



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S24-L59-840-FAF12125-(L35)-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] 07-12-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x4' LED TROFFER

[MORE] FROSTED ACRYLIC LENS

[LUMCAT] 50G-S24-L59-840-FAF12125-(L35)-DIM-UNV

[LAMPCAT] HLM 80 CRI, 4000K CCT

[\_SEARCH\_SOURCE]TYPE]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	3536
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	148
Total Luminaire Watts	23.9
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	1918	1891	1865
55	1583	1530	1483
65	1273	1196	1181
75	1031	988	1042
85	1030	1030	1215

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 50G-S24-L59-840-FAF12125-(L35)-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>	1592.253	1592.253	1592.253	1592.253	1592.253
<b>5</b>	1576.579	1575.552	1574.267	1573.496	1573.496
<b>10</b>	1548.059	1546.261	1547.545	1548.059	1548.059
<b>15</b>	1484.852	1484.852	1484.852	1486.651	1487.422
<b>20</b>	1429.610	1429.610	1431.409	1433.978	1431.409
<b>25</b>	1309.106	1307.821	1311.675	1313.988	1313.474
<b>30</b>	1206.073	1204.788	1207.358	1207.358	1209.927
<b>35</b>	1085.055	1084.541	1082.485	1081.971	1086.853
<b>40</b>	960.182	957.870	952.731	948.620	952.217
<b>45</b>	842.247	839.164	830.428	822.977	818.866
<b>50</b>	692.708	686.542	679.604	668.042	661.105
<b>55</b>	563.725	554.218	544.968	530.837	528.267
<b>60</b>	436.283	428.832	417.012	405.964	404.679
<b>65</b>	334.021	327.855	313.980	309.869	309.869
<b>70</b>	243.322	239.724	227.905	232.273	232.787
<b>75</b>	165.726	163.156	158.788	164.441	167.524
<b>80</b>	111.769	109.970	109.970	114.852	118.449
<b>85</b>	55.756	53.957	55.756	63.207	65.776
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 50G-S24-L59-840-FAF12125-(L35)-DIM-UNV\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	569.87	N.A.	16.10
0-30	1176.18	N.A.	33.30
0-40	1853.44	N.A.	52.40
0-60	2976.75	N.A.	84.20
0-80	3473.52	N.A.	98.20
0-90	3535.96	N.A.	100.00
10-90	3386.41	N.A.	95.80
20-40	1283.57	N.A.	36.30
20-50	1918.84	N.A.	54.30
40-70	1442.34	N.A.	40.80
60-80	496.78	N.A.	14.00
70-80	177.74	N.A.	5.00
80-90	62.43	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	3535.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	149.54
10-20	420.32
20-30	606.31
30-40	677.27
40-50	635.27
50-60	488.04
60-70	319.04
70-80	177.74
80-90	62.43
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 RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	89	89	89	89	86	86	86	86	83	83	83	79	79	79	76	76	76	74
1	82	78	75	73	80	77	74	71	73	71	69	71	69	67	68	66	65	64
2	75	69	64	60	73	68	63	60	65	61	58	63	60	57	60	58	56	54
3	69	61	56	51	67	60	55	51	58	54	50	56	52	49	54	51	48	47
4	63	55	49	44	62	54	48	44	52	47	43	50	46	43	49	45	42	41
5	58	49	43	38	57	49	43	38	47	42	38	46	41	37	44	40	37	36
6	54	45	39	34	53	44	38	34	43	38	34	42	37	33	40	36	33	32
7	50	41	35	30	49	40	34	30	39	34	30	38	33	30	37	33	30	28
8	47	37	31	27	46	37	31	27	36	31	27	35	30	27	34	30	27	25
9	44	35	29	25	43	34	29	25	33	28	25	33	28	24	32	27	24	23
10	41	32	26	23	41	32	26	23	31	26	22	30	26	22	30	25	22	21

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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	14.1	15.6	14.4	15.9	16.2	13.7	15.2	14.1	15.5	15.9
	3H	15.5	16.9	15.9	17.2	17.6	15.1	16.5	15.5	16.9	17.2
	4H	16.0	17.3	16.4	17.7	18.1	15.7	17.0	16.1	17.4	17.8
	6H	16.5	17.7	16.9	18.1	18.5	16.3	17.5	16.7	17.8	18.2
	8H	16.7	17.8	17.1	18.2	18.6	16.5	17.7	16.9	18.0	18.4
	12H	16.8	17.9	17.2	18.3	18.7	16.7	17.8	17.1	18.2	18.6

### UGR Viewed Endwise

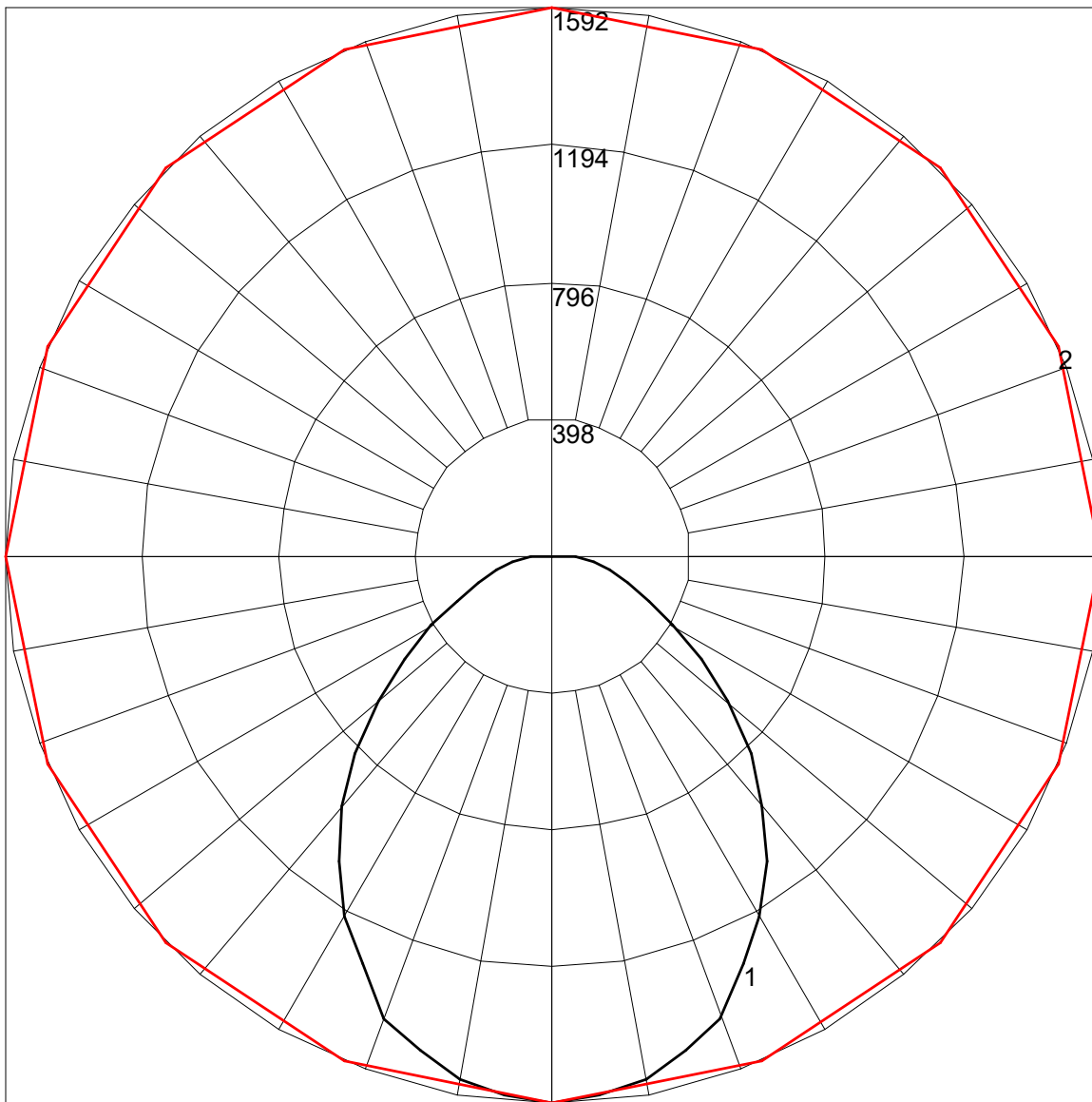
4H	2H	14.5	15.8	14.9	16.1	16.5	14.2	15.5	14.6	15.8	16.2
	3H	16.1	17.2	16.6	17.6	18.0	15.9	17.0	16.3	17.4	17.8
	4H	16.8	17.8	17.2	18.2	18.6	16.6	17.6	17.0	18.0	18.4
	6H	17.4	18.3	17.9	18.7	19.2	17.3	18.1	17.8	18.6	19.0
	8H	17.7	18.5	18.1	18.9	19.4	17.6	18.4	18.1	18.8	19.3
	12H	17.9	18.6	18.4	19.1	19.5	17.9	18.6	18.4	19.1	19.5

8H	4H	17.1	17.9	17.5	18.3	18.8	16.9	17.7	17.3	18.1	18.6
	6H	17.8	18.5	18.3	19.0	19.4	17.7	18.4	18.2	18.9	19.3
	8H	18.1	18.7	18.7	19.3	19.7	18.1	18.7	18.6	19.2	19.7
	12H	18.4	19.0	18.9	19.5	20.0	18.5	19.0	19.0	19.5	20.1

12H	4H	17.1	17.8	17.6	18.3	18.8	16.9	17.6	17.4	18.1	18.6
	6H	17.9	18.5	18.4	19.0	19.5	17.8	18.4	18.3	18.9	19.4
	8H	18.3	18.8	18.8	19.3	19.9	18.2	18.8	18.8	19.3	19.8

Maximum UGR = 20.1

POLAR GRAPH



Maximum Candela = 1592.253 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)