



IES INDOOR REPORT
PHOTOMETRIC FILENAME : MD4AEG-2-L10-L26-935-A-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TESTLAB] Photopia 2022.0.0 see: www.ltiopics.com/ies
 [ISSUEDATE]
 [TESTDATE] Tue May 24 15:40:12 2022
 [TEST] H. E. WILLIAMS PHOTOMETRIC REPORT #W00542
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.
 [LUMINAIRE] MD4AE-2-L10-L26-935-A-DIM-UNV
 [LAMP] LED 22.6W 22" 56 LED linear LED module 4000K, LED 25.7W 0.9" x 22", 1 x 60 PrevaLED linear module
 [LAMPCAT] HLM 90 CRI 3500K CCT
 [OTHER] THIS DATA IS BASED ON IN-HOUSE COMPUTER
 [OTHER] SIMULATIONS AND IS PROVIDED AS A GOOD-FAITH
 [OTHER] ESTIMATE OF PHOTOMETRIC PERFORMANCE.

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3602
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	86
Total Luminaire Watts	41.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.60
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.64 ft
Luminous Width (90-270)	1.97 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	16916	14740	10417
55	15488	14492	9379
65	12870	11932	8069
75	7115	7675	6259
85	1369	1907	2543

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CANDELA TABULATION

	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
0	1417	1417	1417	1417	1417	1417	1417	1417	1417	1417
5	1447	1483	1483	1464	1450	1429	1493	1429	1440	1471
10	1516	1521	1505	1480	1500	1484	1467	1465	1454	1399
15	1514	1549	1543	1520	1499	1485	1465	1458	1396	1384
20	1550	1546	1538	1532	1497	1464	1459	1392	1348	1308
25	1517	1509	1520	1494	1473	1435	1390	1354	1315	1252
30	1499	1510	1499	1476	1429	1398	1355	1288	1225	1172
35	1464	1481	1462	1432	1385	1314	1273	1212	1148	1091
40	1493	1459	1422	1397	1334	1257	1180	1122	1056	973
45	1403	1389	1379	1313	1261	1184	1106	1029	940	864
50	1232	1226	1212	1199	1160	1093	1011	910	828	732
55	1042	1033	1031	997	991	959	886	799	708	631
60	851	841	833	826	799	769	736	680	590	516
65	638	635	637	621	597	586	548	537	475	400
70	425	424	418	419	405	399	389	377	346	292
75	216	228	228	230	235	231	230	230	219	190
80	71	76	78	85	94	97	101	103	102	89
85	14	16	16	18	18	21	26	26	28	26
90	0	0	0	0	0	1	2	2	3	3

Vert. Angles **Horizontal Angles**

	<u>100</u>	<u>110</u>	<u>120</u>	<u>130</u>	<u>140</u>	<u>150</u>	<u>160</u>	<u>170</u>	<u>180</u>
0	1417	1417	1417	1417	1417	1417	1417	1417	1417
5	1384	1412	1381	1415	1365	1390	1312	1385	1342
10	1367	1356	1346	1344	1294	1288	1267	1273	1255
15	1327	1287	1262	1228	1199	1182	1144	1154	1128
20	1284	1225	1181	1151	1106	1082	1066	1038	1011
25	1204	1136	1092	1055	1004	963	945	915	902
30	1116	1046	976	916	878	847	826	807	787
35	1010	946	877	808	758	731	696	680	682
40	905	821	753	699	656	620	582	565	563
45	776	702	645	586	531	505	483	468	467
50	668	600	537	476	427	390	364	357	349
55	556	486	422	376	327	295	283	274	267
60	437	385	333	277	243	214	195	187	182
65	338	283	229	194	157	131	116	107	101
70	233	188	145	112	85	68	65	56	57
75	154	109	71	48	38	39	35	34	32
80	73	42	24	20	20	20	19	22	18
85	17	10	8	9	9	9	9	9	9
90	2	2	1	1	0	0	0	0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	517.61	N.A.	14.40
0-30	1087.79	N.A.	30.20
0-40	1762.21	N.A.	48.90
0-60	3029.91	N.A.	84.10
0-80	3576.8	N.A.	99.30
0-90	3602.49	N.A.	100.00
10-90	3467.65	N.A.	96.30
20-40	1244.6	N.A.	34.50
20-50	1931.21	N.A.	53.60
40-70	1651.84	N.A.	45.90
60-80	546.89	N.A.	15.20
70-80	162.74	N.A.	4.50
80-90	25.69	N.A.	0.70
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	3602.49	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	134.84
10-20	382.77
20-30	570.18
30-40	674.42
40-50	686.60
50-60	581.09
60-70	384.15
70-80	162.74
80-90	25.69
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	110	105	102	98	107	103	100	96	99	96	93	95	93	91	92	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	90	80	73	67	77	71	66	75	70	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	55	53
5	78	65	57	50	76	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	55	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	34	45	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26

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UGR TABLE - CORRECTED

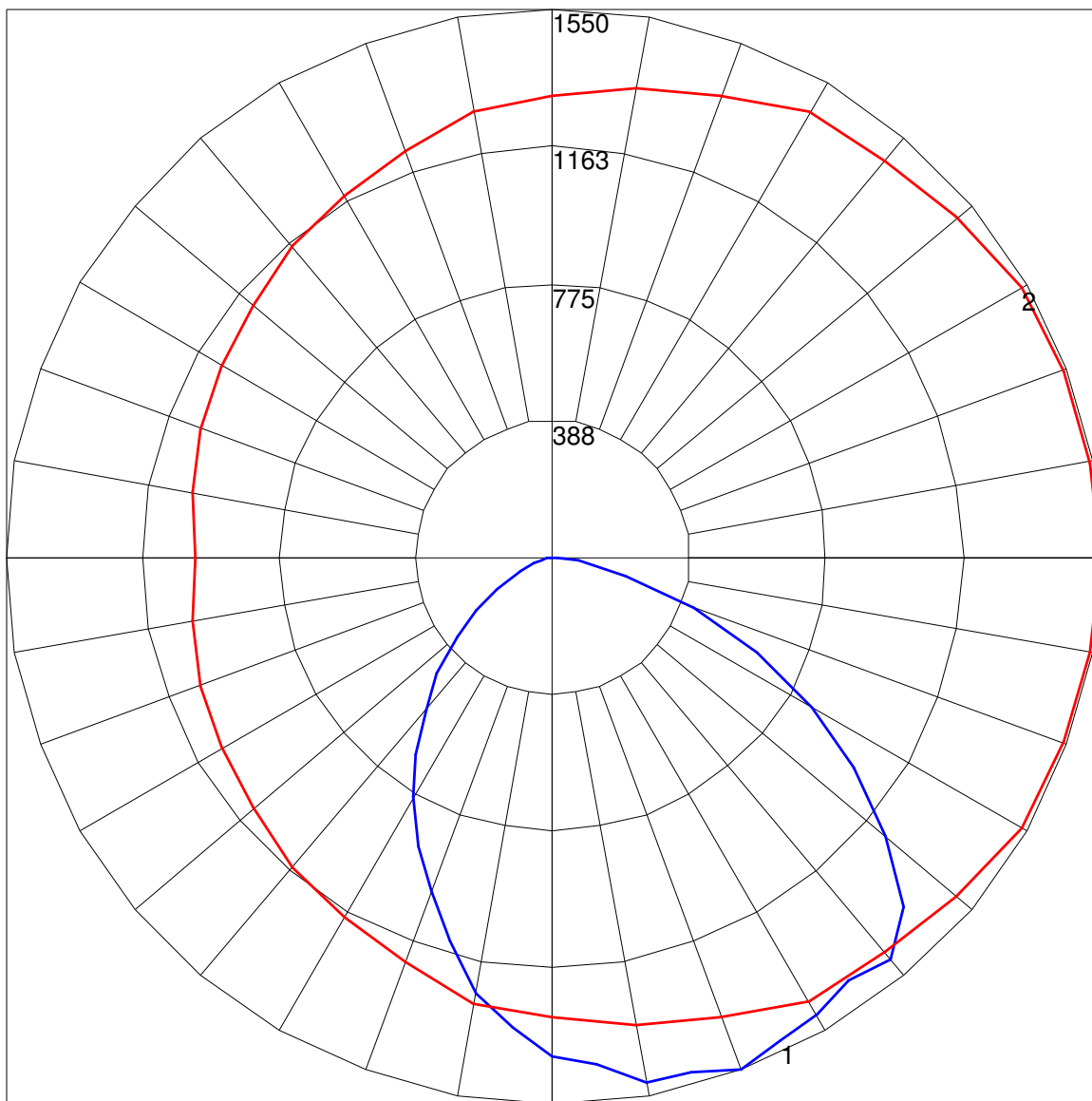
Reflectances

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	23.2	24.8	23.6	25.1	25.4	20.2	21.7	20.5	22.1	22.4
	3H	24.5	26.0	24.9	26.3	26.7	21.6	23.1	22.0	23.4	23.7
	4H	24.9	26.2	25.3	26.5	26.9	22.1	23.4	22.5	23.8	24.2
	6H	24.9	26.2	25.4	26.5	26.9	22.4	23.6	22.8	24.0	24.4
	8H	24.9	26.1	25.4	26.5	26.9	22.4	23.6	22.8	24.0	24.4
	12H	24.9	26.0	25.4	26.4	26.9	22.4	23.6	22.9	23.9	24.4
4H	2H	23.6	25.0	24.0	25.3	25.7	20.8	22.1	21.2	22.5	22.8
	3H	25.2	26.3	25.6	26.7	27.1	22.4	23.5	22.8	23.9	24.3
	4H	25.5	26.5	26.0	27.0	27.4	22.9	23.9	23.4	24.4	24.8
	6H	25.7	26.6	26.1	27.0	27.5	23.3	24.1	23.7	24.6	25.0
	8H	25.7	26.5	26.1	26.9	27.4	23.3	24.1	23.8	24.6	25.1
	12H	25.7	26.4	26.2	26.9	27.3	23.4	24.1	23.8	24.6	25.0
8H	4H	25.7	26.5	26.1	26.9	27.4	23.1	23.9	23.6	24.3	24.8
	6H	25.8	26.5	26.3	27.0	27.5	23.5	24.1	24.0	24.6	25.1
	8H	25.8	26.4	26.4	27.0	27.4	23.5	24.1	24.1	24.7	25.1
	12H	25.9	26.4	26.4	26.9	27.4	23.6	24.1	24.1	24.6	25.2
12H	4H	25.7	26.4	26.1	26.9	27.3	23.1	23.8	23.6	24.3	24.8
	6H	25.8	26.4	26.4	26.9	27.4	23.5	24.1	24.0	24.5	25.1
	8H	25.9	26.4	26.4	26.9	27.4	23.6	24.1	24.1	24.6	25.1

Maximum UGR = 27.5

POLAR GRAPH



Maximum Candela = 1550 Located At Horizontal Angle = 0, Vertical Angle = 20
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (20) (Through Max. Cd.)