



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-935-SA12125-(L38)-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] 02-17-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' LED TROFFER

[MORE] WITH ACRYLIC LENS

[LUMCAT] 50G-S24-L59-935-SA12125-(L38)-DIM-UNV

[LAMPCAT] HLM 90 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	3400
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	113
Total Luminaire Watts	30
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	1844	1818	1793
55	1522	1471	1426
65	1224	1150	1135
75	991	950	1002
85	990	990	1169

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 50G-S24-L59-935-SA12125-(L38)-DIM-UNV\_.IES****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>	1531.013	1531.013	1531.013	1531.013	1531.013
<b>5</b>	1515.942	1514.954	1513.719	1512.978	1512.978
<b>10</b>	1488.519	1486.790	1488.025	1488.519	1488.519
<b>15</b>	1427.743	1427.743	1427.743	1429.472	1430.214
<b>20</b>	1374.626	1374.626	1376.355	1378.826	1376.355
<b>25</b>	1258.756	1257.521	1261.226	1263.450	1262.956
<b>30</b>	1159.686	1158.451	1160.921	1160.921	1163.392
<b>35</b>	1043.322	1042.828	1040.852	1040.357	1045.052
<b>40</b>	923.252	921.029	916.088	912.135	915.594
<b>45</b>	809.853	806.888	798.489	791.324	787.371
<b>50</b>	666.066	660.137	653.466	642.348	635.678
<b>55</b>	542.043	532.902	524.008	510.420	507.949
<b>60</b>	419.503	412.338	400.974	390.350	389.115
<b>65</b>	321.174	315.245	301.904	297.951	297.951
<b>70</b>	233.963	230.504	219.140	223.340	223.834
<b>75</b>	159.352	156.881	152.681	158.117	161.081
<b>80</b>	107.470	105.740	105.740	110.435	113.893
<b>85</b>	53.611	51.882	53.611	60.776	63.247
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 50G-S24-L59-935-SA12125-(L38)-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	547.95	N.A.	16.10
0-30	1130.94	N.A.	33.30
0-40	1782.16	N.A.	52.40
0-60	2862.26	N.A.	84.20
0-80	3339.93	N.A.	98.20
0-90	3399.96	N.A.	100.00
10-90	3256.17	N.A.	95.80
20-40	1234.21	N.A.	36.30
20-50	1845.04	N.A.	54.30
40-70	1386.87	N.A.	40.80
60-80	477.67	N.A.	14.00
70-80	170.90	N.A.	5.00
80-90	60.03	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	3399.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	143.79
10-20	404.16
20-30	582.99
30-40	651.22
40-50	610.83
50-60	469.27
60-70	306.77
70-80	170.90
80-90	60.03
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	13.0	14.5	13.3	14.8	15.1	12.6	14.1	13.0	14.4	14.8
	3H	14.4	15.8	14.8	16.1	16.5	14.0	15.4	14.4	15.8	16.1
	4H	14.9	16.2	15.3	16.6	17.0	14.6	15.9	15.0	16.3	16.7
	6H	15.4	16.6	15.8	17.0	17.4	15.2	16.4	15.6	16.7	17.1
	8H	15.6	16.7	16.0	17.1	17.5	15.4	16.6	15.8	16.9	17.3
	12H	15.7	16.8	16.1	17.2	17.6	15.6	16.7	16.0	17.1	17.5

### UGR Viewed Endwise

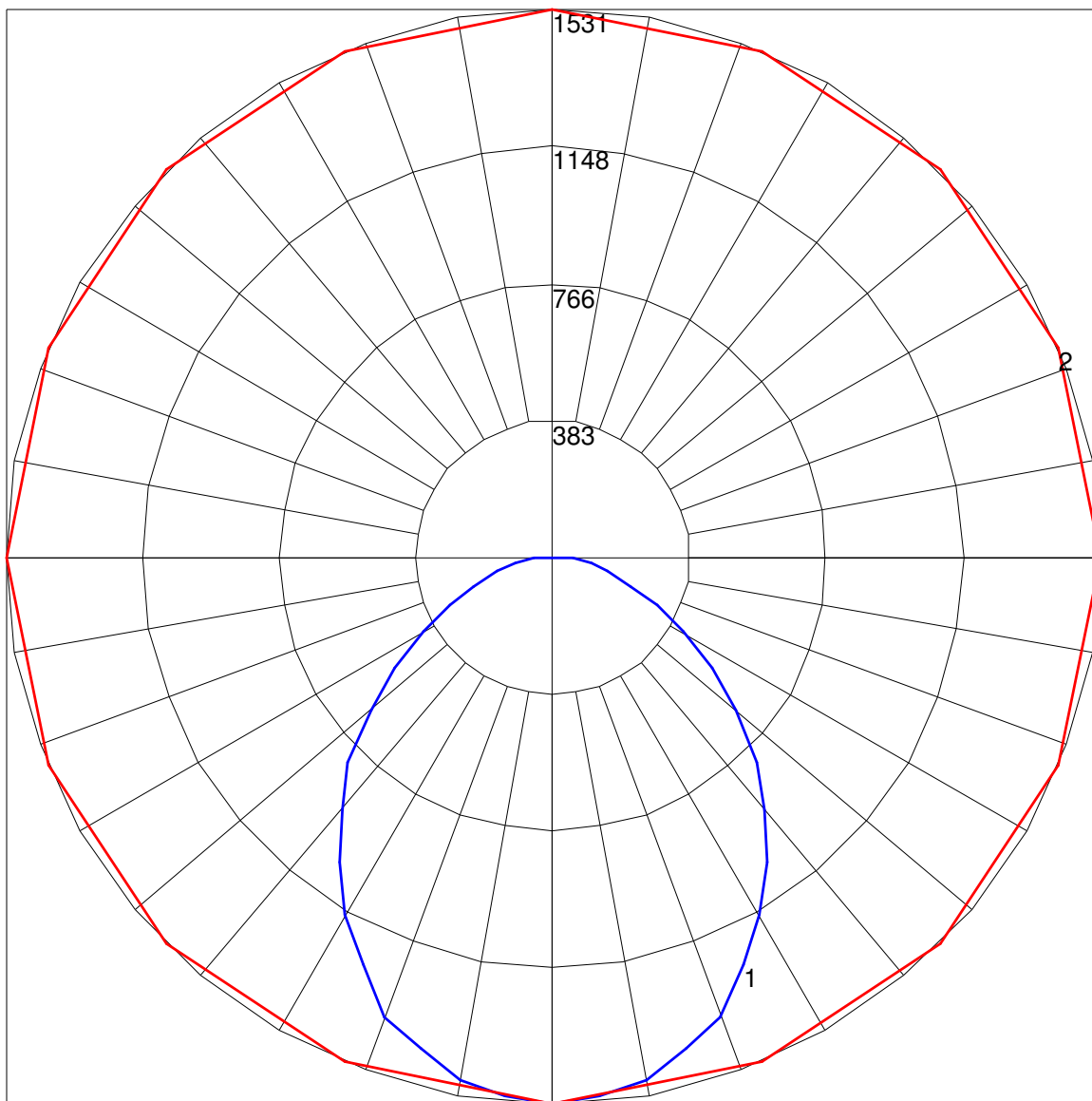
4H	2H	13.4	14.7	13.8	15.0	15.4	13.1	14.4	13.5	14.7	15.1
	3H	15.0	16.1	15.5	16.5	16.9	14.8	15.9	15.2	16.3	16.7
	4H	15.7	16.7	16.1	17.1	17.5	15.5	16.5	15.9	16.9	17.3
	6H	16.3	17.2	16.8	17.6	18.1	16.2	17.0	16.7	17.5	17.9
	8H	16.6	17.4	17.0	17.8	18.3	16.5	17.3	17.0	17.7	18.2
	12H	16.8	17.5	17.3	18.0	18.4	16.8	17.5	17.3	18.0	18.4

8H	4H	16.0	16.8	16.4	17.2	17.7	15.8	16.6	16.2	17.0	17.5
	6H	16.7	17.4	17.2	17.9	18.3	16.6	17.3	17.1	17.8	18.2
	8H	17.0	17.6	17.6	18.2	18.6	17.0	17.6	17.5	18.1	18.6
	12H	17.3	17.9	17.8	18.4	18.9	17.4	17.9	17.9	18.4	19.0

12H	4H	16.0	16.7	16.5	17.2	17.7	15.8	16.5	16.3	17.0	17.5
	6H	16.8	17.4	17.3	17.9	18.4	16.7	17.3	17.2	17.8	18.3
	8H	17.2	17.7	17.7	18.2	18.8	17.1	17.7	17.7	18.2	18.7

Maximum UGR = 19.0

POLAR GRAPH



Maximum Candela = 1531.013 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.)