

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: P141240

Luminaire Tested: **ECM-E03-LED-E1-SL4**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P141240  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33692)  
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-SL4  
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (63) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8470.4 lumens  
Efficiency: N/A  
Efficacy: 112.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

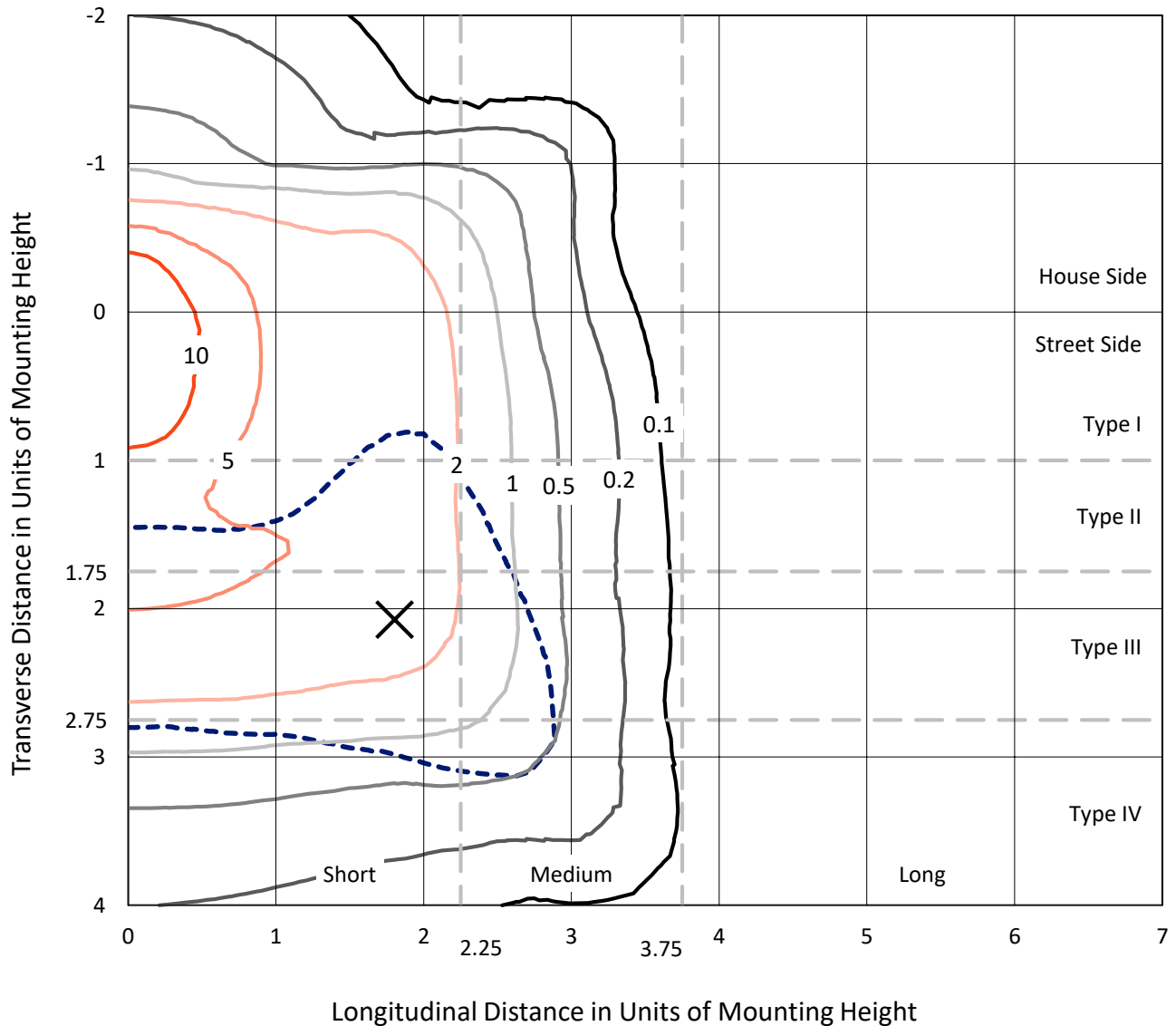
Input Watts (W): 75.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

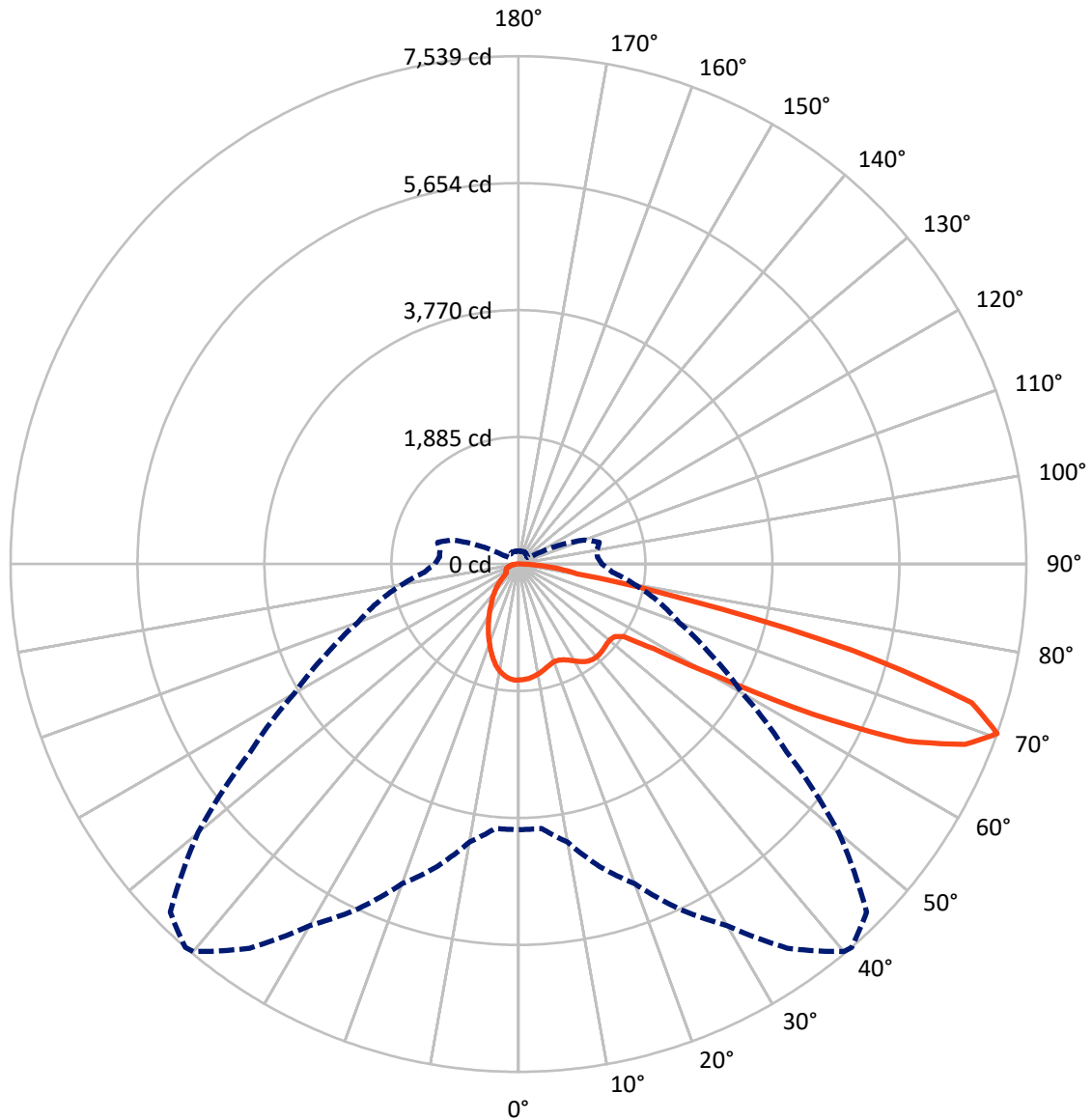
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.2 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical

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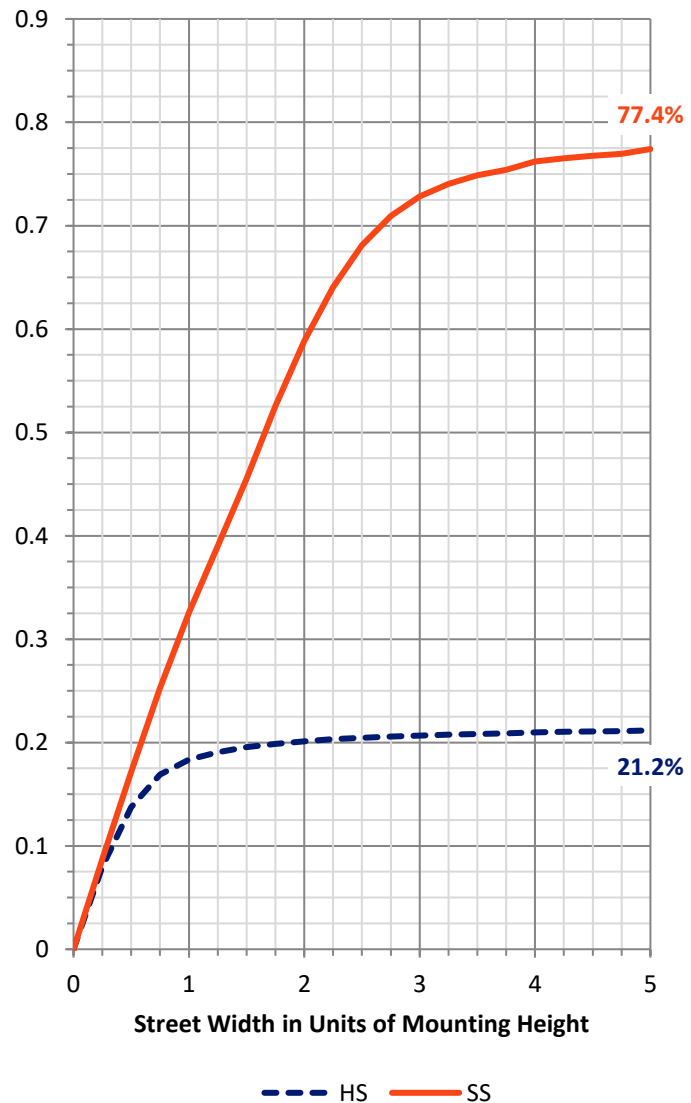
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1817.4	0.0	1817.4
	% Fixture	21.5	0.0	21.5
<b>Street Side</b>	Lumens	6653.1	0.0	6653.1
	% Fixture	78.5	0.0	78.5
<b>Total</b>	Lumens	8470.4	0.0	8470.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.1	1.9
10°-20°	429.3	5.1
20°-30°	620.6	7.3
30°-40°	789.9	9.3
40°-50°	930.8	11.0
50°-60°	1424.2	16.8
60°-70°	2647.1	31.3
70°-80°	1277.6	15.1
80°-90°	190.8	2.3
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°	8470.4	100.0
0°-180°	8470.4	100.0



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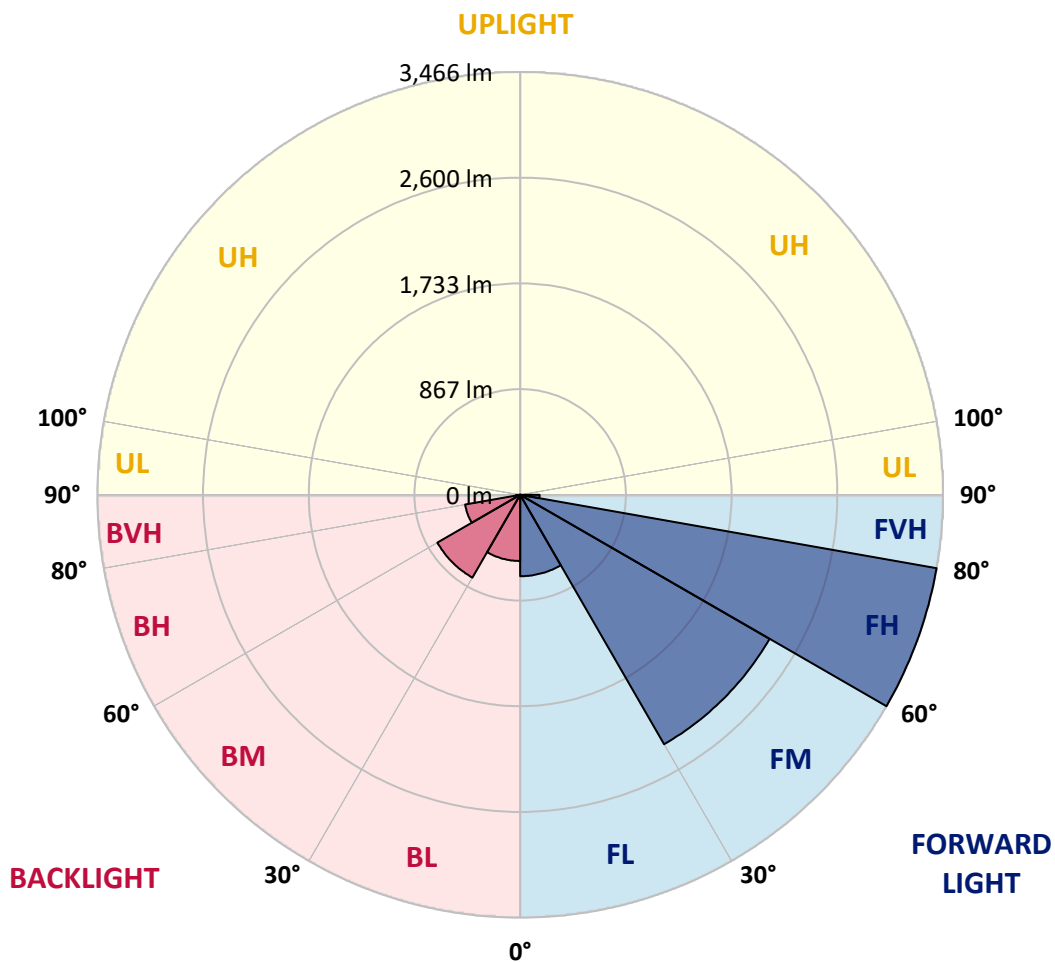
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	667.1	7.9			
FM (30°-60°)	2360.9	27.9			
FH (60°-80°)	3466.5	40.9			G2/5000
FVH (80°-90°)	158.6	1.9			G2/225
BL (0°-30°)	542.8	6.4	B2/1000		
BM (30°-60°)	784.0	9.3	B1/1000		
BH (60°-80°)	458.3	5.4	B1/500		G1/500
BVH (80°-90°)	32.2	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	41°	45°
0°	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721
2.5°	1721	1723	1722	1720	1718	1719	1718	1717	1717	1716	1715
5°	1713	1717	1714	1712	1709	1709	1708	1706	1704	1703	1701
7.5°	1696	1700	1698	1696	1693	1691	1687	1685	1683	1682	1679
10°	1673	1675	1673	1669	1667	1666	1664	1660	1656	1654	1651
12.5°	1643	1644	1642	1640	1637	1637	1634	1631	1625	1623	1616
15°	1617	1614	1612	1611	1610	1605	1606	1601	1591	1588	1580
17.5°	1610	1607	1606	1603	1601	1595	1589	1579	1562	1559	1547
20°	1630	1630	1627	1625	1622	1611	1598	1579	1548	1541	1526
22.5°	1678	1673	1671	1671	1670	1654	1630	1600	1559	1550	1524
25°	1753	1744	1747	1746	1744	1721	1686	1643	1587	1575	1541
27.5°	1842	1844	1843	1839	1833	1808	1758	1700	1630	1618	1574
30°	1935	1937	1943	1940	1936	1898	1836	1773	1688	1672	1618
32.5°	2043	2050	2055	2056	2040	1988	1915	1835	1745	1729	1662
35°	2168	2164	2173	2169	2141	2070	1980	1885	1793	1772	1700
37.5°	2294	2299	2290	2273	2229	2136	2025	1918	1816	1796	1721
40°	2416	2413	2392	2363	2297	2178	2050	1933	1824	1803	1726
42.5°	2507	2499	2467	2420	2335	2198	2057	1933	1819	1797	1719
45°	2547	2539	2508	2448	2347	2194	2045	1916	1802	1783	1705
47.5°	2547	2544	2510	2452	2344	2183	2027	1895	1785	1766	1693
50°	2527	2525	2495	2438	2334	2177	2022	1891	1784	1765	1698
52.5°	2594	2581	2550	2484	2371	2202	2047	1911	1808	1789	1720
55°	3409	3398	3241	2965	2676	2412	2186	2030	1926	1897	1847
57.5°	4727	4711	4550	4299	3802	3237	2794	2534	2388	2367	2337
60°	5262	5256	5188	5086	4898	4606	4194	3762	3426	3372	3376
62.5°	5569	5554	5521	5496	5432	5313	5236	5115	4952	4915	4681
65°	5741	5739	5757	5778	5774	5810	5849	6080	6351	6339	6092
67.5°	5485	5502	5596	5740	5891	6051	6349	6812	7147	7147	6930
70°	3943	3940	4190	4646	5052	5650	6199	6962	7510	7539	7309
72.5°	2363	2418	2572	2779	3124	3848	4869	6240	7005	7036	6761
75°	1660	1619	1613	1625	1684	1862	2424	3830	5078	5126	4860
77.5°	1062	1053	1057	1070	1073	1090	1117	1313	2354	2584	2572
80°	916	913	914	899	870	859	893	866	841	876	828
82.5°	614	625	643	667	725	745	734	729	650	632	561
85°	455	449	456	456	441	426	437	426	377	353	312
87.5°	246	247	267	275	274	234	193	167	151	140	118
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°	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721
2.5°	1716	1713	1714	1714	1713	1715	1712	1711	1712	1712	1712
5°	1699	1695	1695	1694	1692	1692	1688	1687	1685	1688	1686
7.5°	1675	1669	1664	1660	1658	1655	1650	1648	1646	1645	1643
10°	1646	1639	1629	1621	1617	1609	1603	1595	1595	1591	1587
12.5°	1611	1601	1591	1580	1573	1562	1552	1543	1536	1527	1521
15°	1576	1561	1550	1539	1526	1511	1499	1485	1472	1458	1454
17.5°	1538	1526	1516	1503	1489	1471	1455	1432	1416	1399	1386
20°	1513	1499	1488	1476	1461	1440	1419	1393	1369	1344	1325
22.5°	1500	1477	1467	1456	1441	1418	1394	1362	1332	1299	1269
25°	1505	1474	1454	1442	1429	1406	1375	1339	1305	1263	1229
27.5°	1527	1485	1454	1434	1420	1396	1364	1323	1282	1238	1197
30°	1556	1503	1463	1434	1413	1387	1352	1308	1263	1214	1167
32.5°	1589	1524	1476	1436	1402	1369	1333	1287	1240	1188	1142
35°	1615	1540	1485	1432	1387	1346	1304	1261	1214	1165	1116
37.5°	1630	1550	1485	1418	1363	1320	1276	1234	1189	1141	1098
40°	1636	1554	1479	1402	1338	1289	1248	1205	1165	1123	1085
42.5°	1633	1551	1471	1387	1318	1265	1220	1180	1147	1112	1080
45°	1621	1541	1463	1380	1311	1257	1211	1173	1142	1110	1085
47.5°	1611	1537	1468	1397	1331	1276	1226	1184	1158	1133	1117
50°	1619	1548	1479	1412	1348	1292	1241	1202	1187	1183	1178
52.5°	1641	1571	1513	1466	1437	1416	1364	1355	1342	1335	1318
55°	1784	1755	1807	1864	1874	1937	1962	1964	1942	1864	1682
57.5°	2366	2438	2460	2592	2628	2600	2562	2560	2492	2389	2124
60°	3406	3368	3321	3235	3154	3067	2947	2855	2768	2610	2331
62.5°	4494	4163	3922	3675	3475	3300	3126	2978	2837	2618	2319
65°	5438	4764	4275	3904	3594	3338	3107	2905	2727	2453	2150
67.5°	6052	5083	4352	3798	3360	3034	2694	2375	2200	1979	1825
70°	6209	4858	3838	3128	2538	2149	1748	1400	1239	1177	1182
72.5°	5601	3840	2721	1990	1558	1235	1004	772	603	506	494
75°	3659	2137	1292	900	716	570	449	378	326	263	220
77.5°	1383	814	580	473	350	244	190	160	147	143	129
80°	709	565	404	266	186	149	125	106	98	94	96
82.5°	478	356	223	160	129	111	88	74	66	65	70
85°	266	178	130	108	95	83	67	55	51	54	63
87.5°	83	82	59	48	50	43	32	24	24	31	44
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°	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721	1721
2.5°	1712	1714	1718	1715	1716	1717	1720	1724	1721	1719	1725
5°	1688	1688	1693	1691	1695	1699	1701	1708	1706	1704	1712
7.5°	1644	1645	1652	1650	1658	1659	1667	1673	1673	1677	1684
10°	1588	1588	1594	1595	1600	1604	1613	1624	1626	1633	1643
12.5°	1525	1523	1528	1528	1532	1537	1547	1560	1562	1573	1586
15°	1447	1444	1442	1444	1446	1447	1462	1475	1483	1495	1508
17.5°	1372	1361	1356	1356	1357	1357	1363	1378	1389	1408	1427
20°	1305	1286	1279	1263	1260	1253	1258	1275	1295	1310	1325
22.5°	1242	1222	1202	1183	1168	1159	1168	1179	1186	1198	1202
25°	1194	1161	1133	1103	1087	1079	1078	1077	1071	1069	1069
27.5°	1156	1117	1075	1042	1020	1005	988	976	961	941	931
30°	1124	1082	1036	997	969	940	905	878	851	827	806
32.5°	1095	1052	1007	966	918	868	824	792	745	713	686
35°	1073	1030	988	934	868	804	747	700	652	610	574
37.5°	1057	1021	976	903	820	743	683	627	570	513	468
40°	1052	1021	964	869	774	691	622	553	490	429	383
42.5°	1055	1022	945	839	736	646	568	488	413	348	302
45°	1066	1022	925	806	701	605	512	417	330	278	258
47.5°	1099	1029	909	782	670	560	449	341	267	245	245
50°	1150	1050	907	764	635	508	371	269	236	235	241
52.5°	1237	1087	917	752	598	438	289	232	225	231	240
55°	1406	1152	931	730	536	343	237	220	223	230	238
57.5°	1715	1283	946	683	434	260	215	216	221	228	235
60°	1928	1445	976	604	323	215	206	214	220	225	231
62.5°	1946	1504	998	515	240	196	198	210	218	220	223
65°	1838	1428	935	425	199	186	193	204	212	213	216
67.5°	1602	1269	798	323	182	179	187	194	200	205	209
70°	1241	1036	642	251	169	168	175	183	189	194	200
72.5°	654	736	478	201	155	156	163	170	174	179	185
75°	203	312	295	161	138	142	146	152	159	162	165
77.5°	120	127	154	126	120	123	128	133	138	142	145
80°	97	99	100	100	100	104	108	115	119	121	122
82.5°	76	81	82	80	83	87	89	93	94	96	98
85°	63	62	64	65	61	61	59	59	63	70	71
87.5°	49	43	35	33	31	29	27	27	28	32	35
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°	1721	1721	1721	1721	1721
2.5°	1725	1724	1726	1729	1727
5°	1713	1713	1717	1720	1718
7.5°	1689	1690	1696	1700	1698
10°	1651	1653	1660	1666	1669
12.5°	1594	1601	1610	1616	1616
15°	1522	1533	1543	1552	1547
17.5°	1440	1453	1466	1471	1466
20°	1341	1342	1350	1355	1353
22.5°	1206	1202	1206	1208	1211
25°	1068	1061	1057	1063	1066
27.5°	927	917	920	913	905
30°	790	781	770	767	772
32.5°	669	646	637	620	627
35°	541	518	496	490	486
37.5°	436	408	381	372	370
40°	341	318	300	295	293
42.5°	277	267	264	264	265
45°	253	254	257	259	260
47.5°	248	252	256	260	261
50°	248	251	254	258	259
52.5°	246	249	250	252	254
55°	244	245	245	246	248
57.5°	239	240	238	239	243
60°	234	235	233	235	236
62.5°	227	227	226	227	228
65°	219	216	218	217	218
67.5°	209	205	204	204	205
70°	195	192	191	193	195
72.5°	178	180	183	186	191
75°	166	169	173	183	190
77.5°	149	148	152	163	173
80°	124	125	124	127	129
82.5°	95	94	91	91	89
85°	67	64	60	59	58
87.5°	34	36	33	30	30
90°	0	0	0	0	0

(END OF REPORT)