



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-930-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] 13-MARCH-2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMINAIRE] 288 LEDS (4 BOARDS) 2x4'RECESSED LUMINAIRE  
 [MORE] WHITE REFLECTOR w/PAT 12 LENS PRISMS DOWN  
 [LUMCAT] 50G-S24-L59-930-SAF12125-DIM-UNV  
 [LAMPCAT] HLM 90 CRI 3000K 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	4867
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	49
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	2640	2603	2567
55	2178	2106	2041
65	1752	1647	1625
75	1419	1360	1435
85	1418	1418	1673

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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>	2191.599	2191.599	2191.599	2191.599	2191.599
<b>5</b>	2170.026	2168.612	2166.844	2165.783	2165.783
<b>10</b>	2130.771	2128.295	2130.063	2130.771	2130.771
<b>15</b>	2043.772	2043.772	2043.772	2046.247	2047.308
<b>20</b>	1967.736	1967.736	1970.211	1973.748	1970.211
<b>25</b>	1801.872	1800.103	1805.408	1808.591	1807.884
<b>30</b>	1660.056	1658.288	1661.824	1661.824	1665.361
<b>35</b>	1493.485	1492.777	1489.948	1489.241	1495.960
<b>40</b>	1321.608	1318.425	1311.352	1305.694	1310.645
<b>45</b>	1159.281	1155.037	1143.013	1132.757	1127.098
<b>50</b>	953.454	944.966	935.417	919.503	909.954
<b>55</b>	775.919	762.834	750.102	730.651	727.114
<b>60</b>	600.506	590.250	573.982	558.775	557.006
<b>65</b>	459.751	451.264	432.166	426.508	426.508
<b>70</b>	334.911	329.960	313.692	319.704	320.411
<b>75</b>	228.107	224.571	218.559	226.339	230.583
<b>80</b>	153.840	151.364	151.364	158.084	163.035
<b>85</b>	76.743	74.268	76.743	86.999	90.536
<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	784.37	N.A.	16.10
0-30	1618.91	N.A.	33.30
0-40	2551.11	N.A.	52.40
0-60	4097.23	N.A.	84.20
0-80	4781.01	N.A.	98.20
0-90	4866.94	N.A.	100.00
10-90	4661.11	N.A.	95.80
20-40	1766.73	N.A.	36.30
20-50	2641.12	N.A.	54.30
40-70	1985.26	N.A.	40.80
60-80	683.77	N.A.	14.00
70-80	244.64	N.A.	5.00
80-90	85.93	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	4866.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	205.84
10-20	578.54
20-30	834.53
30-40	932.20
40-50	874.39
50-60	671.74
60-70	439.13
70-80	244.64
80-90	85.93
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	14.2	15.7	14.5	16.0	16.3	13.8	15.3	14.2	15.6	16.0
	3H	15.6	17.0	16.0	17.3	17.7	15.2	16.6	15.6	17.0	17.3
	4H	16.1	17.4	16.5	17.8	18.2	15.8	17.1	16.2	17.5	17.9
	6H	16.6	17.8	17.0	18.2	18.6	16.4	17.6	16.8	17.9	18.3
	8H	16.8	17.9	17.2	18.3	18.7	16.6	17.8	17.0	18.1	18.5
	12H	16.9	18.0	17.3	18.4	18.8	16.8	17.9	17.2	18.3	18.7

UGR Viewed Endwise

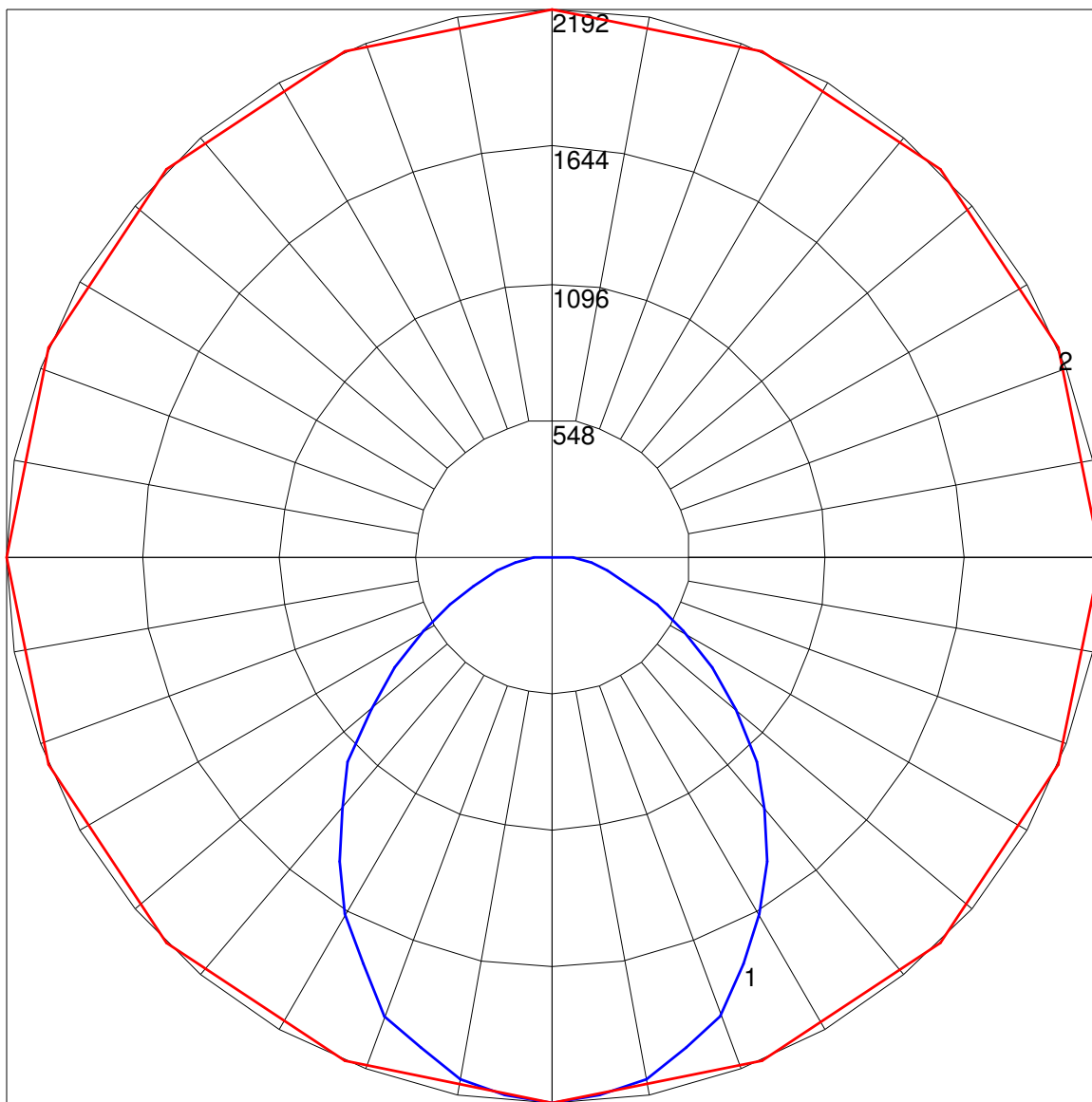
4H	2H	14.6	15.9	15.0	16.2	16.6	14.3	15.6	14.7	15.9	16.3
	3H	16.2	17.3	16.7	17.7	18.1	16.0	17.1	16.4	17.5	17.9
	4H	16.9	17.9	17.3	18.3	18.7	16.7	17.7	17.1	18.1	18.5
	6H	17.5	18.4	18.0	18.8	19.3	17.4	18.2	17.9	18.7	19.1
	8H	17.8	18.6	18.2	19.0	19.5	17.7	18.5	18.2	18.9	19.4
	12H	18.0	18.7	18.5	19.2	19.6	18.0	18.7	18.5	19.2	19.6

8H	4H	17.2	18.0	17.6	18.4	18.9	17.0	17.8	17.4	18.2	18.7
	6H	17.9	18.6	18.4	19.1	19.5	17.8	18.5	18.3	19.0	19.4
	8H	18.2	18.8	18.8	19.4	19.8	18.2	18.8	18.7	19.3	19.8
	12H	18.5	19.1	19.0	19.6	20.1	18.6	19.1	19.1	19.6	20.2

12H	4H	17.2	17.9	17.7	18.4	18.9	17.0	17.7	17.5	18.2	18.7
	6H	18.0	18.6	18.5	19.1	19.6	17.9	18.5	18.4	19.0	19.5
	8H	18.4	18.9	18.9	19.4	20.0	18.3	18.9	18.9	19.4	19.9

Maximum UGR = 20.2

POLAR GRAPH



Maximum Candela = 2191.599 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.)