

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: P158720

Luminaire Tested: **VST-E10-LED-E-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158720
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E10-LED-E-U-SL4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (210) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29009.3 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 247.7
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



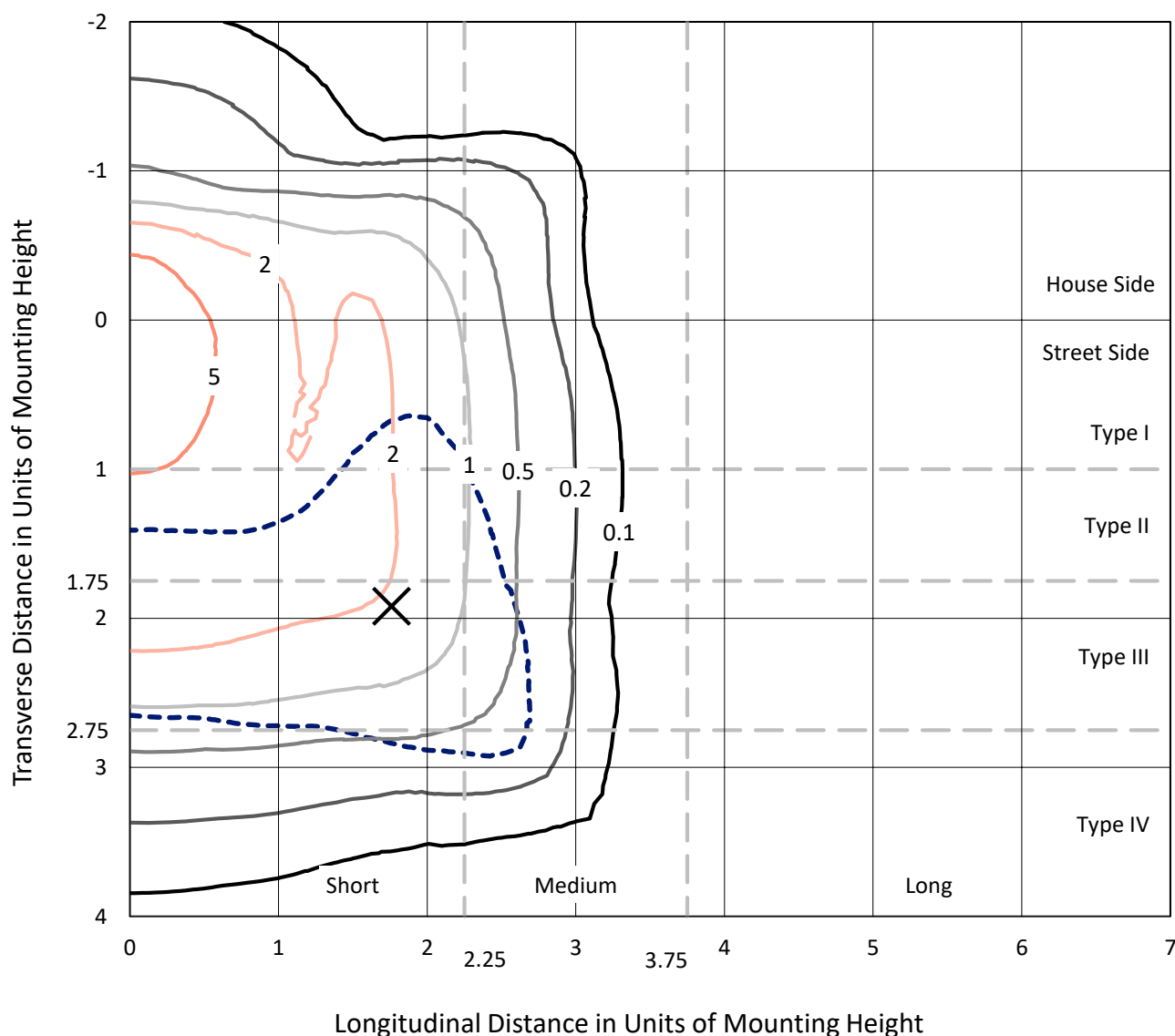
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

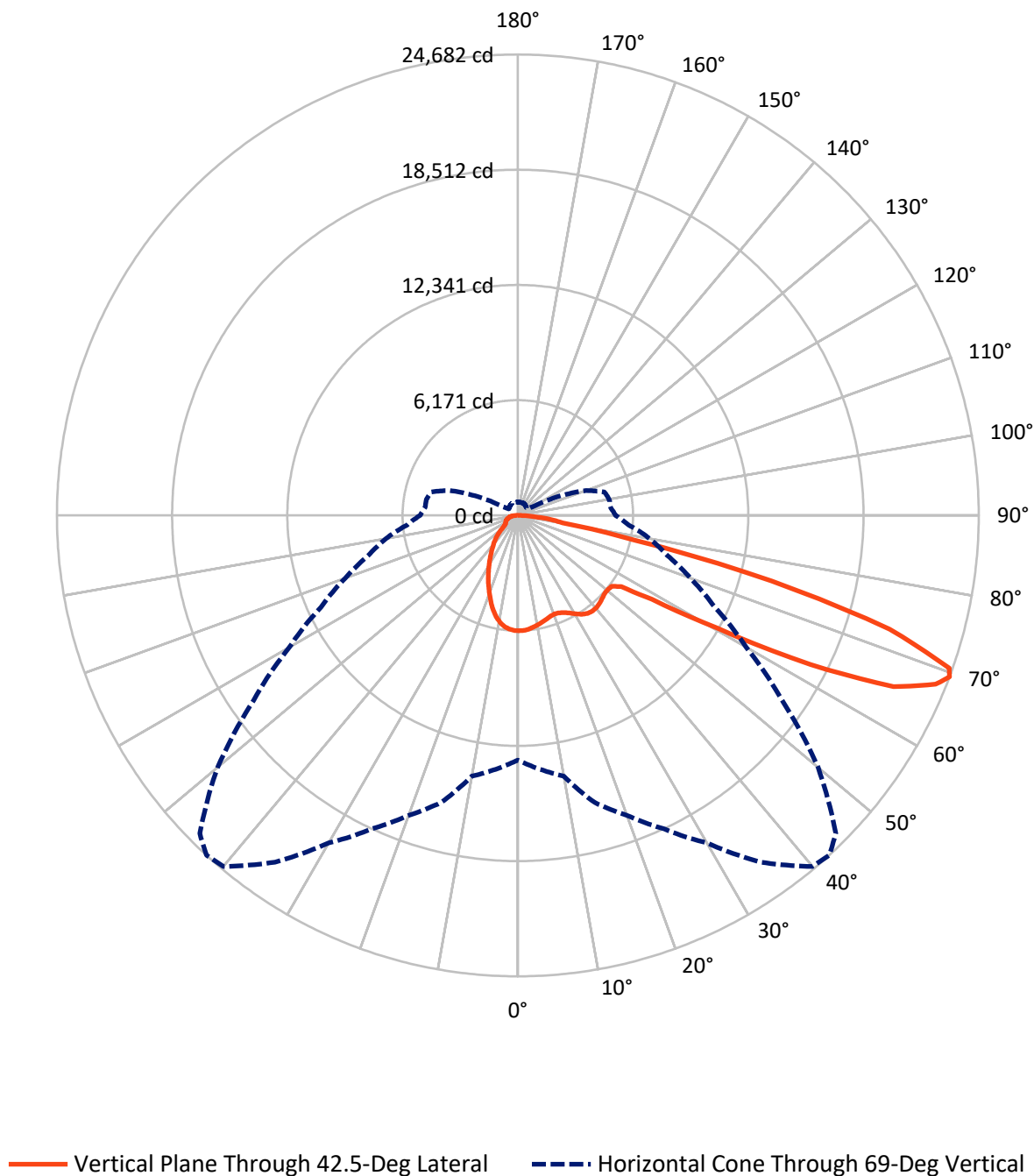


Based on 25 foot mounting height. Maximum calculated value = 9.9 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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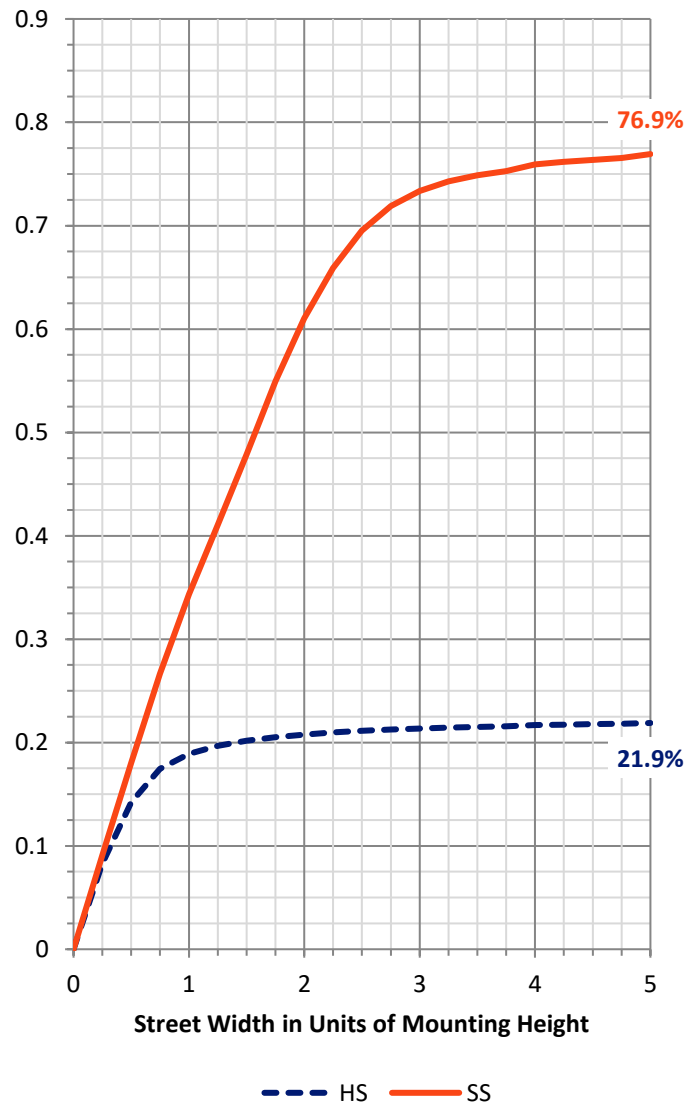
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6449.2	0.0	6449.2
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	22560.1	0.0	22560.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	29009.3	0.0	29009.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	575.1	2.0
10°-20°	1550.0	5.3
20°-30°	2260.2	7.8
30°-40°	2881.3	9.9
40°-50°	3352.4	11.6
50°-60°	5100.7	17.6
60°-70°	9010.2	31.1
70°-80°	3718.1	12.8
80°-90°	561.4	1.9
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°	29009.3	100.0
0°-180°	29009.3	100.0

Coefficient of Utilization



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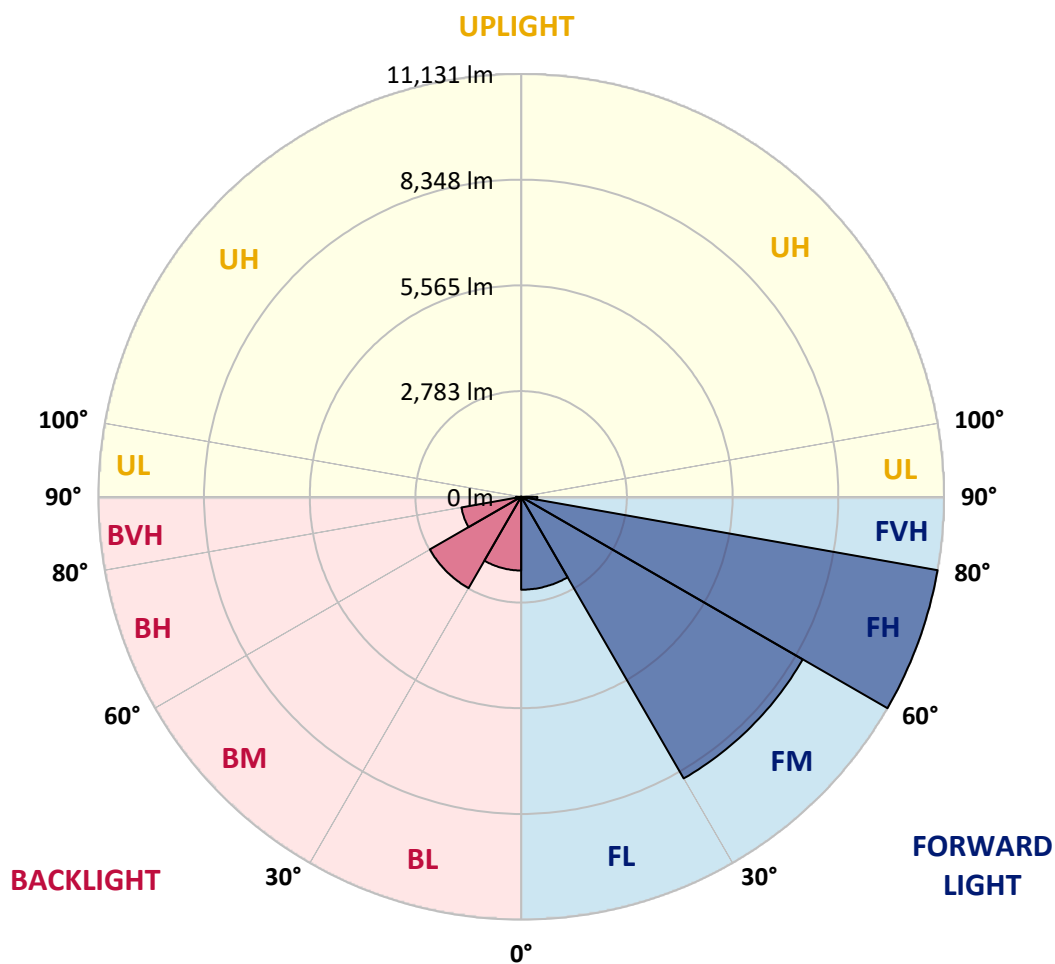
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2446.2	8.4			
FM	(30°-60°)	8558.5	29.5			
FH	(60°-80°)	11130.9	38.4			G4/12000
FVH	(80°-90°)	424.6	1.5			G3/500
BL	(0°-30°)	1939.0	6.7	B3/2500		
BM	(30°-60°)	2775.9	9.6	B3/5000		
BH	(60°-80°)	1597.5	5.5	B3/2500		G3/2500
BVH	(80°-90°)	136.9	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	6178	6178	6178	6178	6178	6178	6178	6178	6178	6178	6178
2.5°	6158	6180	6172	6172	6178	6168	6168	6172	6162	6168	6166
5°	6136	6148	6144	6144	6144	6136	6132	6130	6116	6116	6110
7.5°	6088	6092	6098	6090	6088	6086	6072	6064	6048	6034	6038
10°	6024	6022	6032	6026	6018	6012	6000	5986	5968	5950	5948
12.5°	5952	5950	5958	5954	5948	5936	5926	5902	5874	5852	5850
15°	5906	5900	5908	5900	5890	5878	5860	5830	5780	5758	5740
17.5°	5950	5940	5944	5934	5920	5888	5846	5782	5710	5672	5644
20°	6104	6086	6090	6080	6048	6006	5926	5814	5692	5630	5586
22.5°	6324	6310	6316	6306	6274	6210	6090	5930	5756	5666	5596
25°	6658	6670	6674	6628	6610	6492	6326	6104	5872	5766	5670
27.5°	7034	7034	7052	7034	6998	6860	6626	6358	6060	5916	5800
30°	7400	7396	7430	7426	7368	7212	6946	6620	6280	6118	5970
32.5°	7788	7800	7822	7814	7738	7522	7202	6848	6490	6312	6146
35°	8208	8214	8222	8218	8064	7792	7390	6994	6622	6446	6274
37.5°	8628	8622	8612	8526	8350	7972	7504	7078	6688	6498	6320
40°	9004	8970	8938	8804	8534	8074	7548	7098	6682	6486	6312
42.5°	9210	9172	9106	8938	8610	8084	7518	7038	6620	6426	6254
45°	9248	9220	9156	8968	8592	8020	7426	6940	6528	6334	6172
47.5°	9158	9136	9074	8888	8514	7924	7320	6836	6438	6256	6100
50°	9020	9000	8952	8782	8426	7858	7266	6782	6408	6242	6098
52.5°	9244	9260	9120	8934	8520	7916	7326	6838	6462	6298	6148
55°	12726	12704	11862	11156	9894	8750	7896	7282	6880	6716	6576
57.5°	16536	16460	16114	15454	14098	12288	10642	9242	8690	8454	8470
60°	17780	17808	17734	17500	17014	16072	14820	13768	12732	12226	12284
62.5°	18470	18520	18584	18532	18374	18156	17998	18094	17950	17586	17296
65°	18566	18668	18880	19048	19130	19336	19820	20980	22040	22110	21600
67.5°	16666	16948	17408	18186	18852	19584	20752	22516	24080	24132	23656
69°	13104	13646	14184	15922	17092	18526	20254	22664	24538	24682	24082
70°	10500	10822	11286	13032	14780	16608	19112	22176	24224	24514	23852
72.5°	6304	6428	6588	7214	8114	9742	13062	18080	20434	20822	19980
75°	4076	4068	4082	4256	4308	4620	5666	9302	13330	14034	13026
77.5°	3070	3098	3054	3070	3056	3140	3172	3330	5262	6482	5796
80°	2710	2724	2726	2718	2620	2612	2664	2574	2392	2428	2326
82.5°	1546	1544	1562	1698	1754	1938	2014	2056	1898	1780	1610
85°	1002	1010	1030	1072	1030	1046	1028	1064	976	906	810
87.5°	410	410	436	474	442	434	372	368	312	282	220
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°	6178	6178	6178	6178	6178	6178	6178	6178	6178	6178	6178
2.5°	6154	6166	6160	6168	6162	6162	6154	6152	6158	6150	6152
5°	6100	6102	6092	6096	6084	6080	6074	6058	6068	6058	6062
7.5°	6022	6016	6002	5982	5968	5962	5950	5928	5932	5914	5924
10°	5922	5902	5878	5848	5828	5810	5784	5758	5744	5728	5726
12.5°	5810	5786	5754	5708	5664	5634	5594	5548	5534	5508	5494
15°	5688	5650	5612	5560	5512	5466	5412	5354	5316	5276	5246
17.5°	5578	5534	5484	5434	5382	5326	5258	5186	5130	5056	4996
20°	5492	5436	5386	5334	5276	5208	5126	5034	4940	4858	4788
22.5°	5458	5370	5310	5258	5200	5120	5020	4912	4798	4684	4592
25°	5486	5356	5262	5200	5150	5068	4956	4824	4692	4556	4432
27.5°	5568	5402	5266	5168	5110	5028	4910	4770	4614	4462	4310
30°	5696	5480	5308	5170	5080	4986	4862	4700	4542	4368	4202
32.5°	5820	5562	5356	5178	5040	4918	4780	4620	4450	4268	4096
35°	5908	5616	5374	5160	4978	4826	4678	4518	4352	4166	3990
37.5°	5950	5646	5376	5112	4896	4728	4570	4412	4256	4080	3914
40°	5948	5644	5348	5050	4798	4620	4464	4310	4164	4010	3860
42.5°	5904	5612	5308	4990	4728	4530	4368	4220	4096	3960	3834
45°	5836	5558	5266	4962	4708	4510	4338	4194	4084	3960	3852
47.5°	5784	5528	5272	5012	4770	4564	4382	4224	4130	4030	3954
50°	5792	5542	5292	5042	4814	4606	4430	4286	4218	4192	4174
52.5°	5834	5564	5352	5202	5124	4968	4864	4774	4824	4726	4610
55°	6370	6282	6488	6682	6928	7020	6932	6916	6996	6664	5902
57.5°	8584	8812	9130	9298	9502	9448	9244	9074	8874	8486	7536
60°	12350	12178	12034	11628	11296	10908	10476	10106	9752	9194	8166
62.5°	16230	15036	14038	13074	12298	11654	11028	10472	9936	9158	8052
65°	19586	17072	15198	13784	12650	11672	10868	10100	9418	8506	7412
67.5°	21094	17944	15218	13192	11622	10294	9254	8094	7330	6746	6130
69°	20982	17278	14132	11638	9834	8286	7170	5960	5228	4980	4966
70°	20450	16150	12864	10376	8312	6774	5704	4618	3936	3766	4068
72.5°	16696	11412	8062	6156	4734	3742	3052	2422	1934	1676	1732
75°	9430	5284	3416	2582	2182	1804	1548	1320	1194	970	768
77.5°	3428	2268	1804	1560	1106	762	638	558	506	506	482
80°	2168	1708	1192	816	604	526	460	404	372	364	372
82.5°	1354	1046	668	512	430	386	336	294	268	262	274
85°	668	518	406	362	340	316	278	238	230	246	288
87.5°	200	178	146	152	160	156	124	108	102	134	210
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°	6178	6178	6178	6178	6178	6178	6178	6178	6178	6178	6178
2.5°	6156	6154	6158	6152	6156	6158	6154	6172	6160	6162	6170
5°	6066	6062	6078	6074	6082	6090	6086	6112	6102	6110	6126
7.5°	5916	5924	5926	5926	5942	5968	5974	5990	5990	6012	6028
10°	5716	5718	5730	5728	5748	5776	5780	5808	5818	5854	5876
12.5°	5484	5474	5472	5470	5496	5526	5530	5578	5598	5630	5666
15°	5224	5198	5190	5206	5200	5218	5236	5262	5290	5354	5386
17.5°	4970	4918	4904	4886	4868	4868	4876	4908	4966	5000	5072
20°	4710	4648	4598	4550	4508	4492	4494	4534	4576	4632	4700
22.5°	4492	4398	4312	4248	4162	4160	4148	4160	4206	4220	4258
25°	4304	4178	4062	3958	3874	3830	3818	3814	3792	3786	3758
27.5°	4158	4006	3856	3730	3626	3566	3490	3436	3358	3338	3288
30°	4038	3874	3710	3546	3428	3320	3192	3098	2978	2900	2832
32.5°	3922	3756	3590	3428	3246	3078	2910	2764	2630	2510	2410
35°	3826	3668	3500	3304	3072	2830	2628	2462	2278	2152	2026
37.5°	3764	3620	3452	3182	2884	2624	2394	2192	2004	1814	1672
40°	3736	3610	3400	3070	2720	2432	2178	1954	1714	1500	1348
42.5°	3734	3606	3328	2946	2584	2270	1988	1720	1454	1234	1084
45°	3770	3600	3252	2842	2464	2136	1800	1474	1176	1012	932
47.5°	3866	3610	3190	2746	2350	1974	1584	1204	958	882	882
50°	4038	3668	3174	2678	2236	1786	1320	972	848	848	872
52.5°	4302	3790	3202	2630	2094	1538	1040	838	814	836	868
55°	4910	4006	3240	2548	1878	1220	858	792	802	828	858
57.5°	6026	4468	3280	2368	1530	940	778	774	792	816	842
60°	6760	5056	3382	2096	1158	776	738	762	784	804	824
62.5°	6760	5222	3458	1792	870	706	712	750	776	786	798
65°	6328	4918	3200	1460	708	666	688	726	750	758	768
67.5°	5530	4344	2696	1100	632	632	660	688	708	724	740
69°	4808	3898	2374	932	602	606	634	658	682	702	722
70°	4288	3564	2150	846	584	586	614	640	662	684	708
72.5°	2296	2462	1634	694	538	544	570	594	614	636	658
75°	782	1058	1040	568	486	502	518	540	566	580	592
77.5°	458	474	554	462	438	446	464	482	504	518	528
80°	384	382	384	376	382	400	412	436	456	460	458
82.5°	312	328	330	326	344	358	368	382	380	384	392
85°	278	276	290	292	292	282	284	284	284	290	292
87.5°	278	232	180	162	170	160	152	150	166	182	178
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°	6178	6178	6178	6178	6178
2.5°	6174	6180	6176	6176	6180
5°	6132	6142	6138	6142	6142
7.5°	6036	6050	6060	6070	6064
10°	5898	5922	5938	5950	5944
12.5°	5692	5714	5748	5768	5752
15°	5410	5472	5492	5520	5504
17.5°	5116	5154	5178	5204	5220
20°	4724	4754	4786	4798	4780
22.5°	4252	4268	4262	4280	4244
25°	3734	3744	3738	3754	3724
27.5°	3244	3242	3244	3224	3204
30°	2772	2754	2746	2716	2710
32.5°	2350	2288	2256	2212	2202
35°	1928	1840	1782	1732	1710
37.5°	1550	1444	1376	1332	1326
40°	1226	1128	1080	1056	1052
42.5°	1000	958	946	946	946
45°	912	910	920	928	930
47.5°	894	906	920	932	936
50°	894	906	916	928	932
52.5°	890	900	904	912	916
55°	878	884	884	888	892
57.5°	858	862	856	860	870
60°	838	842	832	842	848
62.5°	816	818	814	822	822
65°	780	776	782	788	790
67.5°	744	734	740	742	746
69°	716	710	712	716	720
70°	696	692	696	702	708
72.5°	646	648	662	674	686
75°	600	614	632	658	672
77.5°	544	554	568	596	622
80°	470	476	478	488	486
82.5°	382	376	372	368	366
85°	274	272	256	244	244
87.5°	164	156	148	138	132
90°	0	0	0	0	0

(END OF REPORT)