

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: P961537

Luminaire Tested: **NAV-SB2A-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961537
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-SB2A-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8208.2 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 57.3
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

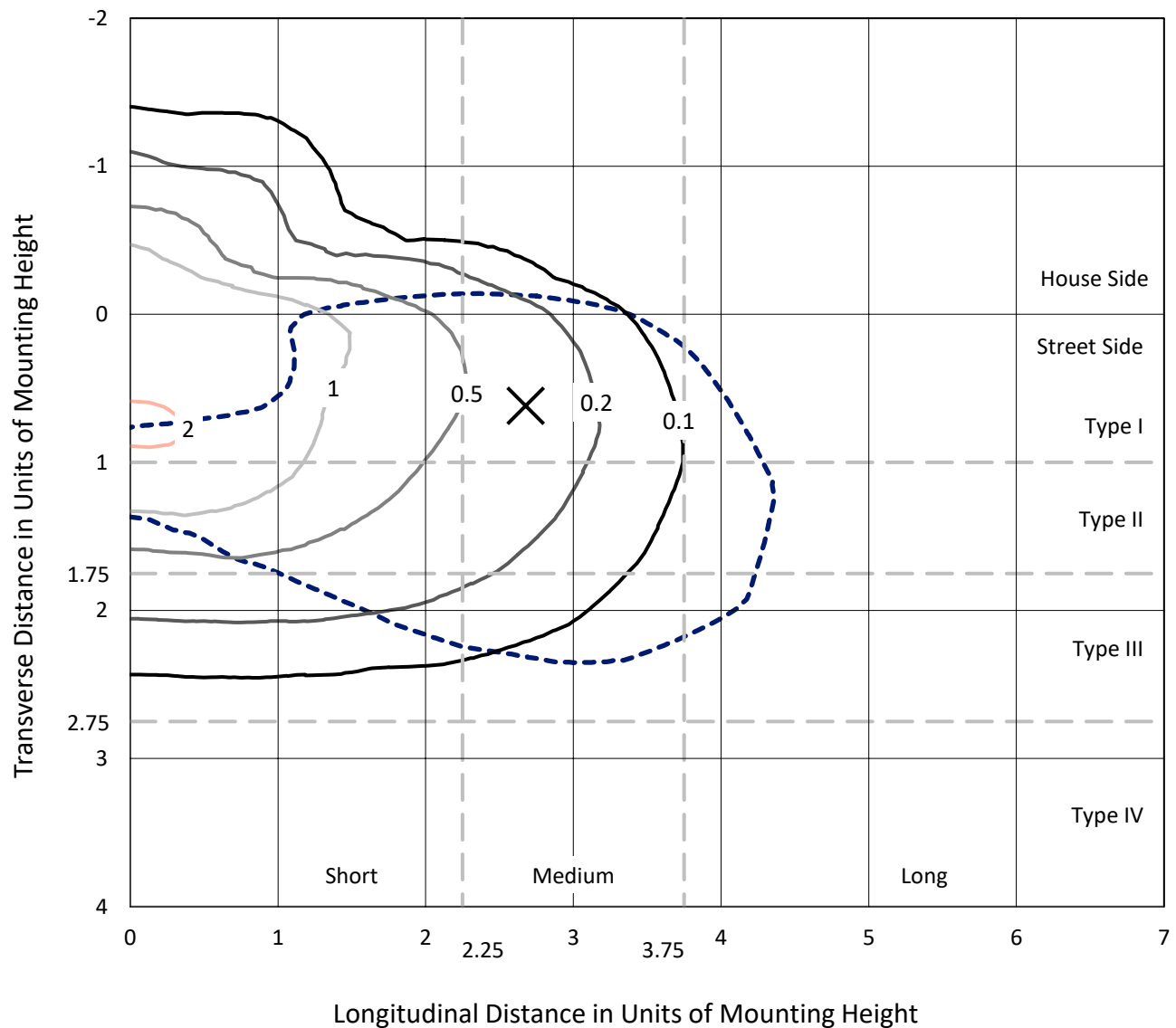


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Iso-Footcandle Lines of Horizontal Illumination

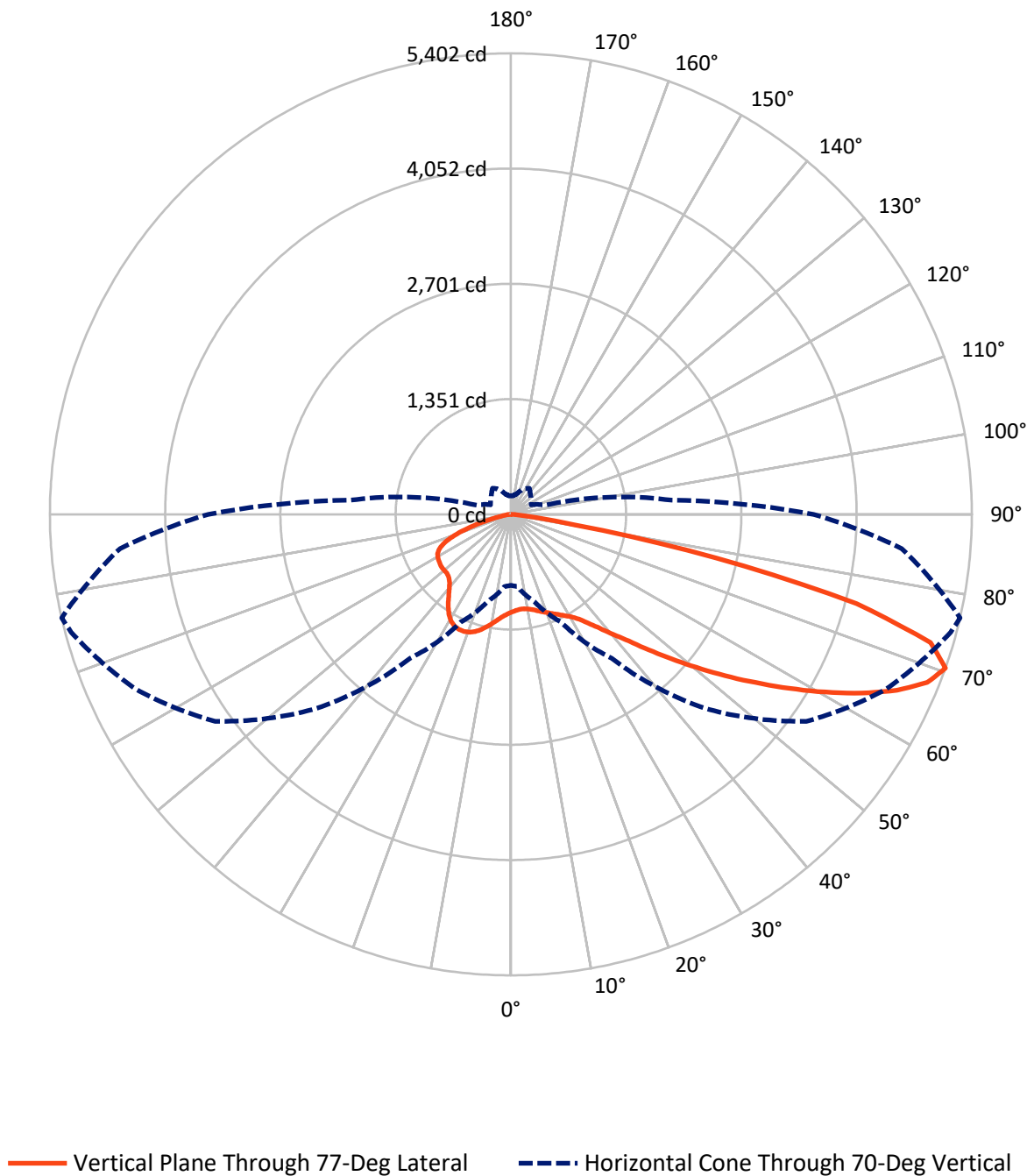
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 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	1797.5	0.0	1797.5
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	6410.7	0.0	6410.7
	% Fixture	78.1	0.0	78.1
Total	Lumens	8208.2	0.0	8208.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	1.3
10°-20°	315.2	3.8
20°-30°	539.0	6.6
30°-40°	866.8	10.6
40°-50°	1353.3	16.5
50°-60°	1807.7	22.0
60°-70°	1926.8	23.5
70°-80°	1186.1	14.5
80°-90°	103.9	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°	8208.2	100.0
0°-180°	8208.2	100.0

Coefficient of Utilization



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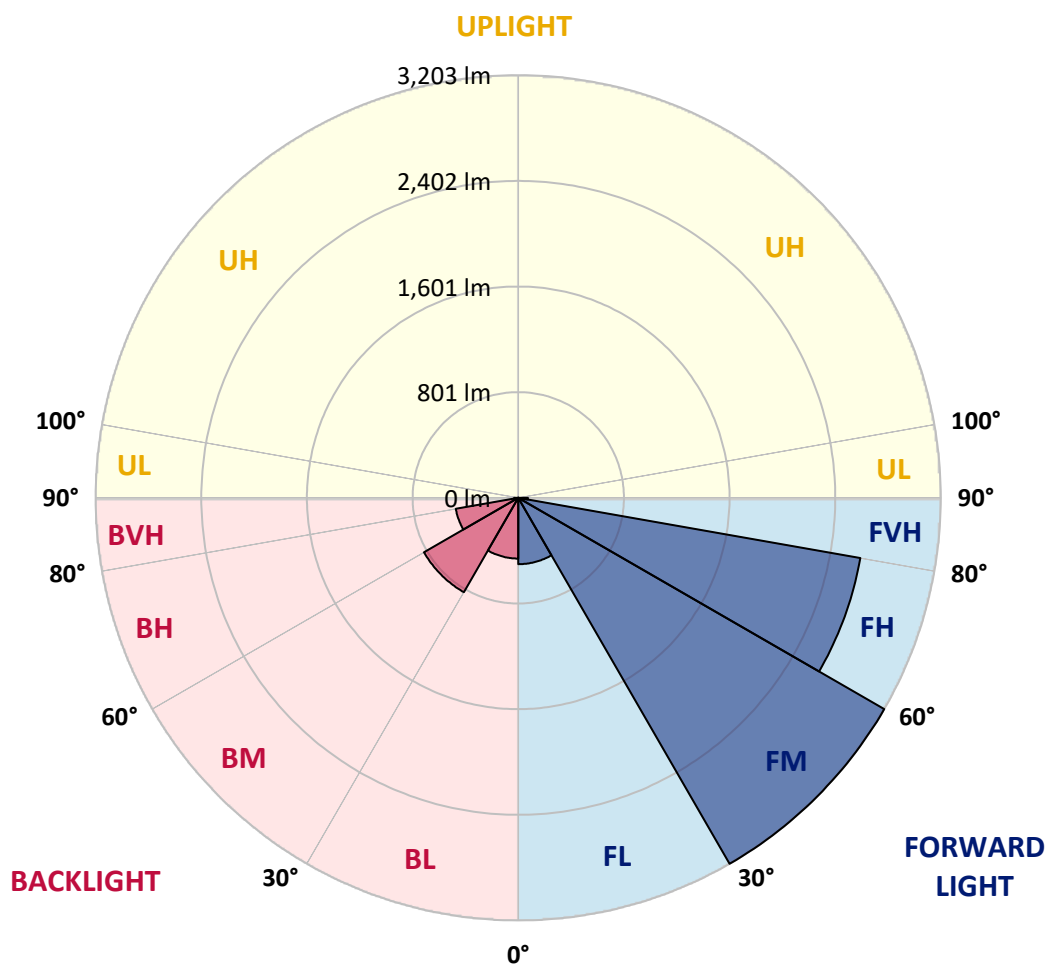
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	502.9	6.1			
FM	(30°-60°)	3202.7	39.0			
FH	(60°-80°)	2632.5	32.1			G2/5000
FVH	(80°-90°)	72.7	0.9			G1/100
BL	(0°-30°)	460.6	5.6	B1/500		
BM	(30°-60°)	825.3	10.1	B1/1000		
BH	(60°-80°)	480.4	5.9	B1/500		G1/500
BVH	(80°-90°)	31.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1
2.5°	1055.5	1055.1	1060.7	1062.3	1072.4	1079.5	1093.0	1107.3	1125.8	1127.9	1139.2
5°	994.7	994.7	1000.9	1007.7	1020.7	1034.9	1055.5	1080.4	1112.3	1117.4	1145.5
7.5°	942.9	946.3	951.7	964.7	979.9	1000.5	1032.1	1067.3	1109.4	1117.4	1162.8
10°	901.3	905.1	911.8	922.3	945.0	973.6	1014.7	1060.2	1116.5	1129.1	1188.0
12.5°	888.3	892.1	895.8	903.8	924.9	958.5	1007.7	1063.5	1133.8	1146.4	1222.5
15°	918.5	923.1	920.2	918.1	929.1	959.7	1011.1	1075.7	1155.2	1173.3	1265.0
17.5°	988.3	990.0	983.3	963.5	961.9	978.3	1026.9	1092.5	1182.1	1201.9	1307.8
20°	1101.0	1098.1	1084.1	1045.1	1022.7	1019.5	1054.3	1117.8	1209.8	1230.9	1354.0
22.5°	1254.0	1250.6	1222.9	1161.1	1111.5	1078.7	1093.9	1150.6	1241.0	1264.5	1399.0
25°	1444.8	1440.2	1399.4	1315.4	1238.4	1157.3	1147.6	1193.9	1279.2	1301.0	1446.1
27.5°	1667.7	1663.9	1619.7	1508.7	1397.8	1265.0	1214.5	1244.8	1319.2	1344.0	1499.1
30°	1907.3	1918.2	1840.0	1720.7	1580.2	1405.4	1304.4	1307.4	1370.8	1393.2	1563.4
32.5°	2188.9	2207.8	2113.7	1962.4	1770.7	1557.9	1418.0	1394.8	1446.1	1464.6	1644.5
35°	2468.1	2489.5	2411.3	2244.0	2023.2	1737.9	1536.5	1495.3	1546.2	1566.3	1752.1
37.5°	2709.4	2738.0	2697.6	2552.1	2293.6	1954.8	1691.1	1613.5	1669.3	1694.5	1896.8
40°	2899.8	2943.5	2940.5	2849.8	2612.2	2217.9	1887.5	1759.3	1822.3	1849.7	2072.0
42.5°	3054.5	3092.3	3125.1	3120.5	2944.7	2516.8	2118.3	1948.9	1996.8	2028.4	2269.2
45°	3161.3	3201.6	3272.2	3348.4	3264.7	2836.7	2382.7	2173.8	2217.5	2265.0	2504.2
47.5°	3256.7	3302.6	3394.2	3514.8	3536.2	3157.9	2672.4	2435.7	2475.6	2524.8	2740.0
50°	3265.1	3304.6	3446.7	3617.8	3729.2	3466.4	2983.5	2729.6	2767.0	2819.5	2992.7
52.5°	3062.1	3124.3	3372.2	3614.9	3817.9	3724.5	3292.4	3035.1	3077.2	3140.3	3254.2
55°	2376.9	2468.1	3154.1	3502.2	3786.3	3891.5	3586.3	3360.2	3414.0	3479.9	3517.3
57.5°	2047.2	2087.2	2503.8	3297.0	3642.6	3934.8	3834.3	3688.5	3775.1	3847.3	3795.6
60°	1840.0	1873.2	2119.6	2977.9	3453.4	3866.2	4026.0	3994.4	4144.1	4230.3	4080.2
62.5°	1618.1	1649.5	1873.6	2486.5	3211.3	3752.3	4147.0	4276.9	4522.5	4616.6	4348.5
65°	1397.8	1424.6	1639.5	2089.3	2903.6	3638.4	4209.7	4521.2	4872.6	4970.1	4571.2
67.5°	1152.3	1174.5	1377.6	1762.7	2529.4	3482.4	4240.8	4713.4	5177.4	5261.1	4681.4
70°	831.5	848.7	1058.5	1394.0	2059.8	3214.2	4228.2	4849.5	5335.4	5402.4	4598.2
72.5°	393.1	408.6	655.0	905.1	1455.0	2692.2	3973.0	4741.4	5174.9	5141.7	4088.6
75°	209.8	223.2	376.3	496.5	768.4	1845.5	3251.2	4084.4	4345.5	4184.0	3021.7
77.5°	142.1	152.6	232.9	298.1	351.1	876.1	2089.7	2827.9	2720.7	2454.2	1513.4
80°	112.6	123.6	190.9	201.8	169.8	316.5	863.5	1309.0	940.4	752.0	430.5
82.5°	86.6	98.8	160.6	146.3	92.5	129.9	251.4	414.1	240.9	183.3	104.2
85°	53.0	66.0	126.1	93.3	52.2	59.2	85.4	115.2	73.6	61.4	37.4
87.5°	26.9	37.8	63.9	34.0	23.6	13.8	22.7	22.7	19.4	16.8	9.6
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°	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1	1145.1
2.5°	1149.3	1157.7	1172.0	1185.5	1196.0	1206.1	1216.2	1221.6	1223.3	1230.0	1233.8
5°	1162.8	1178.3	1206.1	1232.2	1248.6	1258.6	1265.8	1270.0	1270.8	1272.9	1276.2
7.5°	1187.6	1212.4	1251.0	1277.1	1289.3	1288.4	1285.6	1275.0	1270.8	1267.0	1267.8
10°	1222.5	1255.2	1302.8	1320.8	1313.2	1293.1	1267.0	1236.4	1222.0	1208.2	1204.0
12.5°	1265.8	1307.4	1354.0	1353.2	1315.8	1264.1	1203.6	1156.5	1126.6	1105.2	1100.1
15°	1318.4	1366.2	1402.0	1373.4	1291.4	1198.5	1109.8	1048.5	1021.5	997.9	995.5
17.5°	1372.6	1423.8	1440.2	1367.0	1230.0	1101.4	1000.9	952.6	926.1	913.5	917.3
20°	1425.5	1476.4	1462.9	1331.0	1136.7	991.3	901.7	875.2	869.8	872.7	871.5
22.5°	1481.4	1526.8	1467.6	1261.2	1017.7	878.6	829.4	830.2	842.4	851.3	853.4
25°	1538.6	1569.3	1455.4	1160.3	889.9	795.8	783.6	797.0	821.0	838.2	842.9
27.5°	1593.7	1607.1	1428.8	1035.4	780.2	736.5	738.6	766.4	802.5	826.5	832.4
30°	1655.9	1640.7	1378.0	895.0	704.2	685.6	703.3	735.6	771.8	793.2	798.3
32.5°	1726.1	1669.7	1297.3	765.1	650.4	644.8	673.8	694.8	710.8	717.2	720.6
35°	1813.5	1710.5	1193.9	673.8	602.0	615.0	642.8	632.2	626.0	622.6	626.0
37.5°	1927.0	1765.6	1072.8	614.6	562.9	593.6	605.0	572.2	547.3	535.2	538.1
40°	2063.6	1846.3	956.3	568.8	538.1	575.1	555.3	515.8	484.3	467.1	468.3
42.5°	2215.4	1930.8	858.4	534.3	524.2	560.0	518.8	471.7	420.8	415.3	420.8
45°	2374.7	2017.8	791.6	507.8	517.5	546.9	497.7	421.7	385.5	407.7	419.5
47.5°	2534.1	2097.7	751.2	488.1	514.1	532.2	479.2	393.9	368.3	400.7	415.7
50°	2711.4	2169.2	733.2	473.8	510.3	526.3	451.5	386.7	350.1	371.7	387.6
52.5°	2887.6	2224.7	719.7	459.5	504.9	521.7	438.1	378.3	328.3	329.5	338.5
55°	3063.3	2260.8	705.0	440.5	492.7	511.6	436.8	369.1	311.9	306.1	310.3
57.5°	3250.8	2281.4	686.9	419.5	471.7	486.0	435.5	361.9	306.9	297.2	298.5
60°	3441.6	2311.7	663.4	393.9	443.5	455.3	432.6	359.5	303.9	287.5	288.8
62.5°	3612.7	2322.1	635.2	369.5	407.3	425.0	426.3	357.3	295.9	267.8	267.8
65°	3725.0	2276.8	586.0	341.7	368.3	393.9	414.1	350.1	281.7	253.5	253.5
67.5°	3720.3	2147.3	509.1	306.1	330.5	359.5	396.5	337.9	264.4	235.9	237.1
70°	3547.2	1891.7	411.5	264.4	288.8	322.5	373.7	319.9	243.8	216.5	219.0
72.5°	3042.3	1480.6	298.9	215.7	240.5	284.1	344.3	298.1	222.8	199.3	198.0
75°	2173.4	937.1	202.6	165.6	187.1	240.9	307.7	272.4	203.5	200.1	188.7
77.5°	1110.2	447.7	134.1	121.1	130.3	190.0	258.5	243.4	206.4	165.2	147.1
80°	361.1	165.2	84.5	82.4	86.6	126.5	200.1	199.7	156.4	112.2	99.2
82.5°	115.2	71.0	55.0	53.0	50.8	79.4	139.6	158.1	105.5	71.0	70.6
85°	45.8	42.4	32.4	29.8	21.4	37.4	73.2	105.1	78.6	51.2	52.6
87.5°	16.8	16.8	8.8	6.4	4.6	12.6	19.8	31.6	45.0	26.4	26.0
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)