

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: P882241

Luminaire Tested: **NAV-SB2A-735-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882241
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9036 lumens
Efficiency: N/A
Efficacy: 157.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

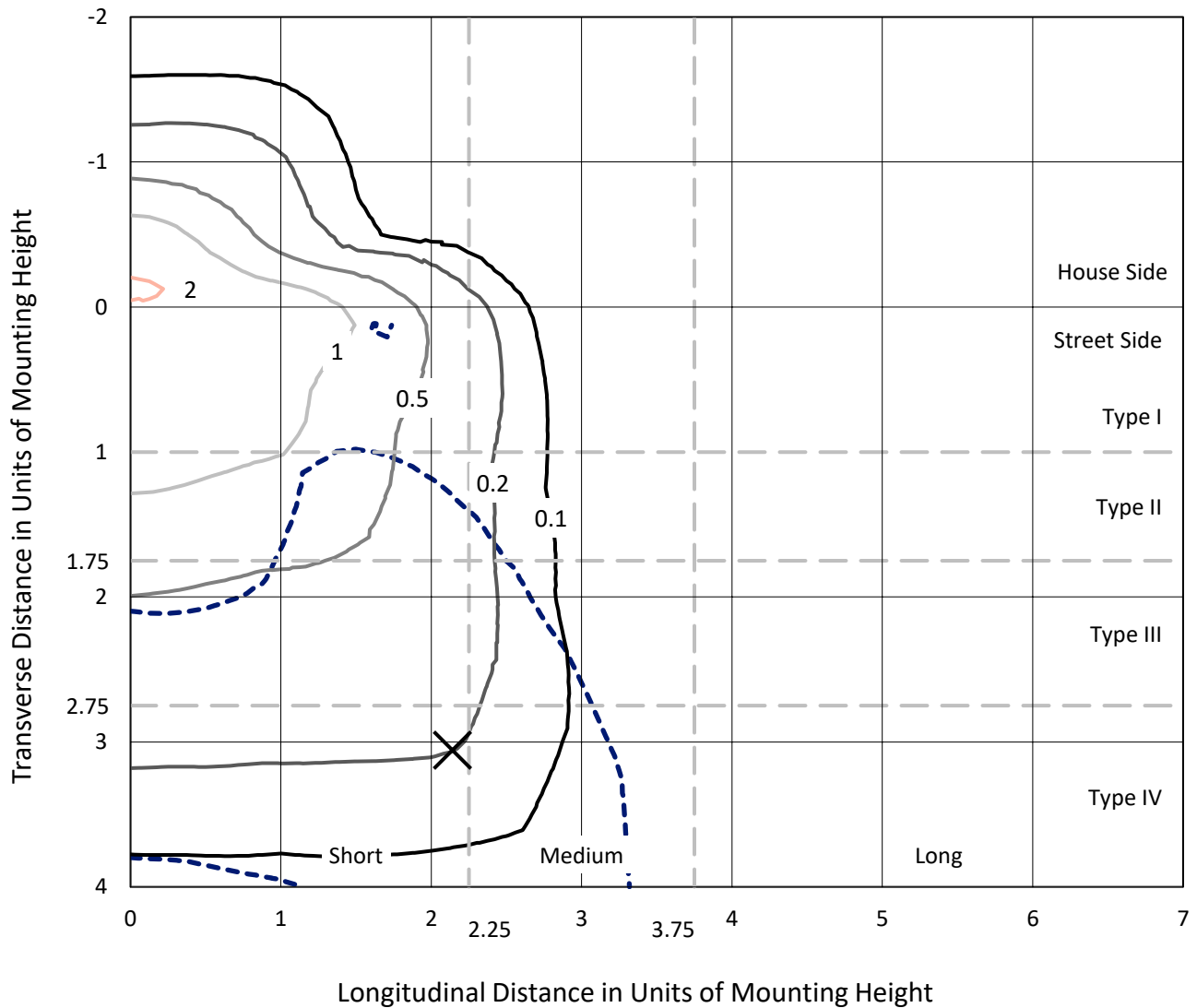
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

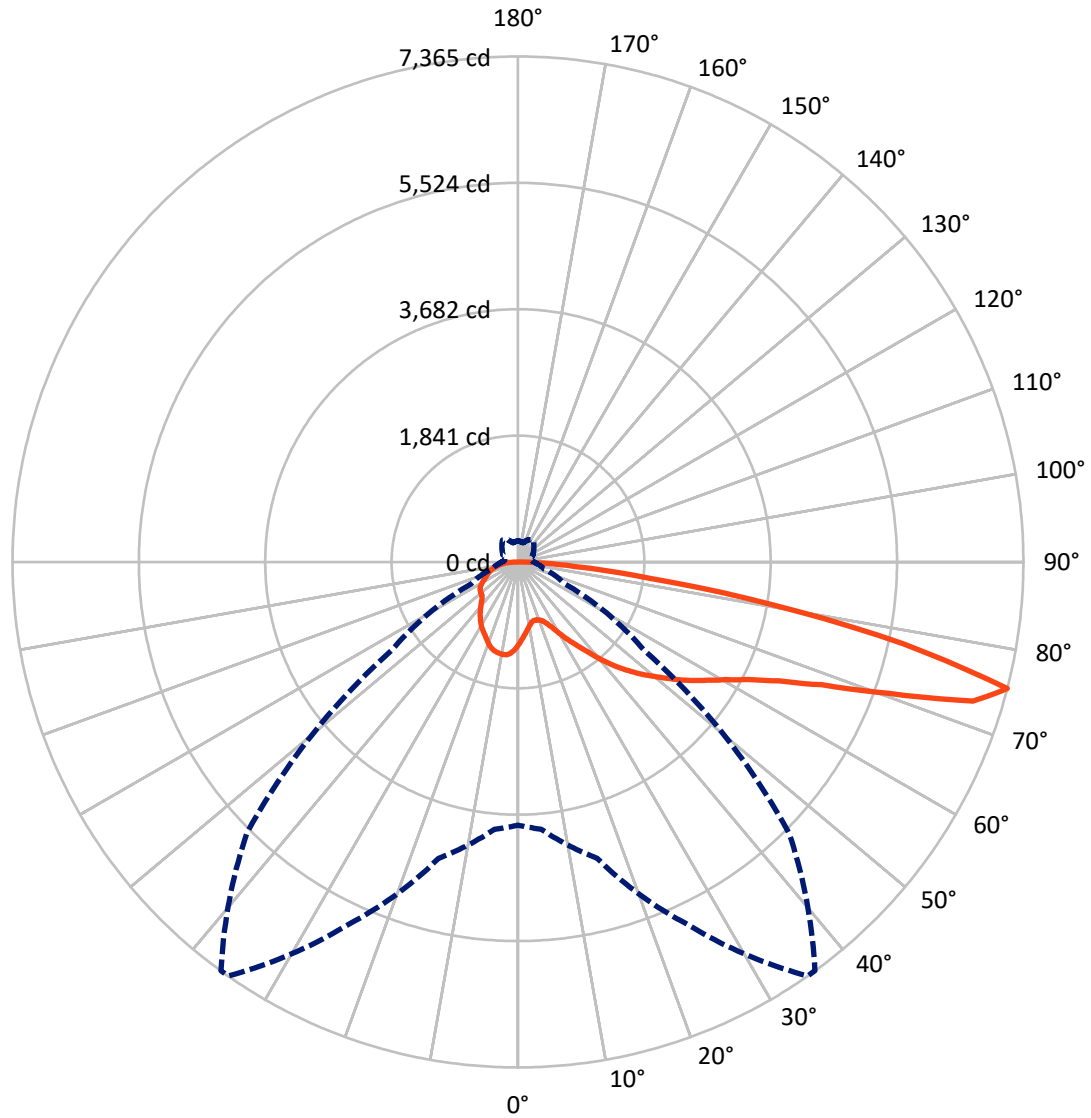
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2150.3	0.0	2150.3
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	6885.7	0.0	6885.7
	% Fixture	76.2	0.0	76.2
Total	Lumens	9036.0	0.0	9036.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.0	1.3
10°-20°	328.8	3.6
20°-30°	552.2	6.1
30°-40°	858.2	9.5
40°-50°	1273.8	14.1
50°-60°	1758.6	19.5
60°-70°	2133.5	23.6
70°-80°	1763.2	19.5
80°-90°	253.6	2.8
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°	9036.0	100.0
0°-180°	9036.0	100.0

Coefficient of Utilization



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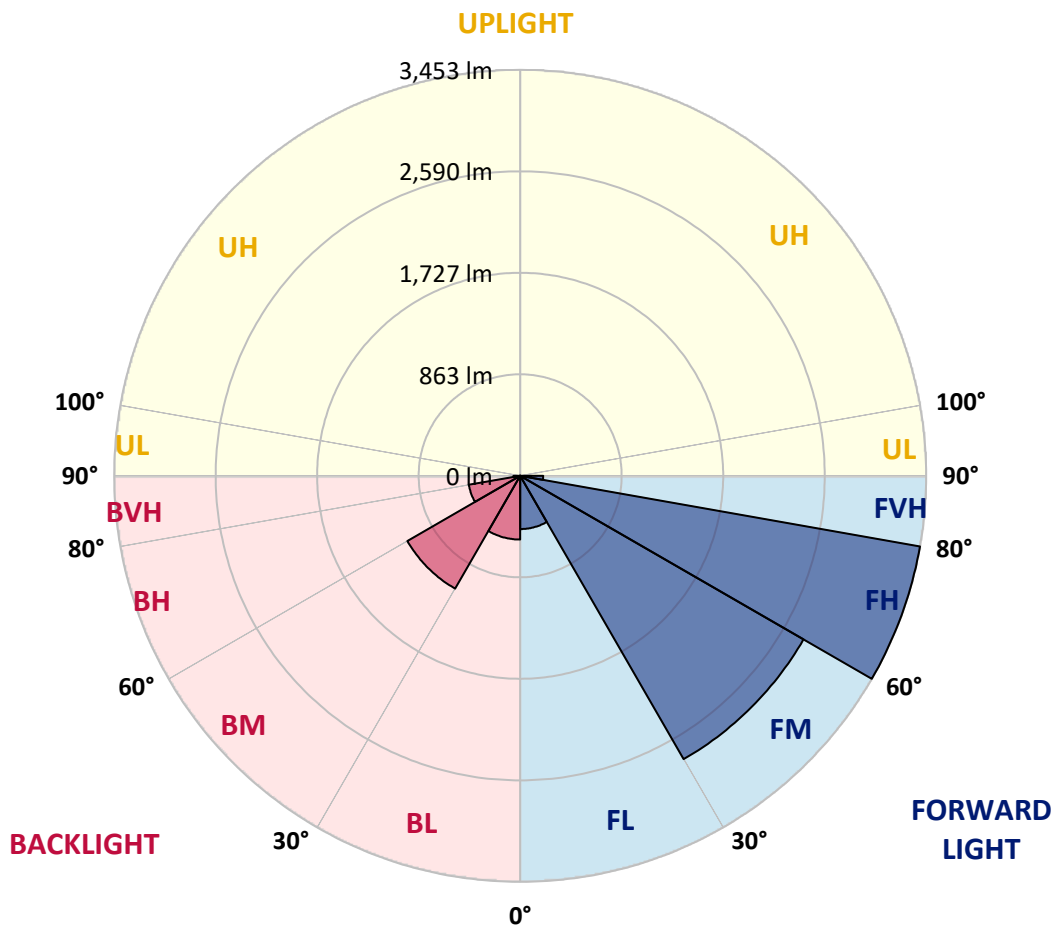
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	453.1	5.0			
FM (30°-60°)	2782.6	30.8			
FH (60°-80°)	3453.4	38.2			G2/5000
FVH (80°-90°)	196.5	2.2			G2/225
BL (0°-30°)	541.9	6.0	B2/1000		
BM (30°-60°)	1108.0	12.3	B2/2500		
BH (60°-80°)	443.3	4.9	B1/500		G1/500
BVH (80°-90°)	57.1	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1
2.5°	1110.3	1117.2	1120.1	1118.6	1126.0	1125.0	1135.2	1147.9	1165.5	1182.6	1207.5
5°	1024.8	1032.2	1038.5	1044.4	1058.5	1062.9	1079.1	1103.5	1135.7	1168.4	1209.5
7.5°	945.2	951.6	961.3	972.1	996.0	1000.4	1027.3	1065.4	1110.3	1158.2	1214.9
10°	880.2	886.6	896.9	909.1	938.9	944.2	978.4	1029.2	1087.8	1148.4	1220.7
12.5°	852.4	854.4	860.2	872.4	898.3	901.7	939.4	997.5	1065.9	1141.1	1229.5
15°	850.9	854.8	855.3	861.7	883.2	884.6	919.3	977.0	1052.2	1139.6	1242.7
17.5°	865.6	868.5	864.1	868.0	886.1	888.5	915.9	967.2	1047.8	1146.0	1265.2
20°	904.7	907.1	893.9	888.5	901.7	903.7	930.6	973.5	1052.2	1159.2	1295.9
22.5°	987.7	989.2	956.9	935.0	935.9	936.9	960.4	999.4	1069.3	1183.1	1335.0
25°	1117.2	1116.2	1064.9	1022.4	998.0	992.6	1008.2	1041.4	1098.1	1214.9	1385.3
27.5°	1268.6	1261.3	1210.0	1146.5	1093.2	1085.4	1082.0	1096.2	1139.1	1256.9	1446.9
30°	1439.6	1432.7	1377.5	1294.5	1220.7	1208.0	1175.8	1168.4	1200.2	1314.0	1532.4
32.5°	1627.1	1622.7	1556.8	1456.2	1357.5	1342.8	1288.6	1269.1	1294.0	1400.5	1651.6
35°	1784.4	1780.5	1725.8	1622.2	1501.6	1483.5	1428.3	1406.3	1419.0	1511.4	1807.4
37.5°	1926.6	1924.6	1877.7	1796.1	1671.6	1649.6	1587.6	1580.2	1577.8	1657.4	1996.4
40°	2058.5	2053.6	2004.7	1961.7	1869.4	1849.4	1794.7	1788.3	1769.8	1837.2	2210.4
42.5°	2204.5	2191.8	2121.0	2101.0	2076.0	2059.4	2026.7	2027.7	1986.7	2039.9	2437.0
45°	2323.7	2316.4	2243.6	2231.9	2258.7	2251.9	2280.2	2287.6	2207.9	2252.4	2672.5
47.5°	2451.7	2444.9	2383.3	2375.0	2447.8	2449.7	2549.9	2552.3	2423.8	2473.2	2908.4
50°	2609.5	2599.7	2538.6	2548.9	2630.5	2637.8	2821.0	2804.4	2622.7	2697.4	3142.4
52.5°	2713.5	2719.4	2706.2	2722.8	2834.2	2841.0	3087.7	3045.2	2819.5	2918.7	3372.0
55°	2790.2	2801.9	2843.0	2881.1	3049.1	3055.9	3339.3	3274.3	2982.7	3123.8	3587.9
57.5°	2888.9	2872.3	2949.0	3023.2	3253.3	3271.4	3584.0	3495.1	3127.3	3300.7	3735.9
60°	3030.5	3018.8	3078.4	3188.3	3481.9	3510.7	3842.9	3693.9	3233.3	3440.9	3764.7
62.5°	3317.8	3288.5	3297.7	3394.9	3770.1	3808.2	4135.0	3867.3	3286.0	3495.6	3610.4
65°	3747.1	3696.8	3649.9	3717.3	4176.0	4213.6	4464.7	4003.6	3266.5	3389.6	3200.5
67.5°	4287.9	4238.1	4180.4	4243.9	4773.9	4803.7	4871.6	4080.3	3112.6	2981.2	2476.1
70°	4733.9	4715.3	4784.2	5045.5	5728.9	5729.9	5393.3	4016.8	2691.0	2113.7	1432.7
72.5°	4674.8	4663.5	5026.5	5834.4	6932.5	6906.6	5887.2	3536.1	1812.8	953.5	536.8
75°	3835.1	3907.9	4470.1	5820.3	7364.8	7361.4	5584.8	2248.0	749.8	395.2	277.5
77.5°	2056.5	2171.8	2902.1	4297.2	5749.4	5835.9	3926.4	786.5	321.9	253.0	192.0
80°	670.7	771.3	1156.7	2187.9	3735.9	3719.8	1682.8	308.7	220.3	179.3	132.9
82.5°	284.8	296.5	516.8	1033.1	1917.3	1887.5	535.9	177.3	154.8	122.6	82.1
85°	111.4	124.6	228.1	477.7	830.4	812.3	193.4	87.9	99.2	80.1	48.8
87.5°	36.6	44.5	81.6	163.6	258.4	249.1	47.4	30.3	43.0	36.6	17.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1	1204.1
2.5°	1214.4	1222.2	1231.5	1245.1	1256.9	1266.6	1276.9	1283.2	1285.7	1293.0	1292.5
5°	1223.2	1240.3	1263.2	1285.7	1307.7	1320.9	1332.6	1338.4	1343.8	1347.7	1348.7
7.5°	1237.8	1259.8	1295.9	1325.3	1343.8	1354.6	1362.4	1360.4	1362.4	1363.4	1364.8
10°	1250.5	1281.3	1324.3	1352.1	1366.3	1366.8	1364.8	1358.0	1354.6	1355.0	1356.0
12.5°	1265.7	1299.9	1346.3	1369.7	1373.6	1362.9	1354.6	1342.8	1338.4	1336.5	1335.5
15°	1286.2	1325.3	1370.2	1379.0	1369.2	1355.5	1341.4	1322.3	1312.6	1304.7	1307.2
17.5°	1311.1	1354.1	1388.8	1382.4	1361.4	1338.9	1316.0	1287.2	1267.1	1258.8	1259.3
20°	1345.8	1384.4	1402.9	1375.1	1343.3	1309.1	1270.1	1234.9	1216.3	1208.0	1207.0
22.5°	1387.8	1424.9	1416.6	1362.4	1317.4	1262.7	1213.9	1188.0	1178.7	1172.8	1173.8
25°	1438.1	1469.8	1426.4	1343.8	1274.9	1201.2	1163.6	1155.3	1150.9	1146.5	1146.5
27.5°	1503.5	1520.6	1433.7	1316.5	1208.5	1135.7	1122.0	1123.5	1122.0	1114.7	1116.2
30°	1590.0	1586.6	1440.5	1272.0	1132.3	1076.6	1077.6	1083.9	1084.9	1080.0	1082.5
32.5°	1703.8	1669.1	1444.0	1214.4	1059.5	1024.8	1025.8	1032.7	1037.5	1029.2	1033.1
35°	1841.6	1765.4	1438.6	1142.1	1003.3	975.5	968.2	970.1	971.6	963.8	969.1
37.5°	2002.3	1873.3	1414.6	1062.0	956.9	927.1	911.5	898.3	890.5	883.2	888.1
40°	2178.6	1991.1	1370.7	983.8	905.2	875.8	852.4	827.5	801.1	791.3	795.7
42.5°	2363.3	2112.2	1317.4	909.1	845.6	821.6	796.7	760.6	721.0	701.0	703.4
45°	2554.8	2236.3	1265.2	835.3	784.5	774.2	745.4	701.9	659.0	633.6	631.6
47.5°	2742.3	2353.5	1188.5	761.1	727.3	738.6	716.1	676.1	628.2	588.1	583.7
50°	2921.6	2463.4	1062.9	685.8	680.9	727.8	706.3	648.7	594.0	542.7	538.3
52.5°	3099.4	2552.3	902.2	617.4	656.0	724.9	693.6	630.1	563.2	509.5	503.6
55°	3250.4	2598.2	747.4	558.8	619.9	700.0	678.5	608.2	519.7	462.6	457.7
57.5°	3336.3	2561.1	618.4	501.2	570.1	659.0	652.6	561.3	468.0	424.0	418.1
60°	3299.2	2410.7	512.9	450.9	522.7	614.5	607.7	514.9	428.4	386.9	381.0
62.5°	3094.5	2123.9	429.4	406.9	479.7	569.1	562.7	479.2	398.1	358.1	351.7
65°	2682.3	1727.8	364.4	370.3	436.2	514.4	523.7	449.4	374.2	335.1	328.7
67.5°	2045.8	1251.5	313.6	338.5	393.7	460.6	487.5	427.9	354.1	317.0	311.2
70°	1166.0	710.7	270.6	307.7	356.1	410.8	459.7	410.8	332.7	301.9	298.0
72.5°	442.1	326.3	234.0	277.0	320.0	368.8	428.9	383.9	307.7	284.8	280.9
75°	235.9	198.8	196.9	240.8	278.4	327.8	390.3	357.6	289.2	300.9	310.7
77.5°	160.7	140.7	164.6	206.1	233.0	282.3	349.3	317.5	250.6	249.6	230.1
80°	111.4	99.7	133.8	166.1	180.2	237.4	304.8	272.6	204.2	190.5	182.2
82.5°	66.9	65.0	100.1	124.1	127.5	183.2	252.5	228.6	167.1	145.6	146.5
85°	36.6	38.6	64.0	72.8	74.2	128.0	197.8	176.8	128.5	108.0	108.9
87.5°	10.3	13.2	23.4	28.8	35.7	66.4	117.7	105.0	64.5	44.9	44.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)