



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-940-SAF12125-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] 08-MAY-2023  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE  
[MORE] WHITE REFLECTOR w/PAT 12 LENS PRISMS DOWN  
[LUMCAT] 50G-S24-L59-940-SAF12125-DIM-UNV  
[LAMPCAT] HLM 90 CRI 4000K CCT  
[ \_SEARCH\_SOURCETYPE]LED  
[ \_SEARCH\_APPLICATION]INDOOR,DIRECT  
[ \_SEARCH\_MOUNTING]RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5358
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
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	2906	2865	2826
55	2398	2318	2247
65	1928	1813	1789
75	1562	1497	1579
85	1561	1561	1841

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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>	2412.696	2412.696	2412.696	2412.696	2412.696
<b>5</b>	2388.947	2387.389	2385.443	2384.275	2384.275
<b>10</b>	2345.731	2343.005	2344.952	2345.731	2345.731
<b>15</b>	2249.955	2249.955	2249.955	2252.680	2253.848
<b>20</b>	2166.248	2166.248	2168.974	2172.867	2168.974
<b>25</b>	1983.651	1981.704	1987.544	1991.048	1990.270
<b>30</b>	1827.529	1825.582	1829.475	1829.475	1833.369
<b>35</b>	1644.153	1643.374	1640.259	1639.481	1646.878
<b>40</b>	1454.937	1451.433	1443.646	1437.417	1442.868
<b>45</b>	1276.233	1271.561	1258.324	1247.033	1240.804
<b>50</b>	1049.641	1040.297	1029.785	1012.266	1001.754
<b>55</b>	854.196	839.791	825.775	804.362	800.468
<b>60</b>	661.087	649.797	631.887	615.146	613.199
<b>65</b>	506.133	496.789	475.765	469.535	469.535
<b>70</b>	368.698	363.248	345.338	351.957	352.736
<b>75</b>	251.120	247.226	240.608	249.173	253.845
<b>80</b>	169.360	166.634	166.634	174.032	179.482
<b>85</b>	84.485	81.760	84.485	95.776	99.669
<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	863.51	N.A.	16.10
0-30	1782.23	N.A.	33.30
0-40	2808.47	N.A.	52.40
0-60	4510.58	N.A.	84.20
0-80	5263.33	N.A.	98.20
0-90	5357.94	N.A.	100.00
10-90	5131.34	N.A.	95.80
20-40	1944.96	N.A.	36.30
20-50	2907.56	N.A.	54.30
40-70	2185.54	N.A.	40.80
60-80	752.76	N.A.	14.00
70-80	269.33	N.A.	5.00
80-90	94.60	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	5357.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	226.60
10-20	636.90
20-30	918.72
30-40	1026.24
40-50	962.60
50-60	739.51
60-70	483.43
70-80	269.33
80-90	94.60
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**

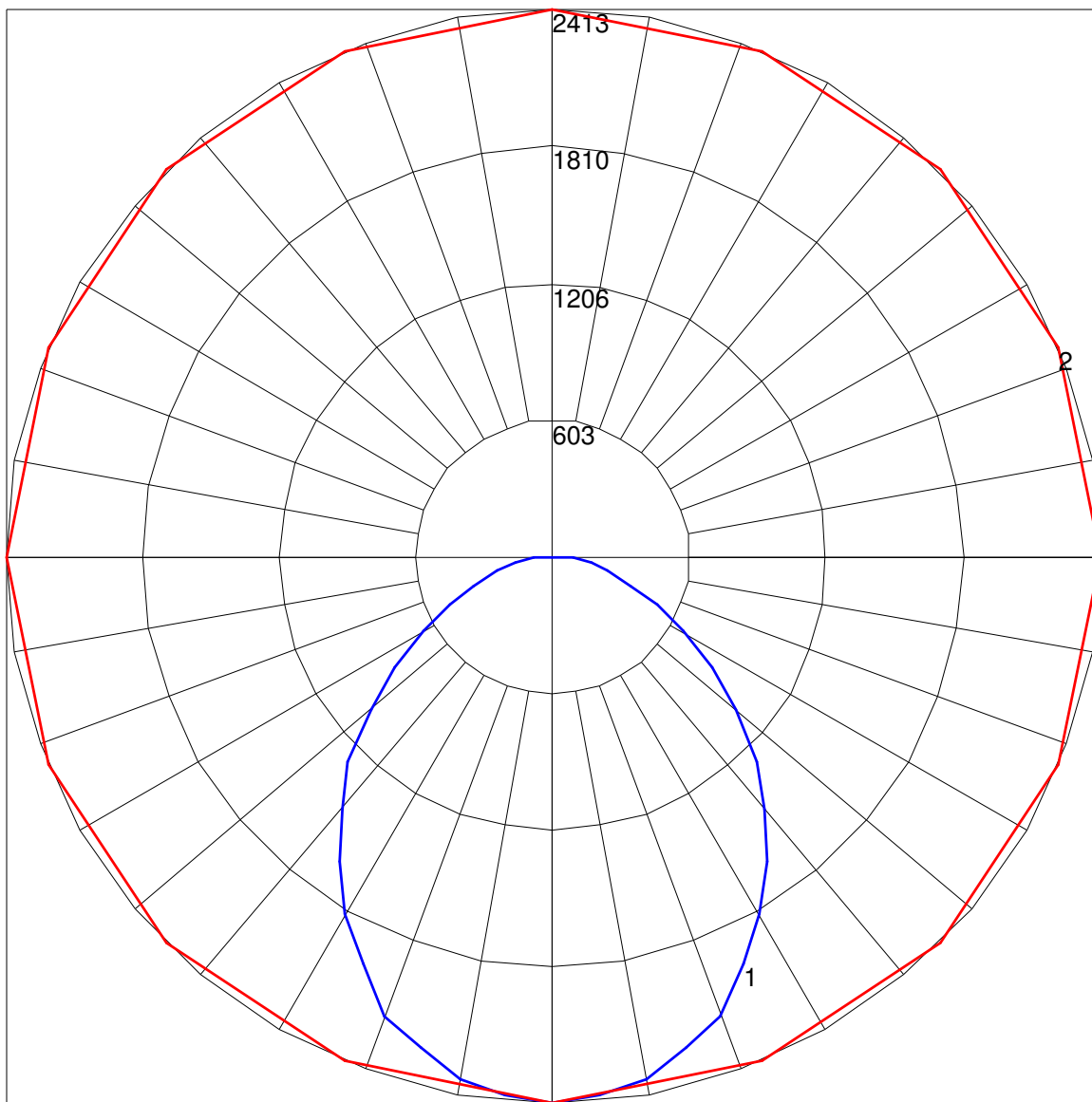
Reflectances

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	14.5	16.0	14.8	16.3	16.6	14.1	15.6	14.5	15.9	16.3
	3H	15.9	17.3	16.3	17.6	18.0	15.5	16.9	15.9	17.3	17.6
	4H	16.4	17.7	16.8	18.1	18.5	16.1	17.4	16.5	17.8	18.2
	6H	16.9	18.1	17.3	18.5	18.9	16.7	17.9	17.1	18.2	18.6
	8H	17.1	18.2	17.5	18.6	19.0	16.9	18.1	17.3	18.4	18.8
	12H	17.2	18.3	17.6	18.7	19.1	17.1	18.2	17.5	18.6	19.0
4H	2H	14.9	16.2	15.3	16.5	16.9	14.6	15.9	15.0	16.2	16.6
	3H	16.5	17.6	17.0	18.0	18.4	16.3	17.4	16.7	17.8	18.2
	4H	17.2	18.2	17.6	18.6	19.0	17.0	18.0	17.4	18.4	18.8
	6H	17.8	18.7	18.3	19.1	19.6	17.7	18.5	18.2	19.0	19.4
	8H	18.1	18.9	18.5	19.3	19.8	18.0	18.8	18.5	19.2	19.7
	12H	18.3	19.0	18.8	19.5	19.9	18.3	19.0	18.8	19.5	19.9
8H	4H	17.5	18.3	17.9	18.7	19.2	17.3	18.1	17.7	18.5	19.0
	6H	18.2	18.9	18.7	19.4	19.8	18.1	18.8	18.6	19.3	19.7
	8H	18.5	19.1	19.1	19.7	20.1	18.5	19.1	19.0	19.6	20.1
	12H	18.8	19.4	19.3	19.9	20.4	18.9	19.4	19.4	19.9	20.5
12H	4H	17.5	18.2	18.0	18.7	19.2	17.3	18.0	17.8	18.5	19.0
	6H	18.3	18.9	18.8	19.4	19.9	18.2	18.8	18.7	19.3	19.8
	8H	18.7	19.2	19.2	19.7	20.3	18.6	19.2	19.2	19.7	20.2

Maximum UGR = 20.5

POLAR GRAPH



Maximum Candela = 2412.696 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.)