



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S14-L65-840-SAF12125-(L59)-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] 12-08-2021  
 [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-SAF12125-(L59)-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	6102
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	47.2
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	7942	7538	7070
55	6369	5787	5217
65	5108	4497	4155
75	4071	3765	3765
85	4148	3753	4148

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
<b>0</b>	2807.572	2807.572	2807.572	2807.572	2807.572
<b>5</b>	2800.125	2799.194	2800.125	2799.194	2801.987
<b>10</b>	2753.580	2753.580	2751.718	2751.718	2751.718
<b>15</b>	2646.527	2646.527	2641.873	2641.873	2640.942
<b>20</b>	2563.678	2561.816	2556.231	2552.507	2551.576
<b>25</b>	2338.402	2332.817	2326.300	2316.991	2316.991
<b>30</b>	2155.947	2148.500	2130.813	2110.333	2103.817
<b>35</b>	1968.838	1959.529	1930.671	1893.435	1879.472
<b>40</b>	1721.220	1705.395	1665.367	1616.960	1594.619
<b>45</b>	1518.286	1493.152	1441.022	1374.928	1351.656
<b>50</b>	1238.087	1208.299	1150.583	1080.766	1060.287
<b>55</b>	987.677	959.750	897.380	833.149	808.946
<b>60</b>	758.677	730.751	678.621	629.283	609.735
<b>65</b>	583.670	560.397	513.853	483.133	474.755
<b>70</b>	417.971	402.146	367.703	358.394	359.325
<b>75</b>	284.853	276.475	263.443	256.926	263.443
<b>80</b>	189.902	184.317	175.939	180.593	183.386
<b>85</b>	97.744	93.089	88.435	96.813	97.744
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	1014.34	N.A.	16.60
0-30	2090.37	N.A.	34.30
0-40	3286.45	N.A.	53.90
0-60	5191.17	N.A.	85.10
0-80	6000.99	N.A.	98.30
0-90	6101.7	N.A.	100.00
10-90	5836.04	N.A.	95.60
20-40	2272.11	N.A.	37.20
20-50	3367.61	N.A.	55.20
40-70	2425.13	N.A.	39.70
60-80	809.82	N.A.	13.30
70-80	289.41	N.A.	4.70
80-90	100.71	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	6101.7	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	265.66
10-20	748.68
20-30	1076.03
30-40	1196.09
40-50	1095.49
50-60	809.23
60-70	520.40
70-80	289.41
80-90	100.71
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	17.9	19.4	18.2	19.7	20.0	16.8	18.3	17.1	18.6	18.9
	3H	19.3	20.6	19.7	21.0	21.3	18.2	19.6	18.6	19.9	20.3
	4H	19.8	21.1	20.2	21.4	21.8	18.8	20.1	19.2	20.4	20.8
	6H	20.3	21.4	20.7	21.8	22.2	19.4	20.5	19.8	20.9	21.3
	8H	20.4	21.6	20.9	21.9	22.3	19.6	20.7	20.0	21.1	21.5
	12H	20.6	21.7	21.0	22.0	22.5	19.8	20.9	20.2	21.2	21.7

### UGR Viewed Endwise

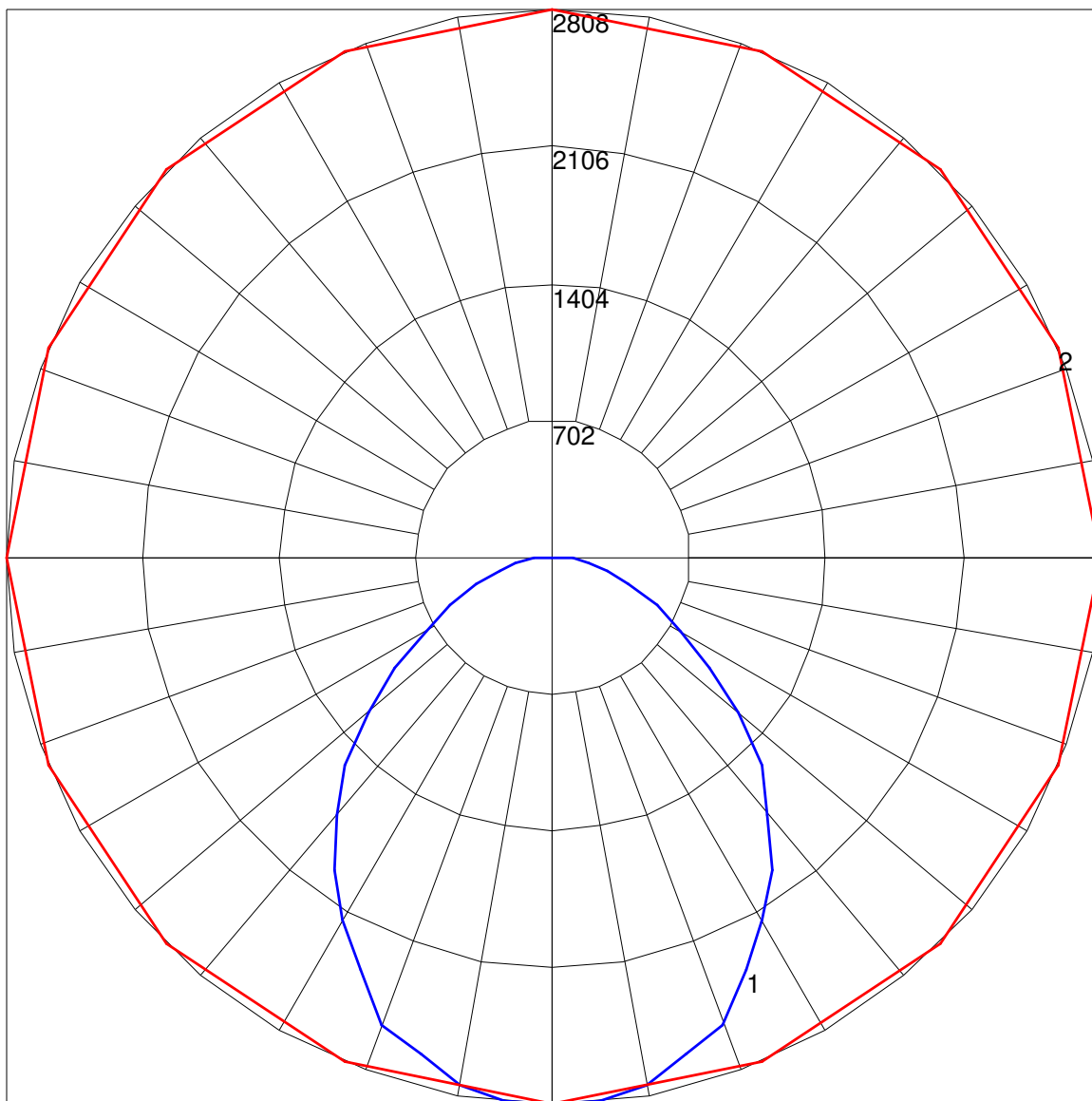
4H	2H	18.2	19.5	18.6	19.9	20.2	17.3	18.6	17.7	19.0	19.3
	3H	19.9	20.9	20.3	21.3	21.7	19.0	20.1	19.4	20.5	20.9
	4H	20.5	21.5	21.0	21.9	22.3	19.7	20.7	20.1	21.1	21.5
	6H	21.1	22.0	21.6	22.4	22.9	20.4	21.2	20.9	21.7	22.1
	8H	21.4	22.2	21.8	22.6	23.1	20.7	21.5	21.2	21.9	22.4
	12H	21.6	22.3	22.1	22.8	23.2	21.0	21.7	21.4	22.1	22.6

8H	4H	20.7	21.5	21.2	22.0	22.4	20.0	20.8	20.5	21.2	21.7
	6H	21.5	22.1	22.0	22.6	23.1	20.9	21.5	21.3	22.0	22.5
	8H	21.8	22.4	22.3	22.9	23.4	21.3	21.8	21.8	22.3	22.8
	12H	22.1	22.6	22.6	23.1	23.7	21.6	22.1	22.1	22.6	23.2

12H	4H	20.8	21.5	21.2	21.9	22.4	20.0	20.8	20.5	21.2	21.7
	6H	21.6	22.1	22.1	22.6	23.1	21.0	21.5	21.5	22.0	22.5
	8H	21.9	22.5	22.4	22.9	23.5	21.4	21.9	21.9	22.4	23.0

Maximum UGR = 23.7

POLAR GRAPH



Maximum Candela = 2807.572 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.)