



IES INDOOR REPORT

PHOTOMETRIC FILENAME : AT2-24-L55-835-D-(L41)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 18887.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 08-03-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 2x4' RECESSED LUMINAIRE
 [MORE] WITH FROST CONCAVE ACRYLIC LENS w/DEEP ACRYLIC CENTER
 [MORE] DIFFUSER
 [LUMCAT] AT2-24-L55-835-D-(L41)-DIM-UNV
 [LAMPCAT] HLM 80 CRI, 3500K CCT
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Architectural, Classroom, Office, Direct
 [_SEARCH_MOUNTING] Ceiling, Recessed
 [_SEARCH_CERTIFICATION] DLC

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3947
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	30
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.76 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1949	2074	2161
55	1678	1811	1879
65	1460	1616	1694
75	1208	1446	1518
85	920	1156	1062

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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	1657.396	1657.396	1657.396	1657.396	1657.396
5	1657.396	1657.396	1657.396	1659.936	1659.936
10	1609.134	1610.404	1615.485	1621.835	1626.915
15	1550.713	1555.793	1568.493	1579.924	1587.544
20	1461.810	1470.701	1491.021	1511.342	1521.502
25	1339.887	1350.047	1379.258	1403.389	1412.279
30	1224.314	1239.554	1271.305	1300.516	1311.946
35	1122.711	1137.951	1174.782	1206.533	1215.424
40	971.577	990.627	1028.728	1056.669	1069.369
45	850.923	868.704	905.535	930.936	943.636
50	718.840	736.620	769.641	795.042	801.392
55	594.376	609.617	641.368	662.958	665.498
60	483.883	499.124	525.795	542.305	549.925
65	381.011	396.251	421.652	435.622	441.972
70	285.758	297.188	322.589	336.559	341.639
75	193.045	207.016	231.146	242.577	242.577
80	114.303	128.274	149.864	144.784	140.974
85	49.531	62.232	62.232	57.152	57.152
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	597.85	N.A.	15.10
0-30	1233.68	N.A.	31.30
0-40	1959.7	N.A.	49.70
0-60	3224.85	N.A.	81.70
0-80	3877.14	N.A.	98.20
0-90	3946.58	N.A.	100.00
10-90	3789.79	N.A.	96.00
20-40	1361.84	N.A.	34.50
20-50	2054.86	N.A.	52.10
40-70	1678.8	N.A.	42.50
60-80	652.29	N.A.	16.50
70-80	238.64	N.A.	6.00
80-90	69.44	N.A.	1.80
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	3946.58	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	156.79
10-20	441.07
20-30	635.83
30-40	726.02
40-50	693.01
50-60	572.13
60-70	413.65
70-80	238.64
80-90	69.44
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	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	80	72	67	77	70	65	74	69	64	71	67	63	61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	56	64	59	55	53
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32
9	58	45	37	32	57	45	37	32	43	36	32	42	36	31	41	36	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	39	33	28	27

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UGR TABLE - CORRECTED

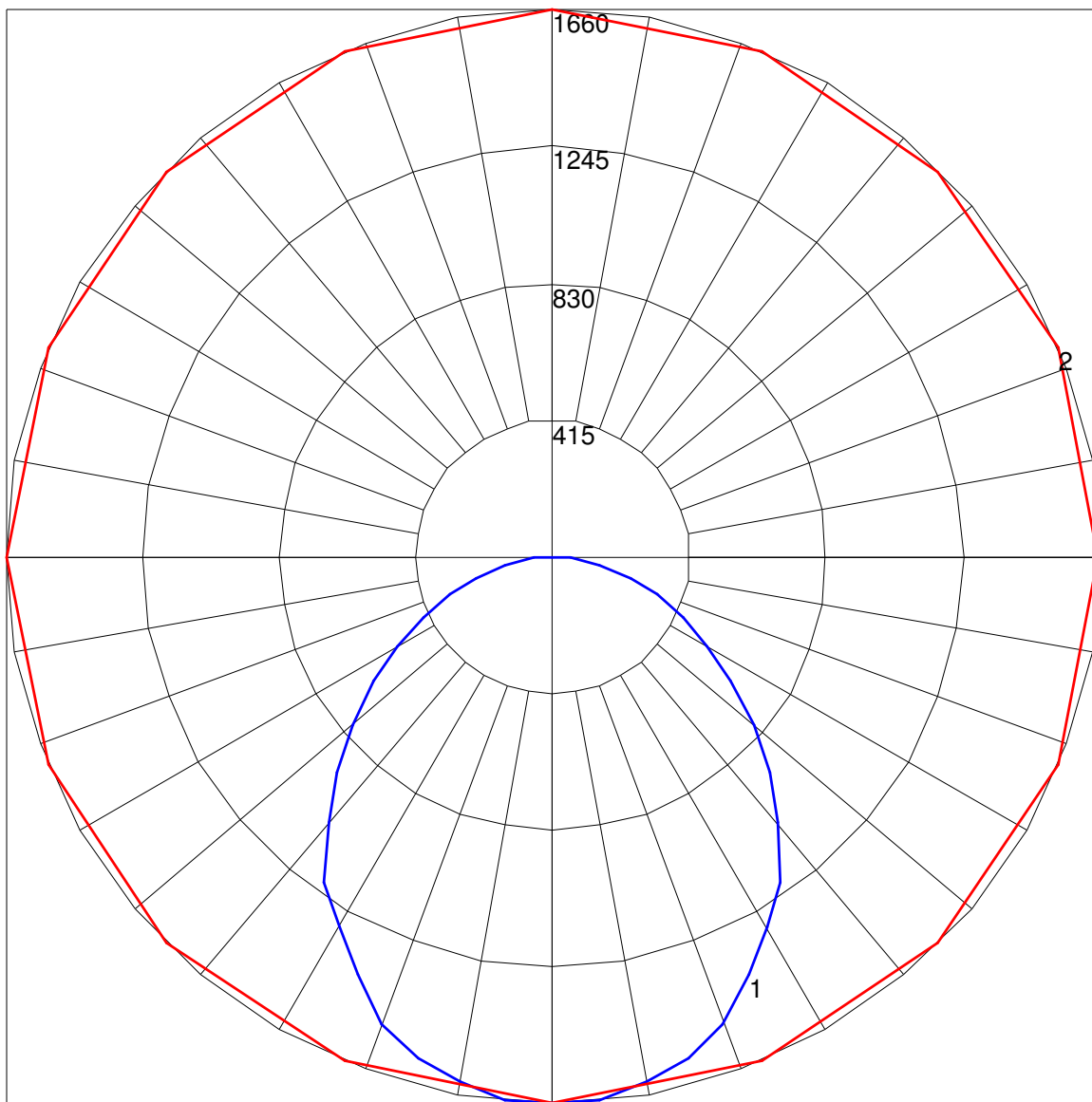
Reflectances

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	13.4	15.0	13.8	15.3	15.7	14.1	15.7	14.4	16.0	16.3
	3H	15.1	16.5	15.5	16.8	17.2	15.8	17.3	16.2	17.6	18.0
	4H	15.7	17.0	16.1	17.3	17.7	16.5	17.9	16.9	18.2	18.6
	6H	16.1	17.3	16.5	17.7	18.1	17.0	18.3	17.4	18.6	19.0
	8H	16.2	17.4	16.6	17.8	18.2	17.2	18.4	17.6	18.7	19.1
	12H	16.3	17.4	16.7	17.8	18.2	17.3	18.4	17.7	18.8	19.2
4H	2H	14.1	15.5	14.5	15.8	16.2	14.6	16.0	15.0	16.3	16.7
	3H	16.0	17.1	16.4	17.5	17.9	16.6	17.7	17.0	18.1	18.5
	4H	16.7	17.7	17.1	18.1	18.5	17.4	18.5	17.9	18.9	19.3
	6H	17.2	18.1	17.7	18.6	19.0	18.1	19.0	18.5	19.4	19.9
	8H	17.4	18.2	17.9	18.7	19.2	18.3	19.1	18.7	19.6	20.0
	12H	17.5	18.3	18.0	18.8	19.2	18.4	19.2	18.9	19.6	20.1
8H	4H	17.0	17.9	17.5	18.3	18.8	17.7	18.6	18.2	19.0	19.5
	6H	17.8	18.4	18.2	18.9	19.4	18.5	19.2	19.0	19.7	20.2
	8H	18.0	18.6	18.5	19.1	19.6	18.8	19.4	19.3	19.9	20.4
	12H	18.2	18.8	18.8	19.3	19.8	19.0	19.5	19.5	20.0	20.6
12H	4H	17.1	17.8	17.6	18.3	18.8	17.8	18.5	18.2	19.0	19.4
	6H	17.8	18.5	18.4	18.9	19.5	18.6	19.2	19.1	19.6	20.2
	8H	18.2	18.7	18.7	19.2	19.8	18.9	19.4	19.4	19.9	20.5

Maximum UGR = 20.6

POLAR GRAPH



Maximum Candela = 1659.936 Located At Horizontal Angle = 67.5, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)