

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: LUMARK

Report Number: P23023

Luminaire Tested: **XTOR9ARL**

Test Date: 11/29/12

Test Information

Test Method: LM-79-08
Report Number: P23023
Test Lab: INNOVATION CENTER P2
Test Date: 11/29/12
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: XTOR9ARL
Description: LUMARK CROSSTOUR MAXX LED 85W - 5000K, REFRACTIVE LENS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7415.9 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.71' x L: 0.33' x H: 0.17')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U3 - G3

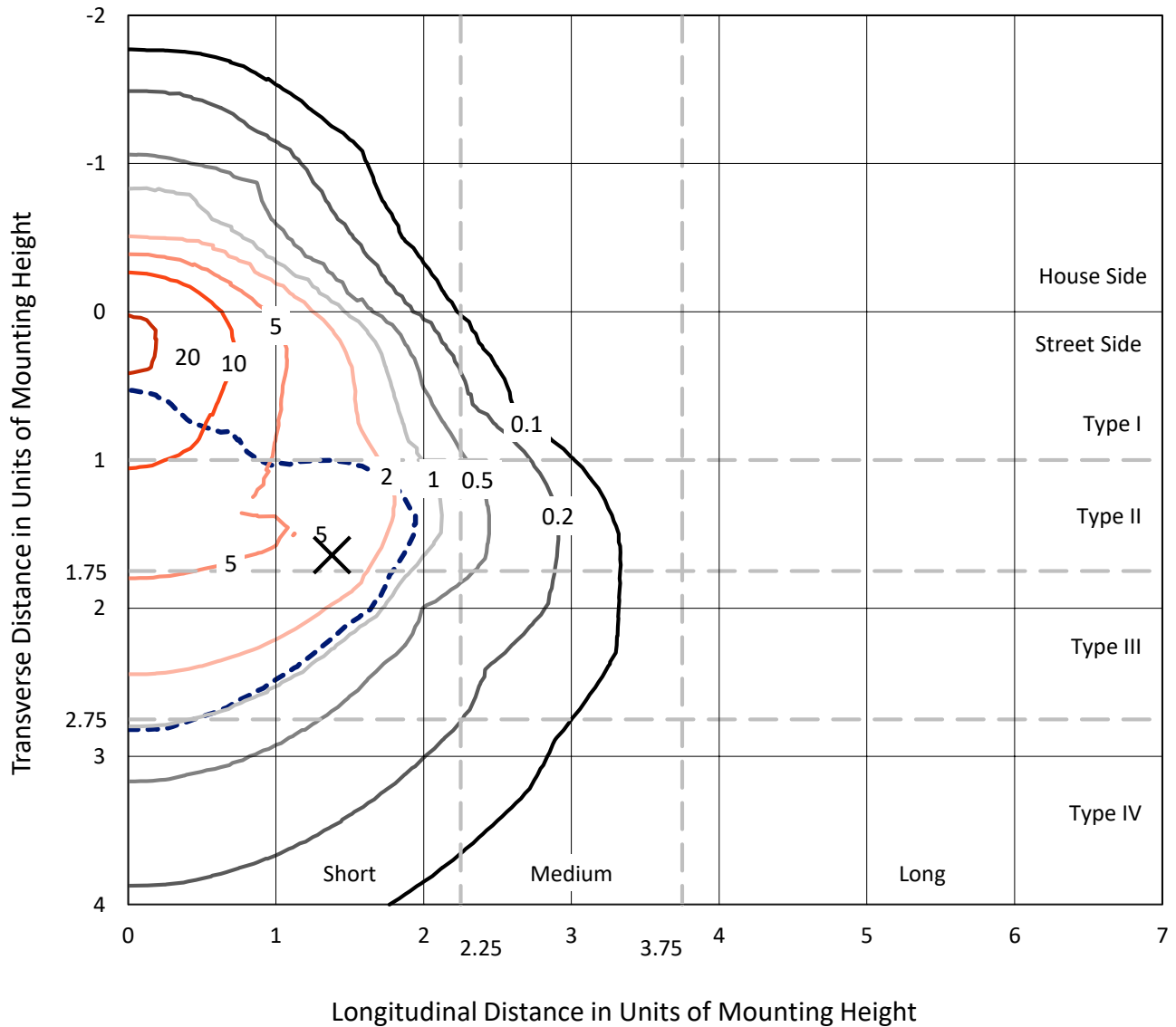
Input Watts (W): 84.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P23023
 CATALOG NUMBER: XTOR9ARL

Iso-Footcandle Lines of Horizontal Illumination

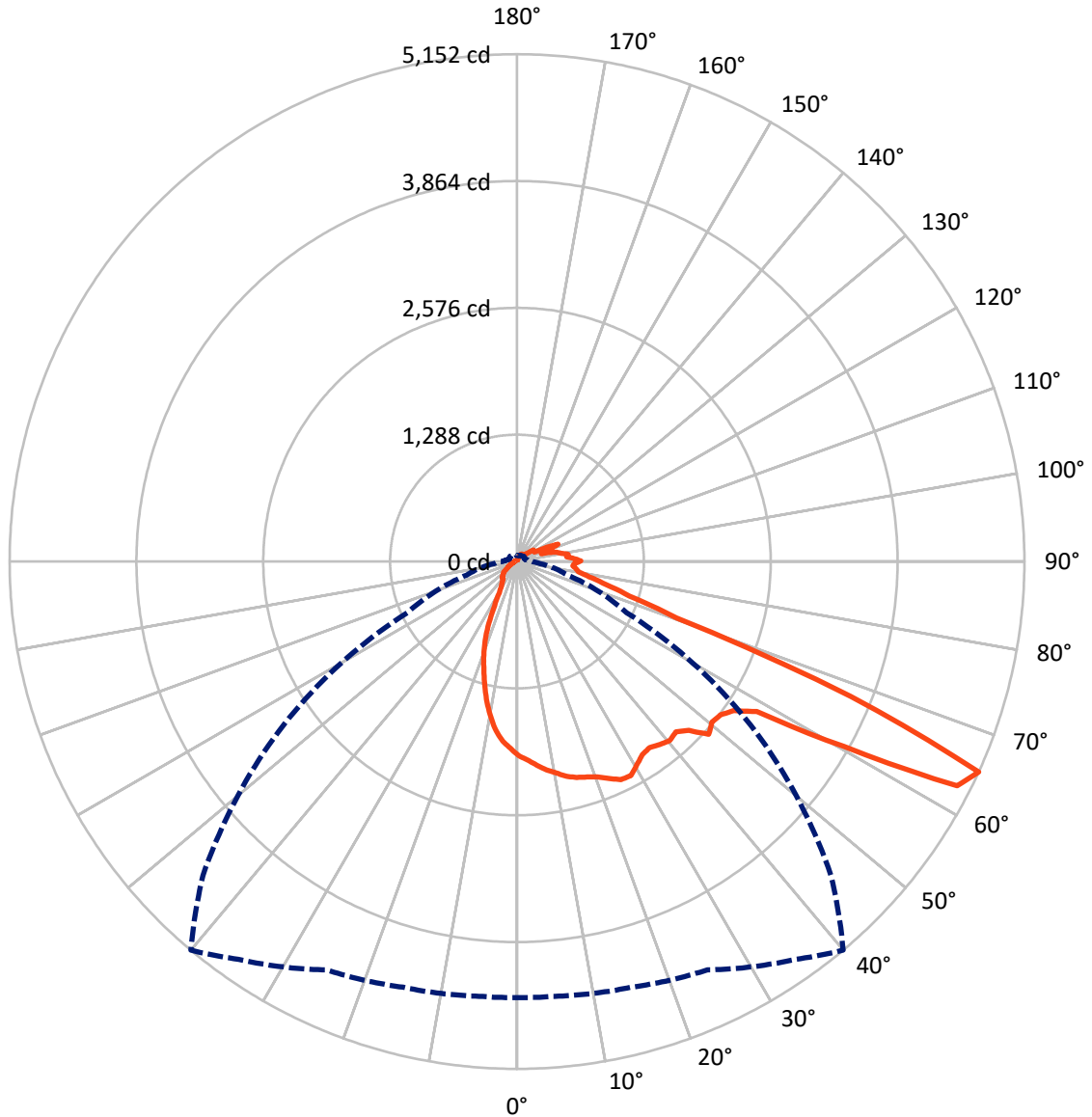
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.3 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P23023
CATALOG NUMBER: XTOR9ARL

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P23023
 CATALOG NUMBER: XTOR9ARL

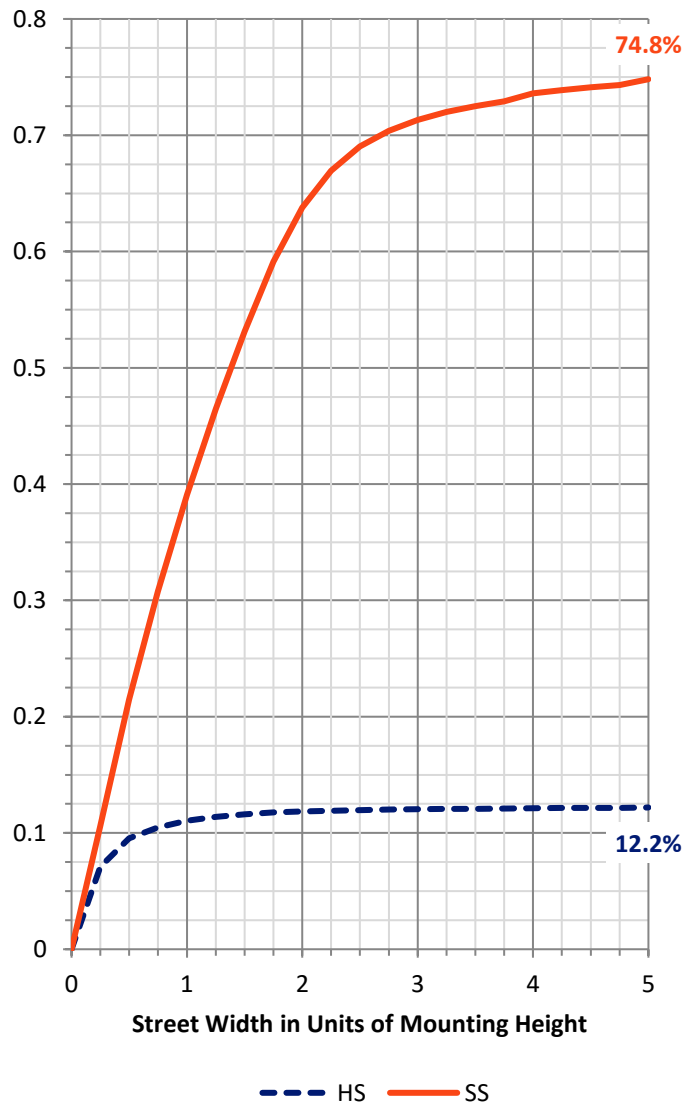
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	920.9	51.3	972.2
	% Fixture	12.4	0.7	13.1
Street Side	Lumens	5760.8	682.9	6443.7
	% Fixture	77.7	9.2	86.9
Total	Lumens	6681.7	734.2	7415.9
	% Fixture	90.1	9.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.6	2.5
10°-20°	514.2	6.9
20°-30°	732.5	9.9
30°-40°	882.0	11.9
40°-50°	1021.4	13.8
50°-60°	1173.5	15.8
60°-70°	1402.1	18.9
70°-80°	479.1	6.5
80°-90°	291.3	3.9
90°-100°	259.4	3.5
100°-110°	189.3	2.6
110°-120°	143.3	1.9
120°-130°	62.3	0.8
130°-140°	37.7	0.5
140°-150°	25.7	0.3
150°-160°	15.5	0.2
160°-170°	1.1	0.0
170°-180°	0.0	0.0
0°-90°	6681.7	90.1
0°-180°	7415.9	100.0



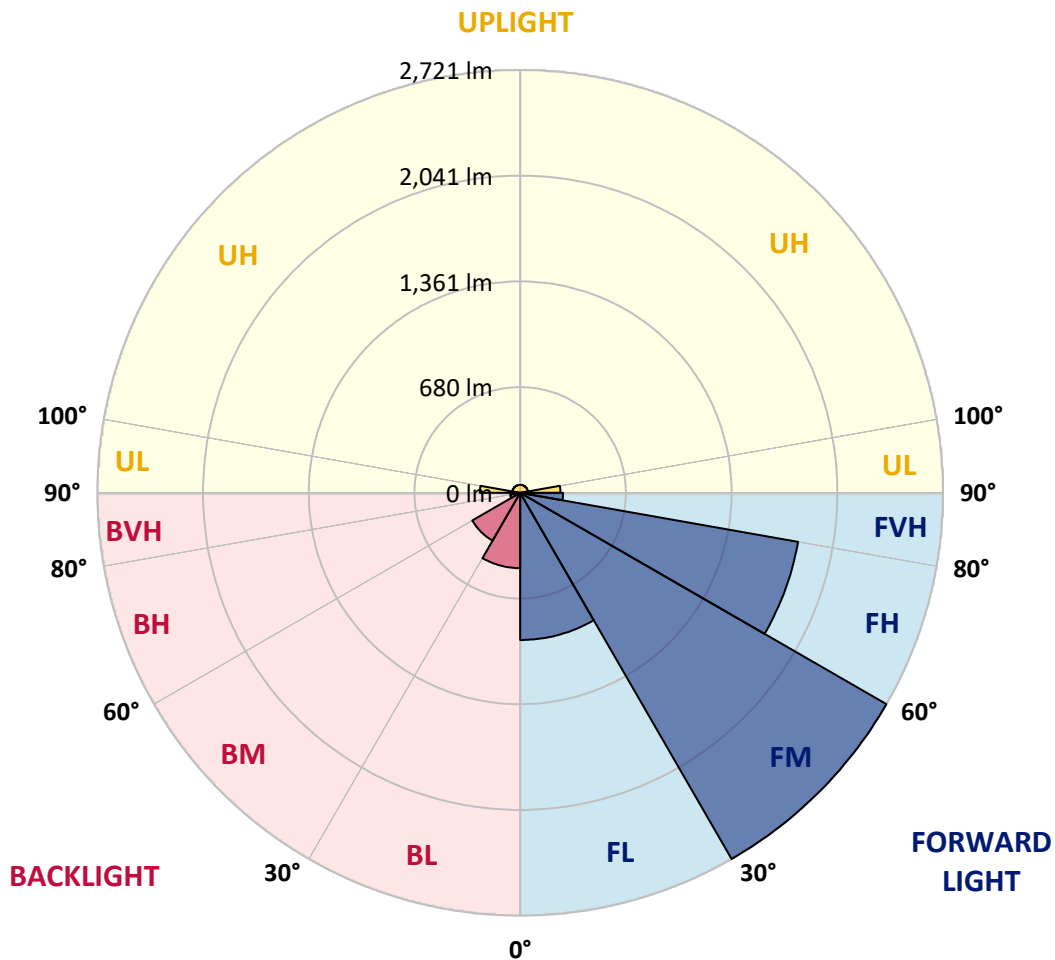
REPORT NUMBER: P23023
 CATALOG NUMBER: XTOR9ARL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	947.2	12.8			
FM (30°-60°)	2721.5	36.7			
FH (60°-80°)	1816.2	24.5			G2/5000
FVH (80°-90°)	275.9	3.7			G3/500
BL (0°-30°)	485.1	6.5	B1/500		
BM (30°-60°)	355.4	4.8	B1/1000		
BH (60°-80°)	65.0	0.9	B0/110		G0/110
BVH (80°-90°)	15.4	0.2			G1/100
UL (90°-100°)	259.4	3.5		U3/500	
UH (100°-180°)	51.3	0.7		U3/500	

BUG Rating: B1-U3-G3

Type III Short





REPORT NUMBER: P23023
 CATALOG NUMBER: XTOR9ARL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	1971	1971	1971	1971	1971	1971	1971	1971	1971	1971	1971
2.5°	2025	2026	2035	2030	2018	2016	2017	2018	2011	2002	1991
5°	2100	2102	2109	2101	2081	2076	2073	2064	2048	2028	2004
7.5°	2187	2181	2184	2174	2145	2135	2125	2098	2073	2044	2007
10°	2250	2247	2246	2233	2199	2183	2168	2129	2089	2050	2000
12.5°	2291	2293	2287	2281	2255	2238	2217	2166	2115	2059	1999
15°	2356	2359	2340	2323	2290	2275	2257	2206	2141	2071	1997
17.5°	2456	2459	2426	2385	2326	2300	2271	2223	2157	2077	1986
20°	2552	2553	2521	2466	2383	2335	2288	2218	2158	2071	1963
22.5°	2562	2558	2558	2530	2448	2392	2325	2212	2151	2058	1936
25°	2519	2516	2513	2508	2503	2453	2376	2221	2134	2050	1910
27.5°	2525	2526	2497	2461	2463	2462	2424	2242	2118	2036	1879
30°	2598	2604	2547	2460	2402	2397	2398	2271	2100	2017	1840
32.5°	2685	2686	2642	2524	2380	2337	2323	2294	2091	1991	1794
35°	2684	2683	2653	2588	2412	2319	2259	2267	2087	1958	1740
37.5°	2741	2735	2674	2572	2470	2357	2235	2185	2084	1915	1680
40°	2922	2908	2798	2619	2452	2390	2273	2092	2076	1872	1612
42.5°	3047	3037	3003	2831	2474	2365	2298	2028	2040	1824	1536
45°	3008	3001	2944	2829	2705	2445	2286	2017	1954	1765	1451
47.5°	3069	3062	2985	2868	2687	2620	2537	2075	1834	1707	1357
50°	3298	3294	3250	3134	2763	2564	2382	2072	1710	1646	1235
52.5°	3298	3286	3199	3021	2734	2587	2411	2011	1638	1579	1099
55°	3355	3348	3255	3066	2835	2669	2495	2106	1653	1487	945
57.5°	3728	3725	3595	3348	3011	2872	2785	2246	1638	1318	782
60°	4260	4270	4267	4237	4077	3814	3642	2487	1511	1064	588
62.5°	4493	4514	4610	4848	5066	5015	4624	2821	1360	784	388
65°	4428	4431	4475	4575	4931	5152	4509	2894	1227	527	234
67.5°	3806	3832	3742	3690	3495	3654	3027	2509	1106	333	158
70°	2732	2746	2516	2163	1702	1719	1431	1833	1014	227	130
72.5°	1796	1796	1642	1438	1276	1193	967	1135	778	169	108
75°	1336	1335	1244	1109	979	936	819	774	529	140	93
77.5°	1067	1066	969	849	775	748	667	633	304	119	84
80°	921	914	849	746	683	634	562	498	228	103	75
82.5°	964	952	899	792	704	605	479	410	195	92	67
85°	976	969	900	785	681	569	418	365	178	83	59
87.5°	983	960	886	790	702	583	397	349	168	76	52
90°	1033	1029	988	931	867	648	403	371	159	73	46
92.5°	1073	1075	1039	950	839	579	391	385	149	74	44
95°	853	868	832	743	630	505	445	359	139	73	42
97.5°	617	617	577	509	596	525	426	299	133	71	41
100°	542	543	529	551	656	457	353	270	127	68	39
102.5°	522	534	600	760	661	415	292	243	119	66	39
105°	587	595	650	663	494	346	253	225	115	62	37
107.5°	629	629	600	493	357	261	223	218	112	61	37
110°	742	726	644	556	453	346	228	204	111	60	37



REPORT NUMBER: P23023
 CATALOG NUMBER: XTOR9ARL

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
112.5°	794	796	751	640	552	451	260	190	109	56	36
115°	588	602	571	501	402	334	207	169	102	52	34
117.5°	255	258	251	233	231	208	184	156	93	47	31
120°	203	205	200	194	194	200	185	133	81	42	28
122.5°	150	152	166	174	195	206	183	108	71	38	26
125°	154	156	165	183	207	200	154	104	77	36	26
127.5°	168	169	180	195	181	150	123	96	66	36	25
130°	183	183	181	171	129	117	112	87	60	35	25
132.5°	158	157	149	124	107	102	97	78	57	35	25
135°	116	117	109	98	94	93	88	75	53	34	25
137.5°	93	93	92	88	90	87	83	86	52	36	26
140°	85	86	87	81	85	82	81	83	59	38	28
142.5°	81	80	78	79	83	86	90	75	58	40	30
145°	80	79	78	79	92	93	82	73	56	40	30
147.5°	86	85	85	91	89	85	83	71	53	41	30
150°	100	98	95	89	88	86	80	68	45	39	30
152.5°	90	89	86	84	82	77	72	54	37	37	30
155°	80	80	76	71	66	61	55	44	34	36	30
157.5°	68	67	66	59	51	48	43	38	34	34	29
160°	55	54	50	44	40	38	34	31	33	31	27
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



REPORT NUMBER: P23023
 CATALOG NUMBER: XTOR9ARL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1971	1971	1971	1971	1971	1971	1971	1971	1971	1971	1971
2.5°	1984	1978	1963	1941	1925	1899	1897	1885	1863	1862	1857
5°	1989	1975	1944	1908	1878	1838	1821	1801	1771	1765	1762
7.5°	1986	1963	1917	1862	1812	1754	1714	1681	1636	1624	1625
10°	1971	1942	1878	1799	1724	1640	1571	1520	1462	1445	1448
12.5°	1963	1924	1838	1731	1625	1511	1413	1342	1276	1254	1258
15°	1950	1903	1792	1651	1510	1363	1243	1172	1116	1098	1098
17.5°	1931	1872	1729	1554	1370	1209	1092	1027	973	945	941
20°	1899	1826	1648	1431	1218	1063	954	872	777	719	707
22.5°	1861	1772	1554	1295	1080	932	797	648	526	471	461
25°	1821	1713	1452	1156	957	788	586	425	342	311	307
27.5°	1775	1645	1336	1028	821	612	391	304	282	274	273
30°	1718	1565	1208	903	669	426	305	273	264	260	259
32.5°	1652	1475	1074	771	493	326	277	255	249	241	240
35°	1575	1373	941	634	374	288	254	234	236	267	281
37.5°	1490	1261	816	493	306	260	226	234	282	272	260
40°	1396	1142	669	377	277	233	214	261	216	200	199
42.5°	1293	1014	520	292	244	207	230	214	189	180	175
45°	1178	875	389	243	215	196	235	179	166	162	160
47.5°	1051	733	292	212	187	190	188	161	153	151	151
50°	906	586	233	182	163	209	159	150	142	141	137
52.5°	751	440	206	159	147	187	139	136	143	134	130
55°	590	316	178	136	131	145	121	127	118	119	118
57.5°	430	226	149	119	118	116	107	114	118	112	111
60°	291	173	123	105	110	103	95	101	95	87	87
62.5°	197	144	101	91	102	85	87	79	77	71	71
65°	152	121	85	79	88	77	73	68	66	62	61
67.5°	127	100	72	69	73	66	64	61	58	54	54
70°	105	83	62	59	62	57	54	52	50	48	48
72.5°	87	71	55	50	53	50	47	47	45	43	43
75°	73	62	48	43	47	44	42	41	39	37	38
77.5°	64	53	42	38	42	39	37	36	32	29	29
80°	58	47	38	35	38	35	34	30	27	25	25
82.5°	52	42	34	32	35	32	31	27	22	20	21
85°	46	39	31	30	33	30	28	23	18	16	16
87.5°	41	36	29	28	32	28	26	20	15	12	12
90°	37	33	27	27	32	26	25	17	12	10	10
92.5°	36	31	26	27	31	26	24	16	11	9	9
95°	34	30	26	27	30	26	24	16	11	10	10
97.5°	33	29	26	26	29	27	24	16	12	10	10
100°	32	29	25	26	28	26	23	16	12	10	10
102.5°	31	28	25	25	26	25	22	17	12	10	10
105°	31	27	25	25	25	23	21	16	13	9	9
107.5°	30	27	25	24	24	21	20	16	12	9	9
110°	29	26	25	23	23	20	18	14	11	9	9



REPORT NUMBER: P23023
 CATALOG NUMBER: XTOR9ARL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	28	25	24	23	23	19	18	14	10	9	9
115°	27	24	23	22	22	18	17	13	10	9	9
117.5°	26	23	23	22	22	17	16	12	10	9	9
120°	25	23	22	22	21	17	15	11	9	8	8
122.5°	24	22	21	22	21	16	14	11	9	8	8
125°	24	22	21	22	20	15	14	10	9	8	8
127.5°	23	21	21	21	20	14	13	10	8	8	8
130°	23	22	21	21	19	14	12	9	8	7	7
132.5°	23	22	20	20	19	14	12	9	8	7	7
135°	24	22	20	19	18	13	12	9	7	7	7
137.5°	24	22	20	19	17	13	11	9	7	7	7
140°	26	23	19	18	17	12	11	8	7	7	7
142.5°	28	24	19	18	16	11	10	8	7	6	6
145°	28	24	19	17	16	11	10	7	7	6	6
147.5°	27	24	18	16	15	10	9	7	6	6	6
150°	26	24	17	16	14	10	9	7	6	6	6
152.5°	24	23	17	15	14	9	8	7	6	6	6
155°	24	22	16	15	13	9	8	6	6	6	5
157.5°	24	20	16	14	13	8	8	6	6	6	5
160°	24	20	16	13	12	8	7	6	5	5	5
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)