



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-22-L61-930-AF-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 20203.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 2023-07-21  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 2x2 RECESSED LED LUMINAIRE  
 [MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CENTER LENS  
 [MORE] 0-10V DIMMING DRIVER  
 [LUMCAT] LT-22-L61-930-AF-DIM-UNV  
 [LAMPCAT] 22 INCH LED ARRAY  
 [\_SEARCH\_SOURCETYPE] LED  
 [\_SEARCH\_APPLICATION] Indoor, Classroom, Office, Direct  
 [\_SEARCH\_MOUNTING] Recessed

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5031
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	50.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4351	4673	5031
55	3944	4598	5187
65	3475	4553	5622
75	2674	4826	6571
85	1162	3922	3825

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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>	1674.289	1674.289	1674.289	1674.289	1674.289
<b>5</b>	1672.846	1665.636	1664.194	1658.425	1662.752
<b>10</b>	1644.004	1636.794	1642.562	1636.794	1641.120
<b>15</b>	1600.741	1597.857	1606.509	1609.394	1613.720
<b>20</b>	1531.520	1541.615	1554.593	1569.015	1571.899
<b>25</b>	1452.204	1472.393	1491.141	1514.214	1519.983
<b>30</b>	1367.119	1390.193	1417.593	1452.204	1463.741
<b>35</b>	1273.382	1293.572	1326.740	1378.656	1390.193
<b>40</b>	1166.666	1186.856	1233.003	1287.803	1306.551
<b>45</b>	1051.297	1070.045	1129.171	1186.856	1215.698
<b>50</b>	915.739	940.255	1015.245	1074.371	1116.192
<b>55</b>	772.970	807.581	901.318	966.213	1016.687
<b>60</b>	637.412	676.349	784.507	866.708	915.739
<b>65</b>	501.854	543.675	657.602	768.644	811.907
<b>70</b>	369.180	413.885	540.791	661.928	706.633
<b>75</b>	236.506	291.306	426.864	546.559	581.170
<b>80</b>	116.811	183.148	294.190	402.348	390.812
<b>85</b>	34.611	70.663	116.811	197.569	113.927
<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	610.96	N.A.	12.10
0-30	1298.59	N.A.	25.80
0-40	2132.35	N.A.	42.40
0-60	3802.77	N.A.	75.60
0-80	4891.66	N.A.	97.20
0-90	5031.3	N.A.	100.00
10-90	4873.21	N.A.	96.90
20-40	1521.39	N.A.	30.20
20-50	2392.15	N.A.	47.50
40-70	2321.39	N.A.	46.10
60-80	1088.89	N.A.	21.60
70-80	437.92	N.A.	8.70
80-90	139.64	N.A.	2.80
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	5031.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	158.09
10-20	452.87
20-30	687.62
30-40	833.76
40-50	870.77
50-60	799.65
60-70	650.97
70-80	437.92
80-90	139.64
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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	62	56	51	60	55	50	48
5	75	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	38	34	32
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	39	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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**UGR TABLE - CORRECTED**

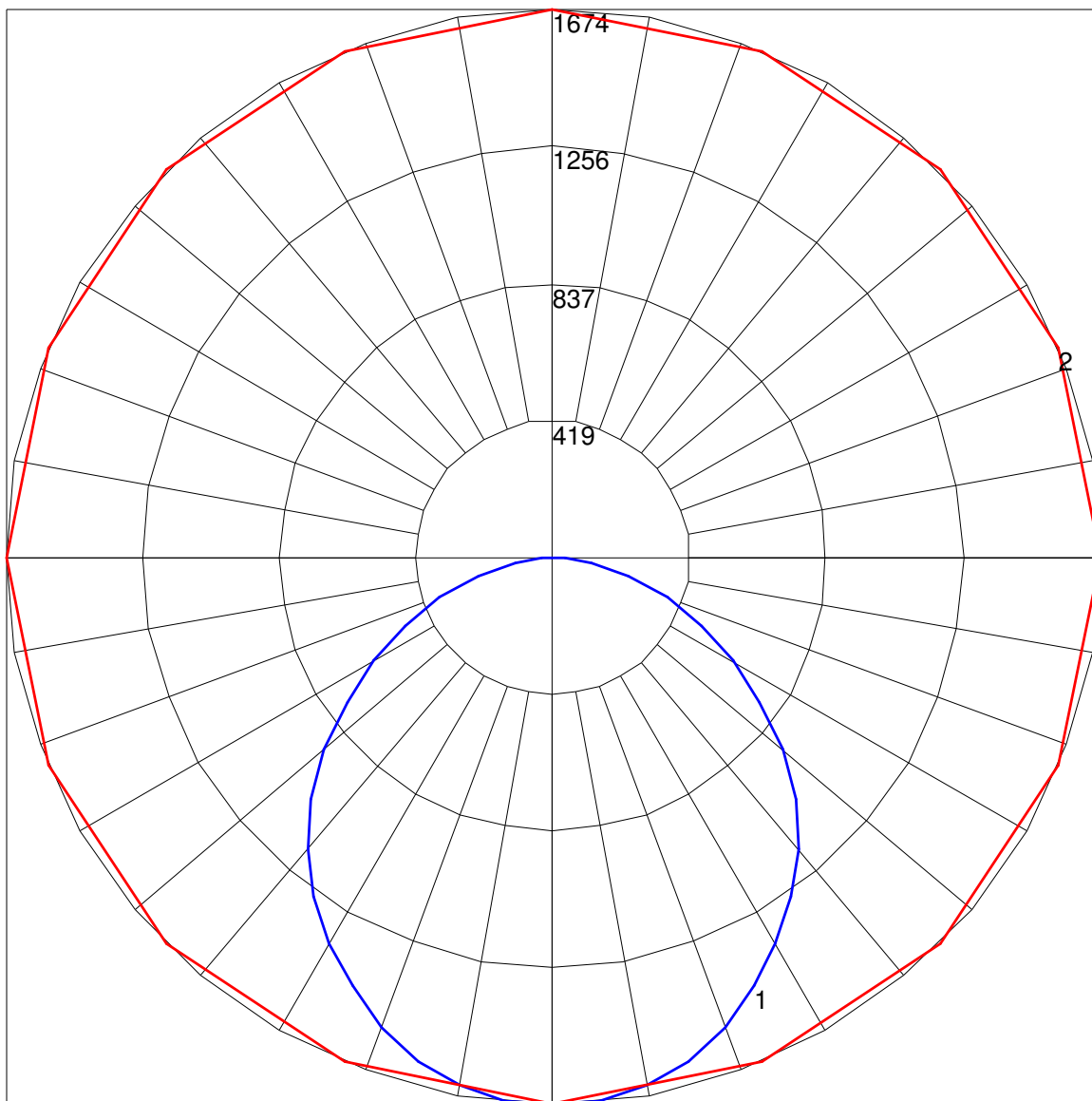
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	16.5	18.2	16.9	18.5	18.8	18.1	19.8	18.5	20.1	20.4
	3H	18.1	19.7	18.5	20.0	20.3	20.7	22.2	21.0	22.5	22.9
	4H	18.7	20.1	19.1	20.5	20.9	21.8	23.3	22.2	23.6	24.0
	6H	19.0	20.4	19.4	20.7	21.1	22.8	24.1	23.2	24.5	24.9
	8H	19.1	20.4	19.5	20.8	21.2	23.1	24.4	23.5	24.8	25.2
	12H	19.1	20.4	19.6	20.7	21.2	23.2	24.5	23.7	24.9	25.3
4H	2H	17.4	18.9	17.8	19.2	19.6	18.7	20.1	19.1	20.5	20.8
	3H	19.3	20.5	19.7	20.9	21.3	21.5	22.7	21.9	23.1	23.5
	4H	20.0	21.1	20.4	21.5	22.0	22.8	24.0	23.3	24.4	24.8
	6H	20.5	21.4	20.9	21.9	22.3	24.0	25.0	24.5	25.5	25.9
	8H	20.6	21.5	21.0	21.9	22.4	24.4	25.3	24.9	25.8	26.2
	12H	20.6	21.5	21.1	21.9	22.4	24.6	25.5	25.1	25.9	26.4
8H	4H	20.7	21.7	21.2	22.1	22.6	23.1	24.1	23.6	24.5	25.0
	6H	21.4	22.1	21.9	22.6	23.1	24.5	25.3	25.0	25.8	26.3
	8H	21.6	22.3	22.1	22.8	23.2	25.1	25.8	25.6	26.3	26.7
	12H	21.7	22.3	22.2	22.8	23.3	25.4	26.0	25.9	26.5	27.1
12H	4H	20.9	21.7	21.4	22.2	22.7	23.2	24.0	23.6	24.5	24.9
	6H	21.6	22.3	22.2	22.8	23.3	24.6	25.3	25.1	25.7	26.3
	8H	21.9	22.5	22.4	23.0	23.6	25.2	25.8	25.7	26.3	26.8

Maximum UGR = 27.1

POLAR GRAPH



Maximum Candela = 1674.289 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.)