

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: P159770

Luminaire Tested: **VST-E05-LED-E-U-T4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159770
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
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-T4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (105) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14881.8 lumens
Efficiency: N/A
Efficacy: 116.9 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - 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



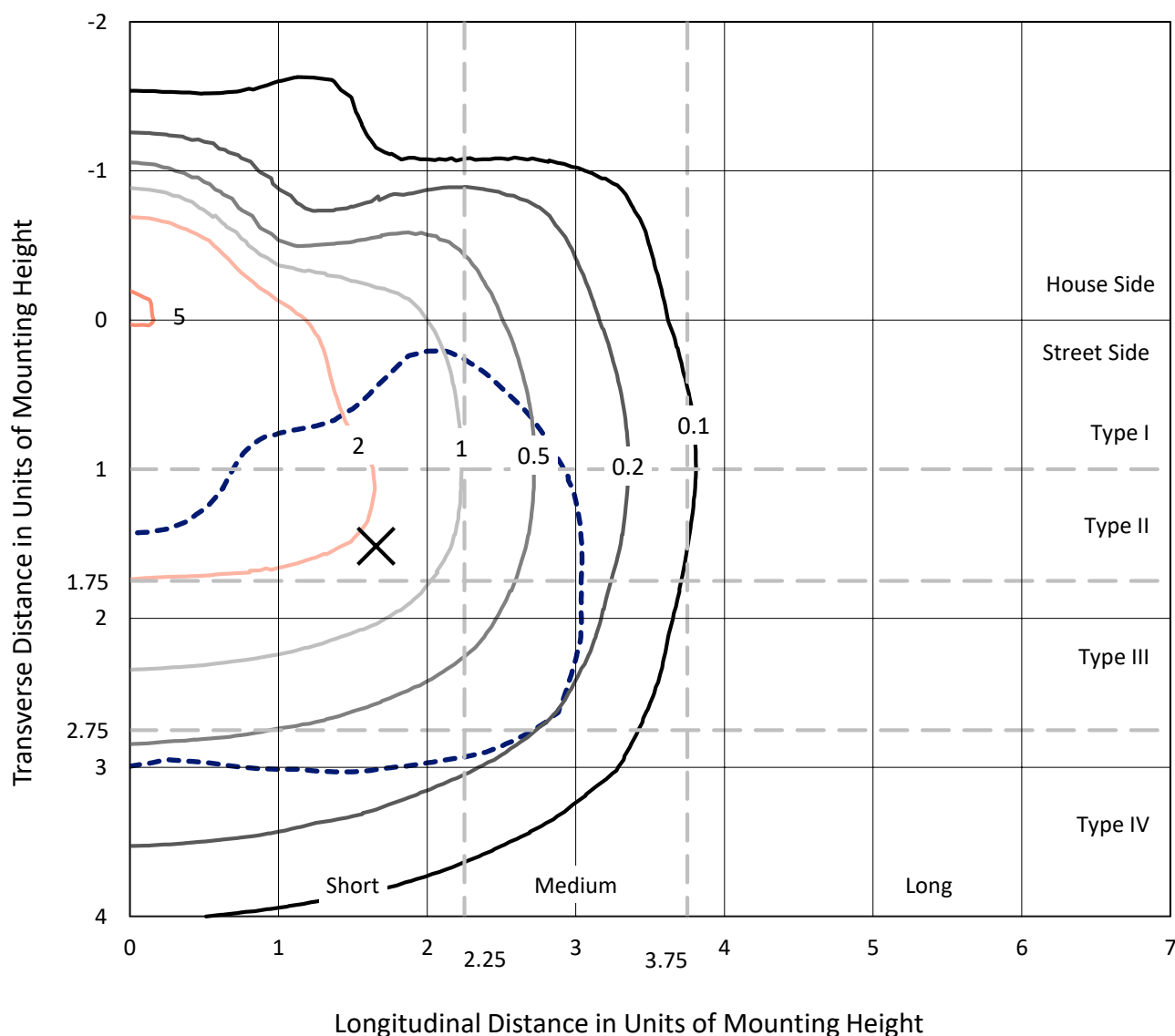
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

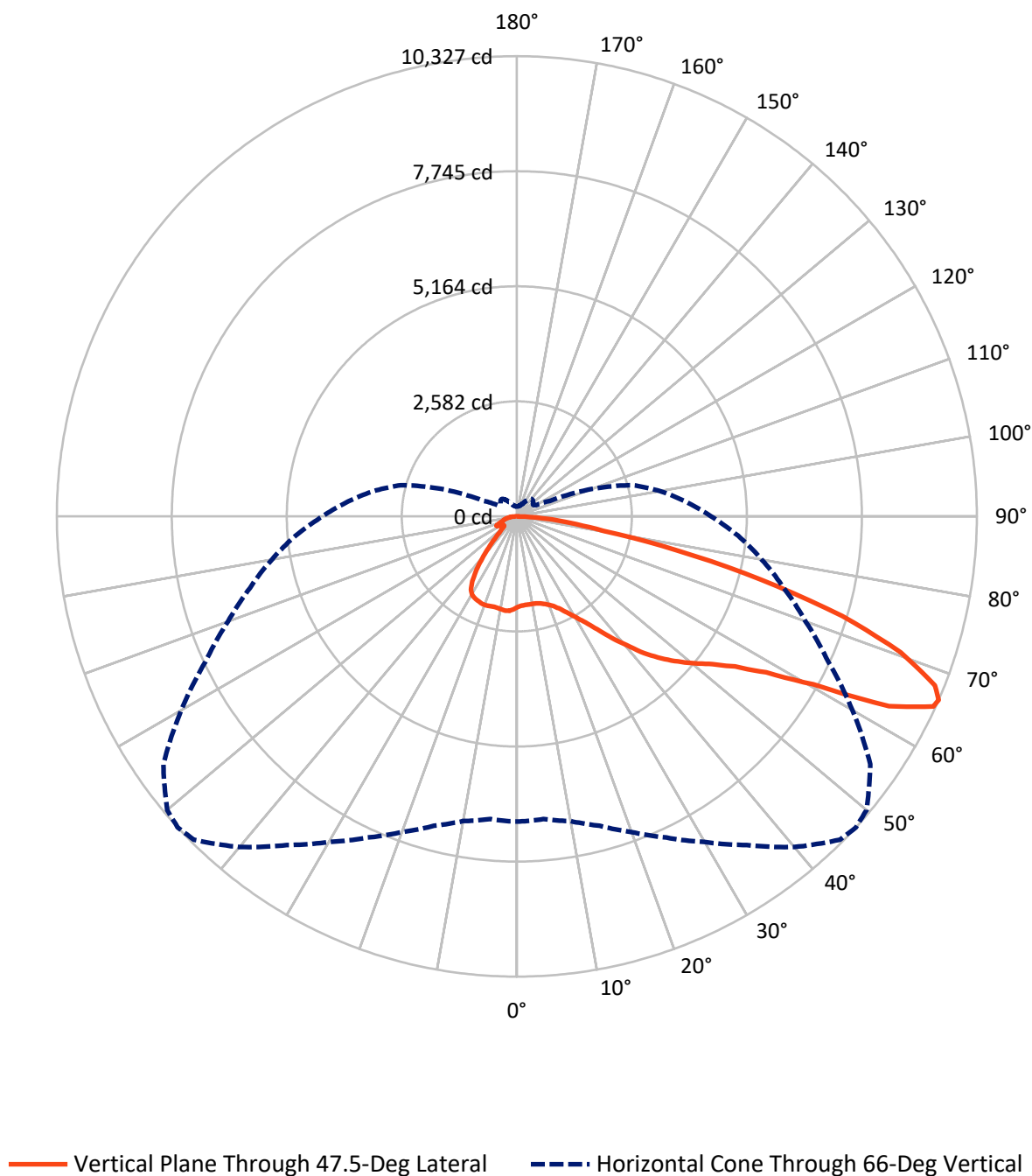


Based on 20 foot mounting height. Maximum calculated value = 5.2 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3081.2	0.0	3081.2
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	11800.6	0.0	11800.6
	% Fixture	79.3	0.0	79.3
Total	Lumens	14881.8	0.0	14881.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.2	1.3
10°-20°	588.5	4.0
20°-30°	1004.1	6.7
30°-40°	1515.5	10.2
40°-50°	1969.8	13.2
50°-60°	2702.4	18.2
60°-70°	4157.1	27.9
70°-80°	2403.1	16.1
80°-90°	345.2	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°	14881.8	100.0
0°-180°	14881.8	100.0

Coefficient of Utilization



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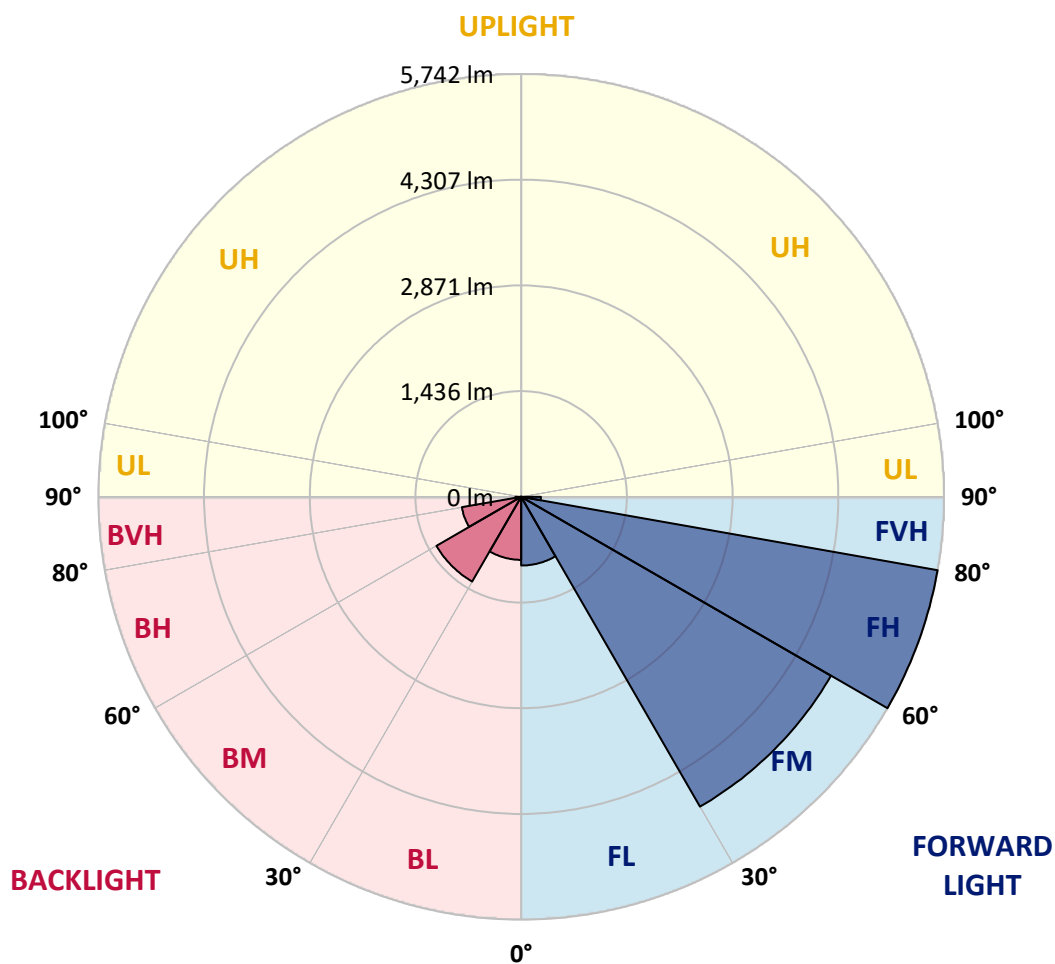
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	932.8	6.3			
FM	(30°-60°)	4858.3	32.6			
FH	(60°-80°)	5742.4	38.6			G3/7500
FVH	(80°-90°)	267.2	1.8			G3/500
BL	(0°-30°)	856.0	5.8	B2/1000		
BM	(30°-60°)	1329.4	8.9	B2/2500		
BH	(60°-80°)	817.8	5.5	B2/1000		G2/1000
BVH	(80°-90°)	78.1	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	2036	2036	2036	2036	2036	2036	2036	2036	2036	2036	2036
2.5°	1984	1985	1986	1986	1989	1989	1994	1997	1998	2004	2008
5°	1947	1946	1947	1949	1954	1958	1968	1975	1981	1991	1996
7.5°	1931	1933	1935	1936	1940	1950	1959	1966	1978	1990	1995
10°	1952	1955	1952	1954	1954	1963	1967	1972	1981	1992	1995
12.5°	2001	2007	2001	1996	1992	2000	1998	1994	1999	2002	2002
15°	2082	2082	2078	2071	2061	2062	2053	2044	2040	2033	2028
17.5°	2161	2159	2150	2141	2134	2131	2118	2106	2092	2081	2069
20°	2238	2246	2235	2222	2211	2204	2194	2170	2153	2135	2123
22.5°	2371	2364	2352	2333	2322	2310	2289	2263	2237	2215	2200
25°	2508	2501	2484	2470	2454	2444	2421	2389	2364	2330	2310
27.5°	2655	2649	2629	2618	2607	2595	2575	2542	2519	2480	2459
30°	2821	2820	2793	2791	2775	2762	2748	2720	2697	2658	2633
32.5°	2998	2994	2975	2969	2980	2971	2951	2922	2892	2869	2841
35°	3250	3243	3232	3237	3244	3269	3238	3213	3177	3147	3108
37.5°	3434	3424	3437	3465	3505	3524	3551	3552	3535	3495	3461
40°	3603	3599	3629	3668	3742	3796	3847	3872	3878	3852	3801
42.5°	3746	3758	3798	3858	3962	4044	4139	4198	4235	4221	4198
45°	3916	3922	3971	4047	4146	4282	4407	4507	4572	4571	4545
47.5°	4129	4130	4172	4261	4367	4505	4663	4796	4882	4886	4866
50°	4382	4380	4426	4510	4623	4756	4924	5090	5210	5210	5181
52.5°	4708	4704	4729	4803	4912	5052	5219	5411	5541	5569	5506
55°	5143	5149	5155	5220	5313	5424	5616	5793	5967	5983	5946
57.5°	5646	5626	5669	5775	5881	6020	6156	6365	6571	6606	6601
60°	6432	6406	6450	6585	6702	6921	7154	7424	7668	7740	7653
62.5°	7155	7187	7247	7404	7574	7866	8216	8679	9142	9394	9376
65°	7090	7060	7175	7389	7697	8069	8504	9062	9729	10235	10280
66°	6849	6818	6942	7187	7539	7953	8436	9004	9686	10258	10327
67.5°	6451	6420	6560	6783	7146	7667	8189	8810	9519	10067	10123
70°	5683	5641	5750	6002	6296	6800	7297	7955	8683	9121	9142
72.5°	4814	4716	4832	5026	5236	5653	6086	6536	7116	7521	7637
75°	3493	3544	3578	3706	3845	4190	4444	4821	5270	5563	5656
77.5°	1853	1930	1978	2106	2336	2599	2874	3107	3402	3566	3680
80°	1040	1094	1172	1273	1385	1587	1750	1870	1912	1941	1967
82.5°	572	709	825	895	961	1042	1139	1239	1271	1223	1198
85°	89	131	399	487	530	592	662	736	737	634	692
87.5°	25	28	57	86	84	68	84	153	90	45	52
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°	2036	2036	2036	2036	2036	2036	2036	2036	2036	2036	2036
2.5°	2010	2012	2017	2022	2027	2032	2035	2040	2044	2050	2057
5°	2002	2007	2016	2027	2037	2046	2053	2063	2072	2080	2092
7.5°	2002	2012	2027	2039	2048	2059	2070	2080	2090	2098	2106
10°	2003	2013	2028	2042	2052	2064	2073	2082	2093	2098	2108
12.5°	2007	2011	2022	2036	2048	2060	2069	2078	2090	2092	2099
15°	2027	2021	2024	2034	2047	2057	2067	2074	2082	2080	2086
17.5°	2064	2049	2043	2044	2050	2057	2061	2062	2063	2054	2055
20°	2114	2093	2079	2072	2064	2057	2046	2033	2021	2003	2001
22.5°	2189	2158	2143	2124	2100	2070	2043	2011	1985	1958	1948
25°	2298	2266	2250	2220	2177	2134	2095	2052	2014	1982	1967
27.5°	2444	2412	2395	2364	2311	2268	2214	2168	2122	2075	2056
30°	2621	2593	2574	2549	2503	2456	2393	2322	2249	2174	2137
32.5°	2830	2799	2785	2756	2708	2659	2589	2498	2376	2258	2184
35°	3091	3056	3040	3002	2946	2874	2799	2677	2512	2348	2227
37.5°	3440	3362	3309	3222	3132	3031	2924	2799	2604	2401	2233
40°	3749	3670	3568	3443	3303	3164	3042	2900	2688	2439	2214
42.5°	4133	3993	3830	3661	3475	3304	3159	2992	2745	2449	2161
45°	4484	4317	4099	3874	3643	3428	3265	3079	2794	2449	2097
47.5°	4804	4604	4343	4063	3794	3559	3374	3168	2863	2480	2078
50°	5100	4870	4573	4248	3946	3695	3496	3282	2968	2560	2124
52.5°	5412	5168	4806	4461	4128	3859	3647	3423	3104	2686	2205
55°	5821	5535	5124	4744	4378	4081	3840	3592	3253	2828	2304
57.5°	6466	6051	5640	5146	4801	4410	4146	3861	3495	3013	2453
60°	7595	7085	6591	6023	5597	5188	4789	4417	3976	3431	2780
62.5°	9207	8689	7913	7218	6575	6033	5513	5040	4474	3878	3183
65°	10170	9577	8652	7718	6937	6265	5670	5091	4480	3899	3305
66°	10247	9686	8698	7711	6900	6203	5584	4985	4359	3803	3265
67.5°	10104	9621	8604	7575	6746	5993	5357	4729	4100	3585	3132
70°	9095	8746	7874	6910	6083	5419	4748	4144	3548	3115	2779
72.5°	7456	7014	6404	5756	5105	4516	3906	3392	2892	2577	2339
75°	5477	5079	4407	4003	3573	3203	2792	2305	1950	1792	1734
77.5°	3472	3040	2473	2027	1743	1498	1181	939	752	783	867
80°	1754	1511	1131	893	772	642	508	385	281	321	363
82.5°	1126	940	749	590	498	439	351	255	190	214	262
85°	678	573	457	374	325	271	199	141	140	150	185
87.5°	103	147	85	91	96	103	91	77	67	87	110
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°	2036	2036	2036	2036	2036	2036	2036	2036	2036	2036	2036
2.5°	2064	2066	2070	2075	2074	2081	2085	2081	2090	2090	2095
5°	2102	2105	2112	2117	2119	2125	2127	2126	2128	2129	2131
7.5°	2113	2121	2124	2127	2128	2130	2130	2128	2128	2127	2129
10°	2110	2113	2115	2114	2114	2112	2111	2110	2110	2108	2111
12.5°	2100	2100	2100	2098	2098	2097	2097	2097	2099	2100	2105
15°	2080	2080	2082	2081	2084	2089	2095	2099	2104	2105	2108
17.5°	2049	2050	2056	2069	2082	2097	2108	2111	2107	2097	2090
20°	1995	2008	2032	2063	2092	2111	2116	2104	2085	2059	2045
22.5°	1947	1973	2016	2067	2103	2116	2101	2073	2039	2009	1988
25°	1966	1996	2041	2085	2108	2101	2071	2031	1995	1960	1926
27.5°	2046	2076	2108	2121	2113	2087	2045	2002	1954	1904	1862
30°	2122	2139	2141	2128	2099	2057	2008	1958	1897	1837	1784
32.5°	2146	2126	2090	2053	2013	1970	1913	1847	1782	1714	1655
35°	2139	2058	1969	1890	1842	1793	1741	1653	1580	1522	1484
37.5°	2076	1928	1791	1676	1601	1543	1466	1393	1330	1304	1273
40°	1988	1762	1572	1411	1333	1259	1173	1117	1099	1075	1076
42.5°	1862	1568	1323	1138	1053	972	911	878	879	859	863
45°	1729	1373	1065	881	797	728	694	684	685	686	680
47.5°	1648	1221	854	668	594	555	537	532	533	534	527
50°	1636	1142	713	511	463	441	432	427	427	423	417
52.5°	1670	1122	644	443	397	377	370	366	360	352	341
55°	1724	1140	623	420	375	355	346	344	334	319	301
57.5°	1824	1205	637	426	379	361	355	353	339	316	293
60°	2111	1394	707	460	408	393	393	390	371	338	305
62.5°	2507	1671	802	507	448	446	463	464	430	377	325
65°	2698	1801	835	517	459	482	516	516	468	395	328
66°	2699	1798	825	505	447	477	512	512	462	390	323
67.5°	2630	1742	792	483	420	448	479	478	433	370	309
70°	2359	1541	698	447	388	389	400	393	363	320	281
72.5°	2034	1289	605	424	363	344	335	329	310	284	260
75°	1560	1001	527	403	341	308	296	291	278	263	244
77.5°	956	686	447	369	316	286	273	263	250	236	223
80°	412	414	358	313	275	240	223	211	204	199	192
82.5°	288	297	273	243	210	185	170	167	168	168	166
85°	216	212	191	174	159	143	131	130	134	134	131
87.5°	125	126	108	101	105	90	82	83	93	92	90
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°	2036	2036	2036	2036	2036
2.5°	2095	2098	2097	2100	2097
5°	2134	2133	2132	2136	2131
7.5°	2128	2129	2129	2129	2128
10°	2113	2117	2119	2123	2122
12.5°	2108	2114	2120	2126	2127
15°	2109	2113	2116	2119	2120
17.5°	2083	2082	2079	2077	2075
20°	2030	2025	2020	2012	2016
22.5°	1964	1950	1934	1921	1920
25°	1887	1861	1835	1818	1812
27.5°	1819	1788	1761	1746	1742
30°	1738	1710	1686	1673	1665
32.5°	1618	1596	1566	1556	1555
35°	1451	1434	1413	1409	1404
37.5°	1262	1256	1246	1234	1232
40°	1060	1064	1061	1054	1043
42.5°	865	872	873	878	883
45°	689	695	695	700	706
47.5°	529	525	528	533	536
50°	400	397	392	388	384
52.5°	322	316	302	298	294
55°	284	273	263	259	259
57.5°	273	259	248	243	241
60°	275	255	241	233	230
62.5°	284	256	237	228	225
65°	283	254	236	226	223
66°	278	251	234	225	223
67.5°	270	247	232	224	221
70°	254	239	228	221	218
72.5°	241	231	221	213	211
75°	229	219	210	206	203
77.5°	211	202	197	193	191
80°	187	181	175	171	168
82.5°	163	155	149	146	144
85°	133	128	119	113	112
87.5°	89	84	81	76	71
90°	0	0	0	0	0

(END OF REPORT)