

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: P139450

Luminaire Tested: **ENT-E02-LED-E1-BL2**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P139450
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33644)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-E02-LED-E1-BL2
Description: ENTRI LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5476.2 lumens
Efficiency: N/A
Efficacy: 116.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

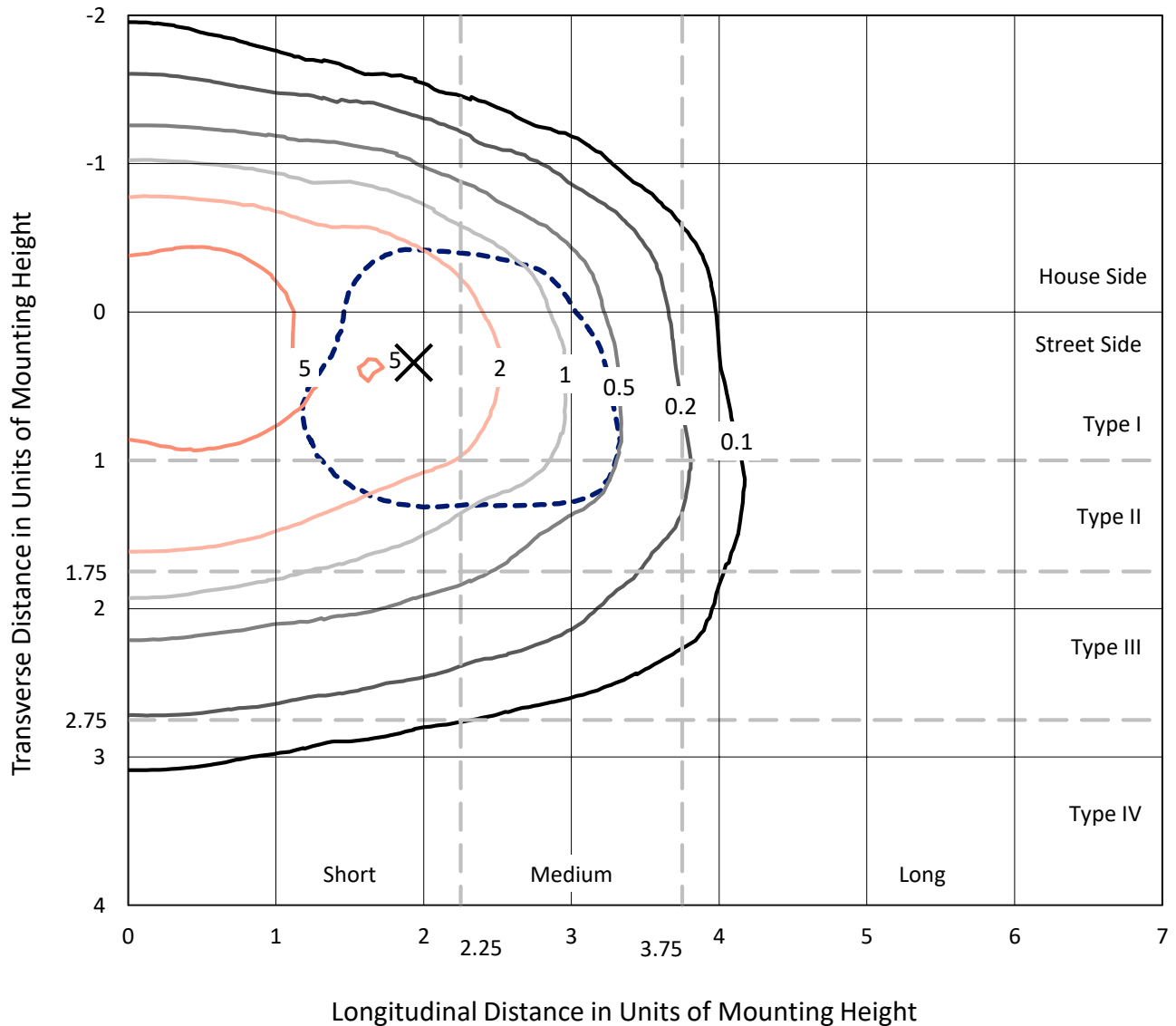
Input Watts (W): 46.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

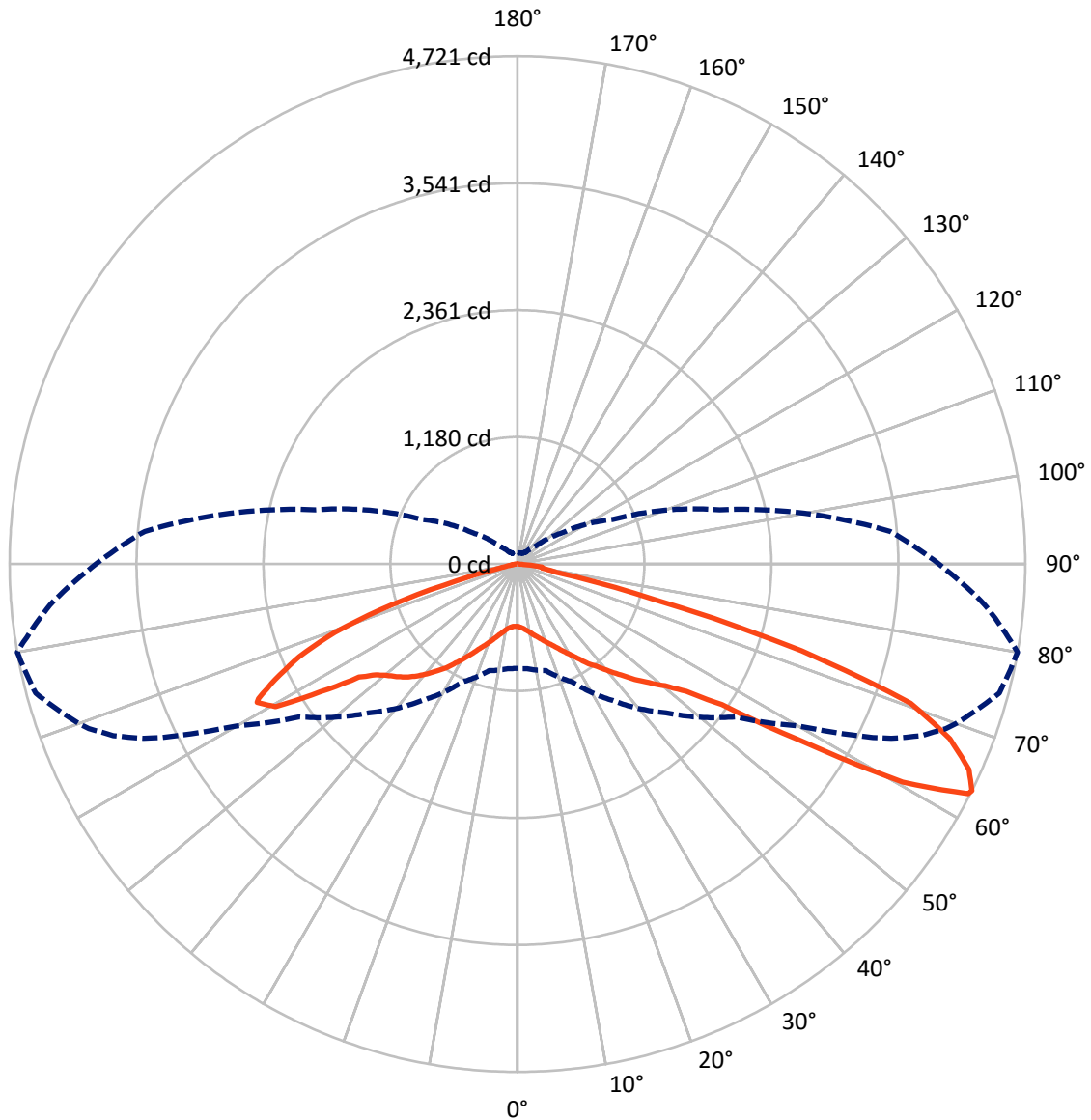
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.1 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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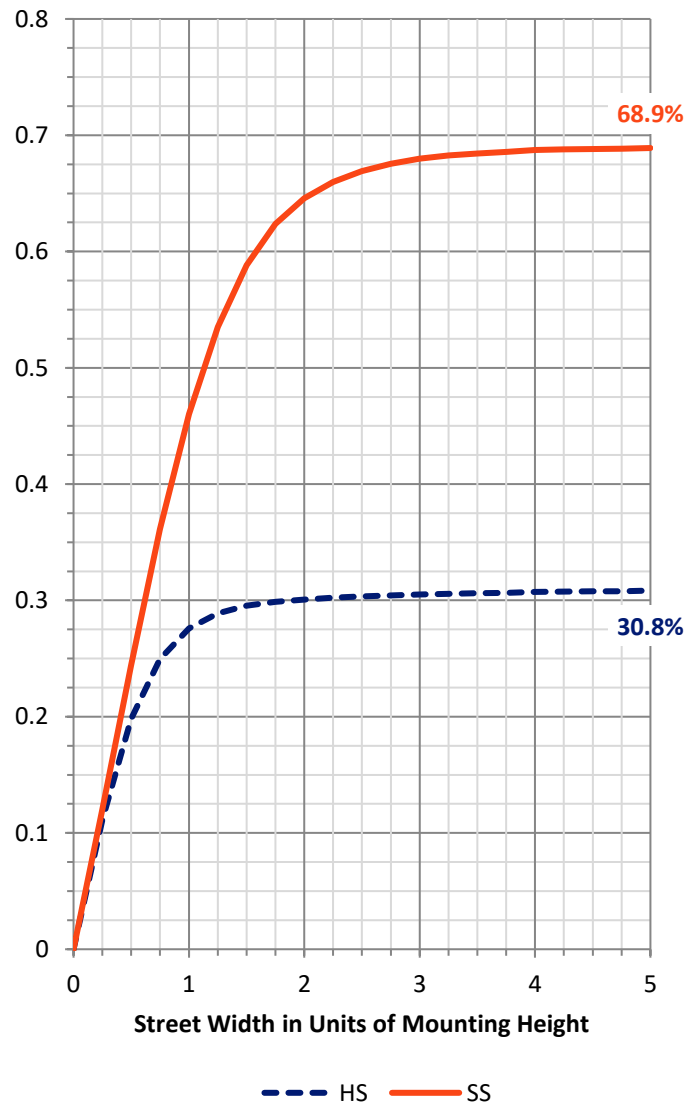
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1705.5	0.0	1705.5
	% Fixture	31.1	0.0	31.1
Street Side	Lumens	3770.7	0.0	3770.7
	% Fixture	68.9	0.0	68.9
Total	Lumens	5476.2	0.0	5476.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	1.1
10°-20°	199.4	3.6
20°-30°	374.6	6.8
30°-40°	594.6	10.9
40°-50°	897.5	16.4
50°-60°	1261.5	23.0
60°-70°	1471.9	26.9
70°-80°	569.0	10.4
80°-90°	49.5	0.9
90°-100°	0.0	0.0
100°-110°	0.0	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°	5476.2	100.0
0°-180°	5476.2	100.0



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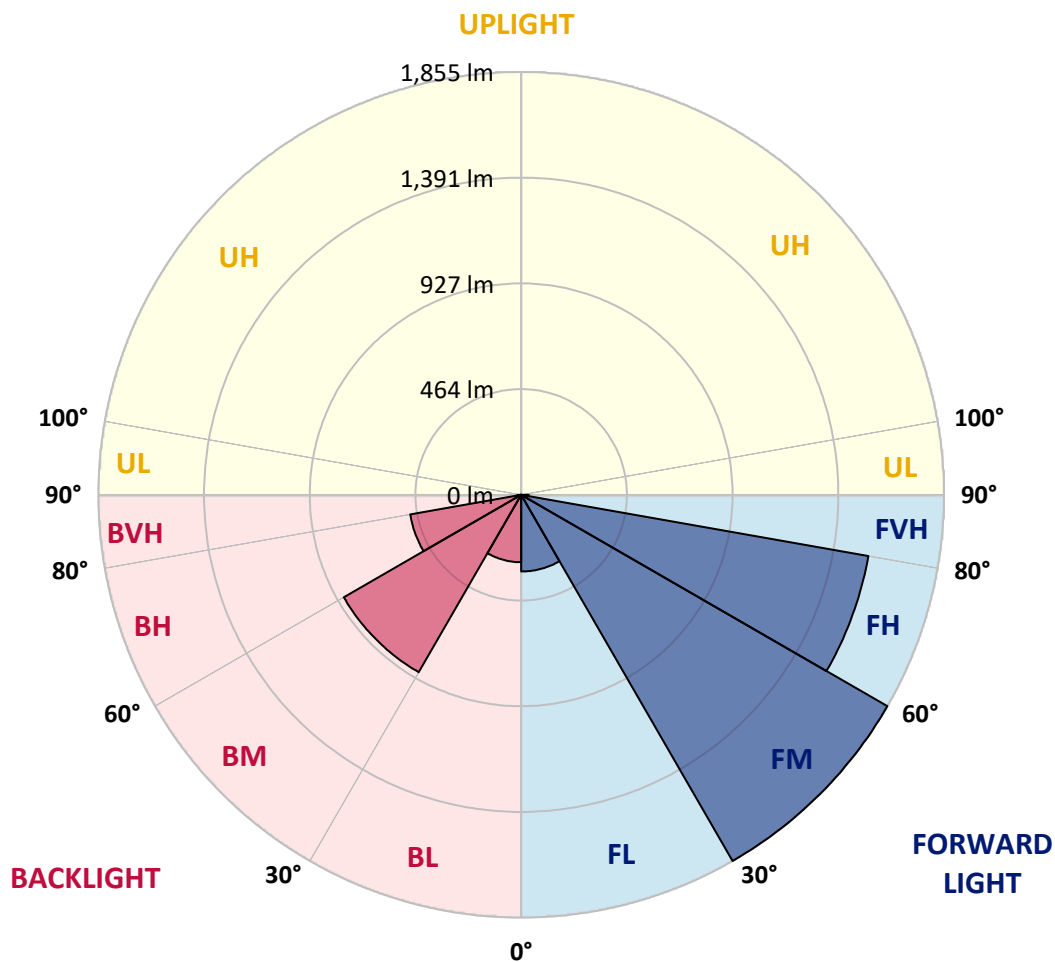
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	336.3	6.1			
FM	(30°-60°)	1854.9	33.9			
FH	(60°-80°)	1546.5	28.2			G1/1800
FVH	(80°-90°)	33.0	0.6			G1/100
BL	(0°-30°)	295.8	5.4	B1/500		
BM	(30°-60°)	898.7	16.4	B1/1000		
BH	(60°-80°)	494.4	9.0	B1/500		G1/500
BVH	(80°-90°)	16.5	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	580	580	580	580	580	580	580	580	580	580	580
2.5°	609	607	608	607	607	605	599	599	598	599	597
5°	642	641	640	638	638	634	624	622	623	621	617
7.5°	679	678	676	672	670	664	650	648	647	645	642
10°	716	715	712	707	702	693	679	674	673	672	669
12.5°	754	751	752	743	735	724	708	703	702	701	700
15°	796	795	793	781	766	751	735	729	725	726	725
17.5°	836	835	828	811	791	774	754	750	750	749	749
20°	865	864	857	836	810	791	775	775	774	775	776
22.5°	878	878	869	846	818	804	799	802	803	804	806
25°	883	883	874	847	821	823	829	834	836	836	843
27.5°	892	893	881	852	831	850	865	872	875	877	886
30°	919	918	908	877	861	888	915	922	929	929	939
32.5°	959	958	952	928	921	955	979	994	993	995	1002
35°	1012	1013	1017	1011	1017	1051	1078	1084	1085	1086	1087
37.5°	1072	1073	1095	1114	1141	1191	1207	1210	1203	1203	1201
40°	1117	1122	1171	1221	1278	1346	1370	1364	1359	1355	1343
42.5°	1209	1212	1264	1336	1416	1510	1552	1532	1531	1513	1504
45°	1301	1309	1365	1446	1542	1672	1734	1717	1714	1706	1681
47.5°	1374	1385	1447	1543	1653	1803	1914	1926	1919	1910	1890
50°	1436	1445	1508	1613	1739	1903	2062	2105	2111	2107	2102
52.5°	1476	1485	1547	1659	1789	1977	2172	2257	2275	2274	2295
55°	1477	1487	1551	1674	1817	2028	2274	2408	2430	2457	2502
57.5°	1422	1432	1512	1654	1825	2068	2373	2609	2669	2722	2846
60°	1269	1273	1361	1551	1787	2059	2448	2782	2867	2982	3182
62.5°	1034	1042	1096	1281	1610	1980	2478	2975	3115	3283	3603
63°	969	976	1026	1209	1550	1955	2477	3006	3160	3333	3678
65°	748	750	787	925	1272	1773	2423	2962	3157	3359	3721
67.5°	603	610	647	744	1005	1489	2181	2566	2699	2898	3329
70°	472	484	519	629	857	1199	1835	2142	2224	2319	2685
72.5°	312	315	321	382	598	933	1527	1736	1768	1836	2015
75°	147	158	167	198	289	611	1107	1233	1271	1342	1407
77.5°	64	63	67	91	152	272	689	911	924	908	880
80°	20	21	22	24	48	130	298	612	676	719	707
82.5°	2	1	3	6	10	19	112	287	361	443	548
85°	0	0	1	1	2	4	7	30	50	58	115
87.5°	0	0	1	1	2	3	3	4	4	4	4
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	75°	80°	85°	90°	95°
0°	580	580	580	580	580	580	580	580	580	580	580
2.5°	596	596	594	595	594	594	592	590	589	584	581
5°	617	617	616	614	614	613	608	603	600	594	588
7.5°	641	640	638	636	636	635	628	623	617	608	601
10°	669	668	666	663	663	662	655	647	642	631	622
12.5°	699	696	695	693	691	691	685	677	673	661	652
15°	724	722	721	720	719	717	712	705	702	692	685
17.5°	748	748	749	747	746	744	741	739	736	727	723
20°	776	776	778	777	776	779	778	777	777	769	766
22.5°	809	808	811	810	811	814	818	816	820	815	813
25°	847	846	849	851	853	855	863	865	870	869	865
27.5°	890	891	892	897	900	902	913	919	929	925	929
30°	940	945	949	954	955	957	975	981	986	989	995
32.5°	1009	1012	1013	1019	1021	1024	1043	1051	1058	1059	1070
35°	1093	1095	1098	1101	1105	1103	1125	1137	1146	1147	1159
37.5°	1204	1197	1200	1196	1190	1190	1197	1209	1219	1227	1239
40°	1337	1332	1331	1322	1312	1303	1299	1306	1314	1321	1336
42.5°	1489	1484	1467	1461	1444	1434	1407	1410	1424	1428	1437
45°	1667	1649	1643	1606	1599	1585	1534	1530	1542	1543	1537
47.5°	1870	1857	1843	1817	1790	1767	1689	1648	1661	1660	1631
50°	2091	2089	2068	2051	2027	1994	1855	1780	1790	1781	1728
52.5°	2302	2296	2295	2282	2273	2262	2093	1964	1941	1922	1854
55°	2524	2539	2529	2550	2566	2564	2494	2305	2188	2173	2069
57.5°	2894	2930	2978	2980	3023	3085	3211	3075	2782	2724	2585
60°	3318	3411	3531	3590	3682	3778	4094	4115	3705	3481	3226
62.5°	3744	3866	4008	4100	4214	4289	4623	4703	4329	3916	3496
63°	3834	3959	4082	4172	4268	4337	4637	4721	4363	3917	3479
65°	3881	3998	4094	4174	4238	4285	4522	4613	4318	3772	3288
67.5°	3524	3712	3833	3930	3995	4060	4278	4335	4126	3490	2998
70°	2917	3134	3325	3476	3588	3687	3916	3877	3697	3033	2543
72.5°	2146	2335	2521	2692	2838	2964	3115	2762	2488	2017	1760
75°	1443	1484	1569	1654	1707	1743	1650	1315	1068	958	838
77.5°	852	824	827	806	792	789	662	368	194	198	208
80°	680	649	616	579	555	529	431	236	84	68	71
82.5°	550	542	524	486	448	403	308	227	48	38	41
85°	107	120	108	118	88	83	49	53	19	17	21
87.5°	4	4	4	4	4	4	4	4	4	4	8
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	580	580	580	580	580	580	580	580	580
2.5°	576	572	569	565	563	560	559	556	557
5°	578	571	565	559	555	553	551	549	549
7.5°	588	579	572	565	562	558	557	554	554
10°	609	599	590	582	578	573	571	568	568
12.5°	640	631	621	609	601	595	590	588	588
15°	675	668	660	644	631	620	610	606	605
17.5°	717	711	703	685	664	641	624	616	615
20°	768	762	750	725	692	656	629	617	616
22.5°	820	820	800	759	710	662	626	610	607
25°	877	880	850	786	720	659	613	593	589
27.5°	946	943	893	807	721	647	592	568	564
30°	1022	1002	928	819	714	625	564	537	534
32.5°	1098	1055	954	821	694	593	527	499	495
35°	1179	1102	970	810	661	550	481	454	450
37.5°	1247	1138	975	781	611	500	439	411	404
40°	1309	1164	966	734	555	451	395	371	369
42.5°	1366	1176	934	673	499	409	358	335	333
45°	1410	1168	880	606	453	373	325	304	300
47.5°	1438	1139	806	550	415	336	289	267	263
50°	1460	1096	731	507	378	298	252	232	229
52.5°	1489	1041	666	468	335	255	214	195	192
55°	1553	994	620	425	289	210	176	164	160
57.5°	1770	1010	591	373	236	169	146	139	138
60°	1998	1078	577	313	183	137	124	122	121
62.5°	1986	1017	519	246	141	113	107	108	108
63°	1946	980	500	231	134	110	104	104	104
65°	1704	831	406	175	112	98	93	94	95
67.5°	1407	600	267	122	101	89	83	81	81
70°	1076	404	158	106	100	83	73	71	71
72.5°	706	247	107	106	99	79	68	64	64
75°	324	122	89	102	94	73	60	55	54
77.5°	126	77	80	86	73	60	54	50	49
80°	73	62	70	62	53	46	46	43	42
82.5°	53	53	54	45	40	38	38	35	34
85°	38	39	45	36	31	27	25	25	24
87.5°	19	31	25	15	14	13	13	13	12
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)