

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P142040

Luminaire Tested: **ECM-E03-LED-E1-T4**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P142040
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33685)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E03-LED-E1-T4
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8627.3 lumens
Efficiency: N/A
Efficacy: 114.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

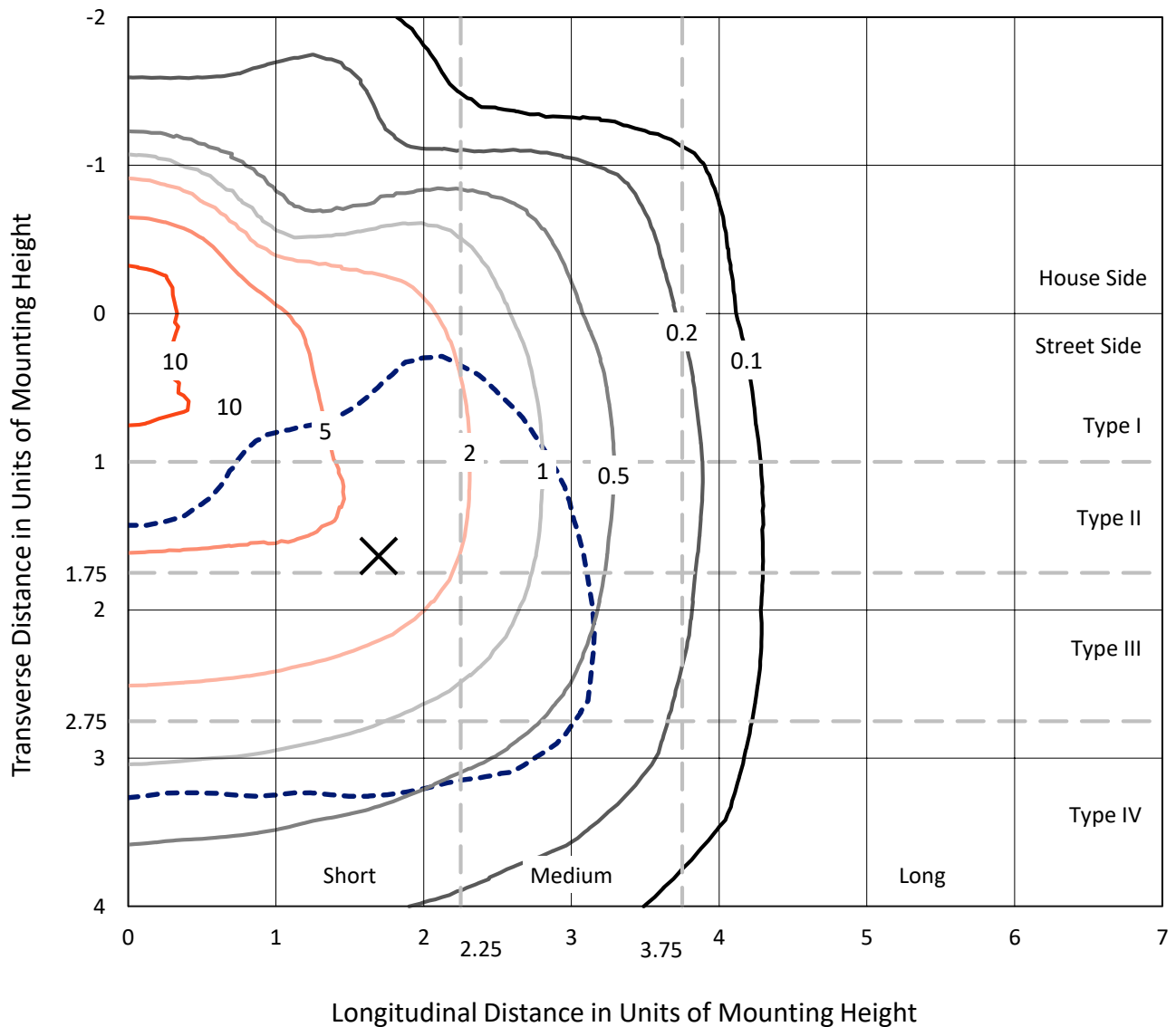
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

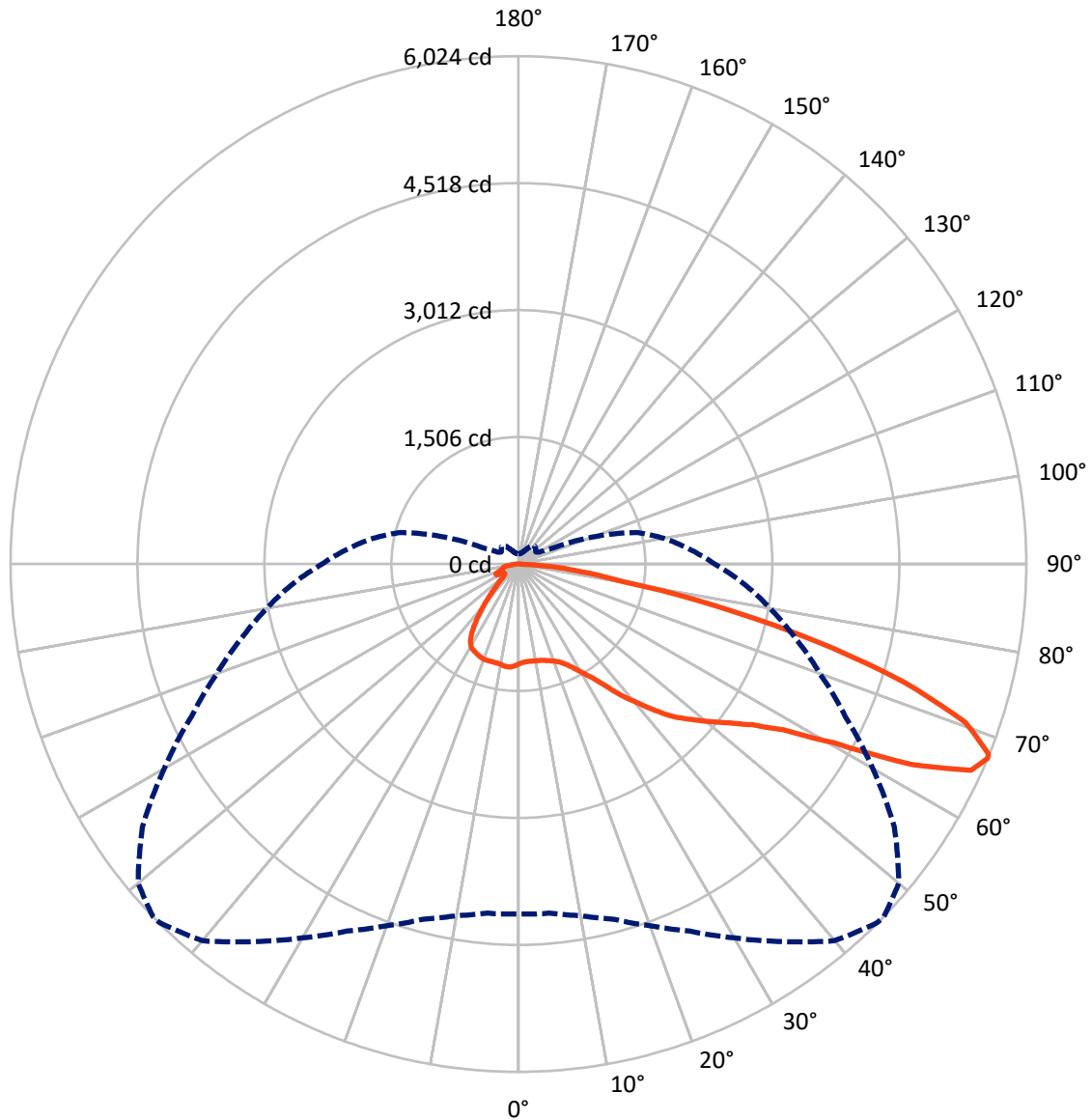
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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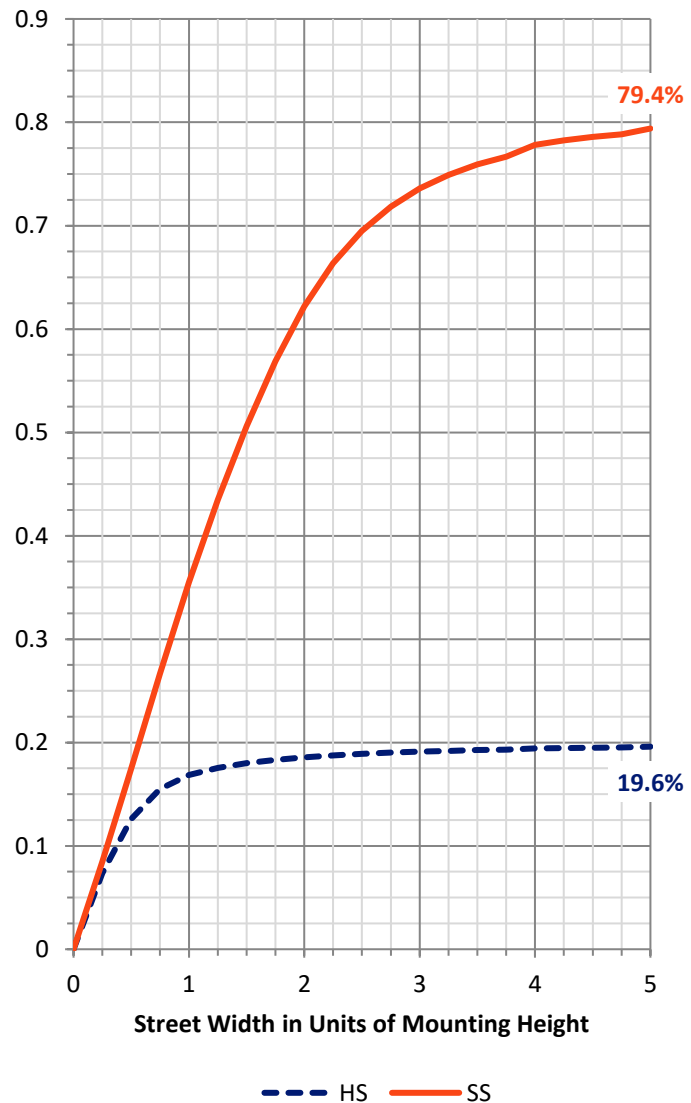
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1714.4	0.0	1714.4
	% Fixture	19.9	0.0	19.9
Street Side	Lumens	6912.9	0.0	6912.9
	% Fixture	80.1	0.0	80.1
Total	Lumens	8627.3	0.0	8627.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.7	1.3
10°-20°	339.6	3.9
20°-30°	570.9	6.6
30°-40°	853.8	9.9
40°-50°	1112.1	12.9
50°-60°	1523.1	17.7
60°-70°	2407.8	27.9
70°-80°	1493.5	17.3
80°-90°	212.8	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	8627.3	100.0
0°-180°	8627.3	100.0



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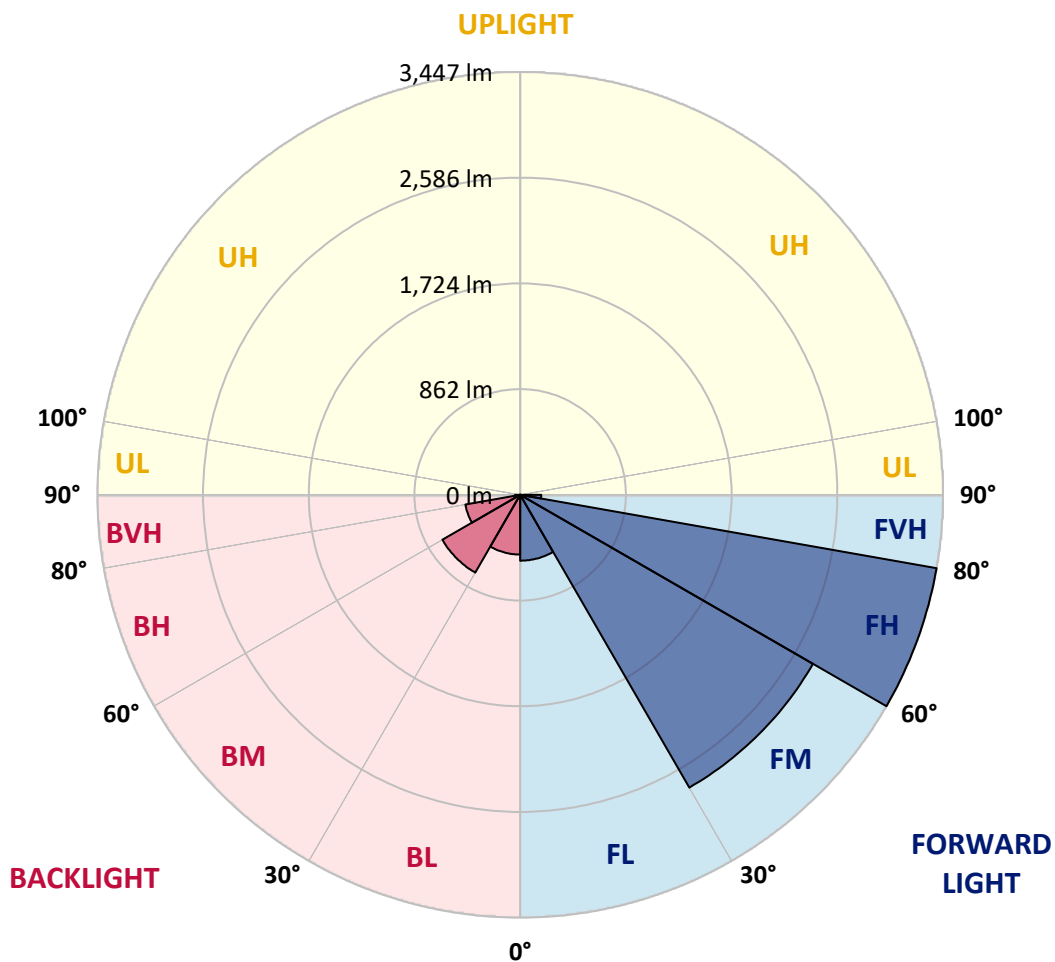
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	537.2	6.2			
FM	(30°-60°)	2756.8	32.0			
FH	(60°-80°)	3447.5	40.0			G2/5000
FVH	(80°-90°)	171.4	2.0			G2/225
BL	(0°-30°)	487.0	5.6	B1/500		
BM	(30°-60°)	732.2	8.5	B1/1000		
BH	(60°-80°)	453.8	5.3	B1/500		G1/500
BVH	(80°-90°)	41.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	46°
0°	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182
2.5°	1156	1159	1158	1157	1158	1159	1160	1163	1164	1165	1166
5°	1135	1138	1137	1139	1140	1144	1147	1152	1155	1159	1161
7.5°	1129	1131	1131	1133	1134	1138	1143	1149	1155	1161	1163
10°	1145	1146	1146	1145	1146	1148	1150	1155	1160	1165	1167
12.5°	1183	1180	1179	1176	1177	1173	1173	1172	1172	1173	1173
15°	1223	1221	1219	1214	1214	1208	1206	1202	1192	1188	1187
17.5°	1259	1257	1253	1249	1247	1239	1237	1230	1218	1209	1206
20°	1302	1297	1288	1286	1281	1272	1269	1260	1244	1231	1230
22.5°	1368	1360	1351	1344	1331	1322	1314	1302	1283	1268	1264
25°	1434	1431	1423	1413	1404	1394	1384	1366	1341	1322	1318
27.5°	1527	1520	1510	1494	1489	1472	1464	1449	1424	1400	1396
30°	1624	1617	1601	1587	1584	1566	1561	1545	1523	1499	1496
32.5°	1735	1728	1716	1708	1697	1687	1675	1660	1632	1612	1608
35°	1877	1871	1857	1863	1853	1850	1843	1818	1787	1763	1767
37.5°	1989	1988	1991	1988	2001	2014	2014	2016	2001	1975	1970
40°	2094	2093	2101	2110	2145	2166	2190	2199	2183	2163	2156
42.5°	2192	2190	2201	2234	2277	2316	2357	2392	2400	2378	2373
45°	2289	2292	2306	2343	2400	2451	2521	2562	2588	2576	2584
47.5°	2406	2409	2424	2468	2518	2582	2664	2734	2765	2765	2755
50°	2545	2559	2575	2605	2663	2726	2826	2896	2946	2944	2936
52.5°	2730	2733	2759	2783	2833	2897	2987	3083	3146	3140	3131
55°	2979	2967	2984	3007	3061	3117	3215	3326	3390	3371	3365
57.5°	3293	3283	3295	3323	3391	3437	3516	3618	3708	3724	3710
60°	3746	3746	3770	3830	3899	3968	4069	4192	4285	4308	4307
62.5°	4283	4317	4322	4400	4532	4651	4808	5025	5164	5263	5237
65°	4369	4380	4424	4545	4724	4935	5179	5464	5753	5896	5900
67°	4153	4157	4234	4361	4566	4804	5120	5467	5833	6018	6024
67.5°	4086	4078	4147	4280	4504	4772	5069	5434	5812	6010	6013
70°	3637	3641	3695	3843	4080	4331	4663	5038	5436	5617	5626
72.5°	3136	3110	3159	3317	3430	3675	3980	4263	4613	4784	4780
75°	2392	2320	2406	2498	2561	2804	2994	3189	3512	3642	3635
77.5°	1289	1286	1380	1452	1546	1765	1932	2055	2327	2391	2399
80°	700	726	782	862	938	1043	1140	1217	1306	1265	1256
82.5°	422	465	551	612	642	689	758	802	837	761	746
85°	67	121	311	372	404	426	441	470	429	402	409
87.5°	22	25	48	106	93	64	84	122	58	31	30
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182
2.5°	1167	1168	1171	1175	1177	1182	1182	1186	1186	1189	1192
5°	1164	1169	1173	1179	1182	1189	1192	1198	1201	1205	1209
7.5°	1169	1176	1181	1188	1193	1200	1203	1208	1211	1216	1218
10°	1173	1180	1186	1194	1198	1203	1206	1210	1211	1214	1216
12.5°	1178	1181	1186	1193	1197	1200	1203	1206	1209	1209	1209
15°	1185	1182	1183	1189	1193	1195	1198	1200	1201	1201	1199
17.5°	1200	1192	1187	1187	1189	1191	1191	1188	1186	1183	1179
20°	1222	1209	1199	1194	1190	1185	1177	1167	1158	1150	1145
22.5°	1253	1240	1228	1217	1204	1187	1170	1149	1132	1119	1114
25°	1311	1292	1283	1266	1246	1219	1193	1164	1144	1126	1118
27.5°	1389	1374	1354	1345	1319	1288	1259	1224	1196	1174	1159
30°	1488	1478	1461	1446	1421	1393	1350	1311	1262	1223	1201
32.5°	1602	1587	1572	1553	1535	1498	1458	1399	1331	1264	1223
35°	1745	1730	1720	1690	1660	1620	1566	1496	1401	1311	1241
37.5°	1942	1910	1861	1818	1764	1703	1642	1558	1452	1335	1239
40°	2113	2066	2011	1937	1861	1781	1709	1618	1494	1355	1225
42.5°	2335	2254	2161	2063	1959	1863	1774	1670	1525	1356	1192
45°	2535	2435	2312	2179	2052	1935	1833	1718	1551	1352	1154
47.5°	2713	2596	2446	2286	2136	2004	1892	1771	1585	1365	1140
50°	2885	2751	2582	2388	2221	2077	1960	1830	1642	1409	1162
52.5°	3069	2906	2715	2496	2314	2165	2034	1901	1710	1468	1202
55°	3294	3109	2891	2649	2440	2274	2126	1986	1791	1541	1249
57.5°	3594	3407	3156	2877	2658	2461	2283	2125	1914	1642	1319
60°	4172	3941	3607	3304	3067	2835	2620	2404	2150	1846	1499
62.5°	5100	4778	4364	3942	3622	3315	3031	2750	2433	2092	1713
65°	5742	5344	4824	4295	3862	3487	3148	2814	2461	2136	1806
67°	5889	5444	4852	4278	3807	3400	3031	2683	2328	2033	1751
67.5°	5883	5439	4830	4242	3770	3369	2997	2631	2282	1993	1724
70°	5527	5081	4469	3884	3429	3030	2655	2336	1980	1746	1544
72.5°	4683	4295	3801	3275	2885	2528	2228	1915	1606	1450	1291
75°	3561	3217	2764	2379	2082	1834	1533	1327	1110	1003	946
77.5°	2353	1958	1645	1278	1060	865	682	541	452	475	519
80°	1245	988	731	566	437	340	270	202	147	172	216
82.5°	678	578	427	340	278	230	177	124	92	102	147
85°	387	340	264	206	180	147	101	68	66	71	91
87.5°	64	86	70	48	54	53	47	36	27	38	49
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182
2.5°	1194	1197	1201	1202	1201	1204	1209	1213	1210	1208	1213
5°	1213	1215	1220	1220	1221	1223	1226	1229	1225	1225	1227
7.5°	1221	1221	1226	1224	1224	1223	1226	1227	1221	1220	1221
10°	1216	1216	1218	1214	1213	1212	1212	1213	1207	1205	1208
12.5°	1209	1209	1207	1205	1203	1201	1203	1204	1200	1200	1201
15°	1197	1194	1193	1193	1194	1195	1199	1202	1199	1197	1197
17.5°	1177	1175	1178	1184	1191	1196	1202	1204	1197	1189	1183
20°	1147	1152	1163	1180	1195	1203	1203	1196	1180	1164	1156
22.5°	1116	1130	1154	1180	1198	1201	1190	1175	1153	1136	1121
25°	1120	1137	1161	1183	1195	1190	1170	1151	1125	1107	1085
27.5°	1162	1178	1190	1197	1193	1177	1154	1128	1099	1074	1048
30°	1196	1203	1202	1196	1181	1156	1129	1098	1063	1036	1002
32.5°	1202	1189	1169	1147	1127	1099	1068	1032	993	958	924
35°	1191	1142	1098	1054	1024	989	962	920	877	847	822
37.5°	1150	1065	995	933	889	849	808	767	731	717	710
40°	1098	970	863	777	730	691	649	616	599	586	581
42.5°	1022	862	729	637	577	541	500	482	474	477	473
45°	951	749	582	480	439	405	385	377	373	371	374
47.5°	901	662	469	365	331	307	299	296	295	291	290
50°	889	611	384	284	258	245	241	238	236	233	226
52.5°	903	597	342	244	222	212	209	204	202	194	185
55°	927	602	329	233	211	200	196	194	187	178	167
57.5°	977	633	335	236	213	203	201	199	190	177	163
60°	1122	723	366	257	229	222	223	219	206	189	168
62.5°	1346	863	423	283	255	255	261	258	238	210	180
65°	1462	947	447	291	263	276	295	292	263	221	181
67°	1444	931	433	279	248	265	284	285	253	211	173
67.5°	1427	920	426	274	244	261	279	276	249	207	171
70°	1282	808	380	256	226	231	236	232	211	183	158
72.5°	1107	671	335	245	216	208	208	201	187	168	150
75°	844	522	294	233	204	192	190	185	173	159	143
77.5°	515	374	255	215	189	179	180	177	165	152	137
80°	258	242	214	187	171	161	162	156	146	136	124
82.5°	158	167	150	142	132	121	94	110	107	98	93
85°	105	104	94	83	76	66	59	60	66	68	68
87.5°	51	49	45	42	40	33	31	35	35	37	36
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1182	1182	1182	1182	1182
2.5°	1214	1216	1215	1218	1215
5°	1228	1228	1229	1230	1229
7.5°	1221	1220	1222	1224	1223
10°	1208	1209	1211	1214	1214
12.5°	1203	1204	1208	1211	1211
15°	1199	1200	1202	1206	1203
17.5°	1181	1177	1177	1180	1177
20°	1149	1143	1143	1142	1141
22.5°	1111	1096	1092	1087	1088
25°	1064	1044	1033	1027	1025
27.5°	1026	1003	992	983	980
30°	978	952	943	938	936
32.5°	908	885	873	870	864
35°	802	792	787	780	781
37.5°	696	693	681	685	681
40°	582	581	583	580	587
42.5°	475	472	477	474	477
45°	368	374	381	378	382
47.5°	282	283	281	283	285
50°	217	215	213	209	211
52.5°	179	172	167	164	163
55°	158	151	147	143	143
57.5°	152	143	137	134	133
60°	153	141	133	128	127
62.5°	157	141	130	125	123
65°	156	139	128	123	121
67°	151	136	127	122	121
67.5°	149	135	127	122	120
70°	142	132	125	120	118
72.5°	136	128	120	116	114
75°	130	122	115	111	110
77.5°	124	115	110	105	101
80°	113	103	96	88	86
82.5°	93	85	78	71	70
85°	69	66	60	54	54
87.5°	38	42	37	34	32
90°	0	0	0	0	0

(END OF REPORT)