

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: SHAPER

Report Number: P368726

Luminaire Tested: **673-16-L3/840**

Issue Date: 11/13/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P368726  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 11/13/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SHAPER  
Catalog Number: 673-16-L3/840  
Description: 16" 673 SERIES LUMINOUS WALL SCONCE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

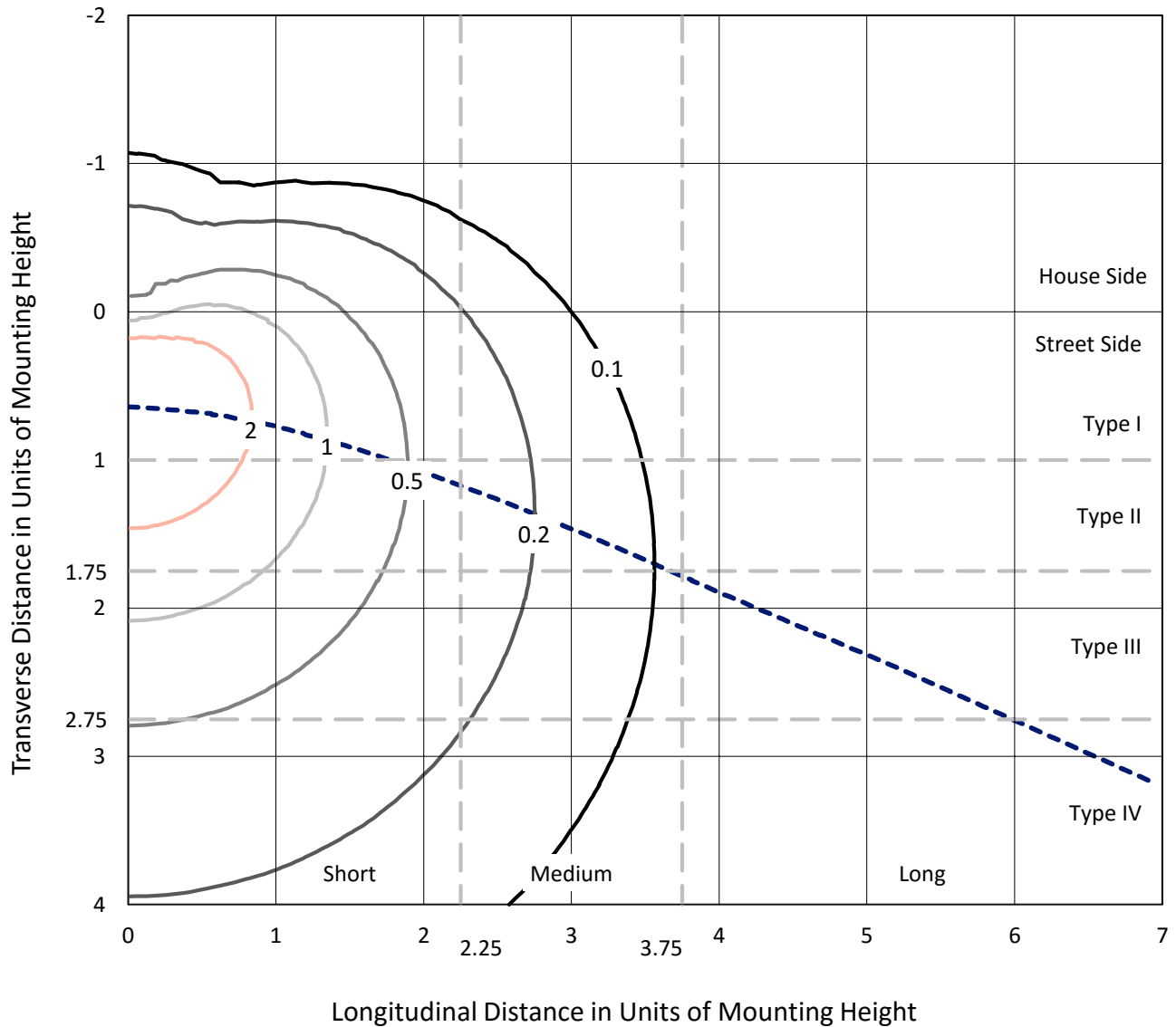
Lumens per Lamp: N/A  
Luminaire Lumens: 1820.3 lumens  
Efficiency: N/A  
Efficacy: 80.9 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.71' x L: 0.25' x H: 1.33')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B0 - U4 - G2

Input Watts (W): 22.5  
Input Voltage (V): 120  
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: 24 FT

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### Iso-Footcandle Lines of Horizontal Illumination

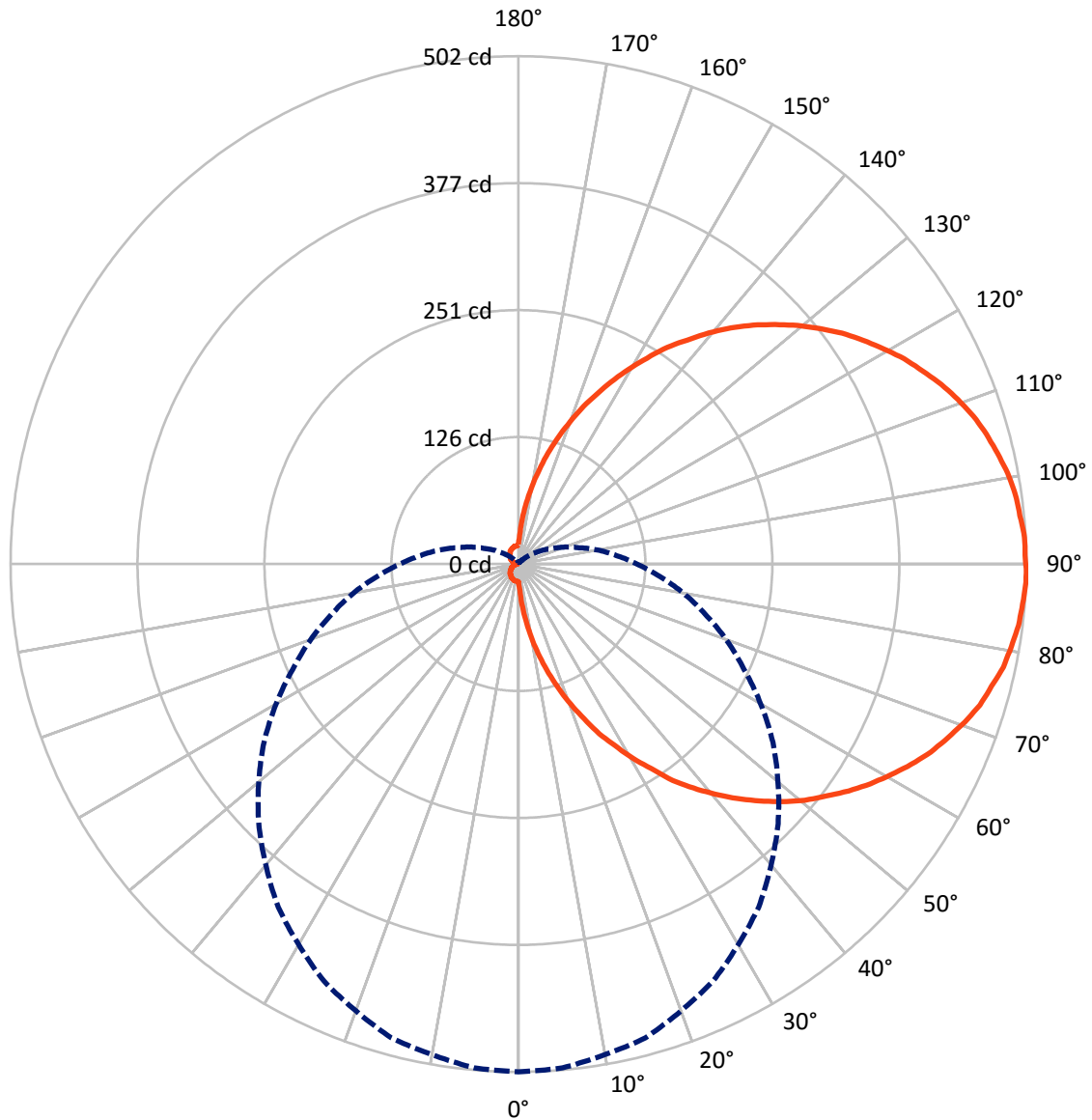
× Max cd  
 - - - 1/2 Max cd



Based on 6 foot mounting height. Maximum calculated value = 4 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 87.5-Deg Vertical

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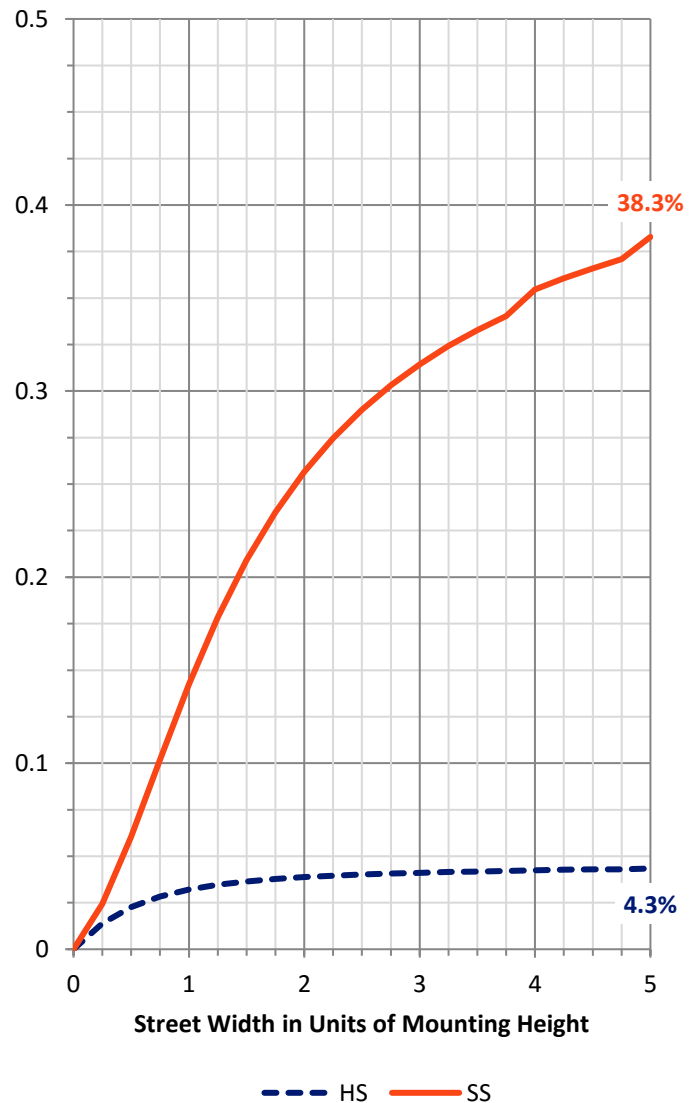
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	82.8	83.4	166.1
	% Fixture	4.5	4.6	9.1
<b>Street Side</b>	Lumens	829.3	824.8	1654.1
	% Fixture	45.6	45.3	90.9
<b>Total</b>	Lumens	912.1	908.2	1820.3
	% Fixture	50.1	49.9	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2.9	0.2
10°-20°	15.0	0.8
20°-30°	36.2	2.0
30°-40°	65.4	3.6
40°-50°	100.0	5.5
50°-60°	135.1	7.4
60°-70°	166.6	9.2
70°-80°	189.9	10.4
80°-90°	201.1	11.0
90°-100°	200.6	11.0
100°-110°	188.8	10.4
110°-120°	165.4	9.1
120°-130°	134.2	7.4
130°-140°	99.5	5.5
140°-150°	65.3	3.6
150°-160°	36.3	2.0
160°-170°	15.0	0.8
170°-180°	2.9	0.2
0°-90°	912.1	50.1
0°-180°	1820.3	100.0



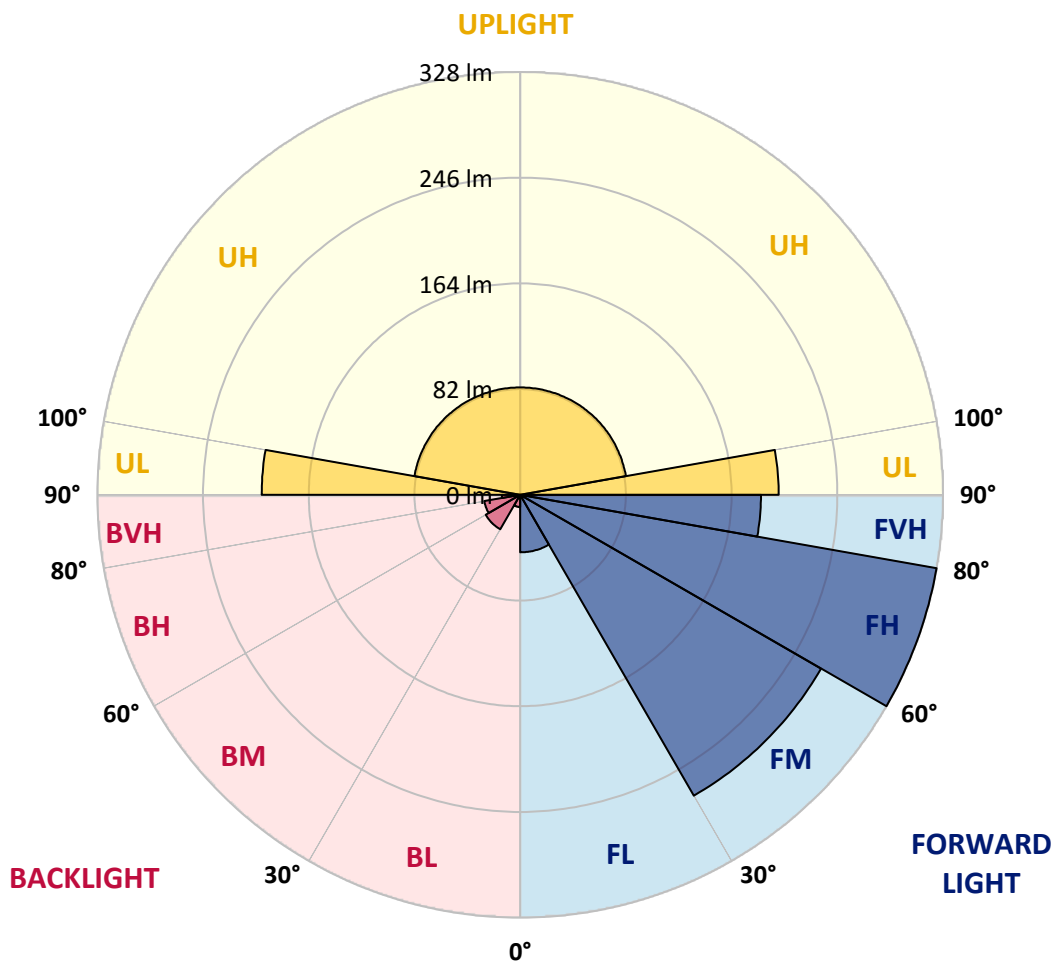
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	44.6	2.5			
FM	(30°-60°)	269.6	14.8			
FH	(60°-80°)	328.2	18.0			G0/660
FVH	(80°-90°)	186.9	10.3			G2/225
BL	(0°-30°)	9.5	0.5	B0/110		
BM	(30°-60°)	30.9	1.7	B0/220		
BH	(60°-80°)	28.2	1.6	B0/110		G0/110
BVH	(80°-90°)	14.2	0.8			G1/100
UL	(90°-100°)	200.6	11.0		U3/500	
UH	(100°-180°)	83.4	4.6		U3/500	

**BUG Rating: B0-U4-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	18	18	18	18	18	18	18	18	18	18	18
2.5°	26	24	24	24	22	22	22	21	20	20	19
5°	43	42	41	40	37	34	32	29	27	24	23
7.5°	59	59	57	55	51	47	42	38	33	29	27
10°	77	75	73	71	65	60	53	47	40	34	31
12.5°	94	93	90	86	80	72	63	55	46	38	35
15°	112	111	108	103	95	85	74	64	53	44	39
17.5°	130	129	125	119	110	98	85	72	60	48	43
20°	148	147	143	135	124	111	96	81	66	53	47
22.5°	166	165	161	151	139	124	107	90	73	58	51
25°	186	184	179	169	155	138	118	99	80	63	55
27.5°	203	203	197	185	169	150	130	108	87	68	59
30°	223	222	215	202	185	164	141	117	94	72	63
32.5°	241	240	233	218	200	177	152	126	100	77	67
35°	263	261	251	235	215	190	163	134	107	82	71
37.5°	281	280	271	252	230	203	174	143	114	87	75
40°	299	297	288	270	245	216	184	151	120	91	78
42.5°	317	316	306	287	262	229	195	160	126	96	82
45°	334	333	322	302	276	241	205	168	133	100	86
47.5°	351	349	339	318	289	253	215	176	139	104	89
50°	367	365	355	333	303	267	225	184	145	108	93
52.5°	381	381	369	346	315	278	234	191	150	112	96
55°	396	396	384	360	328	289	243	198	155	116	99
57.5°	410	408	397	372	339	298	251	204	160	119	101
60°	423	422	410	384	350	308	260	211	164	123	104
62.5°	436	434	421	395	360	317	268	217	169	126	106
65°	448	446	433	406	369	325	275	222	173	128	109
67.5°	458	456	443	415	378	332	281	227	177	131	111
70°	468	466	452	424	386	340	287	232	180	133	113
72.5°	477	475	460	432	393	345	292	236	183	135	114
75°	483	482	467	439	399	350	297	239	185	137	115
77.5°	490	488	473	444	404	355	300	241	187	138	116
80°	494	493	478	449	408	358	303	244	189	139	117
82.5°	498	496	481	451	411	361	305	245	190	140	117
85°	500	499	483	454	412	362	306	246	190	140	117
87.5°	502	500	485	455	414	363	307	246	191	140	117
89°	502	500	485	455	414	363	307	247	191	140	117
90°	501	499	484	455	413	363	307	247	191	140	118
92.5°	501	498	483	454	413	363	307	246	191	140	118
95°	498	497	482	452	412	361	306	246	191	140	118
97.5°	496	494	478	450	409	359	304	245	190	140	117
100°	492	490	475	446	406	357	302	243	189	139	117
102.5°	486	484	469	441	401	353	299	241	187	138	116
105°	480	478	464	436	396	348	295	238	185	137	115
107.5°	473	471	456	429	390	343	291	235	182	135	114



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	464	462	448	421	383	337	286	231	180	133	112
112.5°	454	452	439	412	375	330	280	226	176	131	111
115°	443	441	428	401	366	322	273	221	172	128	109
117.5°	432	431	417	392	357	314	267	216	168	125	106
120°	419	418	405	380	347	305	257	210	164	123	104
122.5°	406	405	393	368	336	296	250	204	159	119	101
125°	393	391	379	356	324	286	241	198	155	116	99
127.5°	378	377	365	343	313	276	233	191	149	112	96
130°	363	361	350	329	300	264	223	183	144	108	93
132.5°	347	346	336	316	287	251	215	176	138	105	89
135°	331	329	320	301	274	240	205	168	132	100	86
137.5°	314	313	303	285	260	227	194	160	126	96	83
140°	296	296	286	270	243	215	184	152	120	92	79
142.5°	277	277	268	250	229	203	173	143	113	87	75
145°	260	258	249	234	214	189	162	134	107	82	71
147.5°	240	239	232	218	199	177	152	126	101	78	68
150°	221	221	214	202	184	163	141	117	94	73	64
152.5°	202	202	195	184	169	150	129	108	87	68	60
155°	183	183	177	168	154	137	118	99	80	63	56
157.5°	165	165	160	152	139	123	107	90	74	58	52
160°	146	147	142	135	124	111	96	81	67	54	48
162.5°	128	128	124	118	109	97	85	72	60	49	44
165°	110	110	107	102	94	84	74	63	53	44	40
167.5°	92	92	90	86	79	72	64	55	47	39	36
170°	75	75	74	71	65	60	53	47	40	34	32
172.5°	58	59	57	55	51	47	43	38	34	30	28
175°	42	42	41	40	37	35	32	29	27	24	23
177.5°	25	25	25	25	24	23	23	22	21	20	20
180°	19	19	19	19	19	19	19	19	19	19	19





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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	18	18	18	18	18	18	18	18	18	18
2.5°	19	19	18	18	18	18	18	17	17	17
5°	22	20	19	18	18	18	17	17	17	17
7.5°	25	22	20	19	18	18	17	17	17	17
10°	29	25	22	19	18	17	17	17	17	17
12.5°	32	27	23	20	18	17	17	17	17	17
15°	35	29	24	20	18	17	17	17	17	17
17.5°	38	31	25	20	18	17	16	16	16	16
20°	41	32	25	21	18	16	16	16	16	16
22.5°	45	34	26	21	17	16	16	16	16	16
25°	48	36	27	21	17	16	15	15	15	15
27.5°	51	38	28	21	17	15	15	15	15	15
30°	54	40	29	22	17	15	15	15	15	15
32.5°	57	42	30	22	17	14	14	14	14	14
35°	61	43	31	22	16	14	14	14	13	13
37.5°	64	45	31	22	16	13	13	13	13	13
40°	67	47	32	22	16	13	13	13	13	13
42.5°	70	49	33	22	15	12	12	12	12	12
45°	73	50	33	22	15	12	12	11	12	12
47.5°	75	52	34	22	14	11	11	11	11	11
50°	78	53	35	22	14	11	10	10	10	10
52.5°	80	54	35	22	13	10	10	10	10	10
55°	83	56	36	22	13	9	9	9	9	9
57.5°	85	57	36	21	12	9	8	9	8	8
60°	87	58	36	21	12	8	8	8	8	8
62.5°	89	59	37	21	12	7	7	7	7	7
65°	90	60	37	21	11	7	7	7	7	7
67.5°	92	60	37	21	11	6	6	6	6	6
70°	93	61	37	21	10	6	6	6	6	6
72.5°	94	62	37	20	10	5	5	5	5	5
75°	95	62	37	20	9	4	4	4	4	4
77.5°	96	62	37	20	9	4	4	4	4	4
80°	96	62	37	19	8	3	3	3	3	3
82.5°	97	62	36	19	8	3	3	3	3	3
85°	97	62	36	18	7	2	2	2	2	2
87.5°	97	62	36	18	6	1	1	1	1	1
89°	97	62	36	18	6	1	1	1	1	1
90°	97	62	36	18	6	1	1	1	1	1
92.5°	97	62	36	18	6	2	1	1	1	1
95°	97	62	36	18	7	2	2	2	2	2
97.5°	97	62	36	19	8	3	3	3	3	3
100°	97	62	37	19	8	3	3	3	3	3
102.5°	96	62	37	19	9	4	4	4	4	4
105°	95	62	37	20	9	4	4	4	4	4
107.5°	94	62	37	20	10	5	5	5	5	5



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	93	61	37	21	10	6	6	6	6	6
112.5°	92	61	37	21	11	6	6	6	6	6
115°	90	60	37	21	11	7	7	7	7	7
117.5°	89	59	37	21	12	8	7	7	7	7
120°	87	58	37	22	12	8	8	8	8	8
122.5°	85	57	36	22	13	9	9	9	9	9
125°	83	56	36	22	13	9	9	9	9	9
127.5°	80	55	35	22	14	10	10	10	10	10
130°	78	53	35	22	14	11	10	11	10	10
132.5°	75	52	34	22	15	11	11	11	11	11
135°	73	50	34	22	15	12	12	12	12	12
137.5°	70	49	33	22	15	13	12	12	12	12
140°	67	47	32	22	16	13	13	13	13	13
142.5°	64	45	32	22	16	14	14	13	13	13
145°	61	44	31	22	17	14	14	14	14	14
147.5°	58	42	30	22	17	15	15	15	15	15
150°	55	40	30	22	17	15	15	15	15	15
152.5°	52	39	29	22	18	16	16	16	16	16
155°	49	37	28	22	18	16	16	16	16	16
157.5°	45	35	27	22	18	17	16	16	16	16
160°	42	33	26	21	18	17	17	17	17	17
162.5°	39	31	25	21	19	17	17	17	17	17
165°	36	29	24	21	19	18	17	17	17	17
167.5°	33	27	23	20	19	18	18	18	17	18
170°	29	25	22	20	19	18	18	18	18	18
172.5°	26	23	21	20	19	18	18	18	18	18
175°	22	21	20	19	18	18	18	18	18	18
177.5°	20	20	19	19	19	18	18	18	18	18
180°	19	19	19	19	19	19	19	19	19	19

(END OF REPORT)