

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: SURE-LITES

Report Number: P11868

Luminaire Tested: **CEL7035SD**

Issue Date: 03/03/2020



**Test Information**

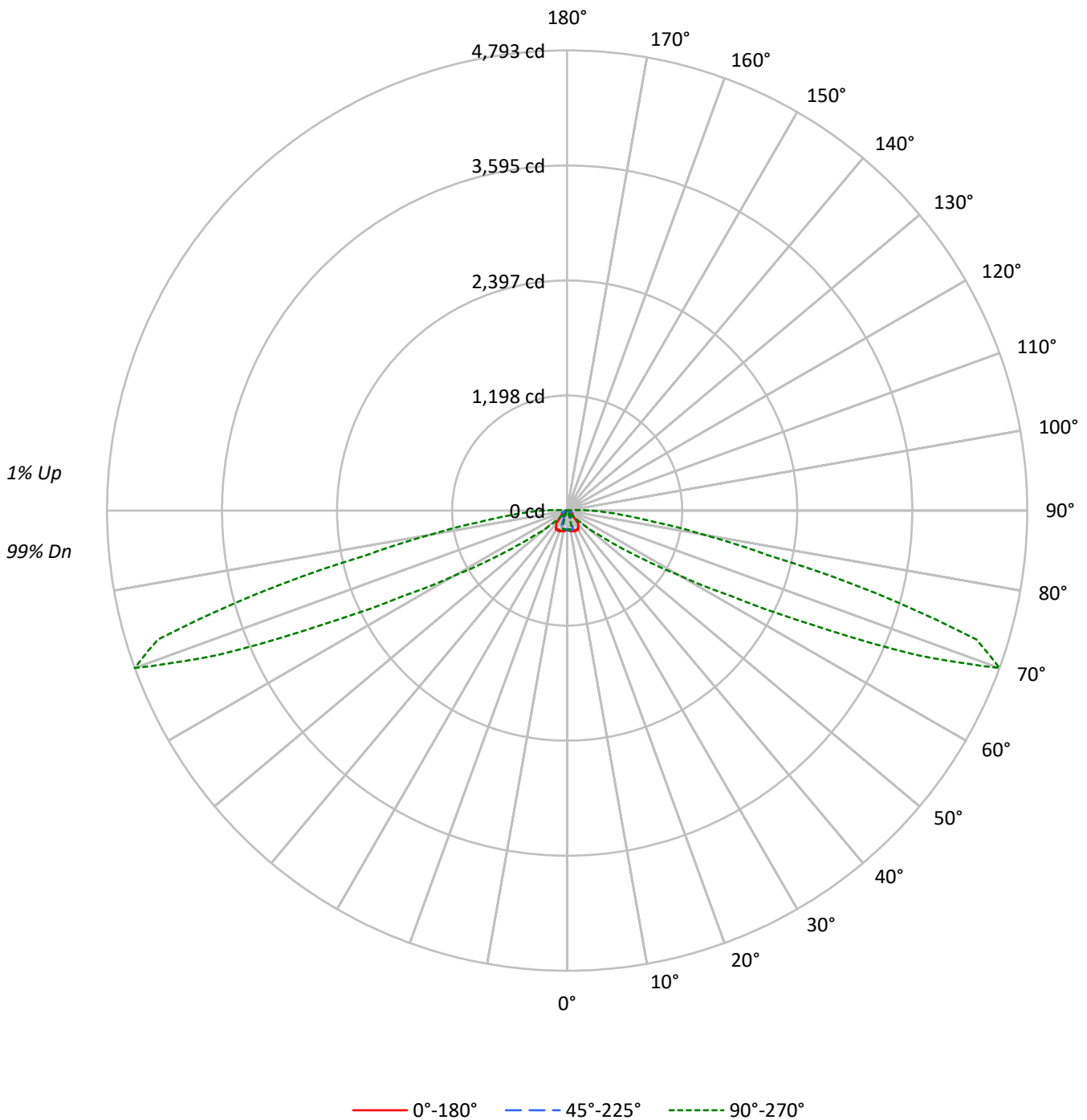
Test Method: LM-79-08  
Report Number: P11868  
Test Lab: PEACHTREE CITY  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: SURE-LITES  
Catalog Number: CEL7035SD  
Description: INCANDESCENT EMERGENCY FIXTURE, MIRROR INSIDE THE  
DOOR, DOOR EDGE(FULLY OPEN) AT 7-9/16 INCH FROM FIXTURE EDGE,  
Light Source: TWO BIPIN HALOGEN INCANDESCENT MR16 12 DEGREE SPOT LAMPS  
(2)75MR16/12° 75 WATTS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 1137 (2 lamps)  
Luminaire Lumens: 1376.6 lumens  
Efficiency: 60.5%  
Efficacy: 18.4 lumens/watt  
Spacing Criteria (0/90/45): 1.44 / 6.57 / 0.64  
Luminous Opening: Rectangular (W 0.52' x L: 0.44' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 75  
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

TEST NUMBER: P11868  
CATALOG NUMBER: CEL7035SD

### Luminous Intensity Polar Plot





TEST NUMBER: P11868  
 CATALOG NUMBER: CEL7035SD

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	72	72	72	72	70	70	70	70	67	67	67	64	64	64	61	61	61	60				
1	61	55	51	47	59	54	50	46	51	47	44	48	45	43	46	43	41	40				
2	52	44	37	32	50	42	36	31	40	35	30	37	33	29	35	32	28	27				
3	45	36	28	22	43	34	28	22	32	26	21	30	25	21	28	24	20	19				
4	40	30	23	17	38	29	22	17	27	21	16	25	20	16	24	19	15	14				
5	36	26	19	13	35	25	18	13	24	17	13	22	17	13	21	16	12	11				
6	33	23	16	11	32	22	16	11	21	15	11	20	14	10	18	14	10	9				
7	31	20	14	9	29	20	14	9	19	13	9	18	13	9	17	12	9	7				
8	28	19	12	8	27	18	12	8	17	12	8	16	11	8	15	11	8	6				
9	27	17	11	7	26	17	11	7	16	11	7	15	10	7	14	10	7	5				
10	25	16	10	6	24	15	10	6	15	10	6	14	9	6	13	9	6	5				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9826	9826	9826
5°	9768	9579	9768
10°	10457	9689	9593
15°	10955	9977	8314
20°	11663	8496	2564
25°	12092	3075	1512
30°	12655	3382	1855
35°	11418	2076	4440
40°	10730	4132	2158
45°	6814	2405	4008
50°	4703	2572	21753
55°	5765	2965	52462
60°	5480	3023	127921
65°	6707	4136	313306
70°	4696	5525	661987
75°	4015	3833	609416
80°	4353	5713	393361
85°	0	5962	334955



TEST NUMBER: P11868  
 CATALOG NUMBER: CEL7035SD

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	19.4	1.4	0.9	0°	208	208	208	208	208	
10°-20°	53.2	3.9	2.3	5°	206	206	202	201	206	20
20°-30°	51.8	3.8	2.3	15°	224	212	204	198	170	63
30°-40°	55.8	4.1	2.5	25°	232	211	59	35	29	104
40°-50°	67.6	4.9	3.0	35°	198	144	36	40	77	126
50°-60°	169.0	12.3	7.4	45°	102	133	36	38	60	84
60°-70°	409.5	29.7	18.0	55°	70	146	36	189	637	55
70°-80°	413.9	30.1	18.2	65°	60	65	37	286	2803	50
80°-90°	123.1	8.9	5.4	75°	22	7	21	236	3339	22
90°-100°	13.5	1.0	0.6	85°	0	0	11	86	618	4
100°-110°	0.0	0.0	0.0	90°	0	0	4	55	250	0
110°-120°	0.0	0.0	0.0	95°	0	0	19	3	35	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	124.4	9.0	5.5	165°	0	0	0	0	0	0
0°-40°	180.2	13.1	7.9	175°	0	0	0	0	0	0
0°-60°	416.7	30.3	18.3	180°	0	0	0	0	0	0
0°-90°	1363.2	99.0	59.9							
90°-120°	13.5	1.0	0.6							
90°-150°	13.5	1.0	0.6							
90°-180°	13.0	0.9	0.6							
0°-180°	1376.6	100.0	60.5							



TEST NUMBER: P11868  
 CATALOG NUMBER: CEL7035SD

**CANDELA DISTRIBUTION (FULL):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
0°	208	208	208	208	208	208	208	208	208	208	208
2.5°	194	194	193	193	192	192	191	191	190	190	190
5°	206	206	206	206	206	206	206	206	206	206	206
7.5°	214	212	211	209	207	206	204	202	201	199	200
10°	218	217	217	216	216	215	215	214	214	213	212
12.5°	214	214	214	214	214	213	213	213	213	213	212
15°	224	223	221	220	219	217	216	215	213	212	211
17.5°	218	218	217	217	217	216	216	216	215	215	213
20°	232	230	227	225	222	220	217	215	212	210	205
22.5°	218	217	217	216	216	215	215	214	214	213	201
25°	232	230	227	225	223	220	218	216	213	211	194
27.5°	216	213	209	206	202	199	195	192	188	185	168
30°	232	226	220	215	209	203	197	192	186	180	167
32.5°	220	213	206	199	192	186	179	172	165	158	145
35°	198	192	186	180	174	168	162	156	150	144	132
37.5°	188	181	174	167	160	154	147	140	133	126	116
40°	174	169	165	160	156	151	147	142	138	133	126
42.5°	138	138	139	139	139	140	140	140	141	141	130
45°	102	105	109	112	116	119	123	126	130	133	122
47.5°	80	87	93	100	107	113	120	127	133	140	128
50°	64	72	79	87	95	102	110	118	125	133	122
52.5°	60	67	73	80	87	93	100	107	113	120	112
55°	70	78	87	95	104	112	121	129	138	146	134
57.5°	56	63	69	76	82	89	95	102	108	115	106
60°	58	62	66	70	74	79	83	87	91	95	88
62.5°	62	64	67	69	72	74	76	79	81	84	80
65°	60	61	61	62	62	63	63	64	64	65	62
67.5°	34	35	37	38	39	40	42	43	44	46	43
70°	34	34	34	33	33	33	33	32	32	32	33
72.5°	21	20	20	19	18	17	17	16	15	15	18
75°	22	20	19	17	15	14	12	10	9	7	9
77.5°	16	15	14	13	12	10	9	8	7	6	7
80°	16	16	16	16	16	15	15	15	15	15	16
82.5°	8	8	9	9	10	10	11	11	12	12	13
85°	0	0	0	0	0	0	0	0	0	0	1
87.5°	0	0	1	1	2	2	3	3	4	4	5
90°	0	0	0	0	0	0	0	0	0	0	0
92.5°	0	0	0	0	0	0	0	0	0	0	0
95°	0	0	0	0	0	0	0	0	0	0	2
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°	0	0	0	0	0	0	0	0	0	0	0
107.5°	0	0	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P11868  
 CATALOG NUMBER: CEL7035SD

**CANDELA DISTRIBUTION (continued):**

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	25°
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



TEST NUMBER: P11868  
 CATALOG NUMBER: CEL7035SD

**CANDELA DISTRIBUTION (continued):**

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
0°	208	208	208	208	208	208	208	208	208	208	208
2.5°	190	190	190	189	189	189	189	189	189	190	190
5°	205	205	204	204	203	203	202	202	202	202	202
7.5°	201	202	203	203	204	205	206	207	207	206	206
10°	211	209	208	207	206	204	203	202	203	204	204
12.5°	211	210	209	207	206	205	204	203	203	203	203
15°	210	209	208	208	207	206	205	204	203	203	202
17.5°	211	209	207	204	202	200	198	196	190	184	178
20°	201	196	192	187	183	178	174	169	158	147	136
22.5°	190	178	167	155	144	132	121	109	101	94	86
25°	177	160	143	127	110	93	76	59	56	54	51
27.5°	151	134	117	101	84	67	50	33	33	34	34
30°	154	141	128	114	101	88	75	62	60	58	56
32.5°	133	120	108	95	83	70	58	45	45	45	46
35°	120	108	96	84	72	60	48	36	36	37	37
37.5°	106	96	86	77	67	57	47	37	39	41	43
40°	118	111	104	96	89	82	74	67	64	61	59
42.5°	119	108	97	86	75	64	53	42	41	41	40
45°	111	101	90	79	68	58	47	36	36	36	37
47.5°	116	105	93	81	69	58	46	34	37	39	42
50°	111	100	89	79	68	57	46	35	42	50	57
52.5°	104	96	88	81	73	65	57	49	60	71	83
55°	122	109	97	85	73	60	48	36	53	70	87
57.5°	97	87	78	69	60	50	41	32	53	73	94
60°	81	74	67	60	53	46	39	32	54	77	99
62.5°	76	73	69	66	62	59	55	52	76	100	124
65°	59	56	53	49	46	43	40	37	65	92	120
67.5°	41	39	37	35	33	31	29	27	56	86	116
70°	34	35	36	36	37	38	39	40	66	93	119
72.5°	22	26	30	34	38	42	46	50	74	99	123
75°	10	12	13	15	16	18	19	21	45	69	93
77.5°	8	10	11	12	13	15	16	17	39	60	82
80°	16	17	18	18	19	20	20	21	40	58	77
82.5°	15	16	17	19	20	21	23	24	36	48	60
85°	2	4	5	6	7	9	10	11	19	28	36
87.5°	6	6	7	8	9	9	10	11	16	21	25
90°	1	1	2	2	3	3	4	4	10	15	21
92.5°	0	0	0	0	0	0	0	0	1	2	4
95°	4	6	8	11	13	15	17	19	17	15	14
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°	0	0	0	0	0	0	0	0	0	0	0
107.5°	0	0	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0	0	0





TEST NUMBER: P11868  
 CATALOG NUMBER: CEL7035SD

**CANDELA DISTRIBUTION (continued):**

	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°	50°	52.5°
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



TEST NUMBER: P11868  
 CATALOG NUMBER: CEL7035SD

**CANDELA DISTRIBUTION (continued):**

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
0°	208	208	208	208	208	208	208	208	208	208	208
2.5°	191	191	192	192	193	193	196	199	200	197	193
5°	202	201	201	201	201	201	200	202	209	210	208
7.5°	206	205	205	205	204	204	203	197	196	193	194
10°	205	206	207	207	208	209	221	205	209	202	202
12.5°	203	203	203	203	203	203	203	210	199	199	201
15°	201	201	200	199	199	198	199	195	193	182	185
17.5°	172	166	160	154	148	142	129	120	115	115	115
20°	125	113	102	91	80	69	68	62	59	56	52
22.5°	79	71	64	56	49	41	52	41	37	35	33
25°	48	46	43	40	38	35	40	42	59	34	40
27.5°	34	35	35	35	36	36	36	30	34	34	39
30°	54	52	50	48	46	44	43	42	42	43	39
32.5°	46	46	46	47	47	47	52	43	43	43	40
35°	38	38	39	39	40	40	40	35	38	33	32
37.5°	45	47	49	51	53	55	37	37	59	34	38
40°	56	53	50	48	45	42	43	72	44	42	40
42.5°	40	39	39	38	38	37	35	37	44	42	43
45°	37	37	37	38	38	38	48	63	57	58	61
47.5°	45	47	50	53	55	58	67	83	105	123	134
50°	65	72	80	87	95	102	145	182	205	228	244
52.5°	94	105	116	128	139	150	168	210	252	303	334
55°	104	121	138	155	172	189	225	271	338	401	474
57.5°	114	135	155	176	196	217	265	345	447	552	649
60°	121	144	166	188	211	233	334	427	555	717	881
62.5°	148	172	196	220	244	269	373	497	673	879	1147
65°	148	175	203	231	258	286	409	564	770	1036	1360
67.5°	146	175	205	235	265	295	407	596	835	1112	1530
70°	146	172	199	225	252	278	397	592	849	1118	1604
72.5°	147	172	196	220	245	269	396	556	789	1063	1515
75°	117	140	164	188	212	236	345	504	698	901	1283
77.5°	103	125	146	168	189	211	300	428	598	744	993
80°	95	114	132	151	169	188	248	330	469	602	719
82.5°	72	83	95	107	119	131	199	283	378	460	548
85°	44	53	61	69	78	86	129	163	225	301	376
87.5°	30	35	40	44	49	54	73	98	146	189	238
90°	27	32	38	44	49	55	41	69	91	112	166
92.5°	5	6	7	9	10	11	16	25	34	45	60
95°	12	10	8	7	5	3	25	14	18	22	23
97.5°	0	0	0	0	0	0	0	0	0	5	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°	0	0	0	0	0	0	0	0	0	0	0
107.5°	0	0	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P11868  
 CATALOG NUMBER: CEL7035SD

**CANDELA DISTRIBUTION (continued):**

	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77.5°	80°
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



TEST NUMBER: P11868  
 CATALOG NUMBER: CEL7035SD

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
0°	208	208	208	208
2.5°	196	197	195	198
5°	209	201	208	206
7.5°	197	197	192	197
10°	202	213	206	200
12.5°	204	194	201	202
15°	185	177	169	170
17.5°	97	96	96	95
20°	57	51	49	51
22.5°	50	34	35	43
25°	33	44	32	29
27.5°	31	27	31	27
30°	42	34	35	34
32.5°	48	44	41	34
35°	35	46	29	77
37.5°	34	33	28	29
40°	43	41	48	35
42.5°	44	48	40	42
45°	64	59	65	60
47.5°	144	159	166	161
50°	264	286	296	296
52.5°	363	391	410	415
55°	534	586	631	637
57.5°	776	888	941	941
60°	1070	1238	1344	1354
62.5°	1411	1666	1872	1937
65°	1760	2231	2660	2803
67.5°	2122	2914	3701	3926
70°	2347	3414	4405	4793
72.5°	2216	3178	4134	4471
75°	1810	2432	3092	3339
77.5°	1351	1708	2024	2136
80°	923	1186	1364	1446
82.5°	659	754	860	921
85°	456	516	567	618
87.5°	291	338	382	409
90°	179	214	255	250
92.5°	86	96	105	119
95°	29	35	31	35
97.5°	0	0	0	2
100°	0	0	0	0
102.5°	0	0	0	0
105°	0	0	0	0
107.5°	0	0	0	0
110°	0	0	0	0



TEST NUMBER: P11868  
CATALOG NUMBER: CEL7035SD

**CANDELA DISTRIBUTION (continued):**

	82.5°	85°	87.5°	90°
112.5°	0	0	0	0
115°	0	0	0	0
117.5°	0	0	0	0
120°	0	0	0	0
122.5°	0	0	0	0
125°	0	0	0	0
127.5°	0	0	0	0
130°	0	0	0	0
132.5°	0	0	0	0
135°	0	0	0	0
137.5°	0	0	0	0
140°	0	0	0	0
142.5°	0	0	0	0
145°	0	0	0	0
147.5°	0	0	0	0
150°	0	0	0	0
152.5°	0	0	0	0
155°	0	0	0	0
157.5°	0	0	0	0
160°	0	0	0	0
162.5°	0	0	0	0
165°	0	0	0	0
167.5°	0	0	0	0
170°	0	0	0	0
172.5°	0	0	0	0
175°	0	0	0	0
177.5°	0	0	0	0
180°	0	0	0	0

(END OF REPORT)