



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S14-L65-840-FAF12125-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18123.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 11-01-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 1x4' LED TROFFER

[MORE] WITH FROSTED ACRYLIC LENS

[LUMCAT] 50G-S14-L65-840-FAF12125-DIM-UNV

[LAMPCAT] HLM 80 CRI, 4000K 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	6760
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	55.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.77 ft
Luminous Width (90-270)	0.77 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8798	8350	7833
55	7056	6411	5779
65	5659	4982	4603
75	4510	4171	4171
85	4595	4158	4595

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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>	3110.322	3110.322	3110.322	3110.322	3110.322
<b>5</b>	3102.072	3101.041	3102.072	3101.041	3104.135
<b>10</b>	3050.508	3050.508	3048.446	3048.446	3048.446
<b>15</b>	2931.912	2931.912	2926.756	2926.756	2925.724
<b>20</b>	2840.128	2838.066	2831.878	2827.753	2826.722
<b>25</b>	2590.560	2584.373	2577.154	2566.841	2566.841
<b>30</b>	2388.430	2380.180	2360.586	2337.898	2330.679
<b>35</b>	2181.144	2170.832	2138.862	2097.611	2082.142
<b>40</b>	1906.826	1889.294	1844.949	1791.323	1766.572
<b>45</b>	1682.008	1654.163	1596.412	1523.192	1497.410
<b>50</b>	1371.594	1338.594	1274.655	1197.309	1174.621
<b>55</b>	1094.182	1063.243	994.148	922.990	896.177
<b>60</b>	840.488	809.550	751.799	697.141	675.484
<b>65</b>	646.609	620.827	569.263	535.231	525.950
<b>70</b>	463.042	445.510	407.353	397.040	398.072
<b>75</b>	315.570	306.288	291.851	284.632	291.851
<b>80</b>	210.380	204.192	194.911	200.067	203.161
<b>85</b>	108.284	103.127	97.971	107.252	108.284
<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	1123.72	N.A.	16.60
0-30	2315.78	N.A.	34.30
0-40	3640.84	N.A.	53.90
0-60	5750.96	N.A.	85.10
0-80	6648.1	N.A.	98.30
0-90	6759.67	N.A.	100.00
10-90	6465.36	N.A.	95.60
20-40	2517.12	N.A.	37.20
20-50	3730.75	N.A.	55.20
40-70	2686.64	N.A.	39.70
60-80	897.14	N.A.	13.30
70-80	320.62	N.A.	4.70
80-90	111.57	N.A.	1.70
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	6759.67	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	294.31
10-20	829.41
20-30	1192.06
30-40	1325.07
40-50	1213.62
50-60	896.49
60-70	576.52
70-80	320.62
80-90	111.57
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	102	98	107	103	100	96	99	96	93	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	73	69	65	63
4	86	74	66	60	83	73	66	60	71	64	59	68	63	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39
8	64	51	43	37	62	50	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	58	47	39	34	45	39	34	44	38	34	43	38	33	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	31	29

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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	18.2	19.7	18.5	20.0	20.3	17.1	18.6	17.4	18.9	19.2
	3H	19.6	20.9	20.0	21.3	21.6	18.5	19.9	18.9	20.2	20.6
	4H	20.1	21.4	20.5	21.7	22.1	19.1	20.4	19.5	20.7	21.1
	6H	20.6	21.7	21.0	22.1	22.5	19.7	20.8	20.1	21.2	21.6
	8H	20.7	21.9	21.2	22.2	22.6	19.9	21.0	20.3	21.4	21.8
	12H	20.9	22.0	21.3	22.3	22.8	20.1	21.2	20.5	21.5	22.0

### UGR Viewed Endwise

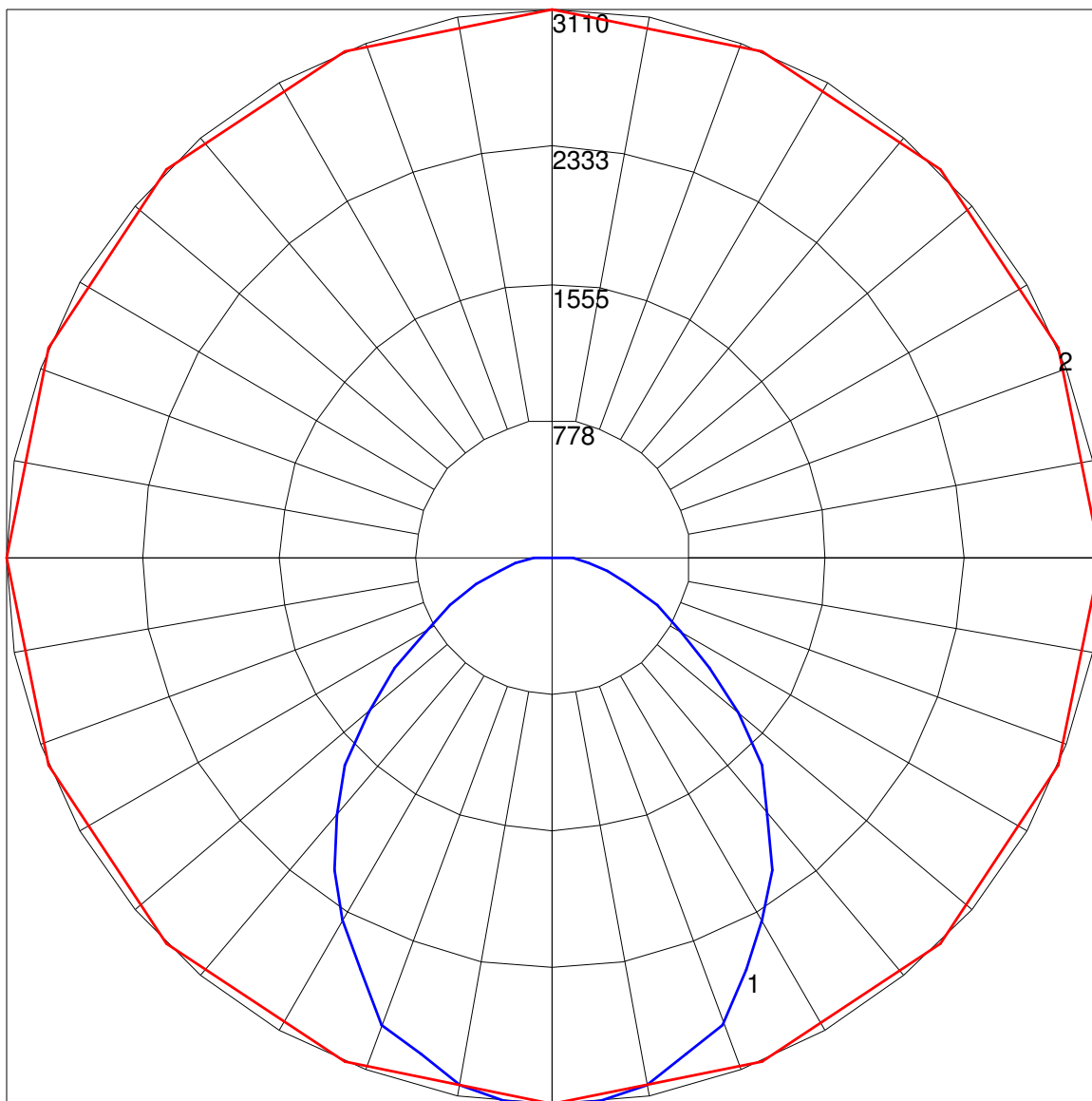
4H	2H	18.5	19.8	18.9	20.2	20.5	17.6	18.9	18.0	19.3	19.6
	3H	20.2	21.2	20.6	21.6	22.0	19.3	20.4	19.7	20.8	21.2
	4H	20.8	21.8	21.3	22.2	22.6	20.0	21.0	20.4	21.4	21.8
	6H	21.4	22.3	21.9	22.7	23.2	20.7	21.5	21.2	22.0	22.4
	8H	21.7	22.5	22.1	22.9	23.4	21.0	21.8	21.5	22.2	22.7
	12H	21.9	22.6	22.4	23.1	23.5	21.3	22.0	21.7	22.4	22.9

8H	4H	21.0	21.8	21.5	22.3	22.7	20.3	21.1	20.8	21.5	22.0
	6H	21.8	22.4	22.3	22.9	23.4	21.2	21.8	21.6	22.3	22.8
	8H	22.1	22.7	22.6	23.2	23.7	21.6	22.1	22.1	22.6	23.1
	12H	22.4	22.9	22.9	23.4	24.0	21.9	22.4	22.4	22.9	23.5

12H	4H	21.1	21.8	21.5	22.2	22.7	20.3	21.1	20.8	21.5	22.0
	6H	21.9	22.4	22.4	22.9	23.4	21.3	21.8	21.8	22.3	22.8
	8H	22.2	22.8	22.7	23.2	23.8	21.7	22.2	22.2	22.7	23.3

Maximum UGR = 24.0

POLAR GRAPH



Maximum Candela = 3110.322 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.)