

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: 08512

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 08512
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
Description: FALCON FLOODLIGHT
Light Source: 175 WATT MH CLEAR ED-17 HOR
Ballast/Driver: -

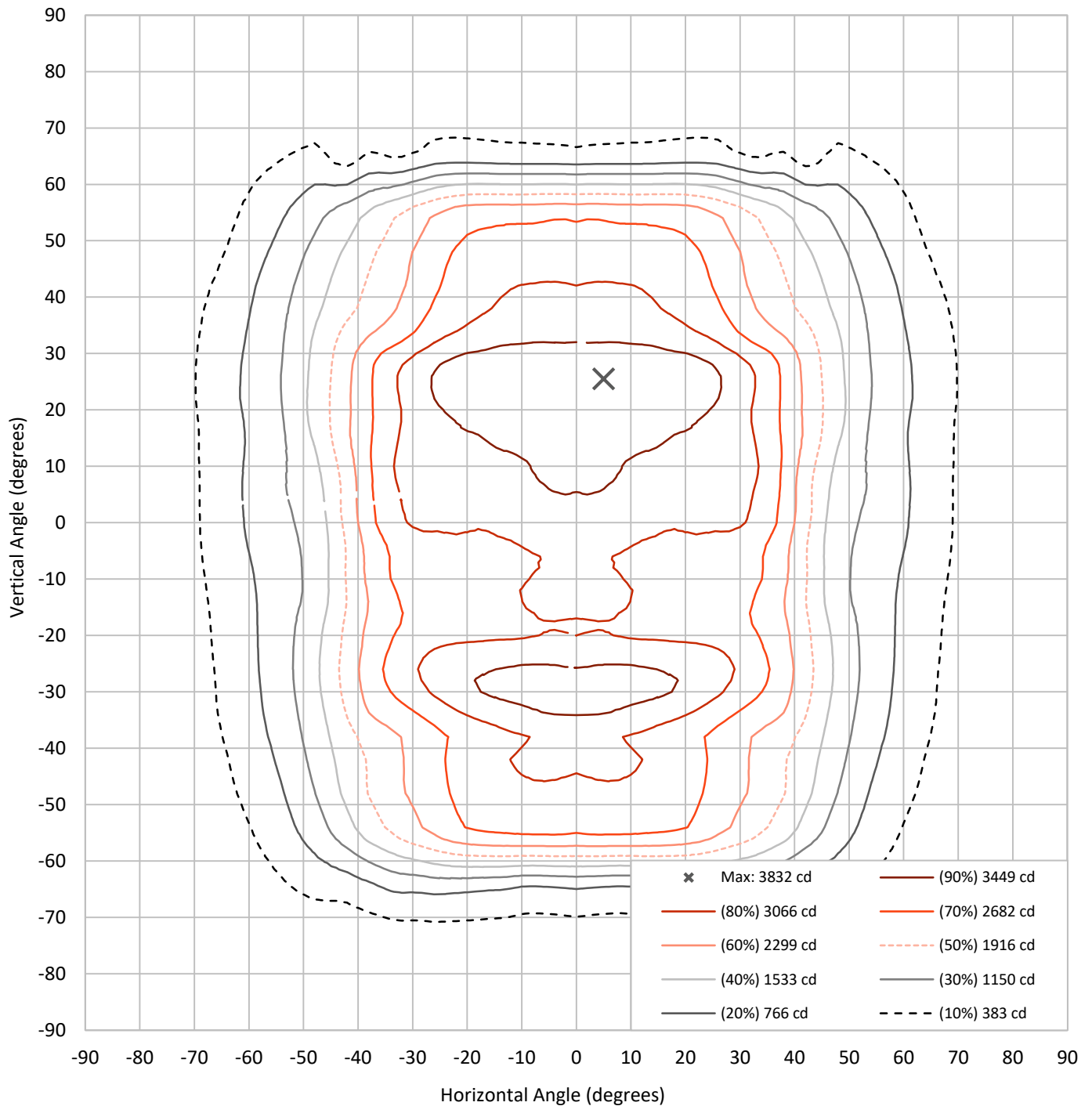
Summary

Lumens per Lamp:	14000 (1 lamp)	NEMA Type:	7H x 7V
Luminaire Lumens:	9651.7 lumens	Max Intensity:	3832 candela
Efficiency:	68.9%	Max Intensity Angle:	5°H x 25.5°V
Efficacy:	55.2 lumens/watt		
Luminous Opening:	Rectangular (W 0.79' x L: 0.54' x H: 0')		
Beam Angle (50%):	90°H x 117.4°V	Field Angle (10%):	139.5°H x 136.6°V
Beam Lumens:	7478.2 lumens	Field Lumens:	9404.9 lumens
Beam Efficiency:	77.5%	Field Efficiency:	97.4%
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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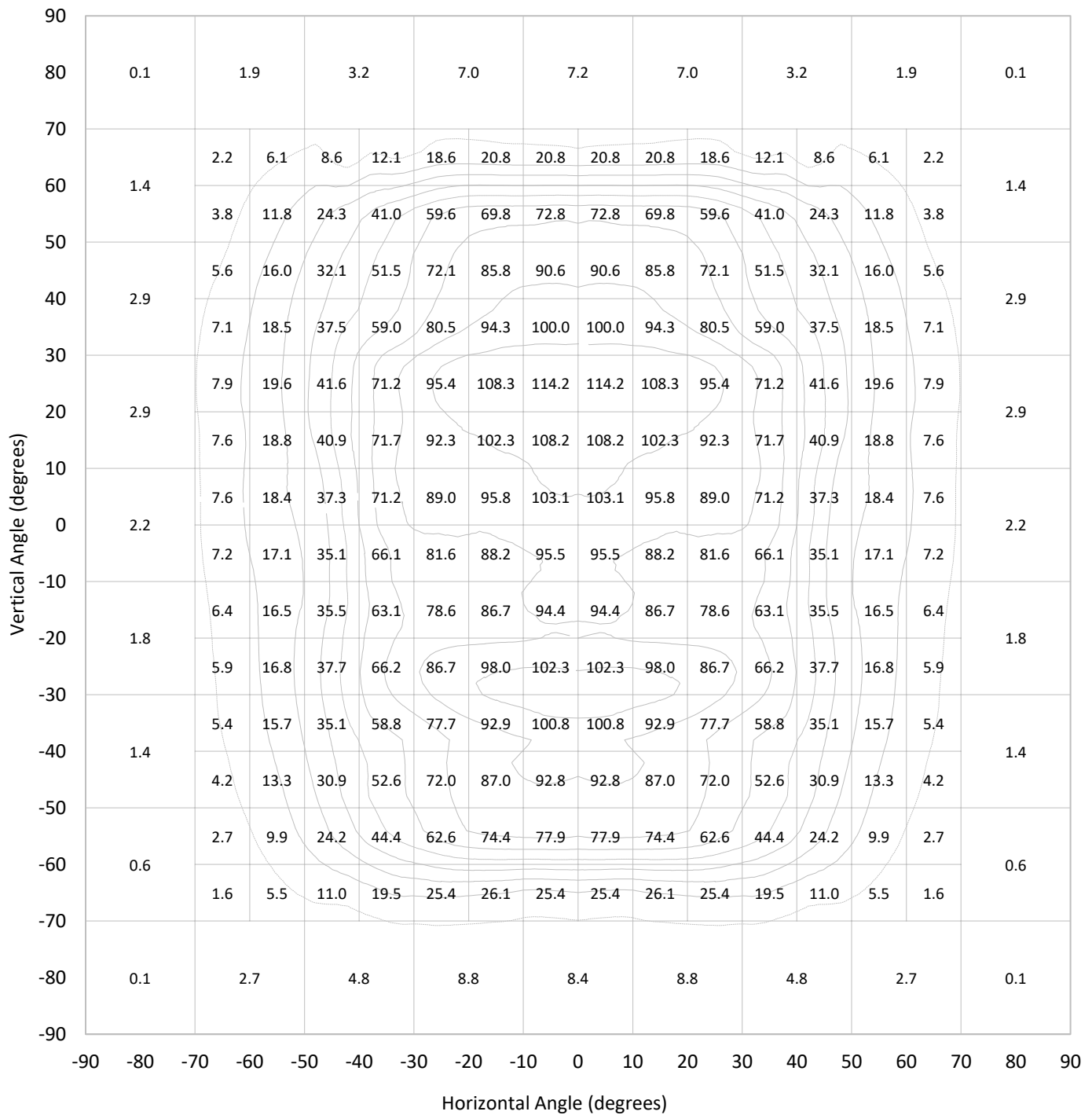
Iso-Candela Plot





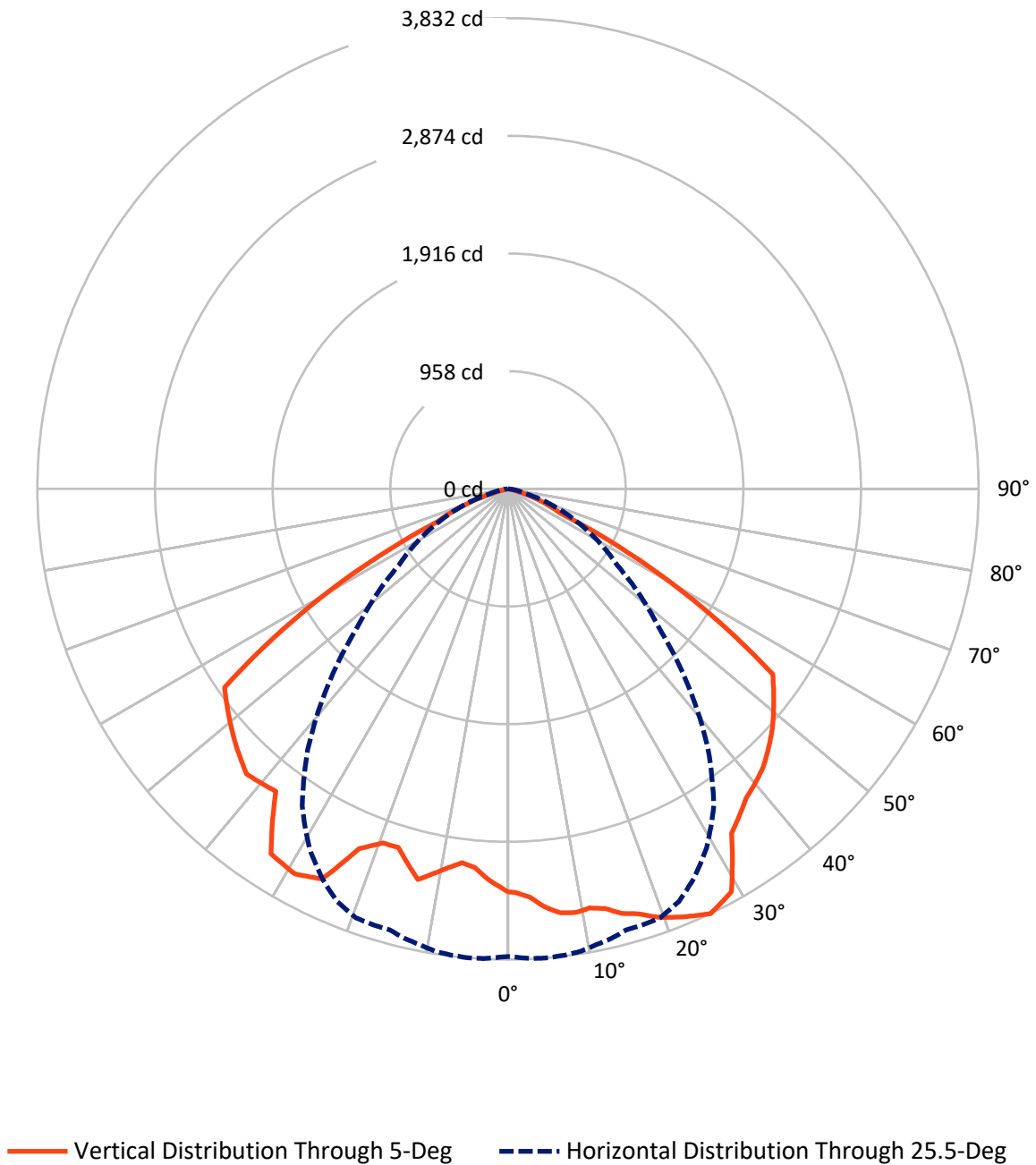
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Lumen Table



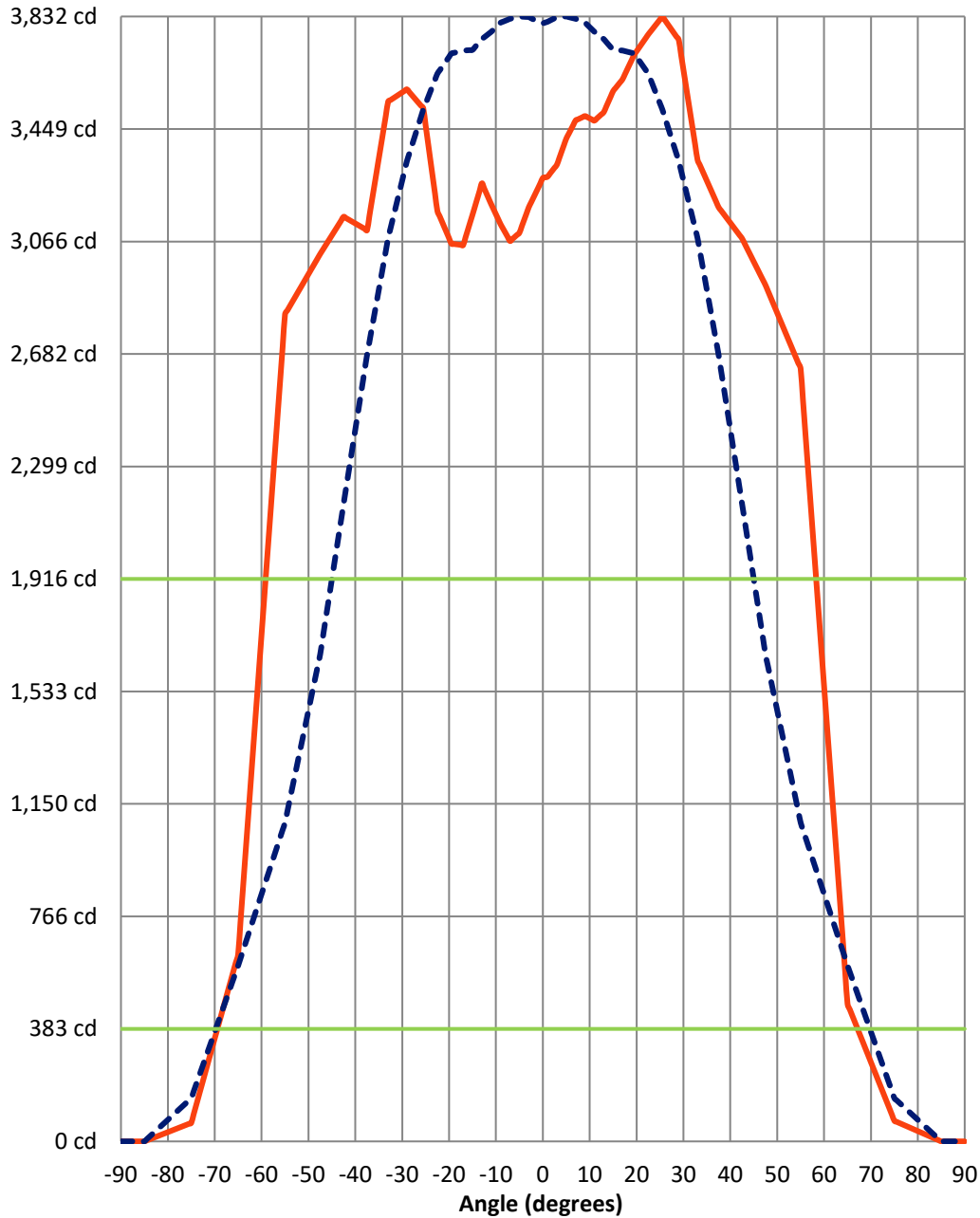
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Luminous Intensity Polar Plot



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Luminous Intensity Plot



Beam:
 H Angle: 90°
 V Angle: 117.4°
 Lumens: 7478.2
 Efficiency: 77.5%

Field:
 H Angle: 139.5°
 V Angle: 136.6°
 Lumens: 9404.9
 Efficiency: 97.4%

Spill:
 Lumens: 246.8
 Efficiency: 2.6%

— Vertical Distribution through 5-Deg
 - - - Horizontal Distribution through 25.5-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°	62	67	67	70	67	78	83	76	72	72	66
65°	444	454	463	469	472	478	478	480	496	512	526
55°	2616	2635	2636	2632	2605	2600	2594	2596	2596	2593	2579
47.5°	2921	2917	2935	2917	2909	2912	2927	2898	2857	2829	2803
42.5°	3053	3059	3076	3076	3076	3060	3065	3027	3002	2943	2876
37.5°	3192	3181	3178	3182	3176	3152	3142	3130	3086	3042	2998
33°	3338	3328	3334	3344	3353	3337	3307	3317	3269	3216	3146
29°	3782	3759	3766	3752	3747	3738	3712	3700	3646	3597	3576
25.5°	3809	3814	3830	3832	3824	3811	3780	3755	3718	3716	3706
22.5°	3733	3737	3758	3771	3796	3795	3763	3738	3715	3694	3664
19.5°	3671	3675	3692	3702	3707	3692	3656	3636	3604	3561	3531
17°	3587	3581	3596	3618	3624	3601	3567	3545	3511	3479	3459
15°	3567	3553	3576	3578	3580	3576	3538	3518	3478	3441	3436
13°	3483	3501	3518	3506	3529	3528	3493	3465	3449	3414	3398
11°	3456	3473	3493	3477	3496	3445	3393	3377	3378	3329	3365
9°	3497	3528	3518	3493	3480	3417	3370	3360	3363	3326	3360
7°	3497	3525	3531	3478	3437	3410	3373	3315	3306	3288	3289
5°	3442	3455	3451	3416	3395	3378	3341	3258	3253	3204	3217
3°	3351	3365	3355	3327	3330	3328	3278	3223	3215	3160	3175
1°	3324	3320	3320	3286	3296	3278	3205	3177	3173	3101	3132
0°	3324	3306	3320	3282	3282	3268	3188	3154	3147	3077	3122
-1°	3310	3292	3306	3248	3248	3234	3151	3134	3110	3060	3087
-3°	3247	3237	3251	3182	3161	3144	3090	3054	3035	3007	3018
-5°	3164	3147	3157	3095	3085	3051	3013	2983	2987	2974	2980
-7°	3095	3105	3125	3067	3049	3005	2957	2930	2933	2932	2918
-9°	3143	3150	3153	3124	3087	3019	2962	2931	2940	2890	2840
-11°	3178	3188	3185	3192	3147	3086	3016	2994	2967	2870	2825
-13°	3220	3216	3244	3264	3234	3143	3053	2997	2950	2888	2839
-15°	3136	3143	3148	3157	3133	3057	2994	2970	2937	2911	2879
-17°	3039	3039	3044	3053	3046	3013	2980	2970	2945	2918	2903
-19.5°	3046	3046	3062	3058	3044	3022	3003	2998	2997	2979	2962
-22.5°	3164	3161	3169	3170	3176	3179	3163	3163	3164	3152	3149
-25.5°	3462	3454	3501	3519	3511	3514	3484	3450	3424	3389	3353
-29°	3525	3515	3530	3584	3627	3652	3627	3606	3590	3544	3450
-33°	3567	3559	3555	3542	3508	3443	3388	3367	3311	3245	3173
-37.5°	3095	3098	3097	3104	3096	3042	3025	2982	2933	2889	2824
-42.5°	3122	3136	3150	3150	3141	3110	3096	3054	3001	2959	2879
-47.5°	2977	2983	3006	3023	3028	3029	3006	2974	2944	2921	2865
-55°	2776	2787	2818	2817	2805	2818	2792	2782	2758	2742	2691
-65°	687	678	642	638	607	610	633	711	713	735	771
-75°	62	66	64	63	70	77	80	74	69	78	67
-85°	0	0	0	0	0	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):

	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	3	3	2	0	0	0	0	0	0
75°	68	67	52	45	35	16	14	19	53	0	0
65°	540	532	406	265	430	142	504	338	164	37	0
55°	2486	2351	2141	1908	1625	1322	1060	672	246	108	0
47.5°	2713	2571	2377	2143	1885	1581	1286	851	357	161	0
42.5°	2802	2635	2407	2201	1982	1710	1382	958	430	161	0
37.5°	2928	2778	2548	2300	2058	1813	1487	1015	496	157	0
33°	3086	2989	2751	2532	2329	2019	1603	1042	551	143	0
29°	3499	3406	3193	2963	2654	2139	1647	1063	594	145	0
25.5°	3637	3515	3339	3077	2679	2172	1659	1086	599	147	0
22.5°	3590	3486	3325	3033	2679	2193	1682	1077	613	135	0
19.5°	3479	3411	3255	3002	2671	2181	1688	1052	593	123	0
17°	3423	3346	3225	3025	2670	2207	1658	1025	579	115	0
15°	3419	3339	3248	3065	2685	2196	1610	1017	579	109	0
13°	3385	3316	3246	3082	2709	2144	1553	1014	584	103	0
11°	3387	3310	3272	3117	2712	2087	1489	1031	589	98	0
9°	3379	3301	3277	3125	2692	2030	1453	1048	584	90	0
7°	3300	3259	3228	3082	2685	1990	1414	1069	585	84	0
5°	3233	3223	3213	3044	2687	1985	1387	1067	585	81	0
3°	3203	3191	3201	3013	2651	2013	1346	1046	588	80	0
1°	3124	3168	3172	3001	2640	1997	1315	1034	586	78	0
0°	3119	3133	3143	2987	2630	1967	1304	1027	586	76	0
-1°	3107	3077	3092	2939	2596	1943	1294	1015	589	75	0
-3°	3035	3013	2994	2838	2524	1903	1282	996	579	71	0
-5°	2953	2934	2924	2771	2465	1881	1269	973	567	65	0
-7°	2904	2882	2889	2761	2449	1900	1274	942	555	66	0
-9°	2867	2846	2873	2776	2453	1899	1278	931	532	64	0
-11°	2813	2832	2830	2733	2409	1892	1273	926	514	61	0
-13°	2830	2854	2822	2685	2368	1873	1283	917	498	60	0
-15°	2875	2860	2804	2643	2352	1886	1320	918	483	59	0
-17°	2885	2836	2766	2633	2391	1926	1384	924	473	56	0
-19.5°	2944	2895	2833	2697	2449	1967	1428	924	461	57	0
-22.5°	3136	3093	2979	2773	2479	1987	1465	924	453	57	0
-25.5°	3298	3246	3078	2858	2548	2027	1478	924	436	57	0
-29°	3327	3223	3009	2795	2512	2003	1471	908	424	55	0
-33°	3072	2934	2745	2576	2394	1918	1407	884	414	56	0
-37.5°	2723	2592	2427	2267	2095	1778	1343	843	375	53	0
-42.5°	2769	2604	2432	2227	1969	1668	1269	767	322	50	0
-47.5°	2730	2571	2414	2238	1988	1608	1185	679	277	42	0
-55°	2590	2416	2239	2005	1746	1349	967	542	170	36	0
-65°	805	840	788	812	641	479	475	301	113	17	0
-75°	60	58	51	41	28	25	10	114	36	0	0
-85°	2	6	5	3	1	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)