

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: P961010

Luminaire Tested: **NAV-SB1D-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961010
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9314.2 lumens
Efficiency: N/A
Efficacy: 117.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B2 - U0 - G2

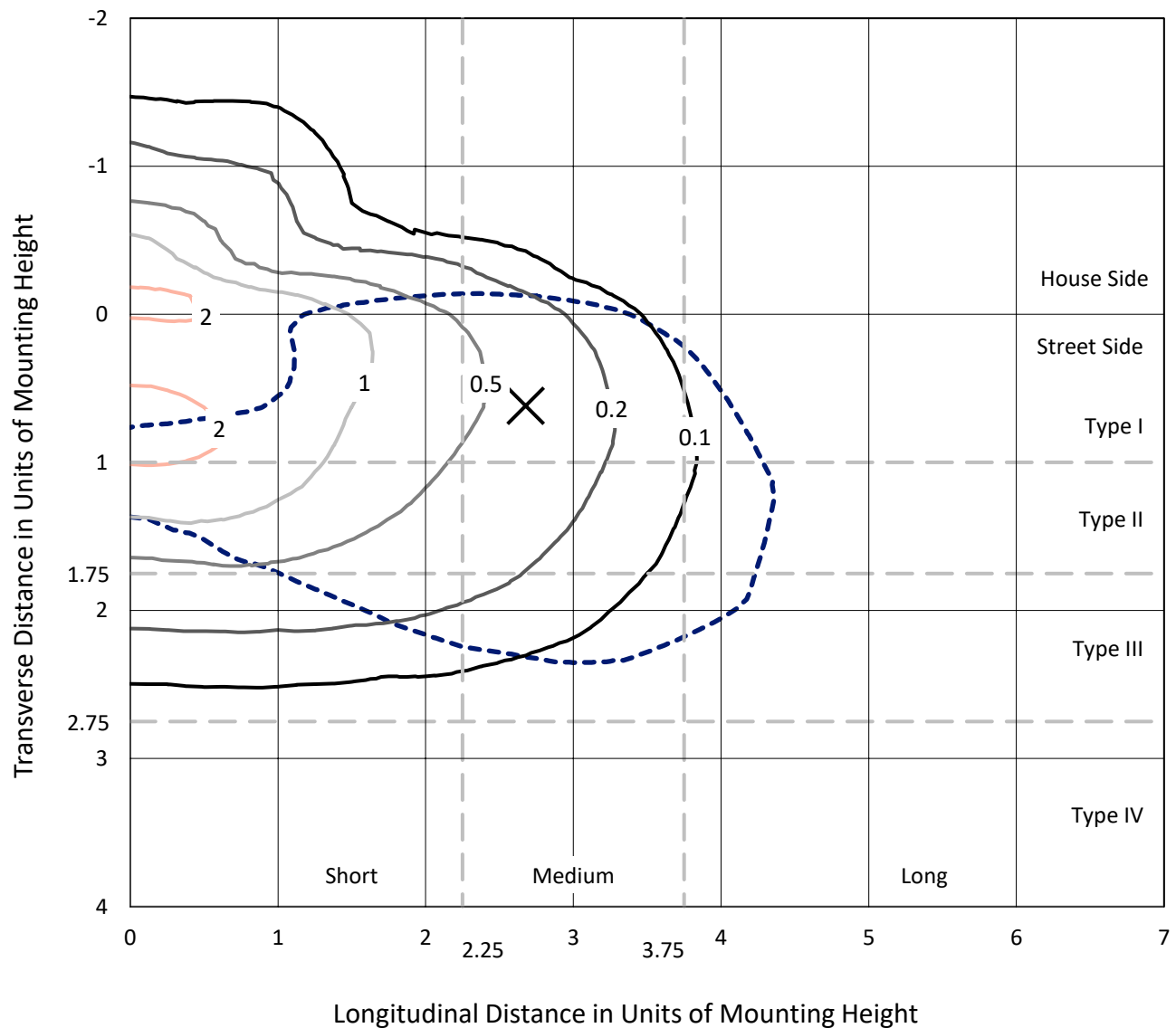
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

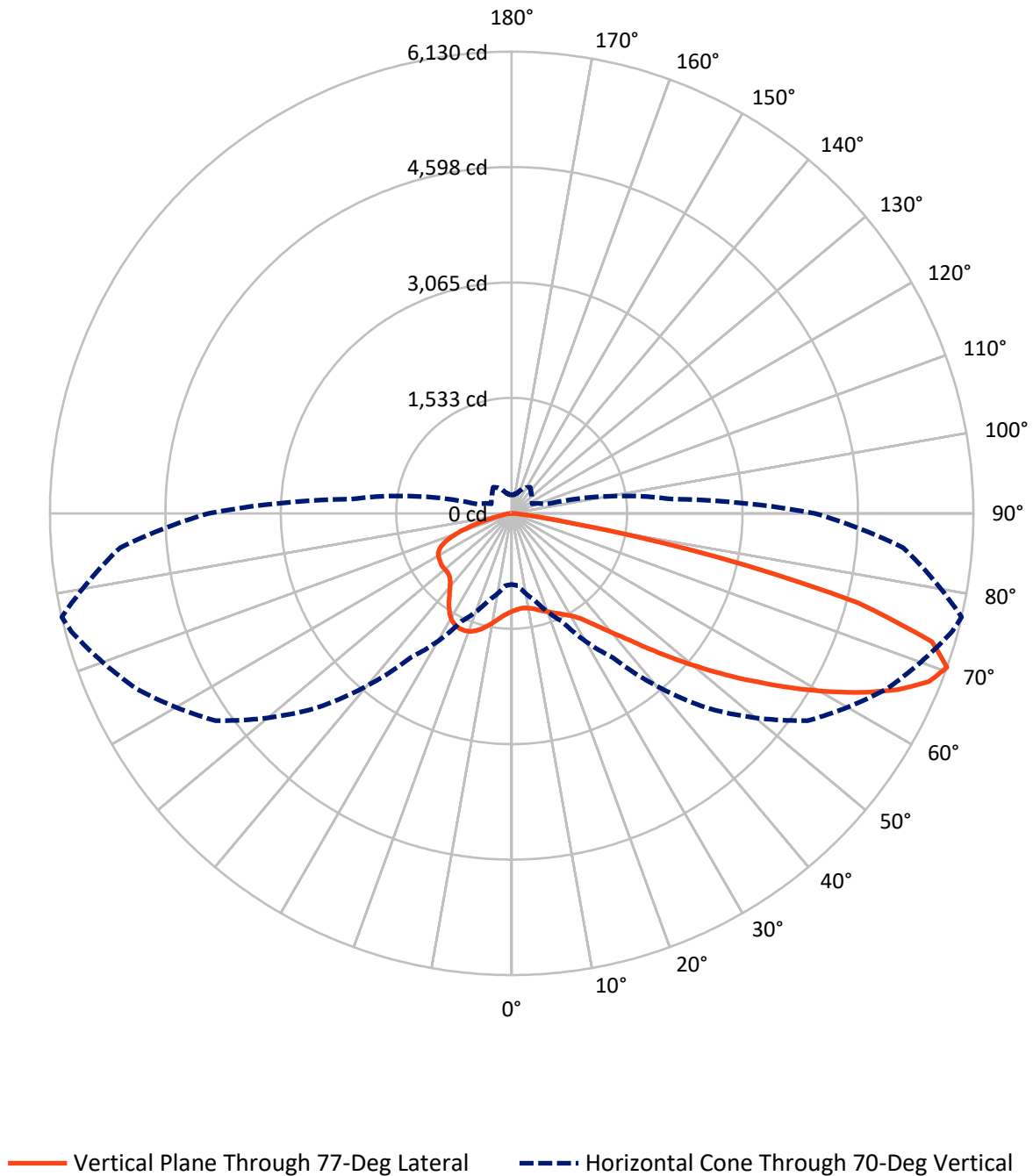
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2039.7	0.0	2039.7
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	7274.5	0.0	7274.5
	% Fixture	78.1	0.0	78.1
Total	Lumens	9314.2	0.0	9314.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.9	1.3
10°-20°	357.7	3.8
20°-30°	611.7	6.6
30°-40°	983.6	10.6
40°-50°	1535.7	16.5
50°-60°	2051.3	22.0
60°-70°	2186.4	23.5
70°-80°	1345.9	14.5
80°-90°	117.9	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°-90°	9314.2	100.0
0°-180°	9314.2	100.0

Coefficient of Utilization



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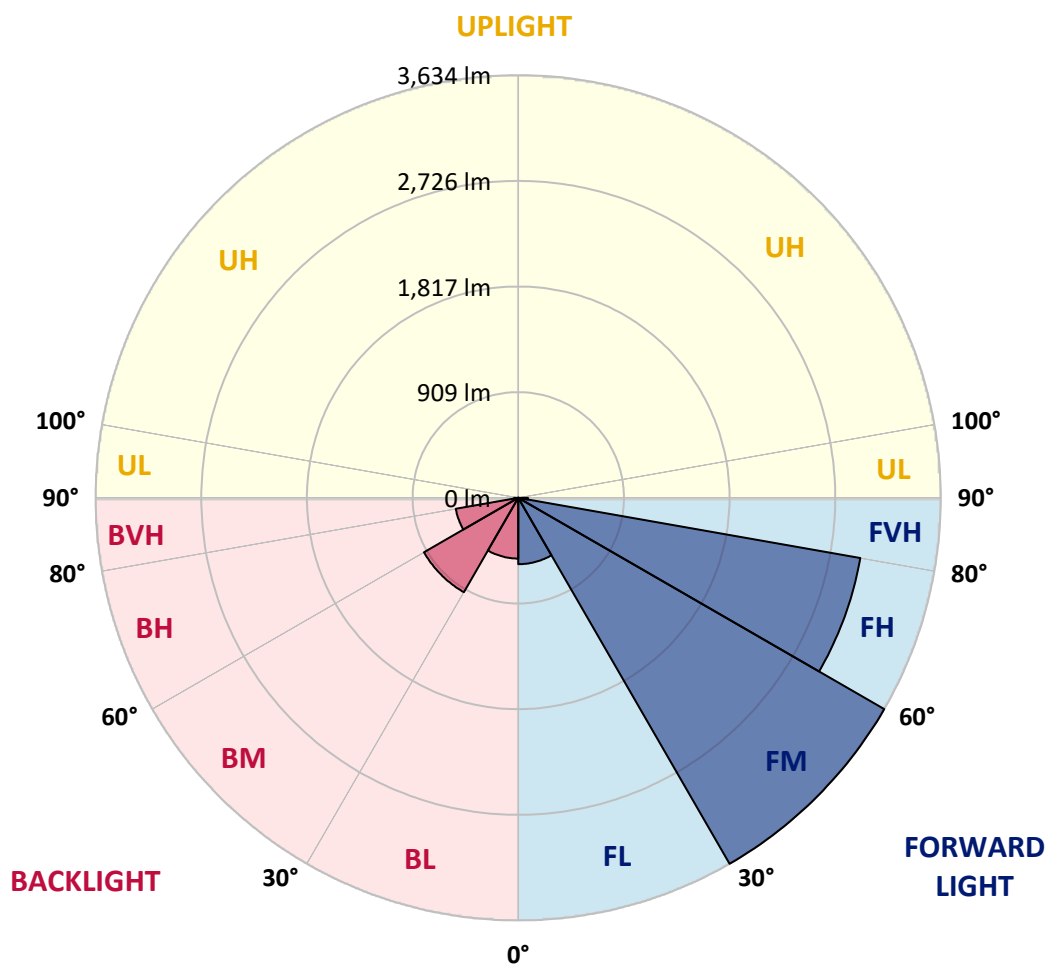
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	570.6	6.1			
FM	(30°-60°)	3634.2	39.0			
FH	(60°-80°)	2987.2	32.1			G2/5000
FVH	(80°-90°)	82.5	0.9			G1/100
BL	(0°-30°)	522.6	5.6	B2/1000		
BM	(30°-60°)	936.5	10.1	B1/1000		
BH	(60°-80°)	545.1	5.9	B2/1000		G2/1000
BVH	(80°-90°)	35.5	0.4			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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4
2.5°	1197.8	1197.3	1203.6	1205.4	1216.9	1225.0	1240.2	1256.4	1277.5	1279.8	1292.7
5°	1128.6	1128.6	1135.8	1143.4	1158.2	1174.4	1197.8	1225.9	1262.2	1267.9	1299.9
7.5°	1070.0	1073.8	1079.9	1094.8	1111.9	1135.3	1171.1	1211.1	1258.9	1267.9	1319.5
10°	1022.7	1027.0	1034.6	1046.6	1072.4	1104.7	1151.5	1203.0	1267.0	1281.2	1348.1
12.5°	1008.0	1012.3	1016.5	1025.6	1049.5	1087.6	1143.4	1206.8	1286.6	1300.8	1387.2
15°	1042.3	1047.6	1044.2	1041.8	1054.2	1089.1	1147.3	1220.7	1310.9	1331.4	1435.4
17.5°	1121.5	1123.4	1115.7	1093.4	1091.4	1110.1	1165.3	1239.7	1341.4	1363.8	1484.0
20°	1249.4	1246.0	1230.2	1185.9	1160.6	1156.8	1196.4	1268.4	1372.9	1396.8	1536.5
22.5°	1423.0	1419.1	1387.6	1317.5	1261.3	1224.1	1241.2	1305.6	1408.1	1434.9	1587.5
25°	1639.5	1634.3	1588.0	1492.6	1405.3	1313.2	1302.3	1354.7	1451.6	1476.4	1640.9
27.5°	1892.4	1888.0	1837.9	1712.1	1586.1	1435.4	1378.1	1412.4	1496.9	1525.0	1701.1
30°	2164.3	2176.7	2087.9	1952.4	1793.1	1594.7	1480.2	1483.6	1555.5	1580.9	1774.1
32.5°	2483.9	2505.3	2398.5	2226.7	2009.2	1767.8	1609.0	1582.8	1640.9	1661.9	1866.1
35°	2800.6	2824.9	2736.2	2546.3	2295.9	1972.0	1743.5	1696.8	1754.5	1777.4	1988.2
37.5°	3074.4	3106.9	3061.1	2896.0	2602.7	2218.2	1919.1	1830.9	1894.3	1922.9	2152.3
40°	3290.6	3340.2	3336.8	3233.8	2964.2	2516.8	2141.8	1996.4	2067.9	2098.9	2351.2
42.5°	3466.0	3509.0	3546.2	3541.0	3341.5	2856.0	2403.7	2211.4	2265.9	2301.6	2575.0
45°	3587.2	3633.0	3713.2	3799.5	3704.6	3218.9	2703.7	2466.7	2516.3	2570.2	2841.6
47.5°	3695.5	3747.5	3851.5	3988.4	4012.8	3583.4	3032.5	2763.9	2809.2	2865.0	3109.2
50°	3705.1	3749.9	3911.1	4105.2	4231.7	3933.5	3385.5	3097.3	3139.8	3199.4	3395.9
52.5°	3474.6	3545.3	3826.6	4101.9	4332.4	4226.4	3736.0	3444.1	3491.8	3563.4	3692.7
55°	2697.1	2800.6	3579.1	3974.1	4296.6	4415.8	4069.5	3812.9	3873.9	3948.8	3991.2
57.5°	2323.1	2368.5	2841.2	3741.2	4133.4	4464.9	4350.9	4185.4	4283.7	4365.7	4307.0
60°	2087.9	2125.6	2405.2	3379.2	3918.8	4387.2	4568.4	4532.7	4702.5	4800.3	4630.0
62.5°	1836.1	1871.9	2126.1	2821.6	3644.0	4258.0	4705.9	4853.3	5131.9	5238.7	4934.3
65°	1586.1	1616.6	1860.4	2370.8	3294.8	4128.6	4776.9	5130.4	5529.2	5639.9	5187.1
67.5°	1307.5	1332.8	1563.2	2000.2	2870.2	3951.7	4812.2	5348.3	5875.0	5969.9	5312.2
70°	943.5	963.1	1201.1	1581.8	2337.4	3647.4	4797.9	5502.9	6054.4	6130.2	5217.7
72.5°	446.0	463.7	743.2	1027.0	1651.0	3054.9	4508.4	5380.3	5872.1	5834.5	4639.6
75°	238.0	253.3	426.9	563.3	872.0	2094.2	3689.3	4634.7	4931.0	4747.8	3428.8
77.5°	161.2	173.1	264.2	338.2	398.3	994.1	2371.2	3209.0	3087.3	2784.8	1717.3
80°	127.8	140.2	216.6	229.0	192.7	359.2	979.8	1485.4	1067.1	853.4	488.5
82.5°	98.3	112.1	182.2	166.0	105.0	147.4	285.3	469.9	273.4	208.0	118.3
85°	60.1	74.9	143.1	105.9	59.1	67.2	96.9	130.7	83.4	69.6	42.4
87.5°	30.5	42.9	72.5	38.6	26.8	15.8	25.7	25.7	21.9	19.1	11.0
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°	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4	1299.4
2.5°	1304.2	1313.7	1329.9	1345.2	1357.1	1368.6	1380.1	1386.2	1388.2	1395.7	1400.0
5°	1319.5	1337.1	1368.6	1398.2	1416.8	1428.2	1436.3	1441.0	1442.1	1444.4	1448.2
7.5°	1347.6	1375.8	1419.6	1449.2	1463.0	1462.1	1458.8	1446.8	1442.1	1437.8	1438.7
10°	1387.2	1424.4	1478.3	1498.9	1490.2	1467.3	1437.8	1402.9	1386.7	1370.9	1366.2
12.5°	1436.3	1483.6	1536.5	1535.6	1493.1	1434.4	1365.7	1312.3	1278.4	1254.1	1248.3
15°	1496.0	1550.3	1590.9	1558.4	1465.4	1360.0	1259.3	1189.7	1159.2	1132.4	1129.6
17.5°	1557.5	1615.7	1634.3	1551.2	1395.7	1249.8	1135.8	1081.0	1050.9	1036.6	1040.9
20°	1617.6	1675.3	1660.1	1510.2	1289.9	1124.8	1023.3	993.1	987.0	990.3	988.9
22.5°	1681.0	1732.6	1665.3	1431.1	1154.9	997.0	941.2	942.1	955.9	966.0	968.3
25°	1745.9	1780.7	1651.5	1316.6	1009.8	903.0	889.2	904.5	931.6	951.2	956.4
27.5°	1808.4	1823.7	1621.4	1175.0	885.4	835.8	838.1	869.6	910.6	937.9	944.5
30°	1879.0	1861.8	1563.6	1015.6	799.0	778.0	798.1	834.8	875.9	900.2	905.9
32.5°	1958.7	1894.7	1472.1	868.2	738.0	731.7	764.6	788.5	806.7	813.8	817.6
35°	2057.9	1941.0	1354.7	764.6	683.1	697.9	729.4	717.4	710.3	706.4	710.3
37.5°	2186.6	2003.5	1217.4	697.4	638.8	673.5	686.4	649.2	621.0	607.2	610.6
40°	2341.7	2095.1	1085.3	645.4	610.6	652.6	630.2	585.3	549.5	529.9	531.4
42.5°	2513.9	2190.9	974.1	606.3	594.8	635.4	588.7	535.3	477.5	471.3	477.5
45°	2694.7	2289.7	898.2	576.3	587.2	620.6	564.8	478.5	437.5	462.7	476.1
47.5°	2875.5	2380.4	852.4	553.8	583.4	603.9	543.8	447.0	417.9	454.6	471.8
50°	3076.8	2461.4	831.9	537.6	579.1	597.3	512.3	438.9	397.4	421.7	439.8
52.5°	3276.7	2524.4	816.6	521.4	572.9	591.9	497.0	429.4	372.6	374.0	384.0
55°	3476.1	2565.5	800.0	499.9	559.0	580.6	495.6	418.8	353.9	347.3	352.1
57.5°	3688.9	2588.8	779.4	476.1	535.3	551.4	494.2	410.7	348.2	337.2	338.7
60°	3905.4	2623.2	752.8	447.0	503.3	516.6	490.9	407.8	344.9	326.3	327.7
62.5°	4099.6	2635.1	720.8	419.3	462.3	482.3	483.7	405.5	335.8	303.9	303.9
65°	4226.9	2583.5	665.0	387.9	417.9	447.0	469.9	397.4	319.6	287.6	287.6
67.5°	4221.7	2436.6	577.7	347.3	374.9	407.8	449.9	383.6	300.0	267.6	269.1
70°	4025.2	2146.7	467.0	300.0	327.7	365.9	424.0	363.1	276.6	245.7	248.6
72.5°	3452.2	1680.1	339.2	244.7	272.9	322.5	390.7	338.2	252.9	226.1	224.7
75°	2466.3	1063.3	229.9	188.0	212.3	273.4	349.2	309.1	230.8	227.0	214.2
77.5°	1259.8	508.0	152.2	137.4	147.9	215.7	293.4	276.2	234.2	187.5	167.0
80°	409.8	187.5	95.8	93.5	98.3	143.6	227.0	226.6	177.4	127.4	112.5
82.5°	130.7	80.7	62.5	60.1	57.7	90.2	158.4	179.4	119.7	80.7	80.2
85°	52.0	48.2	36.7	33.8	24.3	42.4	83.0	119.2	89.2	58.2	59.7
87.5°	19.1	19.1	10.0	7.2	5.2	14.3	22.4	35.8	51.0	30.0	29.6
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)