



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LPT-22-L27-835-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] 11-07-2023  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO.64836  
 [LUMINAIRE] 2x2' LED TROFFER  
 [MORE] WITH FROSTED ACRYLIC LENS  
 [LUMCAT] LPT-22-L27-835-SAF12125-(L20)-DIM-UNV  
 [LAMPCAT] HLM 80 CRI 3500K 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	2004
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
Total Luminaire Watts	15.4
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	2361	2333	2304
55	1823	1723	1647
65	1425	1298	1306
75	1180	1109	1258
85	1328	1386	1637

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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>	905.158	905.158	905.158	905.158	905.158
<b>5</b>	905.644	905.158	905.158	905.158	905.158
<b>10</b>	886.665	885.692	885.205	885.692	884.719
<b>15</b>	858.440	857.467	858.440	858.440	859.413
<b>20</b>	826.808	826.808	827.781	828.755	830.215
<b>25</b>	766.464	765.491	766.464	768.411	770.357
<b>30</b>	705.147	705.147	705.147	706.120	707.580
<b>35</b>	646.263	645.777	645.777	645.777	647.723
<b>40</b>	560.127	557.694	557.694	556.234	557.694
<b>45</b>	484.211	481.778	478.371	472.531	472.531
<b>50</b>	389.315	385.909	377.636	366.930	365.470
<b>55</b>	303.179	297.339	286.633	276.414	273.981
<b>60</b>	231.643	223.856	215.097	208.284	207.310
<b>65</b>	174.705	166.919	159.133	159.133	160.106
<b>70</b>	126.041	121.174	113.875	121.174	124.094
<b>75</b>	88.569	87.596	83.216	91.002	94.409
<b>80</b>	62.290	61.317	61.804	66.670	71.537
<b>85</b>	33.578	33.092	35.038	40.878	41.365
<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	328.12	N.A.	16.40
0-30	681.82	N.A.	34.00
0-40	1081.71	N.A.	54.00
0-60	1707.03	N.A.	85.20
0-80	1966.49	N.A.	98.10
0-90	2003.91	N.A.	100.00
10-90	1918.2	N.A.	95.70
20-40	753.59	N.A.	37.60
20-50	1118.01	N.A.	55.80
40-70	789.44	N.A.	39.40
60-80	259.46	N.A.	12.90
70-80	95.34	N.A.	4.80
80-90	37.42	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	2003.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	85.70
10-20	242.42
20-30	353.70
30-40	399.89
40-50	364.42
50-60	260.90
60-70	164.11
70-80	95.34
80-90	37.42
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

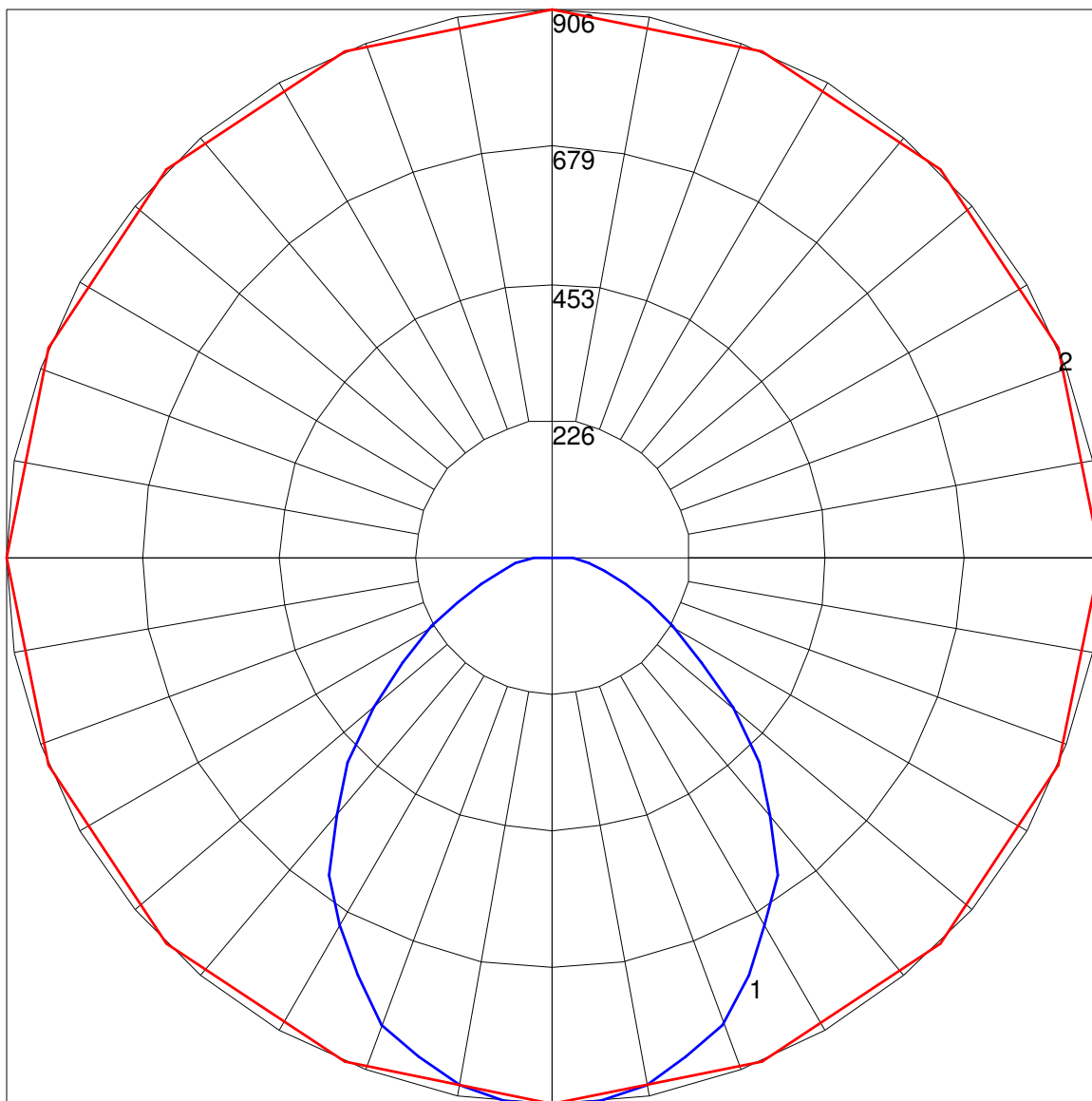
X=2H	Y=2H	13.3	14.8	13.6	15.1	15.4	12.7	14.2	13.1	14.6	14.9
	3H	14.6	16.0	15.0	16.3	16.7	14.2	15.6	14.6	15.9	16.3
	4H	15.2	16.5	15.6	16.8	17.2	14.9	16.2	15.3	16.5	16.9
	6H	15.7	16.9	16.1	17.2	17.6	15.6	16.7	16.0	17.1	17.5
	8H	15.9	17.0	16.3	17.4	17.8	15.8	17.0	16.3	17.4	17.8
	12H	16.1	17.1	16.5	17.5	18.0	16.1	17.2	16.6	17.6	18.0

### UGR Viewed Endwise

4H	2H	13.7	14.9	14.1	15.3	15.7	13.2	14.5	13.6	14.8	15.2
	3H	15.2	16.3	15.6	16.7	17.1	14.9	16.0	15.3	16.4	16.8
	4H	15.9	16.9	16.4	17.3	17.7	15.7	16.7	16.2	17.1	17.5
	6H	16.6	17.4	17.0	17.9	18.3	16.6	17.4	17.0	17.9	18.3
	8H	16.9	17.7	17.3	18.1	18.6	17.0	17.8	17.4	18.2	18.7
	12H	17.1	17.8	17.6	18.3	18.8	17.3	18.0	17.8	18.5	19.0
8H	4H	16.2	17.0	16.6	17.4	17.9	16.0	16.8	16.5	17.2	17.7
	6H	17.0	17.7	17.5	18.2	18.6	17.0	17.7	17.5	18.2	18.6
	8H	17.4	18.0	17.9	18.5	19.0	17.5	18.1	18.0	18.6	19.1
	12H	17.8	18.3	18.3	18.8	19.3	18.1	18.6	18.6	19.1	19.6
12H	4H	16.2	16.9	16.7	17.4	17.9	16.0	16.7	16.5	17.2	17.7
	6H	17.1	17.7	17.6	18.2	18.7	17.1	17.7	17.6	18.2	18.7
	8H	17.6	18.1	18.1	18.6	19.1	17.7	18.2	18.2	18.7	19.3

Maximum UGR = 19.6

POLAR GRAPH



Maximum Candela = 905.644 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.)