

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: P146620

Luminaire Tested: **LDRL-T3-E05-E**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P146620
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33695)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-T3-E05-E
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (105) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14929 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

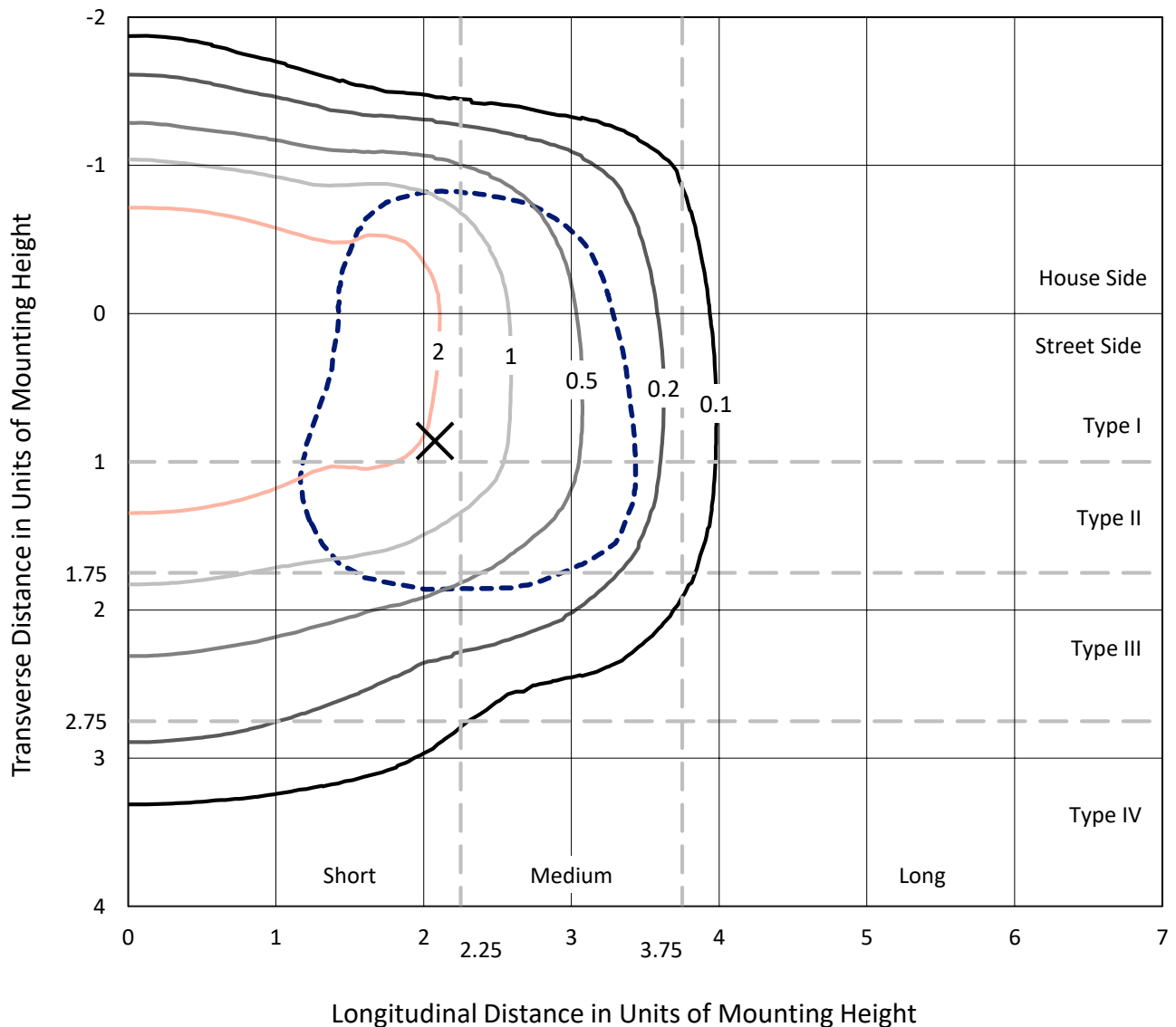
Input Watts (W): 127.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

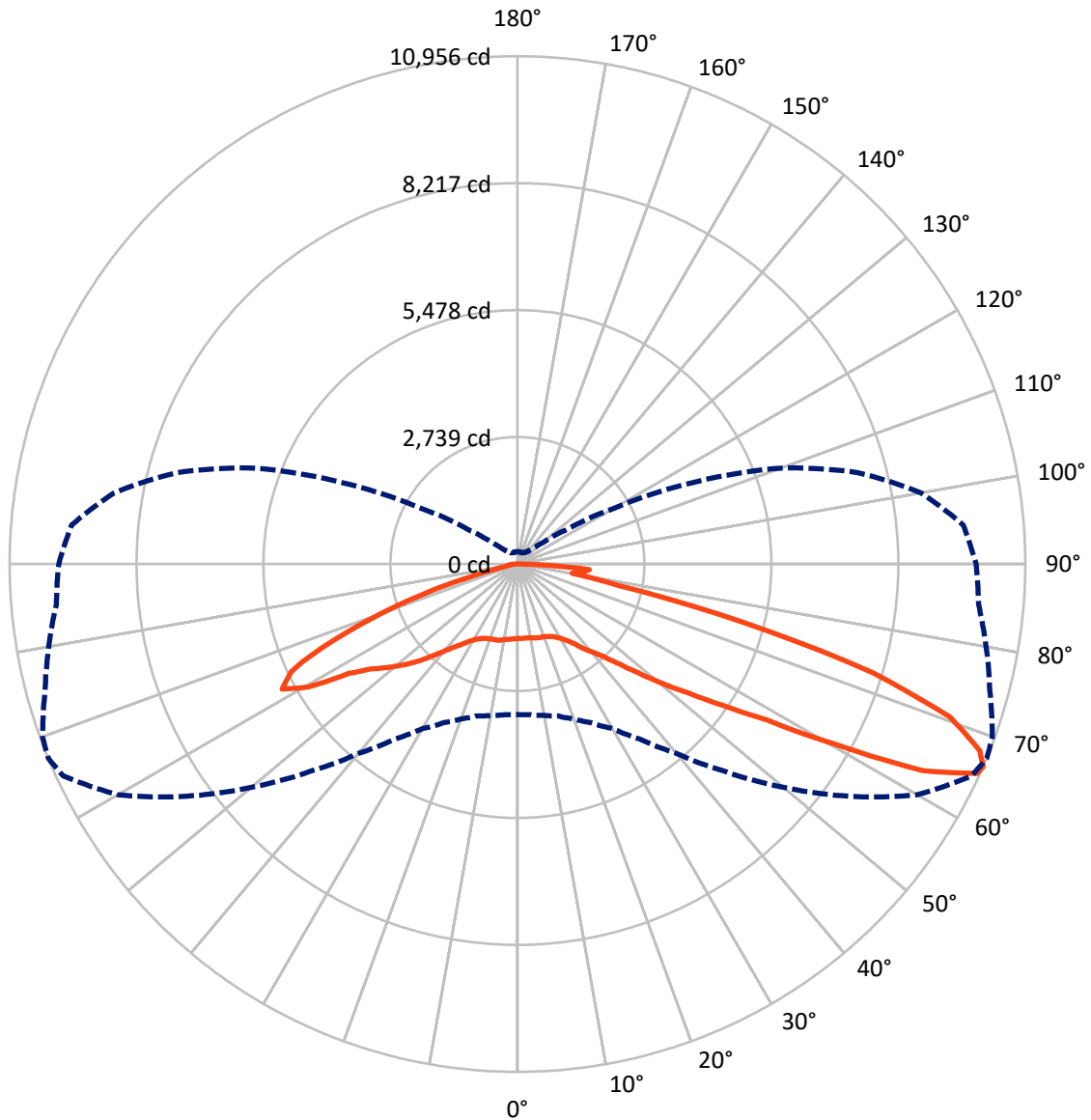
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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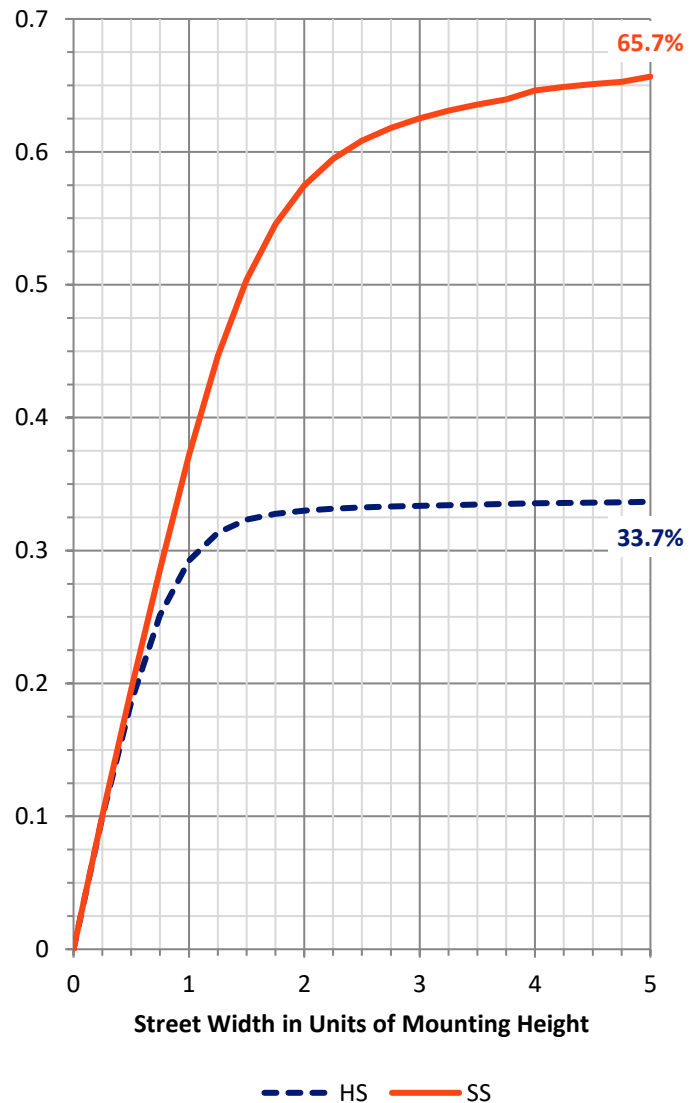
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5071.9	0.0	5071.9
	% Fixture	34.0	0.0	34.0
Street Side	Lumens	9857.2	0.0	9857.2
	% Fixture	66.0	0.0	66.0
Total	Lumens	14929.0	0.0	14929.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.4	1.0
10°-20°	457.4	3.1
20°-30°	786.3	5.3
30°-40°	1264.8	8.5
40°-50°	2084.6	14.0
50°-60°	3267.6	21.9
60°-70°	4522.1	30.3
70°-80°	2046.5	13.7
80°-90°	345.3	2.3
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°	14929.0	100.0
0°-180°	14929.0	100.0



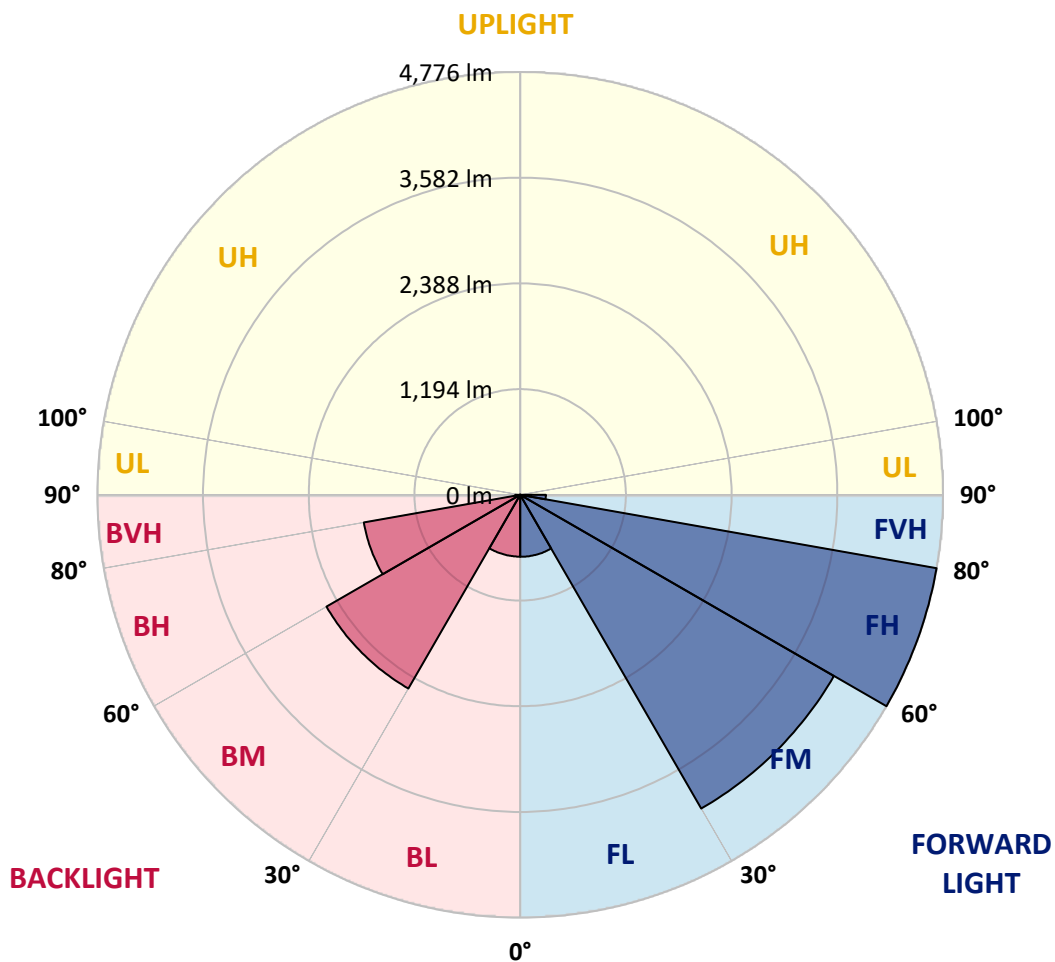
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	700.2	4.7			
FM (30°-60°)	4091.1	27.4			
FH (60°-80°)	4775.7	32.0			G2/5000
FVH (80°-90°)	290.2	1.9			G3/500
BL (0°-30°)	697.9	4.7	B2/1000		
BM (30°-60°)	2525.8	16.9	B3/5000		
BH (60°-80°)	1793.0	12.0	B3/2500		G3/2500
BVH (80°-90°)	55.1	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1607	1607	1607	1607	1607	1607	1607	1607	1607	1607	1607
2.5°	1605	1604	1603	1603	1602	1603	1604	1605	1604	1605	1604
5°	1602	1602	1601	1601	1601	1601	1602	1603	1602	1604	1602
7.5°	1589	1595	1593	1595	1597	1599	1600	1602	1605	1607	1605
10°	1572	1575	1576	1578	1582	1587	1591	1596	1603	1605	1607
12.5°	1541	1545	1548	1552	1558	1566	1573	1581	1593	1601	1608
15°	1518	1523	1524	1529	1535	1544	1553	1565	1581	1595	1609
17.5°	1533	1535	1533	1533	1535	1539	1546	1556	1573	1590	1607
20°	1578	1578	1576	1575	1573	1569	1568	1567	1578	1591	1606
22.5°	1621	1621	1620	1624	1623	1623	1620	1615	1610	1608	1618
25°	1648	1652	1654	1660	1664	1670	1672	1671	1664	1652	1649
27.5°	1692	1695	1697	1704	1712	1719	1726	1735	1735	1724	1709
30°	1777	1773	1775	1777	1784	1794	1803	1815	1821	1817	1797
32.5°	1856	1860	1862	1868	1875	1890	1901	1915	1928	1930	1920
35°	1972	1970	1967	1988	1996	2013	2026	2046	2056	2065	2059
37.5°	2155	2149	2145	2151	2162	2173	2192	2207	2224	2245	2238
40°	2414	2426	2409	2417	2426	2401	2418	2432	2461	2462	2461
42.5°	2751	2760	2756	2761	2745	2737	2730	2737	2773	2768	2744
45°	3088	3101	3098	3100	3131	3118	3129	3131	3168	3158	3140
47.5°	3376	3398	3403	3421	3463	3497	3544	3579	3597	3609	3623
50°	3604	3620	3648	3693	3754	3813	3919	3988	4051	4095	4140
52.5°	3755	3773	3816	3884	3972	4080	4204	4348	4481	4559	4626
55°	3817	3835	3888	3977	4094	4232	4410	4613	4790	4969	5072
57.5°	3781	3801	3862	3962	4103	4284	4505	4754	5013	5284	5491
60°	3675	3693	3762	3866	4027	4231	4496	4808	5172	5574	5967
62.5°	3529	3556	3617	3723	3883	4106	4408	4814	5336	5984	6749
65°	3343	3363	3417	3501	3677	3910	4229	4726	5408	6327	7419
66°	3247	3266	3316	3395	3556	3780	4099	4608	5328	6325	7490
67.5°	3078	3087	3123	3201	3306	3507	3803	4280	4989	6058	7292
70°	2582	2595	2630	2670	2709	2781	2988	3303	3870	4895	6072
72.5°	1786	1806	1844	1918	1979	2070	2151	2256	2444	3156	4344
75°	1291	1298	1354	1484	1607	1789	1950	2001	1937	1926	2552
77.5°	770	780	861	992	1120	1367	1697	1952	2093	2043	1932
80°	324	338	386	420	526	733	1059	1459	1831	2060	2008
82.5°	104	121	143	173	204	273	423	633	1000	1491	1833
85°	38	39	54	75	83	96	123	190	338	559	1040
87.5°	15	18	21	29	30	31	35	45	44	38	197
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1607	1607	1607	1607	1607	1607	1607	1607	1607	1607	1607
2.5°	1605	1607	1606	1607	1607	1605	1605	1609	1606	1608	1608
5°	1604	1606	1605	1607	1607	1606	1606	1612	1611	1614	1616
7.5°	1608	1609	1608	1608	1611	1610	1611	1613	1618	1623	1627
10°	1613	1615	1618	1619	1623	1622	1625	1628	1633	1638	1643
12.5°	1620	1626	1635	1637	1641	1644	1649	1652	1656	1664	1670
15°	1626	1637	1648	1652	1656	1660	1665	1668	1675	1682	1689
17.5°	1628	1641	1655	1660	1664	1671	1677	1683	1691	1700	1708
20°	1629	1647	1665	1671	1680	1690	1700	1705	1716	1727	1734
22.5°	1638	1660	1685	1696	1705	1723	1736	1744	1757	1766	1769
25°	1663	1686	1716	1733	1748	1774	1790	1805	1812	1824	1821
27.5°	1708	1726	1765	1788	1807	1841	1872	1886	1897	1903	1896
30°	1785	1792	1835	1863	1895	1948	1982	2000	2014	2015	1997
32.5°	1900	1889	1927	1967	2009	2073	2119	2138	2149	2150	2110
35°	2056	2037	2069	2108	2160	2244	2302	2324	2341	2333	2274
37.5°	2253	2252	2267	2317	2376	2484	2545	2557	2556	2532	2443
40°	2472	2454	2456	2492	2560	2702	2787	2807	2800	2765	2649
42.5°	2748	2740	2713	2732	2795	2968	3071	3091	3097	3039	2902
45°	3135	3128	3068	3072	3118	3300	3407	3440	3441	3386	3208
47.5°	3604	3598	3528	3508	3531	3693	3826	3833	3835	3759	3574
50°	4136	4119	4066	4045	4018	4197	4304	4303	4292	4208	4000
52.5°	4650	4688	4668	4627	4628	4757	4858	4802	4809	4729	4490
55°	5199	5296	5369	5384	5377	5443	5499	5399	5362	5349	5095
57.5°	5782	6030	6255	6349	6313	6434	6484	6380	6382	6484	6265
60°	6561	7187	7754	7930	8012	8212	8123	8117	8274	8406	8000
62.5°	7743	8780	9685	9816	9882	9927	9887	9778	9940	9956	9330
65°	8639	9856	10731	10895	10883	10654	10432	10214	10212	10052	9246
66°	8736	9958	10811	10956	10903	10550	10268	9985	9894	9654	8836
67.5°	8524	9780	10627	10757	10644	10107	9723	9340	9203	8869	8035
70°	7287	8581	9714	9902	9768	9055	8486	8065	7692	7363	6675
72.5°	5650	6618	7817	8013	8024	7466	6825	6421	5987	5657	5141
75°	3706	4438	5097	5031	5050	4611	4229	3893	3500	3240	2994
77.5°	2166	2428	2368	2204	2066	1624	1162	798	696	726	819
80°	1883	1736	1359	1195	1087	738	397	280	246	249	264
82.5°	2027	2103	1726	1421	1239	869	467	233	168	196	216
85°	1573	2002	1846	1560	1312	924	477	148	100	134	169
87.5°	448	709	567	501	404	276	114	59	54	70	97
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1607	1607	1607	1607	1607	1607	1607	1607	1607	1607	1607
2.5°	1609	1609	1612	1613	1614	1614	1616	1616	1617	1621	1620
5°	1619	1622	1626	1628	1631	1632	1635	1635	1638	1641	1640
7.5°	1631	1634	1637	1640	1643	1647	1646	1645	1644	1642	1640
10°	1648	1651	1654	1653	1651	1649	1641	1632	1628	1620	1614
12.5°	1676	1679	1676	1668	1657	1644	1627	1612	1603	1591	1584
15°	1697	1700	1694	1680	1662	1645	1622	1603	1587	1574	1564
17.5°	1713	1711	1698	1682	1663	1649	1628	1607	1588	1570	1556
20°	1736	1725	1706	1686	1667	1655	1638	1619	1599	1573	1555
22.5°	1766	1746	1721	1701	1683	1671	1654	1636	1617	1587	1562
25°	1809	1777	1748	1727	1711	1699	1678	1659	1638	1608	1576
27.5°	1869	1823	1793	1772	1756	1742	1715	1692	1665	1635	1597
30°	1947	1891	1858	1840	1823	1803	1774	1740	1705	1665	1624
32.5°	2044	1981	1950	1932	1910	1883	1845	1800	1748	1695	1644
35°	2182	2110	2076	2045	2013	1973	1916	1851	1782	1713	1650
37.5°	2319	2252	2210	2178	2128	2063	1984	1894	1802	1714	1638
40°	2513	2435	2386	2329	2248	2147	2032	1911	1797	1691	1601
42.5°	2751	2662	2589	2486	2360	2214	2055	1901	1762	1640	1541
45°	3052	2936	2814	2652	2459	2255	2054	1866	1702	1564	1466
47.5°	3403	3240	3035	2788	2524	2265	2022	1803	1612	1460	1347
50°	3764	3528	3237	2893	2557	2240	1951	1700	1494	1321	1199
52.5°	4209	3843	3420	2964	2543	2166	1833	1555	1335	1166	1026
55°	4739	4205	3594	3003	2481	2033	1654	1365	1134	980	854
57.5°	5616	4772	3891	3061	2359	1835	1436	1137	920	789	688
60°	7128	5935	4519	3204	2190	1553	1159	891	712	607	536
62.5°	8183	6640	4857	3155	1903	1223	857	637	519	450	402
65°	7978	6362	4450	2680	1491	865	570	431	364	321	297
66°	7610	6055	4140	2406	1293	721	470	357	313	282	266
67.5°	6939	5419	3583	1931	968	532	357	278	254	238	227
70°	5745	4285	2467	1141	512	298	227	205	194	187	186
72.5°	4405	3074	1427	552	274	198	174	166	162	160	160
75°	2721	1734	638	277	189	162	151	147	146	146	146
77.5°	957	604	286	203	166	146	137	135	137	137	137
80°	264	233	207	180	150	135	127	126	130	131	127
82.5°	206	194	177	161	137	123	119	121	123	120	114
85°	176	168	124	124	111	107	106	108	107	99	91
87.5°	100	88	67	73	78	80	67	72	71	63	59
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1607	1607	1607	1607	1607
2.5°	1622	1622	1624	1624	1623
5°	1642	1642	1645	1643	1644
7.5°	1638	1634	1634	1632	1631
10°	1610	1603	1599	1601	1598
12.5°	1578	1572	1568	1567	1566
15°	1558	1551	1548	1546	1546
17.5°	1547	1539	1535	1532	1531
20°	1542	1532	1526	1523	1521
22.5°	1544	1532	1524	1520	1518
25°	1552	1537	1527	1522	1519
27.5°	1566	1546	1535	1528	1524
30°	1583	1555	1539	1529	1525
32.5°	1594	1556	1536	1521	1517
35°	1592	1545	1519	1500	1497
37.5°	1572	1516	1484	1459	1456
40°	1529	1472	1435	1410	1404
42.5°	1469	1410	1370	1347	1339
45°	1381	1309	1272	1253	1242
47.5°	1257	1189	1148	1132	1118
50°	1116	1041	1011	993	977
52.5°	950	886	863	846	833
55°	789	744	717	699	700
57.5°	634	607	592	573	575
60°	499	476	476	464	460
62.5°	381	372	369	365	358
65°	289	289	290	290	286
66°	260	263	267	267	262
67.5°	225	229	233	235	235
70°	186	191	193	195	194
72.5°	163	167	167	168	166
75°	148	150	151	149	148
77.5°	137	138	137	136	135
80°	124	123	120	116	115
82.5°	107	103	101	95	94
85°	86	81	77	69	65
87.5°	57	55	52	38	31
90°	0	0	0	0	0

(END OF REPORT)