

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: P226227

Luminaire Tested: **MLA-B3-LED-XX-T4-XX**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226227  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29663)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MLA-B3-LED-XX-T4-XX  
Description: METROLINE ARCHITECTURAL LED LUMINAIRE  
70 CRI, 4000K LEDS AND TYPE IV DISTRIBUTION  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12039.1 lumens  
Efficiency: N/A  
Efficacy: 128.5 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.75' x H: 0.17')  
IES Classification: Type IV - Short - Cutoff  
BUG Rating: B2 - U2 - G2

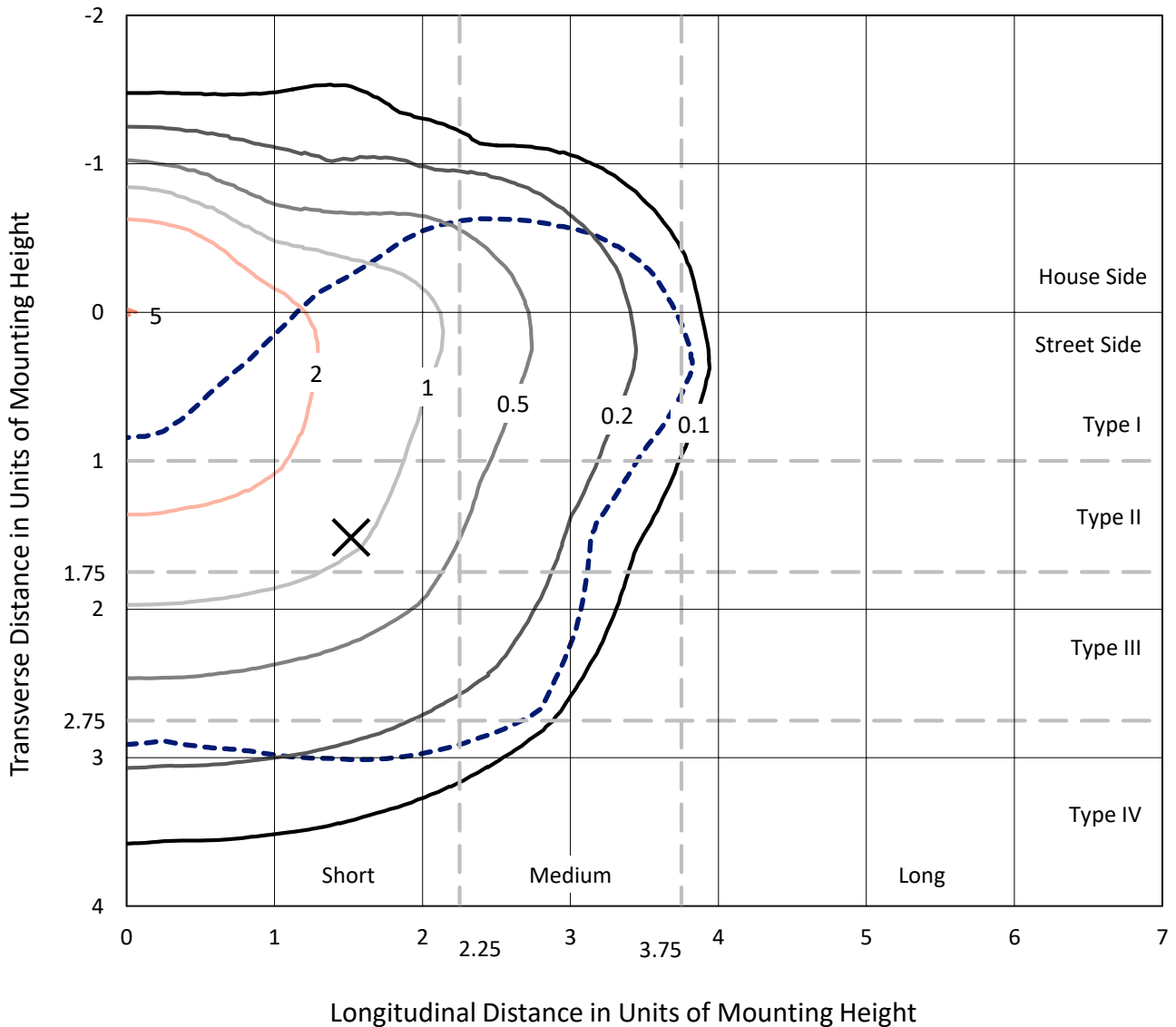
Input Watts (W): 93.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

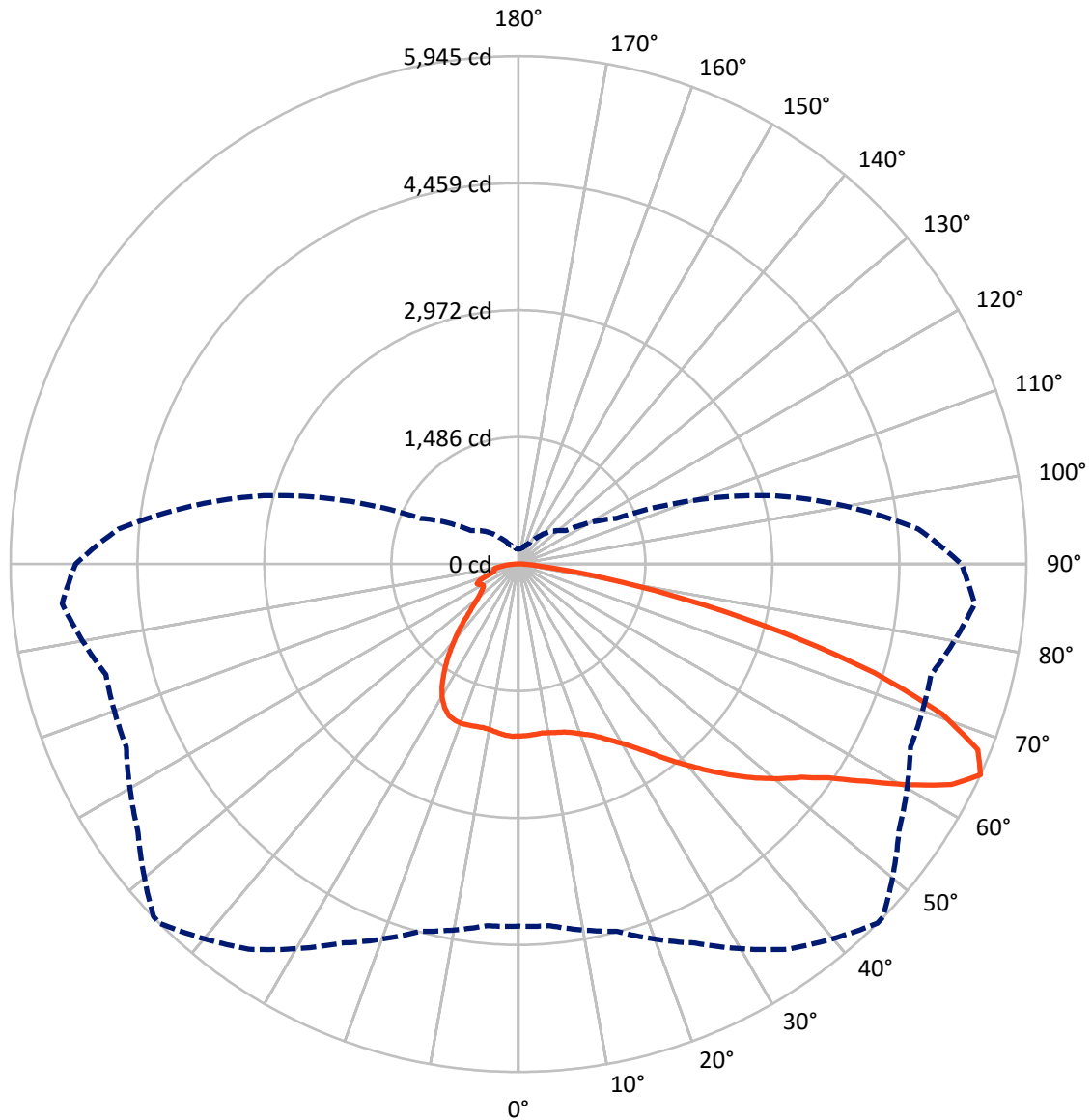
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5 fc  
 Type IV - Short - Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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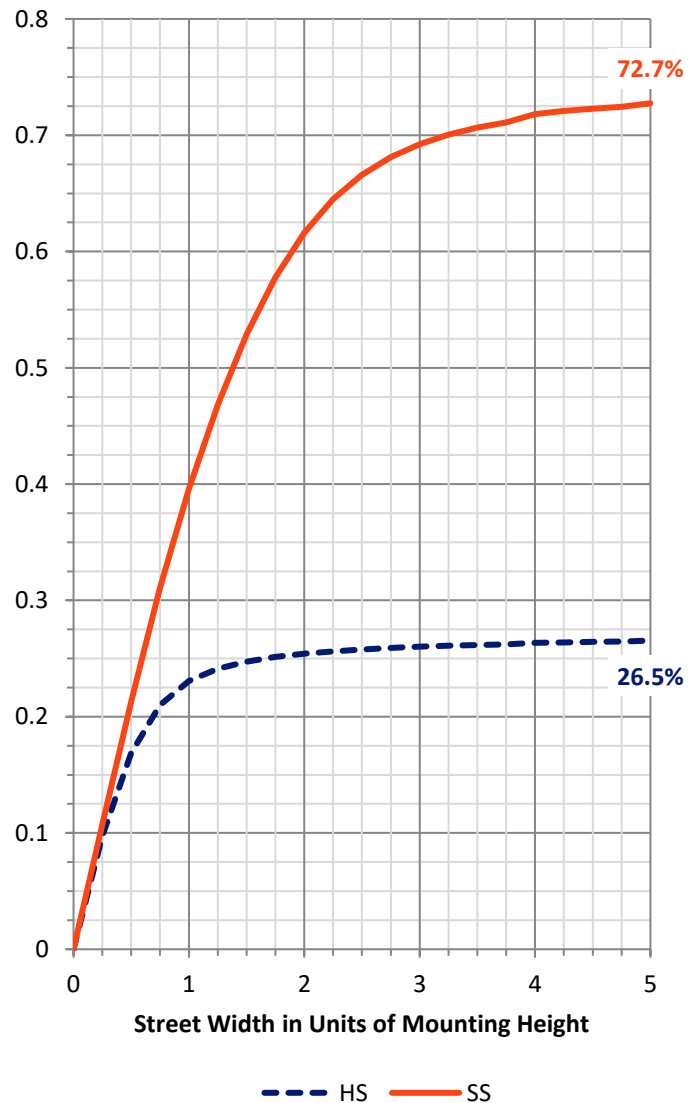
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3240.0	4.9	3244.9
	% Fixture	26.9	0.0	27.0
<b>Street Side</b>	Lumens	8788.4	5.8	8794.2
	% Fixture	73.0	0.0	73.0
<b>Total</b>	Lumens	12028.3	10.8	12039.1
	% Fixture	99.9	0.1	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	190.6	1.6
10°-20°	564.1	4.7
20°-30°	940.8	7.8
30°-40°	1329.1	11.0
40°-50°	1727.9	14.4
50°-60°	2323.3	19.3
60°-70°	3019.6	25.1
70°-80°	1716.1	14.3
80°-90°	216.7	1.8
90°-100°	10.5	0.1
100°-110°	0.2	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	12028.3	99.9
0°-180°	12039.1	100.0



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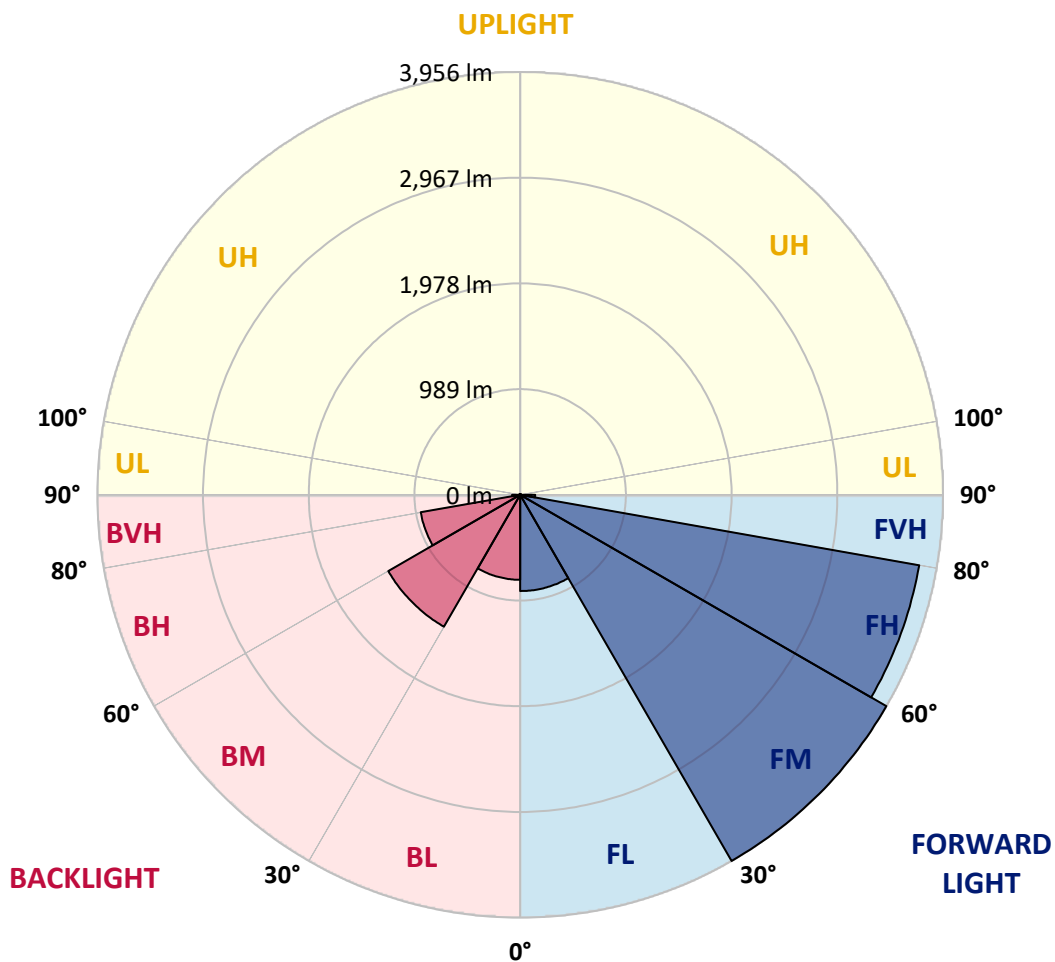
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	900.4	7.5			
FM	(30°-60°)	3955.7	32.9			
FH	(60°-80°)	3791.1	31.5			G2/5000
FVH	(80°-90°)	141.2	1.2			G2/225
BL	(0°-30°)	795.1	6.6	B2/1000		
BM	(30°-60°)	1424.6	11.8	B2/2500		
BH	(60°-80°)	944.7	7.8	B2/1000		G2/1000
BVH	(80°-90°)	75.5	0.6			G1/100
UL	(90°-100°)	10.5	0.1		U2/50	
UH	(100°-180°)	4.9	0.0		U1/10	

**BUG Rating: B2-U2-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2013	2013	2013	2013	2013	2013	2013	2013	2013	2013	2013
2.5°	2023	2019	2005	2001	1997	2010	2017	2015	2017	2008	2003
5°	1994	1992	1978	1981	1981	2003	2008	2012	2020	2018	2021
7.5°	1977	1973	1962	1965	1971	1998	2003	2014	2027	2033	2034
10°	1978	1973	1962	1967	1972	2008	2011	2028	2041	2043	2040
12.5°	1998	1994	1980	1984	1988	2023	2028	2043	2057	2055	2046
15°	2035	2031	2013	2015	2014	2041	2052	2056	2072	2062	2040
17.5°	2090	2089	2069	2068	2059	2076	2082	2072	2080	2058	2024
20°	2157	2156	2133	2125	2115	2122	2125	2097	2083	2049	2005
22.5°	2230	2227	2205	2194	2178	2175	2177	2125	2091	2047	1998
25°	2325	2322	2291	2279	2254	2249	2252	2185	2133	2075	2016
27.5°	2407	2406	2387	2369	2347	2341	2344	2274	2208	2142	2073
30°	2513	2505	2474	2461	2454	2448	2445	2391	2320	2241	2164
32.5°	2612	2606	2577	2571	2575	2576	2571	2521	2450	2360	2267
35°	2732	2725	2694	2699	2722	2737	2739	2681	2593	2478	2362
37.5°	2839	2836	2826	2849	2892	2922	2913	2871	2750	2598	2440
40°	2953	2952	2951	3006	3084	3110	3106	3067	2917	2741	2549
42.5°	3073	3074	3079	3167	3278	3315	3309	3260	3093	2919	2690
45°	3207	3218	3227	3332	3473	3527	3521	3456	3265	3105	2844
47.5°	3351	3366	3373	3496	3661	3742	3728	3645	3424	3283	3005
50°	3534	3547	3551	3675	3855	3948	3937	3834	3583	3462	3213
52.5°	3738	3759	3766	3892	4058	4147	4139	4029	3766	3655	3464
55°	3979	4009	4028	4166	4327	4414	4401	4264	4018	3885	3765
57.5°	4226	4235	4305	4490	4692	4798	4772	4558	4323	4159	4112
60°	4306	4308	4434	4709	5050	5247	5217	4902	4720	4506	4540
62.5°	4339	4351	4527	4911	5393	5690	5672	5247	5011	4851	5018
65°	4239	4250	4451	4896	5505	5945	5937	5439	5065	5001	5361
67.5°	3842	3904	4141	4619	5281	5798	5798	5315	4857	4956	5413
70°	3280	3247	3523	4019	4715	5262	5278	4869	4380	4546	5035
72.5°	2511	2497	2759	3197	3793	4357	4385	4058	3559	3754	4343
75°	1897	1867	2060	2369	2760	3167	3205	2922	2493	2770	3249
77.5°	1118	1150	1305	1528	1867	2011	2043	1797	1430	1636	1652
80°	502	504	654	795	980	1051	1028	911	686	741	439
82.5°	172	198	310	371	445	420	410	396	372	404	201
85°	55	85	164	196	210	182	179	196	254	302	135
87.5°	10	33	94	111	113	85	82	103	160	191	77
90°	0	19	49	54	50	36	34	43	70	72	25
92.5°	0	7	22	23	17	10	9	9	10	7	6
95°	0	1	7	5	4	3	3	3	3	3	3
97.5°	0	0	2	2	2	2	2	2	2	3	3
100°	0	1	2	2	2	2	2	2	2	3	3
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



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
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





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2013	2013	2013	2013	2013	2013	2013	2013	2013	2013	2013
2.5°	2005	2004	2007	2016	2016	2017	1999	1998	2003	2023	2023
5°	2025	2023	2017	2016	2014	2008	1989	1983	1987	2004	2004
7.5°	2035	2029	2018	2007	1998	1989	1964	1957	1961	1978	1977
10°	2037	2026	2008	1990	1978	1968	1934	1928	1931	1949	1950
12.5°	2035	2019	1994	1978	1968	1959	1919	1903	1895	1911	1910
15°	2024	2006	1983	1979	1976	1964	1909	1872	1851	1861	1860
17.5°	2006	1991	1977	1992	1999	1975	1897	1837	1806	1808	1804
20°	1986	1968	1970	2006	2019	1981	1881	1796	1753	1745	1739
22.5°	1971	1953	1969	2022	2030	1976	1850	1742	1683	1671	1670
25°	1980	1962	1990	2035	2029	1953	1801	1686	1611	1596	1594
27.5°	2021	1996	2024	2043	2007	1895	1736	1611	1532	1511	1509
30°	2091	2048	2050	2032	1954	1811	1648	1512	1433	1407	1411
32.5°	2173	2107	2060	1983	1856	1689	1522	1386	1320	1298	1299
35°	2251	2167	2056	1905	1725	1534	1371	1258	1194	1176	1180
37.5°	2326	2228	2036	1794	1564	1372	1217	1106	1051	1033	1035
40°	2428	2307	2007	1668	1399	1195	1049	947	903	887	892
42.5°	2555	2405	1980	1544	1246	1031	882	798	757	745	749
45°	2688	2519	1959	1430	1105	860	745	666	623	610	612
47.5°	2843	2645	1973	1348	977	731	627	548	502	485	486
50°	3033	2821	2026	1304	846	635	535	451	398	376	370
52.5°	3286	3029	2110	1295	749	566	455	371	318	294	291
55°	3569	3259	2217	1292	684	518	395	309	260	236	233
57.5°	3889	3530	2339	1273	650	487	356	272	231	208	204
60°	4324	3898	2560	1272	646	482	344	263	219	193	190
62.5°	4844	4365	2883	1290	676	511	361	261	211	185	182
65°	5185	4697	3088	1262	680	537	377	252	202	178	175
67.5°	5197	4692	2990	1096	585	492	358	238	193	171	169
70°	4813	4328	2644	848	469	392	309	217	181	161	159
72.5°	4106	3676	2165	636	375	319	270	202	168	149	148
75°	2934	2621	1574	498	325	292	249	200	159	140	137
77.5°	1305	1113	874	438	312	292	239	195	150	124	121
80°	336	352	451	413	303	281	223	178	138	105	102
82.5°	188	191	280	326	253	216	190	146	118	88	84
85°	131	125	168	180	146	147	137	108	90	63	56
87.5°	71	75	89	78	71	71	90	75	65	36	25
90°	21	28	45	39	35	30	46	43	40	19	0
92.5°	6	5	8	9	10	10	17	19	20	6	0
95°	3	2	2	1	3	4	6	7	8	2	0
97.5°	3	3	2	2	1	1	2	2	2	0	0
100°	3	3	2	2	2	1	1	1	1	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



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
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

(END OF REPORT)