

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: STREETWORKS

Report Number: P159330

Luminaire Tested: **VST-E05-LED-E-U-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159330
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33705)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E05-LED-E-U-T2
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (105) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15433.6 lumens
Efficiency: N/A
Efficacy: 121.2 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 127.3
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

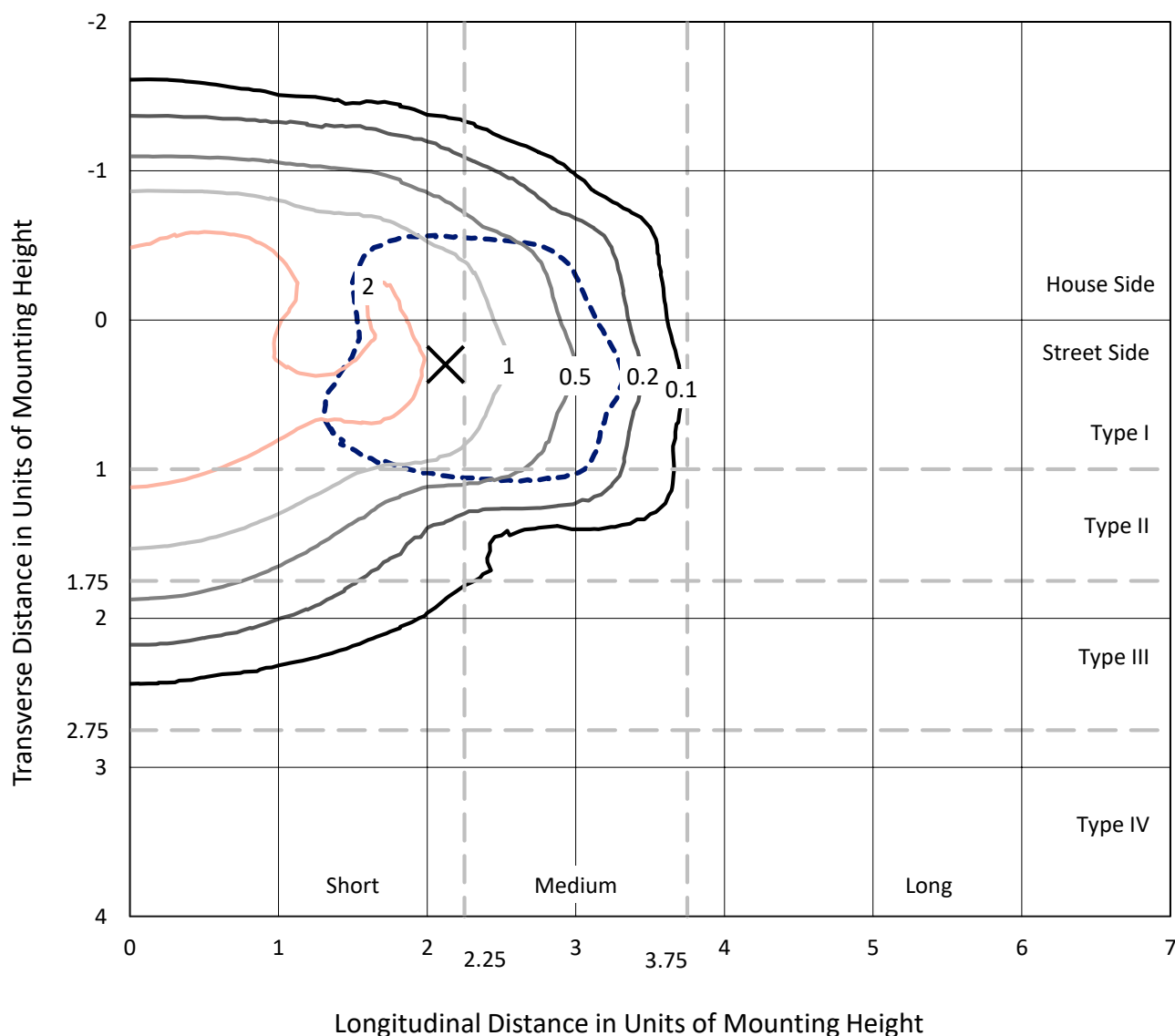


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

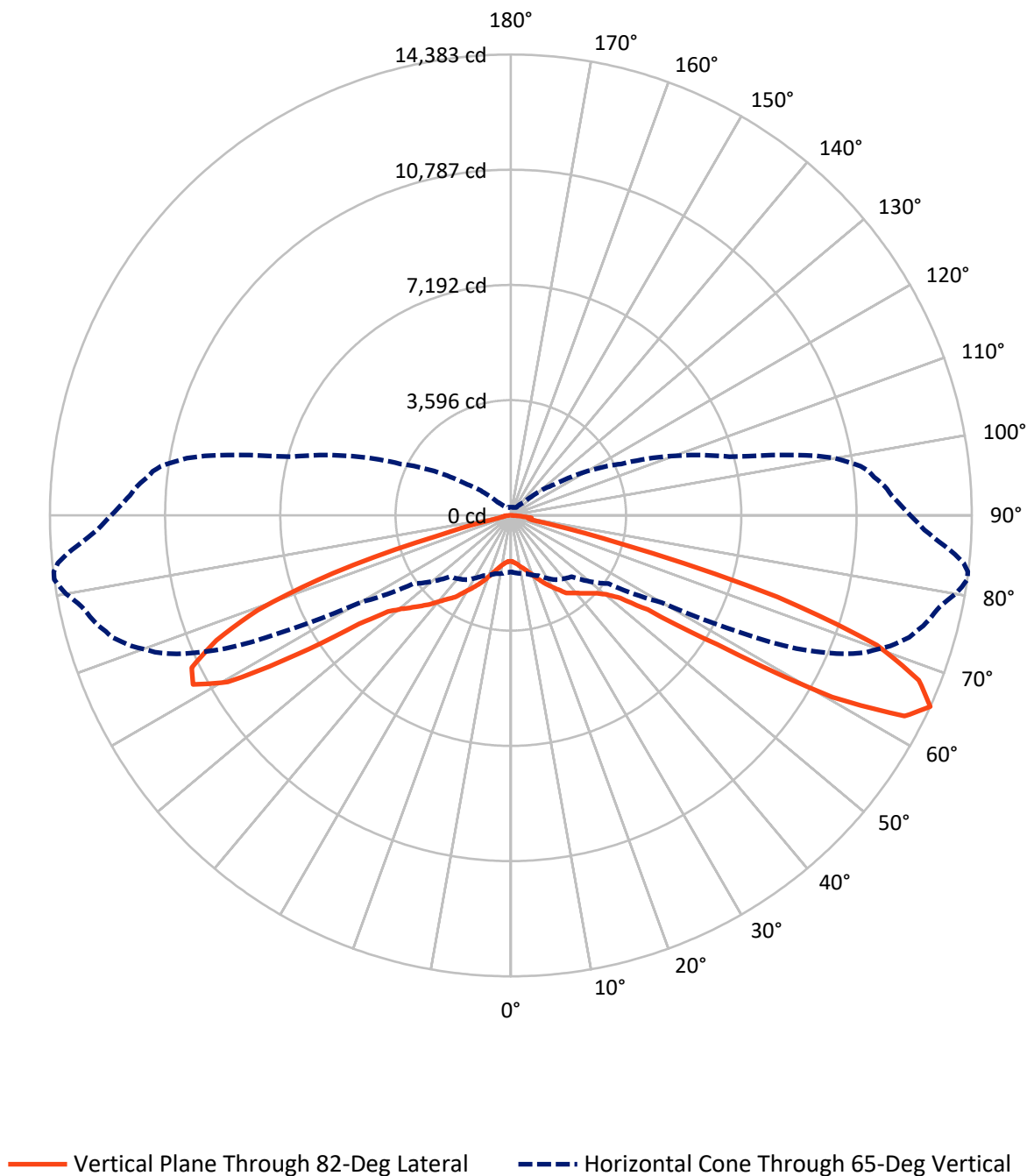


Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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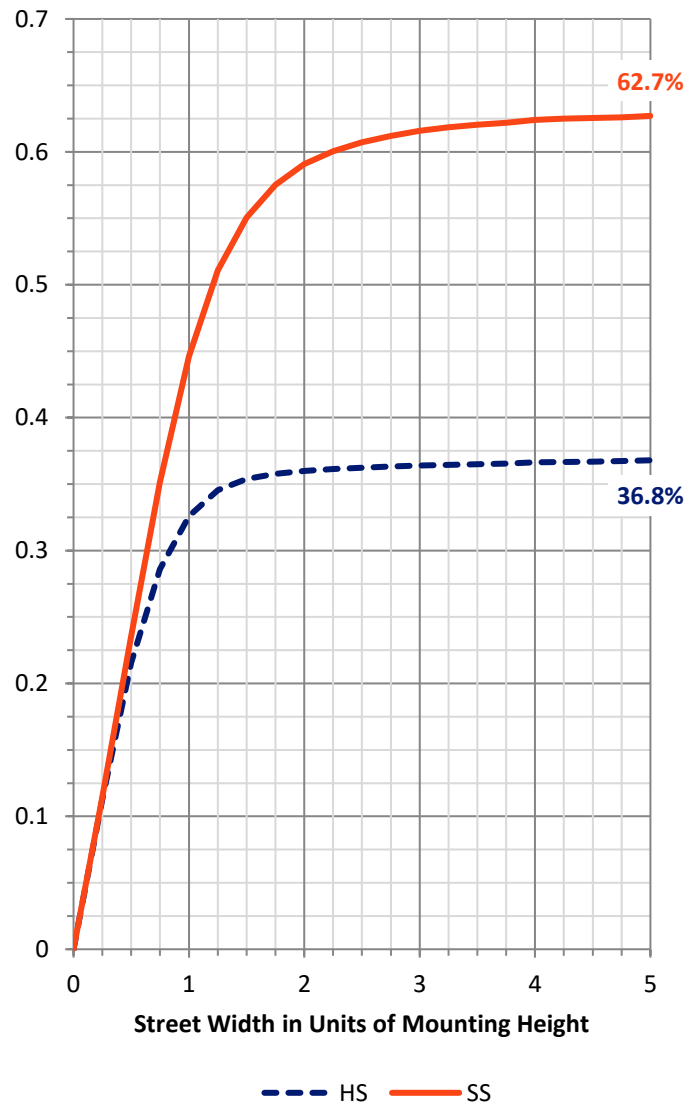
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5746.4	0.0	5746.4
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	9687.2	0.0	9687.2
	% Fixture	62.8	0.0	62.8
Total	Lumens	15433.6	0.0	15433.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.4	0.9
10°-20°	510.8	3.3
20°-30°	1012.2	6.6
30°-40°	1735.0	11.2
40°-50°	2606.5	16.9
50°-60°	3621.2	23.5
60°-70°	4131.3	26.8
70°-80°	1423.2	9.2
80°-90°	248.0	1.6
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°	15433.6	100.0
0°-180°	15433.6	100.0

Coefficient of Utilization



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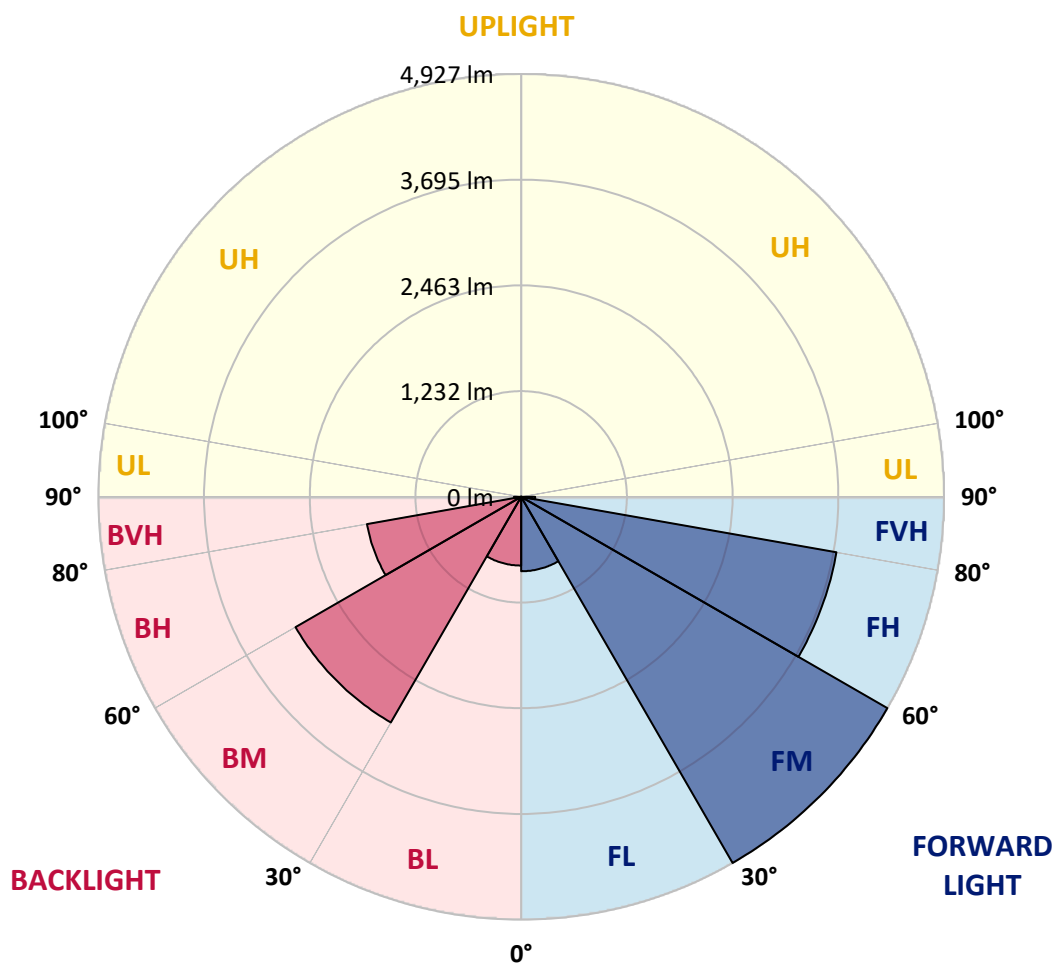
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	867.0	5.6			
FM	(30°-60°)	4926.7	31.9			
FH	(60°-80°)	3730.1	24.2			G2/5000
FVH	(80°-90°)	163.3	1.1			G2/225
BL	(0°-30°)	801.3	5.2	B2/1000		
BM	(30°-60°)	3036.0	19.7	B3/5000		
BH	(60°-80°)	1824.3	11.8	B3/2500		G3/2500
BVH	(80°-90°)	84.8	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436
2.5°	1514	1515	1514	1511	1510	1501	1491	1486	1485	1481	1482
5°	1608	1605	1601	1596	1591	1576	1559	1550	1547	1544	1540
7.5°	1692	1694	1692	1685	1672	1653	1631	1617	1616	1613	1610
10°	1800	1805	1793	1781	1763	1734	1709	1691	1688	1684	1682
12.5°	1917	1918	1914	1887	1857	1817	1781	1763	1759	1754	1752
15°	2042	2043	2021	1995	1949	1901	1851	1831	1826	1827	1819
17.5°	2141	2143	2122	2089	2034	1977	1923	1907	1904	1905	1901
20°	2184	2187	2174	2149	2097	2047	2008	1998	1997	1995	2003
22.5°	2182	2183	2178	2168	2137	2108	2103	2109	2108	2110	2117
25°	2164	2167	2166	2170	2165	2176	2199	2220	2223	2227	2240
27.5°	2210	2216	2209	2213	2221	2258	2305	2337	2343	2354	2365
30°	2390	2382	2373	2363	2368	2391	2444	2472	2475	2483	2498
32.5°	2657	2648	2640	2624	2620	2610	2628	2635	2634	2642	2646
35°	2958	2959	2957	2969	2979	2928	2865	2848	2855	2846	2848
37.5°	3215	3218	3271	3337	3356	3324	3186	3118	3095	3092	3069
40°	3500	3500	3580	3661	3714	3754	3590	3470	3421	3407	3350
42.5°	3813	3797	3870	3959	4057	4148	4063	3928	3858	3833	3733
45°	4070	4060	4096	4179	4338	4516	4528	4459	4417	4365	4273
47.5°	4228	4223	4244	4334	4533	4821	4982	5017	4992	4952	4863
50°	4290	4283	4298	4398	4621	5001	5357	5522	5534	5543	5515
52.5°	4268	4259	4290	4374	4606	5064	5650	5967	6020	6065	6157
55°	4057	4043	4127	4285	4541	5041	5864	6395	6507	6627	6831
57.5°	3734	3722	3843	4060	4426	4978	6008	6936	7188	7404	7983
60°	3423	3413	3484	3694	4053	4671	5830	7118	7541	8007	9064
62.5°	2867	2840	2935	3112	3339	3864	5053	6713	7365	8050	9483
65°	1762	1801	1883	2079	2451	2701	3711	5431	6291	7150	9009
67.5°	1119	1130	1191	1327	1615	1866	2249	3408	4071	4916	7073
70°	959	966	1018	1160	1359	1668	1702	1780	2018	2556	4158
72.5°	756	768	809	932	1172	1504	2101	1407	1359	1404	2029
75°	450	464	498	565	753	1150	2201	1637	1526	1439	1400
77.5°	238	228	251	290	387	613	1654	2006	1928	1824	1603
80°	118	122	129	137	173	249	827	2075	2300	2400	2204
82.5°	47	53	75	80	95	106	266	1150	1647	2234	2917
85°	24	23	40	48	56	50	94	429	772	1203	1949
87.5°	3	4	9	12	17	16	27	93	148	210	295
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436
2.5°	1477	1476	1476	1472	1472	1473	1470	1468	1468	1469	1465
5°	1537	1534	1534	1530	1525	1525	1521	1520	1518	1514	1511
7.5°	1607	1604	1599	1596	1594	1591	1586	1584	1580	1576	1572
10°	1679	1675	1673	1668	1666	1660	1657	1658	1650	1647	1648
12.5°	1751	1747	1740	1738	1737	1731	1728	1726	1720	1719	1716
15°	1815	1817	1814	1809	1805	1804	1801	1799	1795	1791	1787
17.5°	1898	1901	1897	1890	1890	1889	1890	1889	1882	1885	1883
20°	2004	2006	1996	1999	2001	2000	2003	2006	2004	2004	2007
22.5°	2126	2129	2123	2127	2133	2128	2137	2136	2138	2141	2142
25°	2251	2257	2252	2263	2259	2263	2274	2271	2276	2284	2287
27.5°	2376	2380	2381	2388	2395	2401	2415	2415	2419	2433	2433
30°	2507	2511	2515	2525	2529	2540	2554	2558	2556	2576	2582
32.5°	2658	2662	2669	2681	2686	2697	2697	2708	2716	2733	2734
35°	2859	2862	2859	2858	2865	2880	2881	2897	2904	2921	2926
37.5°	3060	3059	3046	3032	3033	3027	3023	3030	3033	3034	3045
40°	3331	3305	3285	3250	3234	3209	3194	3193	3177	3175	3178
42.5°	3686	3656	3609	3550	3505	3459	3425	3405	3370	3352	3337
45°	4182	4108	4052	3982	3895	3815	3731	3693	3626	3585	3539
47.5°	4788	4715	4629	4557	4443	4332	4217	4116	3999	3906	3830
50°	5446	5403	5341	5274	5127	5054	4909	4772	4646	4480	4335
52.5°	6121	6146	6132	6108	6015	5987	5862	5695	5568	5454	5202
55°	6953	6983	7043	7078	7067	7138	7107	6977	6926	6873	6694
57.5°	8226	8440	8669	8870	8917	9169	9115	9245	9337	9271	9213
60°	9583	10015	10404	10811	11142	11390	11718	11939	12078	12328	12348
62.5°	10130	10717	11211	11683	12076	12420	12716	13021	13271	13497	13660
65°	9830	10443	11042	11521	11899	12195	12517	12759	13005	13150	13321
67.5°	8172	8984	9721	10261	10778	11079	11460	11698	11959	12112	12222
70°	5328	6385	7392	8211	8909	9260	9720	10045	10359	10367	10550
72.5°	2875	3759	4602	5439	6235	6702	7156	7551	7863	7730	7912
75°	1601	2015	2476	2979	3464	3731	4070	4072	4233	3980	4044
77.5°	1540	1521	1528	1542	1566	1515	1514	1483	1435	1348	1363
80°	2023	1781	1607	1334	1074	876	821	834	873	951	1050
82.5°	2925	2721	2429	1999	1569	1210	994	882	877	955	1105
85°	2130	2253	2234	1865	1538	1249	909	768	636	605	658
87.5°	314	260	293	245	178	138	121	97	93	95	104
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436
2.5°	1466	1462	1458	1461	1458	1457	1454	1452	1451	1451	1451
5°	1511	1506	1503	1502	1499	1496	1495	1490	1489	1489	1486
7.5°	1572	1568	1563	1560	1558	1553	1548	1547	1546	1542	1539
10°	1643	1637	1631	1631	1627	1626	1621	1614	1613	1607	1605
12.5°	1710	1708	1701	1699	1696	1693	1690	1687	1684	1679	1681
15°	1790	1785	1779	1780	1779	1775	1771	1768	1766	1764	1764
17.5°	1886	1884	1883	1878	1874	1877	1877	1877	1872	1873	1874
20°	2008	2010	2008	2004	2003	2006	1999	2010	2004	2000	2002
22.5°	2143	2150	2142	2143	2148	2150	2143	2152	2149	2143	2148
25°	2290	2295	2291	2290	2293	2300	2299	2298	2305	2299	2302
27.5°	2441	2444	2446	2449	2451	2450	2454	2454	2458	2451	2454
30°	2591	2591	2595	2599	2599	2599	2607	2608	2602	2604	2597
32.5°	2751	2752	2756	2756	2764	2765	2774	2762	2774	2764	2766
35°	2939	2952	2954	2964	2972	2975	2975	2976	2987	2979	2982
37.5°	3049	3052	3060	3065	3065	3069	3072	3069	3072	3071	3074
40°	3179	3176	3185	3187	3183	3188	3187	3184	3192	3186	3190
42.5°	3337	3320	3319	3327	3319	3323	3322	3315	3325	3328	3325
45°	3506	3497	3479	3479	3471	3468	3469	3468	3469	3481	3485
47.5°	3781	3726	3695	3666	3642	3641	3630	3636	3644	3664	3682
50°	4242	4115	4037	3965	3913	3895	3874	3872	3879	3902	3933
52.5°	5064	4888	4722	4568	4434	4331	4280	4253	4243	4266	4296
55°	6568	6236	6002	5846	5513	5372	5191	5108	5027	5035	5086
57.5°	9138	8959	8763	8490	8286	8040	7588	7336	7347	7406	7222
60°	12506	12325	12244	11996	11854	11755	11515	11097	10949	10921	10583
62.5°	13785	13828	13892	13962	13958	14001	13791	13655	13484	13262	12928
65°	13451	13560	13690	13878	14092	14250	14383	14367	14207	13911	13558
67.5°	12320	12428	12523	12775	13126	13447	13731	13924	13817	13572	13160
70°	10620	10698	10758	10977	11362	11754	12125	12449	12416	12119	11790
72.5°	7695	7884	7986	7971	8209	8648	8700	8977	9054	8734	8210
75°	3749	3752	3634	3595	3607	3683	3538	3547	3497	3270	3083
77.5°	1310	1274	1188	1086	940	803	664	604	584	525	484
80°	1129	1182	1165	1081	927	739	552	409	349	328	308
82.5°	1282	1486	1616	1609	1398	1050	655	376	268	235	216
85°	715	769	784	714	593	405	226	159	135	123	111
87.5°	114	104	102	89	84	77	68	64	59	56	56
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436
2.5°	1450	1449	1446	1443	1441	1440	1439	1437	1436	1435	1433
5°	1484	1482	1477	1472	1470	1467	1464	1462	1460	1459	1455
7.5°	1537	1535	1529	1525	1524	1516	1515	1512	1507	1506	1500
10°	1601	1600	1595	1592	1590	1586	1580	1575	1570	1570	1566
12.5°	1675	1671	1674	1667	1665	1661	1658	1657	1651	1646	1645
15°	1762	1757	1757	1755	1753	1749	1748	1749	1743	1745	1739
17.5°	1870	1872	1871	1871	1866	1866	1858	1868	1861	1866	1864
20°	2005	2006	2004	2007	2009	2008	2007	2006	2009	2013	2010
22.5°	2149	2149	2148	2159	2147	2156	2159	2153	2169	2167	2170
25°	2305	2305	2313	2322	2324	2317	2321	2316	2326	2334	2336
27.5°	2450	2463	2469	2463	2468	2479	2478	2478	2485	2483	2502
30°	2599	2607	2615	2611	2613	2627	2628	2629	2638	2651	2665
32.5°	2769	2777	2773	2786	2785	2802	2805	2808	2836	2831	2860
35°	2978	2986	2982	2996	2994	3000	3011	3023	3028	3057	3080
37.5°	3076	3076	3085	3101	3107	3117	3134	3149	3174	3205	3241
40°	3194	3197	3209	3226	3237	3260	3291	3312	3350	3384	3426
42.5°	3337	3350	3364	3387	3411	3447	3491	3518	3568	3612	3664
45°	3504	3517	3550	3592	3627	3667	3703	3767	3812	3858	3903
47.5°	3706	3744	3771	3821	3864	3917	3962	4022	4071	4127	4165
50°	3965	4012	4047	4112	4154	4213	4270	4315	4365	4420	4451
52.5°	4337	4385	4429	4510	4562	4602	4678	4734	4780	4820	4854
55°	5143	5129	5251	5408	5426	5571	5598	5645	5730	5742	5837
57.5°	7446	7374	7551	7781	7741	7668	7973	7992	7949	8064	7934
60°	10633	10507	10555	10618	10527	10484	10499	10542	10500	10454	10328
62.5°	12761	12567	12428	12311	12163	12056	11936	11788	11748	11580	11439
65°	13215	12913	12693	12472	12268	12079	11898	11771	11603	11404	11257
67.5°	12716	12342	12020	11699	11468	11190	11054	10847	10640	10412	10277
70°	11266	10876	10471	10157	9843	9499	9432	9187	9068	8757	8703
72.5°	7776	7516	7335	6947	6756	6580	6524	6297	6321	5980	6104
75°	2765	2728	2675	2456	2417	2349	2331	2315	2477	2252	2415
77.5°	475	472	445	432	457	441	445	437	484	491	480
80°	295	287	278	272	273	267	268	270	273	272	275
82.5°	202	195	191	187	193	195	200	205	213	218	224
85°	110	101	101	100	108	114	122	132	146	158	171
87.5°	56	54	55	57	64	69	79	88	100	113	125
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436	1436
2.5°	1432	1432	1431	1431	1430	1429	1428	1425	1414	1404	1397
5°	1454	1451	1450	1447	1446	1444	1441	1438	1418	1400	1387
7.5°	1499	1495	1493	1490	1487	1483	1479	1476	1452	1431	1415
10°	1558	1556	1555	1551	1551	1545	1544	1537	1511	1492	1478
12.5°	1640	1636	1635	1630	1632	1630	1628	1624	1605	1583	1564
15°	1742	1742	1737	1733	1734	1732	1736	1731	1719	1699	1668
17.5°	1865	1863	1865	1862	1864	1866	1861	1862	1856	1831	1785
20°	2008	2005	2017	2012	2023	2013	2015	2018	2018	1985	1923
22.5°	2172	2170	2170	2180	2184	2185	2189	2192	2200	2158	2059
25°	2336	2343	2344	2357	2363	2363	2366	2377	2401	2343	2215
27.5°	2503	2520	2524	2533	2542	2551	2558	2566	2605	2542	2375
30°	2670	2689	2703	2713	2724	2746	2750	2766	2831	2754	2527
32.5°	2866	2893	2911	2924	2941	2962	2974	2994	3057	2931	2638
35°	3100	3116	3142	3164	3174	3210	3229	3234	3282	3084	2720
37.5°	3262	3289	3334	3365	3383	3403	3435	3456	3502	3223	2761
40°	3468	3509	3545	3591	3620	3635	3667	3684	3690	3342	2748
42.5°	3719	3756	3804	3841	3863	3880	3906	3913	3835	3398	2678
45°	3955	4012	4053	4080	4096	4105	4121	4122	3955	3370	2558
47.5°	4209	4250	4288	4307	4305	4307	4301	4297	4015	3273	2404
50°	4490	4517	4533	4542	4547	4528	4501	4483	4020	3135	2248
52.5°	4867	4901	4898	4897	4857	4839	4767	4730	3991	2973	2072
55°	5822	5789	5724	5756	5593	5508	5396	5292	4029	2819	1868
57.5°	7986	7999	7814	7715	7440	7096	6819	6550	4371	2725	1602
60°	10244	10074	9839	9481	9127	8616	8123	7657	4712	2627	1287
62.5°	11230	10988	10633	10170	9614	8989	8375	7807	4547	2310	936
65°	11030	10660	10268	9726	9050	8365	7648	7068	3804	1723	577
67.5°	9984	9670	9256	8613	7890	7177	6520	5870	2826	1074	323
70°	8427	8120	7700	7042	6320	5638	4942	4412	1801	518	233
72.5°	5846	5597	5300	4831	4198	3578	3107	2700	998	275	213
75°	2374	2375	2321	2123	1794	1547	1319	1119	417	234	210
77.5°	538	547	598	567	511	478	428	378	254	241	212
80°	272	273	270	271	268	269	265	262	238	248	212
82.5°	227	232	231	231	232	232	232	231	247	261	205
85°	180	190	198	206	215	221	224	227	240	257	186
87.5°	136	148	158	166	180	180	190	197	197	201	98
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	1436	1436	1436	1436	1436
2.5°	1387	1383	1379	1377	1373
5°	1377	1369	1364	1364	1360
7.5°	1406	1403	1396	1392	1396
10°	1468	1463	1455	1449	1452
12.5°	1551	1531	1515	1508	1503
15°	1637	1597	1565	1547	1542
17.5°	1729	1659	1611	1584	1579
20°	1823	1736	1668	1633	1632
22.5°	1936	1820	1733	1687	1684
25°	2055	1895	1780	1721	1715
27.5°	2158	1955	1809	1739	1733
30°	2244	2000	1833	1752	1744
32.5°	2306	2026	1843	1756	1747
35°	2326	2016	1815	1720	1710
37.5°	2299	1951	1737	1632	1620
40°	2218	1837	1610	1502	1487
42.5°	2094	1697	1457	1354	1335
45°	1941	1539	1305	1190	1181
47.5°	1781	1373	1134	1030	1019
50°	1608	1181	967	854	854
52.5°	1402	994	773	688	681
55°	1165	783	616	551	542
57.5°	910	602	492	454	444
60°	669	452	396	375	371
62.5°	454	344	319	310	309
65°	307	268	261	258	259
67.5°	236	223	220	219	219
70°	205	197	194	195	194
72.5°	193	182	183	185	184
75°	189	175	179	180	176
77.5°	186	167	177	180	169
80°	180	160	184	185	166
82.5°	165	142	184	170	150
85°	140	108	208	148	111
87.5°	89	64	141	101	67
90°	0	0	0	0	0

(END OF REPORT)