

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: P960821

Luminaire Tested: **NAV-SB1D-727-U-T2**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P960821  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-727-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9588.9 lumens  
Efficiency: N/A  
Efficacy: 120.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

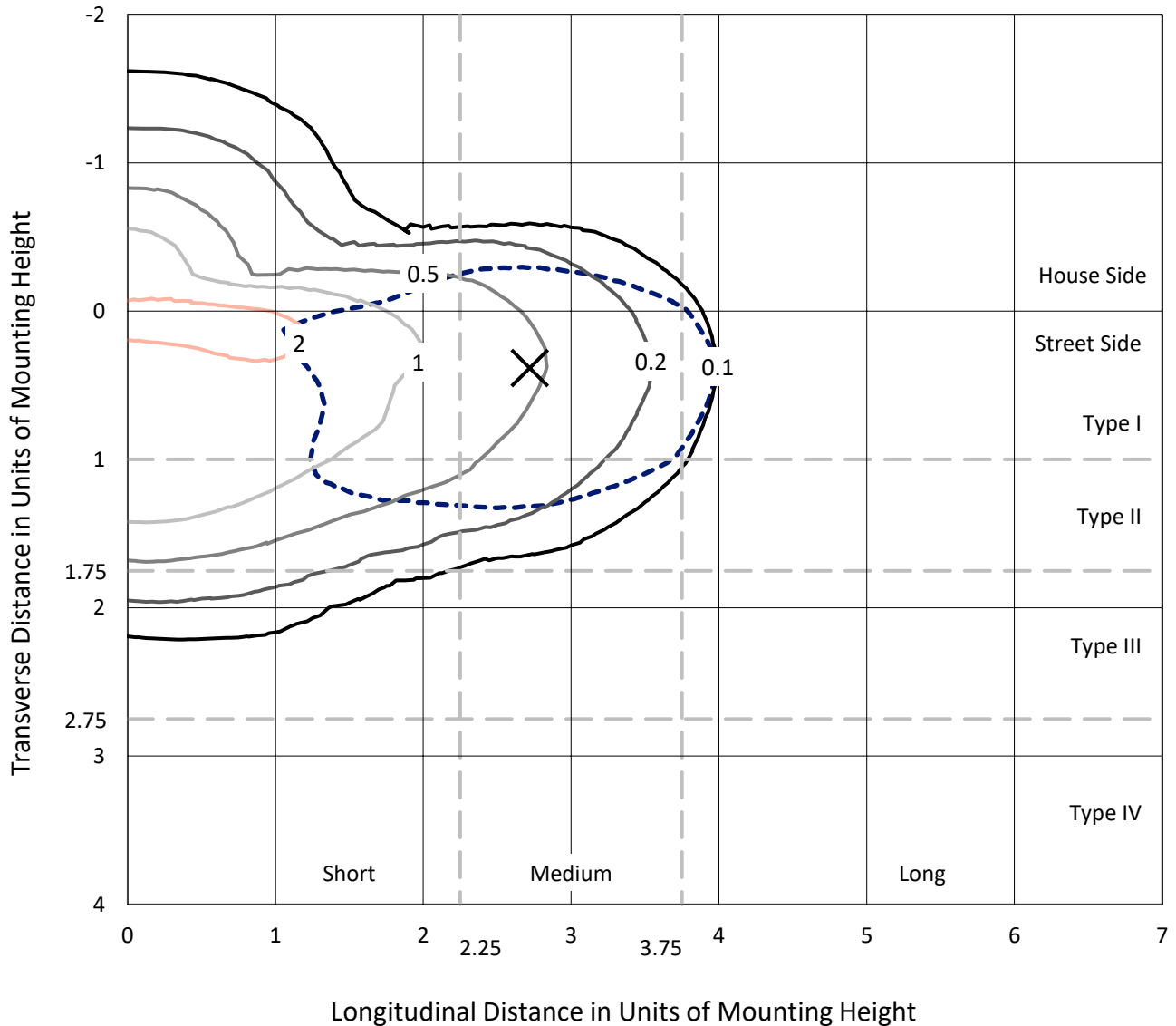
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

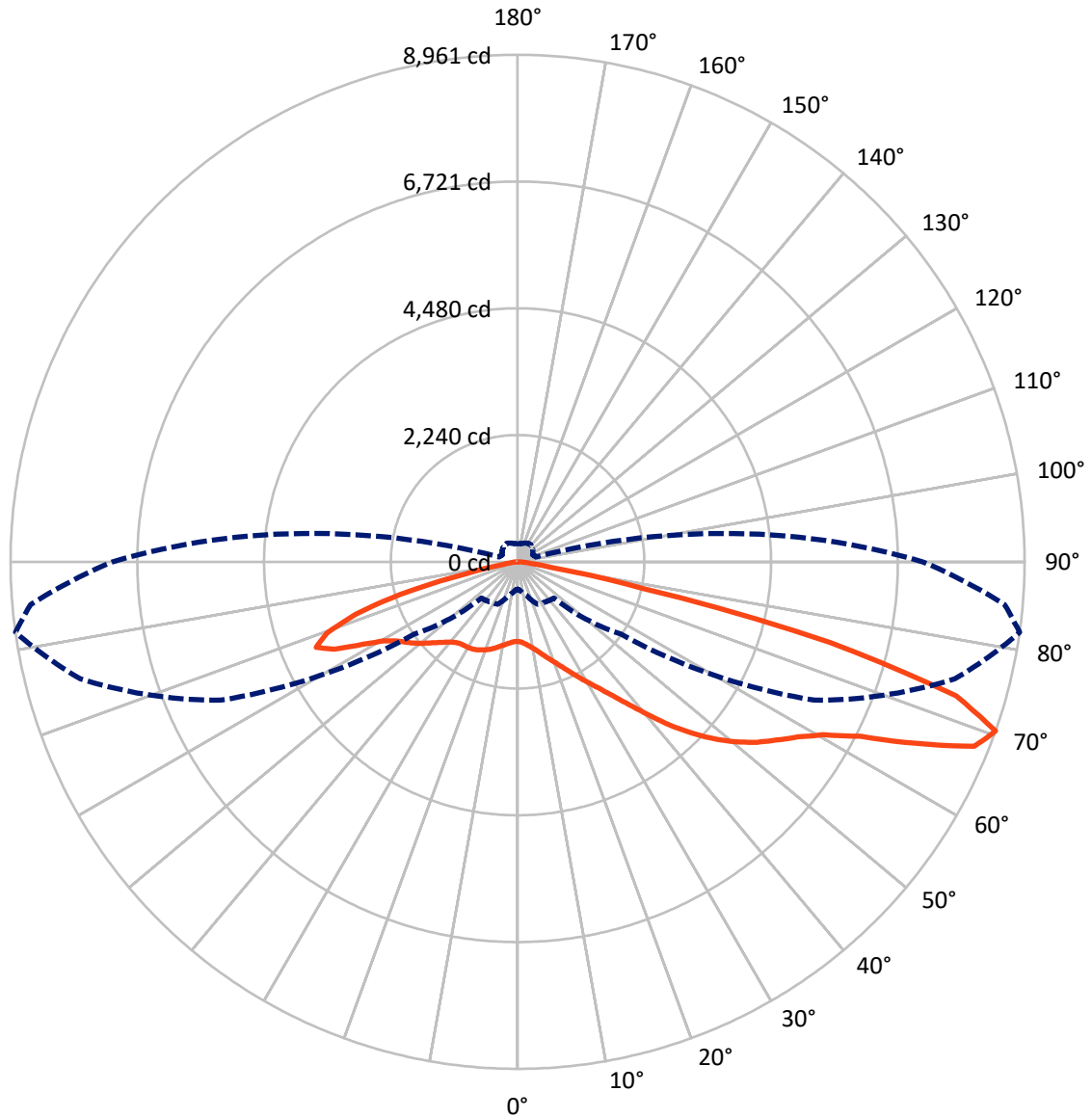
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2363.9	0.0	2363.9
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	7225.0	0.0	7225.0
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	9588.9	0.0	9588.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.7	1.4
10°-20°	381.4	4.0
20°-30°	638.0	6.7
30°-40°	996.7	10.4
40°-50°	1587.3	16.6
50°-60°	2209.0	23.0
60°-70°	2310.7	24.1
70°-80°	1207.7	12.6
80°-90°	125.4	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°	9588.9	100.0
0°-180°	9588.9	100.0

**Coefficient of Utilization**

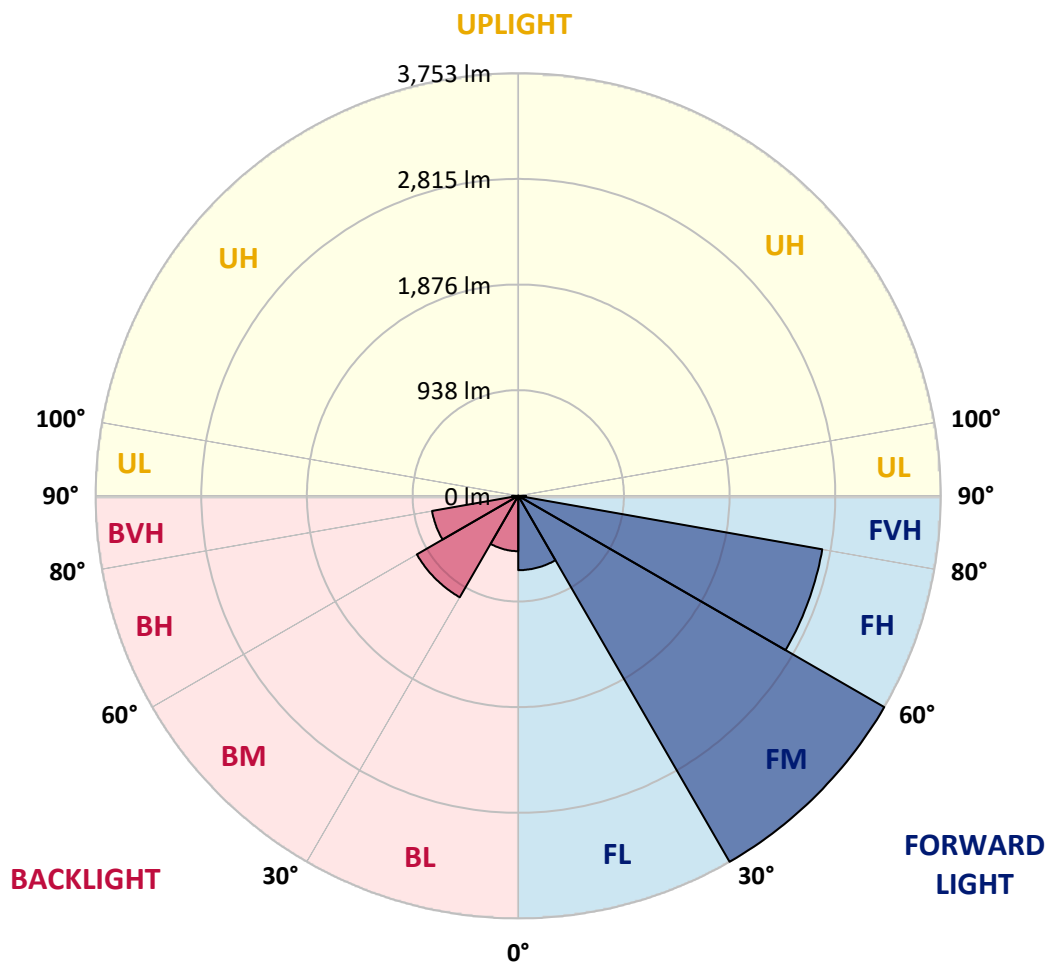


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	660.3	6.9			
FM (30°-60°)	3753.0	39.1			
FH (60°-80°)	2741.5	28.6			G2/5000
FVH (80°-90°)	70.2	0.7			G1/100
BL (0°-30°)	491.8	5.1	B1/500		
BM (30°-60°)	1040.0	10.8	B2/2500		
BH (60°-80°)	776.9	8.1	B2/1000		G2/1000
BVH (80°-90°)	55.2	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 II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9
2.5°	1439.4	1447.6	1445.0	1442.5	1442.5	1438.9	1438.4	1433.4	1429.3	1422.6	1421.2
5°	1457.8	1466.4	1465.3	1467.4	1474.1	1475.6	1477.1	1474.1	1465.9	1457.8	1454.2
7.5°	1441.5	1451.1	1454.2	1466.4	1486.8	1505.1	1518.8	1524.4	1516.8	1505.1	1499.5
10°	1386.5	1397.2	1407.8	1436.8	1473.0	1516.3	1552.9	1574.8	1573.3	1562.1	1552.4
12.5°	1275.1	1286.3	1309.1	1365.6	1431.8	1508.1	1576.3	1622.1	1637.8	1629.7	1612.9
15°	1186.0	1195.7	1213.0	1271.0	1357.0	1473.0	1585.0	1674.0	1714.2	1709.6	1689.3
17.5°	1183.5	1187.6	1198.2	1225.7	1291.9	1418.1	1575.8	1724.9	1801.7	1801.2	1775.7
20°	1228.3	1229.8	1235.9	1241.5	1279.2	1376.4	1552.4	1767.1	1899.9	1899.9	1872.5
22.5°	1290.4	1289.3	1295.4	1290.4	1308.6	1372.8	1537.6	1804.2	2009.3	2017.4	1982.9
25°	1383.4	1378.4	1376.9	1365.1	1368.7	1405.9	1553.9	1846.4	2139.1	2155.9	2112.6
27.5°	1507.6	1499.5	1493.8	1466.9	1457.8	1474.1	1603.8	1897.4	2283.6	2312.5	2257.6
30°	1669.4	1654.7	1646.6	1599.7	1566.6	1569.2	1679.1	1965.0	2434.7	2481.5	2411.7
32.5°	1890.2	1867.3	1845.5	1768.6	1708.1	1688.3	1776.2	2058.6	2598.5	2673.3	2583.7
35°	2137.5	2119.2	2095.8	1977.2	1884.2	1838.3	1907.5	2189.4	2790.4	2908.8	2792.4
37.5°	2375.6	2359.9	2371.0	2211.3	2091.2	2024.6	2079.5	2365.0	3026.9	3202.0	3053.9
40°	2622.0	2609.6	2611.2	2458.6	2318.7	2243.8	2288.1	2585.3	3298.1	3550.5	3368.4
42.5°	2889.6	2880.4	2849.9	2714.5	2557.3	2487.6	2528.3	2839.7	3589.1	3947.4	3713.3
45°	3189.3	3183.6	3155.2	3000.0	2819.9	2741.5	2796.4	3120.5	3881.8	4320.8	4059.8
47.5°	3448.2	3452.8	3449.2	3318.4	3131.8	3016.8	3082.4	3413.7	4153.9	4672.0	4392.0
50°	3572.8	3596.8	3631.9	3591.2	3475.2	3358.2	3370.9	3696.6	4413.4	5001.1	4710.6
52.5°	3507.8	3553.1	3648.7	3713.8	3758.6	3734.2	3700.0	3977.4	4657.7	5298.2	5011.8
55°	3265.0	3328.7	3487.4	3644.6	3873.1	4050.7	4095.4	4288.8	4895.8	5559.8	5296.7
57.5°	2822.8	2926.2	3068.6	3386.7	3771.3	4203.8	4556.4	4720.7	5148.2	5839.1	5594.9
60°	2064.8	2203.1	2380.3	2853.4	3415.2	4121.9	4948.7	5384.2	5506.9	6200.9	5983.1
62.5°	1321.4	1406.9	1569.7	2015.5	2661.1	3702.1	5068.8	6213.7	6114.9	6794.2	6565.2
65°	904.7	959.6	1108.7	1359.0	1720.3	2755.7	4747.2	6835.4	7080.6	7734.4	7560.4
67.5°	657.4	699.2	826.4	1045.6	1120.9	1630.8	3683.8	6806.9	8019.4	8703.3	8432.6
70°	479.3	508.8	615.6	826.4	862.4	907.2	2231.6	5786.2	7999.0	8960.7	8636.5
72.5°	355.2	375.5	447.2	641.1	698.1	612.6	1104.6	4205.4	6873.5	8104.9	7844.8
75°	257.0	272.2	325.1	490.5	558.6	466.6	551.0	2457.5	4794.5	5701.3	5747.1
77.5°	196.4	208.1	242.7	359.3	447.2	350.0	341.9	1130.6	2273.3	2284.5	2412.7
80°	157.7	165.3	184.2	252.9	343.0	262.0	222.8	456.4	718.4	608.0	638.1
82.5°	116.0	128.7	155.7	177.5	245.3	180.6	135.8	230.5	273.3	235.0	237.1
85°	66.1	74.8	94.1	127.2	156.7	110.4	77.8	102.3	127.2	104.3	93.1
87.5°	23.4	30.5	33.1	49.8	68.2	45.8	30.0	29.5	41.7	31.1	25.9
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°	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9	1405.9
2.5°	1416.0	1413.5	1403.3	1389.6	1375.3	1361.6	1357.0	1347.4	1340.7	1337.1	1341.2
5°	1444.5	1436.3	1412.4	1381.9	1349.9	1315.3	1290.9	1268.4	1252.1	1237.0	1243.0
7.5°	1485.2	1471.0	1429.8	1376.4	1319.4	1261.9	1219.1	1186.5	1164.7	1150.5	1153.4
10°	1532.6	1510.6	1447.6	1367.7	1279.7	1197.2	1146.9	1118.9	1105.2	1097.5	1099.5
12.5°	1587.0	1555.9	1465.9	1347.9	1219.1	1124.9	1090.4	1082.2	1082.7	1083.2	1084.2
15°	1654.1	1610.9	1480.6	1304.6	1140.2	1069.5	1063.4	1076.7	1090.4	1097.0	1096.4
17.5°	1730.0	1668.9	1483.2	1233.4	1062.9	1033.9	1053.3	1081.8	1102.6	1111.7	1113.8
20°	1811.4	1727.9	1464.8	1132.6	999.3	1004.9	1039.6	1076.1	1099.0	1110.7	1113.8
22.5°	1904.4	1791.0	1421.2	1026.7	947.4	973.3	1014.0	1049.7	1073.6	1085.3	1088.3
25°	2010.8	1861.7	1352.4	937.8	902.6	937.8	978.5	1008.0	1027.3	1038.0	1041.0
27.5°	2128.8	1935.5	1260.9	867.0	863.5	901.1	934.7	957.6	967.8	975.9	979.0
30°	2247.4	2002.6	1149.9	813.5	829.3	865.0	888.9	899.0	902.1	903.6	907.2
32.5°	2375.6	2060.7	1033.4	769.4	796.8	829.8	844.1	848.7	834.5	824.8	827.8
35°	2530.8	2122.8	919.4	734.2	764.8	793.2	797.9	793.8	776.9	757.1	758.1
37.5°	2722.6	2200.1	828.3	709.3	734.7	753.6	747.9	746.9	748.5	725.1	726.6
40°	2957.7	2300.8	761.7	689.9	710.3	714.3	698.6	707.2	714.8	679.3	680.3
42.5°	3218.7	2422.5	719.4	676.7	689.9	680.3	655.9	665.5	664.5	617.7	617.2
45°	3484.9	2554.7	704.7	667.1	671.2	651.8	624.8	627.4	606.0	563.8	565.3
47.5°	3749.4	2696.7	713.9	658.9	647.7	625.9	605.0	593.8	562.2	530.6	530.6
50°	4009.0	2845.8	747.4	642.7	615.6	602.9	587.6	567.8	534.2	507.3	505.2
52.5°	4249.6	2995.9	785.0	615.6	575.4	583.1	573.4	550.5	517.4	489.9	490.5
55°	4477.5	3146.0	799.8	578.5	537.8	565.8	560.2	517.9	478.3	455.9	453.9
57.5°	4725.9	3326.6	783.6	531.2	507.3	545.9	524.6	477.8	454.9	438.1	436.5
60°	5069.9	3610.0	748.5	472.7	478.3	516.4	479.8	460.4	435.5	416.8	415.7
62.5°	5641.2	4138.6	692.0	414.7	444.2	472.7	458.5	439.1	413.7	395.3	395.3
65°	6485.8	4873.4	585.7	369.4	406.0	430.0	435.5	416.3	389.7	370.4	371.5
67.5°	7198.2	5334.4	443.2	331.8	366.8	395.3	411.1	392.3	364.3	345.5	346.0
70°	7159.0	4999.6	338.4	294.6	332.3	361.2	381.6	366.8	336.8	319.0	320.5
72.5°	6358.6	4182.4	273.8	257.0	297.1	325.6	350.0	338.9	308.3	291.0	291.0
75°	4671.4	2968.9	218.8	218.8	253.4	288.5	315.5	308.3	280.3	268.1	264.6
77.5°	1969.1	1245.6	171.5	181.6	210.6	247.7	281.4	283.9	259.5	274.8	249.3
80°	523.6	343.5	130.8	143.0	165.3	204.6	244.8	243.7	217.3	203.1	188.8
82.5°	199.5	135.3	93.1	100.8	119.6	156.7	193.8	200.0	173.5	150.1	150.1
85°	76.9	58.0	57.5	60.6	69.7	103.8	146.6	151.6	130.8	110.9	114.5
87.5°	19.9	17.3	21.3	20.4	32.1	55.5	83.9	87.0	79.8	46.3	66.1
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)