

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: P882071

Luminaire Tested: **NAV-SB1D-735-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882071  
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-SB1D-735-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

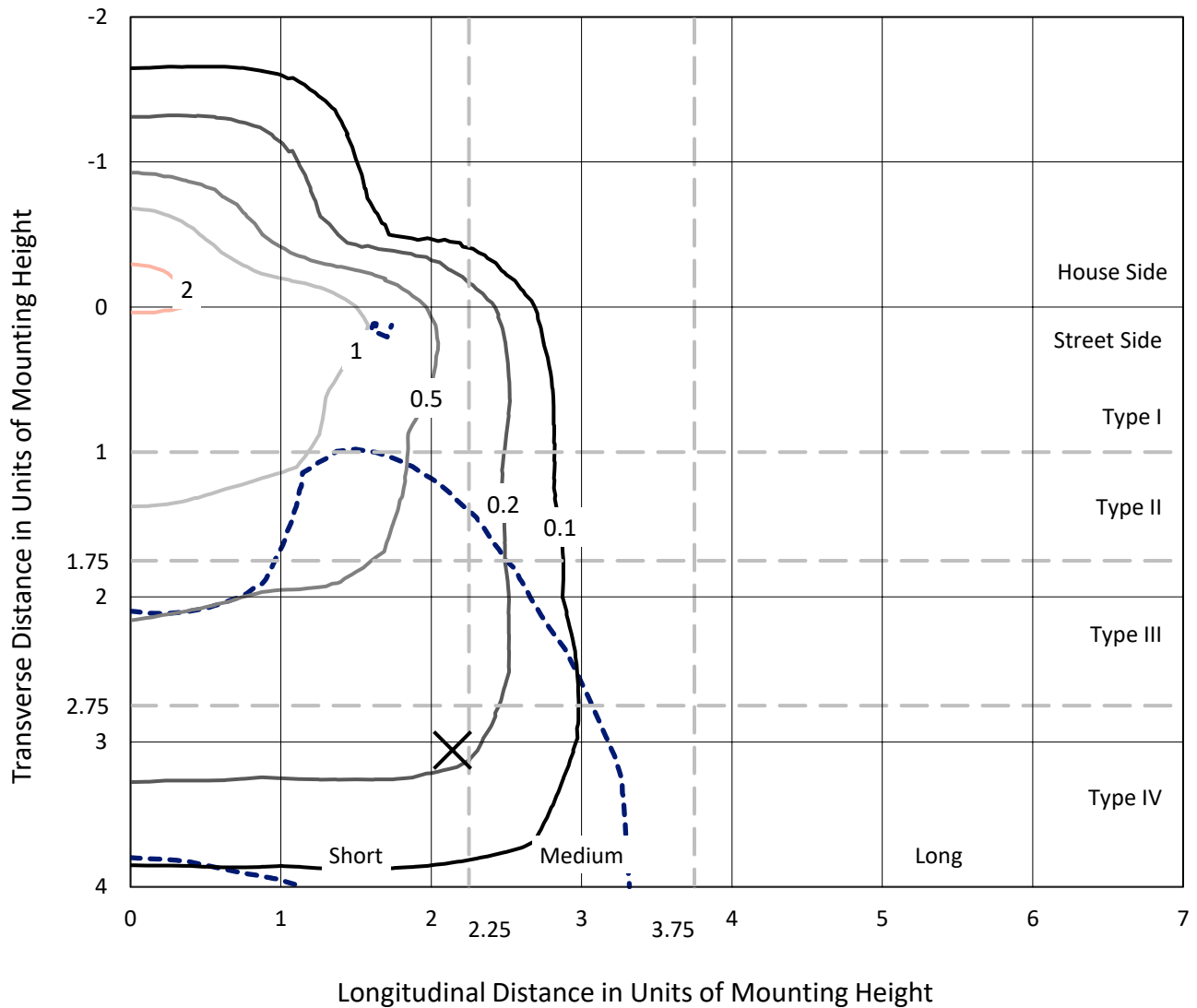
Lumens per Lamp: N/A  
Luminaire Lumens: 10066 lumens  
Efficiency: N/A  
Efficacy: 126.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 0.638  
Voltage Rise (V): NR  
Power Factor: 0.997  
Total Harmonic Distortion (THDi): 6.673  
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

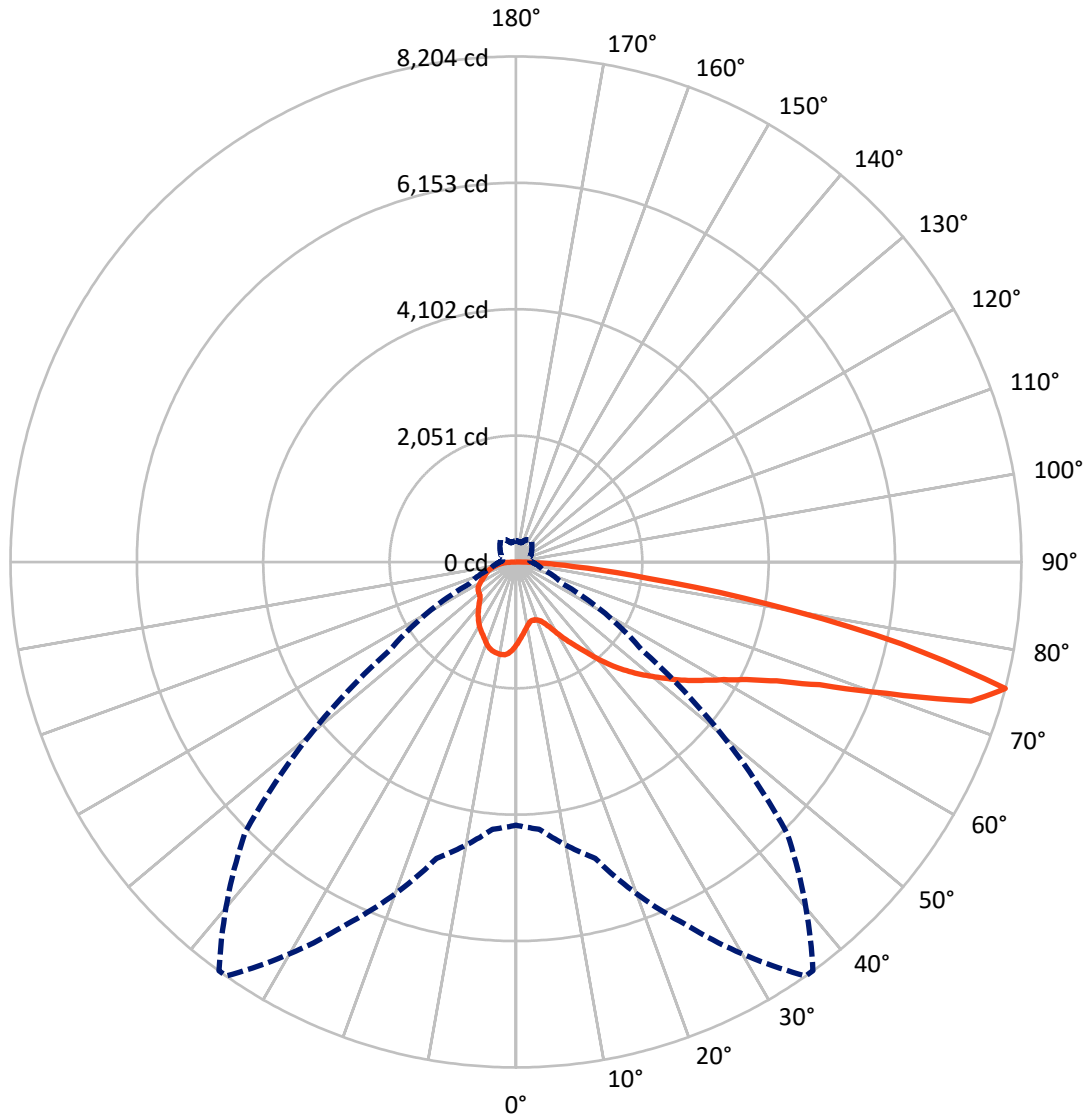
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 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
<b>House Side</b>	Lumens	2395.5	0.0	2395.5
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	7670.5	0.0	7670.5
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	10066.0	0.0	10066.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.0	1.3
10°-20°	366.3	3.6
20°-30°	615.2	6.1
30°-40°	956.0	9.5
40°-50°	1419.0	14.1
50°-60°	1959.0	19.5
60°-70°	2376.7	23.6
70°-80°	1964.2	19.5
80°-90°	282.5	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°	10066.0	100.0
0°-180°	10066.0	100.0

**Coefficient of Utilization**



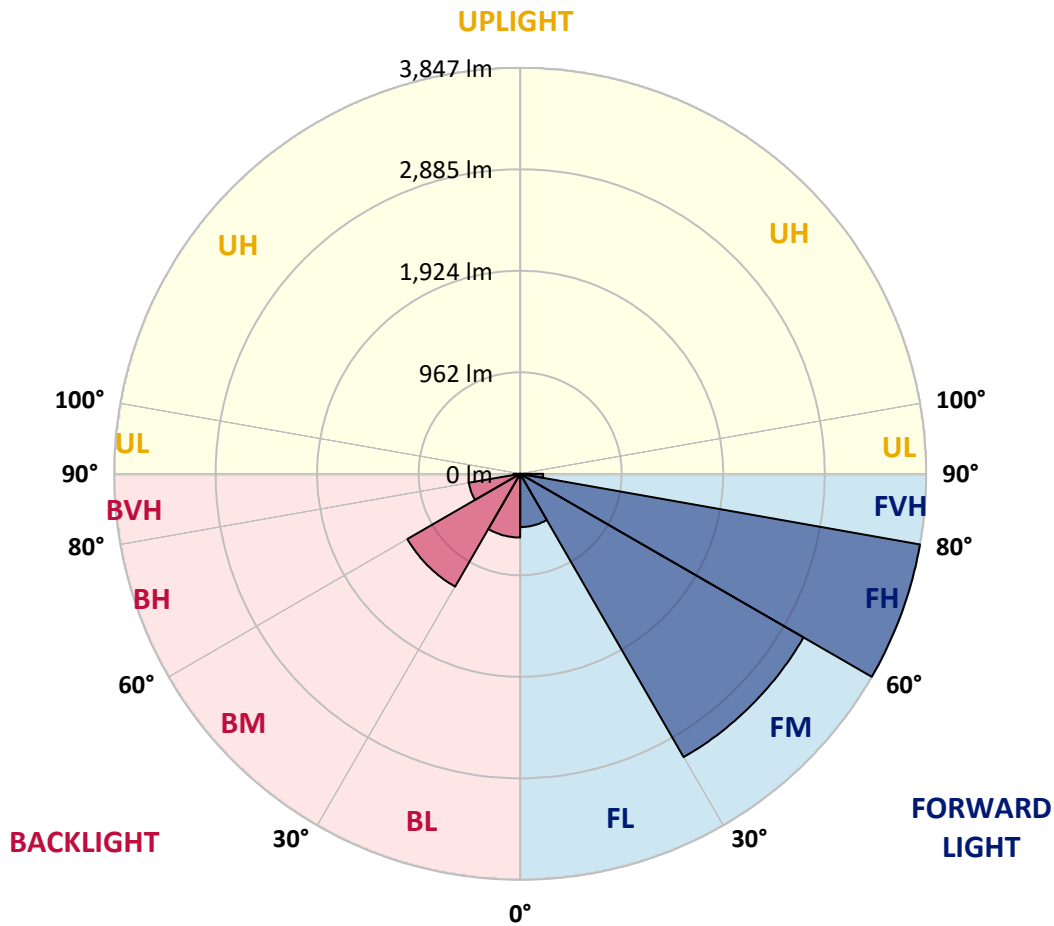
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	504.8	5.0			
FM (30°-60°)	3099.8	30.8			
FH (60°-80°)	3847.1	38.2			G2/5000
FVH (80°-90°)	218.9	2.2			G2/225
BL (0°-30°)	603.7	6.0	B2/1000		
BM (30°-60°)	1234.3	12.3	B2/2500		
BH (60°-80°)	493.9	4.9	B1/500		G1/500
BVH (80°-90°)	63.6	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°	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4
2.5°	1236.9	1244.5	1247.8	1246.1	1254.3	1253.2	1264.6	1278.8	1298.4	1317.4	1345.2
5°	1141.7	1149.8	1156.9	1163.4	1179.2	1184.1	1202.1	1229.3	1265.2	1301.6	1347.3
7.5°	1053.0	1060.0	1070.9	1082.9	1109.5	1114.4	1144.4	1186.8	1236.9	1290.2	1353.3
10°	980.6	987.7	999.1	1012.7	1045.9	1051.9	1090.0	1146.6	1211.9	1279.3	1359.9
12.5°	949.6	951.7	958.3	971.9	1000.7	1004.5	1046.4	1111.2	1187.4	1271.2	1369.7
15°	947.9	952.3	952.8	959.9	983.8	985.5	1024.1	1088.3	1172.1	1269.5	1384.4
17.5°	964.3	967.5	962.6	967.0	987.1	989.8	1020.3	1077.4	1167.2	1276.6	1409.4
20°	1007.8	1010.5	995.8	989.8	1004.5	1006.7	1036.6	1084.5	1172.1	1291.3	1443.7
22.5°	1100.3	1101.9	1066.0	1041.5	1042.6	1043.7	1069.8	1113.4	1191.2	1318.0	1487.2
25°	1244.5	1243.4	1186.3	1138.9	1111.7	1105.7	1123.2	1160.2	1223.3	1353.3	1543.2
27.5°	1413.2	1405.0	1347.9	1277.2	1217.8	1209.1	1205.3	1221.1	1269.0	1400.1	1611.8
30°	1603.6	1596.0	1534.5	1442.0	1359.9	1345.7	1309.8	1301.6	1337.0	1463.8	1707.0
32.5°	1812.6	1807.7	1734.2	1622.2	1512.2	1495.9	1435.5	1413.7	1441.5	1560.1	1839.8
35°	1987.8	1983.5	1922.5	1807.2	1672.8	1652.6	1591.1	1566.6	1580.8	1683.6	2013.4
37.5°	2146.2	2144.0	2091.8	2000.9	1862.1	1837.6	1768.5	1760.4	1757.6	1846.3	2224.0
40°	2293.1	2287.7	2233.2	2185.4	2082.5	2060.2	1999.3	1992.2	1971.5	2046.6	2462.3
42.5°	2455.8	2441.7	2362.8	2340.4	2312.7	2294.2	2257.7	2258.8	2213.1	2272.4	2714.8
45°	2588.6	2580.4	2499.3	2486.3	2516.2	2508.6	2540.2	2548.3	2459.6	2509.1	2977.1
47.5°	2731.2	2723.5	2655.0	2645.7	2726.8	2729.0	2840.5	2843.3	2700.1	2755.1	3239.9
50°	2906.9	2896.0	2828.0	2839.4	2930.3	2938.5	3142.5	3124.0	2921.6	3004.9	3500.6
52.5°	3022.8	3029.4	3014.7	3033.2	3157.2	3164.9	3439.7	3392.3	3140.9	3251.4	3756.4
55°	3108.3	3121.3	3167.0	3209.5	3396.7	3404.3	3719.9	3647.5	3322.7	3479.9	3996.9
57.5°	3218.2	3199.7	3285.1	3367.8	3624.1	3644.3	3992.5	3893.5	3483.7	3676.9	4161.8
60°	3376.0	3362.9	3429.3	3551.8	3878.8	3910.9	4280.9	4115.0	3601.8	3833.1	4193.9
62.5°	3696.0	3663.3	3673.6	3781.9	4199.9	4242.3	4606.3	4308.1	3660.6	3894.0	4021.9
65°	4174.3	4118.2	4066.0	4141.1	4652.1	4694.0	4973.7	4460.0	3638.8	3775.9	3565.4
67.5°	4776.7	4721.2	4656.9	4727.7	5318.1	5351.3	5426.9	4545.4	3467.4	3321.0	2758.4
70°	5273.5	5252.8	5329.5	5620.7	6381.9	6383.0	6008.1	4474.7	2997.8	2354.6	1596.0
72.5°	5207.6	5195.1	5599.4	6499.5	7722.8	7693.9	6558.3	3939.2	2019.4	1062.2	598.0
75°	4272.2	4353.3	4979.6	6483.7	8204.4	8200.5	6221.4	2504.2	835.3	440.2	309.1
77.5°	2290.9	2419.4	3232.9	4787.0	6404.8	6501.1	4374.0	876.1	358.6	281.9	213.9
80°	747.1	859.2	1288.6	2437.3	4161.8	4143.8	1874.6	343.9	245.4	199.7	148.0
82.5°	317.2	330.3	575.7	1150.9	2135.8	2102.6	596.9	197.5	172.5	136.6	91.4
85°	124.1	138.8	254.1	532.2	925.1	904.9	215.5	97.9	110.5	89.2	54.4
87.5°	40.8	49.5	90.9	182.3	287.9	277.5	52.8	33.7	47.9	40.8	19.6
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°	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4	1341.4
2.5°	1352.8	1361.5	1371.8	1387.1	1400.1	1411.0	1422.4	1429.5	1432.2	1440.4	1439.9
5°	1362.6	1381.6	1407.2	1432.2	1456.7	1471.4	1484.5	1491.0	1497.0	1501.3	1502.4
7.5°	1378.9	1403.4	1443.7	1476.3	1497.0	1509.0	1517.7	1515.5	1517.7	1518.8	1520.4
10°	1393.1	1427.3	1475.2	1506.2	1522.0	1522.6	1520.4	1512.8	1509.0	1509.5	1510.6
12.5°	1409.9	1448.0	1499.7	1525.8	1530.2	1518.2	1509.0	1495.9	1491.0	1488.8	1487.7
15°	1432.8	1476.3	1526.4	1536.2	1525.3	1510.1	1494.3	1473.1	1462.2	1453.5	1456.2
17.5°	1460.5	1508.4	1547.1	1540.0	1516.6	1491.6	1466.0	1433.9	1411.6	1402.3	1402.9
20°	1499.2	1542.2	1562.8	1531.8	1496.4	1458.4	1414.8	1375.6	1355.0	1345.7	1344.6
22.5°	1546.0	1587.3	1578.1	1517.7	1467.6	1406.7	1352.2	1323.4	1313.1	1306.5	1307.6
25°	1602.0	1637.4	1589.0	1497.0	1420.3	1338.1	1296.2	1286.9	1282.0	1277.2	1277.2
27.5°	1674.9	1694.0	1597.1	1466.5	1346.3	1265.2	1249.9	1251.6	1249.9	1241.8	1243.4
30°	1771.3	1767.4	1604.7	1417.0	1261.4	1199.3	1200.4	1207.5	1208.6	1203.1	1205.9
32.5°	1898.0	1859.4	1608.5	1352.8	1180.3	1141.7	1142.7	1150.4	1155.8	1146.6	1150.9
35°	2051.5	1966.6	1602.6	1272.3	1117.7	1086.7	1078.5	1080.7	1082.3	1073.6	1079.6
37.5°	2230.5	2086.9	1575.9	1183.0	1066.0	1032.8	1015.4	1000.7	992.0	983.8	989.3
40°	2427.0	2218.0	1526.9	1095.9	1008.3	975.7	949.6	921.8	892.4	881.5	886.4
42.5°	2632.7	2353.0	1467.6	1012.7	941.9	915.3	887.5	847.3	803.2	780.9	783.6
45°	2846.0	2491.2	1409.4	930.5	873.9	862.5	830.4	782.0	734.1	705.8	703.6
47.5°	3054.9	2621.8	1323.9	847.8	810.3	822.8	797.7	753.1	699.8	655.2	650.3
50°	3254.6	2744.2	1184.1	764.0	758.6	810.8	786.9	722.6	661.7	604.6	599.7
52.5°	3452.7	2843.3	1005.1	687.8	730.8	807.5	772.7	702.0	627.4	567.6	561.0
55°	3620.9	2894.4	832.6	622.5	690.5	779.8	755.8	677.5	579.0	515.3	509.9
57.5°	3716.6	2853.0	688.9	558.3	635.0	734.1	727.0	625.2	521.3	472.3	465.8
60°	3675.3	2685.4	571.4	502.3	582.3	684.6	676.9	573.5	477.2	431.0	424.4
62.5°	3447.3	2366.0	478.3	453.3	534.4	634.0	626.9	533.8	443.5	398.9	391.8
65°	2988.0	1924.7	405.9	412.5	485.9	573.0	583.3	500.6	416.8	373.3	366.2
67.5°	2279.0	1394.1	349.4	377.1	438.6	513.1	543.1	476.7	394.5	353.2	346.6
70°	1298.9	791.8	301.5	342.8	396.7	457.6	512.1	457.6	370.6	336.3	331.9
72.5°	492.5	363.5	260.7	308.5	356.4	410.8	477.8	427.7	342.8	317.2	312.9
75°	262.8	221.5	219.3	268.3	310.2	365.1	434.8	398.3	322.1	335.2	346.1
77.5°	179.0	156.7	183.4	229.6	259.6	314.5	389.1	353.7	279.2	278.1	256.3
80°	124.1	111.0	149.1	185.0	200.8	264.5	339.6	303.6	227.5	212.2	203.0
82.5°	74.6	72.4	111.6	138.2	142.0	204.1	281.3	254.7	186.1	162.2	163.2
85°	40.8	43.0	71.3	81.1	82.7	142.6	220.4	197.0	143.1	120.3	121.3
87.5°	11.4	14.7	26.1	32.1	39.7	74.0	131.1	117.0	71.8	50.1	50.1
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)