

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: P961568

Luminaire Tested: **NAV-SB2A-830-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961568
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-830-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8481.9 lumens
Efficiency: N/A
Efficacy: 148.0 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



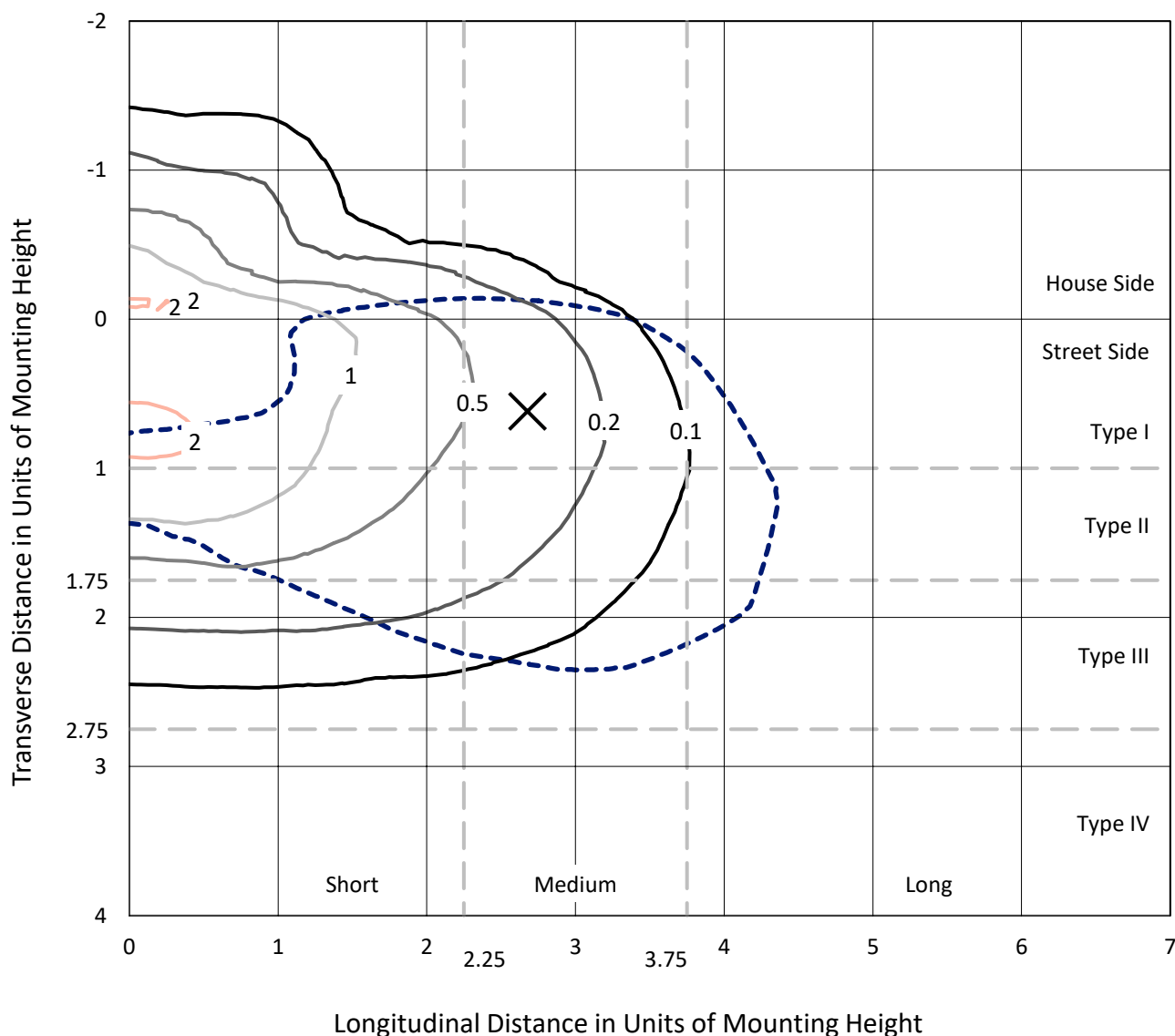
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

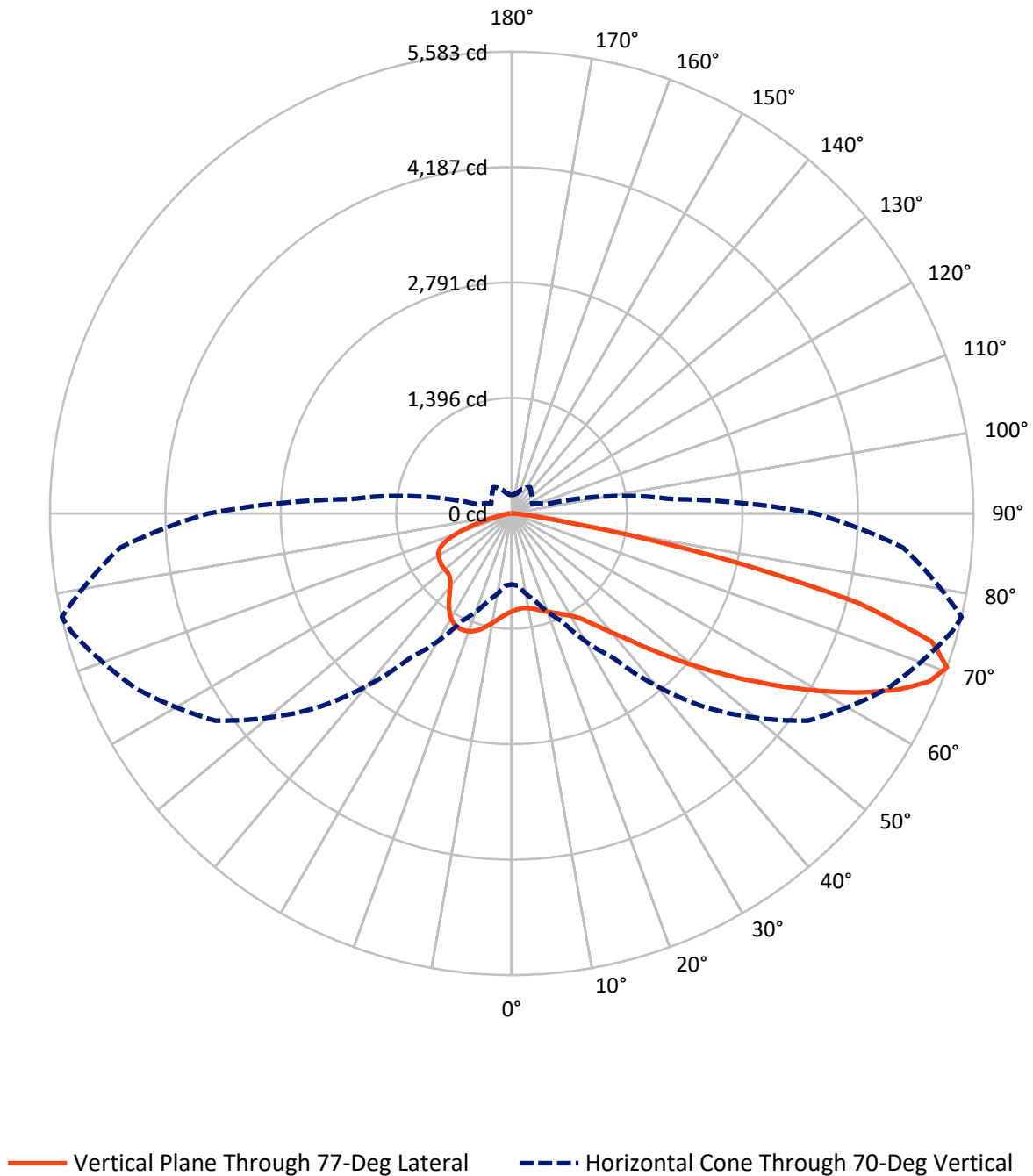


Based on 25 foot mounting height. Maximum calculated value = 2.2 fc

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	1857.4	0.0	1857.4
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	6624.5	0.0	6624.5
	% Fixture	78.1	0.0	78.1
Total	Lumens	8481.9	0.0	8481.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.9	1.3
10°-20°	325.7	3.8
20°-30°	557.0	6.6
30°-40°	895.7	10.6
40°-50°	1398.5	16.5
50°-60°	1868.0	22.0
60°-70°	1991.0	23.5
70°-80°	1225.7	14.5
80°-90°	107.4	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°	8481.9	100.0
0°-180°	8481.9	100.0

Coefficient of Utilization



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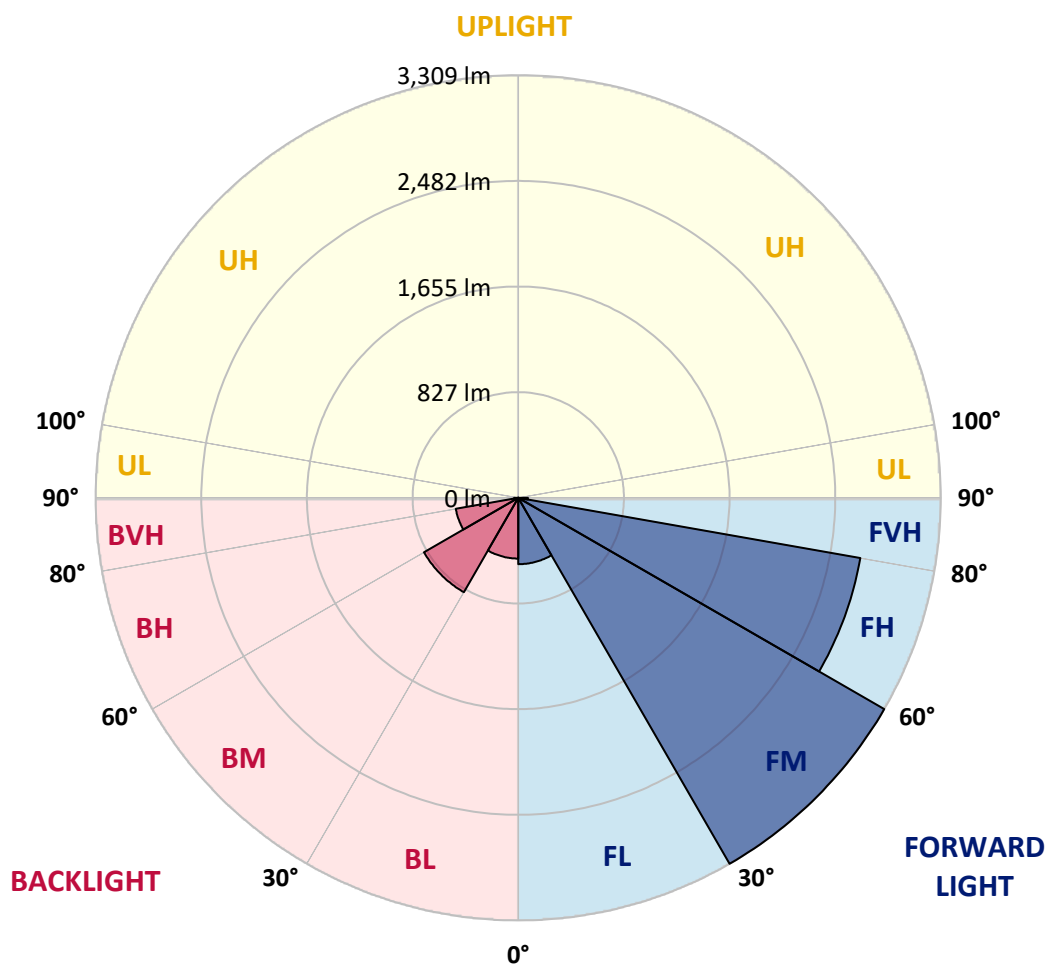
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	519.7	6.1			
FM	(30°-60°)	3309.4	39.0			
FH	(60°-80°)	2720.3	32.1			G2/5000
FVH	(80°-90°)	75.1	0.9			G1/100
BL	(0°-30°)	475.9	5.6	B1/500		
BM	(30°-60°)	852.8	10.1	B1/1000		
BH	(60°-80°)	496.4	5.9	B1/500		G1/500
BVH	(80°-90°)	32.3	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°	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3
2.5°	1090.8	1090.3	1096.0	1097.7	1108.1	1115.5	1129.4	1144.2	1163.3	1165.5	1177.2
5°	1027.8	1027.8	1034.3	1041.3	1054.7	1069.5	1090.8	1116.4	1149.4	1154.7	1183.8
7.5°	974.4	977.8	983.5	996.9	1012.6	1033.8	1066.4	1102.9	1146.4	1154.7	1201.5
10°	931.3	935.2	942.2	953.0	976.5	1006.0	1048.7	1095.5	1153.7	1166.8	1227.6
12.5°	917.9	921.8	925.7	934.0	955.7	990.5	1041.3	1099.0	1171.6	1184.6	1263.2
15°	949.1	954.0	950.9	948.7	960.0	991.7	1044.7	1111.6	1193.7	1212.4	1307.1
17.5°	1021.3	1023.1	1016.1	995.7	993.9	1010.9	1061.2	1129.0	1221.5	1242.0	1351.4
20°	1137.6	1134.7	1120.3	1079.9	1056.9	1053.4	1089.5	1155.1	1250.2	1271.9	1399.2
22.5°	1295.8	1292.3	1263.6	1199.8	1148.5	1114.7	1130.3	1188.9	1282.4	1306.7	1445.7
25°	1493.0	1488.2	1446.1	1359.3	1279.7	1195.9	1185.9	1233.7	1321.8	1344.5	1494.3
27.5°	1723.2	1719.3	1673.7	1559.0	1444.3	1307.1	1255.0	1286.3	1363.1	1388.8	1549.1
30°	1970.9	1982.1	1901.4	1778.0	1632.9	1452.2	1348.0	1350.9	1416.6	1439.6	1615.5
32.5°	2261.9	2281.4	2184.2	2027.8	1829.7	1609.9	1465.2	1441.4	1494.3	1513.4	1699.3
35°	2550.3	2572.5	2491.7	2318.9	2090.8	1795.8	1587.7	1545.2	1597.7	1618.6	1810.6
37.5°	2799.7	2829.2	2787.5	2637.2	2370.1	2020.0	1747.6	1667.3	1725.0	1751.0	1960.0
40°	2996.5	3041.7	3038.6	2944.8	2699.3	2291.9	1950.5	1817.9	1883.1	1911.3	2141.1
42.5°	3156.3	3195.4	3229.3	3224.5	3042.9	2600.7	2188.9	2013.8	2063.4	2095.9	2344.9
45°	3266.7	3308.4	3381.4	3460.0	3373.6	2931.3	2462.2	2246.3	2291.5	2340.5	2587.7
47.5°	3365.3	3412.6	3507.3	3632.0	3654.1	3263.2	2761.5	2516.9	2558.2	2609.0	2831.4
50°	3374.0	3414.8	3561.7	3738.4	3853.6	3582.1	3082.9	2820.5	2859.2	2913.5	3092.4
52.5°	3164.2	3228.4	3484.7	3735.4	3945.2	3848.8	3402.2	3136.4	3179.8	3244.9	3362.7
55°	2456.1	2550.3	3259.3	3619.0	3912.6	4021.2	3705.9	3472.2	3527.7	3595.9	3634.6
57.5°	2115.5	2156.8	2587.3	3407.0	3764.0	4066.0	3962.1	3811.4	3900.8	3975.6	3922.2
60°	1901.4	1935.7	2190.2	3077.3	3568.5	3995.1	4160.3	4127.7	4282.2	4371.3	4216.2
62.5°	1672.0	1704.6	1936.1	2569.5	3318.3	3877.5	4285.3	4419.6	4673.3	4770.6	4493.4
65°	1444.3	1472.2	1694.1	2159.0	3000.4	3759.7	4350.1	4672.0	5035.1	5135.9	4723.6
67.5°	1190.6	1213.7	1423.5	1821.4	2613.8	3598.6	4382.2	4870.5	5350.1	5436.5	4837.5
70°	859.3	877.1	1093.8	1440.4	2128.5	3321.4	4369.2	5011.2	5513.4	5582.5	4751.5
72.5°	406.2	422.2	676.8	935.2	1503.5	2781.8	4105.5	4899.6	5347.4	5313.1	4224.9
75°	216.8	230.6	388.8	513.0	794.1	1907.0	3359.6	4220.6	4490.3	4323.6	3122.5
77.5°	146.8	157.6	240.7	308.0	362.7	905.3	2159.4	2922.2	2811.4	2536.1	1563.8
80°	116.4	127.7	197.2	208.5	175.5	327.1	892.3	1352.7	971.7	777.2	444.8
82.5°	89.5	102.1	165.9	151.2	95.5	134.3	259.7	427.8	248.9	189.4	107.7
85°	54.7	68.2	130.3	96.5	53.9	61.3	88.1	119.0	76.1	63.4	38.6
87.5°	27.8	39.1	66.0	35.2	24.3	14.3	23.5	23.5	20.0	17.4	9.9
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°	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3	1183.3
2.5°	1187.7	1196.4	1211.1	1225.0	1235.8	1246.3	1256.8	1262.4	1264.1	1271.0	1275.0
5°	1201.5	1217.6	1246.3	1273.3	1290.2	1300.6	1308.0	1312.3	1313.2	1315.4	1318.9
7.5°	1227.1	1252.8	1292.7	1319.7	1332.3	1331.5	1328.4	1317.5	1313.2	1309.2	1310.2
10°	1263.2	1297.1	1346.2	1364.9	1357.1	1336.2	1309.2	1277.6	1262.8	1248.4	1244.1
12.5°	1308.0	1350.9	1399.2	1398.3	1359.7	1306.3	1243.6	1195.0	1164.2	1142.1	1136.8
15°	1362.2	1411.8	1448.7	1419.2	1334.4	1238.5	1146.8	1083.4	1055.5	1031.3	1028.7
17.5°	1418.3	1471.3	1488.2	1412.7	1271.0	1138.2	1034.3	984.3	956.9	943.9	947.8
20°	1473.0	1525.6	1511.7	1375.3	1174.6	1024.3	931.8	904.5	898.7	901.8	900.5
22.5°	1530.8	1577.8	1516.5	1303.2	1051.6	907.8	857.1	857.9	870.5	879.7	881.8
25°	1589.9	1621.7	1503.9	1198.9	919.6	822.4	809.7	823.6	848.4	866.2	870.9
27.5°	1646.8	1660.7	1476.5	1069.9	806.3	761.1	763.2	791.9	829.2	854.0	860.1
30°	1711.1	1695.5	1423.9	924.9	727.6	708.5	726.7	760.2	797.6	819.7	824.9
32.5°	1783.6	1725.4	1340.6	790.6	672.0	666.4	696.4	718.0	734.6	741.1	744.6
35°	1874.0	1767.6	1233.7	696.4	622.1	635.5	664.2	653.3	646.8	643.4	646.8
37.5°	1991.3	1824.5	1108.5	635.1	581.7	613.4	625.1	591.2	565.6	553.0	556.1
40°	2132.4	1907.8	988.3	587.7	556.1	594.3	573.8	533.0	500.4	482.6	483.9
42.5°	2289.2	1995.2	887.0	552.2	541.7	578.6	536.1	487.4	434.8	429.2	434.8
45°	2454.0	2085.2	817.9	524.8	534.7	565.2	514.3	435.7	398.3	421.4	433.6
47.5°	2618.6	2167.7	776.2	504.3	531.3	549.9	495.2	407.0	380.6	414.0	429.6
50°	2801.8	2241.5	757.6	489.5	527.4	543.9	466.6	399.6	361.8	384.0	400.5
52.5°	2983.9	2298.9	743.6	474.8	521.7	539.0	452.6	390.9	339.3	340.6	349.7
55°	3165.4	2336.2	728.5	455.2	509.1	528.7	451.3	381.4	322.4	316.2	320.6
57.5°	3359.2	2357.5	709.8	433.6	487.4	502.1	450.1	374.0	317.1	307.1	308.4
60°	3556.4	2388.8	685.5	407.0	458.3	470.5	447.0	371.5	314.1	297.1	298.5
62.5°	3733.3	2399.6	656.4	381.8	421.0	439.2	440.4	369.2	305.9	276.8	276.8
65°	3849.2	2352.7	605.6	353.2	380.6	407.0	427.8	361.8	291.0	262.0	262.0
67.5°	3844.5	2218.9	526.0	316.2	341.4	371.5	409.6	349.2	273.3	243.7	245.0
70°	3665.4	1954.8	425.3	273.3	298.5	333.2	386.2	330.6	251.9	223.8	226.3
72.5°	3143.8	1529.9	308.8	222.8	248.5	293.7	355.8	308.0	230.2	205.9	204.6
75°	2245.9	968.3	209.4	171.2	193.3	248.9	318.0	281.5	210.2	206.7	195.1
77.5°	1147.3	462.6	138.6	125.2	134.7	196.4	267.1	251.5	213.3	170.8	152.0
80°	373.1	170.8	87.3	85.2	89.5	130.8	206.7	206.3	161.6	116.0	102.5
82.5°	119.0	73.4	56.9	54.7	52.6	82.1	144.2	163.3	109.1	73.4	73.0
85°	47.4	43.9	33.4	30.9	22.1	38.6	75.5	108.6	81.3	53.0	54.3
87.5°	17.4	17.4	9.1	6.6	4.8	13.0	20.4	32.6	46.4	27.4	27.0
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)