



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-835-SAF12125-(L42)-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] 07-06-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' LED TROFFER

[MORE] FROSTED ACRYLIC LENS

[LUMCAT] 50G-S24-L59-835-SAF12125-(L42)-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	4246
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	32.2
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	2303	2271	2239
55	1900	1837	1781
65	1528	1437	1418
75	1238	1186	1252
85	1237	1237	1459

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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>	1911.965	1911.965	1911.965	1911.965	1911.965
<b>5</b>	1893.144	1891.910	1890.368	1889.442	1889.442
<b>10</b>	1858.897	1856.738	1858.280	1858.897	1858.897
<b>15</b>	1782.999	1782.999	1782.999	1785.159	1786.084
<b>20</b>	1716.665	1716.665	1718.824	1721.910	1718.824
<b>25</b>	1571.964	1570.421	1575.049	1577.826	1577.209
<b>30</b>	1448.243	1446.700	1449.786	1449.786	1452.871
<b>35</b>	1302.925	1302.308	1299.840	1299.223	1305.085
<b>40</b>	1152.979	1150.202	1144.032	1139.095	1143.415
<b>45</b>	1011.364	1007.661	997.171	988.224	983.287
<b>50</b>	831.799	824.394	816.064	802.180	793.849
<b>55</b>	676.916	665.501	654.394	637.424	634.339
<b>60</b>	523.885	514.938	500.745	487.478	485.936
<b>65</b>	401.090	393.685	377.025	372.088	372.088
<b>70</b>	292.179	287.859	273.667	278.912	279.529
<b>75</b>	199.002	195.917	190.672	197.460	201.162
<b>80</b>	134.211	132.051	132.051	137.913	142.233
<b>85</b>	66.951	64.791	66.951	75.899	78.984
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 50G-S24-L59-835-SAF12125-(L42)-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	684.29	N.A.	16.10
0-30	1412.34	N.A.	33.30
0-40	2225.6	N.A.	52.40
0-60	3574.45	N.A.	84.20
0-80	4170.98	N.A.	98.20
0-90	4245.95	N.A.	100.00
10-90	4066.38	N.A.	95.80
20-40	1541.31	N.A.	36.30
20-50	2304.13	N.A.	54.30
40-70	1731.95	N.A.	40.80
60-80	596.53	N.A.	14.00
70-80	213.43	N.A.	5.00
80-90	74.97	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	4245.95	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	179.57
10-20	504.72
20-30	728.05
30-40	813.26
40-50	762.82
50-60	586.03
60-70	383.10
70-80	213.43
80-90	74.97
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

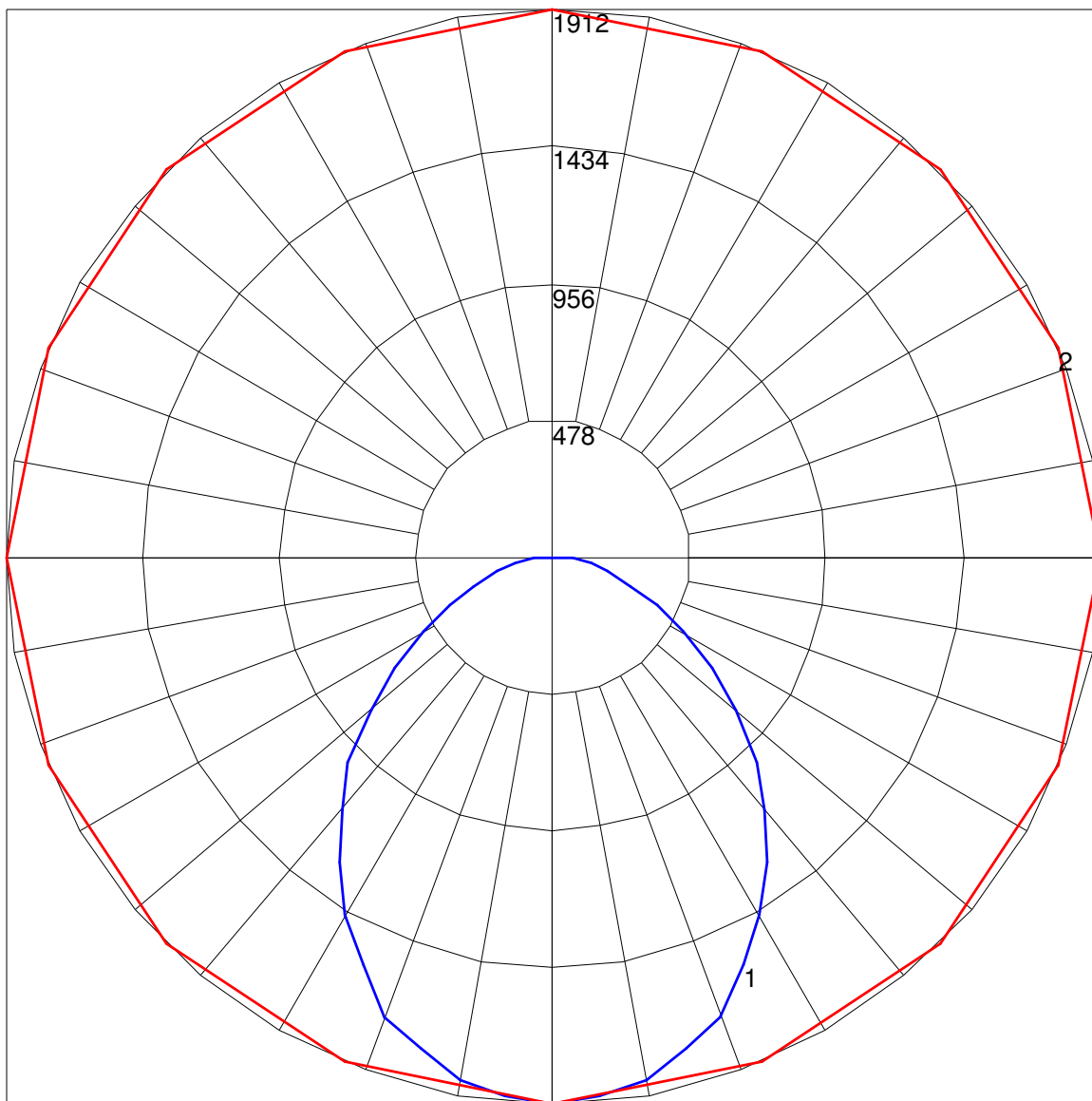
X=2H	Y=2H	13.7	15.2	14.0	15.5	15.8	13.3	14.8	13.7	15.1	15.5
	3H	15.1	16.5	15.5	16.8	17.2	14.7	16.1	15.1	16.5	16.8
	4H	15.6	16.9	16.0	17.3	17.7	15.3	16.6	15.7	17.0	17.4
	6H	16.1	17.3	16.5	17.7	18.1	15.9	17.1	16.3	17.4	17.8
	8H	16.3	17.4	16.7	17.8	18.2	16.1	17.3	16.5	17.6	18.0
	12H	16.4	17.5	16.8	17.9	18.3	16.3	17.4	16.7	17.8	18.2

### UGR Viewed Endwise

4H	2H	14.1	15.4	14.5	15.7	16.1	13.8	15.1	14.2	15.4	15.8
	3H	15.7	16.8	16.2	17.2	17.6	15.5	16.6	15.9	17.0	17.4
	4H	16.4	17.4	16.8	17.8	18.2	16.2	17.2	16.6	17.6	18.0
	6H	17.0	17.9	17.5	18.3	18.8	16.9	17.7	17.4	18.2	18.6
	8H	17.3	18.1	17.7	18.5	19.0	17.2	18.0	17.7	18.4	18.9
	12H	17.5	18.2	18.0	18.7	19.1	17.5	18.2	18.0	18.7	19.1
8H	4H	16.7	17.5	17.1	17.9	18.4	16.5	17.3	16.9	17.7	18.2
	6H	17.4	18.1	17.9	18.6	19.0	17.3	18.0	17.8	18.5	18.9
	8H	17.7	18.3	18.3	18.9	19.3	17.7	18.3	18.2	18.8	19.3
	12H	18.0	18.6	18.5	19.1	19.6	18.1	18.6	18.6	19.1	19.7
12H	4H	16.7	17.4	17.2	17.9	18.4	16.5	17.2	17.0	17.7	18.2
	6H	17.5	18.1	18.0	18.6	19.1	17.4	18.0	17.9	18.5	19.0
	8H	17.9	18.4	18.4	18.9	19.5	17.8	18.4	18.4	18.9	19.4

Maximum UGR = 19.7

POLAR GRAPH



Maximum Candela = 1911.965 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.)