



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-L52-830-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-L52-830-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	5150
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	138
Total Luminaire Watts	37.2
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	2128	2365	2544
55	1936	2294	2565
65	1653	2280	2685
75	1219	2395	3004
85	467	1923	1767

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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	1788.985	1788.985	1788.985	1788.985	1788.985
5	1806.138	1784.697	1773.548	1769.260	1769.260
10	1772.691	1750.393	1744.390	1745.247	1742.674
15	1719.519	1704.082	1701.509	1707.512	1710.943
20	1650.052	1636.330	1642.333	1658.628	1662.058
25	1559.145	1547.138	1568.578	1591.734	1596.880
30	1454.516	1451.943	1481.102	1511.976	1523.982
35	1331.877	1342.168	1385.049	1424.499	1439.078
40	1202.377	1221.244	1287.281	1332.734	1349.886
45	1047.148	1079.738	1163.784	1239.254	1252.118
50	917.648	957.956	1040.287	1114.042	1135.483
55	772.711	813.019	915.933	994.834	1023.993
60	630.347	674.943	784.718	879.913	907.357
65	486.268	548.016	670.655	763.278	789.864
70	351.622	421.089	548.016	646.642	668.082
75	219.550	304.453	431.380	519.715	541.155
80	105.487	197.252	313.030	354.195	342.189
85	28.301	97.768	116.636	103.771	107.202
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	650.44	N.A.	12.60
0-30	1374.73	N.A.	26.70
0-40	2241.45	N.A.	43.50
0-60	3946.67	N.A.	76.60
0-80	5023.25	N.A.	97.50
0-90	5149.82	N.A.	100.00
10-90	4980.95	N.A.	96.70
20-40	1591.01	N.A.	30.90
20-50	2485.42	N.A.	48.30
40-70	2353.77	N.A.	45.70
60-80	1076.58	N.A.	20.90
70-80	428.03	N.A.	8.30
80-90	126.56	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	5149.82	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	168.87
10-20	481.57
20-30	724.29
30-40	866.72
40-50	894.40
50-60	810.81
60-70	648.55
70-80	428.03
80-90	126.56
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

X=2H	Y=2H	14.0	15.7	14.4	16.0	16.3	15.7	17.4	16.1	17.7	18.0
	3H	15.6	17.1	16.0	17.4	17.8	18.1	19.6	18.5	19.9	20.3
	4H	16.1	17.5	16.5	17.9	18.3	19.1	20.6	19.5	20.9	21.3
	6H	16.4	17.8	16.8	18.1	18.5	20.0	21.3	20.4	21.7	22.1
	8H	16.5	17.8	16.9	18.2	18.6	20.2	21.5	20.6	21.9	22.3
	12H	16.5	17.8	17.0	18.1	18.6	20.3	21.6	20.8	21.9	22.4

UGR Viewed Endwise

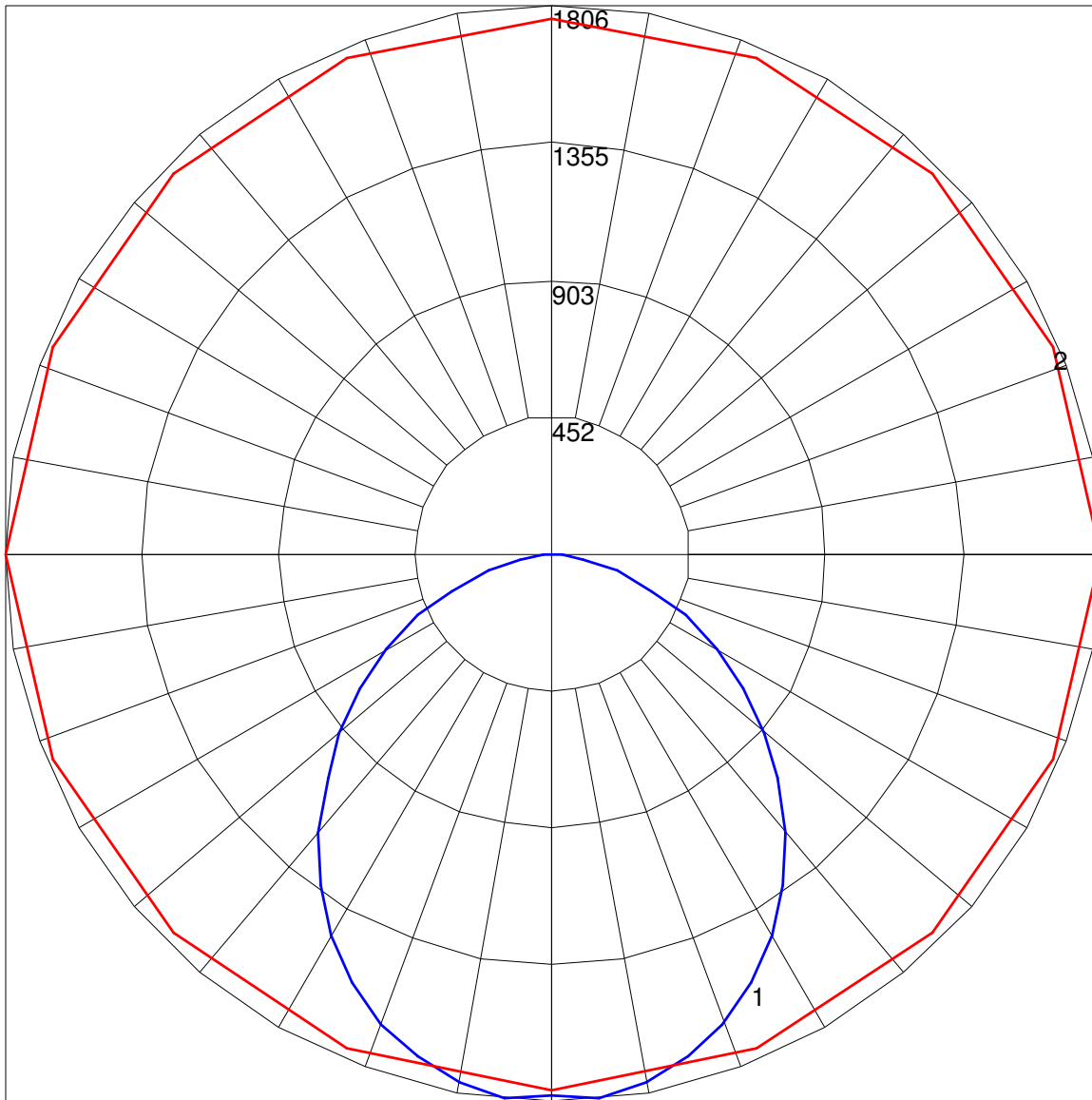
4H	2H	15.0	16.4	15.4	16.7	17.1	16.3	17.7	16.7	18.1	18.4
	3H	16.8	18.0	17.2	18.4	18.8	18.9	20.1	19.3	20.5	20.9
	4H	17.5	18.6	17.9	19.0	19.5	20.2	21.3	20.6	21.7	22.1
	6H	18.0	18.9	18.4	19.4	19.8	21.2	22.2	21.7	22.6	23.0
	8H	18.1	19.0	18.6	19.4	19.9	21.5	22.4	22.0	22.8	23.3
	12H	18.2	19.0	18.6	19.4	19.9	21.7	22.5	22.1	22.9	23.4

8H	4H	18.3	19.2	18.7	19.6	20.1	20.5	21.4	21.0	21.8	22.3
	6H	18.9	19.7	19.4	20.2	20.6	21.7	22.4	22.2	22.9	23.4
	8H	19.2	19.8	19.7	20.3	20.8	22.1	22.8	22.6	23.3	23.8
	12H	19.3	19.9	19.8	20.4	20.9	22.3	22.9	22.8	23.4	24.0

12H	4H	18.4	19.2	18.9	19.7	20.2	20.5	21.3	21.0	21.8	22.3
	6H	19.2	19.9	19.7	20.3	20.9	21.8	22.4	22.3	22.9	23.4
	8H	19.5	20.1	20.0	20.6	21.1	22.2	22.8	22.7	23.3	23.9

Maximum UGR = 24.0

POLAR GRAPH



Maximum Candela = 1806.138 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.)