

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: McGRAW-EDISON

Report Number: 768907

Luminaire Tested: **GSM-XX-400-HPS-XX-FT-SG-XX-HS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 768907  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GSM-XX-400-HPS-XX-FT-SG-XX-HS  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-FORWARD THROW WITH HOUSE-SIDE SHIELD  
Light Source: 400 WATT HPS CLEAR E-18  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 50000 (1 lamp)  
Luminaire Lumens: 16705.2 lumens  
Efficiency: 33.4%  
Efficacy: 41.8 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U3 - G5

Input Watts (W): 400  
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

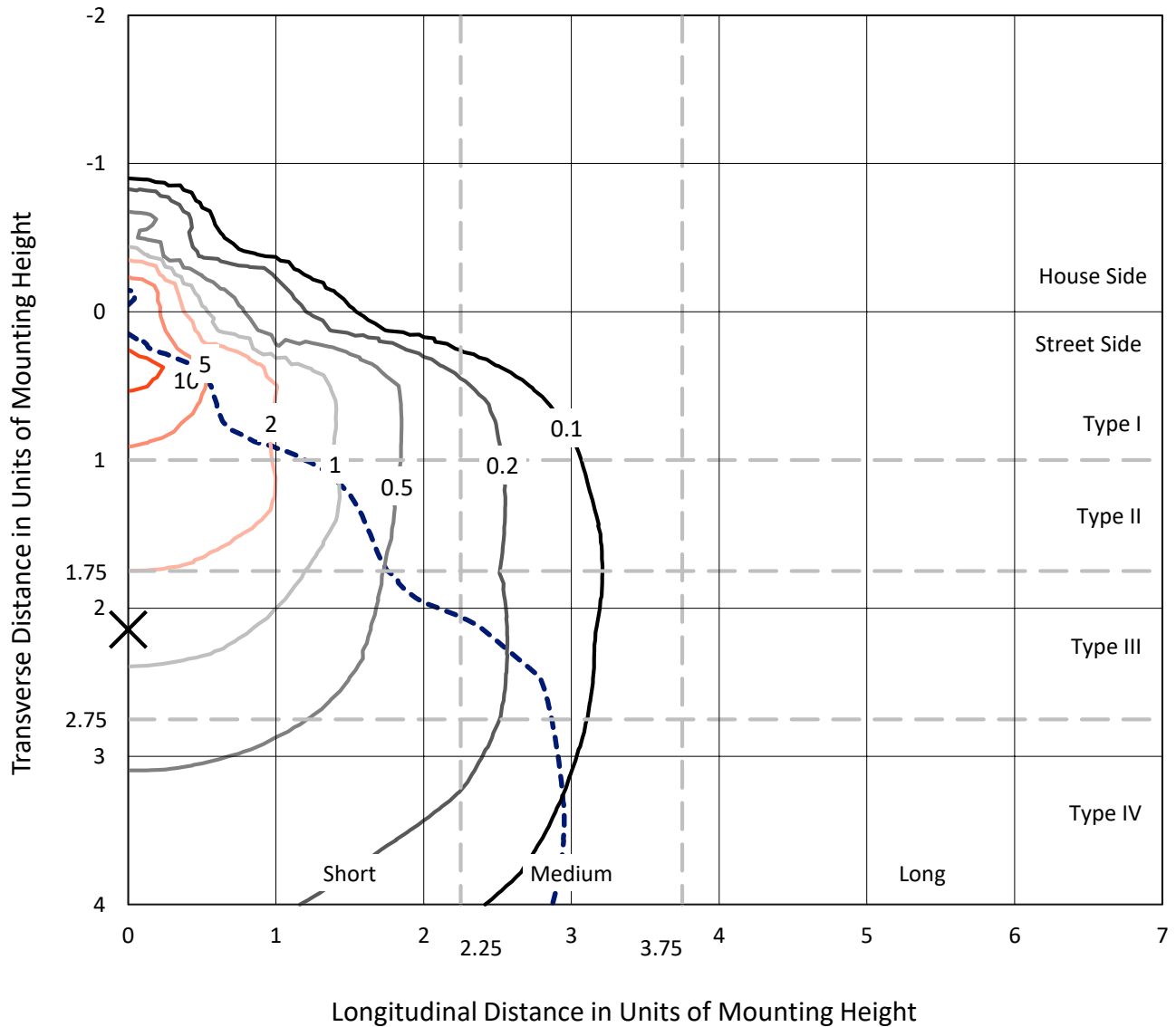


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

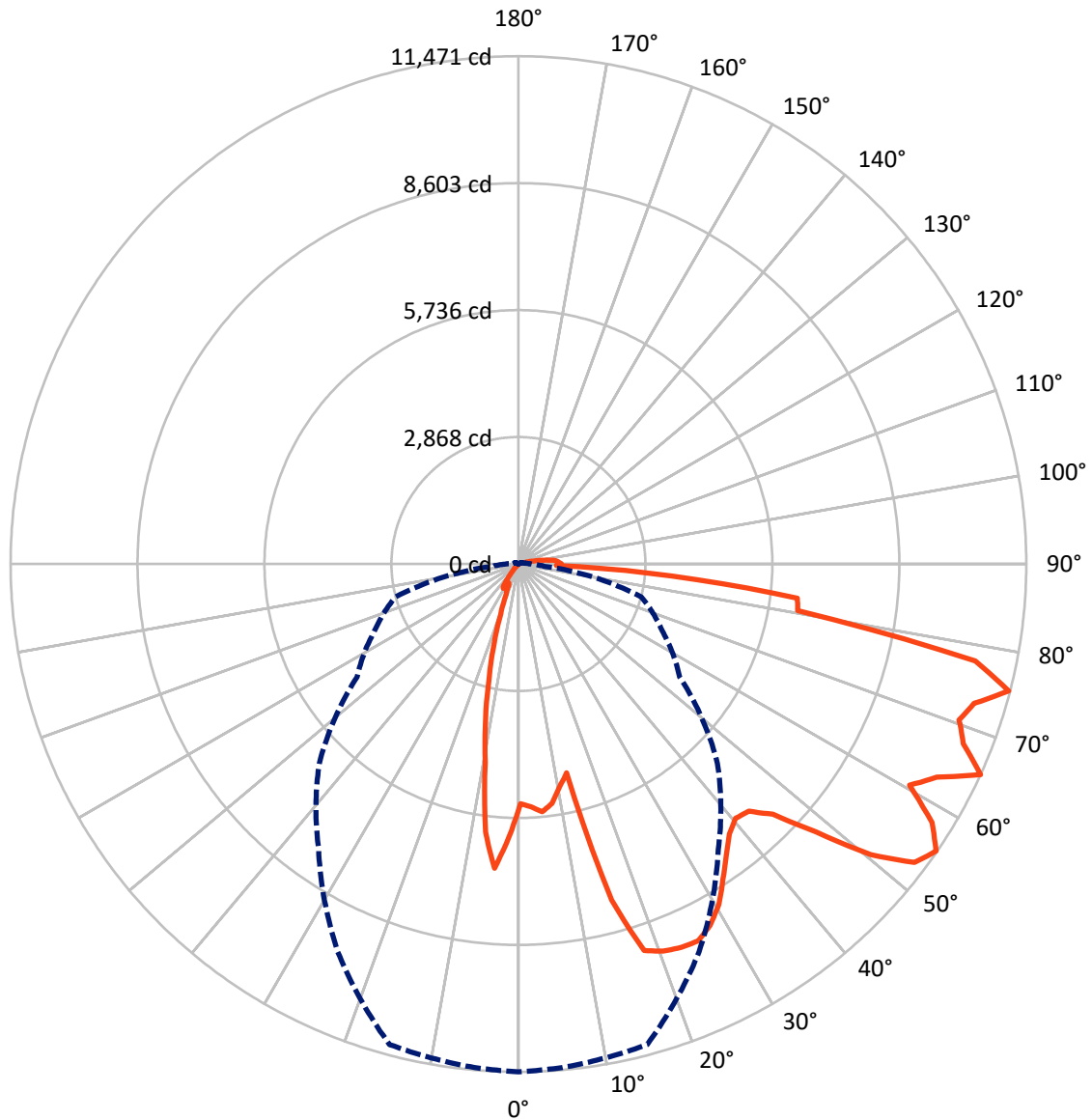


Based on 25 foot mounting height. Maximum calculated value = 12.3 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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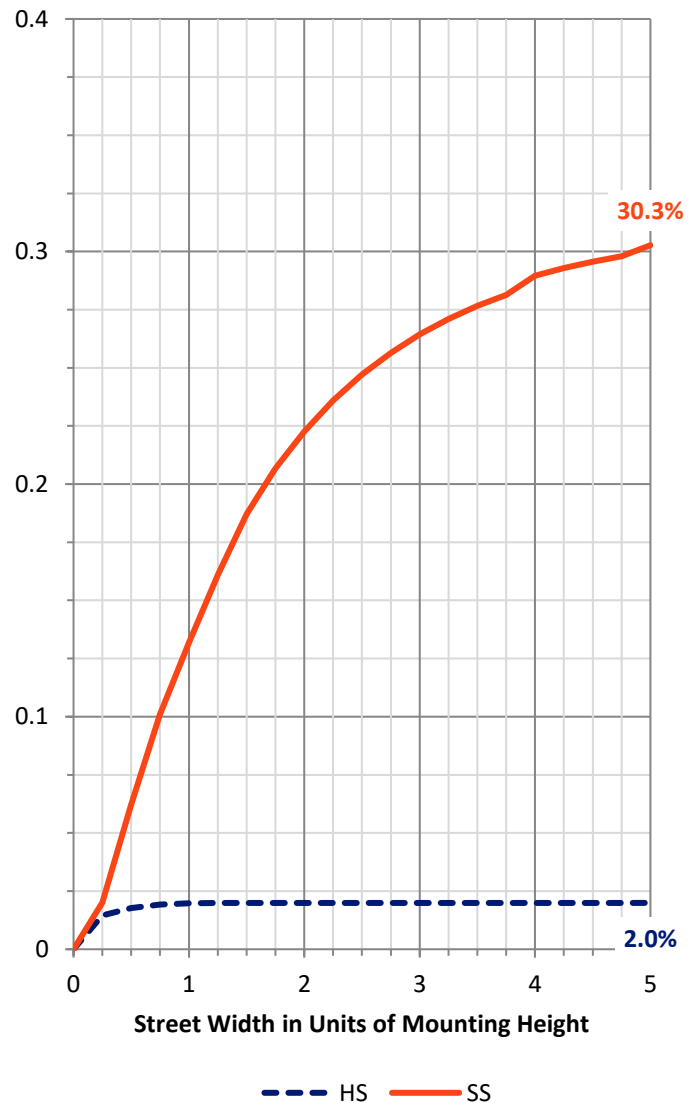
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1009.4	0.7	1010.1
	% Lamp	2.0	0.0	2.0
<b>Street Side</b>	Lumens	15558.5	136.5	15695.0
	% Lamp	31.1	0.3	31.4
<b>Total</b>	Lumens	16567.9	137.3	16705.2
	% Lamp	33.1	0.3	33.4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	510.8	3.1	1.0
10°-20°	1063.4	6.4	2.1
20°-30°	1440.8	8.6	2.9
30°-40°	1750.6	10.5	3.5
40°-50°	2051.3	12.3	4.1
50°-60°	2899.7	17.4	5.8
60°-70°	3134.0	18.8	6.3
70°-80°	2947.1	17.6	5.9
80°-90°	770.4	4.6	1.5
90°-100°	121.1	0.7	0.2
100°-110°	31.4	0.2	0.1
110°-120°	0.2	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°	16567.9	99.2	33.1
0°-180°	16705.2	100.0	33.4

**Coefficient of Utilization**



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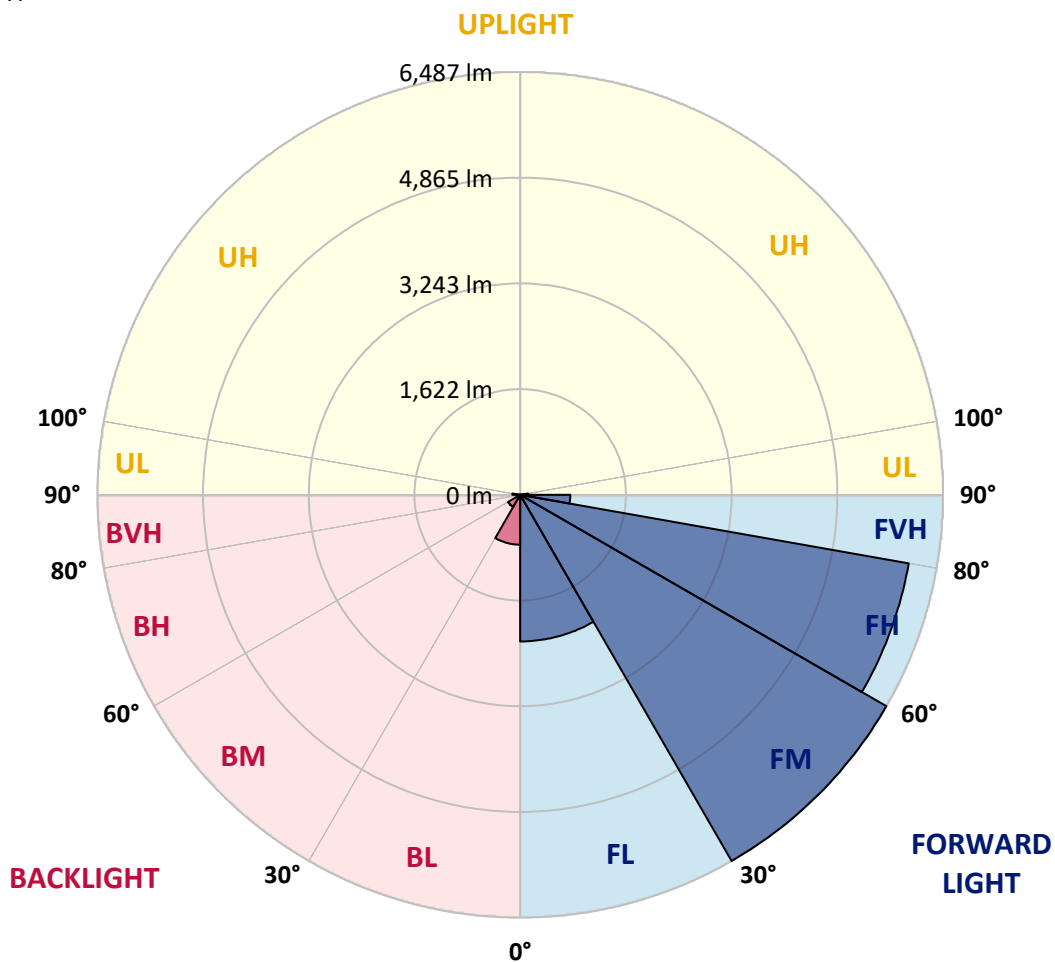
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2249.4	4.5			
FM (30°-60°)	6486.7	13.0			
FH (60°-80°)	6053.2	12.1			G3/7500
FVH (80°-90°)	769.2	1.5			G5
BL (0°-30°)	765.5	1.5	B2/1000		
BM (30°-60°)	214.9	0.4	B0/220		
BH (60°-80°)	27.8	0.1	B0/110		G0/110
BVH (80°-90°)	1.1	0.0			G0/10
UL (90°-100°)	121.1	0.2		U3/500	
UH (100°-180°)	0.7	0.0		U1/10	
Trapped Light	33294.8	66.6			

**BUG Rating: B2-U3-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5415	5415	5415	5415	5415	5415	5415	5415	5415	5415	5415
2.5°	5491	5480	5475	5459	5426	5394	5356	5312	5301	5318	5339
5°	5621	5605	5583	5551	5475	5372	5252	5133	5035	5019	5057
7.5°	5459	5448	5453	5442	5388	5263	5073	4862	4645	4547	4580
10°	5111	5095	5117	5155	5133	5035	4797	4487	4162	3934	3918
12.5°	4840	4813	4813	4824	4818	4704	4444	4042	3630	3294	3218
15°	7879	7748	6902	5323	4531	4319	3966	3560	3125	2697	2567
17.5°	9181	9148	9045	8497	6115	3950	3505	3098	2675	2208	2024
20°	9333	9284	9110	8790	8248	5073	3071	2686	2274	1807	1617
22.5°	9409	9355	9148	8758	8166	7054	2870	2301	1915	1481	1291
25°	9431	9355	9116	8649	7944	7135	4064	1948	1595	1210	1069
27.5°	9235	9170	8948	8486	7672	6831	5638	1644	1340	1031	906
30°	8920	8845	8606	8177	7412	6533	5838	1536	1145	895	798
32.5°	8486	8443	8253	7862	7184	6262	5594	2219	1031	825	733
35°	8085	8031	7890	7531	6875	6039	5366	3673	955	765	695
37.5°	7738	7700	7548	7206	6555	5860	5198	4520	912	733	646
40°	7553	7515	7385	6924	6300	5681	5057	4585	890	695	602
42.5°	7629	7580	7369	6821	6099	5513	4911	4449	884	678	570
45°	8063	8025	7640	6875	6061	5421	4818	4325	922	673	553
47.5°	9040	8980	8367	7266	6256	5399	4721	4232	1188	640	510
50°	10320	10255	9555	8145	6712	5524	4656	4146	1736	602	477
52.5°	11199	11140	10651	9262	7493	5822	4639	4064	2344	581	445
55°	11449	11351	11102	9968	8454	6283	4639	4021	2778	553	412
57.5°	11015	10939	10814	9951	9100	6875	4672	3934	2990	543	380
60°	10147	10136	9995	9333	9067	7282	4726	3831	3098	537	347
62.5°	10603	10603	10131	8948	8421	7081	4699	3706	3066	559	320
65°	11471	11416	11237	9658	7868	6359	4449	3587	2876	581	282
67.5°	10841	10814	10440	9072	7819	5730	4108	3429	2686	597	255
70°	10559	10554	10456	9496	7998	5687	4064	3326	2447	575	228
72.5°	10765	10830	10548	10038	9333	6403	4238	3332	2089	429	195
75°	11438	11433	10749	9501	8991	6576	4102	2946	1362	298	163
77.5°	10548	10462	9501	7852	6935	4851	3017	2078	787	244	136
80°	6392	6235	5730	4873	4205	3066	2067	1579	657	195	103
82.5°	6349	6311	5654	3961	3304	1997	863	564	277	109	54
85°	3473	3494	2822	1644	760	532	271	147	76	27	5
87.5°	857	819	635	407	255	163	103	54	11	0	0
90°	966	922	700	445	271	174	103	65	16	0	0
95°	836	798	570	326	174	114	60	33	11	0	5
105°	11	11	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
165°	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°	75°	85°	90°
175°	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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5415	5415	5415	5415	5415	5415	5415	5415	5415	5415
2.5°	5372	5453	5556	5687	5833	5947	6050	6137	6159	6175
5°	5133	5361	5687	6001	6300	6528	6717	6837	6886	6891
7.5°	4666	4970	5318	5627	5898	6066	6137	6131	6104	6099
10°	3983	4227	4471	4732	4921	4938	4808	4661	4569	4547
12.5°	3234	3337	3532	3733	3820	3755	3695	3619	3581	3570
15°	2512	2491	2621	2724	2713	2724	2637	2626	2615	2626
17.5°	1905	1796	1823	1769	1682	1617	1736	1839	1872	1867
20°	1454	1302	1243	1112	884	901	1020	1139	1205	1205
22.5°	1156	977	884	678	510	488	586	678	760	771
25°	950	776	695	440	326	309	358	434	515	532
27.5°	798	662	586	320	239	233	288	374	450	477
30°	711	586	440	233	184	222	336	440	488	499
32.5°	662	537	315	190	174	255	434	581	646	651
35°	619	494	244	157	168	250	423	537	586	586
37.5°	570	467	201	147	163	206	315	358	364	358
40°	532	450	168	119	136	157	195	206	201	206
42.5°	510	429	130	109	109	114	136	136	130	119
45°	494	369	109	98	98	98	98	92	87	87
47.5°	445	266	98	92	87	71	65	54	60	54
50°	412	168	87	81	71	60	38	43	38	43
52.5°	364	130	92	81	60	33	33	22	22	22
55°	315	114	98	60	38	22	11	5	0	11
57.5°	282	114	103	43	22	5	0	0	0	0
60°	233	119	98	33	5	0	0	0	0	0
62.5°	190	114	81	11	0	0	0	0	0	0
65°	168	98	65	0	0	0	0	0	0	0
67.5°	141	71	43	5	0	0	0	0	0	0
70°	125	54	33	0	0	0	0	0	0	0
72.5°	98	33	11	0	0	0	0	0	0	0
75°	81	22	5	0	0	0	0	0	0	0
77.5°	60	11	0	0	0	0	0	5	0	0
80°	43	5	0	0	0	0	0	0	0	0
82.5°	16	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	5	0	0	11
87.5°	0	0	0	0	0	0	0	5	0	0
90°	0	0	0	0	0	0	5	5	0	0
95°	0	0	0	0	0	5	0	0	0	0
105°	0	5	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
175°	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)