



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-L64-840-AF-(L58)-EMBSL10LST-DIM-UNV\_EM MODE ONLY.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 20802.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 10-20-2023  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 2x4' RECESSED LED LUMINAIRE  
 [LUMINAIRE] WHITE REFLECTOR w/FROSTED CENTER LENS  
 [LUMINAIRE] 0-10V DIMMING DRIVER  
 [LUMCAT] LT-24-L64-840-AF-(L58)-EM10W-DIM-UNV  
 [LAMPCAT] 22 INCH LED ARRAYS  
 [\_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	1450
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	145
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.93 ft
Luminous Width (90-270)	1.91 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	599	666	716
55	545	646	722
65	465	642	756
75	343	674	846
85	131	541	498

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : LT-24-L64-840-AF-(L58)-EMB SL10LST-DIM-UNV\_EM MODE ONLY.IES****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>	503.697	503.697	503.697	503.697	503.697
<b>5</b>	508.526	502.490	499.350	498.143	498.143
<b>10</b>	499.109	492.831	491.141	491.382	490.658
<b>15</b>	484.138	479.792	479.067	480.758	481.723
<b>20</b>	464.579	460.716	462.406	466.994	467.960
<b>25</b>	438.984	435.604	441.640	448.160	449.609
<b>30</b>	409.525	408.801	417.011	425.704	429.084
<b>35</b>	374.996	377.893	389.967	401.074	405.179
<b>40</b>	338.534	343.847	362.440	375.237	380.067
<b>45</b>	294.829	304.005	327.669	348.918	352.539
<b>50</b>	258.368	269.717	292.898	313.664	319.700
<b>55</b>	217.560	228.909	257.885	280.100	288.310
<b>60</b>	177.477	190.033	220.941	247.744	255.470
<b>65</b>	136.911	154.296	188.826	214.904	222.390
<b>70</b>	99.001	118.560	154.296	182.065	188.102
<b>75</b>	61.815	85.720	121.457	146.328	152.365
<b>80</b>	29.700	55.537	88.135	99.725	96.345
<b>85</b>	7.968	27.527	32.839	29.217	30.183
<b>90</b>	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : LT-24-L64-840-AF-(L58)-EMBSL10LST-DIM-UNV\_EM MODE ONLY.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	183.13	N.A.	12.60
0-30	387.06	N.A.	26.70
0-40	631.09	N.A.	43.50
0-60	1111.2	N.A.	76.60
0-80	1414.32	N.A.	97.50
0-90	1449.95	N.A.	100.00
10-90	1402.41	N.A.	96.70
20-40	447.96	N.A.	30.90
20-50	699.78	N.A.	48.30
40-70	662.71	N.A.	45.70
60-80	303.12	N.A.	20.90
70-80	120.51	N.A.	8.30
80-90	35.63	N.A.	2.50
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	1449.95	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	47.55
10-20	135.59
20-30	203.93
30-40	244.03
40-50	251.82
50-60	228.29
60-70	182.60
70-80	120.51
80-90	35.63
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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	82	77	95	88	81	76	84	79	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	53	79	68	60	53	65	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	62	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

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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	9.6	11.3	10.0	11.6	11.9	11.3	13.0	11.7	13.3	13.6
	3H	11.2	12.7	11.6	13.0	13.4	13.7	15.2	14.1	15.5	15.9
	4H	11.7	13.1	12.1	13.5	13.9	14.7	16.2	15.1	16.5	16.9
	6H	12.0	13.4	12.4	13.7	14.1	15.6	16.9	16.0	17.3	17.6
	8H	12.1	13.4	12.5	13.8	14.2	15.8	17.1	16.2	17.5	17.9
	12H	12.1	13.3	12.6	13.7	14.2	15.9	17.2	16.4	17.5	18.0

### UGR Viewed Endwise

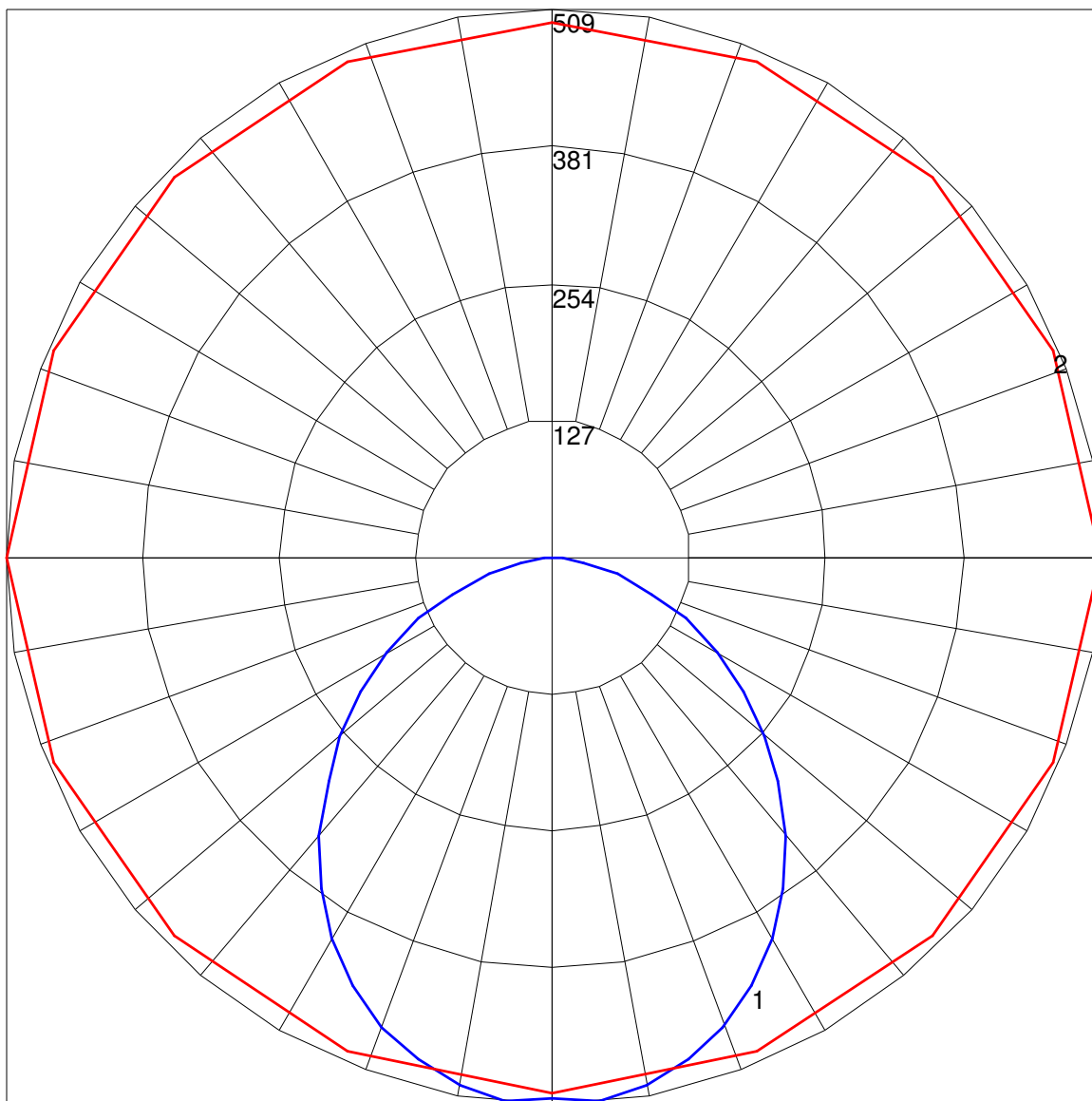
4H	2H	10.6	12.0	11.0	12.3	12.7	11.9	13.3	12.3	13.7	14.0
	3H	12.4	13.6	12.8	14.0	14.4	14.5	15.7	14.9	16.1	16.5
	4H	13.1	14.2	13.5	14.6	15.0	15.8	16.9	16.2	17.3	17.7
	6H	13.6	14.5	14.0	15.0	15.4	16.8	17.8	17.3	18.2	18.6
	8H	13.7	14.6	14.2	15.0	15.5	17.1	18.0	17.6	18.4	18.9
	12H	13.8	14.6	14.2	15.0	15.5	17.3	18.1	17.7	18.5	19.0
8H	4H	13.9	14.8	14.3	15.2	15.7	16.1	17.0	16.6	17.4	17.9
	6H	14.5	15.3	15.0	15.8	16.2	17.3	18.0	17.8	18.5	19.0
	8H	14.8	15.4	15.3	15.9	16.4	17.7	18.4	18.2	18.9	19.4
	12H	14.9	15.5	15.4	16.0	16.5	17.9	18.5	18.4	19.0	19.6
12H	4H	14.0	14.8	14.5	15.3	15.8	16.1	16.9	16.6	17.4	17.9
	6H	14.8	15.5	15.3	15.9	16.5	17.4	18.0	17.9	18.5	19.0
	8H	15.1	15.7	15.6	16.2	16.7	17.8	18.4	18.3	18.9	19.5

Maximum UGR = 19.6

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## POLAR GRAPH



Maximum Candela = 508.526 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.)