



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-22-L61-940-AF-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 20203.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 2023-07-21
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2x2 RECESSED LED LUMINAIRE
 [MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CENTER LENS
 [MORE] 0-10V DIMMING DRIVER
 [LUMCAT] LT-22-L61-940-AF-DIM-UNV
 [LAMPCAT] 22 INCH LED ARRAY
 [_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	5277
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	50.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.40
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4563	4901	5276
55	4136	4823	5440
65	3644	4775	5896
75	2804	5062	6891
85	1219	4113	4012

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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	1755.961	1755.961	1755.961	1755.961	1755.961
5	1754.449	1746.887	1745.374	1739.324	1743.862
10	1724.200	1716.638	1722.687	1716.638	1721.175
15	1678.826	1675.801	1684.876	1687.901	1692.438
20	1606.228	1616.816	1630.428	1645.552	1648.577
25	1523.043	1544.218	1563.880	1588.079	1594.129
30	1433.808	1458.008	1486.744	1523.043	1535.143
35	1335.499	1356.673	1391.460	1445.908	1458.008
40	1223.577	1244.751	1293.150	1350.623	1370.285
45	1102.580	1122.242	1184.253	1244.751	1275.000
50	960.410	986.121	1064.769	1126.780	1170.641
55	810.676	846.975	945.285	1013.346	1066.282
60	668.506	709.342	822.776	908.986	960.410
65	526.335	570.196	689.680	806.139	851.513
70	387.189	434.075	567.171	694.217	741.103
75	248.043	305.516	447.687	573.221	609.520
80	122.509	192.082	308.541	421.975	409.876
85	36.299	74.110	122.509	207.206	119.484
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	640.77	N.A.	12.10
0-30	1361.93	N.A.	25.80
0-40	2236.37	N.A.	42.40
0-60	3988.27	N.A.	75.60
0-80	5130.28	N.A.	97.20
0-90	5276.73	N.A.	100.00
10-90	5110.93	N.A.	96.90
20-40	1595.6	N.A.	30.20
20-50	2508.84	N.A.	47.50
40-70	2434.63	N.A.	46.10
60-80	1142.00	N.A.	21.60
70-80	459.28	N.A.	8.70
80-90	146.45	N.A.	2.80
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	5276.73	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	165.80
10-20	474.96
20-30	721.17
30-40	874.43
40-50	913.24
50-60	838.66
60-70	682.72
70-80	459.28
80-90	146.45
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	98	94	105	101	96	93	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	63	86	76	68	62	73	66	61	70	65	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	52	62	56	51	60	55	50	48
5	75	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	45	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	38	34	32
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	39	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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UGR TABLE - CORRECTED

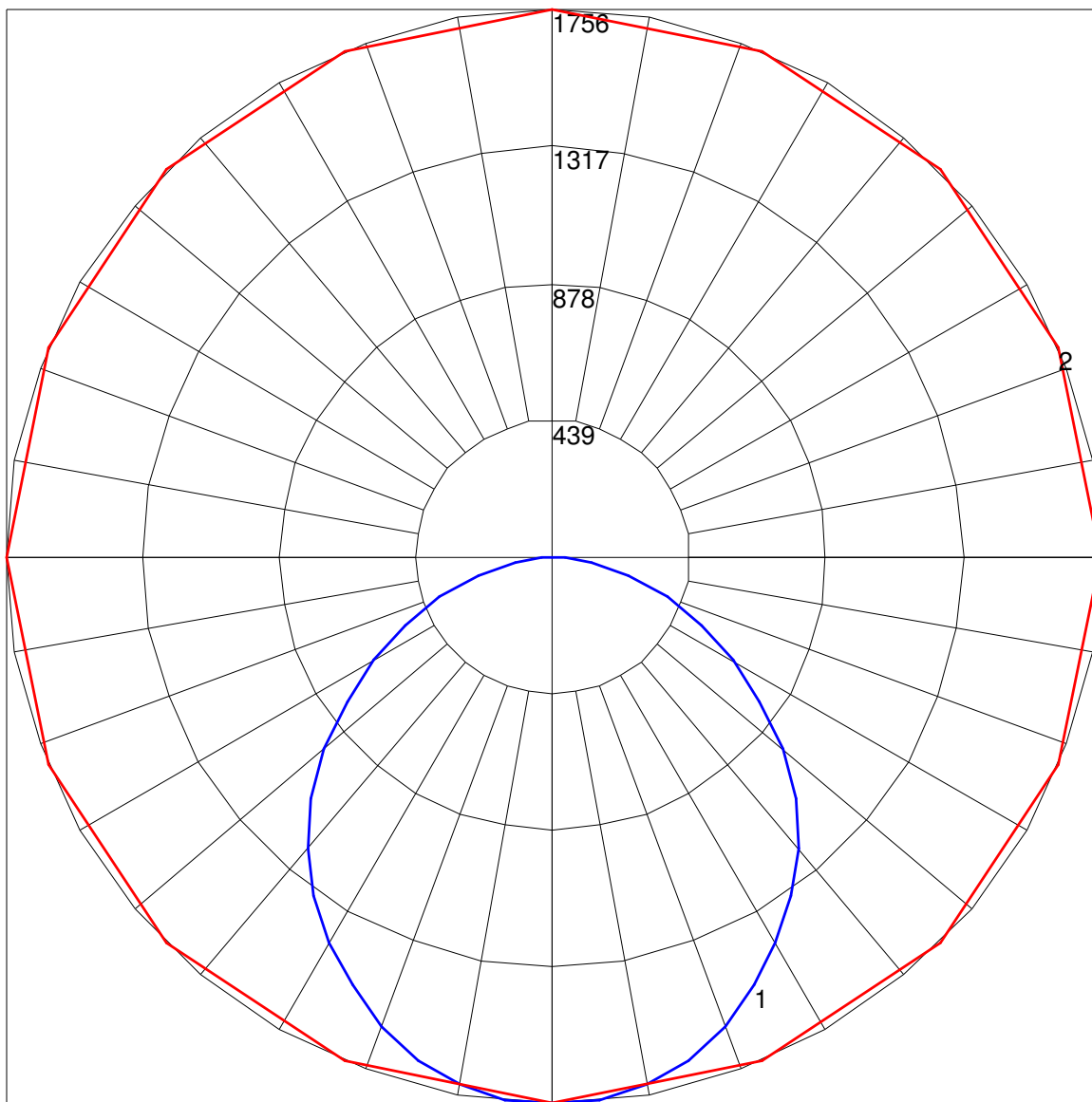
Reflectances

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	16.7	18.4	17.1	18.7	19.0	18.3	20.0	18.7	20.3	20.6
	3H	18.3	19.9	18.7	20.2	20.5	20.9	22.4	21.2	22.7	23.1
	4H	18.9	20.3	19.3	20.7	21.1	22.0	23.5	22.4	23.8	24.2
	6H	19.2	20.6	19.6	20.9	21.3	23.0	24.3	23.4	24.7	25.1
	8H	19.3	20.6	19.7	21.0	21.4	23.3	24.6	23.7	25.0	25.4
	12H	19.3	20.6	19.8	20.9	21.4	23.4	24.7	23.9	25.1	25.5
4H	2H	17.6	19.1	18.0	19.4	19.8	18.9	20.3	19.3	20.7	21.0
	3H	19.5	20.7	19.9	21.1	21.5	21.7	22.9	22.1	23.3	23.7
	4H	20.2	21.3	20.6	21.7	22.2	23.0	24.2	23.5	24.6	25.0
	6H	20.7	21.6	21.1	22.1	22.5	24.2	25.2	24.7	25.7	26.1
	8H	20.8	21.7	21.2	22.1	22.6	24.6	25.5	25.1	26.0	26.4
	12H	20.8	21.7	21.3	22.1	22.6	24.8	25.7	25.3	26.1	26.6
8H	4H	20.9	21.8	21.4	22.3	22.8	23.3	24.3	23.8	24.7	25.2
	6H	21.6	22.3	22.1	22.8	23.3	24.7	25.5	25.2	26.0	26.5
	8H	21.8	22.5	22.3	23.0	23.4	25.3	26.0	25.8	26.5	26.9
	12H	21.9	22.5	22.4	23.0	23.5	25.6	26.2	26.1	26.7	27.3
12H	4H	21.1	21.9	21.6	22.4	22.9	23.4	24.2	23.8	24.7	25.1
	6H	21.8	22.5	22.4	23.0	23.5	24.8	25.5	25.3	25.9	26.5
	8H	22.1	22.7	22.6	23.2	23.8	25.4	26.0	25.9	26.5	27.0

Maximum UGR = 27.3

POLAR GRAPH



Maximum Candela = 1755.961 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)