

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: P154550

Luminaire Tested: **TLM-E03-LED-E1-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P154550
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33671)
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-T2
Description: TALON MEDIUM LED SITE LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

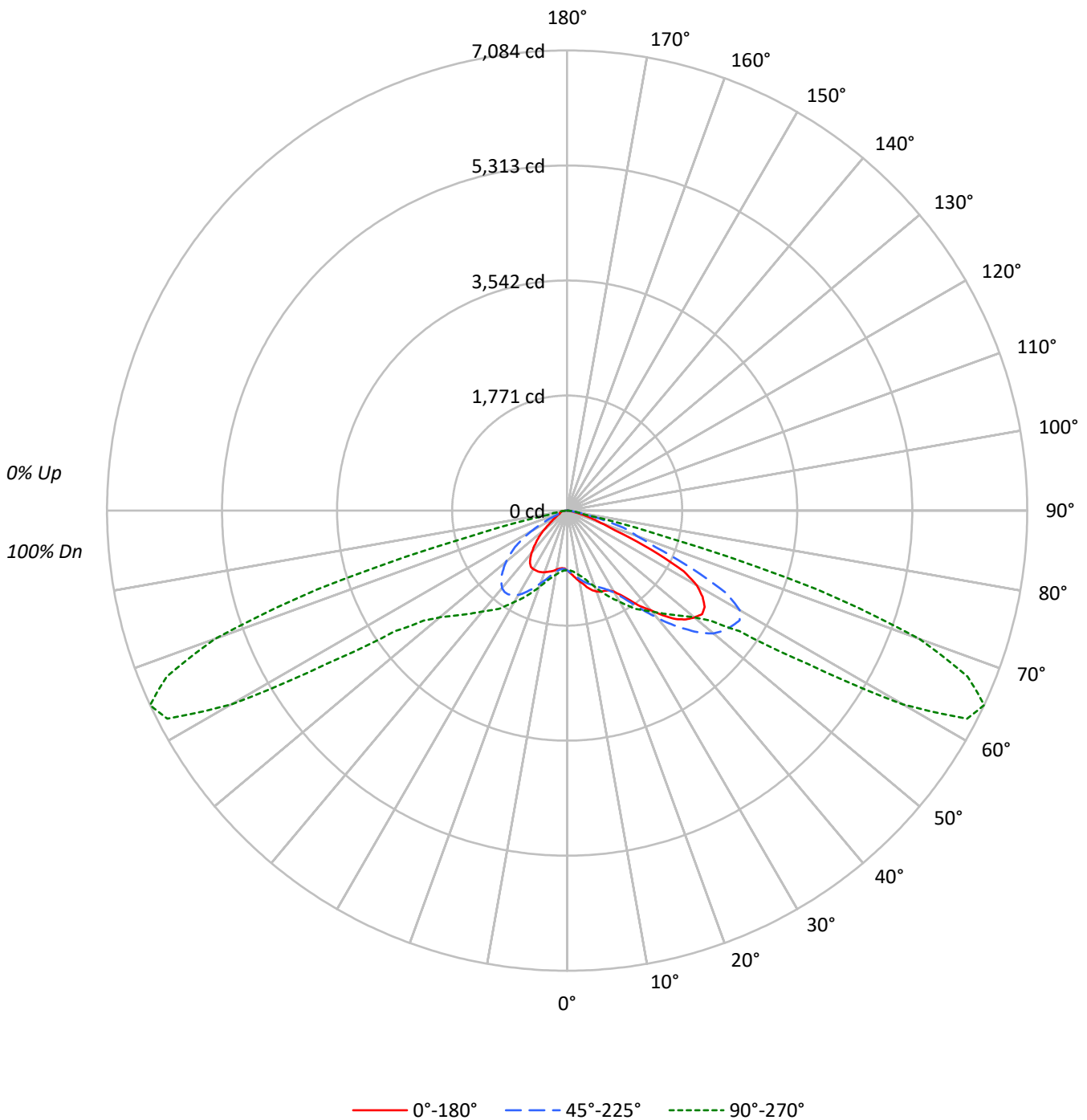
Lumens per Lamp: N/A
Luminaire Lumens: 9191.6 lumens
Efficiency: N/A
Efficacy: 122.2 lumens/watt
Spacing Criteria (0/90/45): 2.21 / 4.51 / 2.52
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (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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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	107	101	96	91	104	98	94	90	94	90	87	90	87	84	86	84	81	79
2	94	84	76	69	91	82	75	68	78	72	66	75	70	65	72	67	63	61
3	84	71	61	53	81	69	60	53	66	58	51	63	56	50	60	54	50	47
4	75	60	50	42	72	59	49	41	56	48	41	54	46	40	51	45	39	37
5	67	52	42	34	65	51	41	33	49	40	33	46	39	33	44	38	32	30
6	61	46	35	28	59	45	35	27	43	34	27	41	33	27	39	32	27	24
7	56	40	30	23	54	40	30	23	38	29	23	36	28	23	35	28	22	20
8	52	36	26	20	50	35	26	20	34	26	19	33	25	19	31	24	19	17
9	48	33	23	17	46	32	23	17	31	23	17	30	22	17	28	22	17	15
10	45	30	21	15	43	29	21	15	28	20	15	27	20	15	26	19	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	19784	19784	19784
5°	21632	20270	19233
10°	24199	21926	20089
15°	27413	24494	21596
20°	30401	28683	23139
25°	32376	34086	24656
30°	35746	40295	25853
35°	44257	48619	26202
40°	56177	57020	23859
45°	71941	68988	20124
50°	85704	85470	15707
55°	97022	121493	11185
60°	99329	256655	8783
65°	73047	360853	7386
70°	34682	363056	7301
75°	18881	134830	8900
80°	8926	21571	11406
85°	4199	13338	13338



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	1.0
10°-20°	316.1	3.4
20°-30°	621.0	6.8
30°-40°	1031.8	11.2
40°-50°	1516.2	16.5
50°-60°	2099.1	22.8
60°-70°	2505.5	27.3
70°-80°	886.1	9.6
80°-90°	123.8	1.3
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°-30°	1029.1	11.2
0°-40°	2060.9	22.4
0°-60°	5676.2	61.8
0°-90°	9191.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9191.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	919	919	919	919	919	
5°	1001	982	938	902	890	99
15°	1230	1153	1099	1055	969	350
25°	1363	1322	1435	1349	1038	635
35°	1684	1741	1850	1576	997	1076
45°	2363	2579	2266	1428	661	1809
55°	2585	3099	3237	976	298	2265
65°	1434	2137	7084	302	145	1398
75°	227	643	1621	121	107	280
85°	17	35	54	92	54	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	919	919	919	919	919	919	919	919	919	919	919
2.5°	959	960	958	957	954	949	945	941	941	941	938
5°	1001	1003	999	996	987	982	975	970	968	967	964
7.5°	1054	1051	1045	1043	1036	1025	1012	1002	1002	1001	1002
10°	1107	1099	1096	1093	1082	1068	1053	1042	1041	1040	1037
12.5°	1160	1157	1154	1143	1132	1110	1093	1082	1081	1082	1078
15°	1230	1223	1220	1201	1177	1153	1132	1122	1119	1120	1117
17.5°	1284	1284	1277	1256	1225	1192	1170	1164	1163	1163	1164
20°	1327	1326	1319	1302	1265	1232	1221	1219	1218	1218	1221
22.5°	1351	1349	1346	1327	1298	1276	1277	1283	1285	1287	1291
25°	1363	1360	1359	1346	1325	1322	1340	1356	1360	1364	1369
27.5°	1383	1378	1380	1375	1370	1379	1416	1433	1436	1441	1444
30°	1438	1436	1444	1446	1450	1463	1497	1513	1520	1520	1534
32.5°	1543	1544	1546	1567	1574	1583	1601	1614	1615	1616	1629
35°	1684	1690	1707	1725	1742	1741	1730	1737	1732	1738	1739
37.5°	1862	1854	1879	1920	1946	1939	1890	1858	1867	1863	1860
40°	1999	2008	2056	2110	2130	2152	2088	2033	2025	2010	2001
42.5°	2188	2189	2228	2268	2326	2374	2333	2254	2230	2212	2173
45°	2363	2360	2392	2441	2510	2579	2594	2508	2499	2467	2416
47.5°	2480	2476	2498	2562	2674	2787	2849	2823	2806	2793	2713
50°	2559	2551	2576	2644	2769	2943	3105	3127	3120	3120	3069
52.5°	2618	2618	2636	2691	2818	3035	3325	3436	3445	3455	3452
55°	2585	2590	2635	2715	2849	3099	3507	3750	3800	3842	3890
57.5°	2472	2489	2549	2680	2857	3147	3709	4190	4331	4453	4643
60°	2307	2329	2416	2583	2798	3069	3780	4562	4786	5052	5548
62.5°	2024	2046	2131	2298	2482	2770	3486	4617	4975	5352	6102
65°	1434	1399	1497	1647	1858	2137	2817	4248	4763	5274	6200
67.5°	799	796	856	968	1170	1470	1941	3258	3732	4311	5448
70°	551	557	595	716	883	1142	1383	2046	2387	2780	3898
72.5°	387	400	421	493	664	962	1413	1223	1393	1661	2344
75°	227	236	251	286	378	643	1463	1075	1075	1138	1418
77.5°	140	140	149	163	201	315	1042	1208	1174	1138	1141
80°	72	77	90	97	112	144	468	1127	1236	1309	1258
82.5°	33	37	55	59	65	76	161	641	859	1131	1413
85°	17	17	29	36	39	35	59	259	392	598	936
87.5°	3	3	5	6	9	8	10	15	25	27	28
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°	71°	72°	73°	74°	75°
0°	919	919	919	919	919	919	919	919	919	919	919
2.5°	937	938	937	936	934	934	934	933	933	933	932
5°	964	960	961	959	958	957	958	956	954	955	954
7.5°	998	996	992	992	991	989	989	986	985	983	982
10°	1036	1031	1033	1031	1032	1028	1026	1024	1022	1022	1023
12.5°	1075	1074	1071	1069	1069	1066	1067	1066	1063	1062	1059
15°	1115	1115	1112	1113	1112	1110	1108	1108	1106	1104	1105
17.5°	1162	1162	1162	1162	1163	1160	1161	1159	1157	1161	1161
20°	1223	1227	1227	1226	1231	1228	1227	1232	1227	1234	1233
22.5°	1293	1297	1297	1301	1302	1305	1307	1305	1309	1313	1313
25°	1371	1375	1378	1384	1387	1385	1386	1391	1393	1397	1401
27.5°	1453	1454	1458	1465	1470	1472	1473	1481	1482	1484	1488
30°	1533	1543	1541	1550	1553	1556	1562	1565	1572	1576	1576
32.5°	1627	1625	1633	1640	1645	1650	1655	1659	1663	1665	1675
35°	1744	1748	1748	1749	1761	1762	1766	1775	1778	1784	1788
37.5°	1860	1853	1852	1852	1848	1851	1852	1853	1857	1858	1862
40°	1990	1981	1973	1968	1960	1949	1947	1942	1945	1944	1945
42.5°	2168	2143	2124	2110	2094	2082	2073	2060	2051	2040	2038
45°	2395	2348	2316	2293	2270	2237	2218	2198	2180	2162	2147
47.5°	2693	2643	2592	2550	2514	2461	2407	2377	2342	2311	2289
50°	3044	2984	2960	2901	2856	2776	2709	2660	2590	2543	2502
52.5°	3403	3388	3375	3325	3272	3226	3167	3081	3010	2956	2872
55°	3892	3899	3894	3867	3848	3804	3780	3705	3673	3595	3507
57.5°	4715	4771	4842	4870	4908	4872	4914	4965	4838	4882	4803
60°	5766	6023	6176	6364	6487	6659	6690	6735	6722	6747	6798
62.5°	6408	6713	7006	7219	7447	7573	7725	7831	7941	8015	7994
65°	6597	6911	7177	7410	7614	7768	7909	8042	8143	8214	8256
67.5°	5903	6313	6593	6866	7129	7291	7409	7538	7686	7809	7833
70°	4442	5057	5454	5781	6090	6308	6473	6593	6708	6796	6892
72.5°	2778	3316	3770	4194	4522	4822	4961	5227	5192	5259	5331
75°	1665	1927	2177	2476	2648	2898	2943	2987	2964	2889	2945
77.5°	1157	1200	1198	1181	1163	1119	1062	1031	1010	980	992
80°	1164	1071	929	781	645	555	519	519	556	609	662
82.5°	1391	1292	1152	964	764	622	527	489	496	550	618
85°	938	960	842	770	610	475	398	323	286	295	334
87.5°	34	41	15	20	14	12	12	13	9	11	10
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	919	919	919	919	919	919	919	919	919	919	919
2.5°	931	930	930	928	928	927	927	926	925	925	924
5°	953	952	950	949	947	947	946	944	944	942	941
7.5°	984	982	980	979	978	975	975	973	973	971	970
10°	1021	1019	1017	1018	1015	1014	1012	1012	1009	1008	1008
12.5°	1061	1060	1060	1057	1056	1055	1051	1051	1051	1049	1050
15°	1104	1105	1102	1105	1104	1101	1101	1101	1097	1102	1098
17.5°	1162	1165	1163	1164	1162	1162	1163	1162	1164	1164	1170
20°	1234	1235	1240	1238	1238	1237	1239	1240	1244	1242	1246
22.5°	1313	1318	1319	1323	1323	1322	1324	1328	1330	1333	1332
25°	1403	1406	1410	1405	1413	1413	1415	1420	1421	1421	1428
27.5°	1487	1495	1496	1501	1498	1500	1507	1510	1514	1514	1516
30°	1582	1585	1587	1593	1592	1593	1594	1599	1599	1604	1609
32.5°	1680	1682	1684	1690	1692	1696	1694	1698	1703	1704	1707
35°	1797	1799	1801	1810	1811	1818	1820	1818	1826	1821	1826
37.5°	1865	1874	1876	1882	1880	1885	1888	1892	1894	1898	1906
40°	1948	1951	1957	1960	1964	1965	1969	1972	1975	1984	1993
42.5°	2033	2037	2040	2044	2049	2053	2056	2065	2067	2073	2090
45°	2136	2134	2135	2136	2138	2143	2152	2161	2167	2181	2195
47.5°	2264	2251	2246	2238	2240	2251	2253	2268	2280	2293	2310
50°	2458	2423	2402	2381	2379	2385	2393	2409	2423	2440	2464
52.5°	2784	2717	2675	2617	2601	2598	2592	2601	2605	2628	2673
55°	3444	3320	3240	3150	3066	3041	2993	3003	2993	3007	3074
57.5°	4822	4723	4645	4530	4386	4233	4195	4038	4069	4159	4101
60°	6823	6787	6731	6676	6479	6368	6187	6167	6040	6041	5958
62.5°	7943	7989	7955	7939	7928	7893	7803	7695	7533	7416	7244
65°	8263	8224	8187	8182	8179	8236	8249	8173	8026	7844	7646
67.5°	7890	7868	7870	7828	7854	7953	8022	8001	7866	7646	7394
70°	7002	6959	7003	7058	7097	7154	7223	7240	7117	6891	6634
72.5°	5243	5250	5292	5307	5464	5448	5510	5308	5219	5004	4872
75°	2759	2714	2831	2583	2481	2552	2353	2162	2202	2235	1997
77.5°	975	912	805	762	634	537	439	396	373	361	346
80°	700	720	698	646	549	440	347	274	235	214	200
82.5°	708	787	822	807	719	544	359	229	170	142	132
85°	380	416	400	337	303	181	124	83	70	64	59
87.5°	15	12	10	10	11	12	10	11	10	10	10
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	919	919	919	919	919	919	919	919	919	919	919
2.5°	922	922	922	921	919	914	909	905	902	899	895
5°	940	938	938	938	930	922	915	908	902	897	893
7.5°	970	969	965	964	958	945	937	925	918	911	909
10°	1006	1005	1004	1003	995	982	972	961	951	941	931
12.5°	1048	1047	1046	1043	1040	1033	1022	1010	998	977	966
15°	1100	1102	1100	1099	1097	1098	1091	1074	1055	1028	1005
17.5°	1169	1167	1166	1170	1169	1174	1172	1150	1121	1078	1038
20°	1245	1245	1249	1252	1261	1274	1268	1241	1188	1128	1076
22.5°	1336	1338	1342	1340	1354	1375	1377	1339	1270	1187	1114
25°	1431	1433	1429	1435	1458	1488	1494	1440	1349	1241	1146
27.5°	1521	1523	1523	1531	1553	1604	1610	1550	1429	1288	1169
30°	1609	1617	1619	1621	1654	1725	1738	1651	1499	1323	1185
32.5°	1720	1723	1727	1732	1770	1857	1857	1738	1544	1345	1188
35°	1839	1840	1849	1850	1904	1991	1974	1810	1576	1340	1166
37.5°	1911	1915	1924	1936	1993	2116	2077	1872	1582	1307	1116
40°	2000	2008	2017	2029	2114	2243	2164	1911	1557	1242	1041
42.5°	2096	2107	2121	2143	2244	2355	2230	1917	1500	1169	952
45°	2204	2224	2240	2266	2380	2452	2270	1882	1428	1073	857
47.5°	2329	2345	2373	2401	2515	2518	2274	1814	1330	977	756
50°	2483	2493	2535	2552	2659	2587	2245	1722	1227	869	644
52.5°	2688	2702	2756	2782	2858	2681	2204	1622	1109	748	529
55°	3093	3154	3192	3237	3286	2894	2186	1515	976	608	419
57.5°	4230	4210	4294	4396	4395	3381	2294	1423	819	465	322
60°	5924	5943	5900	5961	5767	3985	2442	1326	642	346	246
62.5°	7183	7073	7012	6940	6513	4051	2334	1127	467	243	189
65°	7481	7352	7221	7084	6440	3652	1915	827	302	167	150
67.5°	7187	6980	6813	6672	5901	3027	1400	508	173	135	128
70°	6425	6196	5926	5768	4969	2231	897	274	133	120	117
72.5°	4703	4515	4220	4039	3568	1356	501	154	124	115	111
75°	1832	1734	1611	1621	1447	600	227	133	121	113	109
77.5°	315	307	284	284	323	219	151	134	120	111	104
80°	189	185	176	174	168	154	145	136	118	105	96
82.5°	124	119	116	115	125	135	136	135	112	91	78
85°	53	53	53	54	72	109	112	120	92	71	56
87.5°	9	11	11	12	13	24	30	39	31	30	27
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	165°	175°	180°
0°	919	919	919
2.5°	894	892	892
5°	891	889	890
7.5°	903	899	900
10°	925	921	919
12.5°	953	948	948
15°	982	970	969
17.5°	1006	991	989
20°	1033	1013	1010
22.5°	1058	1031	1027
25°	1076	1043	1038
27.5°	1084	1045	1041
30°	1090	1046	1040
32.5°	1084	1037	1032
35°	1051	1000	997
37.5°	994	937	933
40°	919	859	849
42.5°	823	767	756
45°	730	666	661
47.5°	630	569	572
50°	525	470	469
52.5°	425	377	374
55°	335	301	298
57.5°	265	247	244
60°	216	207	204
62.5°	174	171	170
65°	145	145	145
67.5°	126	127	127
70°	116	117	116
72.5°	112	115	115
75°	109	111	107
77.5°	107	108	101
80°	106	105	92
82.5°	92	89	78
85°	84	64	54
87.5°	43	30	23
90°	0	0	0

(END OF REPORT)