

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge
or Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: P13097

Luminaire Tested: **TRU10S3F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: P13097
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: TRU10S3F
Description: TRIBUTE AREA/SITE HID FIXTURE WITH TYPE 3F SEMI SPECULAR
Light Source: (1) MOGUL BASE ED23.5 HIGH PRESSURE SODIUM LAMP
USING MANUFACTURERS PUBLISHED DATA AND A BARE LAMP SUM FOR
THE LAMP UNDER TEST IN GONIOPHOTOMETER WITH TEST DISTANCE OF
25.0 FEET
LU100/ED23.5 100 WATTS
Ballast/Driver: -

Summary

Lumens per Lamp: 9500 (1 lamp)
Luminaire Lumens: 7309.5 lumens
Efficiency: 76.9%
Efficacy: 73.1 lumens/watt
Luminous Opening: Rectangular (W 1.1' x L: 1.1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

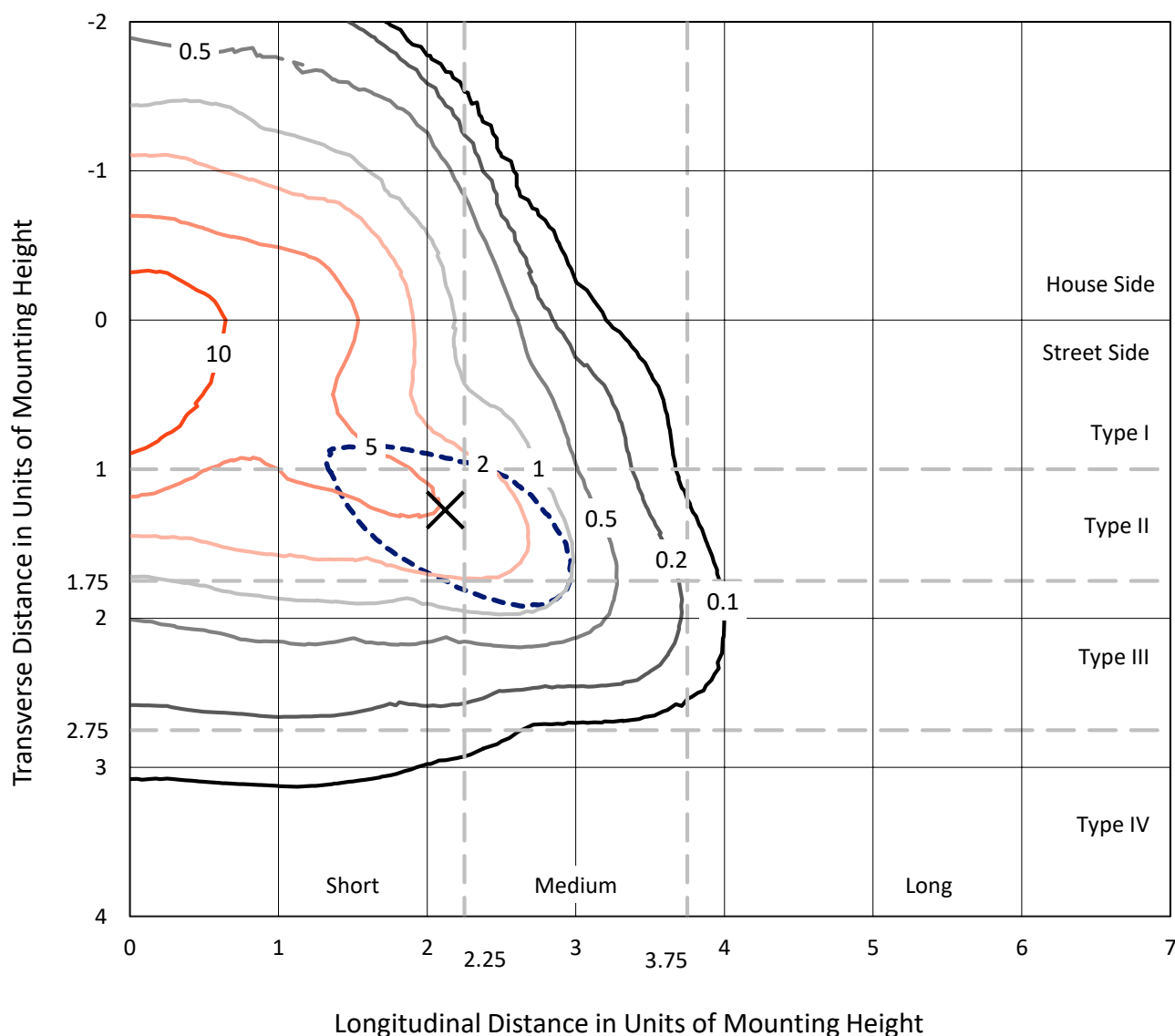
Input Watts (W): 100
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

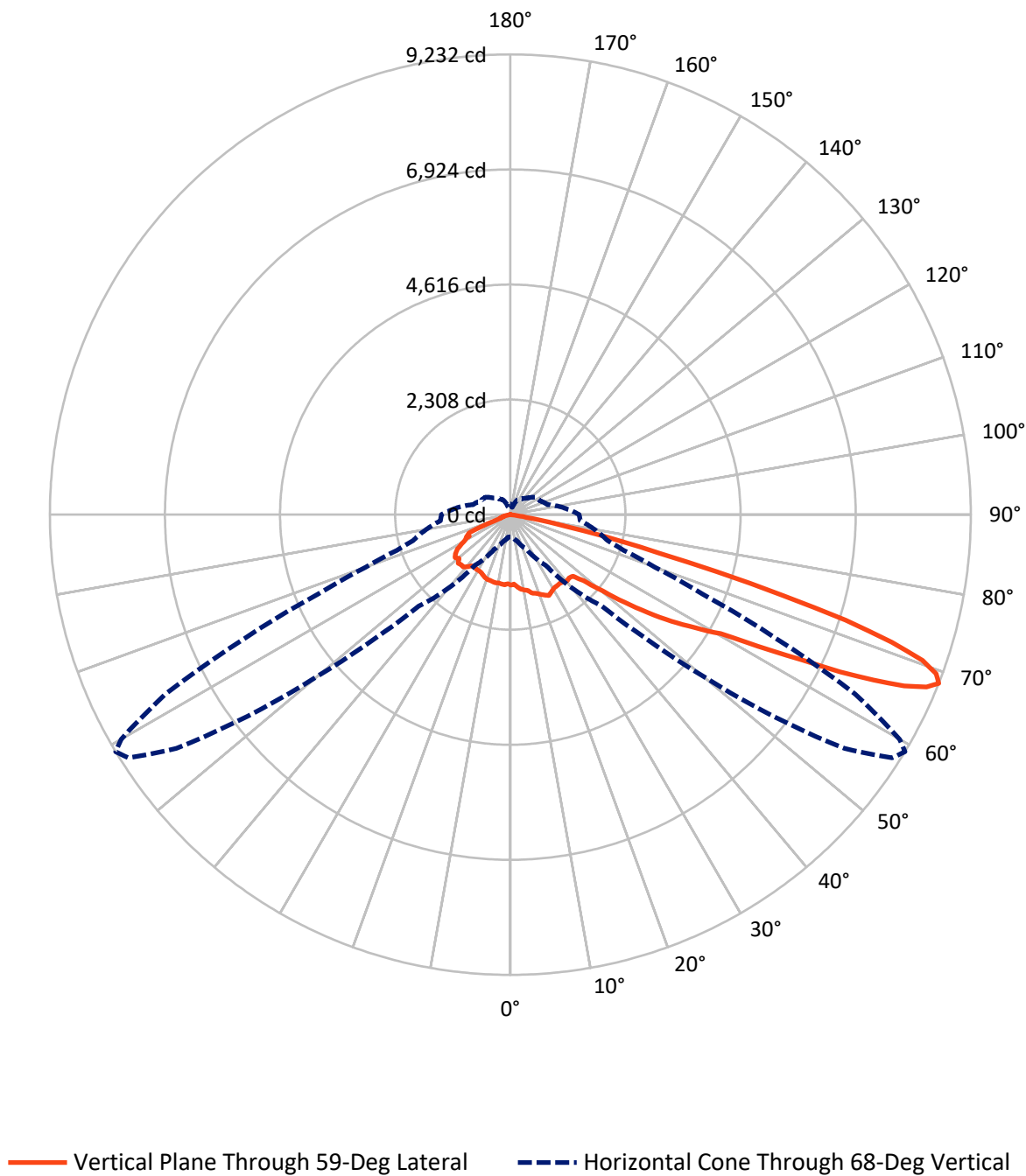
× Max cd
 --- 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.8 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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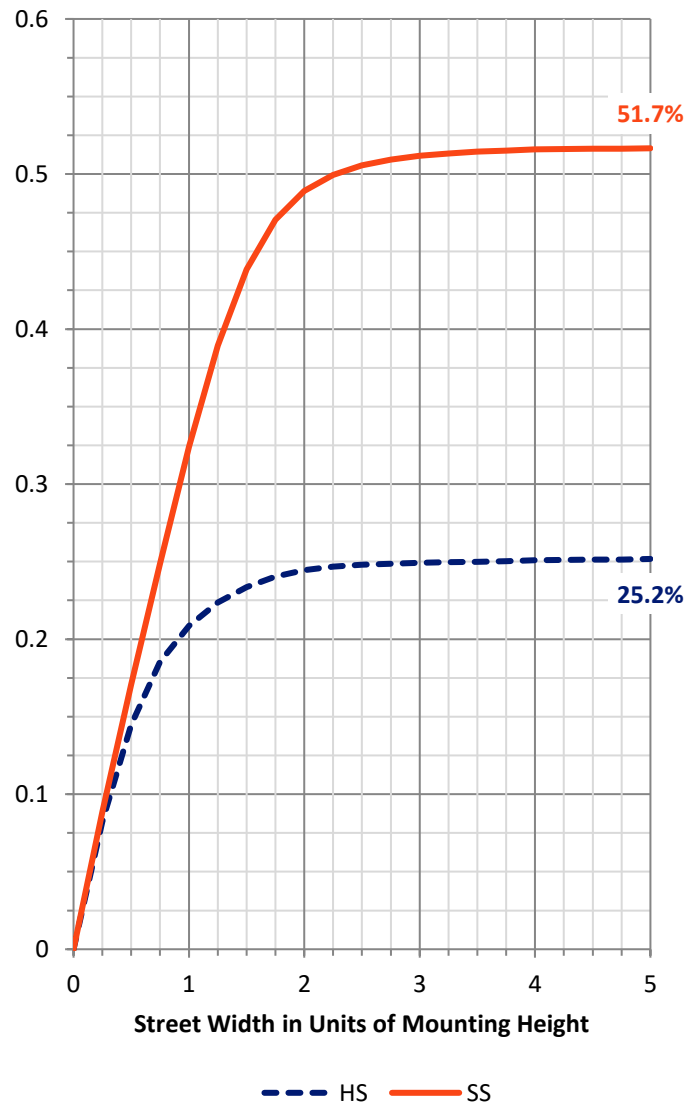
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2402.3	0.0	2402.3
	% Lamp	25.3	0.0	25.3
Street Side	Lumens	4907.2	0.0	4907.2
	% Lamp	51.7	0.0	51.7
Total	Lumens	7309.5	0.0	7309.5
	% Lamp	76.9	0.0	76.9

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	136.1	1.9	1.4
10°-20°	414.0	5.7	4.4
20°-30°	710.2	9.7	7.5
30°-40°	971.7	13.3	10.2
40°-50°	1223.7	16.7	12.9
50°-60°	1594.8	21.8	16.8
60°-70°	1626.4	22.2	17.1
70°-80°	615.8	8.4	6.5
80°-90°	16.9	0.2	0.2
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	7309.5	100.0	76.9
0°-180°	7309.5	100.0	76.9

Coefficient of Utilization



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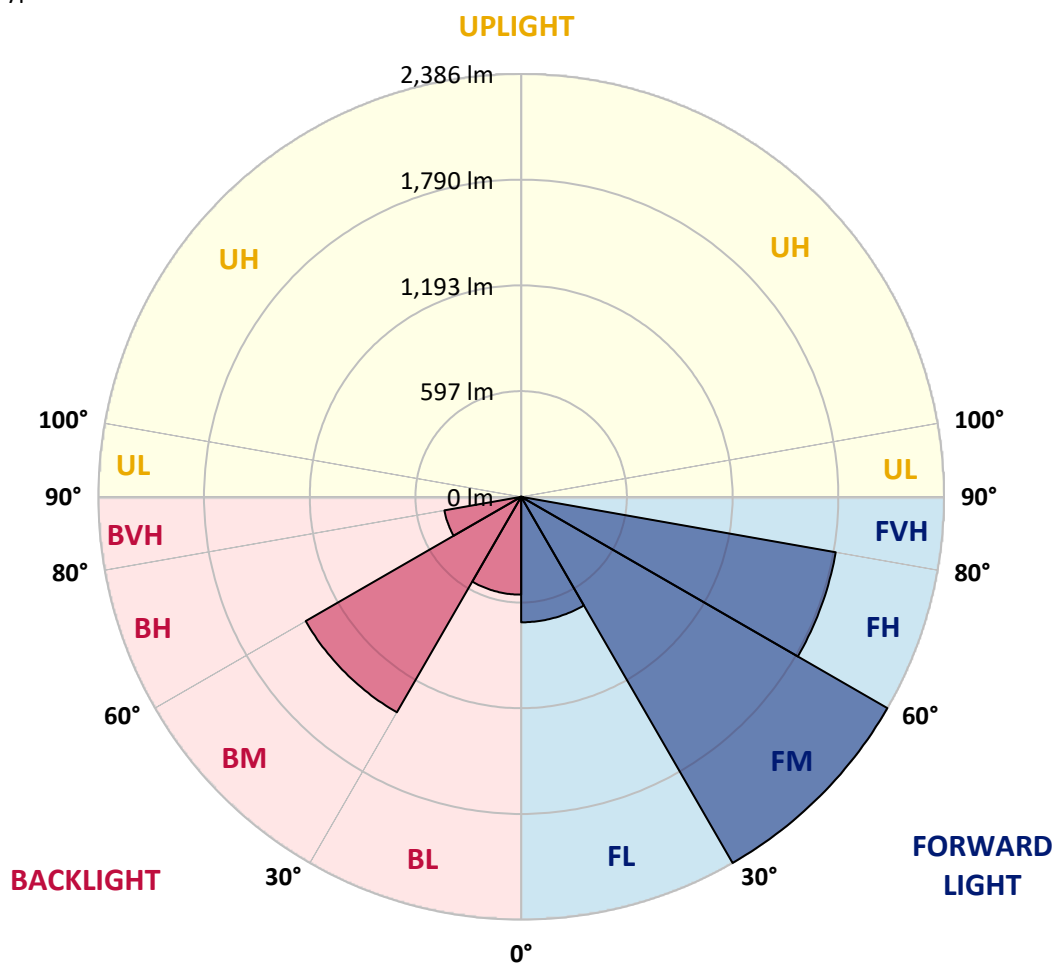
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	708.0	7.5			
FM	(30°-60°)	2386.2	25.1			
FH	(60°-80°)	1802.5	19.0			G2/5000
FVH	(80°-90°)	10.5	0.1			G1/100
BL	(0°-30°)	552.3	5.8	B2/1000		
BM	(30°-60°)	1404.0	14.8	B2/2500		
BH	(60°-80°)	439.6	4.6	B1/500		G1/500
BVH	(80°-90°)	6.4	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		2190.5	23.1			

BUG Rating: B2-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47.5°	50°	52.5°	55°	57.5°
0°	1414	1414	1414	1414	1414	1414	1414	1414	1414	1414	1414
2.5°	1402	1396	1408	1403	1396	1406	1398	1393	1411	1411	1400
5°	1454	1450	1461	1455	1453	1454	1455	1451	1465	1467	1459
7.5°	1481	1490	1503	1495	1502	1521	1524	1517	1526	1524	1515
10°	1499	1487	1502	1522	1544	1551	1561	1556	1565	1552	1540
12.5°	1513	1503	1528	1548	1565	1573	1572	1564	1568	1585	1570
15°	1552	1541	1566	1586	1580	1599	1602	1599	1608	1625	1640
17.5°	1609	1582	1608	1616	1629	1651	1659	1657	1675	1661	1662
20°	1646	1628	1673	1690	1713	1737	1736	1724	1727	1723	1715
22.5°	1675	1659	1720	1763	1810	1818	1805	1789	1791	1790	1763
25°	1791	1774	1814	1837	1879	1884	1858	1841	1828	1830	1798
27.5°	2075	1968	1896	1891	1898	1874	1859	1837	1845	1803	1769
30°	2261	2192	2032	1922	1897	1847	1848	1800	1790	1767	1735
32.5°	2424	2332	2082	1939	1860	1817	1833	1784	1763	1762	1732
35°	2464	2373	2103	1954	1853	1811	1783	1758	1739	1727	1716
37.5°	2470	2398	2149	2012	1918	1843	1821	1790	1782	1771	1738
40°	2480	2413	2158	2100	2030	1904	1890	1846	1840	1798	1765
42.5°	2369	2305	2095	2058	2019	1948	1917	1874	1842	1804	1754
45°	2280	2202	1975	1913	1952	1932	1932	1896	1871	1845	1784
47.5°	2141	2090	1881	1751	1819	1983	2042	2090	2107	2098	2024
50°	1867	1806	1675	1578	1723	2106	2266	2390	2546	2554	2470
52.5°	1413	1426	1445	1489	1644	2282	2553	2831	3102	3232	3127
55°	1082	1106	1265	1461	1652	2637	3039	3412	3742	3893	3781
57.5°	889	908	1138	1565	1885	3052	3511	3922	4274	4504	4405
60°	772	781	997	1544	2048	3167	3643	4158	4615	4950	4999
61°	742	749	931	1465	2104	3205	3769	4293	4865	5299	5453
62°	705	681	862	1365	2098	3239	3869	4562	5210	5776	6004
63°	560	585	756	1209	1993	3215	3933	4742	5557	6299	6621
64°	579	596	737	1158	1944	3231	4079	5045	6062	6992	7398
65°	505	519	653	1012	1743	3129	4080	5232	6441	7530	8025
66°	505	516	632	959	1617	3015	4068	5349	6722	7930	8570
67°	479	488	600	867	1455	2851	3912	5291	6764	8152	8953
68°	448	450	557	767	1243	2596	3646	5043	6637	8177	9079
69°	418	423	518	728	1072	2302	3294	4692	6350	7963	8919
70°	386	411	484	631	923	2017	2914	4208	5874	7510	8491
71°	413	391	454	598	828	1751	2545	3724	5322	6875	7870
72°	336	345	414	552	726	1492	2129	3167	4587	6065	6877
73°	274	280	376	481	624	1237	1741	2569	3759	5036	5647
74°	263	258	364	437	566	1023	1385	1994	2833	3750	4321
75°	213	183	282	374	477	690	928	1316	1908	2684	3071
77.5°	31	38	55	109	124	207	299	470	722	955	1107
80°	32	16	21	71	28	93	116	139	214	263	285
82.5°	0	0	0	0	0	0	0	0	9	17	17
85°	16	28	42	3	16	7	11	5	28	15	7
87.5°	10	0	9	0	14	0	0	0	0	4	3



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	47.5°	50°	52.5°	55°	57.5°
90°	0	0	0	0	0	0	0	0	0	0	0



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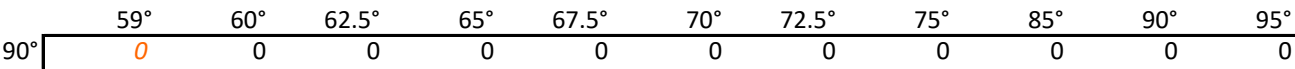
CANDELA DISTRIBUTION (continued):

	59°	60°	62.5°	65°	67.5°	70°	72.5°	75°	85°	90°	95°
0°	1414	1414	1414	1414	1414	1414	1414	1414	1414	1414	1414
2.5°	1396	1398	1394	1405	1398	1401	1399	1401	1391	1395	1392
5°	1454	1462	1459	1471	1458	1469	1449	1454	1445	1460	1440
7.5°	1506	1533	1510	1499	1504	1513	1498	1493	1475	1472	1464
10°	1537	1539	1534	1533	1530	1527	1515	1510	1488	1481	1456
12.5°	1561	1572	1583	1569	1560	1556	1544	1541	1518	1506	1473
15°	1633	1632	1626	1621	1606	1600	1583	1571	1529	1518	1489
17.5°	1659	1678	1659	1640	1619	1615	1611	1589	1535	1515	1497
20°	1703	1696	1699	1668	1657	1660	1639	1628	1585	1551	1514
22.5°	1752	1746	1728	1719	1694	1694	1675	1661	1622	1589	1554
25°	1795	1769	1749	1733	1711	1707	1693	1692	1651	1626	1594
27.5°	1756	1765	1725	1705	1683	1687	1665	1684	1646	1644	1623
30°	1717	1724	1707	1692	1670	1663	1685	1676	1657	1657	1640
32.5°	1705	1706	1687	1677	1661	1667	1656	1656	1678	1678	1644
35°	1698	1688	1700	1664	1657	1654	1647	1676	1688	1679	1634
37.5°	1719	1716	1699	1685	1678	1674	1659	1666	1739	1769	1697
40°	1752	1753	1713	1681	1656	1648	1666	1681	1773	1814	1782
42.5°	1731	1714	1670	1638	1611	1601	1640	1660	1809	1861	1853
45°	1759	1731	1669	1637	1636	1654	1693	1755	1962	2022	2002
47.5°	1980	1946	1867	1827	1826	1862	1929	2011	2273	2346	2298
50°	2410	2358	2227	2156	2143	2170	2240	2348	2606	2678	2636
52.5°	3005	2899	2689	2582	2501	2524	2571	2633	2816	2846	2754
55°	3640	3511	3224	3001	2844	2752	2703	2719	2943	3044	2908
57.5°	4219	4054	3580	3196	2904	2759	2684	2744	3047	3151	2927
60°	4848	4666	4053	3461	3023	2776	2576	2561	2679	2668	2518
61°	5329	5167	4406	3661	3111	2766	2508	2437	2421	2390	2294
62°	5906	5682	4837	3891	3206	2754	2460	2273	2174	2065	1952
63°	6535	6286	5257	4143	3255	2689	2295	2099	1790	1720	1647
64°	7331	7083	5894	4538	3436	2706	2218	1945	1600	1533	1474
65°	8006	7722	6440	4831	3505	2623	2056	1754	1375	1346	1320
66°	8610	8364	7002	5193	3717	2667	2026	1693	1311	1391	1346
67°	9034	8820	7479	5564	3924	2827	2143	1795	1345	1388	1354
68°	9232	9012	7793	5880	4184	3083	2387	2021	1406	1380	1170
69°	9112	8995	7889	6045	4393	3332	2686	2280	1366	1127	731
70°	8767	8627	7668	5982	4398	3393	2735	2303	976	646	416
71°	8068	7971	7121	5559	4085	3077	2382	1944	718	485	326
72°	7046	7026	6106	4682	3326	2438	1881	1528	599	419	308
73°	5701	5576	4869	3617	2568	1873	1473	1178	533	354	272
74°	4292	4217	3693	2837	2023	1454	1104	909	465	342	282
75°	3084	3023	2658	2084	1481	1073	771	635	374	292	258
77.5°	1113	1080	977	755	547	397	306	254	198	220	230
80°	320	316	254	210	162	127	100	78	93	77	100
82.5°	22	26	27	18	17	5	0	0	0	0	2
85°	11	14	25	22	23	18	20	12	42	11	17
87.5°	0	7	2	16	10	4	0	5	0	2	2



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CANDELA DISTRIBUTION (continued):





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CANDELA DISTRIBUTION (continued):

	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1414	1414	1414	1414	1414	1414	1414	1414	1414
2.5°	1394	1389	1383	1375	1372	1378	1361	1366	1368
5°	1429	1416	1406	1381	1359	1355	1336	1334	1326
7.5°	1434	1422	1391	1356	1342	1326	1296	1298	1284
10°	1427	1412	1376	1350	1326	1295	1268	1250	1250
12.5°	1443	1415	1388	1334	1304	1275	1246	1240	1219
15°	1460	1410	1377	1320	1282	1255	1228	1223	1200
17.5°	1442	1395	1366	1300	1259	1219	1180	1159	1151
20°	1449	1414	1354	1297	1246	1194	1154	1135	1125
22.5°	1474	1381	1344	1290	1232	1176	1153	1111	1102
25°	1521	1399	1280	1250	1218	1183	1128	1100	1099
27.5°	1524	1372	1246	1207	1190	1147	1097	1088	1076
30°	1549	1367	1236	1195	1179	1124	1060	1027	1021
32.5°	1527	1350	1252	1161	1128	1086	999	970	961
35°	1490	1340	1214	1122	1054	991	922	908	904
37.5°	1531	1355	1239	1127	994	917	862	832	832
40°	1630	1438	1298	1104	949	869	804	765	764
42.5°	1738	1526	1332	1019	880	801	733	691	691
45°	1826	1605	1276	926	816	725	673	646	686
47.5°	2112	1746	1220	923	794	708	689	667	665
50°	2331	1734	1094	898	742	690	715	653	656
52.5°	2442	1855	1104	852	708	687	700	600	585
55°	2465	1840	1029	798	644	652	636	528	518
57.5°	2249	1684	975	769	636	658	591	523	531
60°	1852	1356	932	767	632	630	513	512	517
61°	1681	1204	931	765	657	623	496	495	516
62°	1543	1086	967	743	612	595	457	469	494
63°	1323	1008	874	678	561	533	389	414	420
64°	1280	1054	933	733	614	574	414	450	452
65°	1215	1002	896	677	579	525	344	336	349
66°	1169	983	891	707	581	517	278	288	318
67°	1059	911	836	651	523	437	191	215	265
68°	774	657	608	467	385	320	150	182	216
69°	395	339	334	256	221	193	139	173	204
70°	250	229	219	157	138	148	111	175	193
71°	274	216	208	157	126	126	131	168	196
72°	261	217	210	154	124	105	134	145	175
73°	227	168	143	111	87	72	128	107	134
74°	240	174	151	113	82	70	183	124	147
75°	226	161	128	93	54	42	192	113	93
77.5°	234	136	105	83	64	84	227	99	100
80°	122	69	47	69	26	36	116	44	38
82.5°	5	0	0	0	0	0	0	0	0
85°	9	5	7	8	7	1	5	1	2
87.5°	1	1	3	0	0	22	15	1	4



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CANDELA DISTRIBUTION (continued):

	105°	115°	125°	135°	145°	155°	165°	175°	180°
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)