

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: P158060

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158060
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-E10-LED-E-U-RW
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (210) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31154.2 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type I - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

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

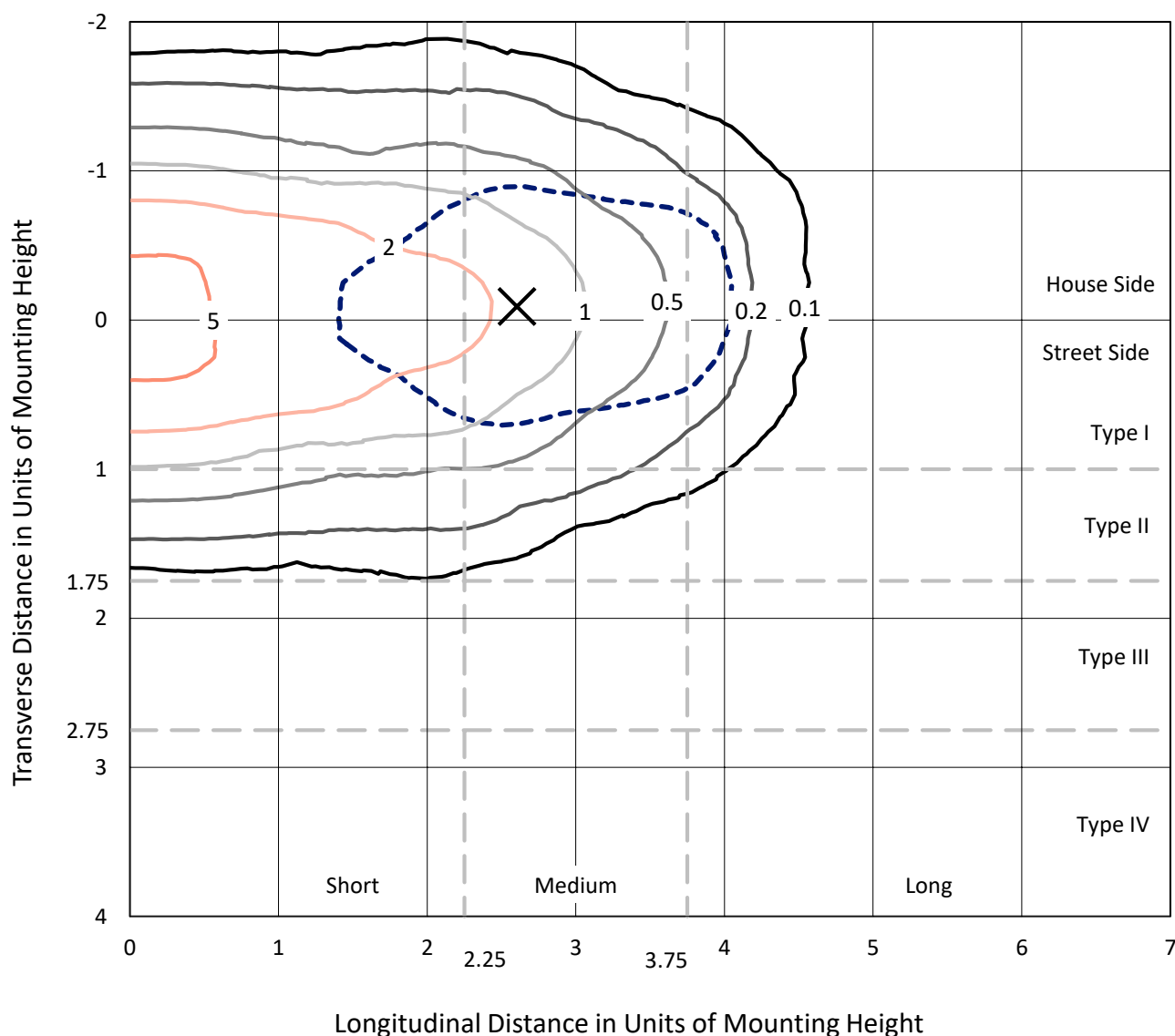


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

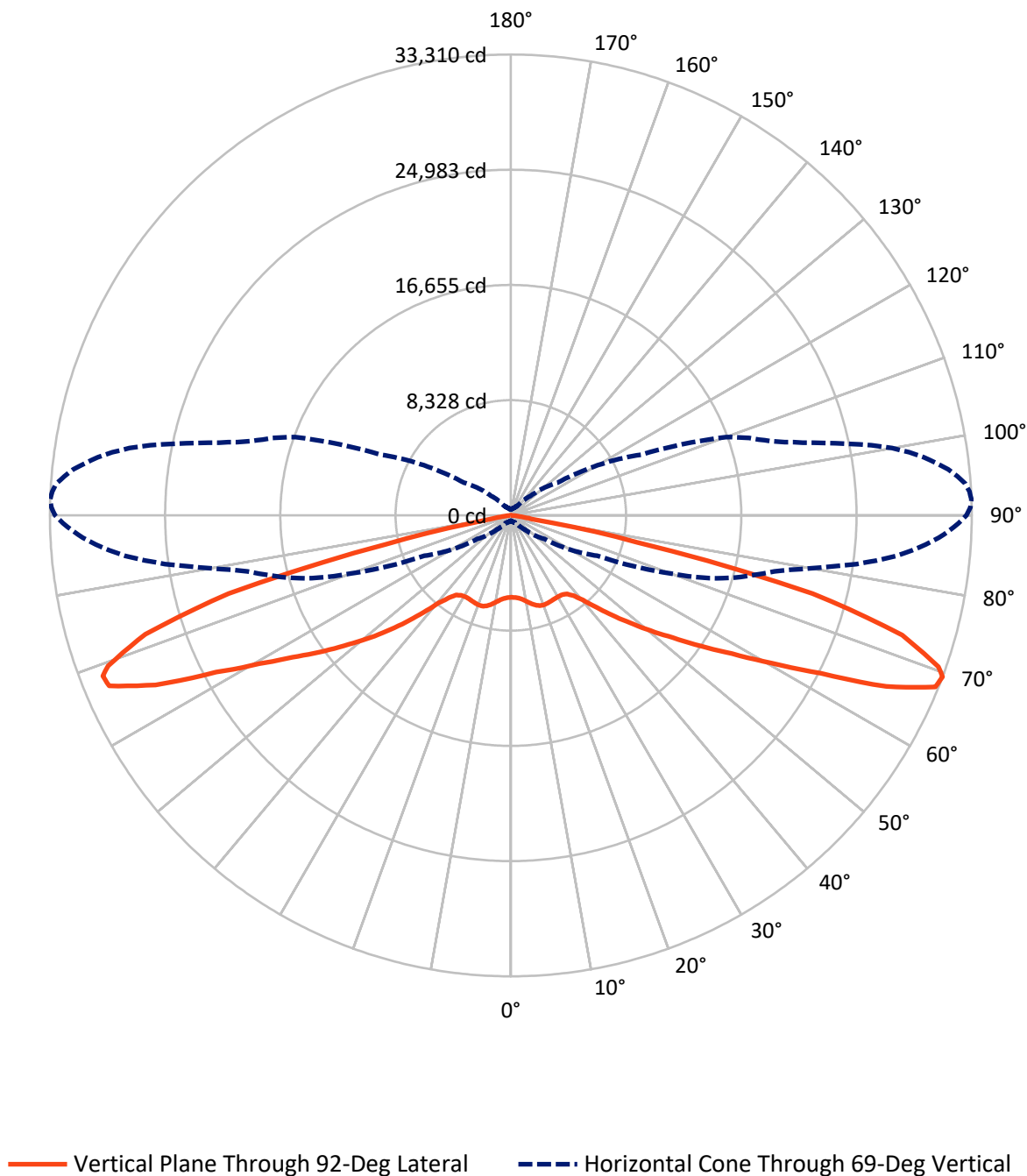


Based on 30 foot mounting height. Maximum calculated value = 6.8 fc
 Type I - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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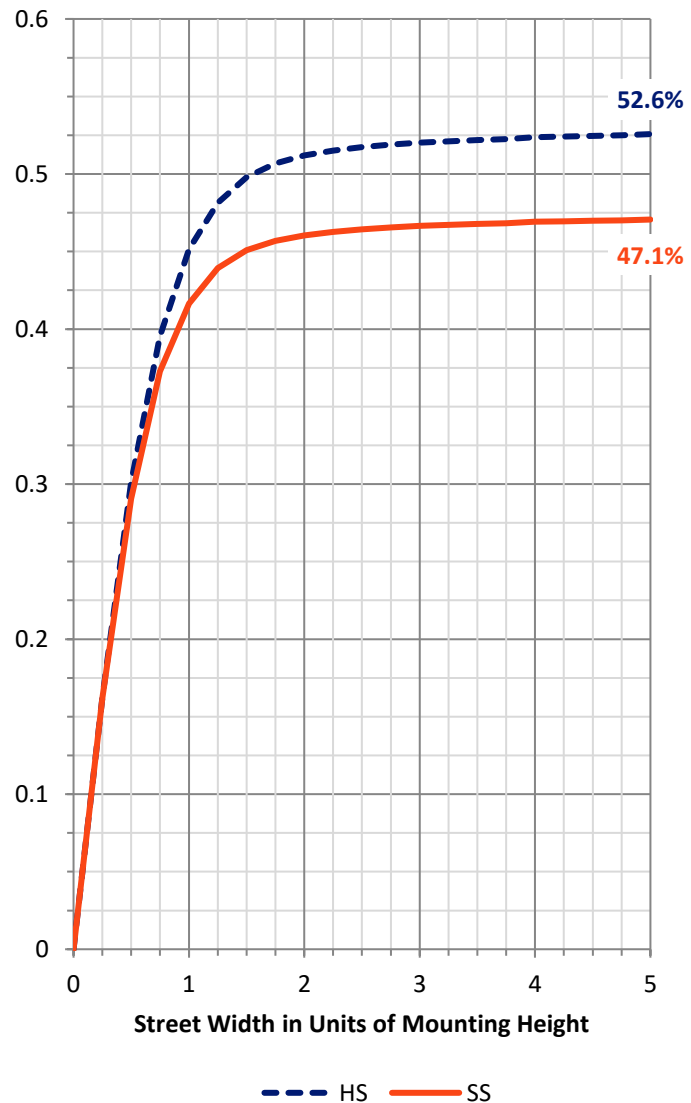
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	16522.7	0.0	16522.7
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	14631.5	0.0	14631.5
	% Fixture	47.0	0.0	47.0
Total	Lumens	31154.2	0.0	31154.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	579.1	1.9
10°-20°	1829.3	5.9
20°-30°	2967.9	9.5
30°-40°	3698.8	11.9
40°-50°	4605.4	14.8
50°-60°	5679.6	18.2
60°-70°	7053.7	22.6
70°-80°	4334.1	13.9
80°-90°	406.2	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°	31154.2	100.0
0°-180°	31154.2	100.0

Coefficient of Utilization



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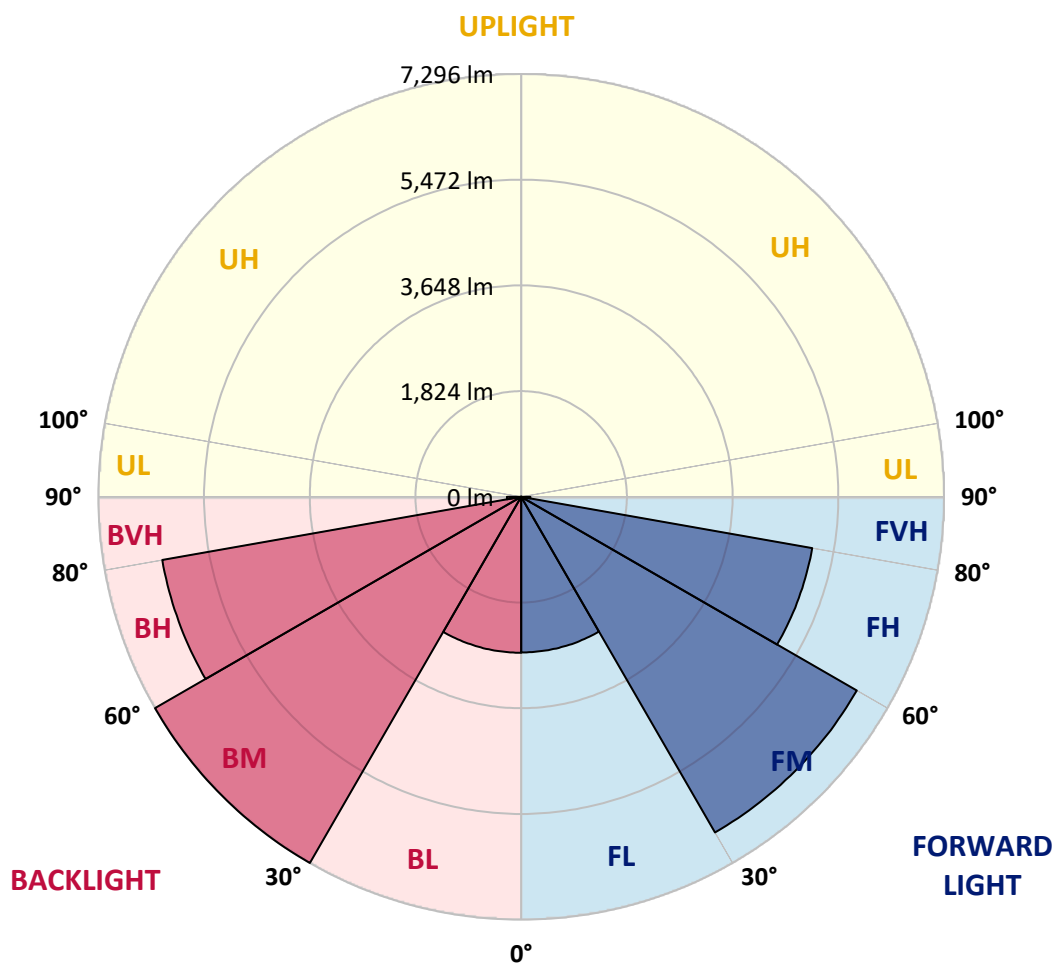
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2685.3	8.6			
FM	(30°-60°)	6687.6	21.5			
FH	(60°-80°)	5099.5	16.4			G3/7500
FVH	(80°-90°)	159.1	0.5			G2/225
BL	(0°-30°)	2691.0	8.6	B4/5000		
BM	(30°-60°)	7296.2	23.4	B4/8500		
BH	(60°-80°)	6288.3	20.2	B5		G5
BVH	(80°-90°)	247.2	0.8			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	5918	5918	5918	5918	5918	5918	5918	5918	5918	5918	5918
2.5°	6012	5996	6010	6012	6010	6010	5992	5988	5964	5970	5968
5°	6094	6088	6098	6102	6106	6098	6084	6078	6062	6056	6054
7.5°	6170	6160	6176	6190	6200	6202	6204	6194	6194	6186	6186
10°	6234	6226	6252	6270	6302	6320	6340	6354	6362	6364	6362
12.5°	6262	6256	6298	6352	6412	6454	6504	6540	6550	6548	6558
15°	6214	6218	6282	6388	6516	6622	6692	6722	6730	6734	6736
17.5°	6084	6092	6184	6356	6580	6772	6876	6876	6860	6860	6858
20°	5876	5884	6004	6252	6582	6876	7024	6994	6934	6922	6910
22.5°	5588	5620	5752	6040	6496	6906	7116	7072	6978	6952	6934
25°	5262	5258	5416	5740	6288	6834	7142	7134	7034	7006	6974
27.5°	4890	4902	5048	5376	5970	6626	7098	7204	7122	7094	7064
30°	4508	4520	4658	5040	5608	6328	7008	7272	7240	7218	7198
32.5°	4124	4128	4292	4702	5302	5972	6872	7334	7378	7368	7360
35°	3764	3768	3946	4362	5000	5668	6708	7424	7566	7578	7586
37.5°	3414	3420	3602	4038	4702	5438	6526	7562	7830	7874	7882
40°	3066	3072	3246	3708	4400	5236	6386	7756	8186	8246	8308
42.5°	2734	2756	2904	3346	4064	4986	6326	7992	8608	8702	8772
45°	2424	2426	2594	3008	3666	4648	6286	8260	9080	9222	9318
47.5°	2092	2116	2292	2694	3294	4230	6158	8574	9594	9760	9954
50°	1770	1804	1974	2372	2954	3798	5814	8942	10172	10388	10612
52.5°	1460	1458	1638	2052	2612	3432	5256	9328	10840	11072	11314
55°	1104	1104	1282	1660	2242	3106	4658	9568	11460	11740	12004
57.5°	758	778	946	1272	1856	2808	4200	9430	11934	12282	12596
60°	562	582	706	914	1452	2456	3856	8780	12220	12682	13090
62.5°	486	500	618	732	1046	2082	3552	7954	12632	13264	13832
65°	434	448	566	632	818	1674	3382	7482	13124	14090	14914
67.5°	402	418	518	566	714	1514	3250	7372	13120	14292	15344
69°	386	398	480	532	690	1466	2964	6894	12254	13512	14568
70°	376	388	458	510	682	1380	2700	6262	11268	12534	13606
72.5°	344	356	408	456	568	922	1882	4008	8052	8956	10182
75°	304	318	358	398	430	534	1086	2080	4604	5290	6382
77.5°	248	262	304	368	364	406	706	1278	2156	2674	3078
80°	204	214	250	372	298	340	572	1048	1518	1678	1774
82.5°	136	150	194	292	228	242	428	980	1284	1408	1524
85°	64	70	118	156	138	130	244	692	956	1014	1058
87.5°	0	0	6	12	18	18	44	146	268	324	320
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°	5918	5918	5918	5918	5918	5918	5918	5918	5918	5918	5918
2.5°	5960	5962	5960	5960	5958	5954	5954	5950	5952	5950	5954
5°	6052	6052	6046	6042	6048	6042	6044	6034	6034	6028	6020
7.5°	6184	6184	6186	6174	6182	6184	6178	6174	6170	6160	6162
10°	6360	6360	6366	6350	6358	6362	6364	6364	6360	6342	6344
12.5°	6556	6552	6554	6546	6554	6558	6562	6558	6558	6554	6552
15°	6734	6732	6736	6730	6732	6736	6748	6746	6744	6732	6732
17.5°	6856	6850	6846	6844	6844	6842	6844	6844	6838	6836	6836
20°	6902	6886	6876	6870	6862	6858	6854	6856	6852	6846	6848
22.5°	6910	6888	6868	6850	6834	6824	6814	6810	6800	6794	6794
25°	6948	6914	6882	6852	6828	6806	6784	6768	6756	6742	6738
27.5°	7032	6996	6958	6920	6888	6844	6814	6782	6754	6732	6716
30°	7162	7126	7088	7044	7002	6956	6906	6868	6828	6784	6760
32.5°	7334	7310	7272	7230	7192	7144	7084	7026	6988	6936	6898
35°	7580	7552	7540	7522	7484	7454	7388	7334	7298	7226	7198
37.5°	7916	7914	7924	7918	7924	7886	7856	7854	7802	7732	7664
40°	8374	8398	8452	8490	8526	8530	8572	8528	8534	8524	8454
42.5°	8896	8978	9042	9154	9240	9320	9374	9448	9504	9554	9566
45°	9478	9600	9748	9848	10016	10150	10334	10476	10624	10770	10822
47.5°	10110	10262	10426	10612	10824	11034	11318	11536	11774	11972	12148
50°	10808	10966	11186	11400	11692	11934	12306	12592	12976	13240	13468
52.5°	11536	11734	11980	12216	12514	12824	13238	13660	14122	14522	14854
55°	12248	12492	12728	13004	13334	13694	14162	14718	15294	15752	16192
57.5°	12882	13164	13442	13722	14060	14478	15004	15604	16264	16874	17478
60°	13470	13808	14148	14498	14886	15402	16034	16772	17626	18460	19250
62.5°	14400	14844	15266	15718	16186	16792	17538	18506	19486	20528	21338
65°	15660	16284	16836	17422	18028	18838	19730	20888	22292	23360	24660
67.5°	16286	17108	17818	18470	19220	20038	21098	22468	23966	25514	26964
69°	15550	16398	17184	17914	18672	19466	20574	21980	23564	25238	26654
70°	14596	15444	16282	17114	17806	18580	19692	21142	22724	24464	25868
72.5°	11182	12202	12960	13740	14542	15198	16482	17704	19352	21118	22664
75°	7154	8092	8920	9584	10368	11154	12102	13460	14492	15942	17196
77.5°	3676	3954	4752	4990	5534	5962	6484	6824	7664	7842	8582
80°	1742	1570	1478	1394	1418	1408	1366	1310	1380	1350	1338
82.5°	1518	1354	1080	918	794	674	580	532	538	554	560
85°	1064	1000	780	592	462	358	288	276	284	306	298
87.5°	308	322	284	198	138	100	78	88	84	82	86
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°	5918	5918	5918	5918	5918	5918	5918	5918	5918	5918	5918
2.5°	5954	5952	5946	5940	5940	5936	5940	5942	5940	5940	5936
5°	6022	6024	6030	6018	6016	6018	6010	6008	6002	6008	6000
7.5°	6152	6158	6158	6150	6148	6154	6142	6138	6132	6130	6128
10°	6346	6352	6342	6336	6330	6338	6328	6328	6322	6316	6314
12.5°	6562	6558	6554	6558	6552	6552	6546	6542	6540	6538	6534
15°	6730	6744	6744	6748	6744	6744	6736	6738	6734	6732	6734
17.5°	6838	6842	6852	6858	6858	6860	6856	6860	6856	6856	6864
20°	6852	6856	6866	6876	6882	6886	6886	6892	6896	6900	6910
22.5°	6796	6802	6814	6832	6842	6846	6854	6864	6874	6882	6896
25°	6738	6740	6752	6770	6782	6792	6806	6818	6832	6848	6864
27.5°	6706	6704	6714	6732	6742	6756	6768	6786	6802	6822	6836
30°	6734	6718	6720	6728	6736	6746	6760	6776	6794	6812	6828
32.5°	6858	6822	6798	6792	6794	6796	6804	6814	6828	6842	6848
35°	7126	7064	7032	7006	6984	6966	6970	6968	6968	6980	6966
37.5°	7636	7558	7524	7478	7452	7386	7368	7364	7338	7338	7308
40°	8436	8390	8364	8322	8196	8212	8122	8124	8050	8058	8006
42.5°	9574	9580	9548	9520	9422	9378	9294	9174	9080	9078	8974
45°	10890	10962	10860	10896	10810	10692	10594	10440	10294	10248	10142
47.5°	12266	12384	12306	12320	12278	12110	11978	11788	11598	11470	11406
50°	13736	13814	13812	13774	13754	13590	13378	13234	13094	12922	12866
52.5°	15068	15250	15372	15344	15286	15188	15000	14876	14670	14646	14670
55°	16494	16730	16854	17004	17006	16988	16910	16864	16672	16694	16666
57.5°	17844	18190	18380	18700	18810	18956	18902	18962	18846	18922	18900
60°	19674	20154	20470	20908	21112	21478	21550	21594	21658	21814	21726
62.5°	21976	22680	23336	23932	24128	24678	24768	25112	25130	25236	25042
65°	25744	26602	27324	28038	28450	29094	29354	30022	29818	29904	29490
67.5°	28212	29210	30178	30854	31538	32196	32670	33102	33098	33014	32646
69°	27994	29106	30060	30966	31686	32362	32932	33212	33310	33188	32926
70°	27240	28382	29550	30296	31080	31822	32410	32716	32784	32698	32472
72.5°	23756	24852	26140	26818	27766	28302	29112	29508	29578	29468	29320
75°	18540	18738	20050	20482	21170	21788	22292	22164	22522	22452	22396
77.5°	8734	8206	9056	9452	9244	8690	9496	8914	9300	9802	9674
80°	1440	1436	1474	1558	1458	1548	1546	1502	1506	1614	1558
82.5°	554	566	572	588	588	590	600	612	602	622	618
85°	300	320	302	288	298	304	312	322	312	342	326
87.5°	78	82	72	72	70	64	64	68	74	88	96
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°	5918	5918	5918	5918	5918	5918	5918	5918	5918	5918	5918
2.5°	5928	5930	5932	5926	5922	5922	5920	5916	5914	5914	5914
5°	5996	6000	5990	5988	5984	5980	5980	5976	5978	5978	5968
7.5°	6132	6126	6114	6106	6114	6100	6094	6098	6094	6096	6092
10°	6314	6314	6300	6308	6298	6282	6288	6282	6278	6264	6272
12.5°	6540	6534	6526	6508	6502	6500	6482	6484	6478	6474	6468
15°	6738	6736	6718	6708	6706	6698	6690	6686	6676	6674	6670
17.5°	6870	6864	6856	6846	6846	6834	6830	6820	6818	6812	6806
20°	6914	6916	6908	6900	6896	6888	6882	6874	6870	6862	6856
22.5°	6904	6904	6896	6894	6886	6874	6866	6856	6846	6836	6824
25°	6872	6870	6864	6854	6844	6826	6810	6794	6780	6768	6750
27.5°	6844	6840	6828	6814	6794	6774	6744	6722	6704	6688	6668
30°	6834	6820	6802	6780	6756	6726	6694	6666	6646	6630	6622
32.5°	6846	6828	6800	6772	6742	6706	6674	6650	6632	6628	6628
35°	6956	6926	6888	6848	6810	6780	6758	6756	6744	6758	6780
37.5°	7278	7252	7194	7142	7116	7102	7082	7086	7058	7102	7138
40°	7962	7930	7862	7820	7768	7718	7758	7746	7766	7758	7796
42.5°	8960	8928	8820	8804	8782	8762	8762	8746	8738	8766	8734
45°	10174	10110	10070	10118	10052	10072	10142	10048	10070	9940	9820
47.5°	11434	11428	11418	11476	11486	11516	11554	11458	11284	11186	10942
50°	12884	12946	12970	13026	13050	13072	13012	12870	12576	12316	12028
52.5°	14646	14538	14686	14740	14716	14628	14412	14238	13832	13458	13012
55°	16698	16724	16620	16578	16496	16252	15954	15562	15048	14560	13996
57.5°	18788	18778	18616	18388	18110	17816	17372	16810	16210	15554	14872
60°	21330	21320	20992	20602	20206	19732	19036	18360	17556	16694	15882
62.5°	24670	24240	23918	23336	22724	22104	21162	20264	19190	18102	17154
65°	28950	28242	27876	27032	26084	25116	24158	22978	21532	20216	19058
67.5°	32116	31468	30798	29956	28916	27836	26524	25038	23396	21920	20658
69°	32394	31788	30984	30140	29156	27982	26550	24886	23222	21728	20486
70°	31972	31328	30482	29604	28504	27396	25896	24162	22496	20998	19786
72.5°	28824	28196	27296	26246	25118	24170	22746	20938	19126	17742	16798
75°	21918	21780	21142	20530	19642	18584	17282	16066	14580	13116	12236
77.5°	9352	9670	10002	10050	10082	9756	9554	9248	8254	7802	7336
80°	1728	1544	1648	1660	1728	1764	1896	2248	2288	2374	2480
82.5°	614	624	640	646	652	676	766	918	1056	1236	1476
85°	348	354	368	380	388	412	462	552	688	894	1212
87.5°	106	120	128	144	150	154	176	236	304	450	656
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°	5918	5918	5918	5918	5918	5918	5918	5918	5918	5918	5918
2.5°	5914	5912	5908	5904	5906	5902	5890	5886	5872	5862	5854
5°	5968	5966	5958	5960	5958	5938	5924	5900	5886	5864	5856
7.5°	6080	6078	6064	6070	6066	6036	6012	5974	5954	5926	5904
10°	6248	6248	6232	6234	6234	6194	6152	6088	6042	5998	5960
12.5°	6452	6444	6442	6432	6424	6380	6316	6230	6144	6072	6020
15°	6658	6646	6640	6628	6618	6578	6492	6386	6270	6154	6068
17.5°	6792	6784	6772	6768	6754	6714	6654	6548	6404	6242	6112
20°	6842	6828	6820	6812	6804	6776	6776	6708	6548	6320	6122
22.5°	6810	6802	6790	6784	6776	6780	6858	6848	6664	6338	6050
25°	6736	6726	6716	6716	6714	6756	6944	6970	6698	6250	5892
27.5°	6660	6646	6650	6652	6662	6752	7038	7002	6606	6038	5620
30°	6614	6614	6624	6640	6660	6818	7112	6930	6368	5718	5260
32.5°	6634	6654	6676	6716	6746	6964	7138	6744	6022	5322	4884
35°	6812	6836	6878	6940	6976	7174	7138	6472	5620	4982	4496
37.5°	7200	7224	7274	7322	7358	7438	7108	6126	5284	4630	4148
40°	7824	7858	7894	7886	7862	7784	7048	5804	4974	4322	3806
42.5°	8702	8670	8666	8588	8508	8174	7004	5594	4708	3998	3466
45°	9716	9586	9452	9348	9226	8602	6992	5424	4414	3638	3096
47.5°	10736	10528	10268	10106	9908	9058	7028	5196	4036	3246	2750
50°	11736	11396	11074	10880	10656	9582	7086	4812	3584	2890	2434
52.5°	12662	12224	11894	11666	11392	10192	7034	4308	3192	2548	2134
55°	13542	13058	12716	12476	12154	10804	6658	3850	2818	2214	1796
57.5°	14312	13848	13492	13166	12894	11336	5916	3472	2458	1832	1430
60°	15212	14690	14268	13920	13600	11610	5084	3136	2074	1418	1034
62.5°	16426	15826	15338	14940	14522	11670	4516	2800	1646	1026	752
65°	18226	17486	16876	16328	15762	11422	4236	2434	1224	762	630
67.5°	19656	18888	18182	17478	16754	10962	4174	2096	940	648	566
69°	19482	18750	18102	17340	16538	10384	4112	1966	858	602	536
70°	18812	18118	17460	16840	15858	9740	3948	1894	826	580	514
72.5°	15896	15092	14454	13682	12648	7238	2994	1532	758	530	464
75°	11594	10928	10292	9438	8432	4188	1864	876	556	480	420
77.5°	6770	6620	6006	5444	4448	2132	1070	524	432	436	370
80°	2548	2714	2776	2582	2386	1472	778	426	376	430	314
82.5°	1858	2156	2192	2100	1954	1372	622	342	306	462	270
85°	1550	1716	1742	1646	1598	1162	434	240	224	332	202
87.5°	784	826	848	768	772	542	174	102	122	142	112
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	175°	180°
0°	5918	5918
2.5°	5836	5848
5°	5844	5844
7.5°	5890	5890
10°	5940	5942
12.5°	5986	5984
15°	6022	6016
17.5°	6044	6038
20°	6022	6012
22.5°	5910	5882
25°	5706	5670
27.5°	5436	5412
30°	5084	5048
32.5°	4672	4654
35°	4278	4256
37.5°	3918	3912
40°	3614	3582
42.5°	3258	3244
45°	2896	2888
47.5°	2556	2548
50°	2242	2226
52.5°	1934	1908
55°	1592	1574
57.5°	1222	1206
60°	860	842
62.5°	612	592
65°	510	494
67.5°	462	444
69°	440	424
70°	426	414
72.5°	396	388
75°	362	356
77.5°	318	308
80°	266	256
82.5°	224	214
85°	150	136
87.5°	68	60
90°	0	0

(END OF REPORT)