



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX2WUD-4-00-L8-8TWU-L8-8TWD-F-F-DIM-UNV 4000K.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from UL 13012869.08

[TESTLAB] UL Verification Services Inc.

[ISSUE DATE] 12/6/2019

[MANUFAC] H E Williams Inc

[LUMCAT] MX2WUD-4'00-L8/8TWU/L8/8TWD-F/F-AC/Dxx-XX-DIM-UNV 4000k

[LUMINAIRE] Formed White aluminum housing, lens enclosures

[LAMP] 144 White Downlight LEDs/144 White Uplight LEDs

[OTHER] This test was performed using the calibrated photodetector met

[MORE] hod of absolute photometry.

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6600
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	52.4
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.96 ft
Luminous Width (90-270)	0.17 ft
Luminous Height	0.33 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	16210	6519	4922
55	13774	4533	3308
65	11398	2924	2081
75	8345	1563	1111
85	3932	483	366

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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>
0.0	1409.166	1409.166	1409.166	1409.166	1409.166
0.5	1404.950	1417.598	1406.004	1407.058	1407.058
1.0	1404.950	1416.544	1406.004	1407.058	1407.058
1.5	1404.950	1416.544	1406.004	1407.058	1408.112
2.0	1403.896	1416.544	1404.950	1407.058	1408.112
2.5	1403.896	1415.490	1404.950	1408.112	1408.112
3.0	1402.842	1414.436	1403.896	1407.058	1407.058
3.5	1401.788	1413.382	1402.842	1407.058	1407.058
4.0	1399.680	1412.328	1401.788	1406.004	1406.004
4.5	1398.626	1411.274	1400.734	1404.950	1404.950
5.0	1397.572	1409.166	1398.626	1403.896	1402.842
5.5	1395.464	1408.112	1397.572	1401.788	1400.734
6.0	1393.356	1406.004	1395.464	1399.680	1398.626
6.5	1391.248	1403.896	1393.356	1396.518	1396.518
7.0	1389.140	1401.788	1391.248	1393.356	1393.356
7.5	1385.979	1399.680	1388.086	1390.194	1389.140
8.0	1383.871	1396.518	1385.979	1385.979	1384.925
8.5	1380.709	1393.356	1382.817	1381.763	1380.709
9.0	1377.547	1391.248	1379.655	1377.547	1376.493
9.5	1374.385	1388.086	1376.493	1373.331	1371.223
10.0	1371.223	1384.925	1372.277	1368.061	1364.899
10.5	1368.061	1381.763	1369.115	1363.845	1358.575
11.0	1364.899	1377.547	1363.845	1358.575	1353.305
11.5	1360.683	1373.331	1359.629	1352.251	1346.981
12.0	1356.467	1370.169	1354.359	1346.981	1339.604
12.5	1352.251	1365.953	1349.089	1340.658	1333.280
13.0	1348.035	1361.737	1343.819	1334.334	1325.902
13.5	1343.819	1356.467	1338.550	1328.010	1318.524
14.0	1338.550	1352.251	1332.226	1321.686	1312.200
14.5	1334.334	1346.981	1325.902	1314.308	1304.822
15.0	1329.064	1341.712	1319.578	1306.930	1296.391
15.5	1322.740	1336.442	1313.254	1299.552	1289.013
16.0	1317.470	1331.172	1306.930	1292.175	1280.581
16.5	1312.200	1324.848	1299.552	1283.743	1272.149
17.0	1306.930	1318.524	1292.175	1276.365	1264.771
17.5	1300.606	1313.254	1284.797	1267.933	1256.339
18.0	1294.283	1305.876	1277.419	1259.501	1247.908
18.5	1289.013	1299.552	1270.041	1252.124	1239.476
19.0	1282.689	1293.229	1261.609	1242.638	1229.990
19.5	1276.365	1285.851	1253.178	1234.206	1221.558
20.0	1268.987	1278.473	1244.746	1225.774	1212.072
20.5	1262.663	1272.149	1236.314	1216.288	1201.533
21.0	1256.339	1263.717	1227.882	1205.749	1193.101
21.5	1248.962	1256.339	1219.450	1196.263	1181.507
22.0	1241.584	1248.962	1211.018	1186.777	1172.021
22.5	1234.206	1240.530	1201.533	1176.237	1162.536
23.0	1226.828	1233.152	1193.101	1165.698	1150.942
23.5	1219.450	1224.720	1183.615	1155.158	1140.402
24.0	1211.018	1216.288	1174.129	1144.618	1128.808
24.5	1203.641	1207.857	1165.698	1134.078	1118.269
25.0	1194.155	1199.425	1155.158	1122.485	1106.675
25.5	1185.723	1190.993	1145.672	1111.945	1096.135
26.0	1177.291	1181.507	1136.186	1101.405	1085.595
26.5	1167.805	1172.021	1125.646	1090.865	1074.002

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX2WUD-4-00-L8-8TWU-L8-8TWD-F-F-DIM-UNV 4000K.IES****CANDELA TABULATION - (Cont.)**

27.0	1159.374	1162.536	1116.161	1079.271	1062.408
27.5	1149.888	1153.050	1105.621	1068.732	1051.657
28.0	1139.348	1143.564	1096.135	1057.138	1040.485
28.5	1129.862	1134.078	1084.541	1046.493	1029.735
29.0	1119.323	1123.538	1074.002	1035.531	1019.089
29.5	1109.837	1114.053	1063.462	1024.570	1007.707
30.0	1099.297	1103.513	1052.290	1013.925	996.218
30.5	1089.811	1091.919	1041.223	1002.753	985.678
31.0	1079.271	1082.433	1029.945	991.475	973.768
31.5	1067.678	1070.840	1018.352	980.092	962.386
32.0	1058.192	1059.246	1006.863	968.393	950.897
32.5	1046.704	1048.179	995.164	956.062	939.514
33.0	1036.480	1036.375	983.149	944.152	927.183
33.5	1025.413	1025.203	971.344	932.242	915.167
34.0	1014.241	1013.398	959.329	920.121	903.890
34.5	1003.385	1001.277	947.208	907.684	891.980
35.0	992.529	989.473	935.404	895.247	879.227
35.5	981.673	977.036	923.388	882.705	866.263
36.0	970.712	965.337	910.846	870.479	853.826
36.5	959.540	953.216	898.831	857.726	841.073
37.0	948.262	941.411	886.499	845.183	827.266
37.5	936.247	929.396	874.484	832.430	813.775
38.0	924.969	917.381	862.047	819.466	800.389
38.5	913.059	905.155	850.032	806.397	787.426
39.0	901.150	893.245	837.384	793.855	776.464
39.5	889.029	881.546	825.158	783.104	764.554
40.0	877.119	870.057	812.721	770.878	751.696
40.5	864.893	857.937	800.495	759.179	739.048
41.0	853.194	846.027	789.428	746.531	726.927
41.5	841.389	834.433	779.415	734.094	715.123
42.0	829.268	822.418	767.505	722.184	703.634
42.5	817.253	810.718	756.333	710.591	692.568
43.0	805.554	799.019	744.529	699.313	681.712
43.5	794.382	788.374	733.040	688.352	671.172
44.0	783.631	778.783	721.763	677.707	660.843
44.5	775.410	767.295	710.591	667.272	650.725
45.0	763.816	756.017	699.629	657.049	640.501
45.5	752.434	744.845	688.879	646.931	630.488
46.0	741.261	733.357	678.339	637.023	620.476
46.5	729.984	721.868	667.799	627.010	610.568
47.0	718.917	710.485	657.470	617.103	600.556
47.5	707.640	699.102	647.036	607.196	590.648
48.0	696.573	687.930	636.707	597.183	580.741
48.5	685.506	676.758	626.273	587.275	570.939
49.0	674.439	665.691	615.944	577.157	561.242
49.5	663.478	654.625	605.509	567.355	551.546
50.0	652.622	643.663	595.180	557.553	541.954
50.5	641.661	632.702	584.746	547.751	532.574
51.0	630.699	621.846	574.312	538.055	523.194
51.5	619.843	610.990	563.983	528.358	513.813
52.0	608.882	600.134	553.864	518.767	504.433
52.5	597.921	589.489	543.746	509.281	495.158
53.0	586.959	578.738	533.839	499.795	485.988
53.5	576.103	568.093	524.037	490.310	476.503
54.0	565.353	557.659	514.340	481.035	467.228
54.5	554.602	547.119	504.749	471.549	457.953

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX2WUD-4-00-L8-8TWU-L8-8TWD-F-F-DIM-UNV 4000K.IES****CANDELA TABULATION - (Cont.)**

55.0	543.957	536.790	495.158	462.169	448.678
55.5	533.312	526.566	485.672	452.999	439.508
56.0	522.772	516.343	476.186	443.724	430.233
56.5	512.338	506.330	466.701	434.765	421.274
57.0	502.009	496.212	457.215	425.701	412.421
57.5	491.785	486.094	447.729	416.848	403.778
58.0	481.772	475.976	438.349	407.994	395.136
58.5	471.760	465.963	428.968	399.352	386.809
59.0	462.169	456.161	419.799	390.709	378.377
59.5	452.683	446.464	410.524	382.172	370.156
60.0	443.197	436.768	401.459	373.740	362.041
60.5	433.817	427.176	392.501	365.413	353.925
61.0	424.331	417.585	383.647	357.192	345.915
61.5	414.845	408.205	374.794	349.077	338.010
62.0	405.254	398.825	366.046	340.961	330.316
62.5	395.768	389.550	357.403	332.951	322.622
63.0	386.388	380.380	348.971	325.152	315.033
63.5	377.113	371.210	340.434	317.352	307.445
64.0	367.838	361.935	332.002	309.553	299.962
64.5	358.563	352.766	323.676	301.859	292.478
65.0	349.498	343.702	315.350	294.270	285.206
65.5	340.329	334.637	307.129	286.681	277.933
66.0	331.265	325.679	299.013	279.198	270.661
66.5	322.095	316.720	290.792	271.610	263.389
67.0	312.925	307.972	282.676	263.916	256.011
67.5	303.861	299.118	274.666	256.432	248.738
68.0	294.903	290.265	266.656	248.949	241.571
68.5	285.944	281.517	258.540	241.571	234.404
69.0	277.090	272.664	250.636	234.193	227.237
69.5	268.237	264.021	242.625	226.816	220.281
70.0	259.278	255.378	234.826	219.543	213.219
70.5	250.425	246.841	227.026	212.376	206.369
71.0	241.677	238.199	219.227	205.315	199.623
71.5	232.929	229.661	211.638	198.253	193.088
72.0	224.392	221.124	204.366	191.402	186.659
72.5	215.854	212.798	196.988	184.762	180.230
73.0	207.422	204.577	189.610	178.122	173.906
73.5	198.991	196.461	182.338	171.587	167.688
74.0	190.770	188.346	175.171	165.158	161.469
74.5	182.549	180.441	168.215	158.834	155.356
75.0	174.433	172.641	161.258	152.616	149.243
75.5	166.528	164.842	154.407	146.503	143.341
76.0	158.623	157.253	147.662	140.495	137.544
76.5	150.929	149.770	141.022	134.487	131.852
77.0	143.341	142.392	134.487	128.585	126.056
77.5	135.752	135.120	128.058	122.894	120.469
78.0	128.374	127.953	121.840	117.097	114.778
78.5	121.102	120.996	115.621	111.511	109.297
79.0	114.040	114.146	109.719	105.925	104.027
79.5	107.084	107.400	103.817	100.549	98.758
80.0	100.233	100.866	98.125	95.174	93.593
80.5	93.488	94.542	92.434	89.904	88.534
81.0	87.058	88.323	86.848	84.845	83.580
81.5	80.840	82.316	81.367	79.786	78.732
82.0	74.622	76.413	75.992	74.727	73.884
82.5	68.614	70.511	70.827	69.879	69.246

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83.0	62.817	64.925	65.557	65.136	64.503
83.5	57.126	59.444	60.498	60.393	59.971
84.0	51.645	54.280	55.650	55.755	55.545
84.5	46.375	49.221	50.802	51.223	51.012
85.0	41.316	44.267	46.059	46.797	46.586
85.5	36.468	39.524	41.527	42.475	42.370
86.0	31.725	34.781	37.100	38.154	38.154
86.5	27.193	30.355	32.779	34.043	34.043
87.0	22.766	25.928	28.563	30.038	30.038
87.5	18.445	21.712	24.347	26.033	26.033
88.0	14.229	17.601	20.342	22.133	22.239
88.5	10.013	13.596	16.337	18.550	18.655
89.0	5.797	9.170	12.121	14.334	13.807
89.5	2.846	5.481	7.694	9.064	8.537
90.0	2.530	4.005	4.954	5.270	4.321
90.5	2.846	5.902	8.010	8.537	8.432
91.0	5.797	7.272	9.275	11.067	11.172
91.5	10.118	9.697	10.645	11.910	12.015
92.0	15.072	13.069	12.648	13.596	13.596
92.5	20.131	16.758	14.756	15.493	15.493
93.0	25.190	20.869	17.180	17.496	17.391
93.5	30.355	24.979	20.236	19.604	19.499
94.0	35.519	29.090	23.714	21.817	21.607
94.5	40.683	33.411	27.509	24.241	23.820
95.0	45.848	37.943	31.619	27.087	26.139
95.5	50.907	42.686	35.835	30.249	28.879
96.0	56.072	47.640	39.946	33.727	31.935
96.5	61.131	52.699	43.951	37.522	35.203
97.0	66.295	57.863	47.745	41.527	38.997
97.5	71.460	62.922	51.539	45.637	42.897
98.0	76.624	68.087	55.439	49.642	46.902
98.5	81.789	73.146	59.233	53.542	50.907
99.0	86.953	78.310	63.028	57.336	54.807
99.5	92.118	83.475	67.033	61.131	58.706
100.0	97.282	88.639	71.038	64.820	62.395
100.5	102.552	93.909	75.148	68.614	66.190
101.0	107.716	99.179	79.364	72.408	69.984
101.5	113.092	104.449	83.580	76.308	73.778
102.0	118.467	109.824	88.112	80.102	77.678
102.5	124.053	115.305	92.644	84.002	81.578
103.0	129.639	120.891	97.177	88.007	85.372
103.5	135.436	126.583	101.919	92.118	89.377
104.0	141.338	132.379	106.873	96.228	93.488
104.5	147.135	138.282	111.827	100.549	97.704
105.0	153.037	144.289	116.991	104.871	102.025
105.5	159.045	150.402	122.261	109.297	106.346
106.0	165.263	156.621	127.742	113.829	110.878
106.5	171.693	163.050	133.433	118.572	115.410
107.0	178.333	169.690	139.336	123.315	120.153
107.5	185.078	176.436	145.449	128.269	124.896
108.0	192.140	183.392	151.667	133.433	129.850
108.5	199.412	190.559	158.202	138.809	134.909
109.0	206.896	197.937	164.842	144.289	140.179
109.5	214.484	205.420	171.798	149.981	145.659
110.0	222.494	213.219	178.965	155.883	151.246
110.5	230.610	221.335	186.448	162.102	157.042

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111.0	239.147	229.556	194.248	168.531	163.050
111.5	247.790	238.093	202.363	175.382	169.374
112.0	256.959	247.052	210.795	182.443	176.119
112.5	266.340	256.222	219.543	189.926	182.970
113.0	276.036	265.813	228.713	197.621	190.243
113.5	286.049	275.615	238.199	205.631	197.621
114.0	296.483	285.733	248.001	214.063	205.631
114.5	307.129	296.167	258.224	222.916	213.852
115.0	318.195	307.023	268.764	232.086	222.600
115.5	329.578	318.195	279.831	241.677	231.559
116.0	341.172	329.684	291.214	251.795	241.044
116.5	353.187	341.594	303.018	262.440	250.846
117.0	365.730	353.609	315.244	273.401	261.281
117.5	378.588	366.151	327.787	284.890	272.137
118.0	391.868	378.904	340.750	296.800	283.309
118.5	405.465	392.184	354.136	309.026	294.903
119.0	419.377	405.781	367.732	321.673	307.023
119.5	433.500	419.693	381.856	334.954	319.566
120.0	447.729	434.027	396.400	348.550	332.529
120.5	462.379	448.678	411.261	362.673	345.915
121.0	477.346	463.749	426.544	377.323	359.827
121.5	492.734	479.138	442.143	392.501	374.372
122.0	508.438	494.947	458.163	407.994	389.339
122.5	524.564	510.862	474.500	424.120	404.938
123.0	541.006	527.093	491.047	440.562	420.853
123.5	557.659	543.535	507.911	457.320	437.189
124.0	574.417	560.294	524.985	474.500	453.947
124.5	591.491	577.052	542.271	492.207	471.233
125.0	608.566	594.126	559.872	510.230	489.150
125.5	625.535	611.306	577.579	528.674	507.279
126.0	642.398	628.591	595.391	547.330	525.618
126.5	659.367	645.877	613.203	566.301	544.379
127.0	676.653	663.373	631.332	585.484	563.666
127.5	694.043	680.869	649.355	604.877	583.060
128.0	711.328	698.575	667.378	624.270	602.664
128.5	728.508	716.071	685.295	643.663	622.267
129.0	745.266	733.462	703.002	663.162	641.977
129.5	762.235	750.747	720.709	682.555	662.002
130.0	776.991	767.400	738.205	702.053	682.239
130.5	790.904	781.734	755.490	721.341	702.264
131.0	806.924	797.754	770.878	740.418	722.395
131.5	823.050	813.564	786.793	758.441	742.421
132.0	838.860	829.795	801.443	776.043	760.233
132.5	854.669	845.710	817.780	793.960	779.837
133.0	870.268	861.204	834.011	809.664	799.125
133.5	885.340	876.908	849.926	826.844	815.672
134.0	899.990	891.875	865.736	843.813	834.327
134.5	914.535	906.841	881.019	860.466	852.456
135.0	928.131	921.070	896.301	876.803	869.952
135.5	941.938	935.193	911.268	892.507	886.710
136.0	955.324	949.000	925.813	908.211	903.257
136.5	967.866	962.596	940.147	923.178	919.489
137.0	980.303	975.455	954.586	938.355	935.088
137.5	992.424	988.524	967.655	952.900	950.370
138.0	1004.545	1000.961	981.252	967.023	964.915
138.5	1016.455	1013.398	994.005	980.619	978.722

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX2WUD-4-00-L8-8TWU-L8-8TWD-F-F-DIM-UNV 4000K.IES****CANDELA TABULATION - (Cont.)**

139.0	1027.310	1025.413	1006.336	994.110	992.740
139.5	1038.272	1037.218	1018.668	1006.863	1005.809
140.0	1049.128	1048.074	1030.262	1019.933	1018.773
140.5	1059.246	1059.246	1041.750	1032.053	1030.999
141.0	1069.786	1069.786	1053.449	1044.069	1042.909
141.5	1079.271	1080.325	1064.516	1056.084	1055.030
142.0	1088.757	1090.865	1076.110	1066.624	1066.624
142.5	1098.243	1100.351	1085.595	1078.218	1077.164
143.0	1107.729	1109.837	1096.135	1088.757	1088.757
143.5	1116.161	1119.323	1106.675	1099.297	1099.297
144.0	1124.592	1127.754	1116.161	1109.837	1109.837
144.5	1133.024	1137.240	1124.592	1120.377	1120.377
145.0	1141.456	1145.672	1134.078	1129.862	1130.916
145.5	1149.888	1154.104	1142.510	1139.348	1141.456
146.0	1157.266	1162.536	1150.942	1148.834	1150.942
146.5	1165.698	1169.913	1159.374	1158.320	1161.482
147.0	1173.075	1177.291	1167.805	1166.751	1169.913
147.5	1179.399	1185.723	1175.183	1175.183	1179.399
148.0	1187.831	1193.101	1183.615	1183.615	1187.831
148.5	1195.209	1200.479	1190.993	1190.993	1196.263
149.0	1202.587	1207.857	1198.371	1198.371	1203.641
149.5	1208.911	1215.234	1205.749	1205.749	1211.018
150.0	1216.288	1221.558	1213.126	1212.072	1217.342
150.5	1222.612	1228.936	1220.504	1218.396	1223.666
151.0	1228.936	1235.260	1227.882	1225.774	1229.990
151.5	1236.314	1242.638	1234.206	1232.098	1235.260
152.0	1242.638	1248.962	1241.584	1238.422	1240.530
152.5	1248.962	1255.285	1248.962	1244.746	1246.854
153.0	1255.285	1261.609	1255.285	1251.070	1252.124
153.5	1261.609	1266.879	1261.609	1257.393	1257.393
154.0	1266.879	1273.203	1267.933	1263.717	1262.663
154.5	1273.203	1279.527	1274.257	1270.041	1268.987
155.0	1278.473	1284.797	1280.581	1276.365	1274.257
155.5	1283.743	1290.067	1286.905	1282.689	1280.581
156.0	1289.013	1295.337	1292.175	1289.013	1286.905
156.5	1294.283	1300.606	1298.499	1295.337	1293.229
157.0	1298.499	1305.876	1303.768	1301.660	1298.499
157.5	1303.768	1311.146	1309.038	1307.984	1304.822
158.0	1309.038	1316.416	1314.308	1313.254	1311.146
158.5	1314.308	1320.632	1319.578	1319.578	1316.416
159.0	1318.524	1325.902	1323.794	1324.848	1321.686
159.5	1322.740	1330.118	1329.064	1331.172	1328.010
160.0	1326.956	1334.334	1334.334	1336.442	1333.280
160.5	1331.172	1338.550	1338.550	1340.658	1338.550
161.0	1335.388	1342.765	1342.765	1345.927	1343.819
161.5	1339.604	1346.981	1346.981	1350.143	1348.035
162.0	1343.819	1351.197	1351.197	1354.359	1353.305
162.5	1348.035	1355.413	1355.413	1358.575	1357.521
163.0	1352.251	1358.575	1359.629	1362.791	1361.737
163.5	1356.467	1362.791	1362.791	1365.953	1364.899
164.0	1360.683	1367.007	1367.007	1369.115	1369.115
164.5	1363.845	1371.223	1370.169	1372.277	1372.277
165.0	1368.061	1374.385	1373.331	1375.439	1375.439
165.5	1371.223	1377.547	1375.439	1378.601	1378.601
166.0	1375.439	1381.763	1378.601	1380.709	1381.763
166.5	1378.601	1384.925	1380.709	1383.871	1383.871

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX2WUD-4-00-L8-8TWU-L8-8TWD-F-F-DIM-UNV 4000K.IES****CANDELA TABULATION - (Cont.)**

167.0	1381.763	1388.086	1383.871	1387.032	1388.086
167.5	1384.925	1391.248	1385.979	1389.140	1390.194
168.0	1388.086	1393.356	1389.140	1392.302	1392.302
168.5	1391.248	1396.518	1391.248	1394.410	1395.464
169.0	1393.356	1398.626	1393.356	1397.572	1398.626
169.5	1396.518	1401.788	1395.464	1399.680	1400.734
170.0	1398.626	1403.896	1397.572	1401.788	1403.896
170.5	1401.788	1406.004	1399.680	1403.896	1406.004
171.0	1403.896	1408.112	1400.734	1406.004	1408.112
171.5	1404.950	1409.166	1402.842	1408.112	1411.274
172.0	1408.112	1411.274	1404.950	1410.220	1413.382
172.5	1409.166	1413.382	1406.004	1412.328	1415.490
173.0	1411.274	1414.436	1408.112	1413.382	1417.598
173.5	1413.382	1416.544	1409.166	1414.436	1419.706
174.0	1414.436	1417.598	1410.220	1416.544	1420.760
174.5	1416.544	1418.652	1412.328	1417.598	1421.814
175.0	1417.598	1419.706	1413.382	1418.652	1422.868
175.5	1418.652	1420.760	1413.382	1419.706	1423.922
176.0	1420.760	1421.814	1415.490	1420.760	1424.976
176.5	1421.814	1422.868	1415.490	1420.760	1424.976
177.0	1421.814	1422.868	1416.544	1421.814	1424.976
177.5	1422.868	1423.922	1417.598	1421.814	1424.976
178.0	1423.922	1424.976	1417.598	1421.814	1426.030
178.5	1424.976	1424.976	1418.652	1422.868	1424.976
179.0	1424.976	1424.976	1418.652	1422.868	1424.976
179.5	1424.976	1424.976	1419.706	1422.868	1424.976
180.0	1422.868	1422.868	1422.868	1422.868	1422.868



**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX2WUD-4-00-L8-8TWU-L8-8TWD-F-F-DIM-UNV 4000K.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	504.38	N.A.	7.60
0-30	1036.24	N.A.	15.70
0-40	1622.22	N.A.	24.60
0-60	2611.33	N.A.	39.60
0-80	3098.97	N.A.	47.00
0-90	3150.34	N.A.	47.70
10-90	3017.35	N.A.	45.70
20-40	1117.84	N.A.	16.90
20-50	1661.28	N.A.	25.20
40-70	1304.08	N.A.	19.80
60-80	487.64	N.A.	7.40
70-80	172.67	N.A.	2.60
80-90	51.37	N.A.	0.80
90-110	171.35	N.A.	2.60
90-120	443.74	N.A.	6.70
90-130	940.08	N.A.	14.20
90-150	2337.51	N.A.	35.40
90-180	3449.95	N.A.	52.30
110-180	3278.61	N.A.	49.70
0-180	6600.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	132.99
10-20	371.40
20-30	531.86
30-40	585.98
40-50	543.44
50-60	445.67
60-70	314.97
70-80	172.67
80-90	51.37
90-100	38.95
100-110	132.39
110-120	272.39
120-130	496.35
130-140	688.35
140-150	709.07
150-160	589.88
160-170	387.75
170-180	134.81

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MX2WUD-4-00-L8-8TWU-L8-8TWD-F-F-DIM-UNV 4000K.IES****COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC RW	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	48
1	98	93	90	86	90	86	83	80	72	70	68	60	58	57	48	47	46	41
2	89	82	76	71	82	76	70	66	64	60	57	53	50	48	43	41	39	35
3	81	72	65	59	75	67	60	55	56	52	48	47	44	41	38	36	34	30
4	75	64	56	50	68	59	53	47	50	45	41	42	38	35	34	32	29	26
5	69	57	49	43	63	53	46	41	45	40	36	38	34	31	31	28	26	23
6	63	51	44	38	58	48	41	36	41	35	31	34	30	27	28	25	23	20
7	59	47	39	33	54	43	36	31	37	32	28	31	27	24	26	23	20	18
8	54	42	35	29	50	39	33	28	34	29	25	29	25	22	24	21	18	16
9	51	39	31	26	47	36	29	25	31	26	22	26	22	19	22	19	17	15
10	47	36	28	24	44	33	27	22	29	24	20	25	20	18	21	17	15	13

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX2WUD-4-00-L8-8TWU-L8-8TWD-F-F-DIM-UNV 4000K.IES

## 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	14.7	15.6	15.7	16.5	17.8	13.6	14.4	14.6	15.4	16.7
	3H	16.3	17.0	17.2	18.0	19.3	15.1	15.8	16.1	16.8	18.2
	4H	16.8	17.5	17.8	18.5	19.8	15.6	16.3	16.6	17.3	18.6
	6H	17.1	17.7	18.1	18.7	20.1	16.0	16.6	17.0	17.6	19.0
	8H	17.2	17.8	18.2	18.8	20.1	16.1	16.7	17.1	17.7	19.1
	12H	17.2	17.8	18.2	18.8	20.2	16.2	16.8	17.2	17.8	19.1

### UGR Viewed Endwise

4H	2H	14.8	15.5	15.8	16.5	17.8	13.8	14.5	14.8	15.5	16.8
	3H	16.4	17.0	17.5	18.1	19.4	15.4	16.0	16.4	17.0	18.4
	4H	17.0	17.6	18.1	18.6	20.0	16.0	16.5	17.0	17.6	18.9
	6H	17.4	17.9	18.5	18.9	20.3	16.5	16.9	17.5	18.0	19.3
	8H	17.5	18.0	18.6	19.0	20.4	16.6	17.0	17.6	18.1	19.4
	12H	17.6	18.0	18.6	19.0	20.4	16.7	17.1	17.8	18.1	19.5

8H	4H	17.0	17.4	18.0	18.5	19.8	16.0	16.4	17.0	17.5	18.9
	6H	17.4	17.8	18.5	18.9	20.3	16.5	16.9	17.6	18.0	19.3
	8H	17.6	17.9	18.7	19.0	20.4	16.7	17.0	17.8	18.1	19.5
	12H	17.7	17.9	18.7	19.0	20.4	16.8	17.1	17.9	18.2	19.6

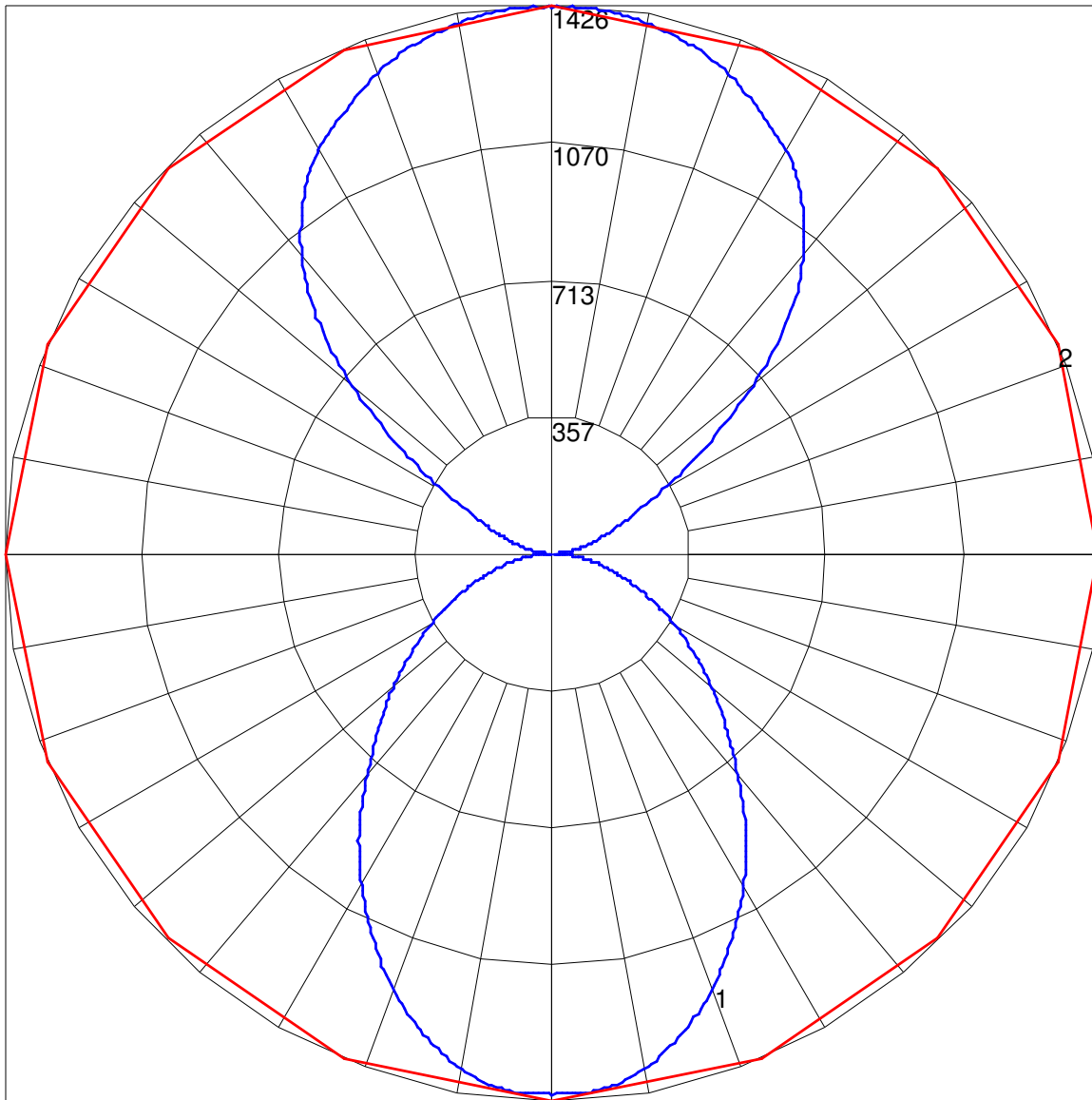
12H	4H	16.9	17.3	18.0	18.4	19.8	16.0	16.4	17.0	17.4	18.8
	6H	17.4	17.7	18.5	18.8	20.2	16.5	16.8	17.6	17.9	19.3
	8H	17.6	17.8	18.6	18.9	20.3	16.7	17.0	17.8	18.0	19.5

Maximum UGR = 20.4

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : MX2WUD-4-00-L8-8TWU-L8-8TWD-F-F-DIM-UNV 4000K.IES

## POLAR GRAPH



Maximum Candela = 1426.03 Located At Horizontal Angle = 90, Vertical Angle = 178

# 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (178) (Through Max. Cd.)