

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: P882960

Luminaire Tested: **NAV-SB3A-827-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882960  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3A-827-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

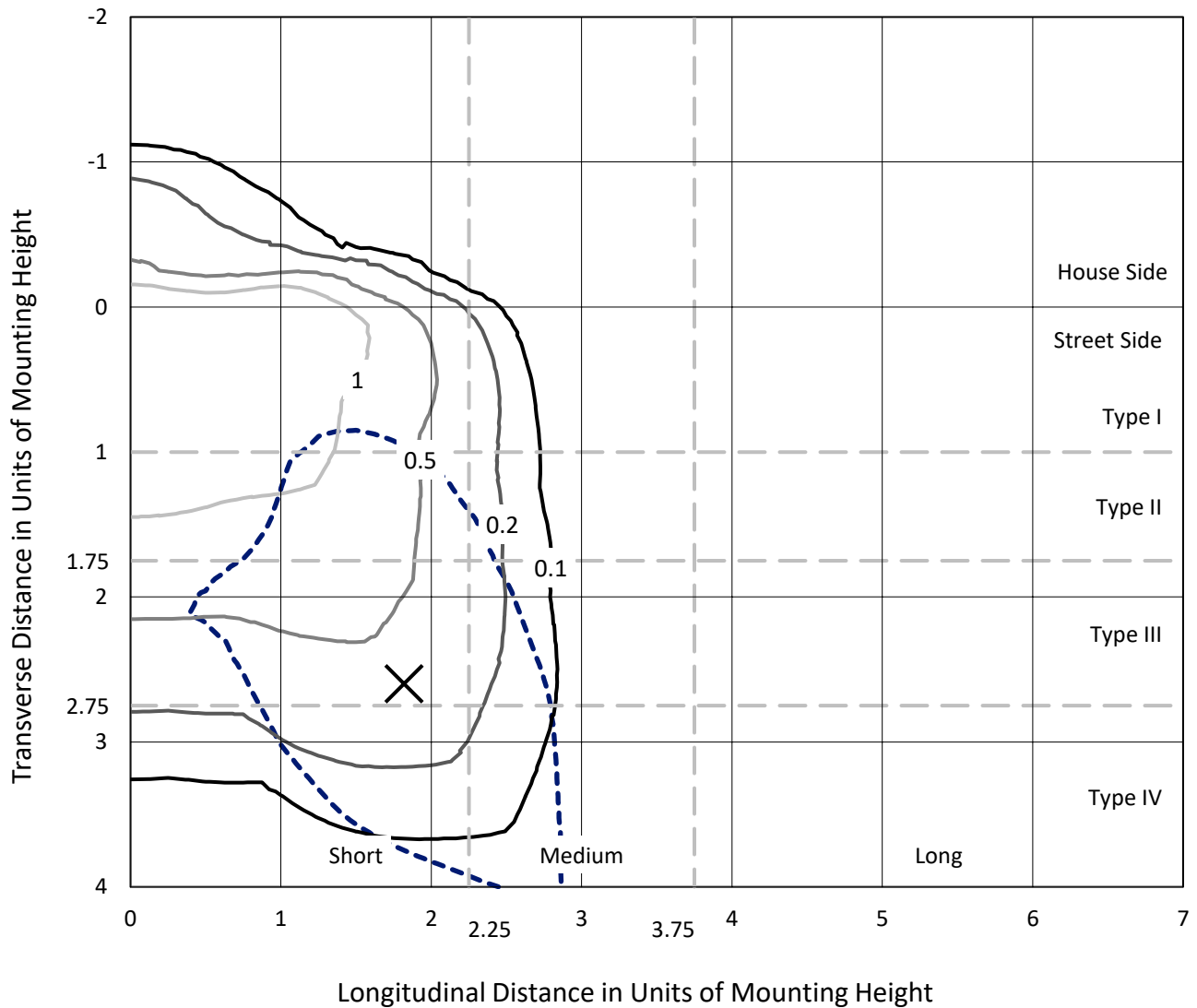
Lumens per Lamp: N/A  
Luminaire Lumens: 8277 lumens  
Efficiency: N/A  
Efficacy: 97.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 84.7  
Input Voltage (V): 120.0  
Input Current (Ain): 0.717  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 11.969  
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

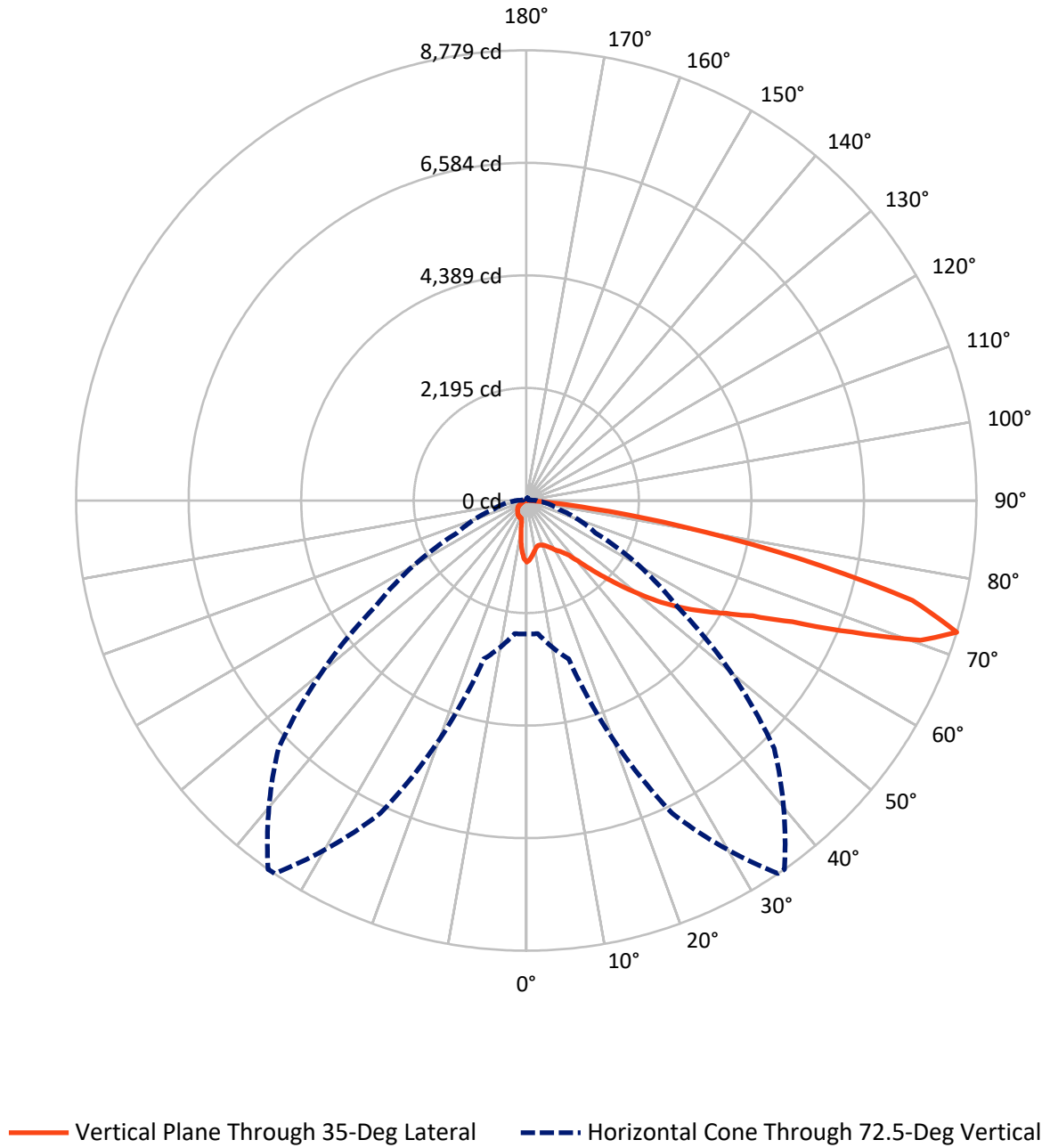
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	931.5	0.0	931.5
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	7345.5	0.0	7345.5
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	8277.0	0.0	8277.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.6	1.2
10°-20°	230.6	2.8
20°-30°	374.6	4.5
30°-40°	625.0	7.6
40°-50°	1182.6	14.3
50°-60°	1879.1	22.7
60°-70°	2324.6	28.1
70°-80°	1445.0	17.5
80°-90°	116.8	1.4
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°	8277.0	100.0
0°-180°	8277.0	100.0

**Coefficient of Utilization**



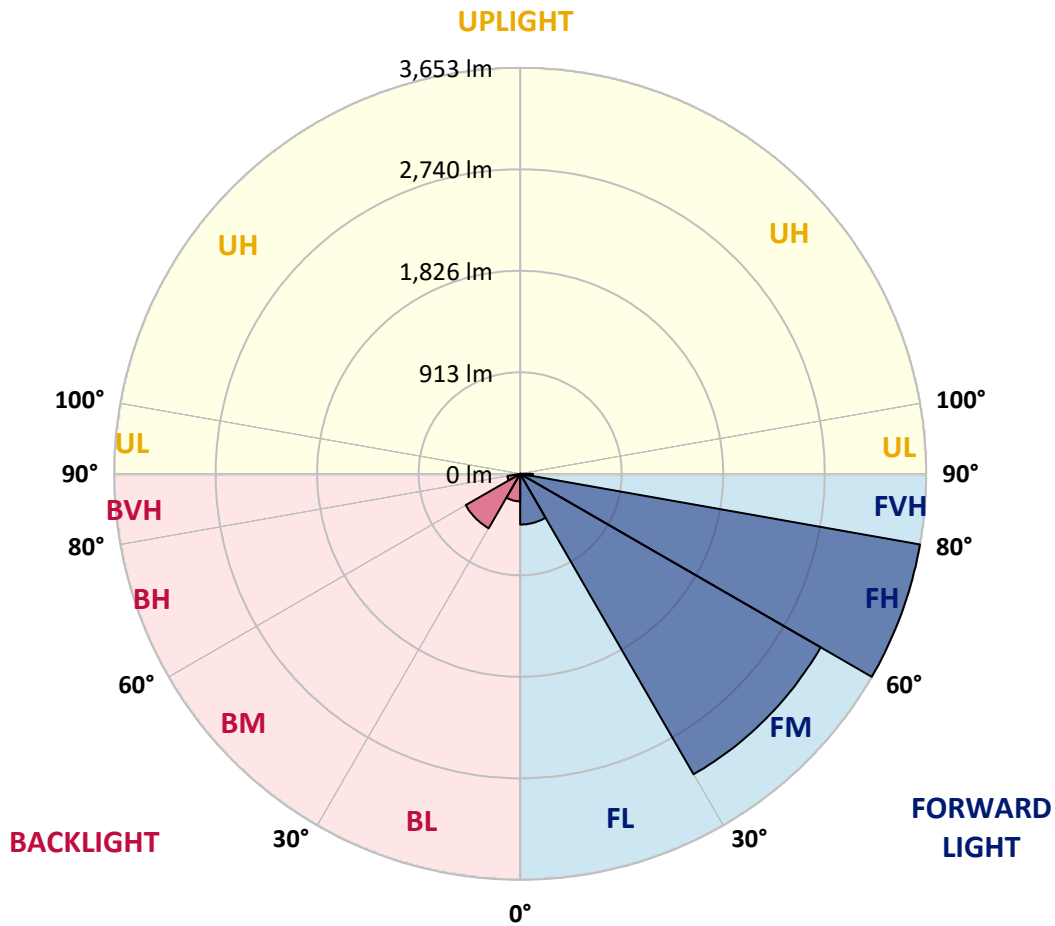
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	456.3	5.5			
FM (30°-60°)	3121.3	37.7			
FH (60°-80°)	3652.7	44.1			G2/5000
FVH (80°-90°)	115.2	1.4			G2/225
BL (0°-30°)	247.5	3.0	B1/500		
BM (30°-60°)	565.5	6.8	B1/1000		
BH (60°-80°)	116.9	1.4	B1/500		G1/500
BVH (80°-90°)	1.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6
2.5°	1146.2	1155.9	1157.8	1160.8	1160.8	1164.4	1170.5	1179.0	1192.9	1200.2	1205.1
5°	1056.5	1063.8	1072.9	1080.1	1094.1	1095.9	1119.6	1142.6	1174.7	1199.0	1216.0
7.5°	966.1	974.6	986.7	1004.3	1022.5	1028.0	1063.8	1102.6	1153.5	1199.0	1227.5
10°	902.4	903.0	914.0	931.6	960.7	967.3	1011.0	1066.2	1129.9	1191.7	1238.4
12.5°	866.7	870.9	875.8	889.1	917.0	921.2	967.9	1032.8	1106.2	1187.5	1251.2
15°	866.7	869.7	872.7	879.4	901.8	905.5	946.7	1011.6	1094.1	1189.3	1271.8
17.5°	875.8	880.6	878.2	886.1	909.7	912.1	948.5	1005.5	1093.5	1200.8	1303.3
20°	897.6	901.2	896.4	901.2	924.9	929.7	967.3	1017.1	1103.8	1220.8	1342.7
22.5°	932.2	934.0	922.5	926.1	950.4	956.4	1000.1	1049.8	1128.7	1253.0	1395.5
25°	975.8	979.5	961.9	966.1	989.2	996.4	1046.8	1098.9	1168.1	1297.3	1462.8
27.5°	1026.2	1028.0	1012.8	1012.2	1041.9	1052.2	1103.2	1159.6	1220.8	1353.1	1547.7
30°	1083.8	1089.2	1074.7	1072.3	1109.9	1118.3	1168.7	1234.2	1298.5	1436.7	1668.4
32.5°	1129.3	1133.5	1125.0	1131.1	1169.3	1176.0	1248.1	1339.7	1420.4	1555.6	1832.8
35°	1194.8	1197.2	1177.8	1188.7	1232.4	1249.3	1356.7	1487.7	1573.8	1704.8	2047.5
37.5°	1431.9	1431.9	1349.4	1295.4	1337.3	1352.4	1505.3	1673.9	1763.0	1904.9	2318.0
40°	1760.0	1754.5	1633.9	1523.5	1518.0	1547.7	1716.9	1908.6	2007.4	2145.1	2622.4
42.5°	2109.9	2101.4	1937.1	1827.9	1809.7	1820.0	1961.4	2197.9	2298.6	2438.0	2949.9
45°	2420.5	2418.0	2267.6	2120.9	2088.1	2120.9	2266.4	2536.3	2608.5	2755.2	3276.8
47.5°	2680.6	2680.6	2570.9	2475.0	2458.1	2477.5	2679.4	2911.7	2905.0	3093.0	3595.2
50°	2980.2	2977.8	2873.5	2832.3	2849.8	2877.1	3154.9	3307.1	3211.9	3424.8	3879.6
52.5°	3190.1	3204.6	3168.9	3162.2	3251.9	3299.2	3637.7	3694.1	3486.6	3739.5	4092.5
55°	3356.3	3373.2	3414.5	3461.2	3634.0	3695.9	4105.3	4061.0	3716.5	4012.5	4215.0
57.5°	3591.6	3567.3	3631.0	3723.2	4002.8	4077.4	4558.3	4407.3	3901.5	4233.8	4228.4
60°	3877.2	3880.9	3891.8	4008.2	4370.9	4466.7	5004.7	4734.8	4020.3	4369.7	4080.4
62.5°	4220.5	4225.9	4248.4	4427.3	4865.2	4955.5	5480.1	5002.8	4074.9	4331.5	3698.3
65°	4196.8	4219.9	4470.4	5082.3	5616.6	5705.8	6035.1	5190.9	3992.4	3982.1	3011.2
67.5°	3823.2	3860.8	4279.9	5864.6	6749.5	6849.0	6705.8	5227.8	3636.4	3096.7	1964.4
70°	3333.2	3346.5	3850.5	6568.2	8061.3	8162.0	7306.2	4820.9	2759.5	1727.3	880.0
72.5°	2603.0	2606.0	3197.4	6731.3	8773.3	8778.8	6835.0	3578.8	1484.1	663.5	305.7
75°	1859.5	1841.3	2141.5	5458.9	7718.7	7780.5	5124.1	1678.7	567.1	313.5	152.2
77.5°	997.1	1017.1	1211.7	3237.4	5332.2	5437.7	2795.9	484.0	288.7	213.5	100.7
80°	308.1	325.1	496.7	1482.2	3020.3	3083.9	1036.5	215.3	201.4	152.2	66.1
82.5°	97.0	100.7	231.7	622.9	1253.6	1282.7	300.2	121.9	137.7	100.7	38.8
85°	27.9	28.5	103.1	232.3	309.9	316.0	84.3	47.3	78.8	62.5	20.0
87.5°	3.0	9.7	38.8	38.8	27.3	26.7	9.1	10.3	22.4	7.9	3.6
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°	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6	1199.6
2.5°	1202.0	1202.6	1194.8	1181.4	1166.9	1154.7	1139.6	1127.4	1119.0	1116.5	1120.8
5°	1210.5	1206.3	1183.8	1143.2	1094.7	1052.8	1006.1	969.2	944.9	934.6	938.2
7.5°	1223.3	1211.1	1162.0	1082.0	989.2	906.7	823.0	758.1	716.9	696.2	699.3
10°	1234.2	1209.9	1125.6	993.4	851.5	726.6	613.8	535.5	491.9	471.2	471.8
12.5°	1244.5	1209.3	1078.3	888.5	696.2	543.4	438.5	399.7	387.5	383.3	382.1
15°	1263.9	1211.1	1018.9	768.4	541.6	410.6	372.4	371.8	374.2	373.0	372.4
17.5°	1290.6	1213.0	951.6	641.0	417.9	362.1	360.2	365.7	369.3	367.5	366.9
20°	1325.2	1220.2	880.0	514.9	359.0	349.9	354.2	359.0	362.1	359.0	358.4
22.5°	1373.7	1233.0	801.8	413.6	340.2	342.7	346.3	351.8	354.8	350.5	349.9
25°	1433.1	1253.0	724.7	359.6	331.1	334.2	339.6	345.7	349.3	345.1	344.5
27.5°	1510.1	1285.1	653.8	347.5	322.0	323.9	331.7	340.8	345.7	340.2	340.2
30°	1621.7	1337.9	592.5	353.0	316.6	312.3	323.3	336.0	341.4	336.6	336.0
32.5°	1769.7	1412.5	554.9	361.5	314.2	299.0	309.3	325.7	334.8	331.7	331.7
35°	1963.8	1525.9	540.4	371.2	312.3	285.0	292.3	309.9	325.7	328.7	328.7
37.5°	2199.1	1683.6	544.6	375.4	306.9	273.5	277.2	292.3	312.9	322.6	325.1
40°	2466.5	1867.3	568.9	371.2	300.8	263.8	264.4	275.9	294.1	308.7	313.5
42.5°	2742.5	2082.0	613.8	355.4	295.4	255.3	253.5	261.4	273.5	283.8	288.1
45°	3005.1	2302.8	658.0	333.6	288.7	246.8	242.6	245.6	248.0	252.3	254.7
47.5°	3234.4	2458.1	645.3	313.5	279.6	237.1	229.9	228.6	221.4	220.8	220.2
50°	3392.6	2492.0	573.1	293.5	266.2	226.2	214.7	207.4	194.7	188.6	189.2
52.5°	3443.0	2358.0	468.2	273.5	244.4	211.7	195.3	183.8	168.0	162.5	161.9
55°	3376.3	2095.4	374.2	249.3	214.1	192.3	174.1	158.9	146.2	139.5	139.5
57.5°	3213.1	1761.2	296.0	220.8	181.9	170.4	152.2	137.1	126.1	119.5	118.3
60°	2942.6	1398.5	234.1	186.8	155.3	146.8	128.0	118.3	108.6	100.7	98.9
62.5°	2532.0	998.3	183.8	148.0	129.8	120.1	109.2	101.9	90.4	79.4	77.6
65°	1975.9	610.7	141.9	108.6	104.3	99.5	92.8	86.1	72.2	61.3	59.4
67.5°	1246.3	289.3	101.3	81.9	82.5	80.1	77.0	71.6	61.3	51.6	50.3
70°	548.9	140.1	66.7	62.5	61.3	61.3	63.7	61.9	52.2	43.1	41.2
72.5°	186.8	75.2	49.7	47.3	44.3	43.7	53.4	51.6	41.8	33.4	31.5
75°	97.6	50.3	36.4	34.0	26.7	32.1	42.5	40.0	29.7	21.8	20.0
77.5°	63.7	35.8	24.9	21.8	15.2	21.2	31.5	27.9	17.6	10.9	9.7
80°	40.0	23.7	14.6	10.3	7.3	11.5	17.0	12.1	6.7	2.4	1.8
82.5°	21.2	12.1	5.5	3.6	3.0	3.6	4.2	3.0	1.2	0.0	0.0
85°	8.5	4.2	1.8	1.2	0.6	0.0	1.2	0.6	0.0	0.0	0.0
87.5°	3.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)