	2709	2619	2538
65	2178	2048	2021
75	1765	1691	1784
85	1763	1763	2080

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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>	2725.203	2725.203	2725.203	2725.203	2725.203
<b>5</b>	2698.378	2696.619	2694.420	2693.101	2693.101
<b>10</b>	2649.564	2646.486	2648.685	2649.564	2649.564
<b>15</b>	2541.383	2541.383	2541.383	2544.461	2545.780
<b>20</b>	2446.834	2446.834	2449.912	2454.310	2449.912
<b>25</b>	2240.586	2238.387	2244.983	2248.941	2248.062
<b>30</b>	2064.241	2062.043	2066.440	2066.440	2070.838
<b>35</b>	1857.114	1856.234	1852.716	1851.837	1860.192
<b>40</b>	1643.389	1639.432	1630.636	1623.600	1629.757
<b>45</b>	1441.539	1436.262	1421.310	1408.557	1401.521
<b>50</b>	1185.598	1175.043	1163.170	1143.380	1131.507
<b>55</b>	964.837	948.566	932.735	908.548	904.150
<b>60</b>	746.715	733.962	713.733	694.823	692.625
<b>65</b>	571.690	561.136	537.389	530.353	530.353
<b>70</b>	416.454	410.298	390.069	397.545	398.424
<b>75</b>	283.646	279.249	271.773	281.447	286.725
<b>80</b>	191.296	188.218	188.218	196.573	202.730
<b>85</b>	95.428	92.350	95.428	108.181	112.579
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	975.35	N.A.	16.10
0-30	2013.07	N.A.	33.30
0-40	3172.24	N.A.	52.40
0-60	5094.82	N.A.	84.20
0-80	5945.07	N.A.	98.20
0-90	6051.93	N.A.	100.00
10-90	5795.98	N.A.	95.80
20-40	2196.89	N.A.	36.30
20-50	3284.17	N.A.	54.30
40-70	2468.62	N.A.	40.80
60-80	850.26	N.A.	14.00
70-80	304.21	N.A.	5.00
80-90	106.86	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	6051.93	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	255.95
10-20	719.40
20-30	1037.72
30-40	1159.17
40-50	1087.28
50-60	835.29
60-70	546.05
70-80	304.21
80-90	106.86
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

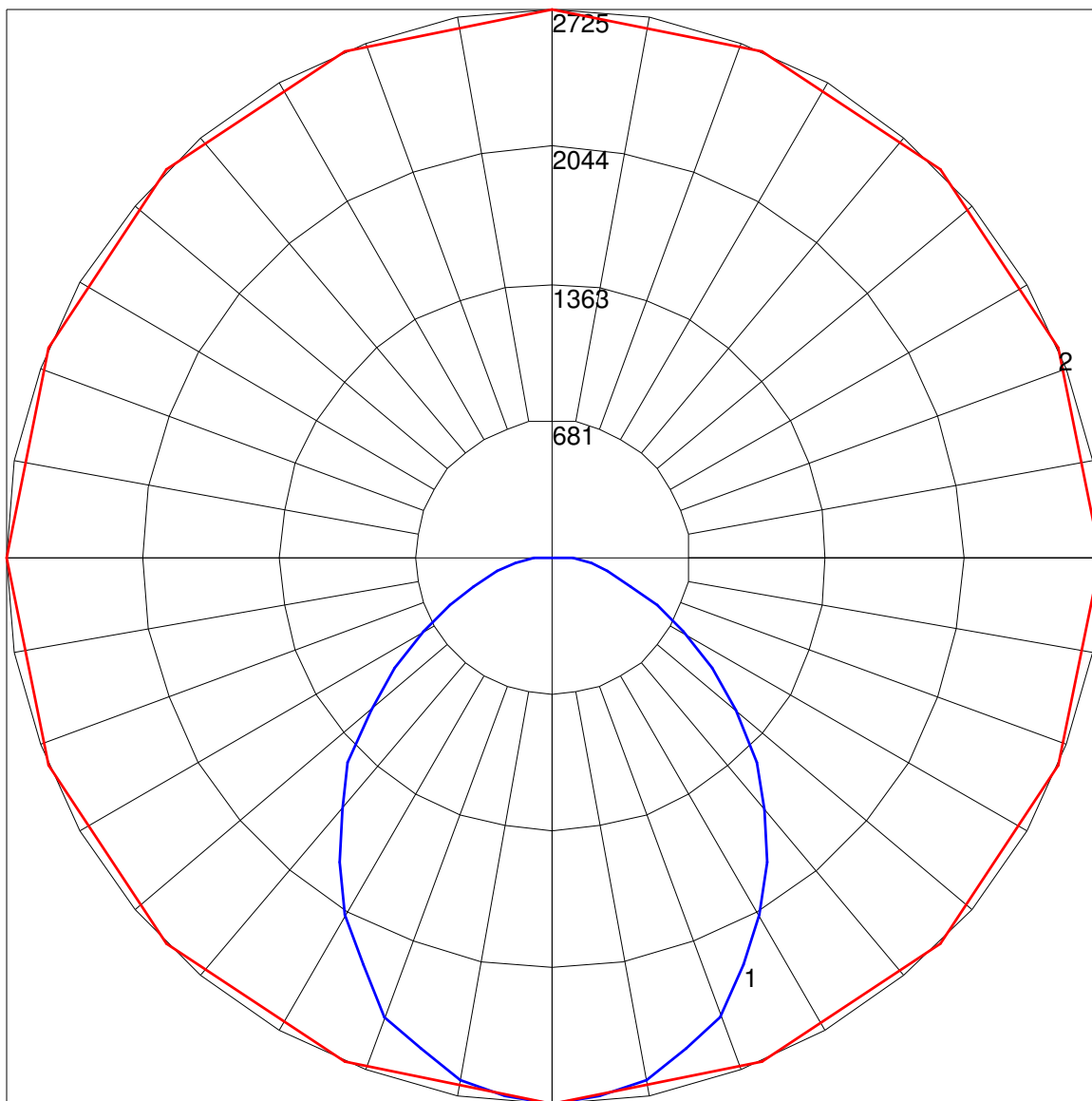
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**UGR TABLE - CORRECTED**

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					UGR Viewed Endwise				
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
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 = 2725.203 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.)