



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S14-L45-835-SAF12125-(L38)-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] 07-23-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 1x4' LED TROFFER

[MORE] WITH FROSTED ACRYLIC LENS

[LUMCAT] 50G-S14-L45-835-(L38)-SAF12125-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	3704
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	114
Total Luminaire Watts	32.4
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	4821	4575	4292
55	3866	3513	3166
65	3101	2730	2522
75	2471	2285	2285
85	2518	2278	2518

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : 50G-S14-L45-835-SAF12125-(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>	1704.235	1704.235	1704.235	1704.235	1704.235
<b>5</b>	1699.715	1699.150	1699.715	1699.150	1700.845
<b>10</b>	1671.462	1671.462	1670.332	1670.332	1670.332
<b>15</b>	1606.479	1606.479	1603.654	1603.654	1603.089
<b>20</b>	1556.188	1555.058	1551.668	1549.408	1548.843
<b>25</b>	1419.443	1416.052	1412.097	1406.446	1406.446
<b>30</b>	1308.690	1304.170	1293.433	1281.002	1277.046
<b>35</b>	1195.112	1189.461	1171.944	1149.342	1140.866
<b>40</b>	1044.805	1035.199	1010.901	981.518	967.956
<b>45</b>	921.621	906.364	874.720	834.601	820.474
<b>50</b>	751.536	733.454	698.420	656.040	643.609
<b>55</b>	599.534	582.582	544.722	505.733	491.041
<b>60</b>	460.528	443.576	411.932	381.984	370.117
<b>65</b>	354.296	340.169	311.916	293.269	288.183
<b>70</b>	253.714	244.108	223.201	217.550	218.115
<b>75</b>	172.910	167.824	159.913	155.958	159.913
<b>80</b>	115.273	111.883	106.797	109.623	111.318
<b>85</b>	59.332	56.506	53.681	58.767	59.332
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	615.72	N.A.	16.60
0-30	1268.88	N.A.	34.30
0-40	1994.92	N.A.	53.90
0-60	3151.12	N.A.	85.10
0-80	3642.69	N.A.	98.30
0-90	3703.82	N.A.	100.00
10-90	3542.56	N.A.	95.60
20-40	1379.2	N.A.	37.20
20-50	2044.18	N.A.	55.20
40-70	1472.09	N.A.	39.70
60-80	491.57	N.A.	13.30
70-80	175.68	N.A.	4.70
80-90	61.13	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	3703.82	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	161.26
10-20	454.46
20-30	653.16
30-40	726.04
40-50	664.98
50-60	491.21
60-70	315.89
70-80	175.68
80-90	61.13
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	16.1	17.6	16.4	17.9	18.2	15.0	16.5	15.3	16.8	17.1
	3H	17.5	18.8	17.9	19.2	19.5	16.4	17.8	16.8	18.1	18.5
	4H	18.0	19.3	18.4	19.6	20.0	17.0	18.3	17.4	18.6	19.0
	6H	18.5	19.6	18.9	20.0	20.4	17.6	18.7	18.0	19.1	19.5
	8H	18.6	19.8	19.1	20.1	20.5	17.8	18.9	18.2	19.3	19.7
	12H	18.8	19.9	19.2	20.2	20.7	18.0	19.1	18.4	19.4	19.9

### UGR Viewed Endwise

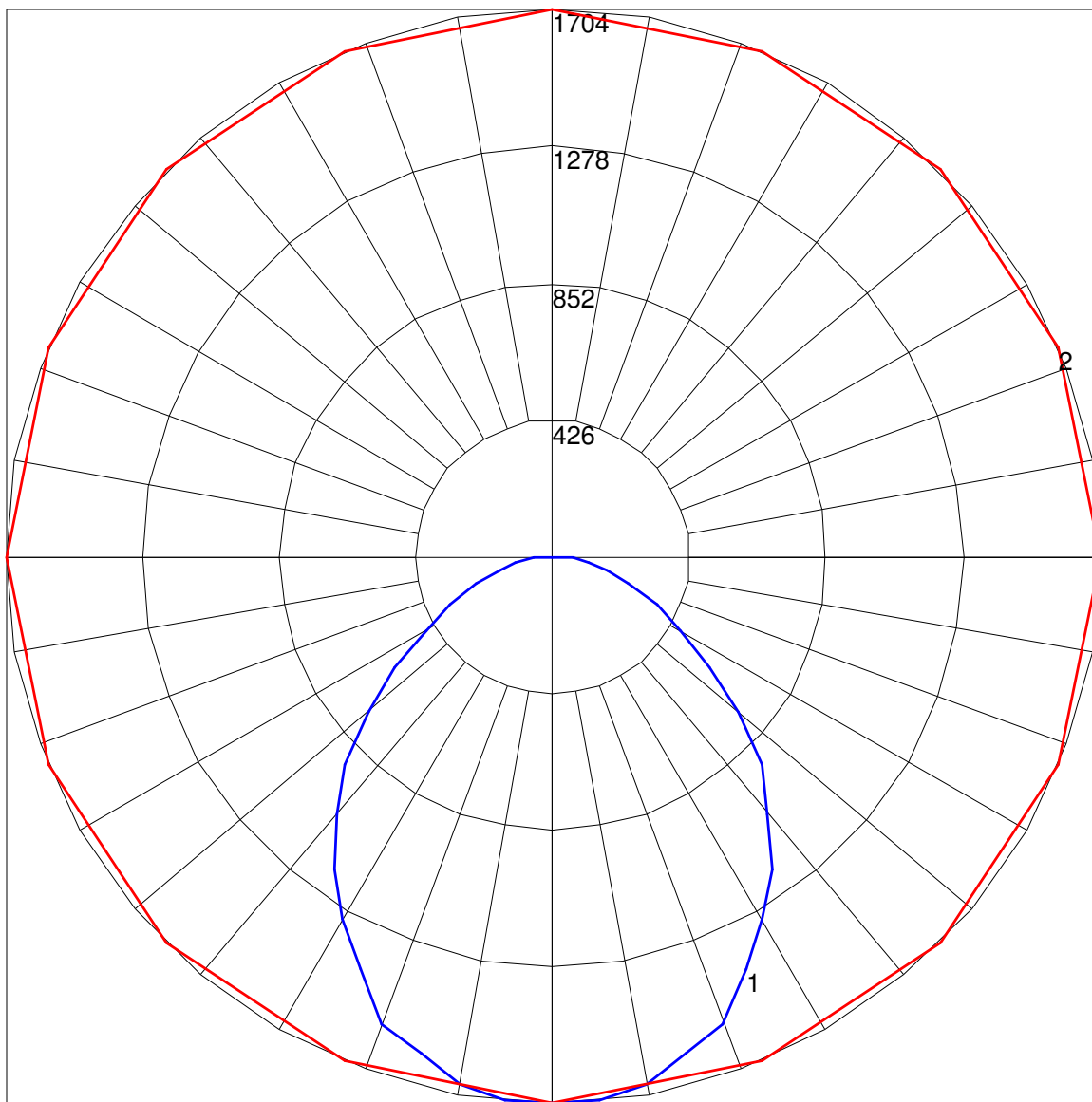
4H	2H	16.4	17.7	16.8	18.1	18.4	15.5	16.8	15.9	17.2	17.5
	3H	18.1	19.1	18.5	19.5	19.9	17.2	18.3	17.6	18.7	19.1
	4H	18.7	19.7	19.2	20.1	20.5	17.9	18.9	18.3	19.3	19.7
	6H	19.3	20.2	19.8	20.6	21.1	18.6	19.4	19.1	19.9	20.3
	8H	19.6	20.4	20.0	20.8	21.3	18.9	19.7	19.4	20.1	20.6
	12H	19.8	20.5	20.3	21.0	21.4	19.2	19.9	19.6	20.3	20.8

8H	4H	18.9	19.7	19.4	20.2	20.6	18.2	19.0	18.7	19.4	19.9
	6H	19.7	20.3	20.2	20.8	21.3	19.1	19.7	19.5	20.2	20.7
	8H	20.0	20.6	20.5	21.1	21.6	19.5	20.0	20.0	20.5	21.0
	12H	20.3	20.8	20.8	21.3	21.9	19.8	20.3	20.3	20.8	21.4

12H	4H	19.0	19.7	19.4	20.1	20.6	18.2	19.0	18.7	19.4	19.9
	6H	19.8	20.3	20.3	20.8	21.3	19.2	19.7	19.7	20.2	20.7
	8H	20.1	20.7	20.6	21.1	21.7	19.6	20.1	20.1	20.6	21.2

Maximum UGR = 21.9

POLAR GRAPH



Maximum Candela = 1704.235 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.)