



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-L110-835-AF-DIM-UNV_.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] 2023-07-24
 [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-L110-835-AF-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	11065
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	81.8
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	4571	5081	5466
55	4159	4929	5511
65	3552	4899	5769
75	2619	5145	6454
85	1002	4131	3797

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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	3843.728	3843.728	3843.728	3843.728	3843.728
5	3880.581	3834.515	3810.561	3801.348	3801.348
10	3808.718	3760.810	3747.911	3749.754	3744.226
15	3694.475	3661.308	3655.780	3668.678	3676.049
20	3545.222	3515.740	3528.638	3563.648	3571.019
25	3349.903	3324.106	3370.172	3419.923	3430.979
30	3125.102	3119.574	3182.224	3248.558	3274.355
35	2861.606	2883.717	2975.849	3060.610	3091.935
40	2583.369	2623.907	2765.789	2863.449	2900.301
45	2249.852	2319.872	2500.450	2662.602	2690.241
50	1971.615	2058.219	2235.111	2393.578	2439.643
55	1660.211	1746.814	1967.930	2137.452	2200.101
60	1354.334	1450.151	1686.007	1890.539	1949.504
65	1044.772	1177.441	1440.937	1639.942	1697.063
70	755.479	904.732	1177.441	1389.344	1435.410
75	471.714	654.134	926.843	1116.634	1162.700
80	226.644	423.805	672.560	761.007	735.210
85	60.807	210.060	250.598	222.958	230.329
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1397.5	N.A.	12.60
0-30	2953.68	N.A.	26.70
0-40	4815.88	N.A.	43.50
0-60	8479.63	N.A.	76.60
0-80	10792.72	N.A.	97.50
0-90	11064.65	N.A.	100.00
10-90	10701.83	N.A.	96.70
20-40	3418.38	N.A.	30.90
20-50	5340.05	N.A.	48.30
40-70	5057.2	N.A.	45.70
60-80	2313.1	N.A.	20.90
70-80	919.64	N.A.	8.30
80-90	271.93	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	11064.65	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	362.82
10-20	1034.68
20-30	1556.18
30-40	1862.2
40-50	1921.67
50-60	1742.07
60-70	1393.45
70-80	919.64
80-90	271.93
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

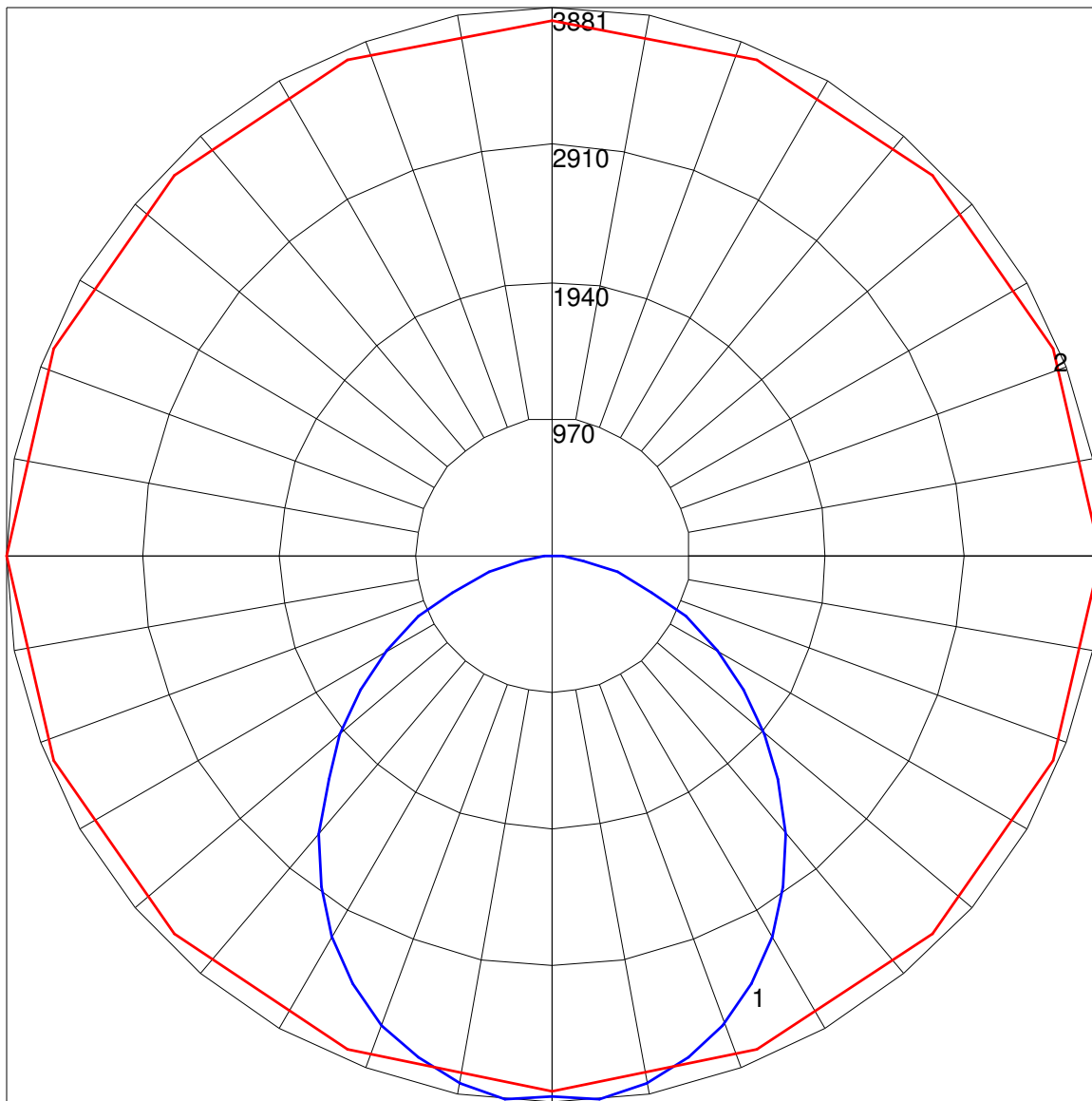
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	16.7	18.4	17.1	18.7	19.0	18.4	20.1	18.8	20.4	20.7
	3H	18.3	19.8	18.7	20.1	20.5	20.8	22.3	21.2	22.6	23.0
	4H	18.8	20.2	19.2	20.6	21.0	21.8	23.3	22.2	23.6	24.0
	6H	19.1	20.5	19.5	20.8	21.2	22.7	24.0	23.1	24.4	24.8
	8H	19.2	20.5	19.6	20.9	21.3	22.9	24.2	23.3	24.6	25.0
	12H	19.2	20.5	19.7	20.8	21.3	23.0	24.3	23.5	24.6	25.1
4H	2H	17.7	19.1	18.1	19.4	19.8	19.0	20.4	19.4	20.8	21.1
	3H	19.5	20.7	19.9	21.1	21.5	21.6	22.8	22.0	23.2	23.6
	4H	20.2	21.3	20.6	21.7	22.2	22.9	24.0	23.3	24.4	24.8
	6H	20.7	21.6	21.1	22.1	22.5	23.9	24.9	24.4	25.3	25.7
	8H	20.8	21.7	21.3	22.1	22.6	24.2	25.1	24.7	25.5	26.0
	12H	20.9	21.7	21.3	22.1	22.6	24.4	25.2	24.8	25.6	26.1
8H	4H	21.0	21.9	21.4	22.3	22.8	23.2	24.1	23.7	24.5	25.0
	6H	21.6	22.4	22.1	22.9	23.3	24.4	25.1	24.9	25.6	26.1
	8H	21.9	22.5	22.4	23.0	23.5	24.8	25.5	25.3	26.0	26.5
	12H	22.0	22.6	22.5	23.1	23.6	25.0	25.6	25.5	26.1	26.7
12H	4H	21.1	21.9	21.6	22.4	22.9	23.2	24.0	23.7	24.5	25.0
	6H	21.9	22.6	22.4	23.0	23.6	24.5	25.1	25.0	25.6	26.1
	8H	22.2	22.8	22.7	23.3	23.8	24.9	25.5	25.4	26.0	26.6

Maximum UGR = 26.7

POLAR GRAPH



Maximum Candela = 3880.581 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.)