

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: LUMARK

Report Number: 08524

Luminaire Tested: **MHSF-X-175-XX-TV**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 08524
Test Lab: LUMINAIRE TESTING LABORATORY, INC.
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: MHSF-X-175-XX-TV
Description: FALCON FLOODLIGHT
Light Source: 175 WATT MH CLEAR ED-17 HOR
Ballast/Driver: -

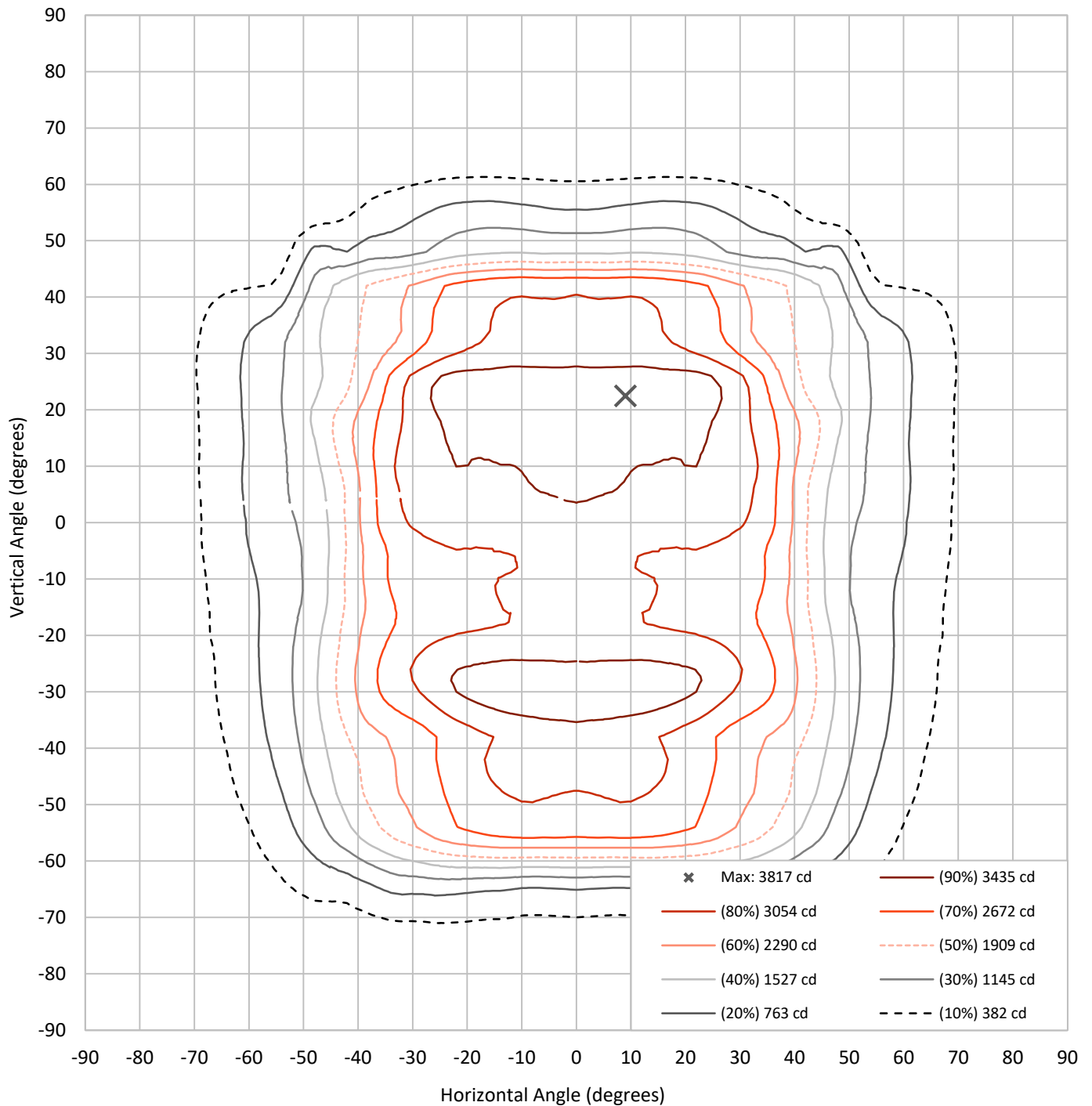
Summary

Lumens per Lamp:	14000 (1 lamp)	NEMA Type:	7H x 7V
Luminaire Lumens:	8933.5 lumens	Max Intensity:	3817 candela
Efficiency:	63.8%	Max Intensity Angle:	9°H x 22.5°V
Efficacy:	51.0 lumens/watt		
Luminous Opening:	Rectangular (W 0.79' x L: 0.54' x H: 0')		
Beam Angle (50%):	84.2°H x 105.6°V	Field Angle (10%):	138.6°H x 130.5°V
Beam Lumens:	6956.6 lumens	Field Lumens:	8756.3 lumens
Beam Efficiency:	77.9%	Field Efficiency:	98.0%
Input Watts (W):	175		
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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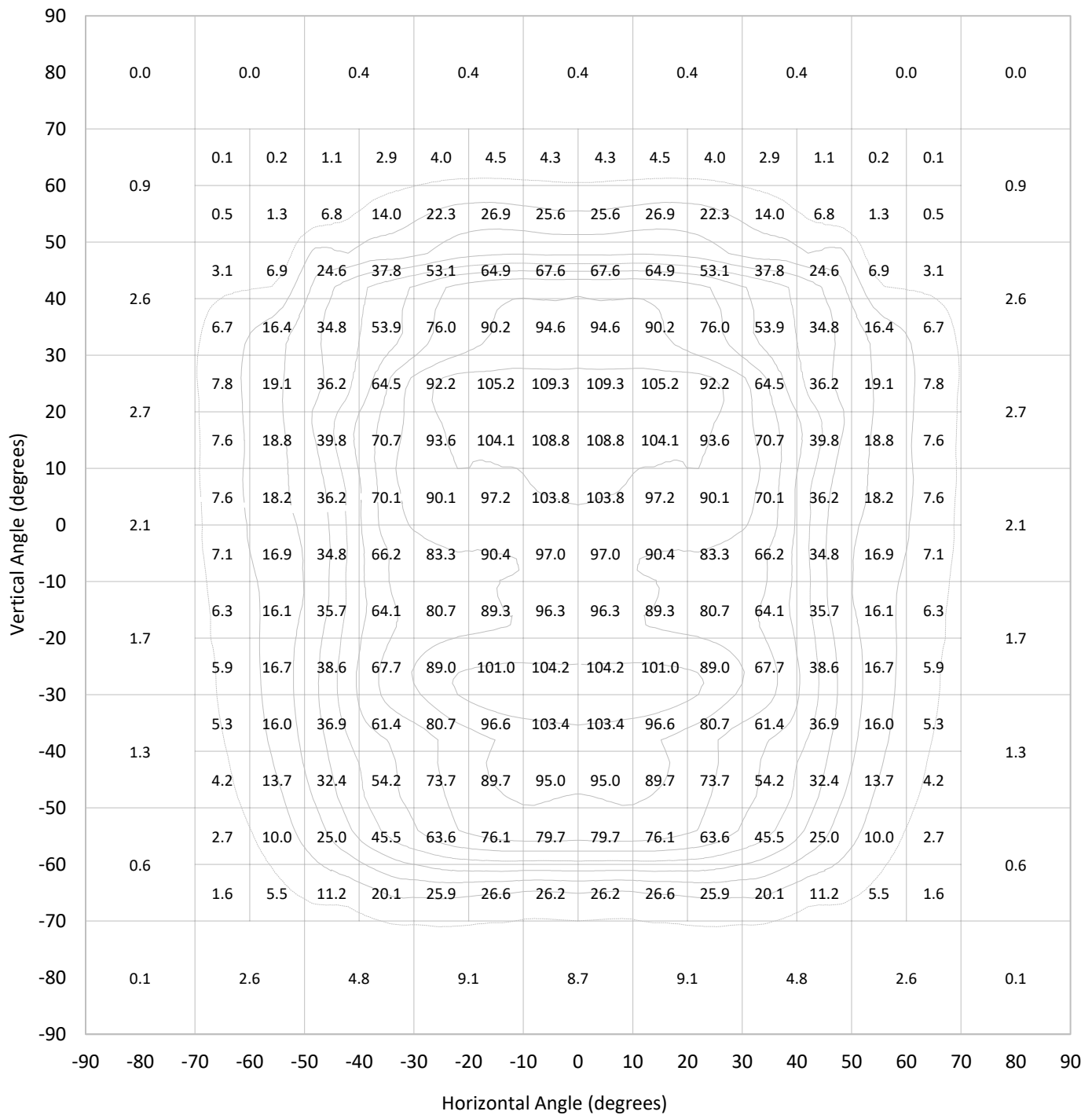
Iso-Candela Plot





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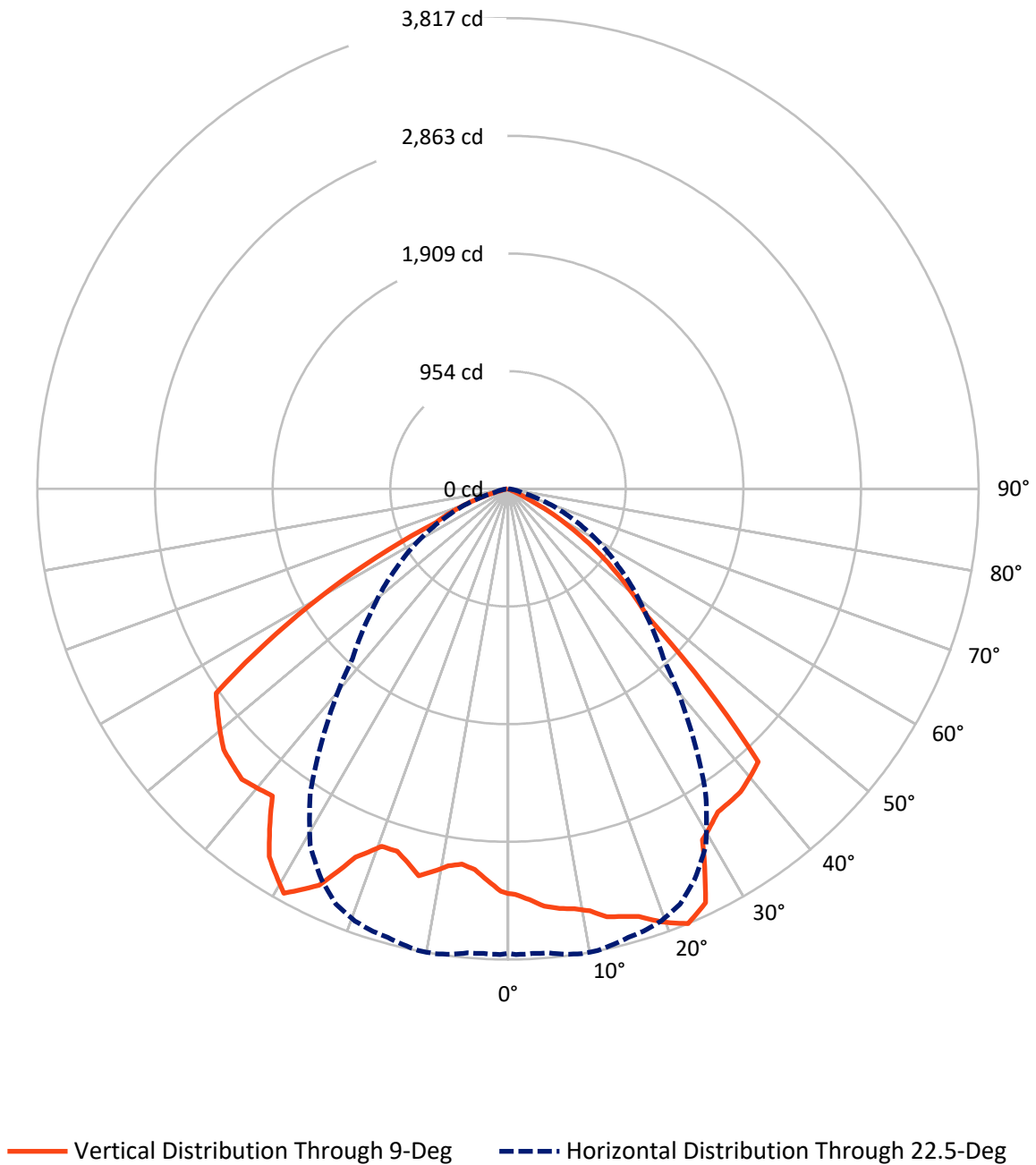
Lumen Table



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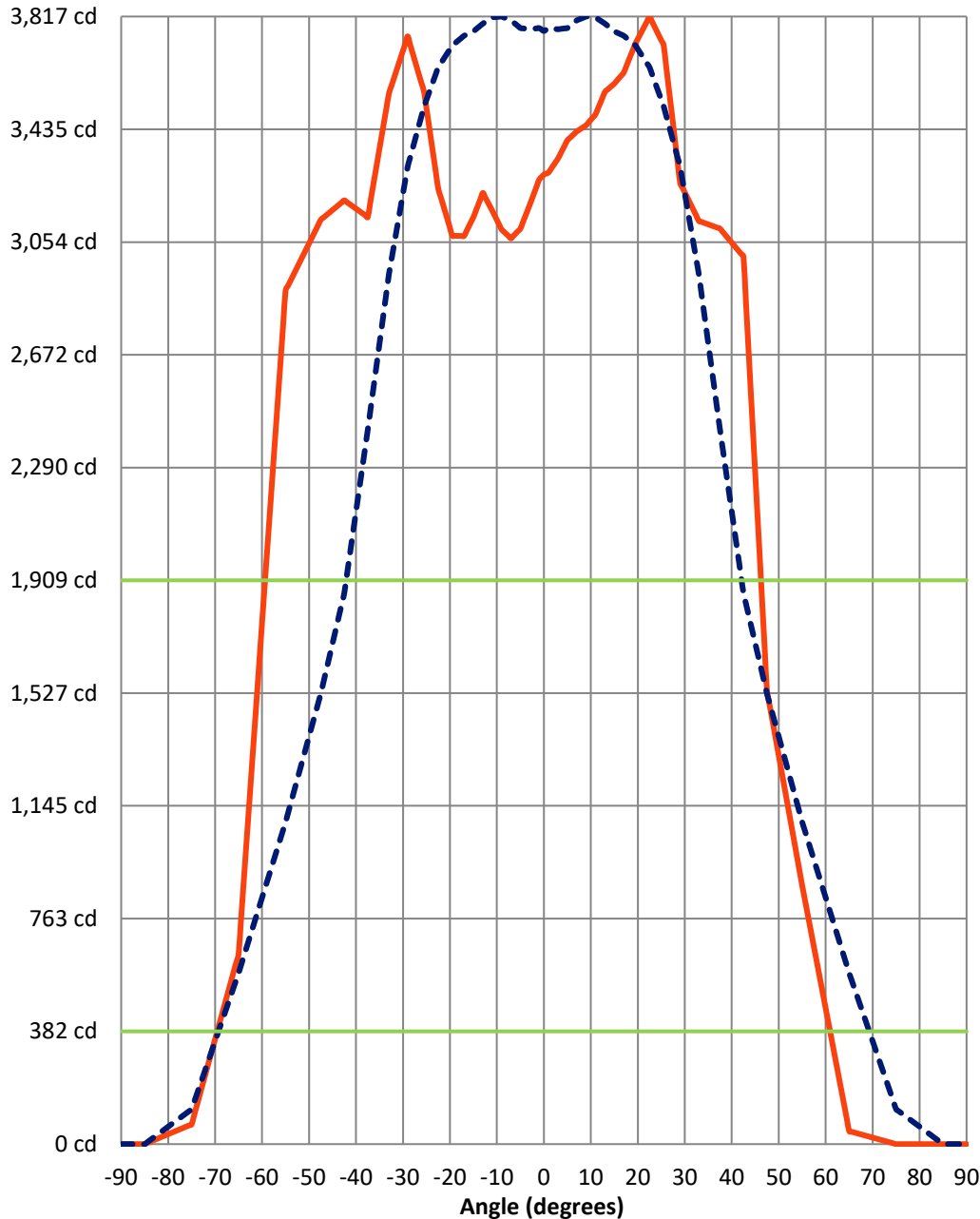
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Luminous Intensity Polar Plot



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Luminous Intensity Plot



Beam:
 H Angle: 84.2°
 V Angle: 105.6°
 Lumens: 6956.6
 Efficiency: 77.9%

Field:
 H Angle: 138.6°
 V Angle: 130.5°
 Lumens: 8756.3
 Efficiency: 98.0%

Spill:
 Lumens: 177.3
 Efficiency: 2.0%

— Vertical Distribution through 9-Deg
 - - - Horizontal Distribution through 22.5-Deg



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FIELD
BEAM

CANDELA DISTRIBUTION:

	0°	1°	3°	5°	7°	9°	11°	13°	15°	17°	19.5°
90°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
65°	49	52	49	59	58	44	52	53	50	55	49
55°	798	792	796	820	849	875	892	923	940	949	932
47.5°	1513	1515	1517	1501	1506	1536	1551	1535	1512	1489	1448
42.5°	2984	2987	2974	2973	2990	3004	3006	2980	2961	2912	2849
37.5°	3150	3139	3113	3117	3111	3099	3117	3101	3060	3021	2981
33°	3122	3117	3097	3106	3116	3125	3130	3120	3078	3026	2973
29°	3254	3242	3215	3231	3242	3254	3266	3263	3211	3165	3143
25.5°	3747	3739	3725	3728	3713	3720	3733	3726	3672	3678	3673
22.5°	3768	3778	3774	3778	3804	3817	3814	3793	3767	3752	3719
19.5°	3719	3719	3706	3717	3719	3726	3713	3706	3671	3628	3604
17°	3636	3632	3622	3622	3631	3627	3619	3610	3566	3546	3533
15°	3594	3601	3586	3574	3581	3590	3589	3574	3532	3513	3513
13°	3546	3542	3521	3522	3534	3562	3539	3530	3506	3476	3470
11°	3511	3521	3490	3491	3503	3486	3446	3450	3437	3402	3439
9°	3546	3552	3521	3504	3482	3449	3405	3412	3406	3379	3428
7°	3553	3566	3535	3513	3459	3428	3409	3383	3366	3343	3357
5°	3490	3504	3472	3444	3422	3398	3376	3328	3294	3242	3271
3°	3407	3407	3369	3341	3330	3336	3304	3276	3257	3212	3234
1°	3379	3376	3334	3306	3306	3289	3265	3230	3202	3154	3193
0°	3358	3369	3334	3289	3289	3282	3244	3220	3164	3147	3188
-1°	3351	3365	3324	3272	3258	3265	3217	3213	3147	3130	3166
-3°	3303	3299	3285	3206	3192	3180	3142	3135	3090	3069	3086
-5°	3213	3216	3192	3140	3113	3099	3074	3057	3050	3048	3043
-7°	3178	3185	3167	3125	3102	3066	3040	3005	3005	3016	2996
-9°	3275	3250	3205	3190	3172	3096	3060	3039	3040	3004	2947
-11°	3310	3285	3244	3242	3219	3160	3115	3097	3061	3002	2932
-13°	3317	3320	3299	3296	3286	3220	3141	3097	3038	2985	2941
-15°	3233	3230	3197	3196	3196	3138	3070	3059	3022	3002	2971
-17°	3129	3115	3092	3094	3088	3074	3043	3044	3022	3002	2994
-19.5°	3122	3115	3093	3092	3081	3075	3078	3079	3072	3060	3044
-22.5°	3227	3232	3203	3222	3219	3235	3249	3251	3246	3233	3236
-25.5°	3546	3535	3539	3583	3556	3561	3564	3550	3522	3491	3456
-29°	3643	3633	3600	3657	3703	3750	3762	3746	3726	3691	3604
-33°	3691	3667	3637	3628	3585	3556	3525	3500	3451	3393	3323
-37.5°	3206	3201	3175	3189	3163	3138	3133	3097	3054	3005	2933
-42.5°	3206	3196	3201	3208	3198	3195	3186	3150	3096	3063	2971
-47.5°	3053	3055	3068	3085	3108	3129	3100	3071	3038	3013	2926
-55°	2852	2848	2880	2865	2876	2889	2868	2853	2832	2787	2719
-65°	701	693	670	662	636	644	660	728	726	741	783
-75°	62	61	67	62	76	67	80	78	75	67	78
-85°	14	9	1	1	0	0	0	0	0	0	2
-90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	22.5°	25.5°	29°	33°	37.5°	42.5°	47.5°	55°	65°	75°	85°
90°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	4	5	3	0	0	0	0	0
65°	58	57	59	56	79	33	21	4	0	37	0
55°	903	827	717	605	477	307	151	26	0	108	0
47.5°	1370	1256	1111	979	995	778	976	84	189	144	0
42.5°	2744	2584	2365	2167	1959	1667	1290	359	311	145	0
37.5°	2884	2724	2493	2242	2002	1758	1462	735	476	138	0
33°	2882	2741	2494	2222	2003	1805	1502	1043	553	132	0
29°	3096	2990	2794	2503	2129	1753	1482	1066	595	136	0
25.5°	3612	3472	3260	2892	2294	1771	1458	1085	599	131	0
22.5°	3645	3513	3309	2944	2418	1865	1525	1090	579	118	0
19.5°	3551	3453	3255	2969	2563	2062	1620	1066	586	108	0
17°	3493	3397	3232	2994	2610	2153	1610	1044	584	100	0
15°	3494	3388	3263	3031	2625	2150	1562	1028	584	91	0
13°	3461	3367	3259	3065	2657	2090	1516	1031	580	88	0
11°	3445	3352	3279	3096	2641	2041	1475	1030	593	83	0
9°	3428	3358	3281	3122	2605	1968	1432	1039	599	81	0
7°	3345	3313	3235	3060	2586	1906	1401	1046	597	76	0
5°	3282	3264	3211	3030	2600	1873	1372	1048	583	70	0
3°	3258	3228	3215	3008	2586	1903	1342	1040	575	66	0
1°	3206	3204	3175	2972	2592	1902	1304	1021	572	64	0
0°	3195	3164	3147	2952	2592	1880	1298	1003	569	62	0
-1°	3166	3142	3094	2930	2585	1880	1286	1001	575	62	0
-3°	3109	3074	3005	2838	2521	1871	1268	983	573	60	0
-5°	3042	3002	2943	2779	2474	1864	1254	962	556	61	0
-7°	3001	2966	2915	2773	2472	1900	1266	942	534	60	0
-9°	2958	2947	2898	2788	2477	1906	1282	917	520	58	0
-11°	2921	2923	2880	2773	2443	1916	1276	892	504	57	0
-13°	2932	2939	2870	2730	2408	1895	1288	888	500	52	0
-15°	2970	2946	2869	2690	2389	1918	1316	893	475	54	0
-17°	2967	2910	2811	2669	2429	1953	1378	895	471	53	0
-19.5°	3026	2968	2852	2721	2489	2001	1425	899	476	54	0
-22.5°	3223	3149	3016	2810	2540	2022	1480	916	442	51	0
-25.5°	3407	3315	3137	2911	2599	2083	1493	915	428	48	0
-29°	3482	3321	3093	2898	2611	2087	1513	904	425	51	0
-33°	3213	3041	2847	2695	2514	2028	1482	885	403	53	0
-37.5°	2817	2675	2518	2375	2201	1876	1417	855	366	51	0
-42.5°	2836	2679	2508	2301	2046	1752	1346	788	318	45	0
-47.5°	2781	2609	2461	2288	2038	1672	1238	694	275	40	0
-55°	2625	2464	2282	2057	1784	1399	998	542	168	33	0
-65°	829	855	815	842	669	480	486	299	109	15	0
-75°	75	71	42	41	32	21	7	113	37	0	0
-85°	7	7	4	3	2	0	0	0	0	0	0
-90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	90°
90°	0
85°	0
75°	0
65°	0
55°	0
47.5°	0
42.5°	0
37.5°	0
33°	0
29°	0
25.5°	0
22.5°	0
19.5°	0
17°	0
15°	0
13°	0
11°	0
9°	0
7°	0
5°	0
3°	0
1°	0
0°	0
-1°	0
-3°	0
-5°	0
-7°	0
-9°	0
-11°	0
-13°	0
-15°	0
-17°	0
-19.5°	0
-22.5°	0
-25.5°	0
-29°	0
-33°	0
-37.5°	0
-42.5°	0
-47.5°	0
-55°	0
-65°	0
-75°	0
-85°	0
-90°	0

(END OF REPORT)