



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-L64-930-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-L64-930-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	5245
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
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	2167	2408	2591
55	1971	2337	2612
65	1684	2322	2735
75	1241	2439	3059
85	475	1958	1800

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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	1821.896	1821.896	1821.896	1821.896	1821.896
5	1839.364	1817.529	1806.175	1801.808	1801.808
10	1805.302	1782.594	1776.480	1777.353	1774.733
15	1751.151	1735.430	1732.810	1738.924	1742.417
20	1680.407	1666.432	1672.546	1689.141	1692.634
25	1587.827	1575.600	1597.434	1621.016	1626.256
30	1481.273	1478.653	1508.348	1539.790	1552.018
35	1356.378	1366.859	1410.528	1450.704	1465.552
40	1224.496	1243.711	1310.962	1357.252	1374.719
45	1066.412	1099.601	1185.193	1262.052	1275.153
50	934.530	975.579	1059.425	1134.536	1156.371
55	786.926	827.976	932.783	1013.135	1042.830
60	641.943	687.360	799.154	896.100	924.049
65	495.213	558.098	682.993	777.319	804.394
70	358.091	428.836	558.098	658.538	680.373
75	223.588	310.054	439.316	529.276	551.110
80	107.427	200.880	318.788	360.711	348.483
85	28.822	99.567	118.781	105.680	109.174
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	662.40	N.A.	12.60
0-30	1400.02	N.A.	26.70
0-40	2282.69	N.A.	43.50
0-60	4019.27	N.A.	76.60
0-80	5115.66	N.A.	97.50
0-90	5244.55	N.A.	100.00
10-90	5072.58	N.A.	96.70
20-40	1620.28	N.A.	30.90
20-50	2531.14	N.A.	48.30
40-70	2397.07	N.A.	45.70
60-80	1096.39	N.A.	20.90
70-80	435.90	N.A.	8.30
80-90	128.89	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	5244.55	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	171.97
10-20	490.43
20-30	737.62
30-40	882.67
40-50	910.86
50-60	825.73
60-70	660.48
70-80	435.90
80-90	128.89
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

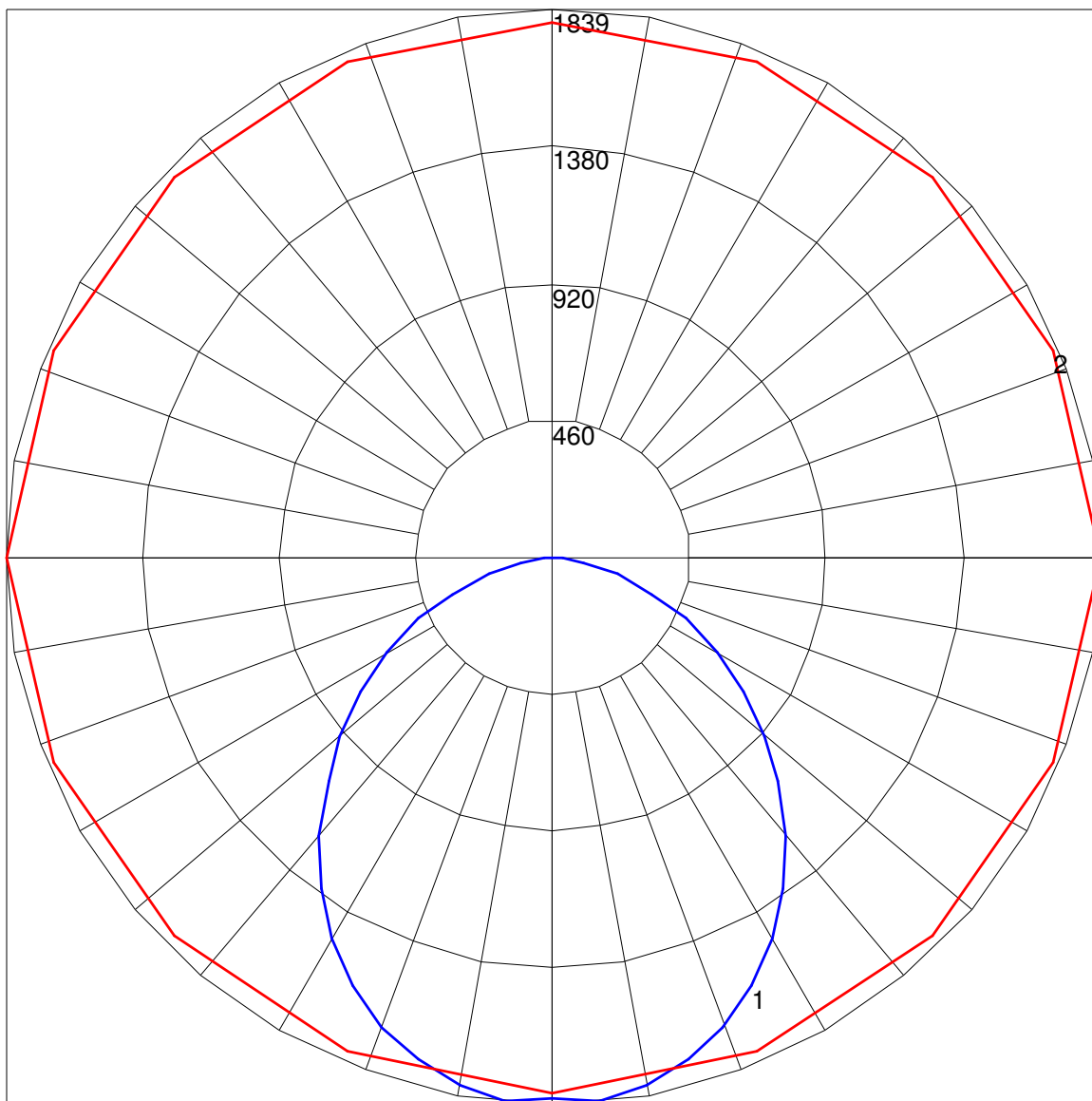
Reflectances

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	14.1	15.8	14.5	16.1	16.4	15.8	17.5	16.2	17.8	18.1
	3H	15.7	17.2	16.1	17.5	17.9	18.2	19.7	18.6	20.0	20.4
	4H	16.2	17.6	16.6	18.0	18.4	19.2	20.7	19.6	21.0	21.4
	6H	16.5	17.9	16.9	18.2	18.6	20.1	21.4	20.5	21.8	22.2
	8H	16.6	17.9	17.0	18.3	18.7	20.3	21.6	20.7	22.0	22.4
	12H	16.6	17.9	17.1	18.2	18.7	20.4	21.7	20.9	22.0	22.5
4H	2H	15.1	16.5	15.5	16.8	17.2	16.4	17.8	16.8	18.2	18.5
	3H	16.9	18.1	17.3	18.5	18.9	19.0	20.2	19.4	20.6	21.0
	4H	17.6	18.7	18.0	19.1	19.6	20.3	21.4	20.7	21.8	22.2
	6H	18.1	19.0	18.5	19.5	19.9	21.3	22.3	21.8	22.7	23.1
	8H	18.2	19.1	18.7	19.5	20.0	21.6	22.5	22.1	22.9	23.4
	12H	18.3	19.1	18.7	19.5	20.0	21.8	22.6	22.2	23.0	23.5
8H	4H	18.4	19.3	18.8	19.7	20.2	20.6	21.5	21.1	21.9	22.4
	6H	19.0	19.8	19.5	20.3	20.7	21.8	22.5	22.3	23.0	23.5
	8H	19.3	19.9	19.8	20.4	20.9	22.2	22.9	22.7	23.4	23.9
	12H	19.4	20.0	19.9	20.5	21.0	22.4	23.0	22.9	23.5	24.1
12H	4H	18.5	19.3	19.0	19.8	20.3	20.6	21.4	21.1	21.9	22.4
	6H	19.3	20.0	19.8	20.4	21.0	21.9	22.5	22.4	23.0	23.5
	8H	19.6	20.2	20.1	20.7	21.2	22.3	22.9	22.8	23.4	24.0

Maximum UGR = 24.1

POLAR GRAPH



Maximum Candela = 1839.364 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.)