

Scaled data based on original data using
LM-31-95 IESNA Approved Method for Photometric Testing of Roadway Luminaires
Using Incandescent Filament and High Intensity Discharge Lamps

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: STREETWORKS

Report Number: P31756

Luminaire Tested: **OVW25SXX2D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: P31756
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: OVW25SXX2D
Description: STREET WORKS LARGE COBRA HEAD HPS ROADWAY FIXTURE (TX DOT FIXTURE D, BATCH S-545) WITH CLEAR FLAT GLASS LENS, SHIM UNDERNEATH SOCKET BRACKET, HYDROFORMED SEMI SPECULAR REFLECTOR, AND GASKET MATERIAL ON REFLECTOR. FIXTURE LEVELED
Light Source: (1) MOGUL BASE E18 CLEAR HIGH PRESSURE SODIUM LAMP PHILIPS Q250S50 250 WATTS
Ballast/Driver: (1) COOPER LIGHTING MAGNETIC BALLAST 1006D76G10

Summary

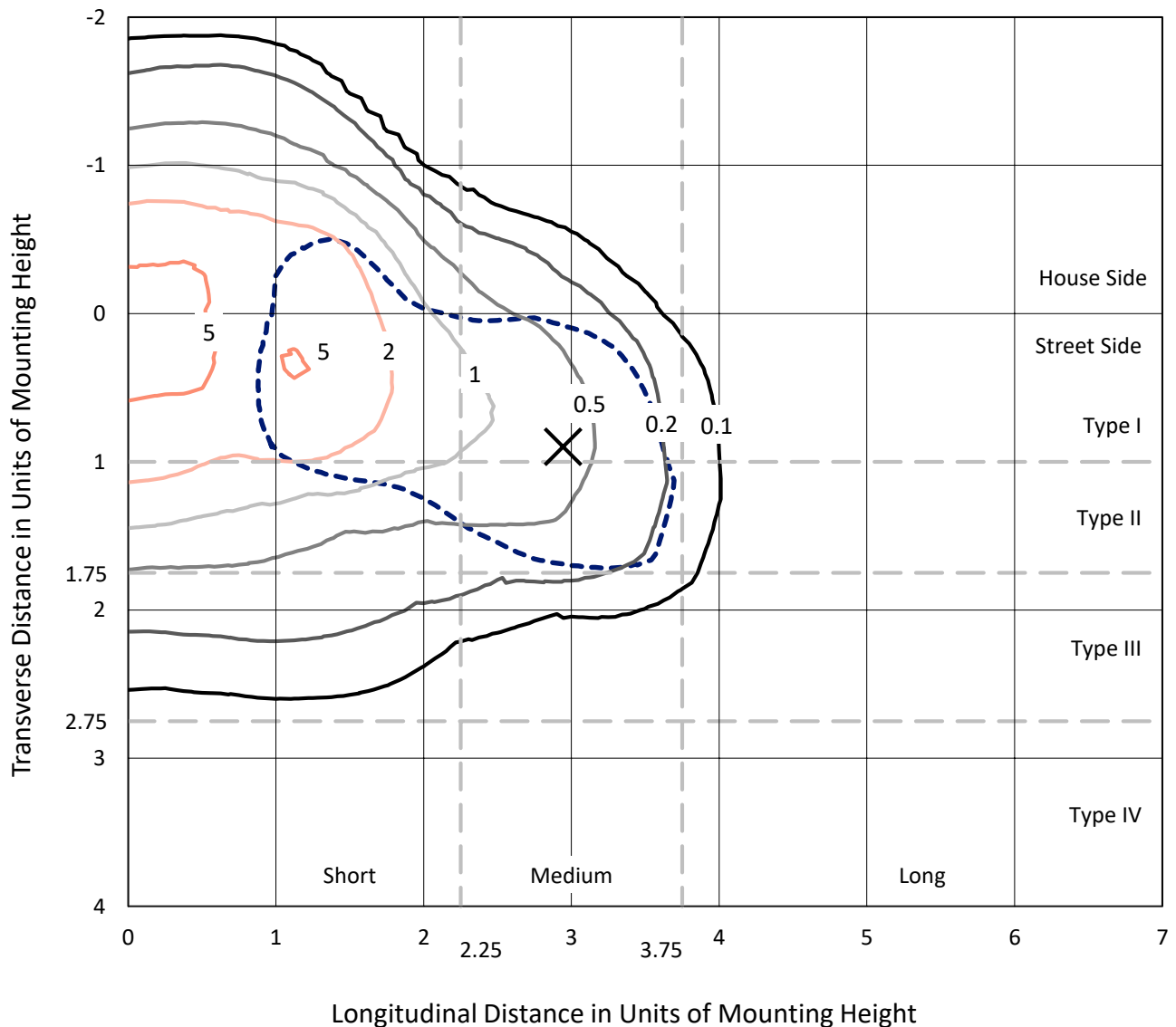
Lumens per Lamp: 29000 (1 lamp)
Luminaire Lumens: 21404 lumens
Efficiency: 73.8%
Efficacy: 85.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.17' x L: 1.33' x H: 0.25')
IES Classification: Type II - Medium - Cutoff
BUG Rating: B3 - U1 - G3

Input Watts (W): 250.2
Input Voltage (V): 109.05
Input Current (Ain): 2.787
Voltage Rise (V): 5.7
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 4 HR
Ambient Temperature (°C):

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Iso-Footcandle Lines of Horizontal Illumination

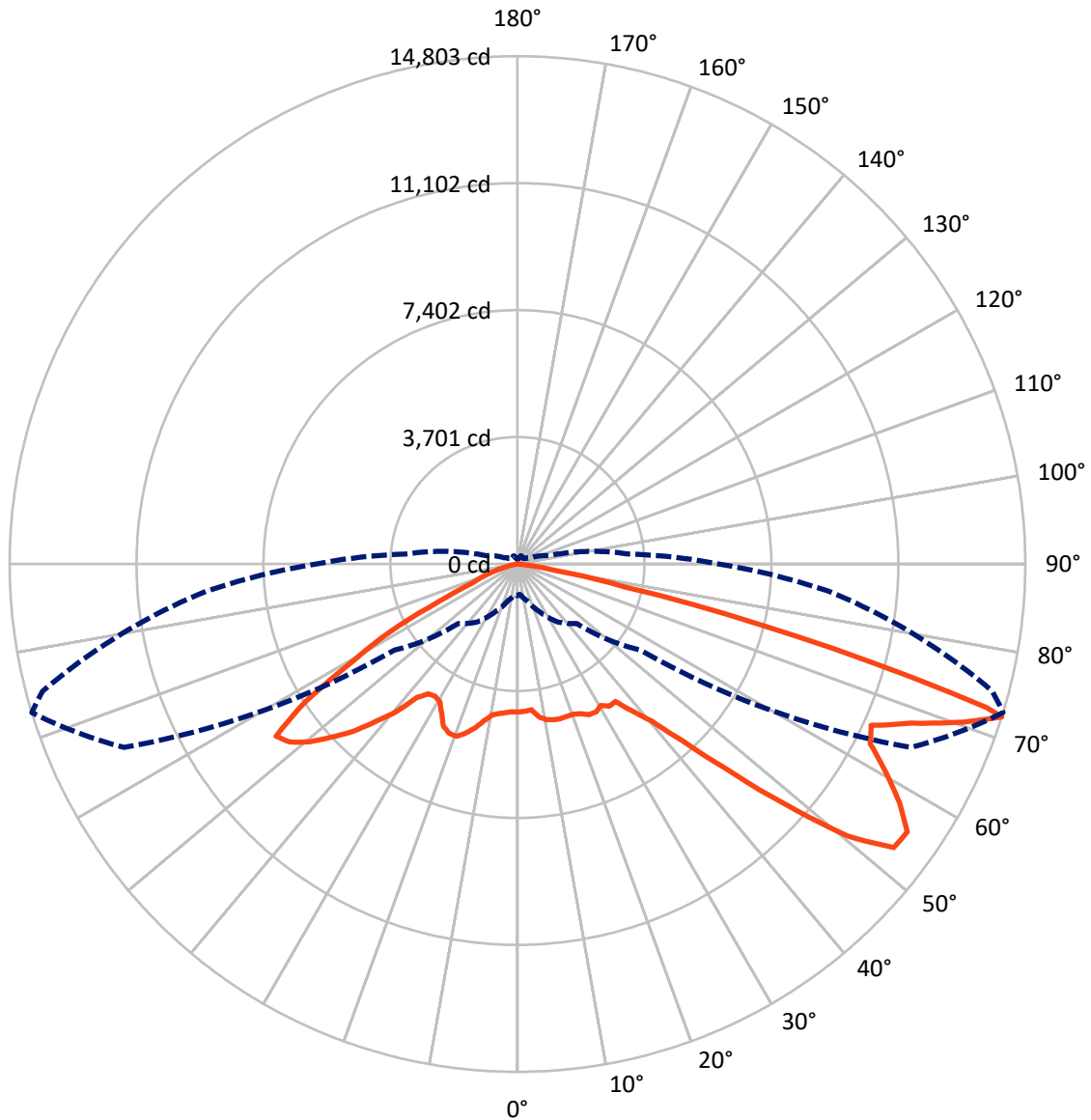
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc
 Type II - Medium - Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 73-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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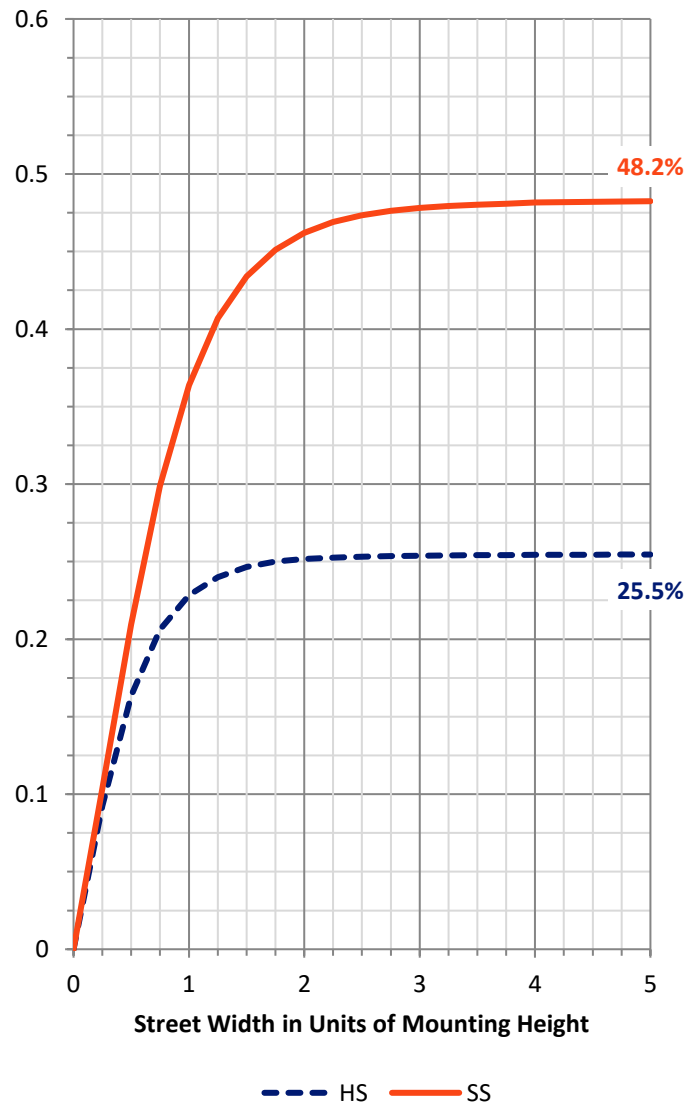
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7426.0	0.8	7426.9
	% Lamp	25.6	0.0	25.6
Street Side	Lumens	13976.5	0.6	13977.1
	% Lamp	48.2	0.0	48.2
Total	Lumens	21402.6	1.4	21404.0
	% Lamp	73.8	0.0	73.8

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	420.7	2.0	1.5
10°-20°	1289.6	6.0	4.4
20°-30°	2125.5	9.9	7.3
30°-40°	2821.8	13.2	9.7
40°-50°	3967.4	18.5	13.7
50°-60°	5113.7	23.9	17.6
60°-70°	3718.3	17.4	12.8
70°-80°	1876.2	8.8	6.5
80°-90°	69.4	0.3	0.2
90°-100°	0.4	0.0	0.0
100°-110°	1.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	21402.6	100.0	73.8
0°-180°	21404.0	100.0	73.8

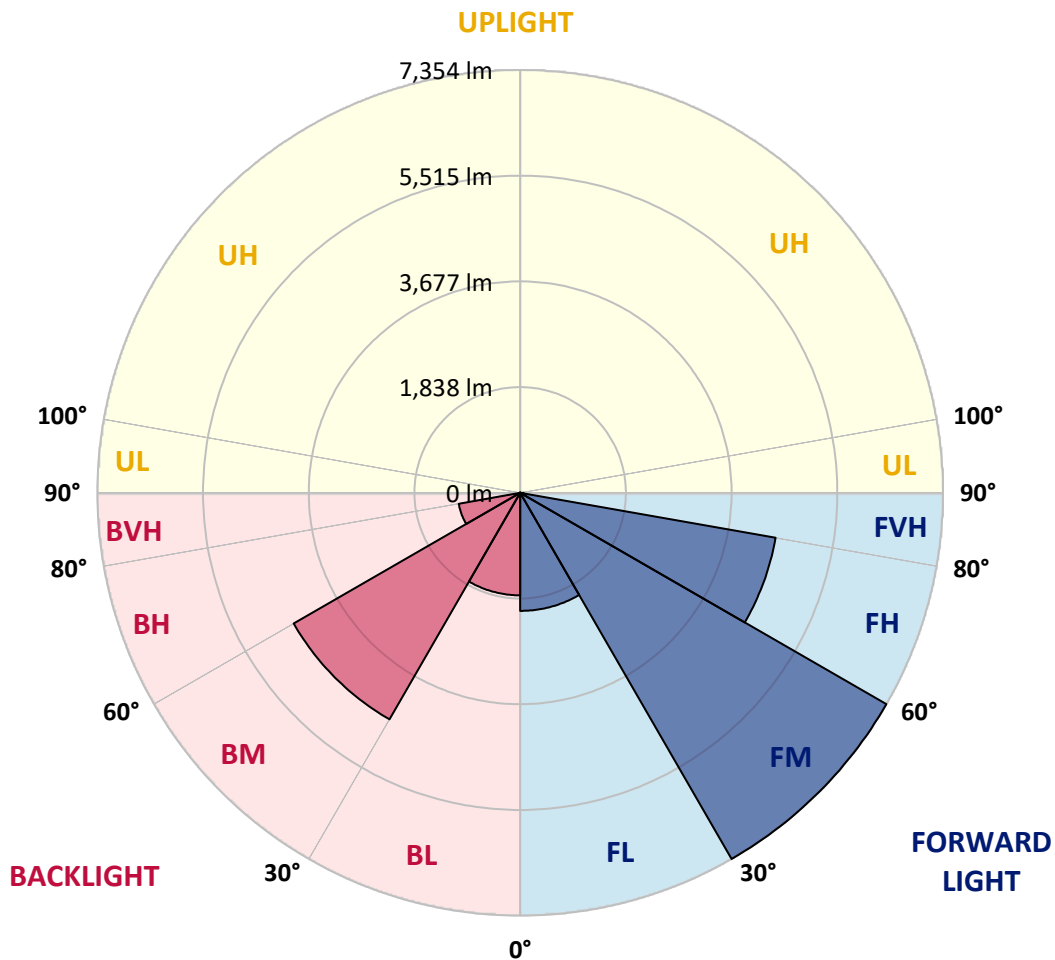


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2053.5	7.1			
FM (30°-60°)	7354.0	25.4			
FH (60°-80°)	4510.2	15.6			G2/5000
FVH (80°-90°)	58.9	0.2			G1/100
BL (0°-30°)	1782.4	6.1	B3/2500		
BM (30°-60°)	4548.9	15.7	B3/5000		
BH (60°-80°)	1084.3	3.7	B3/2500		G3/2500
BVH (80°-90°)	10.5	0.0			G1/100
UL (90°-100°)	0.4	0.0		U1/10	
UH (100°-180°)	0.8	0.0		U1/10	
Trapped Light	7596.0	26.2			

BUG Rating: B3-U1-G3
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
0°	4314	4314	4314	4314	4314	4314	4314	4314	4314	4314	4314
2.5°	4516	4362	4371	4452	4413	4415	4362	4367	4297	4374	4327
5°	4590	4613	4567	4699	4432	4520	4487	4490	4268	4567	4392
7.5°	4836	4786	4559	4860	4606	4702	4627	4525	4499	4585	4504
10°	4944	4658	4772	4990	4825	4811	4734	4706	4611	4730	4581
12.5°	5000	4988	4862	4939	4927	4886	4795	4757	4660	4697	4658
15°	4990	5025	4911	4958	4965	4899	4729	4792	4680	4699	4688
17.5°	4983	5020	4795	4960	4590	4916	4876	4772	4665	4646	4618
20°	5039	5046	4916	4957	4969	4946	4928	4850	4674	4653	4590
22.5°	5035	5018	4906	4948	4999	5013	5007	4957	4739	4781	4566
25°	4958	4978	4892	4948	5062	5267	5163	5135	4862	4781	4534
27.5°	4909	4888	4851	4958	5165	5305	5423	5370	4881	4748	4457
30°	4825	4815	4823	4988	5302	5521	5369	5381	4786	4765	4357
32.5°	4860	4736	4774	4964	5414	5686	5637	5411	4934	4792	4539
35°	4990	4815	4566	4860	5493	5789	5616	5251	4918	5046	4767
37.5°	5042	4858	4385	4664	5325	5658	5407	5572	5432	5312	5155
40°	4990	4909	4359	4488	5298	5604	5665	5891	6009	5916	5928
42.5°	4846	4799	4485	4350	4946	5446	5837	6512	7010	6978	6873
45°	4730	4669	4518	4478	4822	5363	6433	7685	8502	8533	7972
47.5°	4492	4452	4436	4369	4606	5463	7385	9285	10404	10400	9126
50°	4190	4125	4164	4222	4429	5844	8637	11179	12459	12364	10301
52.5°	3766	3749	3780	4001	4222	6364	9913	12906	13735	13853	11481
55°	3472	3424	3426	3566	4129	6350	10434	13360	13788	13805	11971
57.5°	2981	2940	3037	3433	3992	5602	10025	12669	13130	13129	11677
60°	2455	2351	2672	3163	3729	4785	8810	12271	12341	12173	10351
62.5°	1995	2013	2295	2860	3382	4178	7583	11167	11542	11270	9289
65°	1655	1662	1988	2607	3105	3685	6429	10213	11333	11004	9245
67.5°	1361	1352	1631	2325	3019	3436	5654	10818	12378	12575	9306
70°	1122	1101	1336	1851	2572	3237	5554	11777	13797	13819	10436
72°	922	889	1119	1534	2067	2453	4374	12648	14803	14330	9100
72.5°	842	880	1073	1462	1909	2100	4043	12706	14303	13686	8893
75°	400	615	798	977	901	664	2542	8809	8340	7534	4771
77.5°	102	307	337	324	252	324	1268	3445	3177	2860	1885
80°	70	70	91	107	144	184	524	1108	1108	982	624
82.5°	39	54	63	61	79	100	191	345	312	282	237
85°	32	26	32	33	47	44	63	91	86	68	51
87.5°	18	7	7	12	26	5	19	12	18	7	7
90°	11	0	4	0	4	0	0	4	5	0	0
92.5°	0	0	0	0	0	0	0	0	0	0	0
95°	0	0	0	0	4	2	0	0	0	0	0
97.5°	0	0	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0	0	0
102.5°	0	0	0	0	0	0	0	0	0	0	0
105°	4	5	0	0	4	0	2	2	11	0	4
107.5°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	73°	75°	85°
110°	0	0	0	0	0	0	0	0	0	0	0
112.5°	0	0	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0	0	0
117.5°	0	0	0	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0	0	0	0
122.5°	0	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0	0
127.5°	0	0	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4314	4314	4314	4314	4314	4314	4314	4314	4314	4314	4314
2.5°	4348	4120	4318	4271	4218	4192	4211	4232	4329	4311	4145
5°	4417	4268	4352	4324	4201	4148	4148	4148	4115	4203	4054
7.5°	4532	4471	4410	4311	4222	4150	4118	4090	4175	4127	3994
10°	4630	4564	4494	4359	4215	4113	4182	4024	3962	3908	3875
12.5°	4751	4715	4713	4494	4259	4097	4031	3969	3884	3836	3773
15°	4804	4820	4957	4839	4373	4097	3966	3884	3838	3805	3805
17.5°	4673	4725	5186	5014	4529	4134	3910	3705	3747	3610	3545
20°	4729	4850	5348	5260	4701	4217	3810	3727	3654	3508	3450
22.5°	4673	4783	5305	5386	4839	4299	3905	3647	3543	3387	3328
25°	4606	4653	5158	5341	4895	4345	3887	3487	3415	3352	3202
27.5°	4427	4325	4811	5114	4827	4339	3847	3412	3335	3098	3037
30°	4373	4225	4553	4788	4694	4308	3796	3403	3121	3023	2886
32.5°	4525	4467	4508	4674	4476	4161	3685	3265	2961	2779	2700
35°	4753	4692	4620	4471	4192	3978	3601	3103	2782	2649	2525
37.5°	5151	5104	4948	4553	4052	3745	3421	2840	2600	2437	2318
40°	5891	5721	5717	5107	4210	3557	3163	2739	2413	2248	2111
42.5°	6743	6691	6329	5560	4520	3450	2811	2504	2190	2002	1894
45°	7565	7416	7057	5945	4687	3358	2605	2311	1995	1739	1687
47.5°	8337	8130	7730	6038	4424	3096	2467	2114	1816	1564	1501
50°	9396	9029	8461	6082	3898	2872	2302	1901	1667	1424	1350
52.5°	10208	9889	9035	5993	3712	2600	2183	1757	1459	1255	1203
55°	10832	10599	9298	6019	3756	2407	1978	1608	1294	1099	1048
57.5°	10434	9708	7965	4971	3205	2183	1774	1448	1159	954	922
60°	8980	8077	6030	3545	2349	1909	1583	1332	987	857	750
62.5°	7690	6556	4581	2809	1944	1534	1255	963	677	510	491
65°	7285	5877	2833	1140	768	657	724	561	372	270	270
67.5°	6585	4734	1657	696	409	359	380	424	293	184	175
70°	6889	4310	1282	551	324	291	319	363	247	174	175
72°	5854	3282	949	442	279	237	238	261	189	156	158
72.5°	5400	3026	899	431	259	207	231	226	170	135	147
75°	2811	1711	549	293	205	165	154	119	109	98	98
77.5°	1199	778	303	172	124	81	65	54	56	40	42
80°	480	345	144	91	56	39	14	5	12	19	21
82.5°	174	140	61	23	12	11	0	0	0	0	4
85°	53	25	7	4	0	4	0	0	0	0	0
87.5°	0	0	7	0	0	4	0	0	0	0	0
90°	0	0	2	0	0	0	0	0	0	0	0
92.5°	0	0	0	0	0	0	0	0	0	0	0
95°	2	0	0	2	0	2	0	0	0	2	0
97.5°	0	0	0	0	0	0	0	0	0	0	0
100°	0	0	0	4	0	0	0	0	0	0	0
102.5°	0	4	0	4	0	0	0	0	0	0	0
105°	5	4	11	7	4	4	0	0	4	5	0
107.5°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0	0	0	0	0	0	0	0	0	0	0
112.5°	0	0	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0	0	0
117.5°	0	0	0	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0	0	0	0
122.5°	0	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0	0
127.5°	0	0	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)