



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L33-835-SAF12125-(L23)-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] 07-02-2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.64836  
 [LUMINAIRE] 2x4' LED TROFFER  
 [MORE] WITH FROSTED ACRYLIC LENS  
 [LUMCAT] 50G-S24-L33-835-SAF12125-(L23)-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	2391
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	17.7
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	1297	1279	1261
55	1070	1035	1003
65	861	809	798
75	697	668	705
85	697	697	822

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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>	1076.662	1076.662	1076.662	1076.662	1076.662
<b>5</b>	1066.064	1065.369	1064.501	1063.979	1063.979
<b>10</b>	1046.779	1045.563	1046.432	1046.779	1046.779
<b>15</b>	1004.039	1004.039	1004.039	1005.256	1005.777
<b>20</b>	966.685	966.685	967.902	969.639	967.902
<b>25</b>	885.202	884.333	886.939	888.503	888.155
<b>30</b>	815.532	814.664	816.401	816.401	818.138
<b>35</b>	733.701	733.354	731.964	731.616	734.917
<b>40</b>	649.264	647.700	644.225	641.445	643.878
<b>45</b>	569.517	567.433	561.525	556.487	553.707
<b>50</b>	468.401	464.231	459.540	451.722	447.031
<b>55</b>	381.184	374.756	368.501	358.945	357.208
<b>60</b>	295.009	289.971	281.979	274.508	273.639
<b>65</b>	225.861	221.691	212.309	209.530	209.530
<b>70</b>	164.531	162.099	154.107	157.060	157.408
<b>75</b>	112.062	110.324	107.371	111.193	113.278
<b>80</b>	75.577	74.360	74.360	77.661	80.094
<b>85</b>	37.701	36.485	37.701	42.740	44.477
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	385.34	N.A.	16.10
0-30	795.32	N.A.	33.30
0-40	1253.28	N.A.	52.40
0-60	2012.84	N.A.	84.20
0-80	2348.76	N.A.	98.20
0-90	2390.97	N.A.	100.00
10-90	2289.85	N.A.	95.80
20-40	867.94	N.A.	36.30
20-50	1297.5	N.A.	54.30
40-70	975.29	N.A.	40.80
60-80	335.92	N.A.	14.00
70-80	120.19	N.A.	5.00
80-90	42.22	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	2390.97	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	101.12
10-20	284.22
20-30	409.98
30-40	457.96
40-50	429.56
50-60	330.00
60-70	215.73
70-80	120.19
80-90	42.22
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	11.7	13.2	12.0	13.5	13.8	11.3	12.8	11.7	13.1	13.5
	3H	13.1	14.5	13.5	14.8	15.2	12.7	14.1	13.1	14.5	14.8
	4H	13.6	14.9	14.0	15.3	15.7	13.3	14.6	13.7	15.0	15.4
	6H	14.1	15.3	14.5	15.7	16.1	13.9	15.1	14.3	15.4	15.8
	8H	14.3	15.4	14.7	15.8	16.2	14.1	15.3	14.5	15.6	16.0
	12H	14.4	15.5	14.8	15.9	16.3	14.3	15.4	14.7	15.8	16.2

### UGR Viewed Endwise

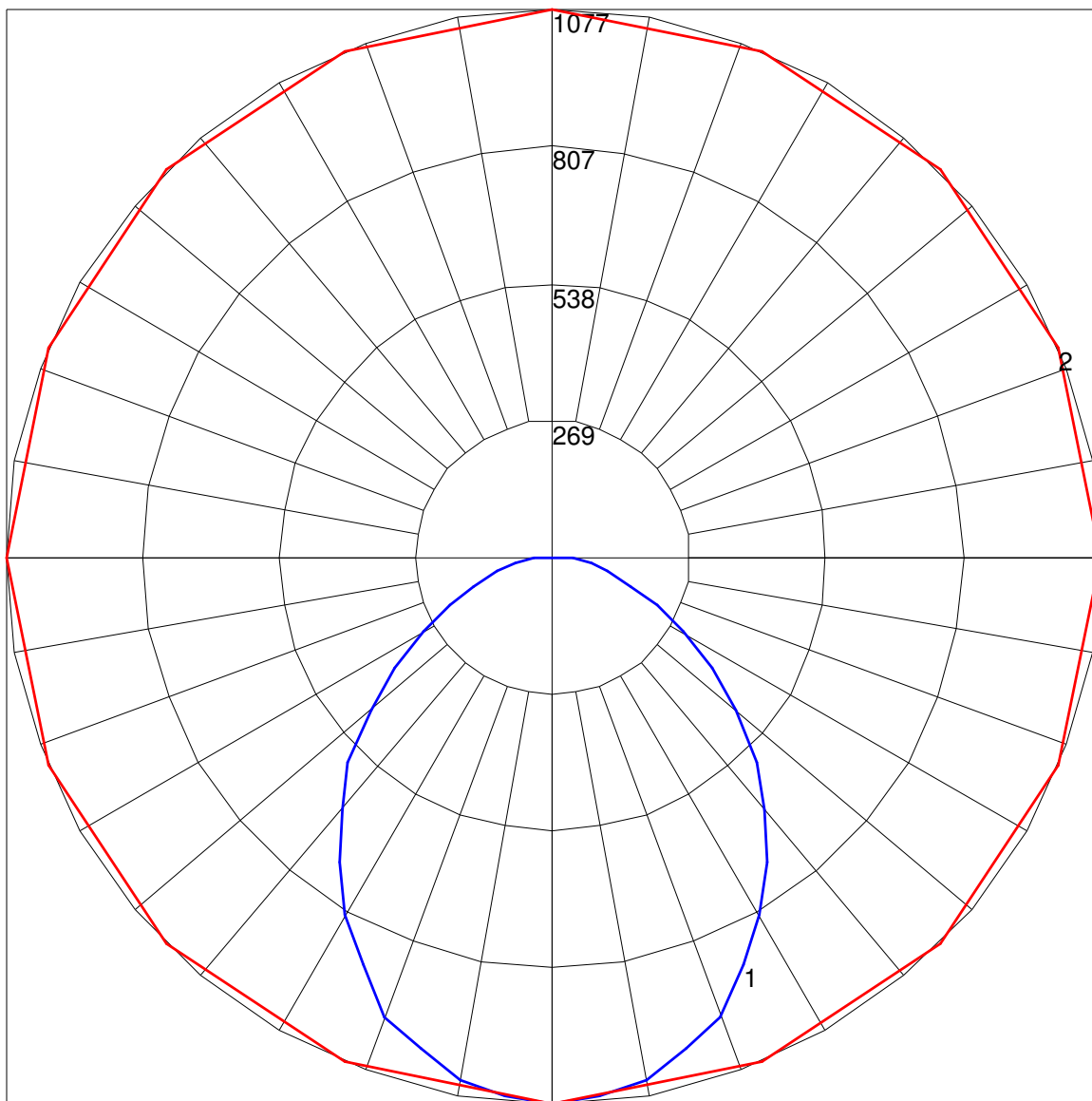
4H	2H	12.1	13.4	12.5	13.7	14.1	11.8	13.1	12.2	13.4	13.8
	3H	13.7	14.8	14.2	15.2	15.6	13.5	14.6	13.9	15.0	15.4
	4H	14.4	15.4	14.8	15.8	16.2	14.2	15.2	14.6	15.6	16.0
	6H	15.0	15.9	15.5	16.3	16.8	14.9	15.7	15.4	16.2	16.6
	8H	15.3	16.1	15.7	16.5	17.0	15.2	16.0	15.7	16.4	16.9
	12H	15.5	16.2	16.0	16.7	17.1	15.5	16.2	16.0	16.7	17.1

8H	4H	14.7	15.5	15.1	15.9	16.4	14.5	15.3	14.9	15.7	16.2
	6H	15.4	16.1	15.9	16.6	17.0	15.3	16.0	15.8	16.5	16.9
	8H	15.7	16.3	16.3	16.9	17.3	15.7	16.3	16.2	16.8	17.3
	12H	16.0	16.6	16.5	17.1	17.6	16.1	16.6	16.6	17.1	17.7

12H	4H	14.7	15.4	15.2	15.9	16.4	14.5	15.2	15.0	15.7	16.2
	6H	15.5	16.1	16.0	16.6	17.1	15.4	16.0	15.9	16.5	17.0
	8H	15.9	16.4	16.4	16.9	17.5	15.8	16.4	16.4	16.9	17.4

Maximum UGR = 17.7

POLAR GRAPH



Maximum Candela = 1076.662 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.)