



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 50G-S22-L43-835-SA19156-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 18124.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 06-22-2022

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2x2' RECESSED TROFFER

[MORE] WITH ACRYLIC LENS

[LUMCAT] 50G-S22-L43-835-SA19156-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	4101
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	33.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.77 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4549	4644	4835
55	3748	3779	3891
65	2983	2919	3046
75	2611	2517	2508
85	2576	2372	2423

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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>	1789.527	1789.527	1789.527	1789.527	1789.527
<b>5</b>	1786.934	1785.637	1781.747	1777.856	1776.560
<b>10</b>	1750.624	1751.921	1751.921	1748.679	1754.515
<b>15</b>	1718.854	1721.447	1730.525	1729.228	1738.305
<b>20</b>	1585.936	1601.497	1607.332	1614.465	1629.377
<b>25</b>	1510.724	1530.175	1539.253	1550.275	1571.023
<b>30</b>	1392.719	1405.687	1425.786	1436.160	1465.337
<b>35</b>	1246.834	1255.262	1280.549	1303.891	1331.123
<b>40</b>	1094.464	1099.003	1121.696	1145.038	1174.215
<b>45</b>	938.205	937.557	957.656	968.679	997.207
<b>50</b>	780.000	780.649	795.562	792.320	822.145
<b>55</b>	626.983	628.280	632.170	629.576	650.973
<b>60</b>	484.339	483.043	483.043	476.559	496.659
<b>65</b>	367.631	361.796	359.851	357.905	375.412
<b>70</b>	274.264	268.429	264.539	265.187	270.374
<b>75</b>	197.107	193.217	189.975	188.030	189.327
<b>80</b>	129.027	128.379	126.434	121.895	122.544
<b>85</b>	65.486	68.080	60.299	60.299	61.596
<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	650.30	N.A.	15.90
0-30	1355.59	N.A.	33.10
0-40	2155.74	N.A.	52.60
0-60	3462.7	N.A.	84.40
0-80	4032.65	N.A.	98.30
0-90	4101.19	N.A.	100.00
10-90	3932.1	N.A.	95.90
20-40	1505.44	N.A.	36.70
20-50	2244.78	N.A.	54.70
40-70	1672.26	N.A.	40.80
60-80	569.95	N.A.	13.90
70-80	204.65	N.A.	5.00
80-90	68.53	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	4101.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	169.08
10-20	481.22
20-30	705.29
30-40	800.15
40-50	739.34
50-60	567.62
60-70	365.30
70-80	204.65
80-90	68.53
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	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50	48
6	73	60	52	46	71	59	51	46	58	50	45	56	50	45	54	49	44	42
7	68	55	47	41	66	54	46	41	53	46	40	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	37	48	41	36	47	41	36	46	40	36	34
9	59	46	39	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	41	34	30	40	34	30	28

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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	16.0	17.5	16.4	17.8	18.1	16.0	17.5	16.4	17.8	18.2
	3H	17.4	18.8	17.8	19.1	19.5	17.4	18.8	17.8	19.1	19.5
	4H	18.0	19.3	18.4	19.6	20.0	17.9	19.2	18.3	19.6	20.0
	6H	18.5	19.7	18.9	20.0	20.4	18.4	19.6	18.8	20.0	20.3
	8H	18.7	19.8	19.1	20.2	20.6	18.6	19.7	19.0	20.1	20.5
	12H	18.8	19.9	19.2	20.3	20.7	18.7	19.8	19.1	20.2	20.6

UGR Viewed Endwise

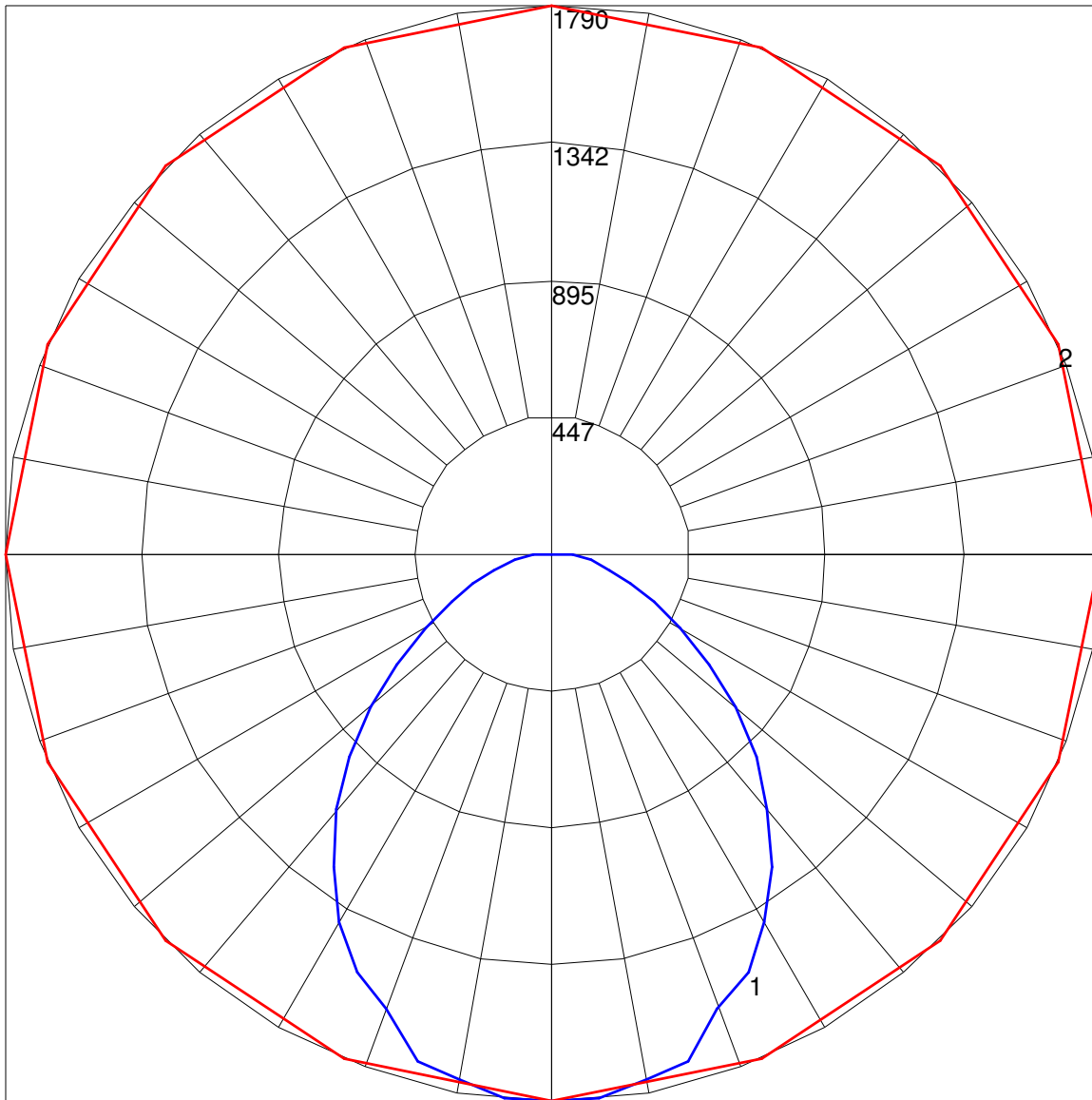
4H	2H	16.4	17.7	16.8	18.1	18.5	16.4	17.7	16.8	18.1	18.5
	3H	18.1	19.2	18.5	19.6	20.0	18.1	19.2	18.5	19.6	20.0
	4H	18.8	19.8	19.2	20.2	20.6	18.8	19.7	19.2	20.1	20.6
	6H	19.5	20.3	19.9	20.7	21.2	19.4	20.2	19.8	20.6	21.1
	8H	19.7	20.5	20.2	20.9	21.4	19.6	20.4	20.1	20.8	21.3
	12H	19.9	20.6	20.4	21.1	21.6	19.8	20.5	20.3	21.0	21.4

8H	4H	19.1	19.9	19.5	20.3	20.8	19.0	19.8	19.5	20.3	20.7
	6H	19.9	20.5	20.4	21.0	21.5	19.8	20.4	20.3	20.9	21.4
	8H	20.2	20.8	20.7	21.3	21.8	20.1	20.7	20.6	21.2	21.7
	12H	20.5	21.1	21.0	21.5	22.1	20.3	20.9	20.9	21.4	21.9

12H	4H	19.1	19.8	19.6	20.3	20.8	19.1	19.8	19.5	20.2	20.7
	6H	19.9	20.5	20.5	21.0	21.5	19.8	20.4	20.4	20.9	21.4
	8H	20.3	20.9	20.8	21.4	21.9	20.2	20.7	20.7	21.2	21.8

Maximum UGR = 22.1

POLAR GRAPH



Maximum Candela = 1789.527 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.)