

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: P882410

Luminaire Tested: **NAV-SB2B-735-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882410  
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-SB2B-735-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

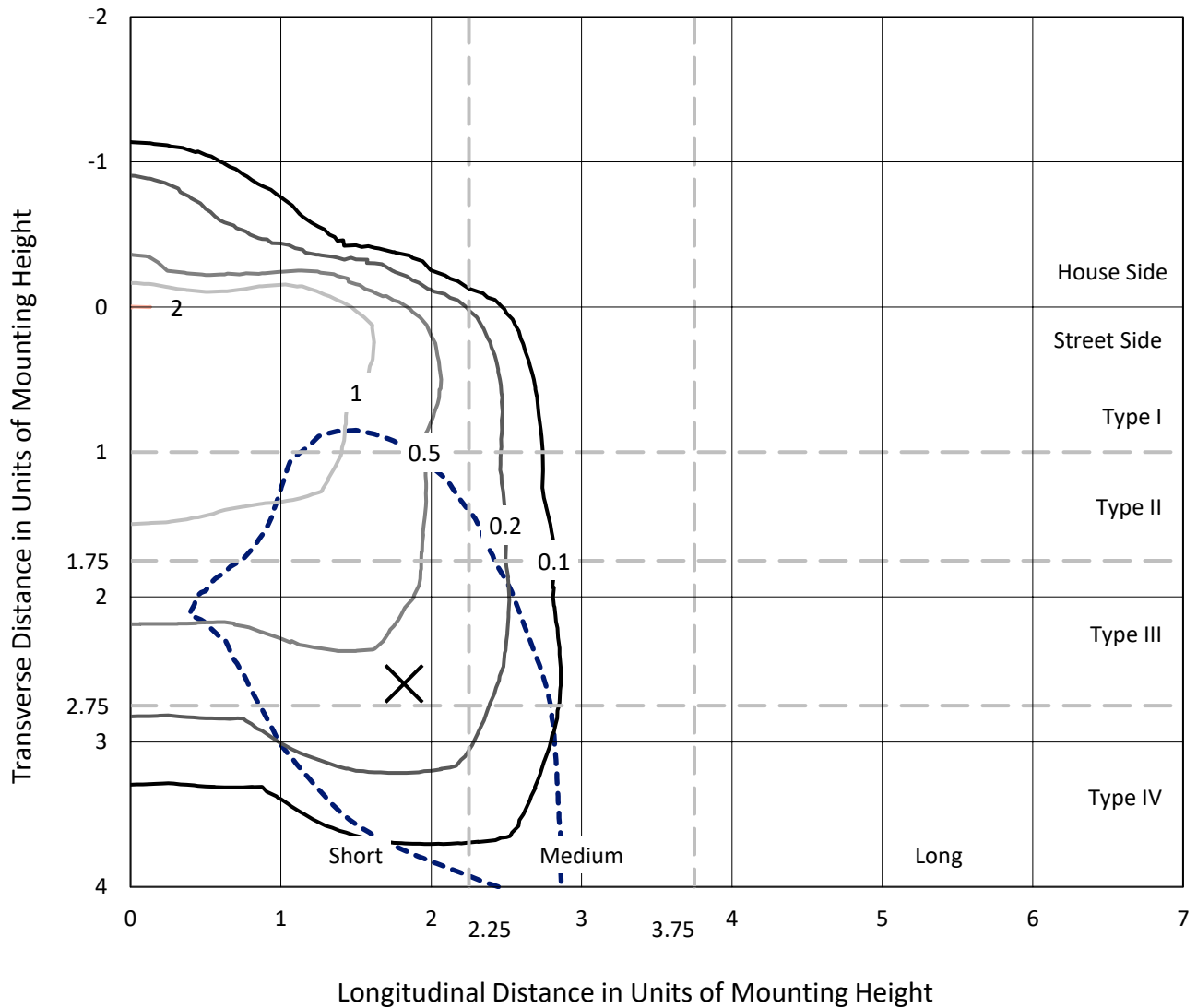
Lumens per Lamp: N/A  
Luminaire Lumens: 8689 lumens  
Efficiency: N/A  
Efficacy: 117.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 73.9  
Input Voltage (V): 120.0  
Input Current (Ain): 0.627  
Voltage Rise (V): NR  
Power Factor: 0.988  
Total Harmonic Distortion (THDi): 13.593  
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

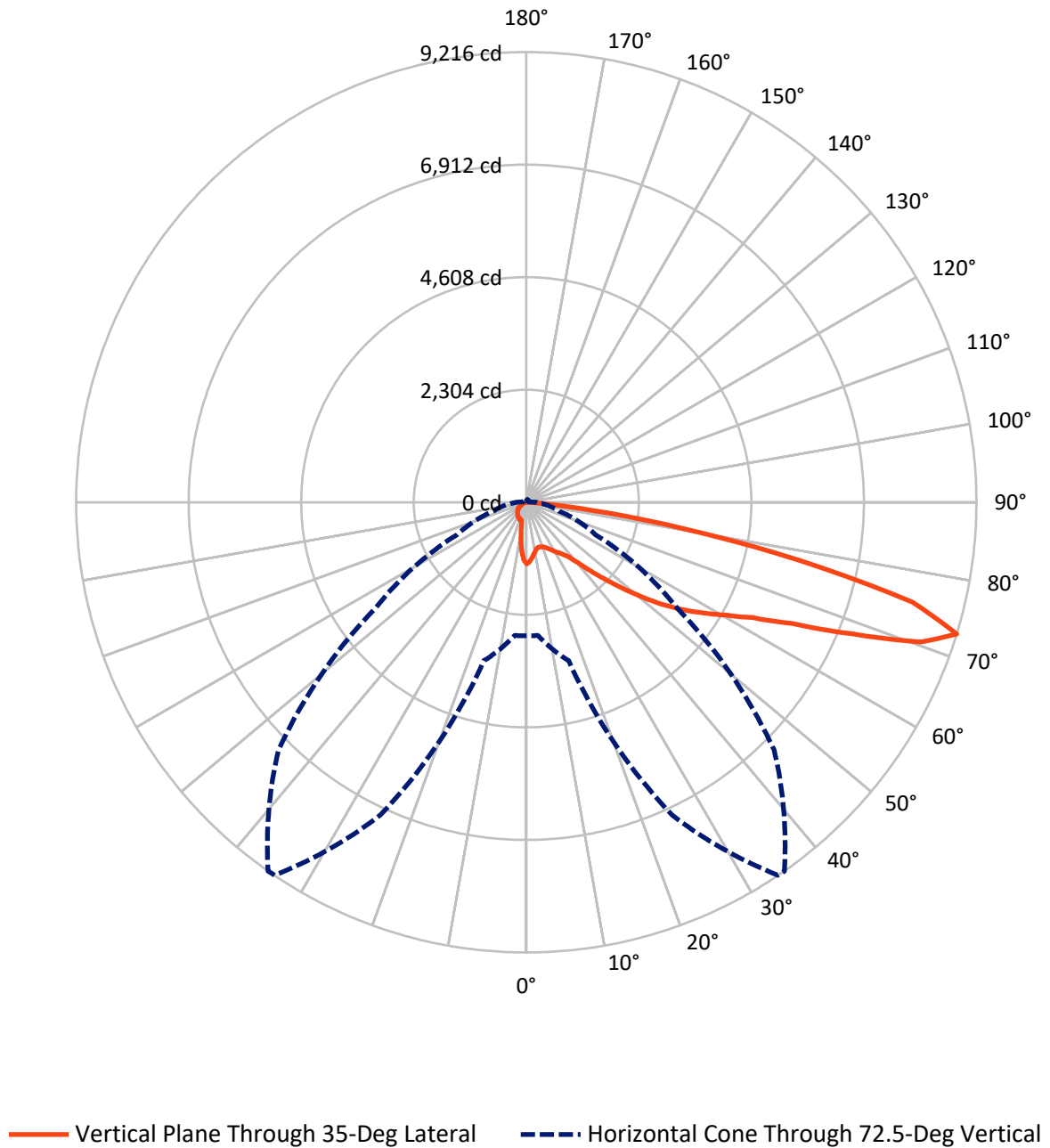
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 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	977.9	0.0	977.9
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	7711.1	0.0	7711.1
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	8689.0	0.0	8689.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.5	1.2
10°-20°	242.1	2.8
20°-30°	393.3	4.5
30°-40°	656.2	7.6
40°-50°	1241.5	14.3
50°-60°	1972.7	22.7
60°-70°	2440.4	28.1
70°-80°	1516.9	17.5
80°-90°	122.6	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°	8689.0	100.0
0°-180°	8689.0	100.0

**Coefficient of Utilization**



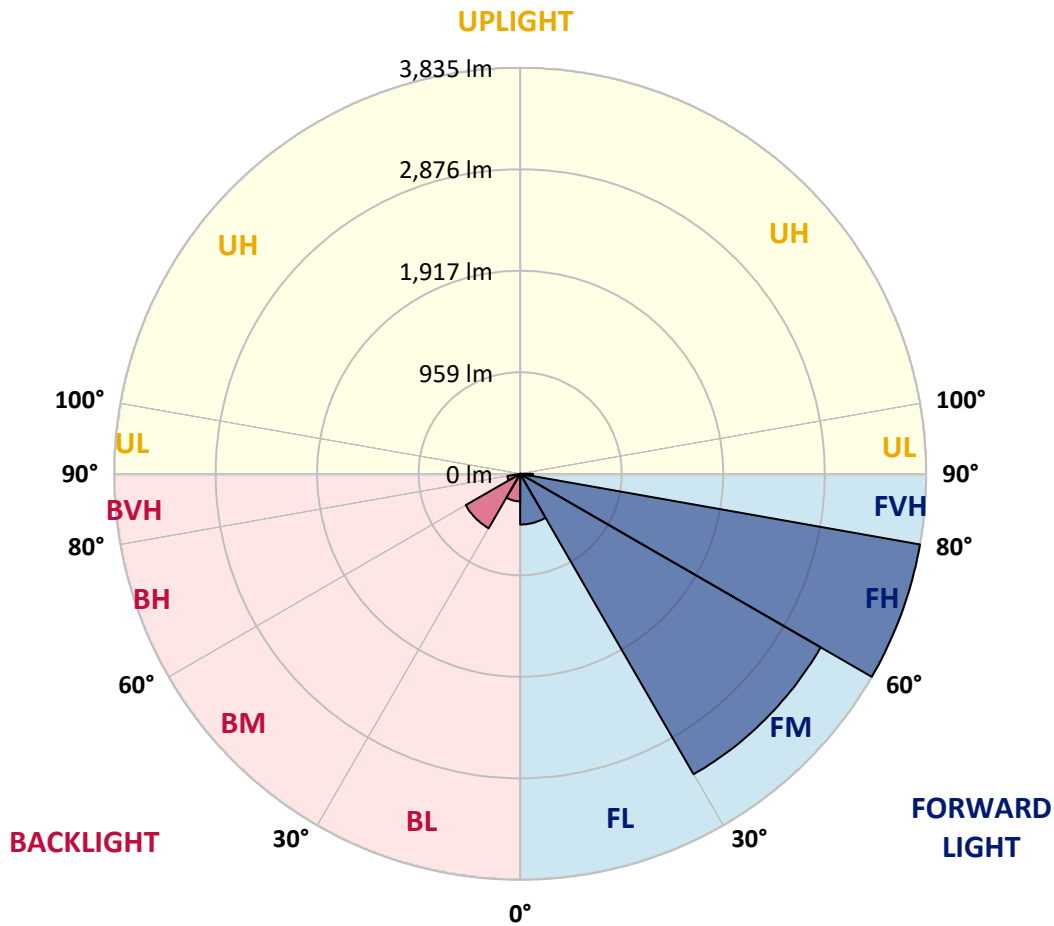
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	479.0	5.5			
FM (30°-60°)	3276.6	37.7			
FH (60°-80°)	3834.6	44.1			G2/5000
FVH (80°-90°)	120.9	1.4			G2/225
BL (0°-30°)	259.8	3.0	B1/500		
BM (30°-60°)	593.7	6.8	B1/1000		
BH (60°-80°)	122.7	1.4	B1/500		G1/500
BVH (80°-90°)	1.7	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°	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3
2.5°	1203.3	1213.5	1215.4	1218.6	1218.6	1222.4	1228.8	1237.7	1252.3	1260.0	1265.1
5°	1109.1	1116.7	1126.3	1133.9	1148.5	1150.5	1175.3	1199.5	1233.2	1258.7	1276.5
7.5°	1014.2	1023.1	1035.9	1054.3	1073.4	1079.2	1116.7	1157.5	1210.9	1258.7	1288.6
10°	947.4	948.0	959.5	977.9	1008.5	1015.5	1061.3	1119.3	1186.1	1251.1	1300.1
12.5°	909.8	914.3	919.3	933.4	962.6	967.1	1016.1	1084.2	1161.3	1246.6	1313.4
15°	909.8	913.0	916.2	923.2	946.7	950.5	993.8	1062.0	1148.5	1248.5	1335.1
17.5°	919.3	924.4	921.9	930.2	955.0	957.5	995.7	1055.6	1147.9	1260.6	1368.2
20°	942.3	946.1	941.0	946.1	970.9	976.0	1015.5	1067.7	1158.7	1281.6	1409.6
22.5°	978.6	980.5	968.4	972.2	997.7	1004.0	1049.9	1102.1	1184.8	1315.4	1465.0
25°	1024.4	1028.2	1009.8	1014.2	1038.4	1046.0	1098.9	1153.6	1226.2	1361.8	1535.6
27.5°	1077.2	1079.2	1063.2	1062.6	1093.8	1104.6	1158.1	1217.3	1281.6	1420.4	1624.8
30°	1137.7	1143.5	1128.2	1125.6	1165.1	1174.0	1226.9	1295.6	1363.1	1508.3	1751.5
32.5°	1185.5	1189.9	1181.0	1187.4	1227.5	1234.5	1310.3	1406.4	1491.1	1633.1	1924.0
35°	1254.2	1256.8	1236.4	1247.9	1293.7	1311.5	1424.2	1561.7	1652.2	1789.7	2149.4
37.5°	1503.2	1503.2	1416.6	1359.9	1403.9	1419.8	1580.2	1757.2	1850.8	1999.8	2433.3
40°	1847.6	1841.9	1715.2	1599.3	1593.6	1624.8	1802.4	2003.6	2107.4	2251.9	2752.9
42.5°	2215.0	2206.1	2033.5	1918.9	1899.8	1910.6	2059.0	2307.3	2413.0	2559.4	3096.7
45°	2540.9	2538.4	2380.5	2226.4	2192.0	2226.4	2379.2	2662.5	2738.3	2892.4	3439.9
47.5°	2814.1	2814.1	2698.8	2598.2	2580.4	2600.8	2812.8	3056.6	3049.6	3247.0	3774.2
50°	3128.6	3126.0	3016.5	2973.2	2991.7	3020.3	3311.9	3471.7	3371.8	3595.3	4072.8
52.5°	3348.9	3364.1	3326.6	3319.6	3413.8	3463.5	3818.7	3877.9	3660.2	3925.7	4296.2
55°	3523.3	3541.1	3584.4	3633.5	3814.9	3879.8	4309.6	4263.1	3901.5	4212.2	4424.8
57.5°	3770.3	3744.9	3811.7	3908.5	4202.0	4280.3	4785.2	4626.7	4095.7	4444.6	4438.8
60°	4070.2	4074.0	4085.5	4207.7	4588.5	4689.1	5253.8	4970.5	4220.5	4587.2	4283.5
62.5°	4430.6	4436.3	4459.9	4647.7	5107.3	5202.2	5752.9	5251.9	4277.8	4547.1	3882.4
65°	4405.7	4429.9	4692.9	5335.3	5896.2	5989.8	6335.5	5449.2	4191.2	4180.4	3161.1
67.5°	4013.5	4053.0	4493.0	6156.6	7085.5	7189.9	7039.6	5488.1	3817.5	3250.8	2062.2
70°	3499.1	3513.1	4042.2	6895.1	8462.6	8568.3	7669.9	5060.9	2896.8	1813.2	923.8
72.5°	2732.6	2735.8	3356.5	7066.4	9210.0	9215.8	7175.2	3757.0	1557.9	696.5	320.9
75°	1952.0	1932.9	2248.1	5730.6	8102.9	8167.8	5379.2	1762.3	595.3	329.2	159.8
77.5°	1046.7	1067.7	1272.1	3398.5	5597.6	5708.4	2935.0	508.1	303.1	224.1	105.7
80°	323.4	341.3	521.4	1556.0	3170.6	3237.5	1088.1	226.0	211.4	159.8	69.4
82.5°	101.9	105.7	243.2	653.9	1316.0	1346.6	315.2	128.0	144.5	105.7	40.7
85°	29.3	29.9	108.2	243.8	325.3	331.7	88.5	49.7	82.8	65.6	21.0
87.5°	3.2	10.2	40.7	40.7	28.7	28.0	9.6	10.8	23.6	8.3	3.8
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°	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3	1259.3
2.5°	1261.9	1262.5	1254.2	1240.2	1224.9	1212.2	1196.3	1183.6	1174.7	1172.1	1176.6
5°	1270.8	1266.3	1242.8	1200.1	1149.2	1105.3	1056.2	1017.4	991.9	981.1	984.9
7.5°	1284.2	1271.4	1219.9	1135.8	1038.4	951.8	864.0	795.8	752.5	730.9	734.1
10°	1295.6	1270.2	1181.7	1042.9	893.9	762.7	644.3	562.2	516.3	494.7	495.3
12.5°	1306.4	1269.5	1132.0	932.7	730.9	570.5	460.3	419.6	406.8	402.4	401.1
15°	1326.8	1271.4	1069.6	806.7	568.5	431.0	390.9	390.3	392.8	391.6	390.9
17.5°	1354.8	1273.3	998.9	673.0	438.7	380.1	378.2	383.9	387.7	385.8	385.2
20°	1391.1	1281.0	923.8	540.5	376.9	367.4	371.8	376.9	380.1	376.9	376.3
22.5°	1442.1	1294.3	841.7	434.2	357.2	359.7	363.5	369.3	372.5	368.0	367.4
25°	1504.4	1315.4	760.8	377.5	347.6	350.8	356.5	362.9	366.7	362.3	361.6
27.5°	1585.3	1349.1	686.3	364.8	338.1	340.0	348.3	357.8	362.9	357.2	357.2
30°	1702.4	1404.5	622.0	370.5	332.3	327.9	339.3	352.7	358.4	353.4	352.7
32.5°	1857.8	1482.8	582.6	379.5	329.8	313.9	324.7	341.9	351.4	348.3	348.3
35°	2061.5	1601.9	567.3	389.6	327.9	299.2	306.9	325.3	341.9	345.1	345.1
37.5°	2308.6	1767.4	571.7	394.1	322.2	287.1	291.0	306.9	328.5	338.7	341.3
40°	2589.3	1960.3	597.2	389.6	315.8	277.0	277.6	289.7	308.8	324.1	329.2
42.5°	2879.0	2185.7	644.3	373.1	310.1	268.0	266.1	274.4	287.1	298.0	302.4
45°	3154.7	2417.4	690.8	350.2	303.1	259.1	254.7	257.9	260.4	264.9	267.4
47.5°	3395.3	2580.4	677.4	329.2	293.5	248.9	241.3	240.0	232.4	231.7	231.1
50°	3561.5	2616.1	601.7	308.1	279.5	237.5	225.4	217.7	204.4	198.0	198.6
52.5°	3614.4	2475.4	491.5	287.1	256.6	222.2	205.0	192.9	176.4	170.6	170.0
55°	3544.3	2199.7	392.8	261.7	224.7	201.8	182.7	166.8	153.4	146.4	146.4
57.5°	3373.1	1848.9	310.7	231.7	191.0	178.9	159.8	143.9	132.4	125.4	124.2
60°	3089.1	1468.2	245.8	196.1	163.0	154.1	134.3	124.2	114.0	105.7	103.8
62.5°	2658.1	1048.0	192.9	155.3	136.2	126.1	114.6	107.0	94.9	83.4	81.5
65°	2074.3	641.1	149.0	114.0	109.5	104.4	97.4	90.4	75.8	64.3	62.4
67.5°	1308.4	303.7	106.3	86.0	86.6	84.0	80.9	75.1	64.3	54.1	52.8
70°	576.2	147.1	70.0	65.6	64.3	64.3	66.9	64.9	54.8	45.2	43.3
72.5°	196.1	78.9	52.2	49.7	46.5	45.8	56.0	54.1	43.9	35.0	33.1
75°	102.5	52.8	38.2	35.7	28.0	33.7	44.6	42.0	31.2	22.9	21.0
77.5°	66.9	37.6	26.1	22.9	15.9	22.3	33.1	29.3	18.5	11.5	10.2
80°	42.0	24.8	15.3	10.8	7.6	12.1	17.8	12.7	7.0	2.5	1.9
82.5°	22.3	12.7	5.7	3.8	3.2	3.8	4.5	3.2	1.3	0.0	0.0
85°	8.9	4.5	1.9	1.3	0.6	0.0	1.3	0.6	0.0	0.0	0.0
87.5°	3.2	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)