

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P148950

Luminaire Tested: **TLM-E03-LED-E1-RW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P148950
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33677)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: TLM-E03-LED-E1-RW
Description: TALON MEDIUM LED SITE LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9371.8 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 3.07 / 1.6
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
CIE Type: Direct

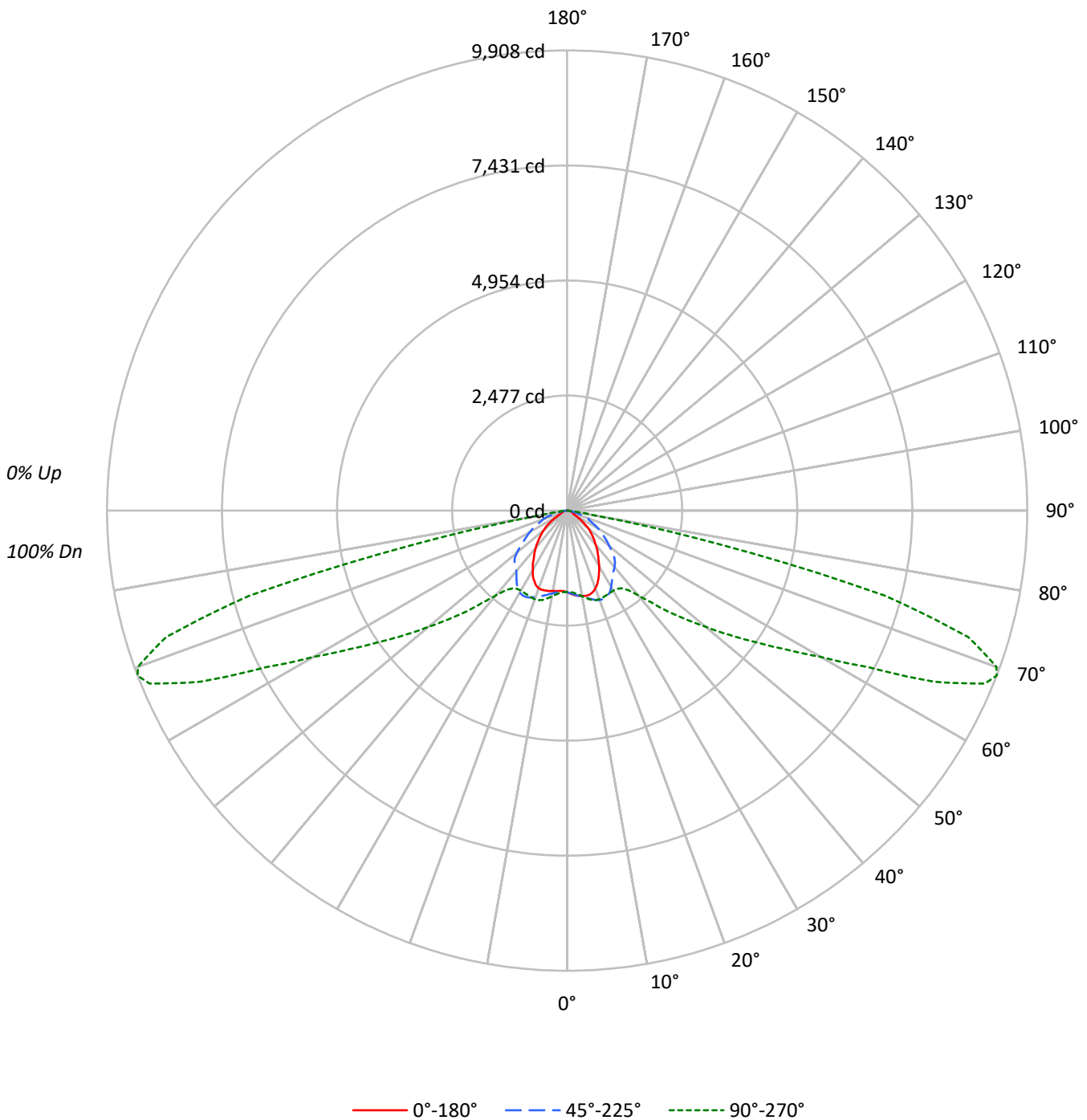
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	106	101	95	91	104	98	93	89	94	90	86	90	87	84	86	84	81	79					79			
2	94	84	76	69	91	82	75	68	79	72	66	75	70	65	72	67	63	61					61			
3	84	72	62	54	81	70	61	54	67	59	52	64	57	51	61	55	51	48					48			
4	76	62	51	44	73	60	51	43	58	49	43	55	48	42	53	47	41	39					39			
5	69	54	44	36	67	53	43	36	51	42	35	49	41	35	47	40	35	32					32			
6	63	48	38	31	61	47	37	30	45	36	30	43	36	30	42	35	29	27					27			
7	58	43	33	26	56	42	33	26	40	32	26	39	31	26	38	31	25	23					23			
8	54	39	29	23	52	38	29	23	37	29	23	35	28	23	34	27	22	20					20			
9	50	35	26	20	49	35	26	20	34	26	20	32	25	20	31	25	20	18					18			
10	47	33	24	18	46	32	24	18	31	23	18	30	23	18	29	23	18	16					16			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	37803	37803	37803
5°	39482	38488	37493
10°	40834	40966	38495
15°	41766	44329	39716
20°	40756	46529	40848
25°	38029	47673	39739
30°	34230	49493	36765
35°	30407	53639	32877
40°	26810	66744	29620
45°	23443	93527	25878
50°	19726	130382	22205
55°	14225	185036	17453
60°	8482	270949	10419
65°	7641	443935	7641
70°	7805	619109	7931
75°	8318	589227	8734
80°	8430	75872	9174
85°	5434	19019	7657



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.2	1.8
10°-20°	543.4	5.8
20°-30°	880.3	9.4
30°-40°	1097.1	11.7
40°-50°	1370.9	14.6
50°-60°	1692.8	18.1
60°-70°	2103.4	22.4
70°-80°	1396.4	14.9
80°-90°	115.3	1.2
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°-30°	1595.9	17.0
0°-40°	2693.0	28.7
0°-60°	5756.7	61.4
0°-90°	9371.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9371.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1756	1756	1756	1756	1756	
5°	1827	1816	1781	1753	1735	175
15°	1874	1970	1989	1891	1782	524
25°	1601	2039	2007	2058	1673	732
35°	1157	1704	2041	1896	1251	725
45°	770	1435	3072	1602	850	594
55°	379	971	4930	1138	465	338
65°	150	563	8715	716	150	151
75°	100	222	7084	289	105	105
85°	22	42	77	55	31	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756
2.5°	1796	1802	1796	1796	1791	1786	1783	1776	1772	1770	1770
5°	1827	1826	1827	1827	1822	1816	1812	1806	1800	1799	1798
7.5°	1850	1849	1852	1858	1855	1850	1850	1844	1840	1840	1838
10°	1868	1869	1875	1884	1886	1885	1892	1890	1888	1890	1888
12.5°	1880	1881	1889	1906	1917	1924	1942	1943	1944	1944	1944
15°	1874	1874	1890	1922	1949	1970	1993	1997	1993	1996	1994
17.5°	1839	1841	1867	1916	1971	2017	2042	2035	2028	2028	2025
20°	1779	1783	1818	1887	1974	2047	2086	2063	2044	2041	2038
22.5°	1705	1702	1744	1831	1951	2060	2113	2085	2051	2044	2039
25°	1601	1603	1647	1744	1893	2039	2121	2107	2067	2058	2047
27.5°	1487	1492	1539	1638	1803	1987	2112	2129	2098	2088	2078
30°	1377	1380	1433	1539	1692	1895	2088	2153	2137	2129	2120
32.5°	1260	1270	1316	1436	1604	1794	2051	2178	2184	2179	2174
35°	1157	1165	1217	1343	1519	1704	2006	2205	2246	2245	2244
37.5°	1064	1066	1121	1249	1435	1641	1959	2249	2322	2332	2344
40°	954	964	1021	1159	1352	1587	1919	2308	2428	2450	2467
42.5°	866	866	917	1054	1254	1525	1905	2382	2554	2584	2614
45°	770	773	822	947	1142	1435	1903	2464	2695	2738	2775
47.5°	679	681	733	854	1026	1311	1878	2555	2843	2905	2946
50°	589	586	636	759	923	1183	1798	2673	3027	3089	3136
52.5°	478	486	540	657	822	1074	1635	2789	3217	3287	3351
55°	379	378	439	545	713	971	1442	2871	3402	3483	3554
57.5°	272	275	327	432	600	879	1296	2857	3545	3641	3731
60°	197	203	242	319	479	773	1194	2695	3643	3774	3883
62.5°	166	171	205	247	370	662	1095	2435	3770	3943	4101
65°	150	154	188	212	284	563	1033	2251	3937	4200	4416
67.5°	135	141	171	189	241	503	1015	2223	3969	4317	4624
69°	128	134	161	177	227	484	981	2122	3760	4134	4478
70°	124	129	153	170	223	466	933	1974	3538	3915	4285
72.5°	114	117	137	154	205	358	707	1426	2641	3014	3377
75°	100	103	121	138	159	222	429	846	1621	1872	2236
77.5°	86	89	104	130	126	145	262	506	850	975	1208
80°	68	72	87	125	105	115	192	374	517	569	630
82.5°	48	50	66	100	79	87	144	311	415	453	471
85°	22	23	39	59	47	42	77	199	275	286	302
87.5°	0	0	4	4	8	5	9	25	42	42	51
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756
2.5°	1771	1770	1771	1771	1772	1768	1767	1766	1765	1766	1764
5°	1798	1797	1797	1798	1797	1794	1793	1793	1790	1789	1789
7.5°	1839	1837	1834	1836	1837	1836	1837	1834	1834	1831	1832
10°	1890	1888	1887	1889	1890	1889	1890	1886	1885	1884	1882
12.5°	1946	1942	1945	1945	1946	1950	1945	1947	1943	1943	1942
15°	1995	1994	1996	1996	1995	1998	1997	1998	1993	1991	1996
17.5°	2026	2023	2024	2023	2023	2023	2025	2025	2022	2021	2023
20°	2034	2029	2028	2027	2025	2025	2026	2024	2022	2020	2022
22.5°	2032	2026	2020	2017	2014	2010	2009	2007	2004	2004	2005
25°	2039	2028	2019	2013	2005	2000	1996	1991	1986	1983	1984
27.5°	2063	2051	2039	2027	2015	2005	1997	1988	1980	1974	1971
30°	2108	2092	2078	2064	2049	2035	2022	2008	1993	1984	1976
32.5°	2160	2149	2140	2124	2108	2091	2075	2063	2041	2024	2010
35°	2239	2235	2230	2218	2200	2191	2178	2159	2133	2118	2097
37.5°	2348	2349	2345	2340	2342	2325	2317	2315	2289	2279	2248
40°	2482	2497	2510	2510	2520	2521	2519	2536	2517	2521	2488
42.5°	2631	2667	2687	2702	2735	2750	2775	2812	2814	2833	2835
45°	2807	2847	2885	2924	2968	3020	3072	3110	3170	3183	3226
47.5°	2990	3048	3092	3142	3217	3284	3361	3439	3508	3557	3585
50°	3192	3251	3315	3371	3451	3545	3652	3759	3848	3935	4005
52.5°	3416	3481	3541	3614	3695	3807	3924	4071	4190	4309	4395
55°	3631	3704	3759	3852	3936	4051	4196	4370	4535	4679	4796
57.5°	3818	3890	3967	4047	4149	4264	4442	4640	4828	5017	5190
60°	3993	4090	4174	4280	4382	4515	4727	4972	5229	5464	5637
62.5°	4257	4381	4480	4611	4753	4910	5144	5414	5749	6052	6321
65°	4626	4816	4976	5137	5310	5526	5779	6122	6492	6940	7295
67.5°	4889	5127	5334	5536	5735	5974	6287	6689	7168	7639	8090
69°	4783	5035	5265	5466	5676	5915	6220	6661	7149	7667	8114
70°	4560	4832	5078	5270	5485	5722	6059	6480	6978	7514	7952
72.5°	3667	3954	4197	4410	4635	4913	5213	5617	6169	6694	7084
75°	2526	2794	3069	3228	3486	3684	3969	4383	4844	5230	5591
77.5°	1429	1573	1781	1846	2031	2163	2314	2569	2809	3033	3098
80°	650	607	628	596	631	609	584	598	595	640	598
82.5°	468	404	336	290	255	216	184	165	163	171	168
85°	299	273	214	172	132	102	85	77	77	82	81
87.5°	52	45	28	24	21	14	9	9	8	10	13
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756
2.5°	1764	1763	1761	1760	1760	1758	1757	1759	1760	1761	1758
5°	1789	1786	1785	1786	1781	1782	1781	1782	1782	1782	1780
7.5°	1829	1826	1828	1826	1823	1822	1822	1819	1815	1814	1815
10°	1884	1880	1881	1882	1879	1877	1874	1870	1870	1869	1867
12.5°	1943	1941	1941	1942	1941	1937	1933	1931	1930	1930	1930
15°	1994	1993	1994	1993	1993	1991	1989	1986	1985	1986	1987
17.5°	2023	2020	2023	2024	2023	2023	2023	2021	2020	2020	2021
20°	2025	2023	2025	2028	2028	2029	2031	2032	2031	2033	2034
22.5°	2005	2005	2008	2011	2016	2018	2022	2024	2026	2029	2031
25°	1985	1984	1987	1993	1997	2002	2007	2011	2015	2019	2023
27.5°	1971	1970	1972	1977	1982	1988	1996	2002	2007	2012	2015
30°	1972	1968	1967	1971	1976	1983	1991	1998	2005	2009	2012
32.5°	2001	1991	1987	1986	1988	1993	1999	2006	2011	2015	2016
35°	2076	2057	2053	2040	2042	2041	2041	2045	2049	2049	2042
37.5°	2228	2201	2182	2169	2156	2155	2153	2151	2141	2135	2134
40°	2465	2454	2418	2408	2386	2371	2375	2367	2343	2334	2330
42.5°	2811	2817	2797	2750	2731	2702	2678	2674	2652	2634	2620
45°	3217	3228	3213	3179	3145	3101	3072	3016	2994	2966	2947
47.5°	3634	3664	3640	3610	3591	3522	3462	3397	3364	3324	3306
50°	4048	4101	4087	4059	4038	3951	3893	3803	3784	3744	3722
52.5°	4462	4514	4545	4519	4504	4434	4394	4322	4268	4243	4242
55°	4880	4964	5013	5004	4979	4970	4930	4923	4881	4854	4818
57.5°	5289	5378	5463	5513	5534	5527	5546	5544	5550	5547	5488
60°	5809	5950	6074	6153	6228	6280	6293	6370	6348	6396	6304
62.5°	6543	6726	6914	6997	7089	7258	7298	7389	7403	7415	7366
65°	7566	7806	8090	8217	8361	8578	8715	8812	8809	8743	8680
67.5°	8439	8723	8984	9205	9420	9589	9733	9864	9871	9830	9722
69°	8514	8811	9095	9361	9574	9762	9908	10010	10032	9996	9896
70°	8375	8675	8984	9239	9480	9679	9836	9934	9964	9927	9833
72.5°	7520	7811	8042	8342	8685	8810	9052	9132	9206	9157	9101
75°	5891	6165	6404	6560	6717	7026	7084	7234	7285	7237	7299
77.5°	3069	3254	3334	3209	3228	3472	3334	3496	3589	3616	3655
80°	587	617	640	632	640	658	612	587	620	613	613
82.5°	173	170	170	179	178	182	182	175	180	180	181
85°	79	75	74	75	74	74	77	77	83	78	79
87.5°	10	9	10	10	8	8	9	10	10	9	9
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	105°	115°	125°	135°	145°
0°	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756	1756
2.5°	1757	1756	1756	1756	1755	1754	1753	1750	1747	1746	1741
5°	1776	1777	1775	1773	1773	1773	1770	1762	1756	1753	1746
7.5°	1816	1814	1811	1810	1808	1809	1803	1793	1782	1775	1764
10°	1869	1867	1865	1863	1860	1860	1853	1838	1821	1809	1789
12.5°	1931	1929	1927	1926	1921	1920	1910	1892	1870	1847	1818
15°	1988	1985	1984	1981	1978	1977	1968	1944	1917	1891	1853
17.5°	2024	2022	2019	2017	2016	2015	2002	1982	1961	1935	1889
20°	2036	2037	2035	2033	2030	2028	2016	1997	1993	1979	1932
22.5°	2034	2034	2033	2029	2027	2022	2005	1996	2018	2024	1964
25°	2026	2025	2022	2019	2013	2006	1980	1985	2047	2058	1971
27.5°	2017	2016	2011	2004	1995	1985	1952	1985	2074	2065	1942
30°	2012	2008	2001	1991	1979	1968	1932	2011	2093	2041	1862
32.5°	2013	2006	1996	1983	1969	1956	1931	2057	2100	1983	1749
35°	2037	2026	2013	2000	1986	1974	1976	2121	2099	1896	1640
37.5°	2124	2105	2096	2082	2062	2052	2092	2192	2085	1790	1544
40°	2316	2300	2287	2251	2258	2250	2288	2289	2067	1701	1464
42.5°	2596	2596	2568	2563	2544	2553	2570	2403	2049	1648	1385
45°	2926	2951	2940	2937	2952	2970	2892	2538	2050	1602	1293
47.5°	3318	3339	3350	3368	3387	3376	3215	2680	2068	1536	1175
50°	3735	3786	3802	3825	3842	3845	3521	2826	2087	1415	1047
52.5°	4252	4300	4317	4333	4320	4309	3821	2999	2072	1271	938
55°	4860	4869	4866	4846	4835	4775	4099	3183	1955	1138	834
57.5°	5493	5497	5461	5391	5310	5253	4366	3335	1707	1031	731
60°	6308	6226	6165	6058	5926	5804	4652	3420	1470	928	615
62.5°	7292	7128	6996	6888	6693	6478	5017	3431	1326	830	483
65°	8566	8393	8168	7983	7772	7482	5606	3352	1255	716	353
67.5°	9569	9394	9142	8935	8663	8325	6094	3214	1238	613	278
69°	9744	9553	9326	9067	8778	8417	6113	3054	1212	574	255
70°	9680	9481	9262	8987	8663	8292	5969	2876	1160	552	247
72.5°	8962	8659	8439	8204	7810	7434	5139	2176	903	465	231
75°	7175	6916	6668	6551	6224	5905	3858	1382	590	289	181
77.5°	3658	3611	3682	3629	3393	3393	2381	734	347	174	138
80°	657	685	672	700	651	723	837	493	246	133	113
82.5°	184	186	184	185	191	201	435	424	190	100	88
85°	86	87	89	89	97	99	292	304	111	55	59
87.5°	10	13	13	12	14	14	54	61	15	11	18
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	155°	165°	175°	180°
0°	1756	1756	1756	1756
2.5°	1737	1733	1729	1732
5°	1743	1737	1732	1735
7.5°	1759	1749	1748	1748
10°	1779	1765	1761	1761
12.5°	1800	1781	1774	1774
15°	1822	1795	1785	1782
17.5°	1847	1809	1791	1791
20°	1871	1811	1784	1783
22.5°	1875	1788	1749	1747
25°	1845	1734	1683	1673
27.5°	1774	1650	1596	1594
30°	1667	1540	1485	1479
32.5°	1562	1427	1376	1376
35°	1456	1324	1258	1251
37.5°	1358	1215	1156	1155
40°	1268	1120	1063	1054
42.5°	1178	1020	955	953
45°	1071	911	855	850
47.5°	957	813	754	753
50°	854	722	663	663
52.5°	760	633	574	568
55°	654	532	472	465
57.5°	539	419	365	350
60°	417	305	250	242
62.5°	304	223	182	176
65°	229	190	156	150
67.5°	197	171	142	136
69°	183	162	136	130
70°	177	156	131	126
72.5°	163	143	120	118
75°	149	130	108	105
77.5°	144	113	93	91
80°	147	92	76	74
82.5°	120	74	59	56
85°	75	50	31	31
87.5°	19	16	9	9
90°	0	0	0	0

(END OF REPORT)