

IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-22-L39-840-AF-(L35)-DIM-UNV_.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] 07-24-2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 1-56 LED 22"ARRAYS 2x2'RECESSED LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CENTER LENS

[LUMCAT] LT-22-L39-840-AF-(L35)-DIM-UNV

[_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	3645
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	28.75
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	3152	3385	3645
55	2857	3331	3758
65	2517	3299	4073
75	1937	3496	4760
85	842	2841	2771

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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>
0	1212.911	1212.911	1212.911	1212.911	1212.911
5	1211.866	1206.642	1205.598	1201.419	1204.553
10	1190.972	1185.748	1189.927	1185.748	1188.882
15	1159.630	1157.541	1163.809	1165.899	1169.033
20	1109.484	1116.797	1126.199	1136.647	1138.736
25	1052.025	1066.651	1080.232	1096.948	1101.126
30	990.387	1007.102	1026.952	1052.025	1060.383
35	922.481	937.107	961.135	998.745	1007.102
40	845.172	859.798	893.229	932.928	946.509
45	761.595	775.176	818.009	859.798	880.692
50	663.392	681.152	735.477	778.310	808.607
55	559.966	585.039	652.945	699.957	736.522
60	461.763	489.970	568.323	627.872	663.392
65	363.560	393.856	476.389	556.831	588.173
70	267.446	299.832	391.767	479.523	511.909
75	171.333	211.032	309.235	395.946	421.019
80	84.622	132.678	213.121	291.475	283.117
85	25.073	51.191	84.622	143.126	82.532
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	442.60	N.A.	12.10
0-30	940.74	N.A.	25.80
0-40	1544.75	N.A.	42.40
0-60	2754.86	N.A.	75.60
0-80	3543.68	N.A.	97.20
0-90	3644.84	N.A.	100.00
10-90	3530.32	N.A.	96.90
20-40	1102.14	N.A.	30.20
20-50	1732.96	N.A.	47.50
40-70	1681.69	N.A.	46.10
60-80	788.83	N.A.	21.60
70-80	317.25	N.A.	8.70
80-90	101.16	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	3644.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	114.53
10-20	328.08
20-30	498.14
30-40	604.01
40-50	630.81
50-60	579.30
60-70	471.58
70-80	317.25
80-90	101.16
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

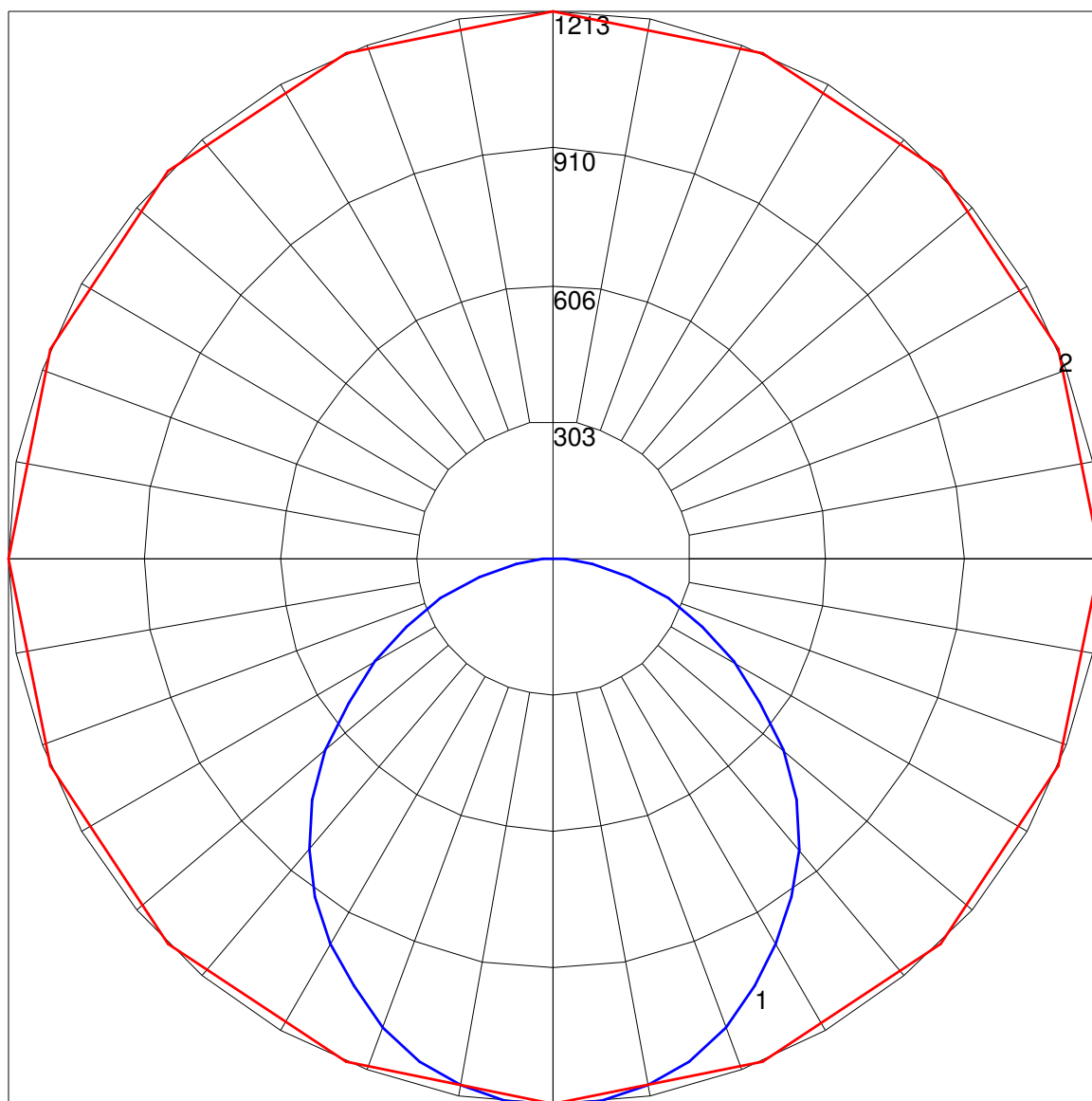
Reflectances

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	15.4	17.1	15.8	17.4	17.7	17.0	18.7	17.4	19.0	19.3
	3H	17.0	18.6	17.4	18.9	19.2	19.6	21.1	19.9	21.4	21.8
	4H	17.6	19.0	18.0	19.4	19.8	20.7	22.2	21.1	22.5	22.9
	6H	17.9	19.3	18.3	19.6	20.0	21.7	23.0	22.1	23.4	23.8
	8H	18.0	19.3	18.4	19.7	20.1	22.0	23.3	22.4	23.7	24.1
	12H	18.0	19.3	18.5	19.6	20.1	22.1	23.4	22.6	23.8	24.2
4H	2H	16.3	17.8	16.7	18.1	18.5	17.6	19.0	18.0	19.4	19.7
	3H	18.2	19.4	18.6	19.8	20.2	20.4	21.6	20.8	22.0	22.4
	4H	18.9	20.0	19.3	20.4	20.9	21.7	22.9	22.2	23.3	23.7
	6H	19.4	20.3	19.8	20.8	21.2	22.9	23.9	23.4	24.4	24.8
	8H	19.5	20.4	19.9	20.8	21.3	23.3	24.2	23.8	24.7	25.1
	12H	19.5	20.4	20.0	20.8	21.3	23.5	24.4	24.0	24.8	25.3
8H	4H	19.6	20.5	20.1	21.0	21.5	22.0	23.0	22.5	23.4	23.9
	6H	20.3	21.0	20.8	21.5	22.0	23.4	24.2	23.9	24.7	25.2
	8H	20.5	21.2	21.0	21.7	22.1	24.0	24.7	24.5	25.2	25.6
	12H	20.6	21.2	21.1	21.7	22.2	24.3	24.9	24.8	25.4	26.0
12H	4H	19.8	20.6	20.3	21.1	21.6	22.1	22.9	22.5	23.4	23.8
	6H	20.5	21.2	21.1	21.7	22.2	23.5	24.2	24.0	24.6	25.2
	8H	20.8	21.4	21.3	21.9	22.5	24.1	24.7	24.6	25.2	25.7

Maximum UGR = 26.0

POLAR GRAPH



Maximum Candela = 1212.911 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.)