

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: P150090

Luminaire Tested: **TLM-E03-LED-E1-SL2**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P150090  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33678)  
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-SL2  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL  
Light Source: (63) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

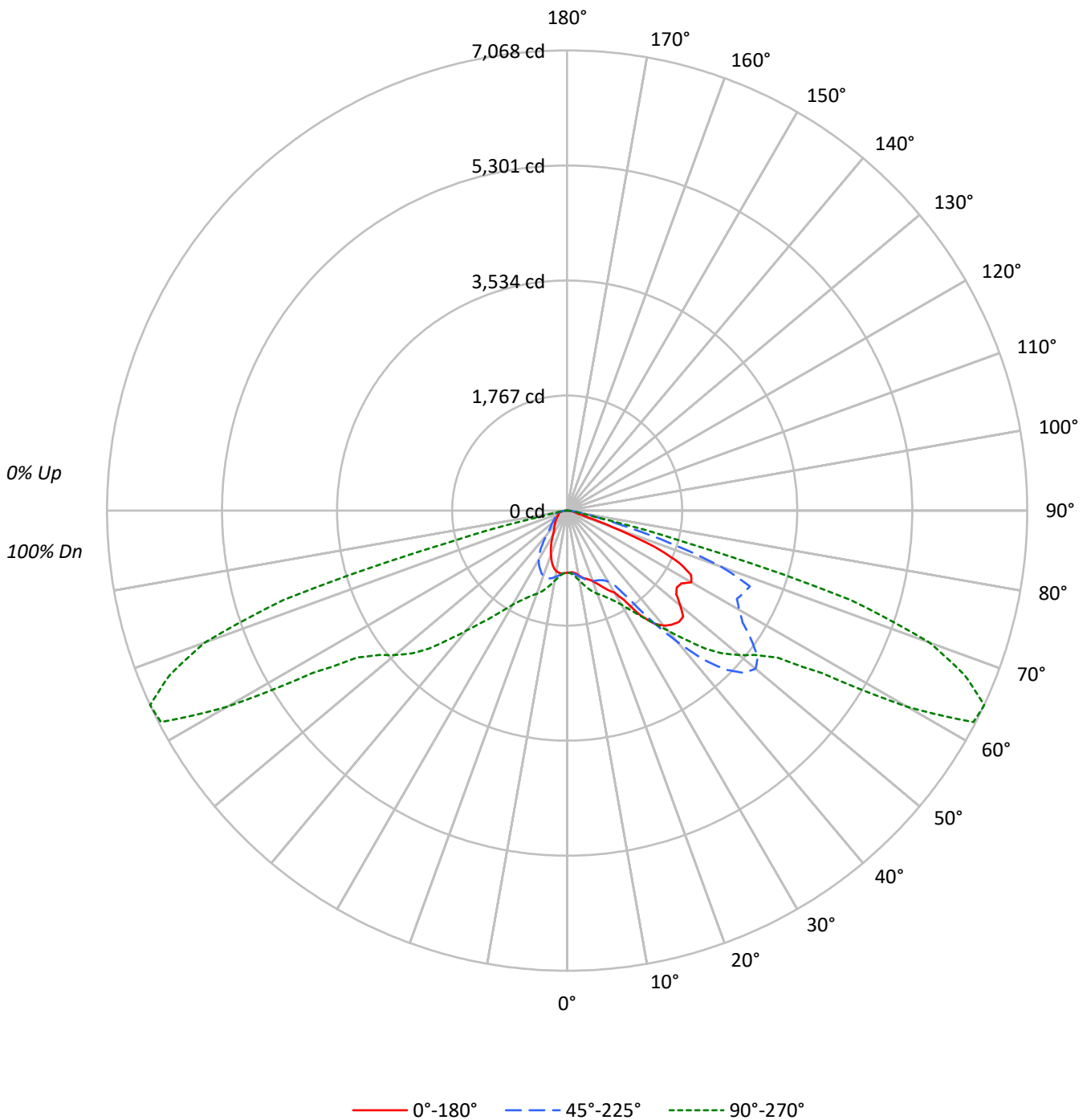
Lumens per Lamp: N/A  
Luminaire Lumens: 9165.3 lumens  
Efficiency: N/A  
Efficacy: 121.9 lumens/watt  
Spacing Criteria (0/90/45): 1.99 / 4.45 / 2.31  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P150090  
CATALOG NUMBER: TLM-E03-LED-E1-SL2

### Luminous Intensity Polar Plot





TEST NUMBER: P150090

CATALOG NUMBER: TLM-E03-LED-E1-SL2

**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	100	94	90	103	98	93	88	93	89	85	89	86	83	85	83	80	78					78			
2	93	83	74	67	90	81	73	66	77	70	64	74	68	63	70	66	61	59					59			
3	82	69	59	51	80	68	58	51	64	56	50	61	54	49	59	53	48	45					45			
4	74	59	48	40	71	57	47	40	55	46	39	52	45	38	50	43	38	35					35			
5	66	51	40	32	64	50	39	32	47	38	31	45	37	31	43	36	30	28					28			
6	60	44	34	26	58	43	33	26	41	32	26	40	32	25	38	31	25	23					23			
7	55	39	29	22	53	38	29	22	37	28	22	35	27	21	34	27	21	19					19			
8	51	35	25	19	49	34	25	19	33	24	18	32	24	18	30	23	18	16					16			
9	47	32	22	16	46	31	22	16	30	22	16	29	21	16	28	21	16	14					14			
10	44	29	20	14	42	28	20	14	27	19	14	26	19	14	25	19	14	12					12			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	20538	20538	20538
5°	20551	21308	20962
10°	21991	23893	20701
15°	24093	27592	19256
20°	26415	31134	16632
25°	30808	35131	13753
30°	36144	41389	10863
35°	51536	52193	9067
40°	64833	67531	8431
45°	73768	91304	8007
50°	75992	115612	7569
55°	77092	147428	7356
60°	94852	259367	7319
65°	96886	360038	7692
70°	46452	372686	8749
75°	12809	153462	10647
80°	10786	21447	10538
85°	7163	13338	11362



TEST NUMBER: P150090

CATALOG NUMBER: TLM-E03-LED-E1-SL2

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.8	1.0
10°-20°	310.1	3.4
20°-30°	535.6	5.8
30°-40°	886.6	9.7
40°-50°	1503.6	16.4
50°-60°	1997.8	21.8
60°-70°	2580.6	28.2
70°-80°	1082.3	11.8
80°-90°	173.9	1.9
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°-30°	940.5	10.3
0°-40°	1827.1	19.9
0°-60°	5328.5	58.1
0°-90°	9165.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9165.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	954	954	954	954	954	
5°	951	967	986	980	970	93
15°	1081	1094	1238	1079	864	308
25°	1297	1178	1479	989	579	606
35°	1961	1636	1986	700	345	1214
45°	2423	3458	2999	359	263	1840
55°	2054	3446	3928	244	196	1903
65°	1902	2988	7068	194	151	1719
75°	154	859	1845	202	128	248
85°	29	72	54	62	46	39
90°	0	0	0	0	0	



TEST NUMBER: P150090

CATALOG NUMBER: TLM-E03-LED-E1-SL2

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	954	954	954	954	954	954	954	954	954	954	954
2.5°	951	954	952	954	956	957	959	958	958	959	957
5°	951	951	954	959	961	967	974	973	974	973	975
7.5°	971	970	973	979	981	990	1002	1004	1006	1006	1009
10°	1006	1005	1008	1011	1014	1021	1038	1045	1046	1047	1051
12.5°	1050	1049	1045	1045	1044	1057	1080	1093	1095	1099	1102
15°	1081	1078	1072	1068	1073	1094	1128	1143	1145	1148	1156
17.5°	1111	1108	1095	1085	1092	1126	1172	1188	1192	1195	1204
20°	1153	1151	1132	1108	1106	1150	1206	1227	1230	1234	1243
22.5°	1217	1208	1186	1141	1119	1164	1230	1259	1263	1267	1279
25°	1297	1293	1255	1186	1140	1178	1256	1292	1298	1303	1319
27.5°	1380	1374	1333	1243	1177	1206	1297	1338	1346	1354	1369
30°	1454	1452	1418	1320	1237	1259	1363	1413	1422	1432	1446
32.5°	1628	1629	1594	1494	1382	1355	1458	1533	1537	1549	1574
35°	1961	1965	1952	1873	1747	1636	1646	1720	1724	1734	1758
37.5°	2184	2192	2232	2257	2193	2142	2015	1986	1989	1983	1978
40°	2307	2319	2424	2554	2624	2625	2570	2442	2393	2379	2319
42.5°	2377	2397	2546	2768	2969	3107	3141	2999	2963	2899	2784
45°	2423	2447	2623	2927	3223	3458	3635	3572	3548	3509	3403
47.5°	2415	2434	2617	2981	3356	3690	4004	4069	4040	4030	3958
50°	2269	2286	2472	2847	3283	3778	4238	4422	4422	4441	4419
52.5°	2113	2127	2296	2633	3047	3692	4368	4673	4713	4746	4798
55°	2054	2071	2199	2487	2846	3446	4412	4861	4935	4991	5109
57.5°	2082	2099	2190	2408	2728	3195	4414	5114	5257	5372	5611
60°	2203	2219	2295	2481	2697	3050	4329	5517	5745	5961	6359
62.5°	2147	2167	2278	2602	2928	2940	4022	5829	6196	6515	7148
65°	1902	1923	2010	2313	2942	2988	3567	5835	6291	6722	7405
67.5°	1444	1452	1521	1764	2353	3041	3099	5144	5578	6059	6764
70°	738	752	772	974	1515	2513	2663	3791	4344	4841	5688
72.5°	256	261	281	372	738	1649	2331	2598	2932	3397	4378
75°	154	154	161	188	337	859	2074	2122	2167	2323	2965
77.5°	122	124	124	129	187	441	1575	1973	1979	1994	2102
80°	87	91	99	103	121	242	884	1732	1850	1907	1986
82.5°	65	69	84	89	94	135	397	1195	1410	1524	1802
85°	29	34	57	63	66	72	186	340	391	439	579
87.5°	5	5	9	13	19	18	41	58	59	69	77
90°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P150090

CATALOG NUMBER: TLM-E03-LED-E1-SL2

**CANDELA DISTRIBUTION (continued):**

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	954	954	954	954	954	954	954	954	954	954	954
2.5°	957	957	957	956	957	957	957	957	958	958	958
5°	978	976	977	977	977	976	978	977	978	981	980
7.5°	1009	1011	1012	1013	1013	1013	1014	1016	1016	1019	1018
10°	1055	1054	1055	1058	1061	1062	1065	1064	1066	1070	1074
12.5°	1104	1106	1109	1112	1117	1118	1121	1122	1128	1128	1132
15°	1159	1160	1166	1167	1173	1175	1180	1182	1189	1190	1194
17.5°	1209	1211	1214	1217	1224	1227	1231	1235	1241	1243	1250
20°	1249	1253	1254	1260	1266	1270	1274	1278	1284	1287	1294
22.5°	1285	1289	1292	1297	1301	1307	1309	1316	1322	1327	1333
25°	1324	1330	1333	1342	1345	1351	1356	1363	1371	1377	1385
27.5°	1379	1388	1392	1402	1409	1412	1420	1430	1437	1444	1452
30°	1455	1472	1475	1482	1495	1497	1507	1515	1526	1533	1540
32.5°	1573	1594	1596	1604	1615	1619	1627	1636	1653	1656	1667
35°	1754	1763	1771	1774	1783	1788	1794	1804	1821	1819	1831
37.5°	1971	1974	1975	1965	1967	1958	1969	1971	1977	1982	1994
40°	2281	2250	2246	2222	2198	2185	2180	2160	2165	2167	2177
42.5°	2734	2674	2624	2590	2531	2502	2463	2432	2408	2417	2421
45°	3308	3222	3142	3038	2961	2906	2837	2775	2747	2734	2750
47.5°	3881	3805	3711	3604	3482	3391	3276	3175	3105	3079	3093
50°	4376	4306	4235	4172	4030	3931	3774	3643	3533	3477	3462
52.5°	4787	4750	4712	4659	4545	4446	4321	4192	4046	3932	3893
55°	5154	5176	5157	5158	5113	5050	4944	4848	4746	4617	4563
57.5°	5689	5819	5845	5910	5942	5976	6006	5949	5923	5827	5828
60°	6532	6722	6887	7037	7160	7280	7406	7462	7524	7553	7652
62.5°	7429	7610	7856	8057	8170	8326	8463	8552	8661	8777	8928
65°	7651	7869	8024	8158	8270	8353	8428	8534	8625	8809	8987
67.5°	7082	7256	7398	7530	7617	7687	7754	7824	7980	8147	8326
70°	6079	6289	6524	6695	6738	6798	6862	6953	7031	7206	7342
72.5°	4884	5186	5385	5622	5673	5764	5800	5871	5885	5980	6016
75°	3404	3750	3950	4124	4158	4108	4128	3877	3813	3761	3719
77.5°	2247	2340	2372	2344	2210	2105	1993	1883	1895	1806	1650
80°	1998	2019	1990	1962	1885	1775	1674	1571	1520	1466	1386
82.5°	1944	2025	2034	2000	1939	1819	1697	1544	1414	1294	1172
85°	650	791	854	913	931	952	880	782	664	585	458
87.5°	83	103	119	102	119	140	101	113	114	71	53
90°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P150090

CATALOG NUMBER: TLM-E03-LED-E1-SL2

**CANDELA DISTRIBUTION (continued):**

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	954	954	954	954	954	954	954	954	954	954	954
2.5°	959	958	958	958	957	958	958	958	958	958	957
5°	981	981	984	985	983	982	983	984	984	983	984
7.5°	1022	1023	1025	1028	1026	1027	1028	1027	1030	1031	1030
10°	1074	1076	1081	1082	1081	1085	1086	1084	1086	1086	1090
12.5°	1134	1136	1142	1144	1146	1147	1150	1151	1154	1156	1159
15°	1199	1201	1205	1212	1214	1216	1218	1224	1225	1229	1232
17.5°	1254	1257	1263	1268	1271	1276	1278	1285	1287	1293	1298
20°	1298	1303	1308	1314	1319	1325	1327	1334	1338	1341	1347
22.5°	1338	1344	1351	1358	1362	1370	1373	1376	1385	1389	1395
25°	1390	1396	1404	1413	1417	1427	1430	1435	1445	1449	1458
27.5°	1461	1469	1475	1484	1489	1496	1503	1509	1518	1524	1534
30°	1550	1556	1566	1573	1581	1591	1599	1605	1610	1619	1630
32.5°	1681	1682	1685	1702	1710	1718	1729	1734	1742	1751	1763
35°	1844	1853	1860	1868	1877	1886	1890	1905	1912	1924	1936
37.5°	2006	2007	2023	2028	2036	2045	2059	2074	2092	2104	2123
40°	2180	2188	2208	2218	2228	2250	2261	2285	2315	2332	2364
42.5°	2432	2444	2480	2496	2520	2556	2579	2612	2624	2665	2680
45°	2762	2799	2851	2885	2928	2967	2987	3002	3020	3052	3048
47.5°	3119	3167	3225	3295	3323	3369	3395	3424	3408	3400	3392
50°	3485	3541	3618	3681	3724	3752	3774	3770	3736	3718	3668
52.5°	3892	3925	3998	4052	4078	4084	4079	4049	4017	3960	3901
55°	4516	4501	4530	4555	4547	4575	4503	4475	4396	4322	4243
57.5°	5784	5804	5642	5569	5556	5582	5455	5439	5248	5224	5091
60°	7638	7736	7609	7538	7346	7283	7141	7082	6899	6751	6564
62.5°	9032	9121	9174	9073	8961	8796	8581	8343	8149	7922	7724
65°	9158	9338	9460	9507	9428	9247	8982	8682	8385	8100	7850
67.5°	8569	8730	8919	9088	9098	8980	8754	8449	8106	7754	7461
70°	7557	7759	7924	8102	8226	8158	8045	7765	7409	7135	6798
72.5°	6146	6231	6271	6446	6448	6324	6244	6089	5802	5608	5351
75°	3589	3402	3203	3030	2889	2830	2568	2524	2348	2239	2079
77.5°	1480	1313	1098	919	742	662	546	495	429	400	381
80°	1269	1111	949	794	656	518	403	313	246	209	194
82.5°	1036	941	828	744	636	533	450	349	261	192	147
85°	374	307	247	227	181	149	125	107	88	70	62
87.5°	42	40	23	22	25	18	21	19	16	14	15
90°	0	0	0	0	0	0	0	0	0	0	0





TEST NUMBER: P150090

CATALOG NUMBER: TLM-E03-LED-E1-SL2

**CANDELA DISTRIBUTION (continued):**

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	954	954	954	954	954	954	954	954	954	954	954
2.5°	957	957	958	958	959	960	962	961	961	962	962
5°	984	987	986	986	986	987	988	984	980	976	974
7.5°	1031	1033	1035	1033	1035	1034	1032	1021	1008	992	981
10°	1092	1092	1094	1093	1097	1094	1088	1063	1035	1001	976
12.5°	1158	1165	1162	1163	1171	1163	1149	1112	1062	1007	963
15°	1236	1239	1241	1238	1243	1236	1211	1152	1079	1002	937
17.5°	1300	1301	1302	1304	1311	1303	1260	1180	1083	979	893
20°	1350	1355	1359	1359	1369	1357	1300	1194	1070	941	837
22.5°	1402	1406	1411	1412	1425	1413	1333	1191	1036	887	772
25°	1466	1470	1474	1479	1497	1480	1366	1179	989	823	702
27.5°	1540	1549	1552	1560	1581	1555	1394	1161	937	749	628
30°	1639	1650	1654	1665	1694	1637	1410	1130	871	674	549
32.5°	1772	1787	1799	1811	1844	1719	1412	1085	794	590	473
35°	1946	1969	1978	1986	2017	1808	1403	1018	700	504	413
37.5°	2141	2164	2170	2174	2180	1884	1381	916	594	429	365
40°	2381	2401	2409	2403	2371	1943	1332	797	491	378	335
42.5°	2674	2704	2707	2680	2574	1976	1234	657	410	341	312
45°	3037	3035	3018	2999	2795	1963	1097	535	359	312	291
47.5°	3363	3329	3303	3247	2990	1887	920	443	328	290	273
50°	3630	3568	3513	3452	3135	1752	744	376	299	271	256
52.5°	3841	3766	3702	3642	3275	1602	610	327	271	252	237
55°	4171	4096	3994	3928	3489	1464	523	288	244	232	217
57.5°	5006	4940	4818	4647	4039	1412	474	258	222	215	203
60°	6464	6357	6198	6024	5157	1447	435	237	207	201	192
62.5°	7564	7376	7196	7035	6051	1446	384	221	196	193	184
65°	7609	7418	7237	7068	6071	1287	324	207	194	193	178
67.5°	7205	6998	6823	6610	5620	1006	260	198	202	200	176
70°	6545	6275	6131	5921	4946	704	214	201	219	213	179
72.5°	5137	4933	4714	4568	3872	445	180	203	226	216	187
75°	1912	1967	1877	1845	1967	261	160	189	202	187	170
77.5°	386	369	350	346	447	161	147	164	155	137	138
80°	185	180	174	173	166	134	136	140	117	106	113
82.5°	123	116	114	110	112	120	129	120	90	84	102
85°	57	55	54	54	60	108	107	88	62	60	102
87.5°	14	14	15	14	16	32	28	27	23	26	48
90°	0	0	0	0	0	0	0	0	0	0	0



TEST NUMBER: P150090

CATALOG NUMBER: TLM-E03-LED-E1-SL2

**CANDELA DISTRIBUTION (continued):**

	165°	175°	180°
0°	954	954	954
2.5°	961	962	961
5°	970	970	970
7.5°	970	967	966
10°	956	947	947
12.5°	932	917	915
15°	887	867	864
17.5°	830	803	798
20°	766	732	726
22.5°	696	657	654
25°	627	587	579
27.5°	550	511	507
30°	473	439	437
32.5°	408	387	383
35°	362	350	345
37.5°	332	323	322
40°	309	301	300
42.5°	290	283	282
45°	271	265	263
47.5°	252	246	245
50°	235	227	226
52.5°	219	211	209
55°	204	196	196
57.5°	191	183	182
60°	179	171	170
62.5°	170	160	159
65°	163	153	151
67.5°	159	147	144
70°	166	144	139
72.5°	167	141	134
75°	161	133	128
77.5°	141	119	114
80°	122	92	85
82.5°	116	75	65
85°	90	49	46
87.5°	51	27	22
90°	0	0	0

(END OF REPORT)