



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-22-P50-840-AF-POE PR\_.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] 14-JAN-2022  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 2x2' RECESSED POE LUMINAIRE  
 [MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CENTER LENS  
 [LUMCAT] LT-22-P50-840-AF-POE PR  
 [LAMPCAT] HLM 80 CRI 4000K CCT  
 [ \_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	5177
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	38
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	4477	4808	5177
55	4058	4731	5337
65	3575	4685	5784
75	2751	4966	6761
85	1196	4035	3936

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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>	1722.699	1722.699	1722.699	1722.699	1722.699
<b>5</b>	1721.215	1713.796	1712.312	1706.377	1710.828
<b>10</b>	1691.539	1684.120	1690.055	1684.120	1688.571
<b>15</b>	1647.025	1644.057	1652.960	1655.928	1660.379
<b>20</b>	1575.802	1586.189	1599.543	1614.381	1617.349
<b>25</b>	1494.193	1514.966	1534.255	1557.996	1563.932
<b>30</b>	1406.648	1430.389	1458.581	1494.193	1506.063
<b>35</b>	1310.201	1330.974	1365.102	1418.519	1430.389
<b>40</b>	1200.399	1221.172	1268.654	1325.039	1344.328
<b>45</b>	1081.695	1100.984	1161.820	1221.172	1250.848
<b>50</b>	942.217	967.442	1044.599	1105.435	1148.466
<b>55</b>	795.320	830.931	927.379	994.150	1046.083
<b>60</b>	655.842	695.905	807.190	891.767	942.217
<b>65</b>	516.364	559.395	676.616	790.869	835.383
<b>70</b>	379.854	425.852	556.427	681.067	727.065
<b>75</b>	243.344	299.729	439.207	562.362	597.974
<b>80</b>	120.188	188.443	302.696	413.982	402.111
<b>85</b>	35.611	72.706	120.188	203.281	117.221
<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	628.63	N.A.	12.10
0-30	1336.14	N.A.	25.80
0-40	2194.00	N.A.	42.40
0-60	3912.73	N.A.	75.60
0-80	5033.1	N.A.	97.20
0-90	5176.78	N.A.	100.00
10-90	5014.11	N.A.	96.90
20-40	1565.38	N.A.	30.20
20-50	2461.32	N.A.	47.50
40-70	2388.51	N.A.	46.10
60-80	1120.37	N.A.	21.60
70-80	450.58	N.A.	8.70
80-90	143.68	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	5176.78	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	162.66
10-20	465.97
20-30	707.51
30-40	857.87
40-50	895.95
50-60	822.78
60-70	669.79
70-80	450.58
80-90	143.68
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**

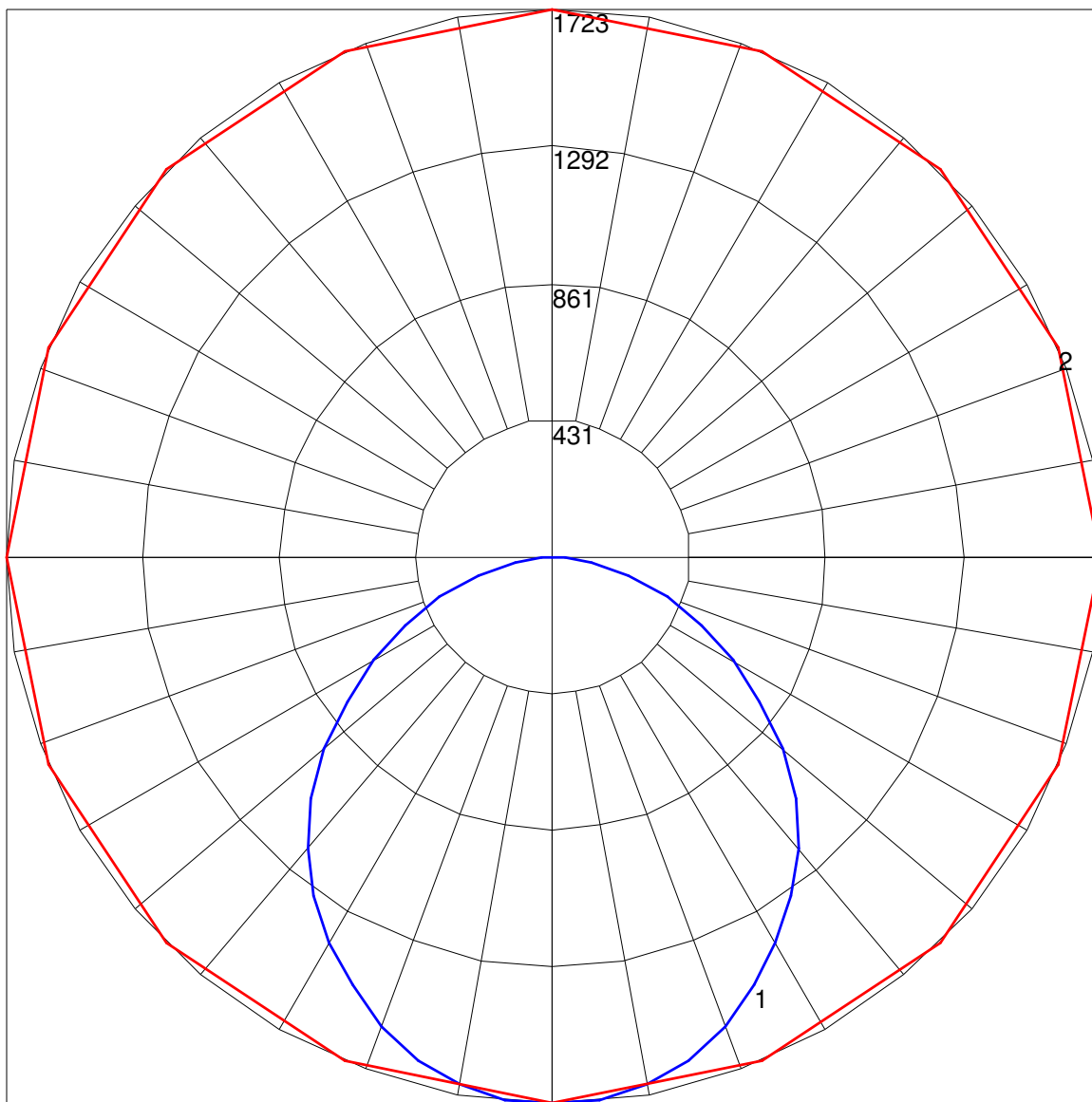
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	16.6	18.3	17.0	18.6	18.9	18.2	19.9	18.6	20.2	20.5
	3H	18.2	19.8	18.6	20.1	20.4	20.8	22.3	21.1	22.6	23.0
	4H	18.8	20.2	19.2	20.6	21.0	21.9	23.4	22.3	23.7	24.1
	6H	19.1	20.5	19.5	20.8	21.2	22.9	24.2	23.3	24.6	25.0
	8H	19.2	20.5	19.6	20.9	21.3	23.2	24.5	23.6	24.9	25.3
	12H	19.2	20.5	19.7	20.8	21.3	23.3	24.6	23.8	25.0	25.4
4H	2H	17.5	19.0	17.9	19.3	19.7	18.8	20.2	19.2	20.6	20.9
	3H	19.4	20.6	19.8	21.0	21.4	21.6	22.8	22.0	23.2	23.6
	4H	20.1	21.2	20.5	21.6	22.1	22.9	24.1	23.4	24.5	24.9
	6H	20.6	21.5	21.0	22.0	22.4	24.1	25.1	24.6	25.6	26.0
	8H	20.7	21.6	21.1	22.0	22.5	24.5	25.4	25.0	25.9	26.3
	12H	20.7	21.6	21.2	22.0	22.5	24.7	25.6	25.2	26.0	26.5
8H	4H	20.8	21.7	21.3	22.2	22.7	23.2	24.2	23.7	24.6	25.1
	6H	21.5	22.2	22.0	22.7	23.2	24.6	25.4	25.1	25.9	26.4
	8H	21.7	22.4	22.2	22.9	23.3	25.2	25.9	25.7	26.4	26.8
	12H	21.8	22.4	22.3	22.9	23.4	25.5	26.1	26.0	26.6	27.2
12H	4H	21.0	21.8	21.5	22.3	22.8	23.3	24.1	23.7	24.6	25.0
	6H	21.7	22.4	22.3	22.9	23.4	24.7	25.4	25.2	25.8	26.4
	8H	22.0	22.6	22.5	23.1	23.7	25.3	25.9	25.8	26.4	26.9

Maximum UGR = 27.2

POLAR GRAPH



Maximum Candela = 1722.699 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.)