

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: P966088

Luminaire Tested: **NAV-SB4B-727-U-T2R**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P966088  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4B-727-U-T2R  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21854 lumens  
Efficiency: N/A  
Efficacy: 148.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

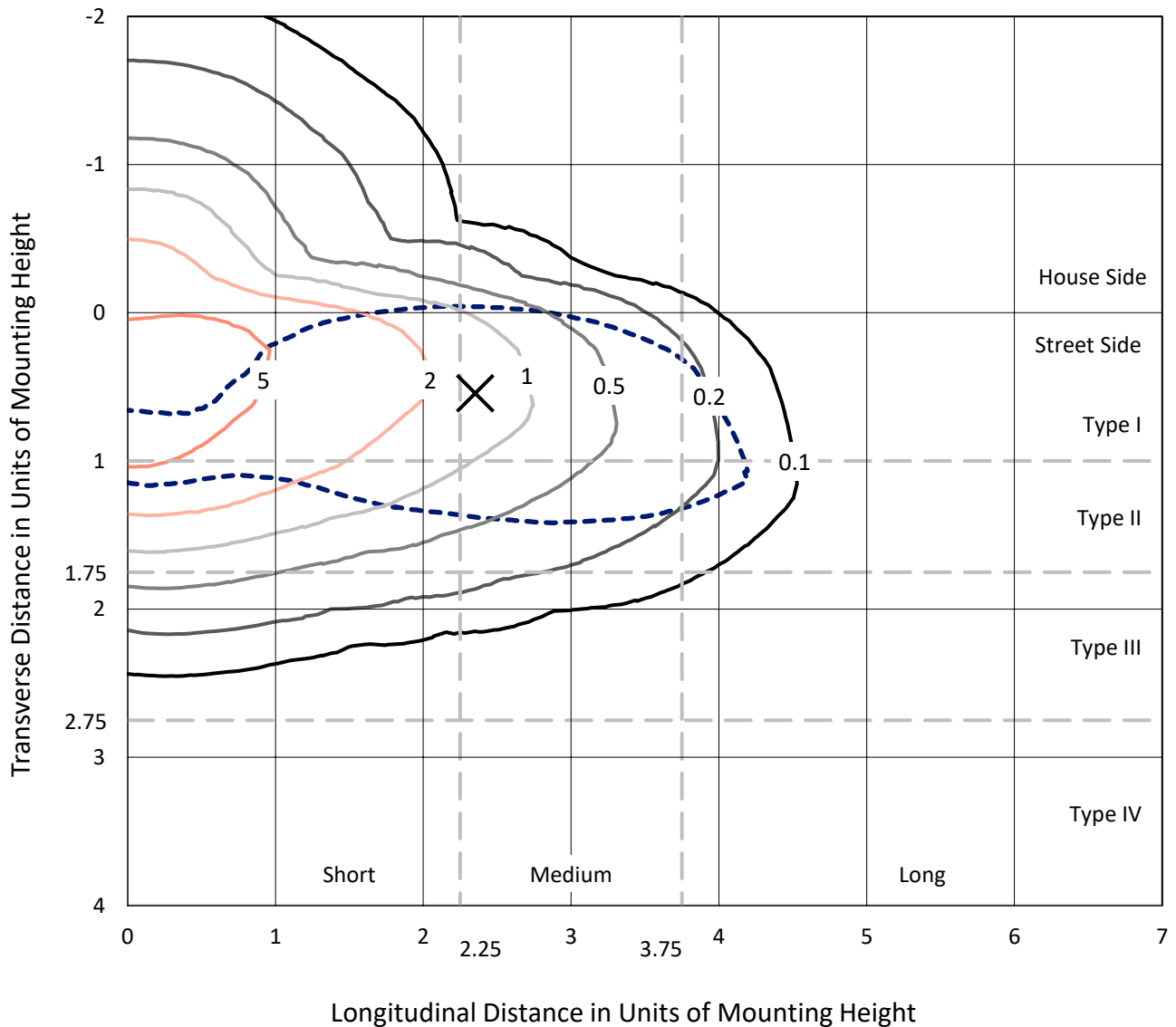
Input Watts (W): 147  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

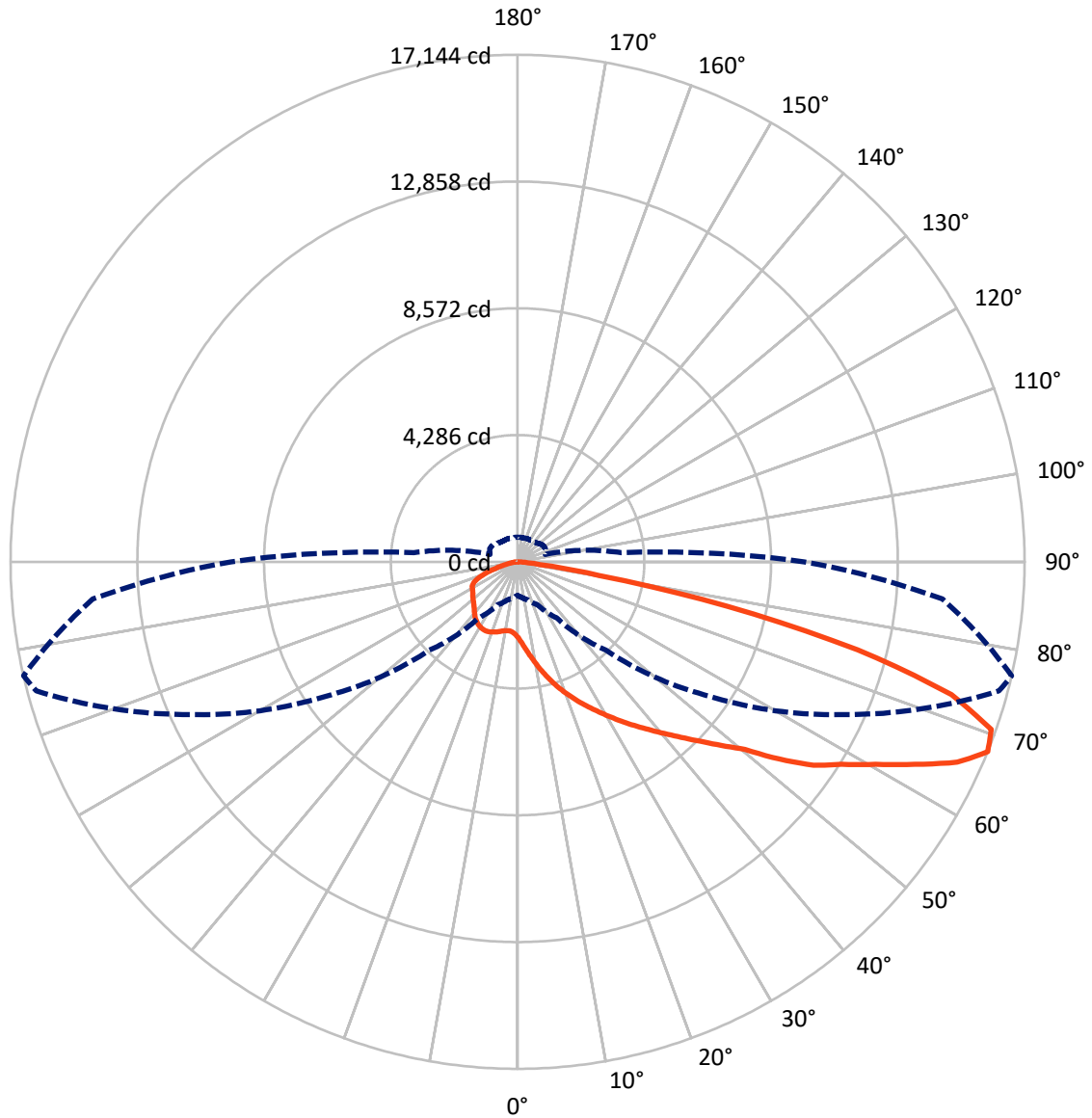
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4133.9	0.0	4133.9
	% Fixture	18.9	0.0	18.9
<b>Street Side</b>	Lumens	17720.1	0.0	17720.1
	% Fixture	81.1	0.0	81.1
<b>Total</b>	Lumens	21854.0	0.0	21854.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	274.8	1.3
10°-20°	987.4	4.5
20°-30°	1864.3	8.5
30°-40°	3003.4	13.7
40°-50°	4108.1	18.8
50°-60°	4633.9	21.2
60°-70°	4325.2	19.8
70°-80°	2370.9	10.8
80°-90°	286.0	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°	21854.0	100.0
0°-180°	21854.0	100.0

**Coefficient of Utilization**

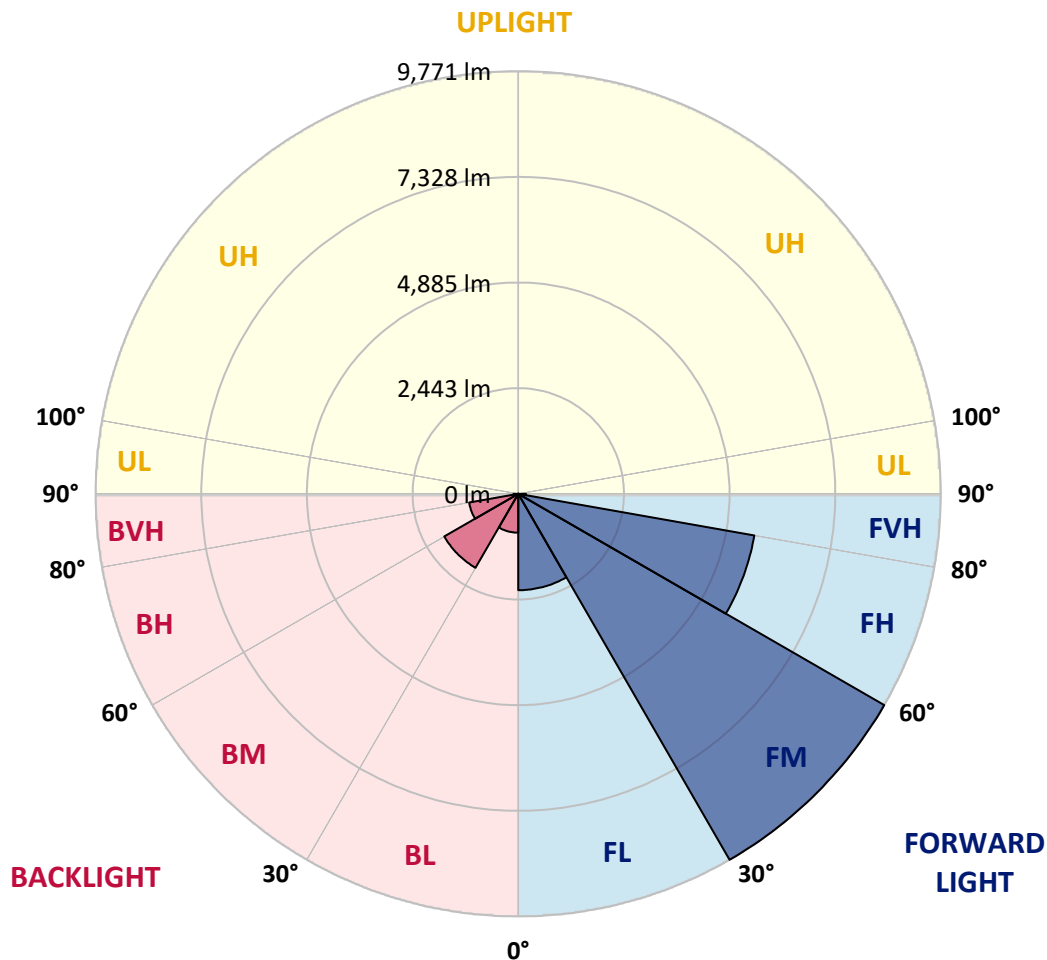


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2227.7	10.2			
FM (30°-60°)	9770.7	44.7			
FH (60°-80°)	5542.8	25.4			G3/7500
FVH (80°-90°)	178.8	0.8			G2/225
BL (0°-30°)	898.8	4.1	B2/1000		
BM (30°-60°)	1974.7	9.0	B2/2500		
BH (60°-80°)	1153.3	5.3	B3/2500		G3/2500
BVH (80°-90°)	107.1	0.5			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1
2.5°	3210.5	3233.2	3204.9	3204.9	3110.2	3060.5	2965.7	2893.6	2763.8	2741.3	2655.6
5°	3794.9	3823.1	3783.6	3766.7	3655.0	3552.3	3393.3	3236.5	3005.2	2981.5	2779.6
7.5°	4247.3	4283.4	4248.4	4230.4	4131.1	4016.1	3829.9	3611.1	3285.0	3238.8	2946.6
10°	4616.2	4621.8	4610.6	4617.3	4539.4	4444.7	4254.1	3999.1	3591.8	3528.7	3148.5
12.5°	4824.9	4850.8	4873.4	4914.0	4900.4	4841.8	4670.3	4365.7	3916.7	3835.6	3368.5
15°	4923.0	4968.1	5018.9	5112.5	5188.1	5202.8	5071.9	4759.4	4247.3	4149.1	3590.7
17.5°	4957.9	5000.9	5080.9	5216.3	5378.8	5488.2	5429.5	5141.8	4574.4	4461.6	3824.3
20°	5135.0	5147.4	5196.0	5324.6	5500.6	5682.2	5726.2	5509.6	4898.2	4770.7	4065.7
22.5°	5514.1	5489.3	5502.8	5561.5	5687.8	5863.8	5964.3	5834.5	5231.0	5084.3	4309.3
25°	6140.3	6068.0	5995.8	5928.1	5992.5	6091.7	6205.7	6159.4	5579.6	5393.4	4555.2
27.5°	6931.0	6843.0	6683.9	6461.7	6383.9	6418.9	6469.6	6460.6	5902.2	5713.8	4809.1
30°	7709.4	7606.7	7417.2	7095.7	6890.4	6797.9	6759.6	6733.6	6253.0	6052.2	5065.1
32.5°	8331.0	8249.7	8063.6	7703.8	7405.9	7248.0	7120.6	7028.0	6619.7	6418.9	5335.8
35°	8874.8	8799.1	8585.9	8193.3	7869.5	7701.5	7534.6	7337.2	7001.0	6797.9	5626.9
37.5°	9371.1	9295.5	9003.3	8594.9	8268.9	8152.7	8003.8	7668.7	7383.4	7191.6	5934.9
40°	9684.7	9667.8	9394.7	8932.3	8593.8	8536.3	8486.7	8053.4	7807.5	7629.3	6273.3
42.5°	9764.8	9802.0	9585.4	9205.2	8882.6	8836.3	8952.6	8488.9	8283.6	8113.3	6656.9
45°	9571.9	9679.1	9536.9	9278.6	9088.0	9063.2	9365.4	8965.0	8810.4	8654.7	7119.4
47.5°	9083.4	9265.1	9206.3	9170.3	9143.2	9250.3	9728.7	9470.4	9407.1	9271.8	7647.3
50°	8097.5	8441.5	8544.2	8772.1	9033.7	9395.9	10059.2	10021.9	10104.3	9967.8	8290.4
52.5°	6392.9	6866.7	7462.3	8033.1	8697.6	9347.4	10422.4	10813.9	11161.3	11086.9	9312.4
55°	5277.2	5490.4	5948.5	6995.3	8045.5	9143.2	10586.0	11453.6	12210.5	12143.9	10087.4
57.5°	4419.9	4610.6	4892.5	5766.9	7059.6	8679.6	10687.6	11843.9	12929.0	12922.3	10852.3
60°	3500.5	3702.4	3991.1	4610.6	5907.8	7878.6	10665.0	12288.3	13846.2	13902.6	11785.1
62.5°	2462.7	2684.9	3005.2	3582.8	4731.2	6840.7	10204.7	12609.9	14925.8	15079.2	12907.6
65°	1618.8	1765.5	2006.8	2505.5	3525.3	5506.2	9326.0	12651.6	16081.0	16340.4	13961.3
67.5°	1134.9	1191.3	1333.4	1604.1	2323.9	4222.5	7926.0	12219.5	16851.4	17143.6	14418.2
70°	885.6	913.8	985.9	1094.3	1459.7	2839.5	6073.6	11095.9	16686.8	16991.3	13941.0
72.5°	764.9	791.9	819.0	832.5	979.2	1753.1	4114.1	9277.5	15135.7	15342.1	12121.3
75°	693.8	700.6	723.1	718.6	746.8	1137.1	2374.6	6759.6	11942.0	11870.9	8948.0
77.5°	583.2	592.2	629.5	623.8	663.3	777.3	1233.0	4362.3	7742.1	7259.3	4980.6
80°	494.2	498.7	539.3	532.5	576.5	562.9	629.5	2223.4	3283.9	2781.8	1436.0
82.5°	171.5	212.1	411.7	424.1	439.9	340.7	363.3	907.0	1002.9	768.2	301.2
85°	83.4	89.1	209.8	297.9	296.7	171.5	177.1	323.8	315.9	248.2	100.4
87.5°	13.5	16.9	24.8	116.2	92.5	45.1	60.9	63.1	65.4	56.4	22.5
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°	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1	2564.1
2.5°	2592.3	2536.0	2417.5	2308.1	2222.3	2140.0	2093.8	2054.3	2031.7	2027.1	2027.1
5°	2662.3	2546.1	2330.6	2149.0	2030.5	1942.6	1896.4	1867.0	1852.4	1843.3	1842.1
7.5°	2762.7	2592.3	2285.5	2079.1	1955.0	1891.8	1868.2	1863.7	1862.5	1863.7	1867.0
10°	2901.5	2668.0	2281.0	2062.2	1958.4	1923.4	1922.3	1923.4	1927.9	1929.0	1930.2
12.5°	3051.5	2745.8	2299.1	2076.9	2001.2	1982.0	1978.7	1977.5	1980.9	1983.2	1984.3
15°	3215.0	2848.5	2329.5	2108.4	2048.7	2028.3	2024.9	2018.1	2017.0	2015.9	2014.7
17.5°	3383.1	2950.0	2363.3	2142.2	2079.1	2050.9	2038.4	2022.6	2010.2	2006.8	2010.2
20°	3553.5	3050.4	2387.0	2159.2	2081.4	2041.8	2017.0	1989.9	1968.5	1956.1	1960.6
22.5°	3735.1	3155.3	2401.7	2154.7	2061.1	2006.8	1961.7	1930.2	1897.5	1876.1	1877.2
25°	3912.2	3246.7	2400.5	2131.0	2021.5	1952.7	1895.2	1854.6	1809.4	1786.9	1786.9
27.5°	4082.6	3329.0	2372.4	2089.3	1965.1	1888.5	1819.6	1771.1	1727.1	1705.7	1704.6
30°	4258.6	3397.8	2328.4	2028.3	1898.6	1813.9	1738.4	1696.7	1657.2	1636.8	1635.7
32.5°	4433.4	3461.0	2266.4	1952.7	1821.8	1740.7	1666.2	1627.8	1604.1	1604.1	1605.3
35°	4618.4	3505.0	2184.0	1864.8	1740.7	1662.9	1604.1	1581.6	1579.3	1565.8	1562.4
37.5°	4813.6	3533.2	2083.6	1774.5	1660.6	1587.2	1569.2	1542.1	1519.6	1490.2	1485.7
40°	5018.9	3561.4	1962.9	1680.9	1575.9	1535.3	1527.5	1491.4	1427.0	1354.8	1344.7
42.5°	5268.2	3580.5	1837.6	1587.2	1486.9	1473.3	1484.6	1422.5	1319.9	1265.7	1266.9
45°	5557.0	3612.2	1722.6	1494.8	1395.4	1395.4	1442.8	1361.6	1277.0	1243.1	1248.8
47.5°	5931.5	3685.5	1615.4	1393.2	1310.9	1333.4	1350.3	1288.3	1240.9	1199.1	1198.0
50°	6473.0	3861.5	1504.9	1290.6	1246.5	1291.7	1268.0	1231.8	1176.6	1142.8	1139.4
52.5°	7145.4	3965.2	1406.7	1198.0	1191.3	1236.4	1202.5	1168.7	1127.0	1081.9	1072.9
55°	7603.3	3984.4	1324.4	1130.4	1154.0	1149.5	1137.1	1106.7	1084.1	1024.3	1025.4
57.5°	8115.5	4022.8	1256.6	1089.8	1130.4	1080.8	1076.2	1050.2	1020.9	980.3	966.8
60°	8728.1	4082.6	1198.0	1074.0	1110.1	1035.6	1013.0	1002.9	973.5	953.2	958.9
62.5°	9395.9	4136.7	1138.3	1076.2	1086.4	991.6	957.8	954.4	936.3	929.6	929.6
65°	9851.7	3988.9	1063.7	1074.0	1049.1	946.5	903.6	902.5	887.9	885.6	884.5
67.5°	9692.6	3520.8	963.4	1042.3	1010.8	901.4	853.9	849.4	830.2	831.4	831.4
70°	8896.2	2853.0	824.6	964.5	963.4	860.7	802.1	787.4	761.5	766.0	770.5
72.5°	7402.6	2114.1	638.5	834.8	887.9	823.5	742.3	718.6	685.9	690.4	689.3
75°	5346.0	1437.2	464.7	635.1	772.7	779.5	683.7	643.0	603.5	610.3	612.5
77.5°	2735.6	814.5	341.8	437.7	606.9	708.5	630.6	576.5	567.4	630.6	621.6
80°	892.4	408.4	236.9	306.9	398.2	579.8	552.8	490.8	488.5	503.2	432.0
82.5°	266.2	172.6	152.3	201.9	220.0	444.4	477.1	371.2	319.3	336.2	347.5
85°	91.3	83.4	86.8	100.4	105.0	260.6	333.9	245.9	232.4	256.0	252.7
87.5°	21.4	29.3	24.8	22.5	22.5	63.1	129.8	102.7	142.2	94.7	91.3
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)