



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LPT-22-L27-840-SAF12125-(L20)-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 18557.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 04-26-2024  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO.64836  
 [LUMINAIRE] 2x2' LED TROFFER  
 [MORE] WITH FROSTED ACRYLIC LENS  
 [LUMCAT] LPT-22-L27-840-SAF12125-(L20)-DIM-UNV  
 [LAMPCAT] HLM 80 CRI 4000K CCT  
 [ \_SEARCH\_SOURCETYPE]LED  
 [ \_SEARCH\_APPLICATION] INDOOR,OFFICE,CLASSROOM,COMMERCIAL,DIRECT  
 [ \_SEARCH\_MOUNTING] RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2062
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	15.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.18
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	2430	2400	2371
55	1875	1773	1695
65	1467	1336	1344
75	1214	1141	1294
85	1367	1426	1684

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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>	931.355	931.355	931.355	931.355	931.355
<b>5</b>	931.856	931.355	931.355	931.355	931.355
<b>10</b>	912.327	911.326	910.825	911.326	910.324
<b>15</b>	883.285	882.284	883.285	883.285	884.287
<b>20</b>	850.738	850.738	851.739	852.741	854.243
<b>25</b>	788.647	787.646	788.647	790.650	792.653
<b>30</b>	725.556	725.556	725.556	726.557	728.059
<b>35</b>	664.967	664.467	664.467	664.467	666.470
<b>40</b>	576.338	573.835	573.835	572.333	573.835
<b>45</b>	498.225	495.721	492.216	486.207	486.207
<b>50</b>	400.583	397.078	388.565	377.549	376.047
<b>55</b>	311.954	305.945	294.929	284.414	281.910
<b>60</b>	238.347	230.335	221.322	214.312	213.310
<b>65</b>	179.762	171.750	163.738	163.738	164.740
<b>70</b>	129.689	124.681	117.170	124.681	127.686
<b>75</b>	91.133	90.131	85.625	93.636	97.141
<b>80</b>	64.093	63.092	63.593	68.600	73.607
<b>85</b>	34.550	34.050	36.052	42.061	42.562
<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	337.62	N.A.	16.40
0-30	701.56	N.A.	34.00
0-40	1113.02	N.A.	54.00
0-60	1756.44	N.A.	85.20
0-80	2023.4	N.A.	98.10
0-90	2061.9	N.A.	100.00
10-90	1973.72	N.A.	95.70
20-40	775.40	N.A.	37.60
20-50	1150.37	N.A.	55.80
40-70	812.28	N.A.	39.40
60-80	266.96	N.A.	12.90
70-80	98.10	N.A.	4.80
80-90	38.50	N.A.	1.90
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	2061.9	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	88.19
10-20	249.44
20-30	363.93
30-40	411.46
40-50	374.97
50-60	268.45
60-70	168.86
70-80	98.10
80-90	38.50
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	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	93	83	76	70	90	81	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	46	39	34	45	38	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

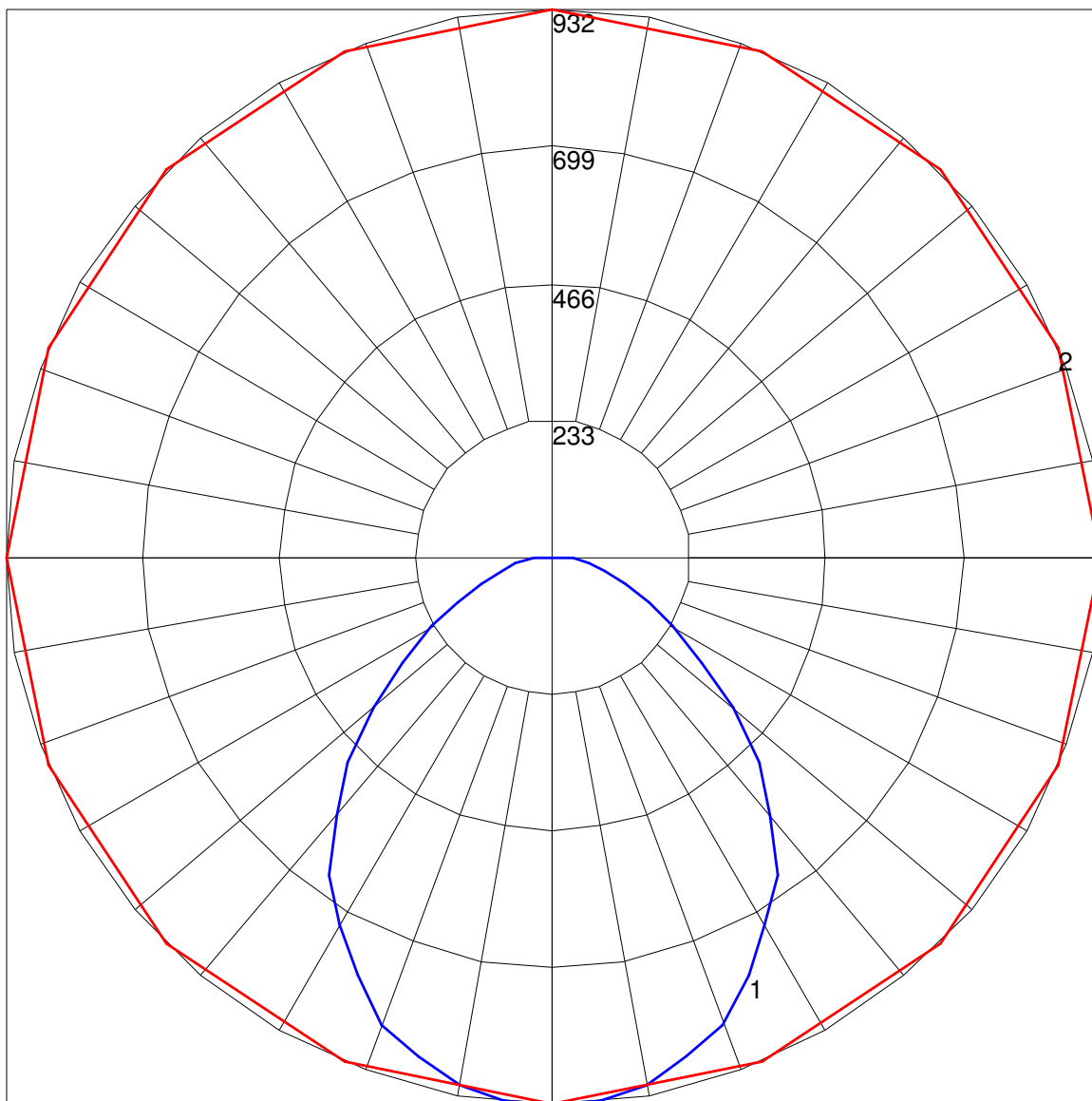
### Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	13.4	14.9	13.7	15.2	15.5	12.8	14.3	13.2	14.7	15.0
	3H	14.7	16.1	15.1	16.4	16.8	14.3	15.7	14.7	16.0	16.4
	4H	15.3	16.6	15.7	16.9	17.3	15.0	16.3	15.4	16.6	17.0
	6H	15.8	17.0	16.2	17.3	17.7	15.7	16.8	16.1	17.2	17.6
	8H	16.0	17.1	16.4	17.5	17.9	15.9	17.1	16.4	17.5	17.9
	12H	16.2	17.2	16.6	17.6	18.1	16.2	17.3	16.7	17.7	18.1
4H	2H	13.8	15.0	14.2	15.4	15.8	13.3	14.6	13.7	14.9	15.3
	3H	15.3	16.4	15.7	16.8	17.2	15.0	16.1	15.4	16.5	16.9
	4H	16.0	17.0	16.5	17.4	17.8	15.8	16.8	16.3	17.2	17.6
	6H	16.7	17.5	17.1	18.0	18.4	16.7	17.5	17.1	18.0	18.4
	8H	17.0	17.8	17.4	18.2	18.7	17.1	17.9	17.5	18.3	18.8
	12H	17.2	17.9	17.7	18.4	18.9	17.4	18.1	17.9	18.6	19.1
8H	4H	16.3	17.1	16.7	17.5	18.0	16.1	16.9	16.6	17.3	17.8
	6H	17.1	17.8	17.6	18.3	18.7	17.1	17.8	17.6	18.3	18.7
	8H	17.5	18.1	18.0	18.6	19.1	17.6	18.2	18.1	18.7	19.2
	12H	17.9	18.4	18.4	18.9	19.4	18.2	18.7	18.7	19.2	19.7
12H	4H	16.3	17.0	16.8	17.5	18.0	16.1	16.8	16.6	17.3	17.8
	6H	17.2	17.8	17.7	18.3	18.8	17.2	17.8	17.7	18.3	18.8
	8H	17.7	18.2	18.2	18.7	19.2	17.8	18.3	18.3	18.8	19.4

Maximum UGR = 19.7

POLAR GRAPH



Maximum Candela = 931.856 Located At Horizontal Angle = 0, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)