

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: INVUE

Report Number: P411968

Luminaire Tested: **CPB-VA1-42-740-U-AD**

Issue Date: 9/23/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P411968  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2009-963-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CPB-VA1-42-740-U-AD  
Description: CLEARPATH BOLLARD LUMINAIRE  
4000K, 70 CRI LEDS WITH ASYMMETRIC DOUBLE SIDE LIGHTGUIDE  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 699.9 lumens  
Efficiency: N/A  
Efficacy: 30.8 lumens/watt  
Luminous Opening: (L: 0.33 ' x W: 0 ' x H: 1.79 '  
IES Classification: Type II - Short - Non-Cutoff  
BUG Rating: B0 - U3 - G1

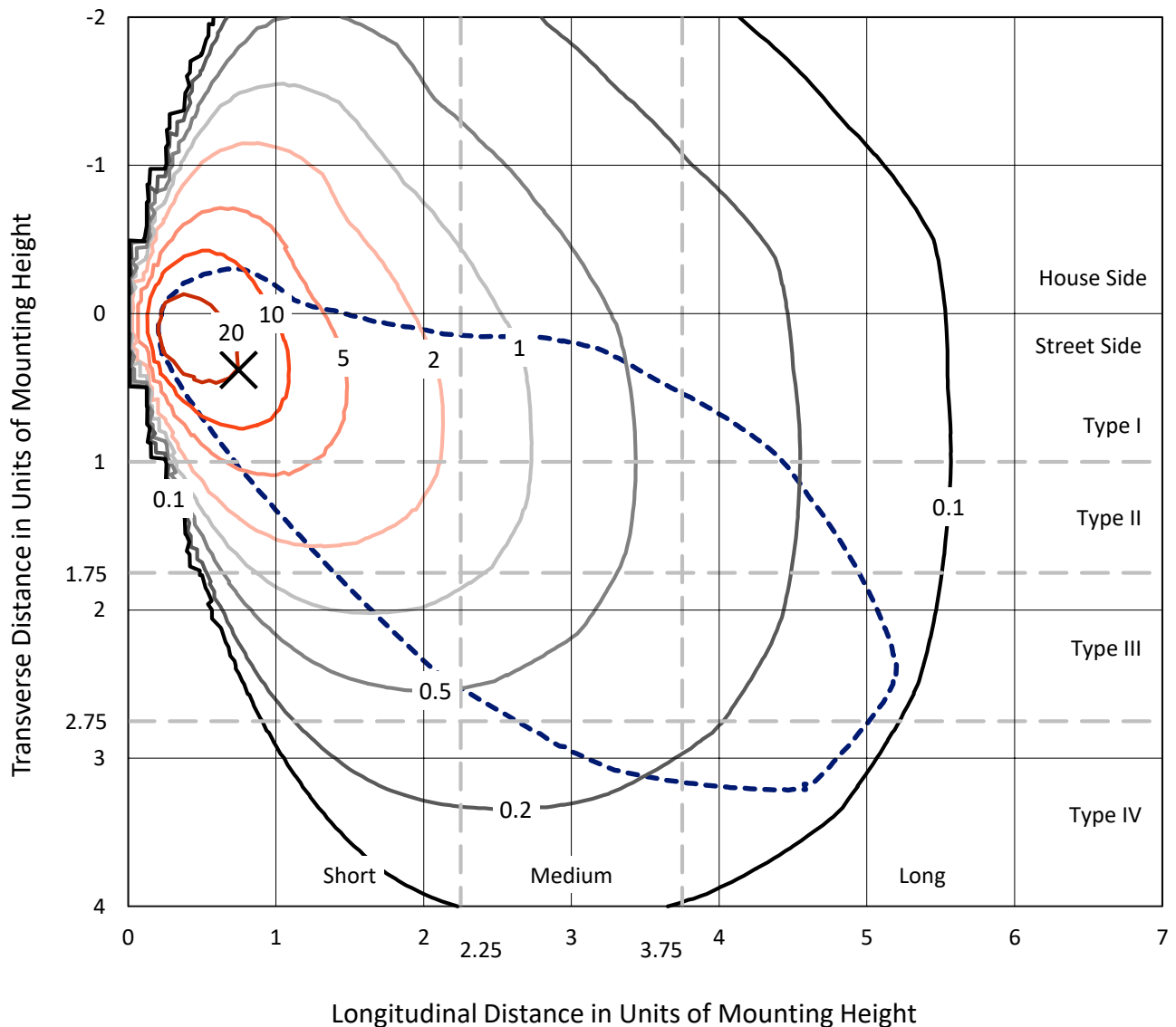
Input Watts (W): 22.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

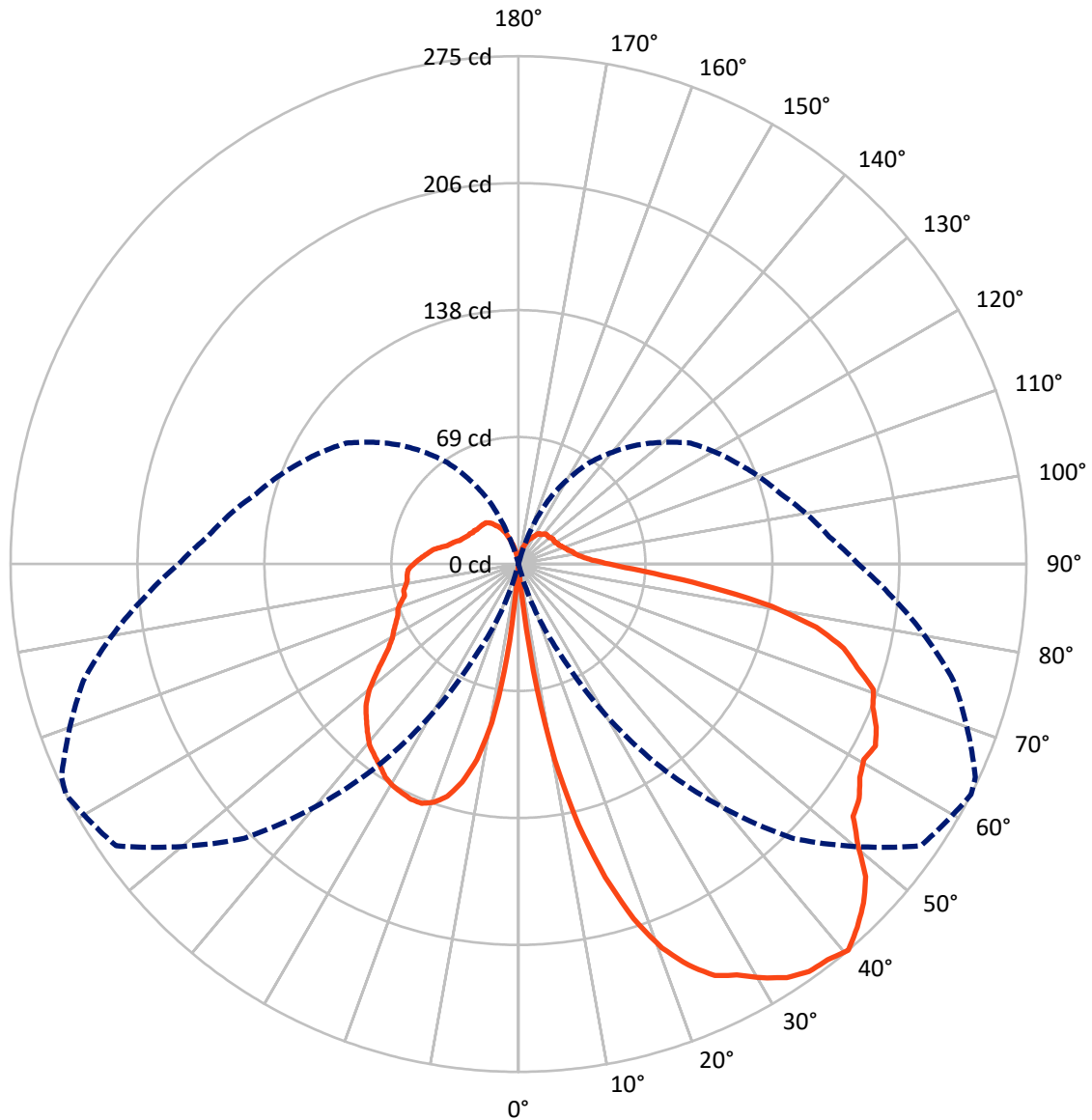
✕ Max cd  
 - - - 1/2 Max cd



Based on 2.5 foot mounting height. Maximum calculated value = 29.2 fc  
 Type II - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral      - - - Horizontal Cone Through 40-Deg Vertical

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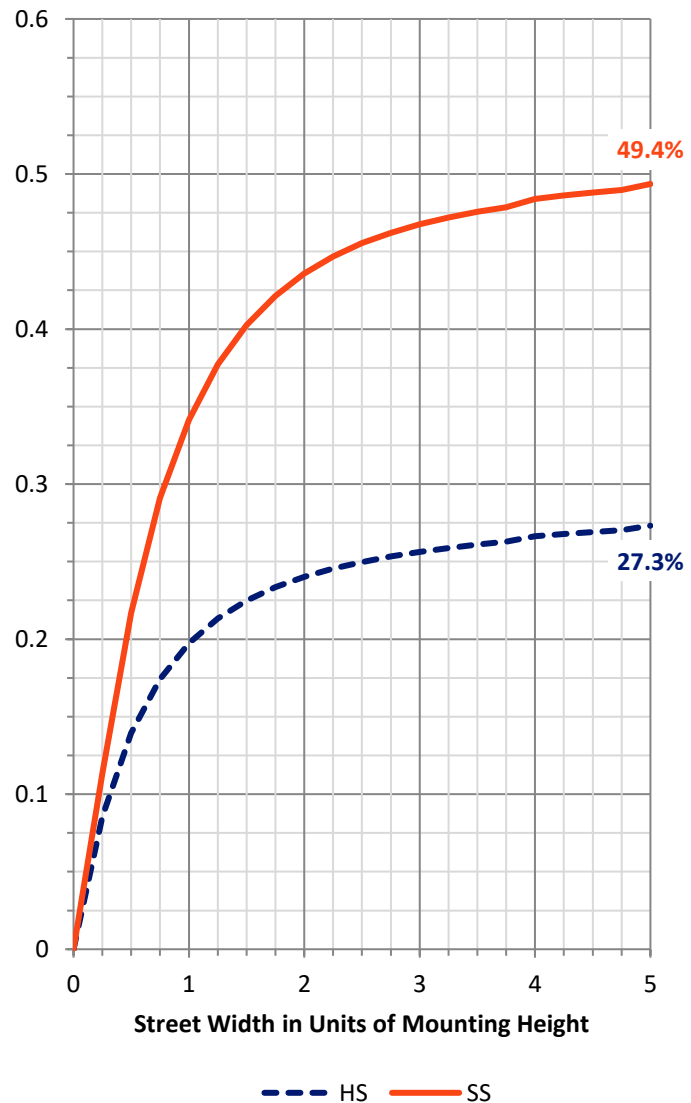
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	203.0	78.9	281.9
	% Fixture	29.0	11.3	40.3
<b>Street Side</b>	Lumens	356.7	61.3	418.0
	% Fixture	51.0	8.8	59.7
<b>Total</b>	Lumens	559.6	140.2	699.9
	% Fixture	80.0	20.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2.2	0.3
10°-20°	24.8	3.5
20°-30°	53.6	7.7
30°-40°	75.6	10.8
40°-50°	86.9	12.4
50°-60°	88.3	12.6
60°-70°	88.8	12.7
70°-80°	82.6	11.8
80°-90°	56.9	8.1
90°-100°	36.7	5.2
100°-110°	28.7	4.1
110°-120°	23.5	3.4
120°-130°	19.2	2.7
130°-140°	14.9	2.1
140°-150°	10.1	1.4
150°-160°	5.4	0.8
160°-170°	1.7	0.2
170°-180°	0.1	0.0
0°-90°	559.6	80.0
0°-180°	699.9	100.0



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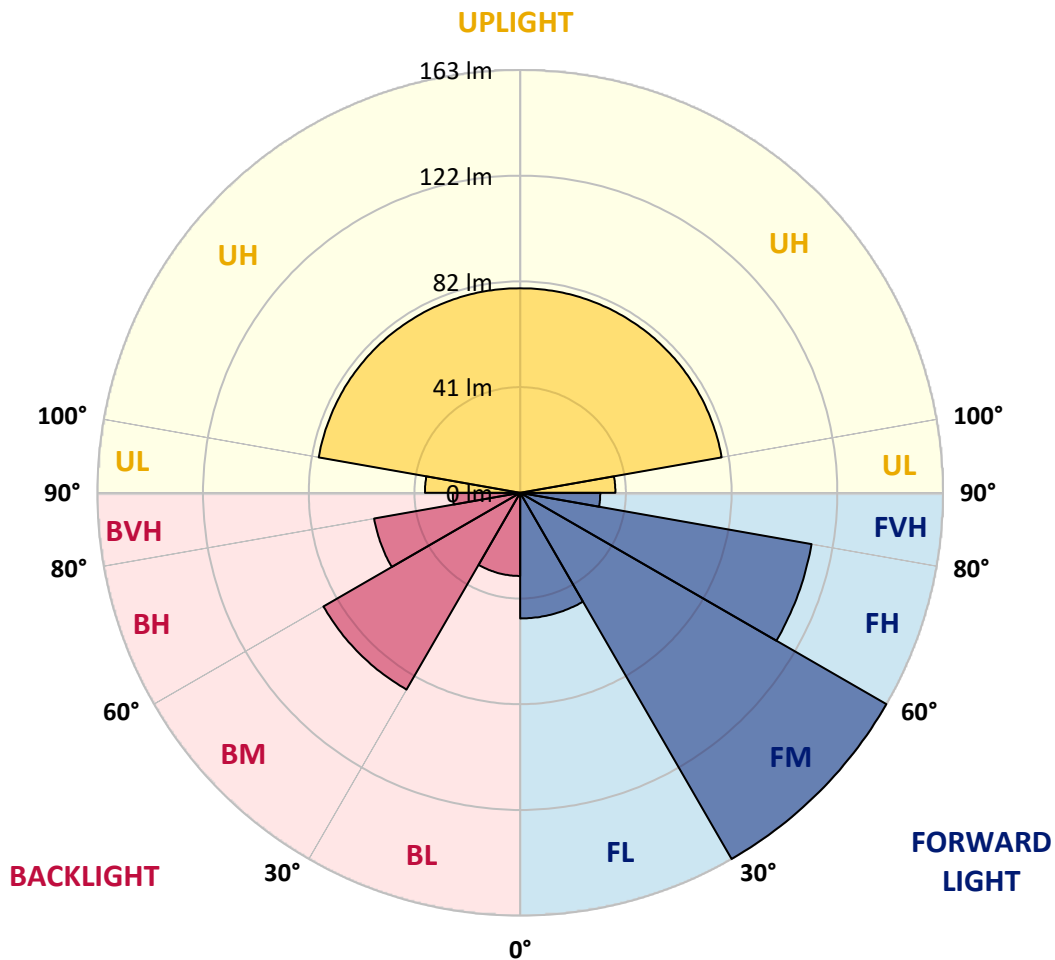
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	48.5	6.9			
FM (30°-60°)	163.1	23.3			
FH (60°-80°)	114.1	16.3			G0/660
FVH (80°-90°)	30.9	4.4			G1/100
BL (0°-30°)	32.1	4.6	B0/110		
BM (30°-60°)	87.7	12.5	B0/220		
BH (60°-80°)	57.2	8.2	B0/110		G0/110
BVH (80°-90°)	26.0	3.7			G1/100
UL (90°-100°)	36.7	5.2		U2/50	
UH (100°-180°)	78.9	11.3		U3/500	

**BUG Rating: B0-U3-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	0	0	0	0	0	0	0	0	0	0	0
2.5°	0	0	0	0	0	0	0	0	0	0	0
5°	0	0	0	0	0	0	1	2	2	1	1
7.5°	0	0	0	0	4	21	44	58	59	70	74
10°	0	0	0	2	27	61	93	108	109	117	117
12.5°	0	0	0	10	52	97	133	145	148	151	148
15°	0	0	0	18	73	125	164	176	178	180	172
17.5°	0	0	0	26	90	149	190	202	202	202	190
20°	0	0	0	32	102	167	212	222	222	218	203
22.5°	0	0	0	37	113	181	227	236	236	228	211
25°	0	0	1	42	121	192	237	247	247	234	215
27.5°	0	0	1	45	126	199	245	252	252	240	215
30°	0	0	1	48	129	202	253	260	260	245	217
32.5°	0	0	1	50	132	207	259	267	265	247	215
35°	0	0	1	52	133	211	261	271	270	245	212
37.5°	0	0	1	53	134	210	263	272	271	246	209
40°	0	0	1	54	134	210	261	269	266	237	193
42.5°	0	0	1	54	134	210	261	269	266	237	193
45°	0	0	1	55	134	207	255	262	258	229	186
47.5°	0	0	1	55	133	203	252	253	249	215	172
50°	0	0	1	55	132	205	244	238	232	203	164
52.5°	0	0	1	56	132	199	231	227	224	197	161
55°	0	0	1	56	128	195	224	224	222	195	157
57.5°	0	0	1	56	126	190	222	218	215	189	152
60°	0	0	1	57	124	183	216	215	211	188	147
62.5°	0	0	1	57	122	176	216	217	211	185	145
65°	0	0	1	56	119	174	212	213	208	178	141
67.5°	0	0	1	55	116	169	207	207	203	171	142
70°	0	0	1	54	111	166	202	204	201	168	144
72.5°	0	0	1	52	105	162	193	192	188	162	140
75°	0	0	1	51	96	145	181	182	180	155	130
77.5°	0	0	1	49	87	131	164	165	163	142	124
80°	0	0	1	47	78	109	136	139	139	124	112
82.5°	0	0	1	46	70	90	104	106	106	99	100
85°	0	0	1	44	63	74	80	78	78	73	80
87.5°	0	0	1	43	58	63	62	58	57	51	55
90°	0	0	1	41	53	55	51	47	45	40	39
92.5°	0	0	1	40	50	50	45	40	39	34	32
95°	0	0	1	38	48	47	41	36	35	29	27
97.5°	0	0	1	37	46	44	38	33	32	26	24
100°	0	0	1	36	44	42	36	31	30	25	22
102.5°	0	0	1	34	42	40	34	30	28	23	20
105°	0	0	1	33	41	39	33	28	27	22	19
107.5°	0	0	1	32	39	37	32	27	26	22	19
110°	0	0	1	30	37	36	30	26	25	21	18



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
112.5°	0	0	1	28	36	35	29	25	24	20	17
115°	0	0	1	27	35	34	29	24	23	19	17
117.5°	0	0	1	26	33	33	28	24	23	19	17
120°	0	0	1	25	32	31	27	23	23	19	17
122.5°	0	0	1	23	30	30	27	23	22	19	17
125°	0	0	1	22	29	29	26	23	22	19	17
127.5°	0	0	0	20	28	28	26	23	22	19	17
130°	0	0	1	19	26	27	25	22	22	19	18
132.5°	0	0	1	17	24	26	25	22	22	19	18
135°	0	0	1	16	22	25	24	22	22	19	19
137.5°	0	0	0	14	21	23	23	22	21	19	19
140°	0	0	0	13	19	21	22	21	21	19	19
142.5°	0	0	0	11	17	20	21	20	20	19	20
145°	0	0	0	10	16	18	20	20	20	19	20
147.5°	0	0	0	9	14	17	18	19	19	19	20
150°	0	0	0	7	12	15	17	17	18	18	19
152.5°	0	0	0	6	11	14	15	16	17	17	18
155°	0	0	0	5	9	12	14	15	15	16	17
157.5°	0	0	0	4	8	11	12	14	14	15	16
160°	0	0	0	3	6	9	11	12	12	13	14
162.5°	0	0	0	2	5	8	9	10	11	12	12
165°	0	0	0	1	4	6	7	9	9	10	10
167.5°	0	0	0	1	2	4	6	7	7	7	8
170°	1	0	0	0	1	2	4	4	5	5	5
172.5°	0	0	1	0	0	0	1	1	1	1	2
175°	1	0	0	0	0	0	0	0	0	0	0
177.5°	1	1	1	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°	0	0	0	0	0	0	0	0	0	0	0
2.5°	0	0	0	0	0	0	0	0	0	0	0
5°	2	2	3	3	1	0	0	0	0	0	0
7.5°	71	72	66	55	39	20	4	0	0	0	0
10°	114	113	102	91	72	46	20	2	0	0	0
12.5°	143	140	127	112	93	63	31	6	0	0	0
15°	165	159	144	126	106	75	41	11	0	0	0
17.5°	182	173	155	136	114	82	48	16	0	0	0
20°	193	183	162	141	120	88	54	20	1	0	0
22.5°	200	188	166	144	123	91	58	23	1	0	0
25°	203	190	166	144	124	93	61	27	1	0	1
27.5°	203	189	165	143	123	93	63	29	1	1	0
30°	203	189	163	142	122	93	64	32	1	1	0
32.5°	200	186	160	140	120	93	65	34	1	1	0
35°	195	181	156	136	118	93	66	35	1	1	1
37.5°	191	176	152	133	116	92	67	37	1	1	1
40°	184	169	147	130	114	91	67	38	1	1	1
42.5°	174	159	139	125	111	90	67	39	1	1	1
45°	165	150	131	120	107	88	67	40	1	1	1
47.5°	153	138	121	115	104	86	67	40	1	1	1
50°	146	130	109	108	101	84	66	41	2	1	1
52.5°	142	126	103	99	96	82	65	41	1	1	1
55°	139	123	100	90	92	80	64	42	2	1	1
57.5°	133	119	97	83	87	77	64	42	2	1	1
60°	130	116	95	79	81	74	62	42	2	1	1
62.5°	127	114	93	77	74	72	61	42	2	1	1
65°	126	110	90	75	67	69	60	42	2	1	1
67.5°	124	110	89	73	63	66	59	42	2	1	1
70°	126	110	88	72	61	64	57	42	2	1	1
72.5°	124	110	85	69	58	62	56	42	2	1	1
75°	127	110	83	66	56	60	55	42	1	1	1
77.5°	119	115	84	66	55	58	55	42	2	1	1
80°	110	107	82	64	54	56	54	41	2	1	1
82.5°	99	99	85	63	52	54	53	41	1	1	1
85°	89	91	82	63	51	52	53	41	1	1	1
87.5°	68	82	75	62	51	51	52	41	1	1	1
90°	46	64	69	59	50	50	51	40	1	1	1
92.5°	35	47	65	56	49	50	51	40	2	1	1
95°	28	37	56	53	47	49	50	39	1	1	1
97.5°	25	30	46	50	46	48	49	39	1	1	1
100°	22	27	40	47	46	48	49	38	1	1	1
102.5°	21	25	35	43	44	47	48	38	1	1	1
105°	19	23	32	39	43	47	48	37	1	1	1
107.5°	19	22	30	37	42	47	47	36	1	1	1
110°	18	21	29	35	41	46	46	35	1	1	1



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	18	20	28	33	39	45	45	34	1	1	1
115°	17	20	27	32	38	45	44	33	1	1	1
117.5°	17	20	26	31	37	44	43	33	1	1	1
120°	17	20	26	30	36	43	42	31	1	1	1
122.5°	17	20	25	30	35	42	41	30	1	1	1
125°	18	20	25	29	34	41	40	29	1	1	1
127.5°	18	20	25	29	34	40	39	27	1	1	1
130°	18	20	25	28	34	39	37	25	1	1	1
132.5°	19	21	25	28	33	37	35	24	1	1	0
135°	19	21	25	28	33	36	33	22	1	1	1
137.5°	20	21	25	28	32	34	31	20	1	1	0
140°	20	21	25	28	31	32	28	18	1	0	0
142.5°	20	22	24	28	30	30	26	16	1	0	0
145°	20	21	24	27	29	28	24	14	1	0	0
147.5°	20	21	24	26	27	26	21	12	1	1	0
150°	20	21	23	24	25	23	19	10	0	0	0
152.5°	19	20	21	23	23	21	16	9	1	0	0
155°	18	19	20	21	20	18	14	7	0	0	0
157.5°	16	17	18	19	18	15	11	5	0	0	0
160°	15	15	16	16	15	13	9	4	0	0	0
162.5°	13	13	13	13	12	10	7	3	0	0	0
165°	10	11	11	11	10	8	5	2	0	0	0
167.5°	8	8	8	8	7	5	3	1	0	0	0
170°	6	5	5	5	4	3	1	0	0	0	0
172.5°	2	1	1	1	1	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)