



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-L64-840-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-L64-840-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	6588
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
Total Luminaire Watts	48.5
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	2722	3025	3254
55	2476	2935	3281
65	2115	2917	3435
75	1559	3063	3843
85	597	2460	2261

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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	2288.480	2288.480	2288.480	2288.480	2288.480
5	2310.421	2282.994	2268.733	2263.247	2263.247
10	2267.636	2239.112	2231.432	2232.529	2229.238
15	2199.617	2179.870	2176.579	2184.258	2188.647
20	2110.755	2093.202	2100.881	2121.726	2126.114
25	1994.466	1979.107	2006.534	2036.155	2042.737
30	1860.624	1857.333	1894.633	1934.127	1949.486
35	1703.744	1716.908	1771.762	1822.227	1840.877
40	1538.087	1562.222	1646.696	1704.841	1726.782
45	1339.518	1381.206	1488.719	1585.260	1601.716
50	1173.861	1225.423	1330.741	1425.089	1452.515
55	988.457	1040.019	1171.667	1272.597	1309.897
60	806.344	863.391	1003.815	1125.590	1160.696
65	622.036	701.025	857.906	976.389	1010.398
70	449.797	538.659	701.025	827.188	854.614
75	280.849	389.458	551.824	664.822	692.249
80	134.939	252.325	400.429	453.088	437.729
85	36.203	125.066	149.201	132.745	137.133
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	832.05	N.A.	12.60
0-30	1758.56	N.A.	26.70
0-40	2867.28	N.A.	43.50
0-60	5048.6	N.A.	76.60
0-80	6425.77	N.A.	97.50
0-90	6587.67	N.A.	100.00
10-90	6371.66	N.A.	96.70
20-40	2035.23	N.A.	30.90
20-50	3179.36	N.A.	48.30
40-70	3010.96	N.A.	45.70
60-80	1377.17	N.A.	20.90
70-80	547.54	N.A.	8.30
80-90	161.90	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	6587.67	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	216.02
10-20	616.03
20-30	926.52
30-40	1108.72
40-50	1144.13
50-60	1037.2
60-70	829.63
70-80	547.54
80-90	161.90
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

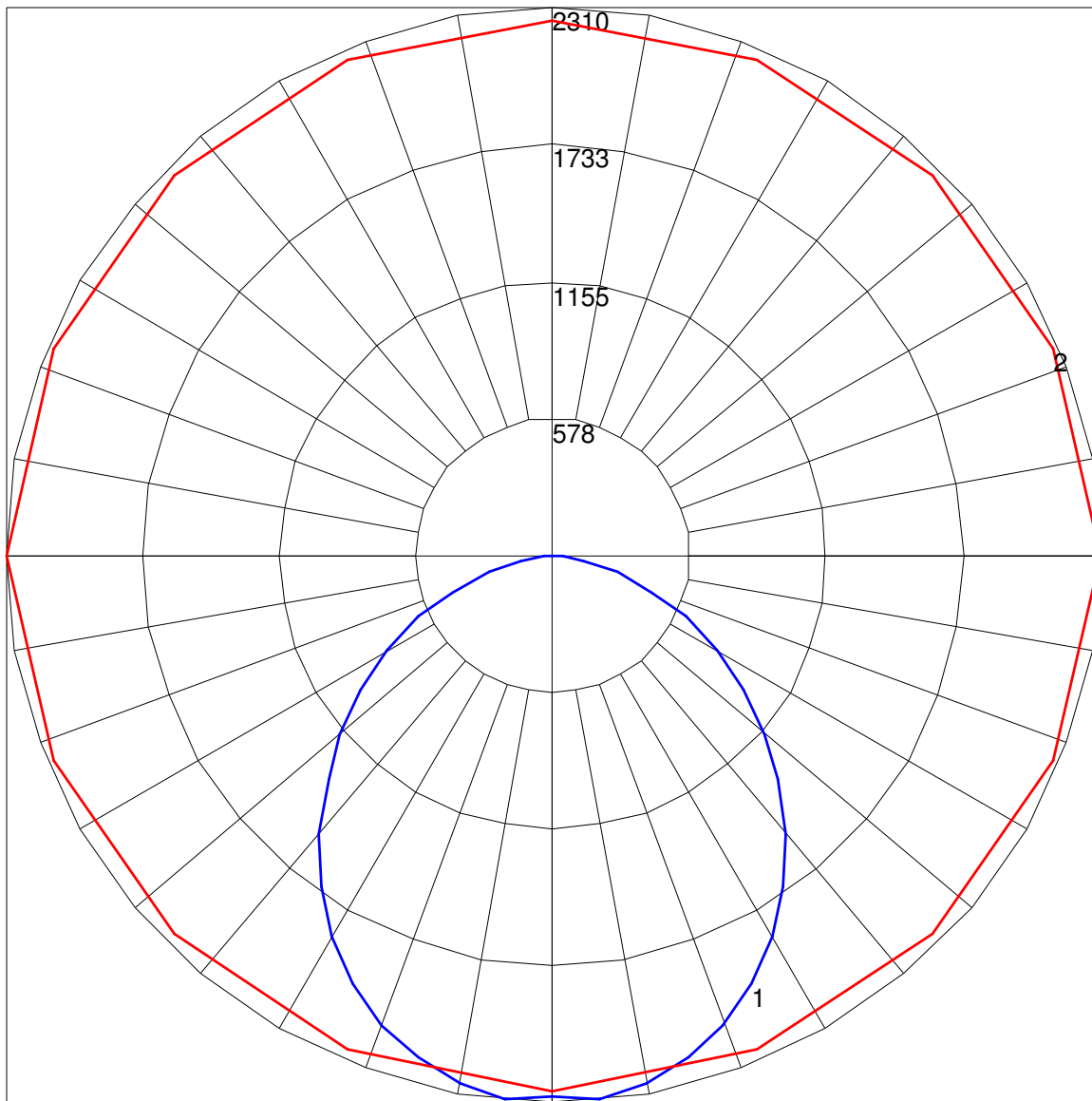
Reflectances

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	14.8	16.5	15.2	16.8	17.1	16.5	18.2	16.9	18.5	18.8
	3H	16.4	17.9	16.8	18.2	18.6	18.9	20.4	19.3	20.7	21.1
	4H	16.9	18.3	17.3	18.7	19.1	19.9	21.4	20.3	21.7	22.1
	6H	17.2	18.6	17.6	18.9	19.3	20.8	22.1	21.2	22.5	22.9
	8H	17.3	18.6	17.7	19.0	19.4	21.0	22.3	21.4	22.7	23.1
	12H	17.3	18.6	17.8	18.9	19.4	21.1	22.4	21.6	22.7	23.2
4H	2H	15.8	17.2	16.2	17.5	17.9	17.1	18.5	17.5	18.9	19.2
	3H	17.6	18.8	18.0	19.2	19.6	19.7	20.9	20.1	21.3	21.7
	4H	18.3	19.4	18.7	19.8	20.3	21.0	22.1	21.4	22.5	22.9
	6H	18.8	19.7	19.2	20.2	20.6	22.0	23.0	22.5	23.4	23.8
	8H	18.9	19.8	19.4	20.2	20.7	22.3	23.2	22.8	23.6	24.1
	12H	19.0	19.8	19.4	20.2	20.7	22.5	23.3	22.9	23.7	24.2
8H	4H	19.1	20.0	19.5	20.4	20.9	21.3	22.2	21.8	22.6	23.1
	6H	19.7	20.5	20.2	21.0	21.4	22.5	23.2	23.0	23.7	24.2
	8H	20.0	20.6	20.5	21.1	21.6	22.9	23.6	23.4	24.1	24.6
	12H	20.1	20.7	20.6	21.2	21.7	23.1	23.7	23.6	24.2	24.8
12H	4H	19.2	20.0	19.7	20.5	21.0	21.3	22.1	21.8	22.6	23.1
	6H	20.0	20.7	20.5	21.1	21.7	22.6	23.2	23.1	23.7	24.2
	8H	20.3	20.9	20.8	21.4	21.9	23.0	23.6	23.5	24.1	24.7

Maximum UGR = 24.8

POLAR GRAPH



Maximum Candela = 2310.421 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.)