

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: HALO

Report Number: P407849

Luminaire Tested: **ALS4A40**

Issue Date: 08/27/2020

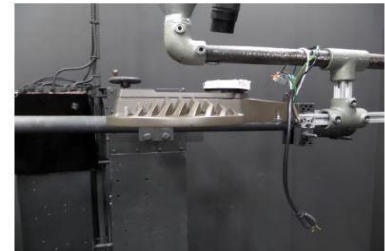
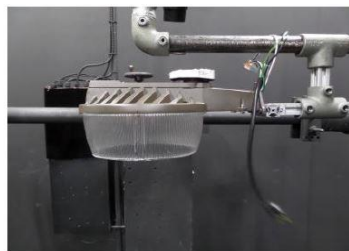
Test Information

Test Method: LM-79-08
Report Number: P407849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2006-852-2)
Test Lab: INNOVATIONS CENTER(G1)
Issue Date: 08/27/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ALS4A40
Description: HALO OUTDOOR BARN LIGHT STANDARD 4000LM
Light Source: (52) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4237.7 lumens
Efficiency: N/A
Efficacy: 156.4 lumens/watt
Luminous Opening: Circular (Dia: 0.67' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B2 - U0 - G0

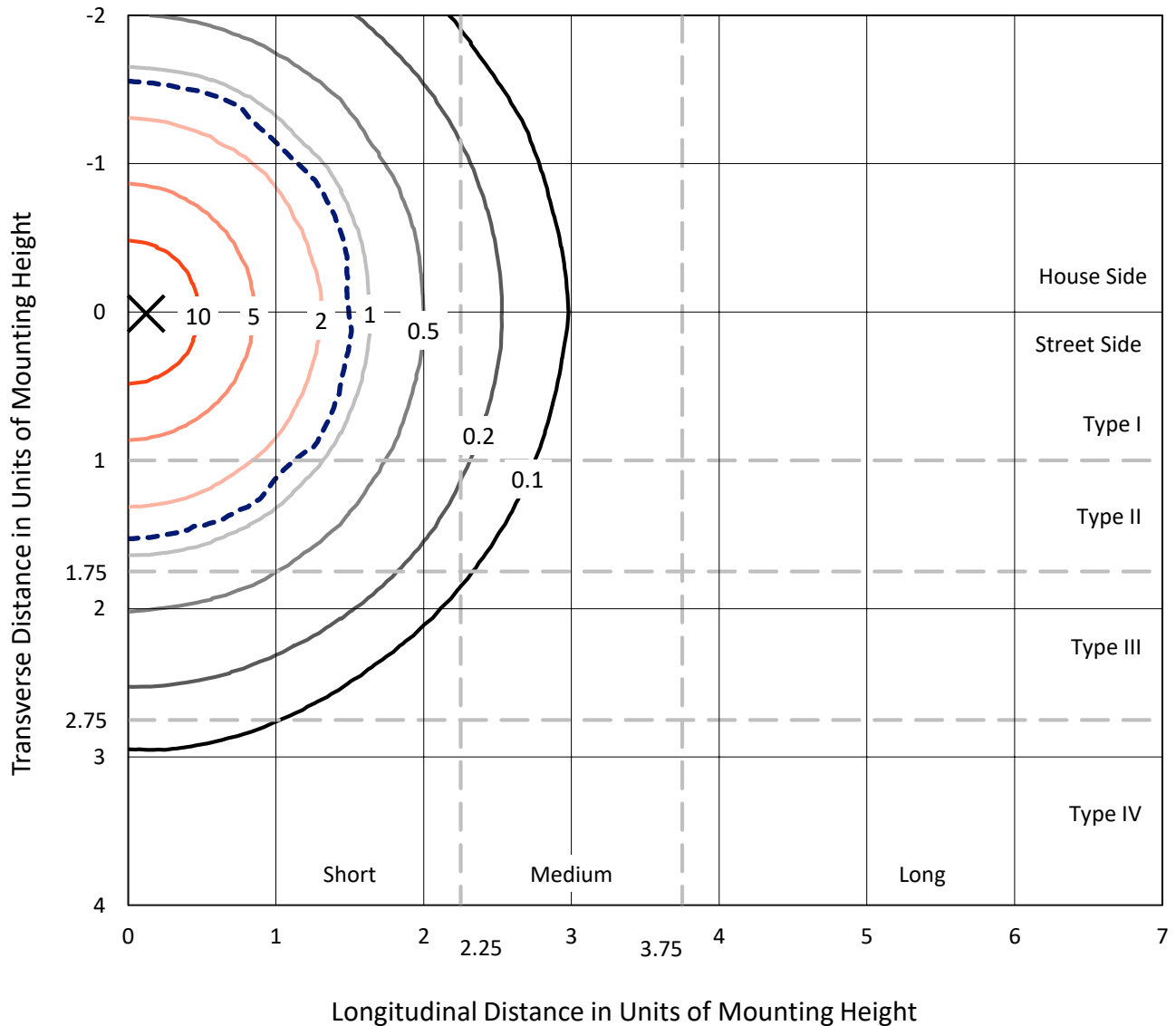
Input Watts (W): 27.1
Input Voltage (V): 120.0
Input Current (Ain): 0.230
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P407849
 CATALOG NUMBER: ALS4A40

Iso-Footcandle Lines of Horizontal Illumination

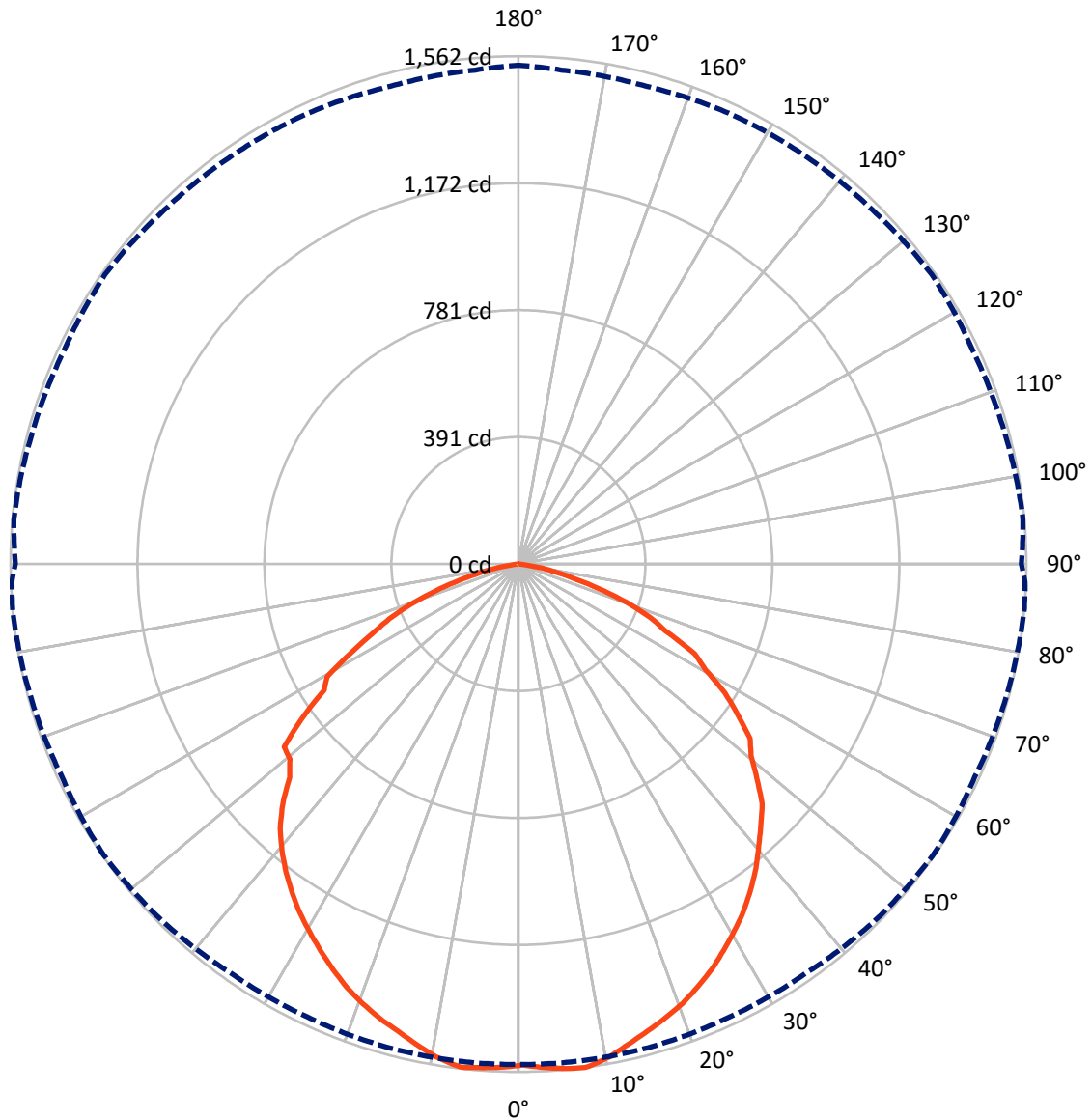
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.4 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P407849
CATALOG NUMBER: ALS4A40

Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 7-Deg Vertical

REPORT NUMBER: P407849
 CATALOG NUMBER: ALS4A40

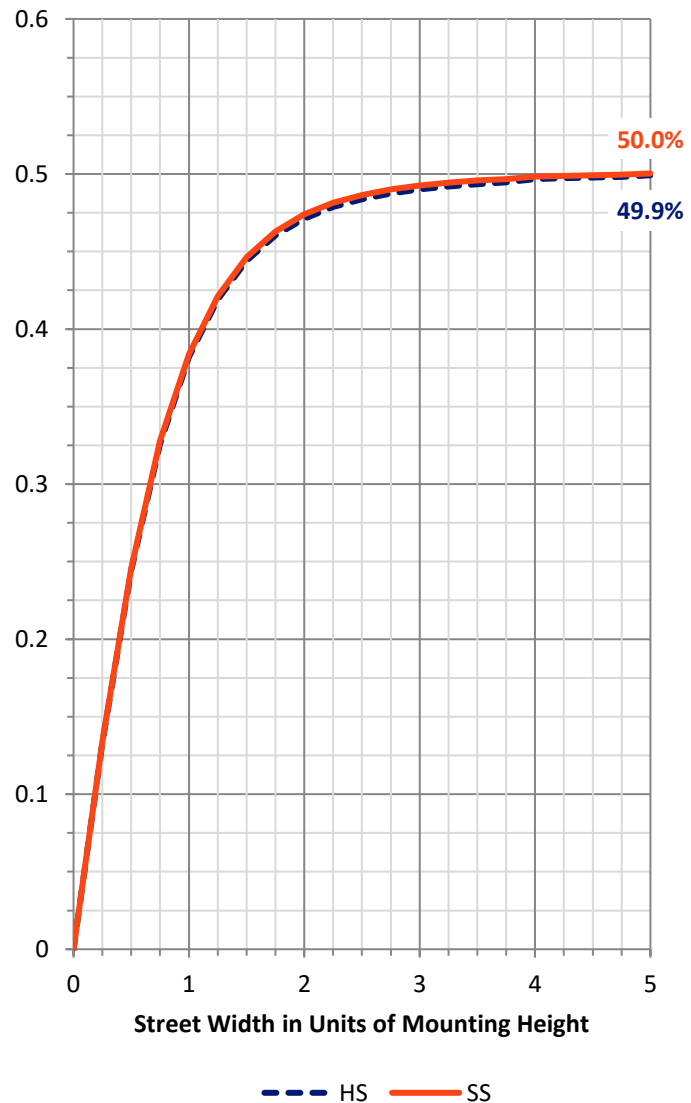
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2122.4	0.0	2122.4
	% Fixture	50.1	0.0	50.1
Street Side	Lumens	2115.4	0.0	2115.4
	% Fixture	49.9	0.0	49.9
Total	Lumens	4237.7	0.0	4237.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.9	3.5
10°-20°	419.1	9.9
20°-30°	634.7	15.0
30°-40°	769.2	18.2
40°-50°	808.5	19.1
50°-60°	732.0	17.3
60°-70°	507.7	12.0
70°-80°	204.1	4.8
80°-90°	15.5	0.4
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°	4237.7	100.0
0°-180°	4237.7	100.0



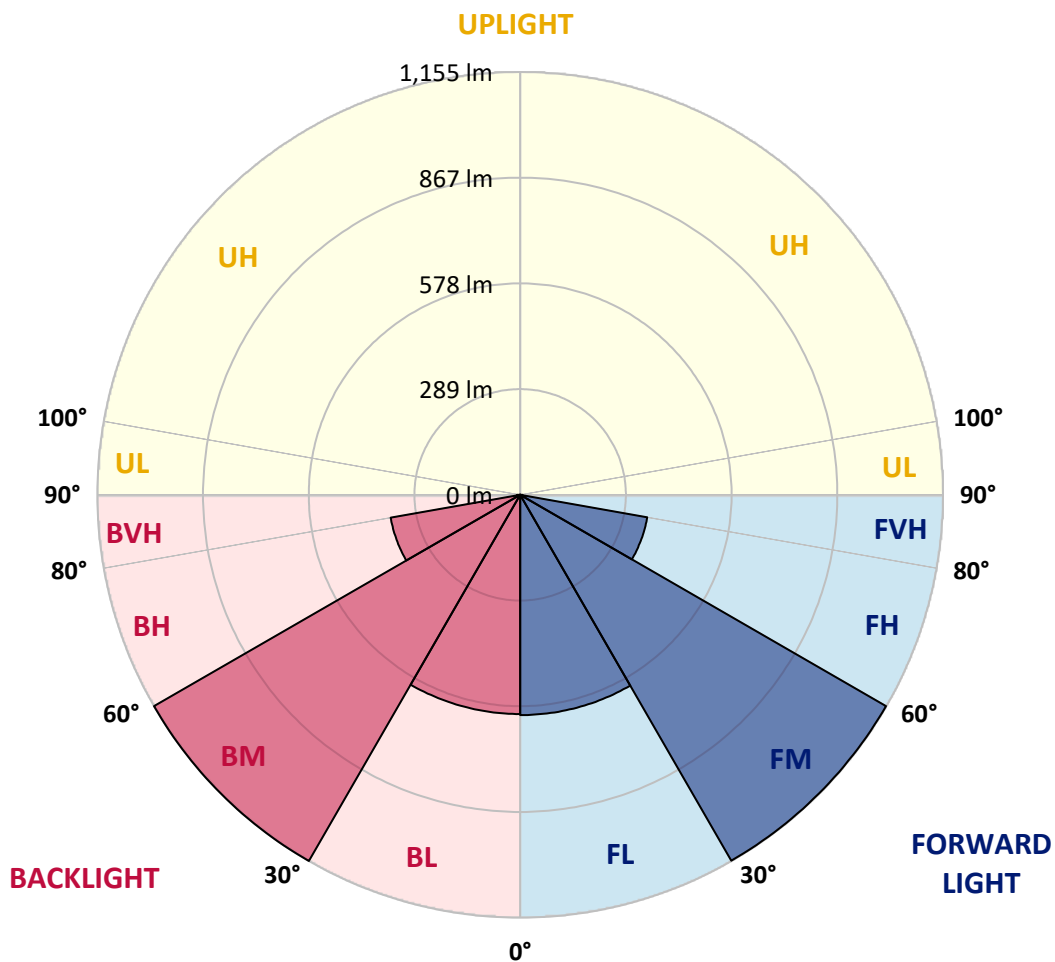
REPORT NUMBER: P407849
 CATALOG NUMBER: ALS4A40

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	601.9	14.2			
FM	(30°-60°)	1154.3	27.2			
FH	(60°-80°)	352.5	8.3			G0/660
FVH	(80°-90°)	6.7	0.2			G0/10
BL	(0°-30°)	598.9	14.1	B2/1000		
BM	(30°-60°)	1155.3	27.3	B2/2500		
BH	(60°-80°)	359.2	8.5	B1/500		G0/660
BVH	(80°-90°)	8.8	0.2			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G0

Type V Short





REPORT NUMBER: P407849
 CATALOG NUMBER: ALS4A40

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	88°
0°	1541	1541	1541	1541	1541	1541	1541	1541	1541	1541	1541
2.5°	1549	1549	1548	1539	1540	1547	1550	1540	1546	1551	1549
5°	1545	1546	1546	1537	1539	1550	1555	1546	1552	1559	1556
7°	1539	1540	1540	1537	1538	1551	1558	1549	1555	1562	1559
7.5°	1540	1538	1538	1535	1536	1550	1556	1546	1553	1560	1558
10°	1526	1525	1527	1523	1524	1536	1543	1530	1533	1541	1538
12.5°	1507	1508	1508	1507	1503	1517	1518	1506	1507	1514	1512
15°	1488	1488	1490	1486	1481	1490	1494	1483	1482	1490	1488
17.5°	1466	1466	1467	1464	1455	1468	1471	1461	1459	1467	1465
20°	1442	1442	1441	1439	1431	1444	1446	1437	1434	1442	1440
22.5°	1416	1416	1416	1412	1403	1417	1418	1410	1405	1412	1409
25°	1386	1388	1385	1383	1374	1386	1388	1380	1374	1381	1379
27.5°	1354	1350	1349	1347	1339	1351	1355	1347	1340	1345	1344
30°	1312	1313	1310	1309	1301	1312	1314	1310	1302	1309	1309
32.5°	1274	1274	1271	1272	1259	1271	1273	1265	1263	1272	1271
35°	1232	1232	1235	1236	1220	1225	1228	1219	1217	1230	1232
37.5°	1204	1203	1200	1199	1179	1182	1179	1173	1167	1187	1189
40°	1183	1178	1158	1155	1139	1145	1143	1135	1125	1138	1142
42.5°	1114	1111	1101	1107	1104	1111	1111	1108	1097	1094	1097
45°	1022	1025	1031	1054	1061	1061	1059	1070	1065	1051	1046
47.5°	984	985	987	987	981	991	991	992	994	987	980
50°	932	940	945	931	920	953	949	920	902	927	934
52.5°	917	911	910	897	886	911	899	868	877	892	910
55°	840	827	803	852	815	800	811	839	834	818	822
57.5°	746	752	756	744	767	735	777	749	730	749	740
60°	657	660	670	683	691	694	673	681	680	661	673
62.5°	619	611	609	604	601	625	589	598	584	609	599
65°	517	503	508	541	523	514	520	508	497	497	500
67.5°	440	439	438	426	435	438	443	429	425	435	427
70°	328	341	337	334	319	326	333	334	341	353	357
72.5°	273	273	270	247	244	241	237	248	249	256	271
75°	157	165	155	173	175	173	175	187	185	176	182
77.5°	112	118	112	117	115	131	120	117	121	113	120
80°	64	67	65	70	81	78	81	75	75	68	68
82.5°	7	8	8	10	9	12	11	13	12	16	18
85°	1	1	1	1	1	2	1	2	2	2	2
87.5°	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P407849
 CATALOG NUMBER: ALS4A40

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1541	1541	1541	1541	1541	1541	1541	1541	1541	1541	1541
2.5°	1537	1549	1541	1537	1549	1541	1538	1535	1529	1535	1544
5°	1543	1554	1544	1541	1551	1541	1536	1532	1525	1529	1539
7°	1547	1558	1549	1544	1552	1540	1534	1530	1521	1525	1534
7.5°	1545	1555	1547	1544	1551	1539	1533	1530	1519	1522	1533
10°	1527	1537	1529	1527	1539	1529	1524	1520	1510	1511	1523
12.5°	1500	1510	1503	1501	1515	1509	1505	1504	1494	1495	1505
15°	1476	1483	1477	1476	1490	1485	1483	1483	1474	1475	1487
17.5°	1454	1461	1452	1452	1464	1458	1459	1461	1454	1453	1465
20°	1429	1434	1427	1425	1438	1432	1432	1437	1430	1429	1441
22.5°	1400	1406	1397	1396	1408	1406	1404	1408	1404	1401	1414
25°	1368	1372	1366	1367	1377	1374	1375	1379	1374	1372	1381
27.5°	1335	1337	1333	1334	1345	1343	1343	1346	1342	1340	1349
30°	1300	1302	1296	1299	1310	1308	1308	1312	1306	1302	1313
32.5°	1265	1267	1261	1265	1274	1273	1273	1276	1271	1267	1279
35°	1227	1228	1224	1226	1232	1233	1233	1238	1233	1230	1239
37.5°	1187	1187	1185	1184	1183	1183	1185	1195	1195	1195	1206
40°	1142	1143	1139	1131	1128	1129	1131	1146	1153	1157	1171
42.5°	1094	1095	1094	1088	1088	1083	1081	1096	1112	1117	1127
45°	1039	1034	1043	1061	1056	1046	1042	1058	1063	1058	1069
47.5°	972	962	987	1017	1010	1001	1025	1042	1010	996	1001
50°	931	924	916	914	930	941	964	960	940	921	923
52.5°	915	914	868	855	873	906	878	855	886	884	893
55°	817	819	833	841	814	838	812	829	836	848	845
57.5°	725	712	753	754	768	731	759	788	765	764	771
60°	679	683	662	676	700	670	700	693	689	663	665
62.5°	594	585	607	604	583	621	607	607	586	583	588
65°	501	497	500	510	506	523	507	504	525	528	546
67.5°	424	431	430	428	428	419	427	445	426	422	415
70°	363	354	344	345	347	349	353	336	347	350	353
72.5°	272	269	261	270	243	265	255	278	260	263	253
75°	188	189	194	194	189	188	192	186	207	215	209
77.5°	123	123	122	127	131	137	140	130	127	127	124
80°	71	72	73	79	86	93	84	93	91	85	89
82.5°	17	19	19	25	24	23	25	19	16	13	15
85°	3	2	3	3	3	4	3	3	2	2	2
87.5°	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)