



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S14-L45-850-SAF12125-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

[ISSUEDATE] 06-17-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 1x4' LED TROFFER

[MORE] WITH FROSTED ACRYLIC LENS

[LUMCAT] 50G-S14-L45-850-SAF12125-DIM-UNV

[LAMPCAT] HLM 80 CRI, 5000K 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	4570
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	33.7
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	5948	5645	5295
55	4770	4334	3907
65	3826	3368	3112
75	3049	2820	2820
85	3107	2811	3107

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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>	2102.688	2102.688	2102.688	2102.688	2102.688
<b>5</b>	2097.111	2096.413	2097.111	2096.413	2098.505
<b>10</b>	2062.252	2062.252	2060.857	2060.857	2060.857
<b>15</b>	1982.076	1982.076	1978.590	1978.590	1977.893
<b>20</b>	1920.027	1918.633	1914.450	1911.661	1910.964
<b>25</b>	1751.310	1747.127	1742.247	1735.275	1735.275
<b>30</b>	1614.664	1609.086	1595.840	1580.502	1575.622
<b>35</b>	1474.531	1467.559	1445.947	1418.059	1407.602
<b>40</b>	1289.082	1277.230	1247.251	1210.998	1194.265
<b>45</b>	1137.097	1118.273	1079.231	1029.731	1012.302
<b>50</b>	927.246	904.937	861.712	809.423	794.085
<b>55</b>	739.706	718.790	672.079	623.974	605.847
<b>60</b>	568.200	547.285	508.243	471.292	456.651
<b>65</b>	437.130	419.701	384.842	361.835	355.561
<b>70</b>	313.033	301.181	275.385	268.413	269.111
<b>75</b>	213.336	207.062	197.301	192.421	197.301
<b>80</b>	142.224	138.041	131.767	135.252	137.344
<b>85</b>	73.204	69.718	66.232	72.506	73.204
<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	759.67	N.A.	16.60
0-30	1565.55	N.A.	34.30
0-40	2461.34	N.A.	53.90
0-60	3887.85	N.A.	85.10
0-80	4494.35	N.A.	98.30
0-90	4569.78	N.A.	100.00
10-90	4370.81	N.A.	95.60
20-40	1701.66	N.A.	37.20
20-50	2522.12	N.A.	55.20
40-70	1816.26	N.A.	39.70
60-80	606.50	N.A.	13.30
70-80	216.75	N.A.	4.70
80-90	75.43	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	4569.78	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	198.96
10-20	560.71
20-30	805.87
30-40	895.79
40-50	820.45
50-60	606.06
60-70	389.75
70-80	216.75
80-90	75.43
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	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

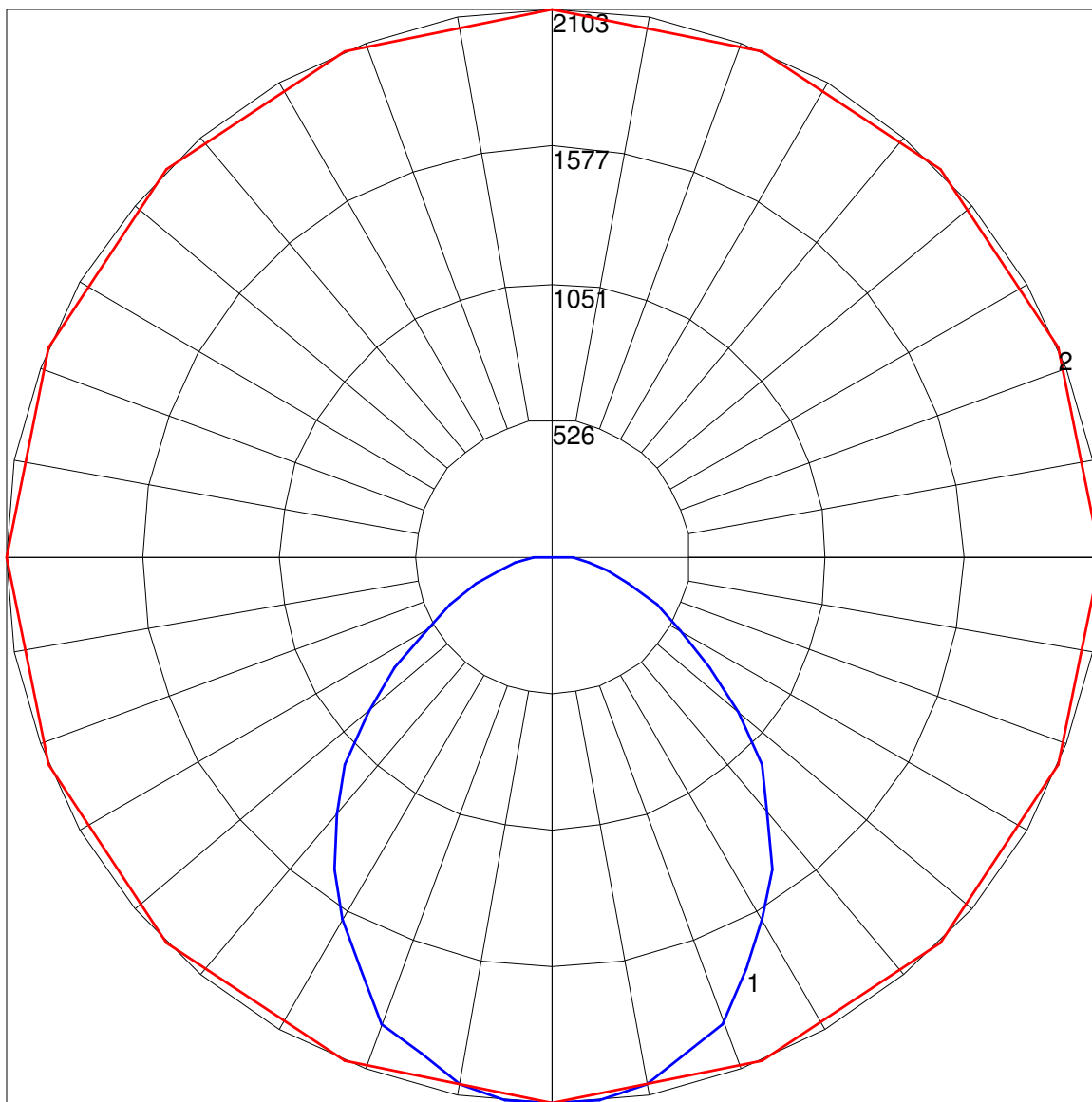
X=2H	Y=2H	16.9	18.4	17.2	18.7	19.0	15.8	17.3	16.1	17.6	17.9
	3H	18.3	19.6	18.7	20.0	20.3	17.2	18.6	17.6	18.9	19.3
	4H	18.8	20.1	19.2	20.4	20.8	17.8	19.1	18.2	19.4	19.8
	6H	19.3	20.4	19.7	20.8	21.2	18.4	19.5	18.8	19.9	20.3
	8H	19.4	20.6	19.9	20.9	21.3	18.6	19.7	19.0	20.1	20.5
	12H	19.6	20.7	20.0	21.0	21.5	18.8	19.9	19.2	20.2	20.7

UGR Viewed Endwise

4H	2H	17.2	18.5	17.6	18.9	19.2	16.3	17.6	16.7	18.0	18.3
	3H	18.9	19.9	19.3	20.3	20.7	18.0	19.1	18.4	19.5	19.9
	4H	19.5	20.5	20.0	20.9	21.3	18.7	19.7	19.1	20.1	20.5
	6H	20.1	21.0	20.6	21.4	21.9	19.4	20.2	19.9	20.7	21.1
	8H	20.4	21.2	20.8	21.6	22.1	19.7	20.5	20.2	20.9	21.4
	12H	20.6	21.3	21.1	21.8	22.2	20.0	20.7	20.4	21.1	21.6
8H	4H	19.7	20.5	20.2	21.0	21.4	19.0	19.8	19.5	20.2	20.7
	6H	20.5	21.1	21.0	21.6	22.1	19.9	20.5	20.3	21.0	21.5
	8H	20.8	21.4	21.3	21.9	22.4	20.3	20.8	20.8	21.3	21.8
	12H	21.1	21.6	21.6	22.1	22.7	20.6	21.1	21.1	21.6	22.2
12H	4H	19.8	20.5	20.2	20.9	21.4	19.0	19.8	19.5	20.2	20.7
	6H	20.6	21.1	21.1	21.6	22.1	20.0	20.5	20.5	21.0	21.5
	8H	20.9	21.5	21.4	21.9	22.5	20.4	20.9	20.9	21.4	22.0

Maximum UGR = 22.7

POLAR GRAPH



Maximum Candela = 2102.688 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.)