

Photometric Report

CATALOG NUMBER: 120W Cobra

Monday, October 12, 2009

FILENAME: ECHUS-EC-120W.IES

IESNA:LM-63-2001

[TEST]Generated by TracePro Release: 4 1 7

[MANUFAC] FULL SPECTRUM SOLUTIONS - JACKSON, MI, USA

[LUMINAIRE] 120W Cobra Head

[LUMCAT] 120W Cobra

[LAMP] 1; 120W INDUCTION

[LAMPCAT] INDUCTION

[MORE]\\volume_1\0_Projects_2009\1088LO Ledos Full Spectrum Cobra 120w\TracePro\1088LO-60.OML

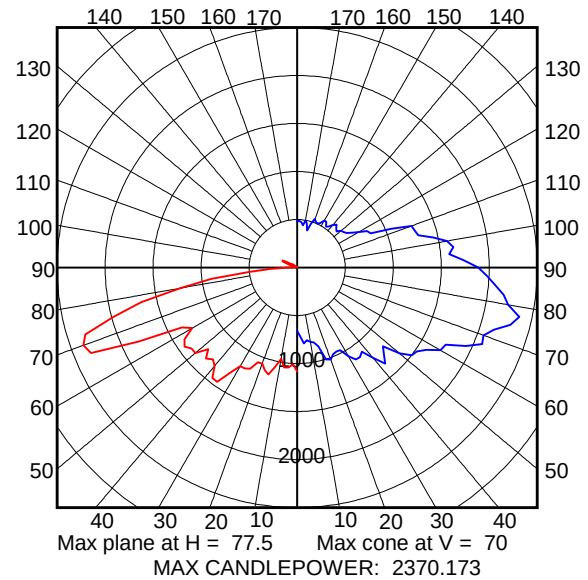
SUMMARY DATA

EFFICIENCY (Total): 61.0 %
EFFICIENCY (Down / Up): 59.3 % / 1.7 %
EFFICIENCY (Street / House): 34.6 % / 26.4 %
ROADWAY CLASSIFICATION: TYPE III, MEDIUM
CUTOFF CLASSIFICATION: SEMICUTOFF
LUMENS/LAMP: 10200
NO. OF LAMPS: 1
LUMINOUS OPENING: RECTANGULAR
Width: 1.08 (Feet)
Length: 1.92
Height: 0.00
INPUT WATTS: 134

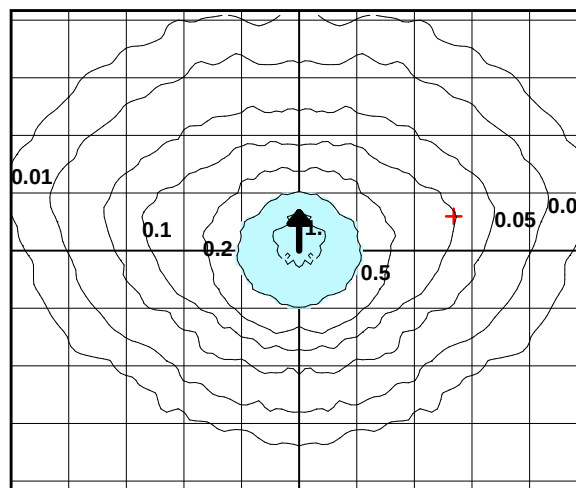
LUMINAIRE CLASSIFICATION SYSTEM (BUG RATING = B2-U3-G2)

FORWARD LIGHT	Lumens (% of Lamp Lumens)	
FL (0-30):	507	(5.0%)
FM (30-60):	1435	(14.1%)
FH (60-80):	1261	(12.4%)
FVH(80-90):	207	(2.0%)
BACKLIGHT		
BL (0-30):	446	(4.4%)
BM (30-60):	1379	(13.5%)
BH (60-80):	749	(7.3%)
BVH(80-90):	70	(0.7%)
UPLIGHT		
UL (90-100):	11	(0.1%)
UH (100-180):	159	(1.6%)
TRAPPED LIGHT:	3975	(39.0%)

PLANE & CONE DIAGRAM



ISO-ILLUMINANCE DIAGRAM (fc)



Mounting Height	Multiplier
10	9.000
15	4.000
20	2.250
25	1.440
30	1.000
35	0.735
40	0.563
45	0.444
50	0.360

Shade Limit:
0.5 fc.

Shaded Area:
2969 sq.ft.

+ = Point of max candela

Mounting Height = 30 Feet. Each box represents one mounting height.

Reported data calculated from manufacturer's data file, based on IESNA recommended methods.

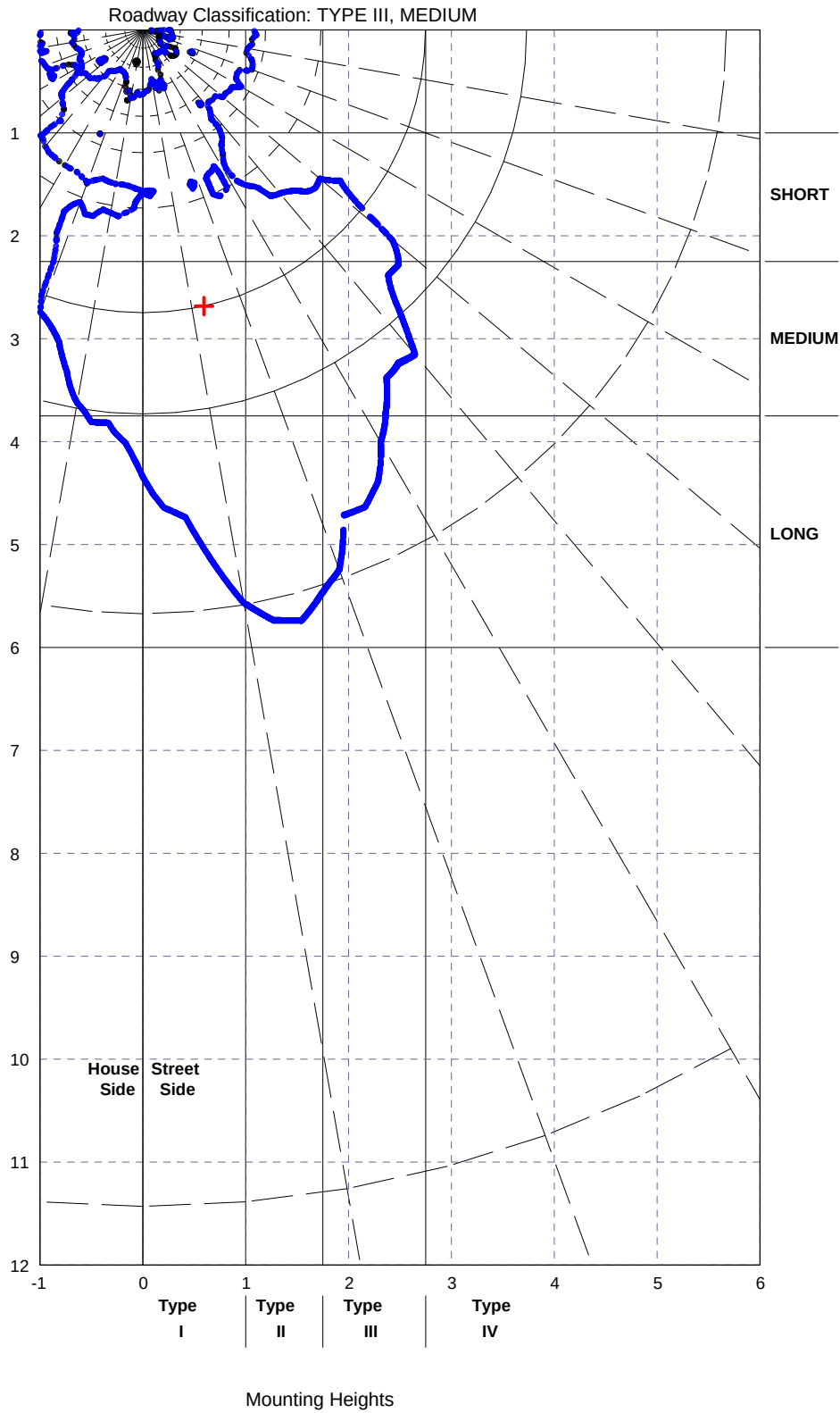
Photometric Viewer v3.4

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CANDELA TABLE

Vertical Angle	Horizontal Angles											
	0	2.5	5	7.5	10	12.5	15	17.5	20	22.5	25	27.5
0	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085
2.5	1148	1128	1135	1142	1120	1110	1114	1118	1114	1109	1105	1105
5	1213	1192	1165	1190	1165	1139	1132	1125	1114	1110	1101	1089
7.5	1232	1204	1169	1180	1159	1147	1139	1126	1080	1092	1076	1042
10	1199	1157	1145	1151	1149	1152	1173	1203	1192	1212	1179	1170
12.5	1179	1166	1131	1147	1151	1148	1154	1209	1234	1251	1226	1274
15	1188	1162	1140	1129	1121	1108	1101	1149	1192	1206	1235	1267
17.5	1353	1327	1328	1319	1279	1233	1212	1213	1247	1220	1206	1213
20	1396	1351	1329	1317	1265	1237	1276	1283	1267	1254	1221	1212
22.5	1280	1221	1217	1250	1240	1247	1280	1297	1262	1305	1321	1320
25	1282	1286	1288	1320	1308	1308	1250	1250	1244	1224	1231	1273
27.5	1265	1371	1401	1352	1353	1330	1242	1246	1261	1203	1167	1232
30	1269	1352	1448	1428	1533	1577	1543	1534	1418	1285	1224	1262
32.5	1400	1416	1460	1444	1527	1602	1557	1536	1429	1319	1308	1284
35	1502	1547	1516	1439	1409	1491	1483	1470	1439	1395	1462	1450
37.5	1421	1452	1437	1360	1402	1520	1591	1563	1508	1454	1465	1508
40	1387	1393	1372	1337	1389	1478	1534	1442	1382	1350	1381	1465
42.5	1450	1367	1322	1325	1356	1341	1395	1339	1326	1285	1331	1367
45	1380	1293	1290	1313	1258	1237	1358	1410	1362	1205	1196	1210
47.5	1166	1197	1147	1151	1073	1087	1185	1226	1255	1114	1095	1102
50	1073	1120	1027	988	1019	1056	1110	1086	1074	985	1000	1065
52.5	938	922	908	951	1079	1106	1083	1018	998	1010	1018	1079
55	842	832	898	983	1037	1025	990	955	970	1033	1053	1060
57.5	792	796	857	911	947	1004	1006	969	1046	1085	1060	1063
60	861	868	860	835	882	1013	1039	959	1007	1029	1007	1005
62.5	768	796	851	846	855	935	959	905	916	998	1066	1027
65	831	846	877	861	901	928	975	952	921	984	1096	1102
67.5	820	875	854	805	865	820	883	1004	991	951	1001	1086
70	662	720	792	763	784	800	849	1003	1019	977	966	970
72.5	696	740	738	722	747	775	863	1013	1032	936	931	1007
75	785	754	660	642	629	664	807	915	876	862	887	1021
77.5	733	694	671	600	570	635	678	723	756	798	787	890
80	488	456	462	439	524	591	506	467	576	662	619	598
82.5	292	285	287	297	355	404	398	386	451	462	446	408
85	131	138	134	143	152	146	173	181	241	267	265	238
87.5	71	62	64	75	70	54	52	61	111	137	138	128
90	18	13	15	16	15	18	13	9	25	27	23	27
92.5	5	6	5	5	6	8	7	2	3	5	4	8
95	3	6	7	5	3	5	6	3	1	3	3	12
97.5	2	6	5	1	1	5	10	8	1	3	5	5
100	2	2	2	1	3	6	7	5	4	5	4	2
102.5	2	2	2	1	5	10	16	27	29	26	23	20
105	5	5	4	2	12	29	44	58	53	57	65	58
107.5	16	23	28	30	37	62	89	89	81	104	118	94
110	27	39	55	64	66	76	110	130	124	127	141	114
112.5	60	69	64	63	70	82	105	125	119	121	142	143
115	75	74	73	75	79	94	106	99	88	105	123	124
117.5	72	67	68	76	76	89	90	79	80	93	105	108
120	70	67	66	60	57	68	79	75	75	77	85	87
122.5	54	51	56	52	46	46	63	71	67	58	64	68
125	40	38	41	38	33	29	32	46	52	44	37	42
127.5	25	26	29	26	23	23	26	33	38	36	31	36
130	6	8	8	9	10	12	15	18	19	18	21	24
132.5	1	1	2	3	4	5	8	9	12	12	14	16
135	0	0	0	0	1	1	2	2	6	8	10	9
137.5	0	0	0	0	0	0	0	0	0	3	4	4
140	0	0	0	0	0	0	0	0	0	5	6	6
142.5	0	0	0	0	0	0	0	0	0	1	1	1
145	0	0	0	0	0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0

Vertical Angle	Horizontal Angles											
	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5	55	57.5
0	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085
2.5	1101	1088	1090	1097	1084	1089	1084	1085	1067	1051	1041	1041
5	1083	1072	1075	1084	1073	1069	1063	1075	1070	1062	1061	1075
7.5	1044	1020	1006	1010	1028	1050	1050	1063	1055	1059	1080	1087
10	1176	1142	1115	1087	1090	1069	1067	1053	1024	1007	1044	1038
12.5	1277	1237	1241	1205	1168	1127	1128	1121	1111	1082	1098	1073
15	1253	1222	1209	1188	1169	1161	1165	1182	1182	1185	1185	1174
17.5	1208	1156	1109	1111	1134	1167	1187	1223	1280	1322	1312	1316
20	1179	1116	1086	1102	1134	1174	1231	1280	1302	1327	1322	1305
22.5	1308	1275	1229	1213	1229	1244	1288	1309	1312	1331	1341	1337
25	1276	1294	1253	1231	1239	1314	1377	1406	1387	1437	1363	1300
27.5	1217	1255	1257	1210	1205	1289	1313	1355	1349	1346	1283	1288
30	1312	1291	1304	1266	1217	1259	1213	1274	1304	1303	1337	1320
32.5	1298	1268	1304	1301	1264	1293	1255	1339	1343	1345	1403	1356
35	1398	1359	1331	1307	1296	1334	1380	1413	1411	1386	1416	1343
37.5	1469	1436	1301	1272	1288	1396	1449	1407	1383	1321	1309	1264
40	1495	1459	1397	1304	1302	1371	1375	1312	1245	1198	1240	1218
42.5	1429	1350	1365	1293	1277	1268	1286	1252	1199	1178	1255	1250
45	1278	1206	1233	1207	1208	1093	1083	1074	1194	1249	1248	1332
47.5	1194	1145	1088	1052	1083	1023	978	1015	1130	1186	1254	1267
50	1123	1079	999	1000	1088	1069	1060	1105	1128	1197	1258	1249
52.5	1034	1005	974	979	1062	1090	1106	1073	1067	1160	1214	1263
55	966	991	1048	1037	1120	1107	1000	1003	1077	1115	1107	1201
57.5	1038	1016	1133	1110	1168	1087	978	973	1062	1056	1013	1103
60	1076	1095	1160	1077	1094	1054	1023	953	1018	1073	1064	1169
62.5	1062	1163	1130	1029	1094	1052	1095	1056	1063	1136	1248	1287
65	1113	1121	1095	1034	1135	1103	1159	1197	1238	1233	1330	1330
67.5	1066	1069	1123	1188	1258	1266	1245	1319	1448	1473	1525	1550
70	1066	1135	1139	1107	1228	1356	1278	1214	1392	1503	1522	1597
72.5	1107	1122	1102	1075	1181	1261	1260	1306	1349	1378	1413	1513
75	1024	918	923	972	1064	1069	1068	1176	1255	1233	1283	1383
77.5	915	807	823	865	965	977	948	1055	1126	1136	1106	1157
80	621	643	654	724	833	837	729	779	883	925	909	905
82.5	414	459	484	578	626	630	582	634	704	644	648	699
85	235	283	288	332	337	336	355	414	405	337	373	442
87.5	137	170	156	166	149	126	168	224	200	163	212	248
90	34	52	47	49	49	38	52	59	33	30	52	70
92.5	20	20	13	11	9	14	14	12	8	11	16	18
95	18	13	11	8	2	6	9	12	10	12	21	18
97.5	6	15	21	10	3	6	6	9	8	5	12	15
100	3	11	13	6	4	9	8	6	7	9	12	15
102.5	18	24	17	11	10	15	19	17	22	27	34	50
105	46	68	58	46	50	47	41	40	38	33	52	59
107.5	91	111	112	111	120	121	106	94	85	73	70	71
110	115	130	133	142	162	162	144	124	132	135	115	116
112.5	129	131	141	158	183	171	161	154	156	180	177	155
115	124	117	113	122	139	131	128	146	157	164	168	155
117.5	101	96	96	101	107	103	100	108	130	142	141	138
120	71	64	76	77	74	74	81	79	82	105	101	103
122.5	61	53	61	66	65	63	61	57	64	88	84	72
125	38	41	44	51	54	58	50	38	39	61	77	80
127.5	32	33	38	42	46	42	38	36	39	51	62	63
130	26	27	35	31	35	28	28	32	36	37	31	22
132.5	23	25	24	17	15	13	19	21	21	19	17	12
135	16	15	10	5	5	4	11	13	17	12	18	16
137.5	2	2	1	1	1	1	2	3	6	6	11	15
140	0	0	0	0	0	1	1	1	4	5	5	8
142.5	0	2	2	2	1	1	2	2	4	5	6	3
145	1	5	5	5	2	0	2	2	2	2	2	1
147.5	0	1	1	1	0	0	0	1	2	2	2	1
150	0	0	0	0	0	0	0	3	5	5	5	2
152.5	0	0	0	0	0	0	0	1	1	1	1	1
155	0	0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0

Critical Angle	Horizontal Angles											
	60	62.5	65	67.5	70	72.5	75	77.5	80	82.5	85	87.5
0	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085
2.5	1048	1033	1014	1014	1018	1020	1036	1007	989	980	983	988
5	1078	1086	1081	1085	1086	1075	1067	1044	994	996	994	976
7.5	1103	1112	1131	1125	1120	1100	1061	1050	1022	1024	1020	988
10	1065	1078	1067	1056	1039	1022	1001	965	983	979	995	971
12.5	1100	1130	1097	1090	1060	1076	1077	1059	1017	1021	1013	1041
15	1199	1210	1138	1123	1098	1135	1157	1152	1105	1085	1105	1115
17.5	1318	1286	1238	1174	1109	1123	1131	1122	1143	1155	1145	1161
20	1265	1215	1204	1119	1049	1031	1072	1064	1109	1161	1148	1156
22.5	1343	1338	1310	1251	1153	1106	1109	1069	1061	1071	1086	1092
25	1373	1352	1252	1205	1153	1117	1147	1162	1168	1105	1092	1020
27.5	1342	1375	1310	1256	1195	1169	1181	1186	1211	1154	1112	1047
30	1250	1236	1201	1196	1171	1198	1178	1186	1251	1235	1156	1160
32.5	1338	1350	1321	1314	1205	1207	1191	1300	1384	1369	1281	1240
35	1397	1470	1527	1514	1405	1367	1411	1453	1485	1433	1395	1404
37.5	1387	1477	1517	1489	1458	1451	1495	1452	1476	1441	1468	1531
40	1269	1340	1369	1364	1334	1336	1365	1340	1407	1518	1548	1622
42.5	1268	1300	1304	1305	1361	1353	1316	1300	1362	1470	1468	1542
45	1440	1501	1396	1325	1369	1435	1382	1341	1345	1465	1513	1557
47.5	1395	1396	1392	1351	1402	1448	1346	1258	1229	1286	1342	1271
50	1295	1321	1299	1257	1317	1394	1402	1385	1322	1307	1268	1247
52.5	1239	1254	1262	1256	1305	1384	1364	1388	1395	1474	1424	1445
55	1241	1201	1251	1210	1262	1302	1369	1434	1436	1446	1336	1392
57.5	1238	1167	1162	1193	1211	1161	1261	1391	1468	1357	1198	1170
60	1251	1161	1140	1201	1216	1242	1269	1262	1376	1333	1262	1222
62.5	1348	1378	1311	1281	1349	1410	1355	1355	1418	1462	1558	1566
65	1396	1523	1527	1518	1597	1674	1757	1820	1776	1721	1828	1806
67.5	1564	1573	1792	1963	1875	1900	2160	2324	2133	2032	2060	2024
70	1722	1743	1937	2084	2065	2152	2300	2370	2230	2167	2067	1980
72.5	1678	1648	1806	2052	2140	2140	2159	2315	2261	2119	1975	1810
75	1485	1592	1627	1675	1823	1862	1886	1980	1890	1711	1603	1510
77.5	1221	1348	1405	1330	1493	1601	1643	1661	1590	1425	1267	1236
80	925	970	1022	1073	1165	1202	1246	1231	1181	1061	937	872
82.5	714	728	790	848	872	908	911	898	871	734	625	633
85	446	440	504	526	496	544	535	488	493	392	311	381
87.5	230	242	291	328	308	326	303	276	268	189	162	200
90	59	45	70	106	114	110	99	104	104	72	52	54
92.5	23	19	22	37	31	23	27	31	39	29	13	15
95	19	23	22	25	16	14	21	31	42	28	10	10
97.5	7	9	13	10	6	11	13	21	27	14	6	7
100	8	9	12	7	7	16	19	14	12	13	12	15
102.5	32	8	10	11	14	30	29	15	20	22	20	24
105	34	23	29	27	25	38	34	23	26	28	23	23
107.5	80	81	78	72	62	61	65	57	49	58	54	55
110	139	130	109	105	92	89	105	103	80	88	89	92
112.5	157	151	150	152	144	156	174	162	141	150	152	138
115	146	151	153	157	163	170	183	170	159	159	175	166
117.5	128	136	130	134	141	135	139	128	120	118	140	138
120	93	129	138	105	88	70	69	81	79	72	85	82
122.5	69	102	112	89	65	44	53	70	79	66	65	63
125	65	66	74	75	62	40	43	61	68	56	46	49
127.5	53	47	61	60	52	35	36	45	49	49	49	42
130	36	40	51	39	39	25	21	20	26	34	36	27
132.5	19	26	33	26	24	15	13	14	15	17	14	13
135	16	15	14	11	7	7	8	12	10	9	5	4
137.5	18	14	11	7	7	2	2	4	4	6	6	5
140	10	8	6	3	3	0	0	0	0	4	7	6
142.5	3	0	7	7	7	1	0	0	0	1	1	1
145	1	0	7	7	7	3	0	0	0	0	0	0
147.5	0	0	1	1	1	1	0	2	2	4	3	2
150	0	0	0	0	0	0	0	2	2	5	5	4
152.5	0	0	0	0	0	0	0	0	0	1	1	1
155	0	0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0

Vertical Angle	Horizontal Angles											
	90	92.5	95	97.5	100	102.5	105	107.5	110	112.5	115	117.5
0	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085
2.5	984	974	974	978	960	954	952	957	972	968	980	955
5	976	977	971	982	961	966	960	960	974	987	1002	982
7.5	1006	973	1005	994	996	988	975	972	971	971	1006	1012
10	989	963	988	987	1001	987	974	959	929	931	972	999
12.5	1048	1053	1021	1012	1000	990	947	907	902	904	901	930
15	1083	1049	1028	1066	1077	1085	1047	1034	1045	1035	1000	1016
17.5	1139	1106	1101	1148	1226	1219	1135	1114	1106	1079	981	960
20	1126	1109	1082	1096	1144	1109	1069	1079	1072	1051	987	999
22.5	1098	1114	1087	1056	1065	1002	983	1008	1059	1082	1102	1134
25	1054	1102	1117	1115	1157	1099	1116	1163	1171	1198	1236	1214
27.5	1070	1098	1120	1113	1121	1087	1092	1177	1211	1238	1282	1262
30	1105	1075	1154	1095	1075	1146	1091	1206	1218	1233	1262	1230
32.5	1207	1196	1214	1139	1124	1228	1222	1304	1249	1238	1257	1330
35	1407	1415	1405	1266	1233	1185	1218	1346	1302	1321	1353	1462
37.5	1552	1513	1487	1379	1319	1236	1256	1369	1355	1411	1413	1461
40	1577	1511	1436	1479	1489	1447	1340	1336	1439	1490	1465	1419
42.5	1510	1468	1368	1448	1490	1445	1340	1281	1432	1482	1485	1418
45	1442	1482	1483	1509	1494	1432	1440	1309	1324	1336	1439	1389
47.5	1287	1323	1445	1426	1401	1360	1371	1318	1215	1183	1254	1321
50	1248	1361	1467	1473	1457	1385	1324	1298	1274	1245	1203	1214
52.5	1380	1446	1452	1519	1569	1522	1399	1393	1386	1359	1351	1328
55	1305	1326	1322	1351	1394	1367	1318	1356	1394	1332	1347	1382
57.5	1180	1158	1119	1084	1073	1068	1049	1120	1191	1159	1103	1083
60	1231	1198	1098	1068	1094	1121	1067	1075	1133	1108	1051	908
62.5	1465	1472	1434	1295	1325	1330	1223	1218	1328	1219	1131	1012
65	1665	1634	1597	1473	1413	1434	1382	1368	1350	1214	1075	1034
67.5	1870	1769	1705	1659	1590	1523	1465	1398	1287	1063	850	909
70	1887	1737	1588	1641	1584	1451	1306	1281	1265	1055	845	821
72.5	1721	1570	1423	1510	1442	1271	1177	1130	1080	937	811	804
75	1413	1314	1218	1220	1162	1084	1011	913	851	846	813	702
77.5	1133	990	999	1008	924	871	836	790	743	756	711	525
80	735	625	657	689	640	650	587	603	556	470	489	411
82.5	550	470	442	477	484	426	368	390	378	330	369	321
85	361	285	211	223	237	177	141	166	176	147	177	144
87.5	211	190	136	114	107	104	95	95	85	52	52	40
90	54	56	40	31	25	20	23	23	16	8	5	5
92.5	13	21	17	4	5	6	4	2	5	5	3	3
95	11	10	11	6	4	4	2	0	6	7	9	9
97.5	5	1	14	20	7	1	1	2	2	7	11	6
100	10	2	12	19	13	5	4	8	5	9	10	6
102.5	18	9	13	15	17	12	6	8	9	11	12	8
105	19	12	15	15	13	14	13	12	15	14	11	8
107.5	54	44	46	45	31	26	31	39	43	38	32	22
110	99	91	79	73	60	53	56	60	56	54	50	36
112.5	129	130	123	110	89	86	81	78	62	48	39	37
115	145	137	138	128	110	102	95	84	60	43	31	29
117.5	119	118	125	114	94	84	80	65	44	34	31	30
120	69	73	66	56	46	40	30	22	20	18	19	26
122.5	58	66	53	43	33	29	21	18	18	15	20	28
125	46	53	47	38	30	25	23	28	25	23	29	33
127.5	32	42	45	38	30	28	19	25	27	28	29	35
130	23	27	30	24	24	28	19	18	17	26	28	33
132.5	18	22	23	18	17	17	14	12	12	18	21	23
135	6	8	8	5	5	5	4	4	4	7	10	12
137.5	3	1	0	0	1	1	1	0	1	3	4	3
140	4	0	0	0	0	0	0	0	1	3	3	3
142.5	1	0	0	0	0	0	0	0	0	0	1	1
145	0	0	0	0	0	0	0	0	0	0	0	0
147.5	1	0	0	0	0	0	0	0	0	0	0	0
150	2	0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0

Vertical Angle	Horizontal Angles											
	120	122.5	125	127.5	130	132.5	135	137.5	140	142.5	145	147.5
0	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085
2.5	971	992	992	1008	1004	1025	1013	1028	1027	1043	1033	1036
5	999	1021	1007	1039	1054	1087	1086	1112	1113	1120	1119	1114
7.5	1016	1025	1007	998	1000	1005	1027	1034	1036	1044	1052	1061
10	1009	1018	995	979	993	996	1010	986	991	1032	1007	994
12.5	948	973	957	991	1021	1030	988	958	965	990	967	939
15	1031	1038	1025	1019	1033	1065	1035	1017	1021	1033	1038	1007
17.5	1003	1008	1003	987	987	999	1030	1042	1027	1047	1040	1006
20	1038	1016	977	959	970	976	996	1028	1012	1018	978	968
22.5	1154	1101	1027	1015	1071	1092	1080	1101	1096	1079	1003	990
25	1223	1186	1135	1103	1069	1039	1101	1120	1155	1209	1171	1123
27.5	1255	1241	1251	1239	1171	1116	1100	1107	1161	1195	1190	1148
30	1237	1255	1281	1214	1169	1090	991	975	1036	1014	1040	1056
32.5	1362	1404	1355	1270	1258	1184	1150	1048	1056	1044	1074	1103
35	1495	1531	1477	1353	1316	1221	1231	1201	1196	1191	1164	1177
37.5	1410	1380	1346	1343	1380	1373	1347	1293	1280	1269	1210	1173
40	1303	1322	1323	1482	1469	1428	1356	1269	1267	1227	1185	1120
42.5	1336	1320	1261	1374	1459	1481	1416	1327	1279	1217	1157	1105
45	1318	1251	1295	1280	1368	1328	1313	1277	1225	1178	1111	1106
47.5	1320	1235	1270	1320	1372	1296	1175	1132	1077	1107	1086	1097
50	1253	1265	1245	1219	1210	1180	1062	1047	995	1026	1001	1009
52.5	1394	1491	1402	1299	1286	1241	1110	1104	1177	1148	1133	1049
55	1408	1470	1420	1327	1290	1204	1175	1211	1280	1183	1187	1070
57.5	1061	1012	997	1053	997	915	895	918	964	936	937	870
60	873	874	871	844	877	896	851	777	799	811	800	751
62.5	1022	964	868	788	833	881	908	806	693	725	827	785
65	989	963	903	755	739	816	931	848	709	702	773	691
67.5	901	901	808	664	674	731	811	800	714	750	698	595
70	741	678	630	609	597	557	573	606	576	539	522	563
72.5	686	611	572	552	545	506	519	578	566	467	435	467
75	559	559	530	455	468	439	388	447	495	378	394	422
77.5	388	383	369	365	362	299	237	298	361	285	304	294
80	290	254	245	234	235	201	138	160	184	161	175	168
82.5	213	167	179	151	140	140	107	93	106	107	128	117
85	101	64	56	67	53	53	54	34	26	27	47	50
87.5	46	40	21	25	21	15	16	12	9	5	11	14
90	6	8	6	2	2	1	1	1	1	1	1	1
92.5	0	1	1	1	2	2	1	0	0	0	0	0
95	1	1	2	3	4	6	4	0	0	0	0	0
97.5	2	2	3	6	4	4	4	0	0	0	0	0
100	4	2	5	6	3	3	2	0	0	0	0	1
102.5	7	3	5	5	4	9	7	2	1	2	1	1
105	6	6	11	9	8	14	13	7	8	12	8	6
107.5	13	18	23	20	18	20	20	21	25	28	17	14
110	23	24	26	27	23	20	24	30	28	26	19	20
112.5	32	23	16	15	16	19	23	29	30	27	21	24
115	25	16	13	13	10	14	22	25	28	27	25	23
117.5	22	17	18	17	12	12	17	19	17	16	17	17
120	24	23	27	29	19	17	14	14	13	12	17	18
122.5	29	32	41	45	31	28	22	24	24	21	35	40
125	36	41	40	36	46	46	40	31	41	37	54	68
127.5	37	42	38	36	52	55	54	40	52	47	59	72
130	30	30	34	33	36	34	40	38	45	44	49	55
132.5	24	22	26	28	29	26	27	27	29	35	39	39
135	12	12	12	12	13	14	15	17	17	16	13	13
137.5	2	3	3	4	4	4	4	6	6	5	3	4
140	1	1	1	2	2	2	2	3	3	3	2	1
142.5	0	0	0	0	0	0	1	2	2	2	1	0
145	0	0	0	0	0	0	1	1	1	1	0	0
147.5	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0

Vertical Angle	Horizontal Angles											
	150	152.5	155	157.5	160	162.5	165	167.5	170	172.5	175	177.5
0	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085	1085
2.5	1033	1052	1036	1032	1035	1043	1038	1052	1031	1025	1032	1037
5	1089	1111	1070	1076	1081	1069	1065	1075	1055	1033	1040	1043
7.5	1037	1044	1022	1059	1083	1092	1104	1087	1086	1055	1050	1048
10	971	958	953	995	1029	1047	1050	1039	1031	1043	1045	1050
12.5	892	876	910	944	953	955	978	984	990	1014	1027	1009
15	947	915	956	973	968	958	1006	1020	1034	1037	1042	1050
17.5	927	901	921	913	908	925	978	1022	1046	1015	1000	1000
20	926	895	920	905	946	946	997	1064	1075	1035	980	960
22.5	1038	999	988	969	1018	961	959	1034	1066	1026	991	1019
25	1106	1065	1062	1037	1107	1112	1066	1118	1112	1052	1045	1053
27.5	1097	1081	1092	1091	1157	1167	1114	1118	1106	1090	1096	1081
30	994	995	1004	1072	1080	1105	1056	972	1019	1024	1063	1087
32.5	1090	1095	1084	1177	1191	1178	1149	1046	1062	1100	1114	1178
35	1210	1237	1229	1226	1209	1257	1218	1227	1188	1248	1237	1181
37.5	1170	1150	1213	1259	1270	1316	1268	1275	1260	1286	1344	1272
40	1092	1081	1143	1283	1389	1363	1307	1322	1359	1352	1420	1432
42.5	1135	1156	1139	1237	1295	1284	1204	1200	1232	1267	1381	1437
45	1165	1200	1185	1176	1208	1222	1290	1172	1205	1167	1237	1177
47.5	982	1023	1046	1127	1027	1079	1164	1182	1208	1153	1194	1072
50	896	855	928	1018	983	995	1055	1134	1134	1076	1062	964
52.5	1031	973	1050	1003	1125	1173	1177	1108	1073	994	938	803
55	1082	1081	1100	986	1041	1164	1171	1031	978	888	879	824
57.5	859	857	812	826	901	951	881	788	826	837	841	837
60	750	692	708	797	851	783	694	624	685	742	718	733
62.5	749	674	672	683	701	700	688	665	692	658	525	536
65	625	565	588	626	603	683	679	605	622	585	497	541
67.5	607	555	553	571	568	606	541	500	484	442	486	555
70	566	521	502	513	539	479	401	471	496	444	475	486
72.5	455	437	459	461	408	382	366	413	467	448	418	413
75	351	299	328	329	252	240	285	286	292	351	322	331
77.5	221	229	241	237	205	203	226	205	223	257	225	246
80	151	196	186	137	124	145	171	173	154	147	147	157
82.5	85	109	128	101	74	82	102	124	114	104	110	128
85	36	48	73	59	42	44	28	26	54	66	55	51
87.5	11	19	30	32	34	26	8	4	18	23	19	16
90	0	2	3	6	8	4	2	1	1	1	1	1
92.5	0	0	0	1	0	0	5	5	0	0	0	0
95	0	0	0	0	0	0	2	2	1	1	0	2
97.5	1	0	0	0	0	0	0	0	4	6	3	2
100	2	1	0	0	0	0	1	1	2	5	6	4
102.5	1	0	0	0	0	0	1	1	2	2	7	11
105	5	1	1	0	0	0	1	3	4	4	7	10
107.5	14	10	8	3	1	0	1	5	7	9	12	9
110	24	22	17	10	4	1	3	5	6	12	13	7
112.5	27	29	24	17	7	7	13	17	13	11	7	3
115	24	21	23	26	21	17	21	23	19	14	7	11
117.5	18	16	24	32	26	16	21	28	27	22	13	22
120	11	12	20	26	20	17	30	40	38	33	25	30
122.5	24	25	25	24	25	27	30	34	35	34	27	27
125	59	54	41	27	26	38	43	39	38	31	32	33
127.5	71	56	38	33	31	40	54	48	45	33	35	30
130	60	60	47	41	32	37	38	29	26	22	21	21
132.5	43	46	43	29	25	29	28	14	12	14	14	14
135	17	17	16	9	18	17	15	4	6	7	5	6
137.5	6	6	9	7	12	8	8	3	3	3	3	3
140	2	3	4	3	5	5	6	4	2	2	2	2
142.5	0	1	2	4	5	7	5	3	1	1	1	1
145	0	0	1	1	2	4	3	2	1	1	1	0
147.5	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0

Horizontal Angles

Vertical Angle	180
0	1085
2.5	1027
5	1023
7.5	1046
10	1064
12.5	981
15	1046
17.5	1021
20	978
22.5	1042
25	1064
27.5	1079
30	1078
32.5	1218
35	1212
37.5	1257
40	1422
42.5	1467
45	1160
47.5	1090
50	954
52.5	808
55	773
57.5	725
60	706
62.5	611
65	603
67.5	518
70	480
72.5	434
75	347
77.5	287
80	207
82.5	179
85	52
87.5	9
90	1
92.5	0
95	2
97.5	2
100	4
102.5	13
105	9
107.5	9
110	10
112.5	6
115	17
117.5	25
120	32
122.5	26
125	30
127.5	29
130	24
132.5	14
135	8
137.5	3
140	1
142.5	0
145	0
147.5	0
150	0
152.5	0
155	0
157.5	0
160	0
162.5	0
165	0
167.5	0
170	0
172.5	0
175	0
177.5	0
180	0

Reported data calculated from manufacturer's data file, based on IESNA recommended methods.

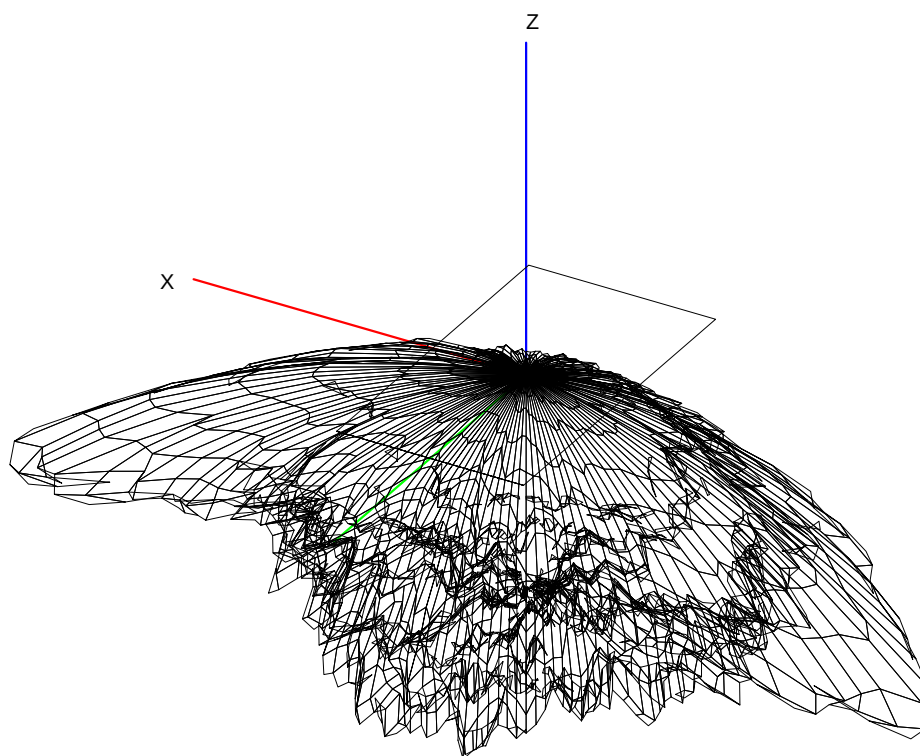
Photometric Viewer v3.4

Photometric Report

CATALOG NUMBER: 120W Cobra

Monday, October 12, 2009

FILENAME: ECHUS-EC-120W.IES



Reported data calculated from manufacturer's data file, based on IESNA recommended methods.

Photometric Viewer v3.4