



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-22-L27-840-AF-(L20)-EMBSL10LST-DIM-UNV\_(EMER MODE).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] 10-19-2023  
 [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-L27-840-AF-(L20)-EMBSL10LST-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	1200
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	10
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	1038	1114	1200
55	941	1097	1237
65	829	1086	1341
75	638	1151	1567
85	277	935	912

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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>	399.312	399.312	399.312	399.312	399.312
<b>5</b>	398.968	397.249	396.905	395.529	396.561
<b>10</b>	392.089	390.370	391.746	390.370	391.402
<b>15</b>	381.771	381.083	383.147	383.835	384.867
<b>20</b>	365.262	367.670	370.765	374.205	374.893
<b>25</b>	346.346	351.161	355.632	361.135	362.511
<b>30</b>	326.053	331.556	338.091	346.346	349.097
<b>35</b>	303.697	308.512	316.423	328.805	331.556
<b>40</b>	278.246	283.061	294.067	307.137	311.608
<b>45</b>	250.731	255.202	269.304	283.061	289.940
<b>50</b>	218.401	224.248	242.132	256.234	266.208
<b>55</b>	184.351	192.605	214.961	230.439	242.476
<b>60</b>	152.021	161.307	187.102	206.707	218.401
<b>65</b>	119.690	129.665	156.836	183.319	193.637
<b>70</b>	88.048	98.710	128.977	157.868	168.530
<b>75</b>	56.406	69.475	101.806	130.353	138.607
<b>80</b>	27.859	43.680	70.163	95.959	93.207
<b>85</b>	8.255	16.853	27.859	47.120	27.171
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : LT-22-L27-840-AF-(L20)-EMB SL10LST-DIM-UNV\_(EMER MODE).IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	145.71	N.A.	12.10
0-30	309.71	N.A.	25.80
0-40	508.56	N.A.	42.40
0-60	906.95	N.A.	75.60
0-80	1166.64	N.A.	97.20
0-90	1199.95	N.A.	100.00
10-90	1162.24	N.A.	96.90
20-40	362.85	N.A.	30.20
20-50	570.52	N.A.	47.50
40-70	553.64	N.A.	46.10
60-80	259.70	N.A.	21.60
70-80	104.44	N.A.	8.70
80-90	33.30	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	1199.95	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	37.70
10-20	108.01
20-30	164.00
30-40	198.85
40-50	207.68
50-60	190.71
60-70	155.25
70-80	104.44
80-90	33.30
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	89	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

X=2H	Y=2H	11.5	13.2	11.9	13.5	13.8	13.1	14.8	13.5	15.1	15.4
	3H	13.1	14.7	13.5	15.0	15.3	15.7	17.2	16.0	17.5	17.9
	4H	13.7	15.1	14.1	15.5	15.8	16.8	18.3	17.2	18.6	19.0
	6H	14.0	15.4	14.4	15.7	16.1	17.8	19.1	18.2	19.5	19.9
	8H	14.1	15.4	14.5	15.8	16.2	18.1	19.4	18.5	19.8	20.2
	12H	14.1	15.4	14.6	15.7	16.2	18.2	19.5	18.7	19.9	20.3

### UGR Viewed Endwise

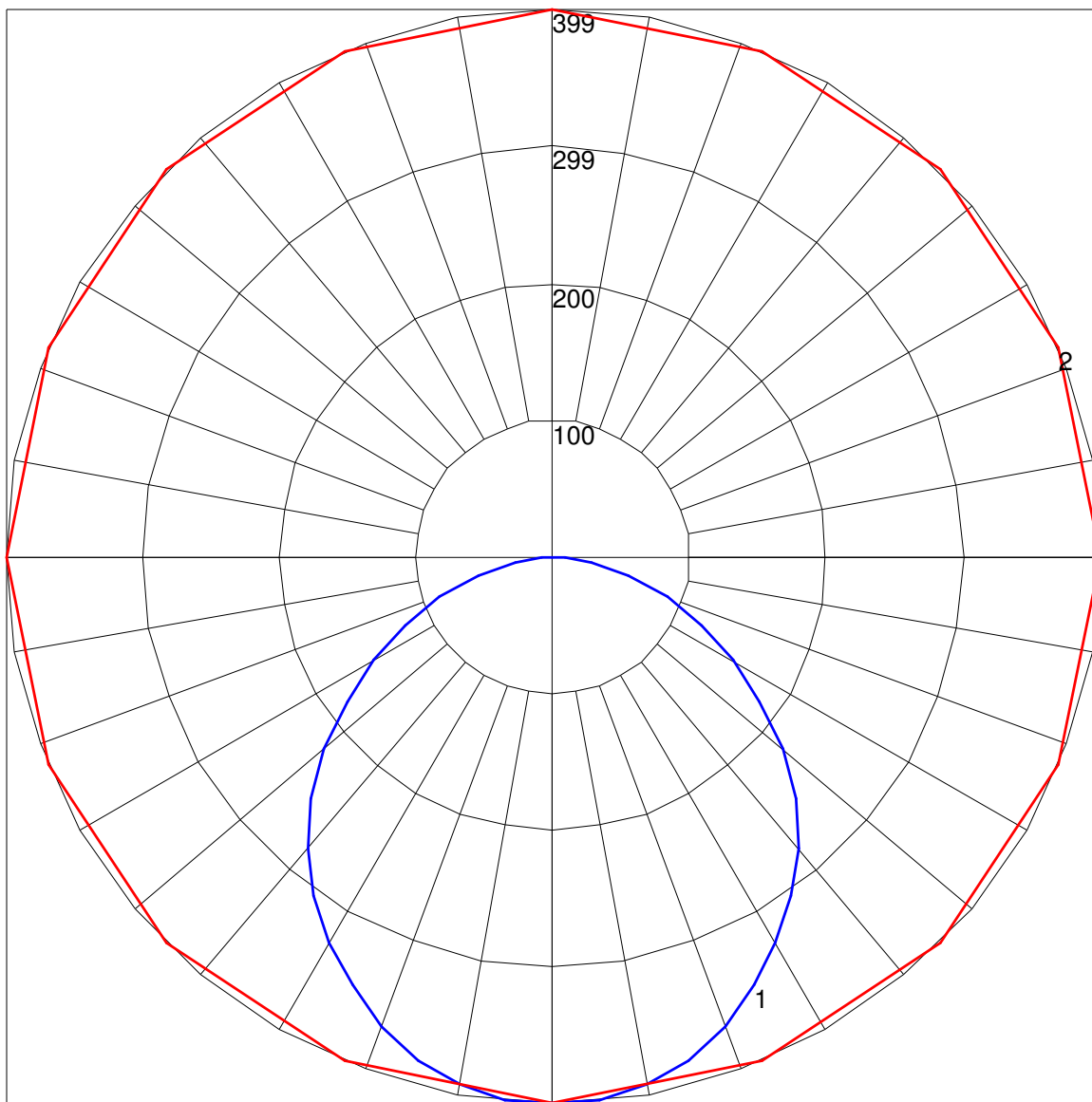
4H	2H	12.4	13.9	12.8	14.2	14.6	13.7	15.1	14.1	15.5	15.8
	3H	14.3	15.5	14.7	15.9	16.3	16.5	17.7	16.9	18.1	18.5
	4H	15.0	16.1	15.4	16.5	16.9	17.8	19.0	18.3	19.4	19.8
	6H	15.5	16.4	15.9	16.9	17.3	19.0	20.0	19.5	20.4	20.9
	8H	15.6	16.5	16.0	16.9	17.4	19.4	20.3	19.9	20.8	21.2
	12H	15.6	16.5	16.1	16.9	17.4	19.6	20.5	20.1	20.9	21.4
8H	4H	15.7	16.6	16.2	17.1	17.6	18.1	19.1	18.6	19.5	20.0
	6H	16.4	17.1	16.9	17.6	18.1	19.5	20.3	20.0	20.8	21.3
	8H	16.6	17.3	17.1	17.8	18.2	20.1	20.7	20.6	21.3	21.7
	12H	16.7	17.3	17.2	17.8	18.3	20.4	21.0	20.9	21.5	22.1
12H	4H	15.9	16.7	16.4	17.2	17.7	18.2	19.0	18.6	19.5	19.9
	6H	16.6	17.3	17.2	17.8	18.3	19.6	20.3	20.1	20.7	21.3
	8H	16.9	17.5	17.4	18.0	18.6	20.2	20.8	20.7	21.3	21.8

Maximum UGR = 22.1

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## POLAR GRAPH



Maximum Candela = 399.312 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.)