



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S14-L27-835-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] 05-19-2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO. 64836  
 [LUMINAIRE] 1x4' LED TROFFER  
 [MORE] WITH FROSTED ACRYLIC LENS  
 [LUMCAT] 50G-S14-L27-835-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	2637
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	20.1
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	3432	3257	3055
55	2752	2501	2254
65	2208	1943	1796
75	1759	1627	1627
85	1793	1622	1793

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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>	1213.301	1213.301	1213.301	1213.301	1213.301
<b>5</b>	1210.083	1209.681	1210.083	1209.681	1210.888
<b>10</b>	1189.969	1189.969	1189.164	1189.164	1189.164
<b>15</b>	1143.706	1143.706	1141.694	1141.694	1141.292
<b>20</b>	1107.902	1107.097	1104.684	1103.074	1102.672
<b>25</b>	1010.548	1008.134	1005.318	1001.296	1001.296
<b>30</b>	931.700	928.481	920.838	911.988	909.172
<b>35</b>	850.840	846.817	834.346	818.254	812.220
<b>40</b>	743.831	736.992	719.694	698.775	689.120
<b>45</b>	656.132	645.270	622.742	594.180	584.123
<b>50</b>	535.043	522.170	497.228	467.057	458.206
<b>55</b>	426.828	414.759	387.806	360.048	349.589
<b>60</b>	327.865	315.796	293.268	271.947	263.499
<b>65</b>	252.235	242.178	222.063	208.788	205.167
<b>70</b>	180.627	173.789	158.904	154.881	155.283
<b>75</b>	123.100	119.480	113.848	111.032	113.848
<b>80</b>	82.067	79.653	76.032	78.044	79.251
<b>85</b>	42.240	40.229	38.217	41.838	42.240
<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	438.35	N.A.	16.60
0-30	903.36	N.A.	34.30
0-40	1420.25	N.A.	53.90
0-60	2243.38	N.A.	85.10
0-80	2593.35	N.A.	98.30
0-90	2636.87	N.A.	100.00
10-90	2522.07	N.A.	95.60
20-40	981.90	N.A.	37.20
20-50	1455.32	N.A.	55.20
40-70	1048.03	N.A.	39.70
60-80	349.97	N.A.	13.30
70-80	125.07	N.A.	4.70
80-90	43.52	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	2636.87	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	114.81
10-20	323.54
20-30	465.01
30-40	516.89
40-50	473.42
50-60	349.71
60-70	224.89
70-80	125.07
80-90	43.52
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	15.0	16.5	15.3	16.8	17.1	13.9	15.4	14.2	15.7	16.0
	3H	16.4	17.7	16.8	18.1	18.4	15.3	16.7	15.7	17.0	17.4
	4H	16.9	18.2	17.3	18.5	18.9	15.9	17.2	16.3	17.5	17.9
	6H	17.4	18.5	17.8	18.9	19.3	16.5	17.6	16.9	18.0	18.4
	8H	17.5	18.7	18.0	19.0	19.4	16.7	17.8	17.1	18.2	18.6
	12H	17.7	18.8	18.1	19.1	19.6	16.9	18.0	17.3	18.3	18.8

UGR Viewed Endwise

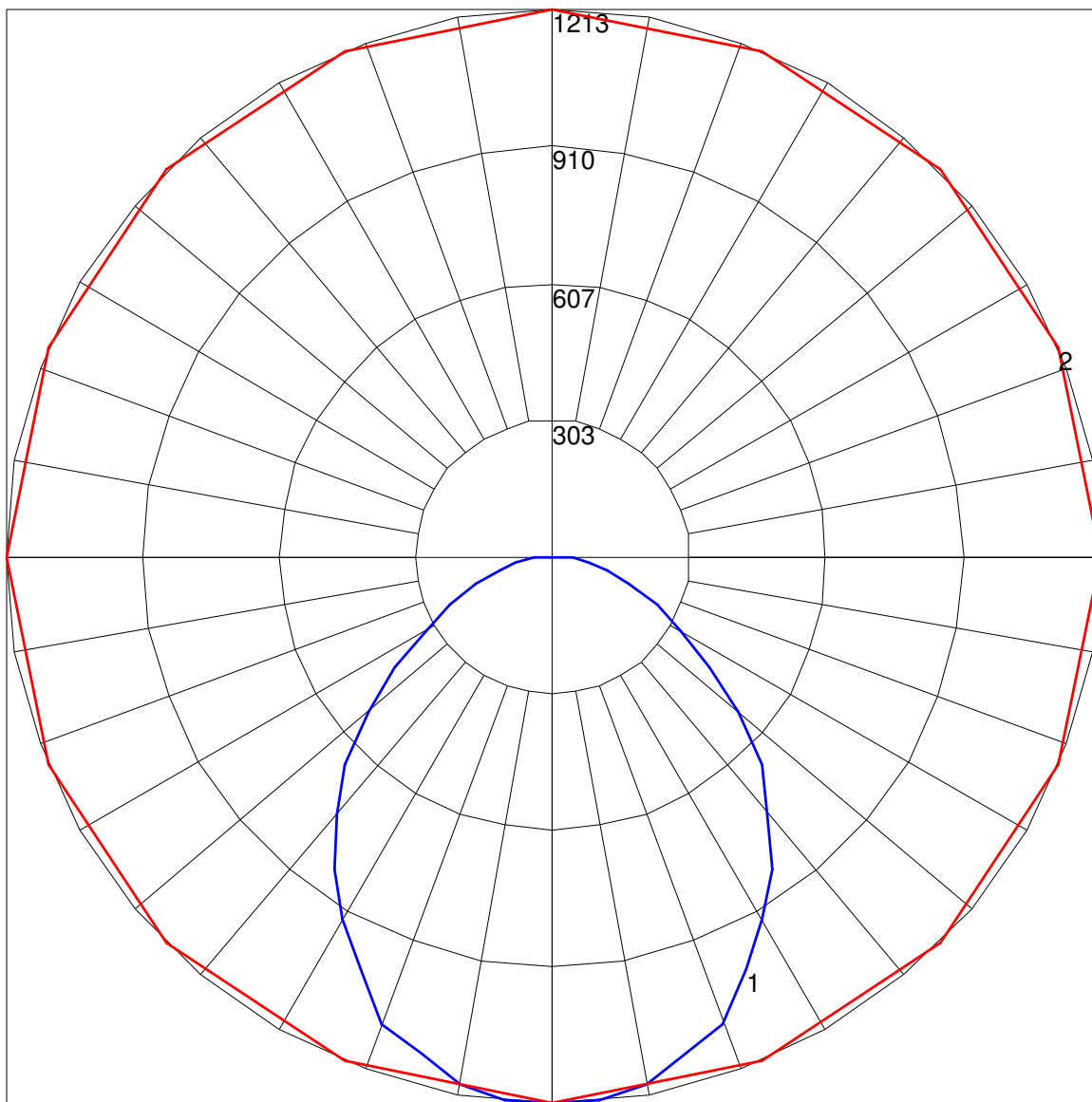
4H	2H	15.3	16.6	15.7	17.0	17.3	14.4	15.7	14.8	16.1	16.4
	3H	17.0	18.0	17.4	18.4	18.8	16.1	17.2	16.5	17.6	18.0
	4H	17.6	18.6	18.1	19.0	19.4	16.8	17.8	17.2	18.2	18.6
	6H	18.2	19.1	18.7	19.5	20.0	17.5	18.3	18.0	18.8	19.2
	8H	18.5	19.3	18.9	19.7	20.2	17.8	18.6	18.3	19.0	19.5
	12H	18.7	19.4	19.2	19.9	20.3	18.1	18.8	18.5	19.2	19.7

8H	4H	17.8	18.6	18.3	19.1	19.5	17.1	17.9	17.6	18.3	18.8
	6H	18.6	19.2	19.1	19.7	20.2	18.0	18.6	18.4	19.1	19.6
	8H	18.9	19.5	19.4	20.0	20.5	18.4	18.9	18.9	19.4	19.9
	12H	19.2	19.7	19.7	20.2	20.8	18.7	19.2	19.2	19.7	20.3

12H	4H	17.9	18.6	18.3	19.0	19.5	17.1	17.9	17.6	18.3	18.8
	6H	18.7	19.2	19.2	19.7	20.2	18.1	18.6	18.6	19.1	19.6
	8H	19.0	19.6	19.5	20.0	20.6	18.5	19.0	19.0	19.5	20.1

Maximum UGR = 20.8

POLAR GRAPH



Maximum Candela = 1213.301 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.)