

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: P158010

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158010
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33711)
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-RW
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (105) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15577.1 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type I - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

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

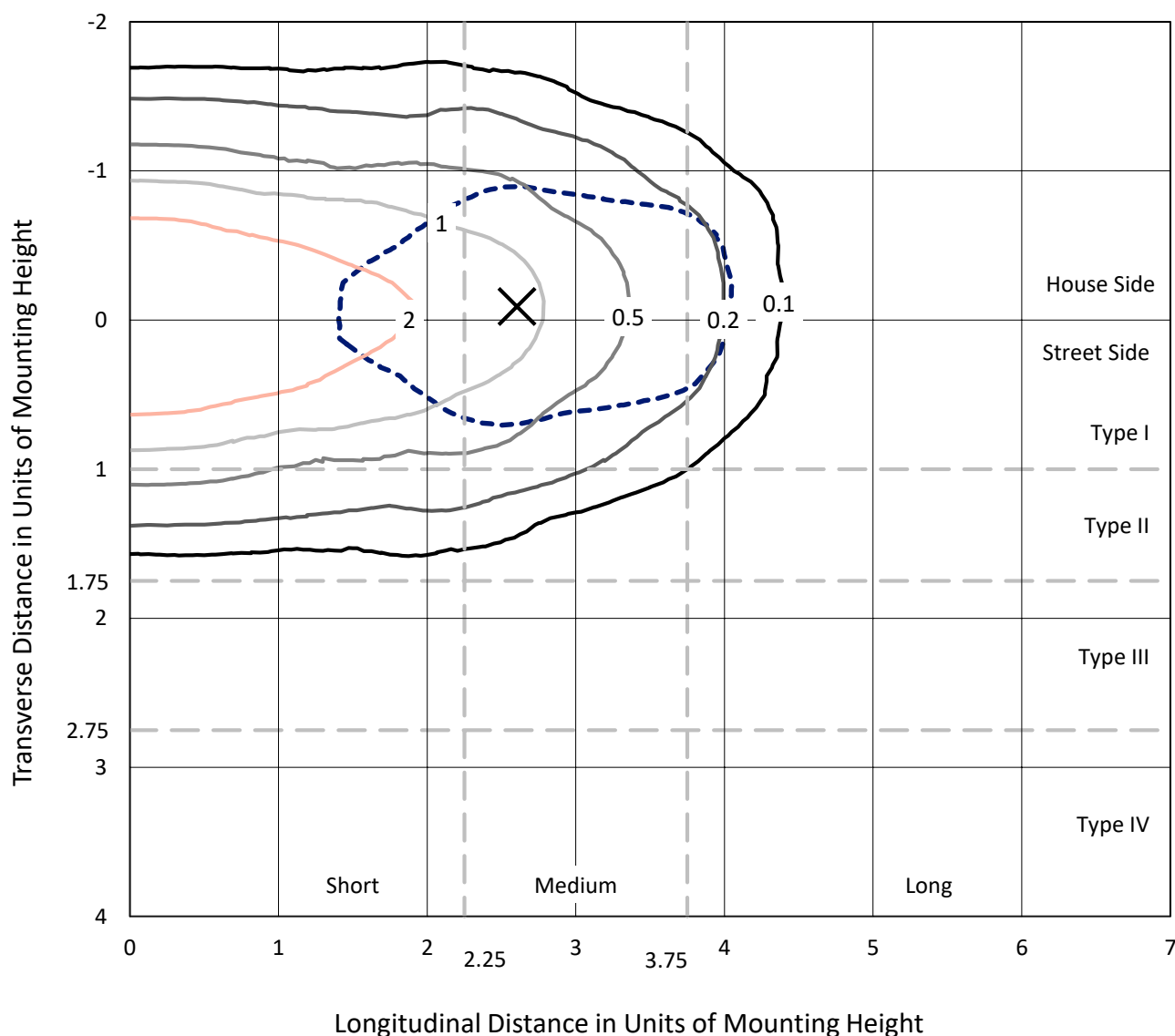


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

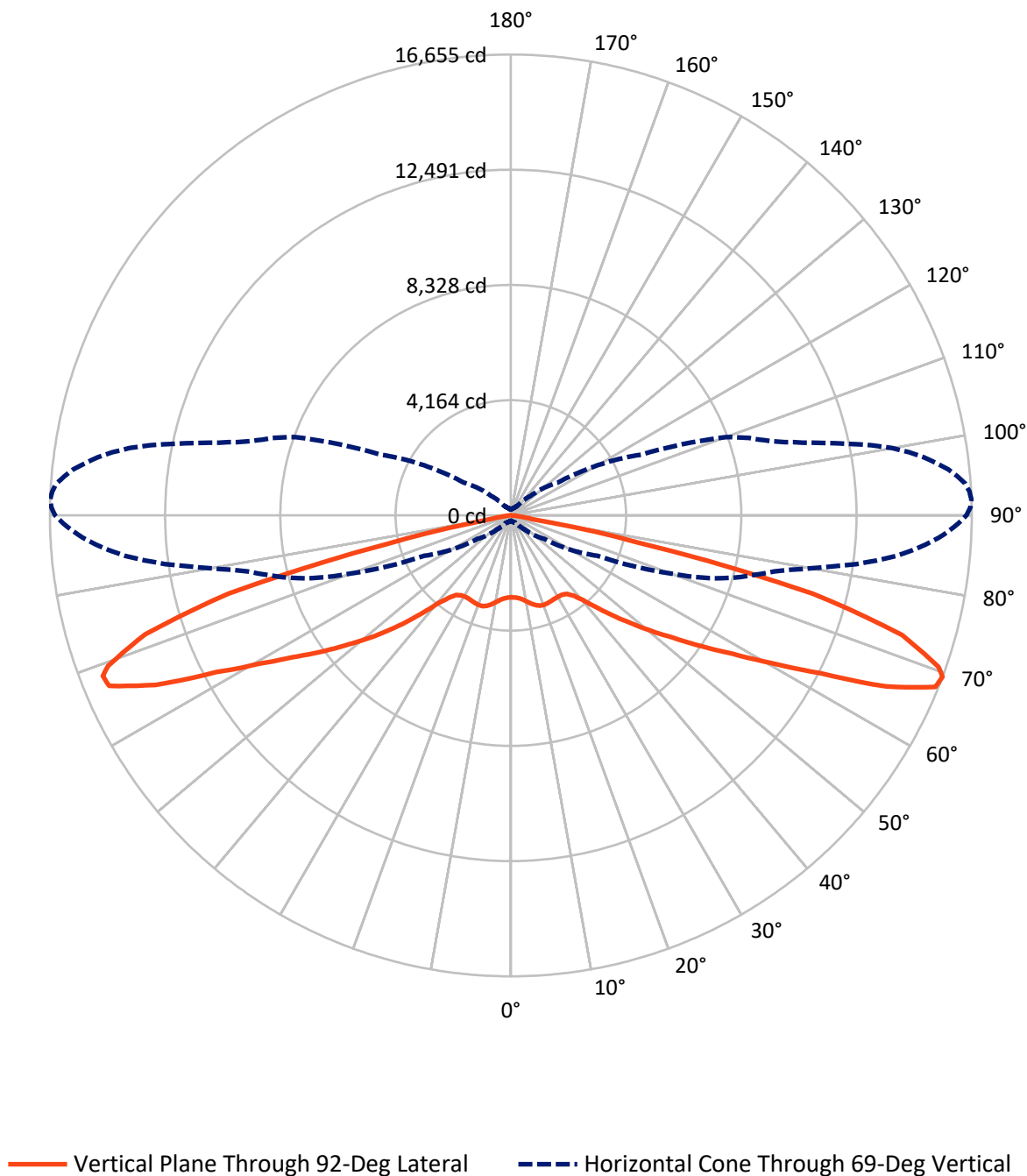


Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type I - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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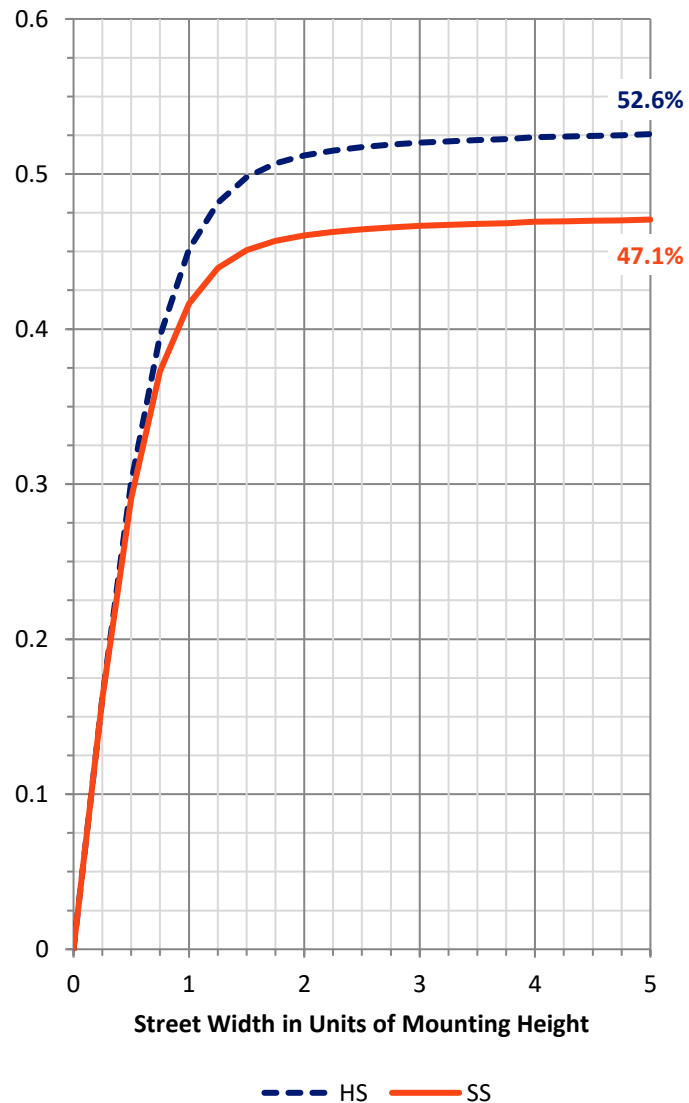
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8261.3	0.0	8261.3
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	7315.7	0.0	7315.7
	% Fixture	47.0	0.0	47.0
Total	Lumens	15577.1	0.0	15577.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.5	1.9
10°-20°	914.7	5.9
20°-30°	1484.0	9.5
30°-40°	1849.4	11.9
40°-50°	2302.7	14.8
50°-60°	2839.8	18.2
60°-70°	3526.9	22.6
70°-80°	2167.0	13.9
80°-90°	203.1	1.3
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°	15577.1	100.0
0°-180°	15577.1	100.0

Coefficient of Utilization



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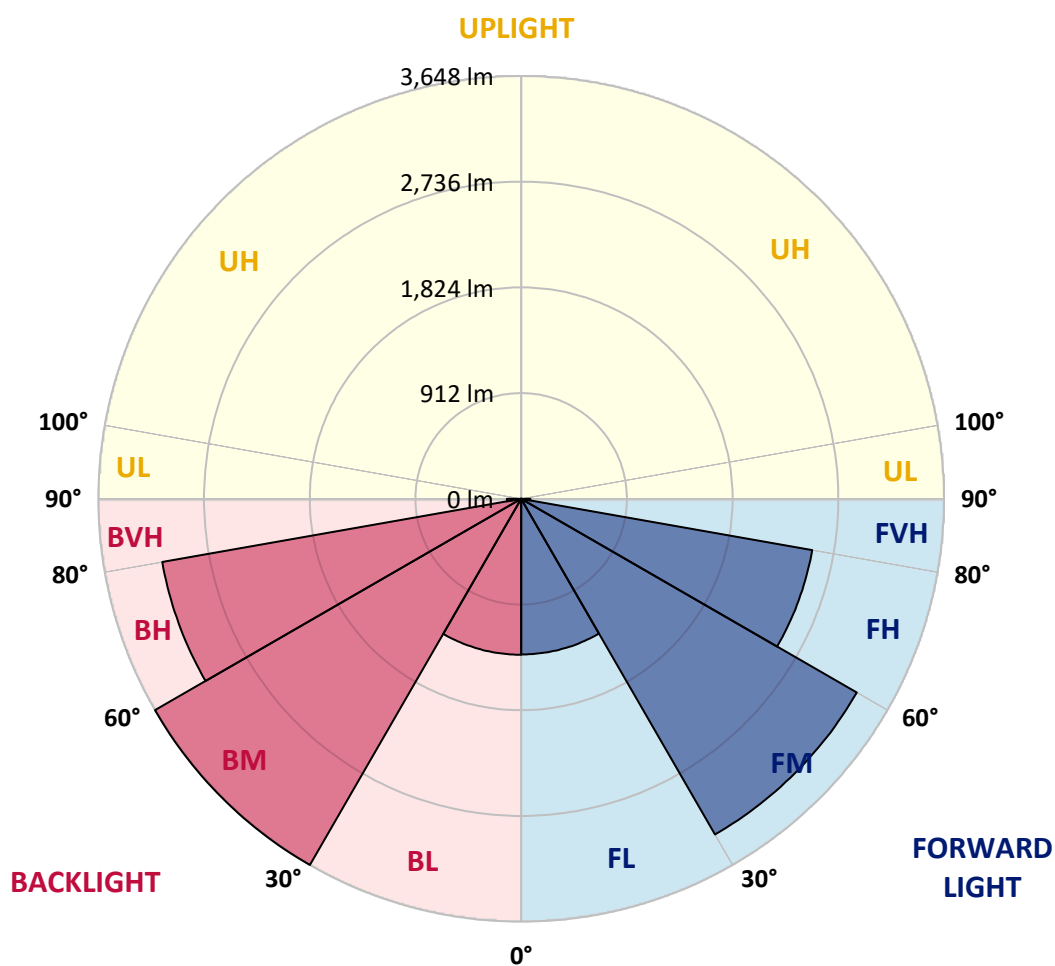
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1342.7	8.6			
FM	(30°-60°)	3343.8	21.5			
FH	(60°-80°)	2549.8	16.4			G2/5000
FVH	(80°-90°)	79.5	0.5			G1/100
BL	(0°-30°)	1345.5	8.6	B3/2500		
BM	(30°-60°)	3648.1	23.4	B3/5000		
BH	(60°-80°)	3144.1	20.2	B4/5000		G4/5000
BVH	(80°-90°)	123.6	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	2959	2959	2959	2959	2959	2959	2959	2959	2959	2959	2959
2.5°	3006	2998	3005	3006	3005	3005	2996	2994	2982	2985	2984
5°	3047	3044	3049	3051	3053	3049	3042	3039	3031	3028	3027
7.5°	3085	3080	3088	3095	3100	3101	3102	3097	3097	3093	3093
10°	3117	3113	3126	3135	3151	3160	3170	3177	3181	3182	3181
12.5°	3131	3128	3149	3176	3206	3227	3252	3270	3275	3274	3279
15°	3107	3109	3141	3194	3258	3311	3346	3361	3365	3367	3368
17.5°	3042	3046	3092	3178	3290	3386	3438	3438	3430	3430	3429
20°	2938	2942	3002	3126	3291	3438	3512	3497	3467	3461	3455
22.5°	2794	2810	2876	3020	3248	3453	3558	3536	3489	3476	3467
25°	2631	2629	2708	2870	3144	3417	3571	3567	3517	3503	3487
27.5°	2445	2451	2524	2688	2985	3313	3549	3602	3561	3547	3532
30°	2254	2260	2329	2520	2804	3164	3504	3636	3620	3609	3599
32.5°	2062	2064	2146	2351	2651	2986	3436	3667	3689	3684	3680
35°	1882	1884	1973	2181	2500	2834	3354	3712	3783	3789	3793
37.5°	1707	1710	1801	2019	2351	2719	3263	3781	3915	3937	3941
40°	1533	1536	1623	1854	2200	2618	3193	3878	4093	4123	4154
42.5°	1367	1378	1452	1673	2032	2493	3163	3996	4304	4351	4386
45°	1212	1213	1297	1504	1833	2324	3143	4130	4540	4611	4659
47.5°	1046	1058	1146	1347	1647	2115	3079	4287	4797	4880	4977
50°	885	902	987	1186	1477	1899	2907	4471	5086	5194	5306
52.5°	730	729	819	1026	1306	1716	2628	4664	5420	5536	5657
55°	552	552	641	830	1121	1553	2329	4784	5730	5870	6002
57.5°	379	389	473	636	928	1404	2100	4715	5967	6141	6298
60°	281	291	353	457	726	1228	1928	4390	6110	6341	6545
62.5°	243	250	309	366	523	1041	1776	3977	6316	6632	6916
65°	217	224	283	316	409	837	1691	3741	6562	7045	7457
67.5°	201	209	259	283	357	757	1625	3686	6560	7146	7672
69°	193	199	240	266	345	733	1482	3447	6127	6756	7284
70°	188	194	229	255	341	690	1350	3131	5634	6267	6803
72.5°	172	178	204	228	284	461	941	2004	4026	4478	5091
75°	152	159	179	199	215	267	543	1040	2302	2645	3191
77.5°	124	131	152	184	182	203	353	639	1078	1337	1539
80°	102	107	125	186	149	170	286	524	759	839	887
82.5°	68	75	97	146	114	121	214	490	642	704	762
85°	32	35	59	78	69	65	122	346	478	507	529
87.5°	0	0	3	6	9	9	22	73	134	162	160
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	2959	2959	2959	2959	2959	2959	2959	2959	2959	2959	2959
2.5°	2980	2981	2980	2980	2979	2977	2977	2975	2976	2975	2977
5°	3026	3026	3023	3021	3024	3021	3022	3017	3017	3014	3010
7.5°	3092	3092	3093	3087	3091	3092	3089	3087	3085	3080	3081
10°	3180	3180	3183	3175	3179	3181	3182	3182	3180	3171	3172
12.5°	3278	3276	3277	3273	3277	3279	3281	3279	3279	3277	3276
15°	3367	3366	3368	3365	3366	3368	3374	3373	3372	3366	3366
17.5°	3428	3425	3423	3422	3422	3421	3422	3422	3419	3418	3418
20°	3451	3443	3438	3435	3431	3429	3427	3428	3426	3423	3424
22.5°	3455	3444	3434	3425	3417	3412	3407	3405	3400	3397	3397
25°	3474	3457	3441	3426	3414	3403	3392	3384	3378	3371	3369
27.5°	3516	3498	3479	3460	3444	3422	3407	3391	3377	3366	3358
30°	3581	3563	3544	3522	3501	3478	3453	3434	3414	3392	3380
32.5°	3667	3655	3636	3615	3596	3572	3542	3513	3494	3468	3449
35°	3790	3776	3770	3761	3742	3727	3694	3667	3649	3613	3599
37.5°	3958	3957	3962	3959	3962	3943	3928	3927	3901	3866	3832
40°	4187	4199	4226	4245	4263	4265	4286	4264	4267	4262	4227
42.5°	4448	4489	4521	4577	4620	4660	4687	4724	4752	4777	4783
45°	4739	4800	4874	4924	5008	5075	5167	5238	5312	5385	5411
47.5°	5055	5131	5213	5306	5412	5517	5659	5768	5887	5986	6074
50°	5404	5483	5593	5700	5846	5967	6153	6296	6488	6620	6734
52.5°	5768	5867	5990	6108	6257	6412	6619	6830	7061	7261	7427
55°	6124	6246	6364	6502	6667	6847	7081	7359	7647	7876	8096
57.5°	6441	6582	6721	6861	7030	7239	7502	7802	8132	8437	8739
60°	6735	6904	7074	7249	7443	7701	8017	8386	8813	9230	9625
62.5°	7200	7422	7633	7859	8093	8396	8769	9253	9743	10264	10669
65°	7830	8142	8418	8711	9014	9419	9865	10444	11146	11680	12330
67.5°	8143	8554	8909	9235	9610	10019	10549	11234	11983	12757	13482
69°	7775	8199	8592	8957	9336	9733	10287	10990	11782	12619	13327
70°	7298	7722	8141	8557	8903	9290	9846	10571	11362	12232	12934
72.5°	5591	6101	6480	6870	7271	7599	8241	8852	9676	10559	11332
75°	3577	4046	4460	4792	5184	5577	6051	6730	7246	7971	8598
77.5°	1838	1977	2376	2495	2767	2981	3242	3412	3832	3921	4291
80°	871	785	739	697	709	704	683	655	690	675	669
82.5°	759	677	540	459	397	337	290	266	269	277	280
85°	532	500	390	296	231	179	144	138	142	153	149
87.5°	154	161	142	99	69	50	39	44	42	41	43
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	2959	2959	2959	2959	2959	2959	2959	2959	2959	2959	2959
2.5°	2977	2976	2973	2970	2970	2968	2970	2971	2970	2970	2968
5°	3011	3012	3015	3009	3008	3009	3005	3004	3001	3004	3000
7.5°	3076	3079	3079	3075	3074	3077	3071	3069	3066	3065	3064
10°	3173	3176	3171	3168	3165	3169	3164	3164	3161	3158	3157
12.5°	3281	3279	3277	3279	3276	3276	3273	3271	3270	3269	3267
15°	3365	3372	3372	3374	3372	3372	3368	3369	3367	3366	3367
17.5°	3419	3421	3426	3429	3429	3430	3428	3430	3428	3428	3432
20°	3426	3428	3433	3438	3441	3443	3443	3446	3448	3450	3455
22.5°	3398	3401	3407	3416	3421	3423	3427	3432	3437	3441	3448
25°	3369	3370	3376	3385	3391	3396	3403	3409	3416	3424	3432
27.5°	3353	3352	3357	3366	3371	3378	3384	3393	3401	3411	3418
30°	3367	3359	3360	3364	3368	3373	3380	3388	3397	3406	3414
32.5°	3429	3411	3399	3396	3397	3398	3402	3407	3414	3421	3424
35°	3563	3532	3516	3503	3492	3483	3485	3484	3484	3490	3483
37.5°	3818	3779	3762	3739	3726	3693	3684	3682	3669	3669	3654
40°	4218	4195	4182	4161	4098	4106	4061	4062	4025	4029	4003
42.5°	4787	4790	4774	4760	4711	4689	4647	4587	4540	4539	4487
45°	5445	5481	5430	5448	5405	5346	5297	5220	5147	5124	5071
47.5°	6133	6192	6153	6160	6139	6055	5989	5894	5799	5735	5703
50°	6868	6907	6906	6887	6877	6795	6689	6617	6547	6461	6433
52.5°	7534	7625	7686	7672	7643	7594	7500	7438	7335	7323	7335
55°	8247	8365	8427	8502	8503	8494	8455	8432	8336	8347	8333
57.5°	8922	9095	9190	9350	9405	9478	9451	9481	9423	9461	9450
60°	9837	10077	10235	10454	10556	10739	10775	10797	10829	10907	10863
62.5°	10988	11340	11668	11966	12064	12339	12384	12556	12565	12618	12521
65°	12872	13301	13662	14019	14225	14547	14677	15011	14909	14952	14745
67.5°	14106	14605	15089	15427	15769	16098	16335	16551	16549	16507	16323
69°	13997	14553	15030	15483	15843	16181	16466	16606	16655	16594	16463
70°	13620	14191	14775	15148	15540	15911	16205	16358	16392	16349	16236
72.5°	11878	12426	13070	13409	13883	14151	14556	14754	14789	14734	14660
75°	9270	9369	10025	10241	10585	10894	11146	11082	11261	11226	11198
77.5°	4367	4103	4528	4726	4622	4345	4748	4457	4650	4901	4837
80°	720	718	737	779	729	774	773	751	753	807	779
82.5°	277	283	286	294	294	295	300	306	301	311	309
85°	150	160	151	144	149	152	156	161	156	171	163
87.5°	39	41	36	36	35	32	32	34	37	44	48
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	2959	2959	2959	2959	2959	2959	2959	2959	2959	2959	2959
2.5°	2964	2965	2966	2963	2961	2961	2960	2958	2957	2957	2957
5°	2998	3000	2995	2994	2992	2990	2990	2988	2989	2989	2984
7.5°	3066	3063	3057	3053	3057	3050	3047	3049	3047	3048	3046
10°	3157	3157	3150	3154	3149	3141	3144	3141	3139	3132	3136
12.5°	3270	3267	3263	3254	3251	3250	3241	3242	3239	3237	3234
15°	3369	3368	3359	3354	3353	3349	3345	3343	3338	3337	3335
17.5°	3435	3432	3428	3423	3423	3417	3415	3410	3409	3406	3403
20°	3457	3458	3454	3450	3448	3444	3441	3437	3435	3431	3428
22.5°	3452	3452	3448	3447	3443	3437	3433	3428	3423	3418	3412
25°	3436	3435	3432	3427	3422	3413	3405	3397	3390	3384	3375
27.5°	3422	3420	3414	3407	3397	3387	3372	3361	3352	3344	3334
30°	3417	3410	3401	3390	3378	3363	3347	3333	3323	3315	3311
32.5°	3423	3414	3400	3386	3371	3353	3337	3325	3316	3314	3314
35°	3478	3463	3444	3424	3405	3390	3379	3378	3372	3379	3390
37.5°	3639	3626	3597	3571	3558	3551	3541	3543	3529	3551	3569
40°	3981	3965	3931	3910	3884	3859	3879	3873	3883	3879	3898
42.5°	4480	4464	4410	4402	4391	4381	4381	4373	4369	4383	4367
45°	5087	5055	5035	5059	5026	5036	5071	5024	5035	4970	4910
47.5°	5717	5714	5709	5738	5743	5758	5777	5729	5642	5593	5471
50°	6442	6473	6485	6513	6525	6536	6506	6435	6288	6158	6014
52.5°	7323	7269	7343	7370	7358	7314	7206	7119	6916	6729	6506
55°	8349	8362	8310	8289	8248	8126	7977	7781	7524	7280	6998
57.5°	9394	9389	9308	9194	9055	8908	8686	8405	8105	7777	7436
60°	10665	10660	10496	10301	10103	9866	9518	9180	8778	8347	7941
62.5°	12335	12120	11959	11668	11362	11052	10581	10132	9595	9051	8577
65°	14475	14121	13938	13516	13042	12558	12079	11489	10766	10108	9529
67.5°	16058	15734	15399	14978	14458	13918	13262	12519	11698	10960	10329
69°	16197	15894	15492	15070	14578	13991	13275	12443	11611	10864	10243
70°	15986	15664	15241	14802	14252	13698	12948	12081	11248	10499	9893
72.5°	14412	14098	13648	13123	12559	12085	11373	10469	9563	8871	8399
75°	10959	10890	10571	10265	9821	9292	8641	8033	7290	6558	6118
77.5°	4676	4835	5001	5025	5041	4878	4777	4624	4127	3901	3668
80°	864	772	824	830	864	882	948	1124	1144	1187	1240
82.5°	307	312	320	323	326	338	383	459	528	618	738
85°	174	177	184	190	194	206	231	276	344	447	606
87.5°	53	60	64	72	75	77	88	118	152	225	328
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	2959	2959	2959	2959	2959	2959	2959	2959	2959	2959	2959
2.5°	2957	2956	2954	2952	2953	2951	2945	2943	2936	2931	2927
5°	2984	2983	2979	2980	2979	2969	2962	2950	2943	2932	2928
7.5°	3040	3039	3032	3035	3033	3018	3006	2987	2977	2963	2952
10°	3124	3124	3116	3117	3117	3097	3076	3044	3021	2999	2980
12.5°	3226	3222	3221	3216	3212	3190	3158	3115	3072	3036	3010
15°	3329	3323	3320	3314	3309	3289	3246	3193	3135	3077	3034
17.5°	3396	3392	3386	3384	3377	3357	3327	3274	3202	3121	3056
20°	3421	3414	3410	3406	3402	3388	3388	3354	3274	3160	3061
22.5°	3405	3401	3395	3392	3388	3390	3429	3424	3332	3169	3025
25°	3368	3363	3358	3358	3357	3378	3472	3485	3349	3125	2946
27.5°	3330	3323	3325	3326	3331	3376	3519	3501	3303	3019	2810
30°	3307	3307	3312	3320	3330	3409	3556	3465	3184	2859	2630
32.5°	3317	3327	3338	3358	3373	3482	3569	3372	3011	2661	2442
35°	3406	3418	3439	3470	3488	3587	3569	3236	2810	2491	2248
37.5°	3600	3612	3637	3661	3679	3719	3554	3063	2642	2315	2074
40°	3912	3929	3947	3943	3931	3892	3524	2902	2487	2161	1903
42.5°	4351	4335	4333	4294	4254	4087	3502	2797	2354	1999	1733
45°	4858	4793	4726	4674	4613	4301	3496	2712	2207	1819	1548
47.5°	5368	5264	5134	5053	4954	4529	3514	2598	2018	1623	1375
50°	5868	5698	5537	5440	5328	4791	3543	2406	1792	1445	1217
52.5°	6331	6112	5947	5833	5696	5096	3517	2154	1596	1274	1067
55°	6771	6529	6358	6238	6077	5402	3329	1925	1409	1107	898
57.5°	7156	6924	6746	6583	6447	5668	2958	1736	1229	916	715
60°	7606	7345	7134	6960	6800	5805	2542	1568	1037	709	517
62.5°	8213	7913	7669	7470	7261	5835	2258	1400	823	513	376
65°	9113	8743	8438	8164	7881	5711	2118	1217	612	381	315
67.5°	9828	9444	9091	8739	8377	5481	2087	1048	470	324	283
69°	9741	9375	9051	8670	8269	5192	2056	983	429	301	268
70°	9406	9059	8730	8420	7929	4870	1974	947	413	290	257
72.5°	7948	7546	7227	6841	6324	3619	1497	766	379	265	232
75°	5797	5464	5146	4719	4216	2094	932	438	278	240	210
77.5°	3385	3310	3003	2722	2224	1066	535	262	216	218	185
80°	1274	1357	1388	1291	1193	736	389	213	188	215	157
82.5°	929	1078	1096	1050	977	686	311	171	153	231	135
85°	775	858	871	823	799	581	217	120	112	166	101
87.5°	392	413	424	384	386	271	87	51	61	71	56
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	175°	180°
0°	2959	2959
2.5°	2918	2924
5°	2922	2922
7.5°	2945	2945
10°	2970	2971
12.5°	2993	2992
15°	3011	3008
17.5°	3022	3019
20°	3011	3006
22.5°	2955	2941
25°	2853	2835
27.5°	2718	2706
30°	2542	2524
32.5°	2336	2327
35°	2139	2128
37.5°	1959	1956
40°	1807	1791
42.5°	1629	1622
45°	1448	1444
47.5°	1278	1274
50°	1121	1113
52.5°	967	954
55°	796	787
57.5°	611	603
60°	430	421
62.5°	306	296
65°	255	247
67.5°	231	222
69°	220	212
70°	213	207
72.5°	198	194
75°	181	178
77.5°	159	154
80°	133	128
82.5°	112	107
85°	75	68
87.5°	34	30
90°	0	0

(END OF REPORT)