



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-L40-935-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-L40-935-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	3297
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	103
Total Luminaire Watts	32
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	1362	1514	1629
55	1239	1469	1642
65	1058	1460	1719
75	780	1533	1923
85	299	1231	1131

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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	1145.219	1145.219	1145.219	1145.219	1145.219
5	1156.199	1142.474	1135.337	1132.592	1132.592
10	1134.788	1120.514	1116.671	1117.220	1115.573
15	1100.750	1090.868	1089.221	1093.064	1095.260
20	1056.281	1047.497	1051.340	1061.771	1063.967
25	998.087	990.401	1004.126	1018.949	1022.243
30	931.108	929.461	948.127	967.891	975.577
35	852.601	859.189	886.639	911.893	921.226
40	769.702	781.780	824.053	853.150	864.130
45	670.332	691.194	744.996	793.309	801.544
50	587.433	613.236	665.940	713.154	726.879
55	494.651	520.454	586.335	636.843	655.509
60	403.517	432.065	502.337	563.277	580.845
65	311.284	350.813	429.320	488.612	505.631
70	225.091	269.560	350.813	413.948	427.673
75	140.545	194.896	276.148	332.696	346.421
80	67.527	126.271	200.386	226.738	219.052
85	18.117	62.586	74.664	66.429	68.625
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	416.38	N.A.	12.60
0-30	880.03	N.A.	26.70
0-40	1434.87	N.A.	43.50
0-60	2526.46	N.A.	76.60
0-80	3215.64	N.A.	97.50
0-90	3296.66	N.A.	100.00
10-90	3188.56	N.A.	96.70
20-40	1018.49	N.A.	30.90
20-50	1591.04	N.A.	48.30
40-70	1506.77	N.A.	45.70
60-80	689.18	N.A.	20.90
70-80	274.00	N.A.	8.30
80-90	81.02	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	3296.66	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	108.10
10-20	308.28
20-30	463.66
30-40	554.83
40-50	572.55
50-60	519.04
60-70	415.17
70-80	274.00
80-90	81.02
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

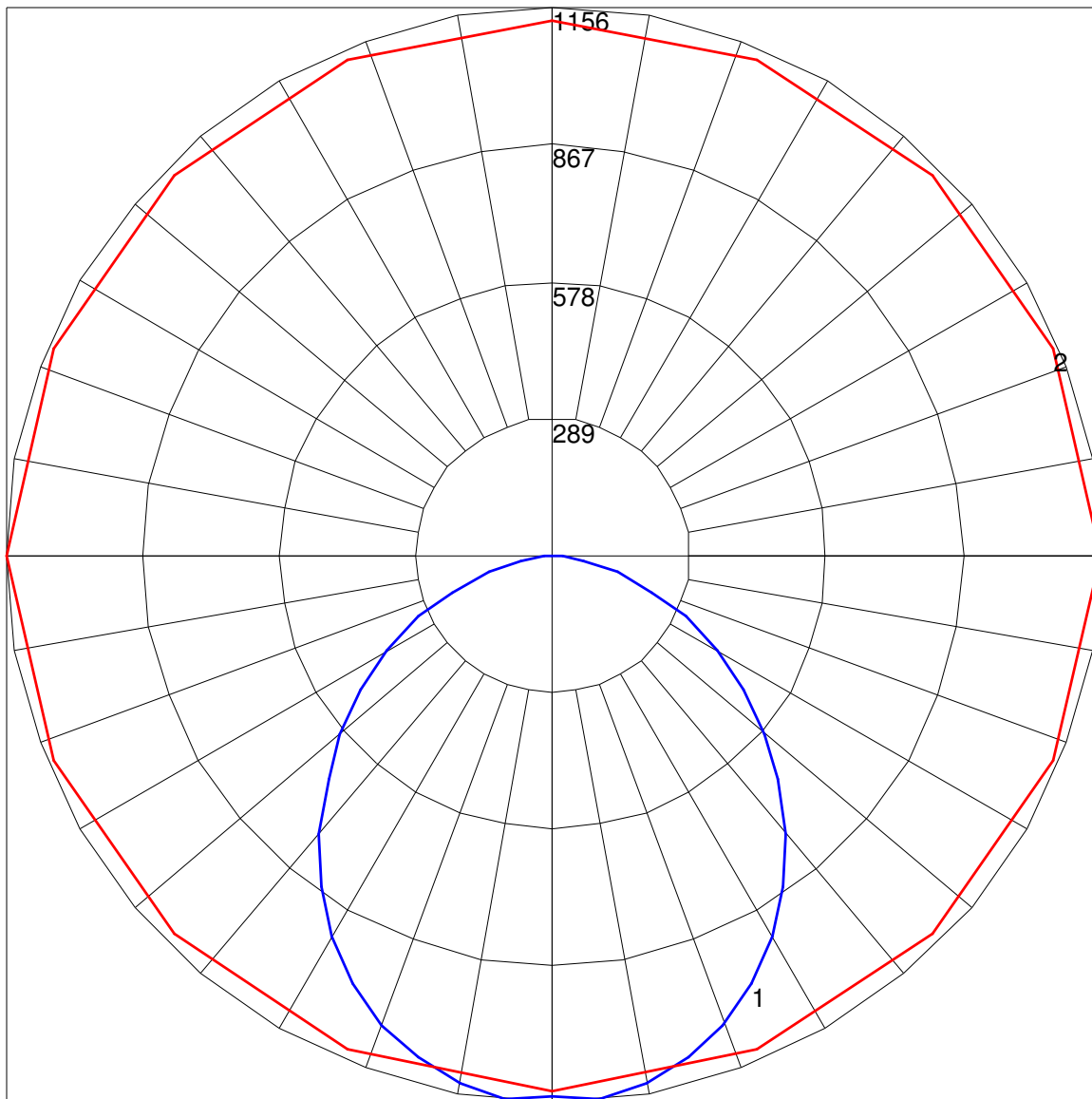
Reflectances

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	12.4	14.1	12.8	14.4	14.7	14.1	15.8	14.5	16.1	16.4
	3H	14.0	15.5	14.4	15.8	16.2	16.5	18.0	16.9	18.3	18.7
	4H	14.5	15.9	14.9	16.3	16.7	17.5	19.0	17.9	19.3	19.7
	6H	14.8	16.2	15.2	16.5	16.9	18.4	19.7	18.8	20.1	20.5
	8H	14.9	16.2	15.3	16.6	17.0	18.6	19.9	19.0	20.3	20.7
	12H	14.9	16.2	15.4	16.5	17.0	18.7	20.0	19.2	20.3	20.8
4H	2H	13.4	14.8	13.8	15.1	15.5	14.7	16.1	15.1	16.5	16.8
	3H	15.2	16.4	15.6	16.8	17.2	17.3	18.5	17.7	18.9	19.3
	4H	15.9	17.0	16.3	17.4	17.9	18.6	19.7	19.0	20.1	20.5
	6H	16.4	17.3	16.8	17.8	18.2	19.6	20.6	20.1	21.0	21.4
	8H	16.5	17.4	17.0	17.8	18.3	19.9	20.8	20.4	21.2	21.7
	12H	16.6	17.4	17.0	17.8	18.3	20.1	20.9	20.5	21.3	21.8
8H	4H	16.7	17.6	17.1	18.0	18.5	18.9	19.8	19.4	20.2	20.7
	6H	17.3	18.1	17.8	18.6	19.0	20.1	20.8	20.6	21.3	21.8
	8H	17.6	18.2	18.1	18.7	19.2	20.5	21.2	21.0	21.7	22.2
	12H	17.7	18.3	18.2	18.8	19.3	20.7	21.3	21.2	21.8	22.4
12H	4H	16.8	17.6	17.3	18.1	18.6	18.9	19.7	19.4	20.2	20.7
	6H	17.6	18.3	18.1	18.7	19.3	20.2	20.8	20.7	21.3	21.8
	8H	17.9	18.5	18.4	19.0	19.5	20.6	21.2	21.1	21.7	22.3

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 1156.199 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.)