

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: P960919

Luminaire Tested: **NAV-SB1D-740-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960919
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8357.8 lumens
Efficiency: N/A
Efficacy: 105.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

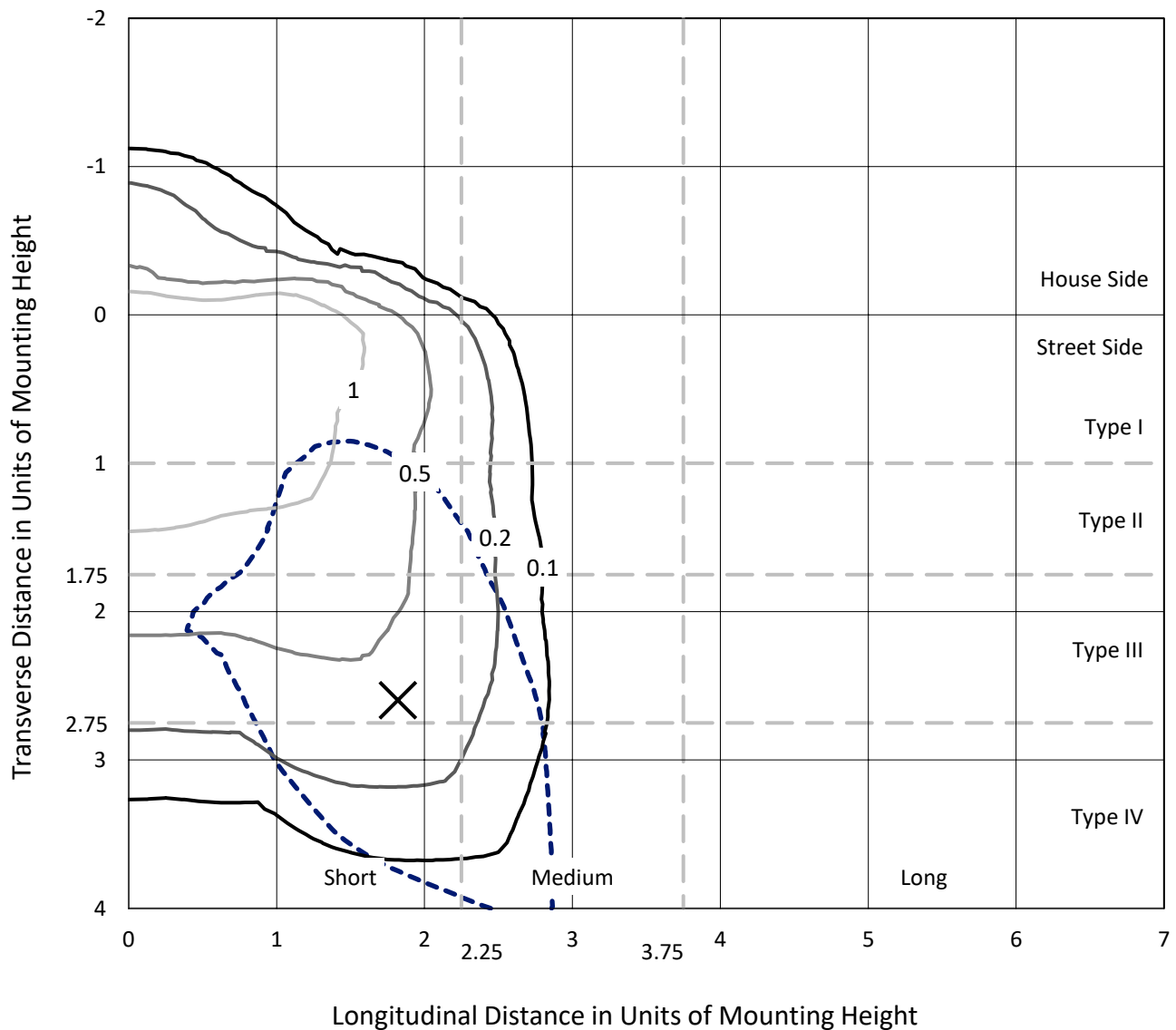
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

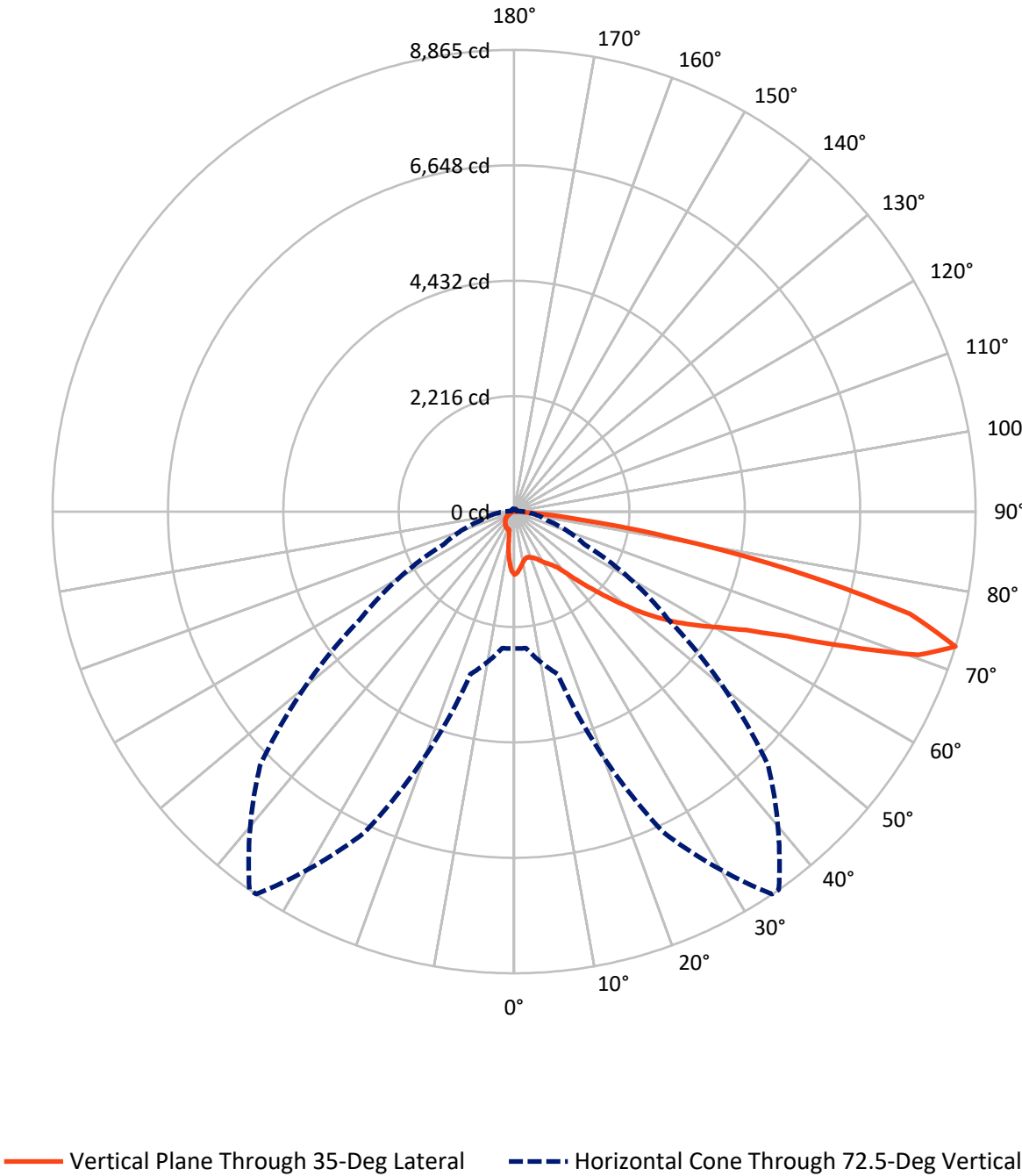
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 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
House Side	Lumens	940.6	0.0	940.6
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	7417.2	0.0	7417.2
	% Fixture	88.7	0.0	88.7
Total	Lumens	8357.8	0.0	8357.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.5	1.2
10°-20°	232.9	2.8
20°-30°	378.3	4.5
30°-40°	631.1	7.6
40°-50°	1194.1	14.3
50°-60°	1897.5	22.7
60°-70°	2347.3	28.1
70°-80°	1459.1	17.5
80°-90°	117.9	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°	8357.8	100.0
0°-180°	8357.8	100.0

Coefficient of Utilization



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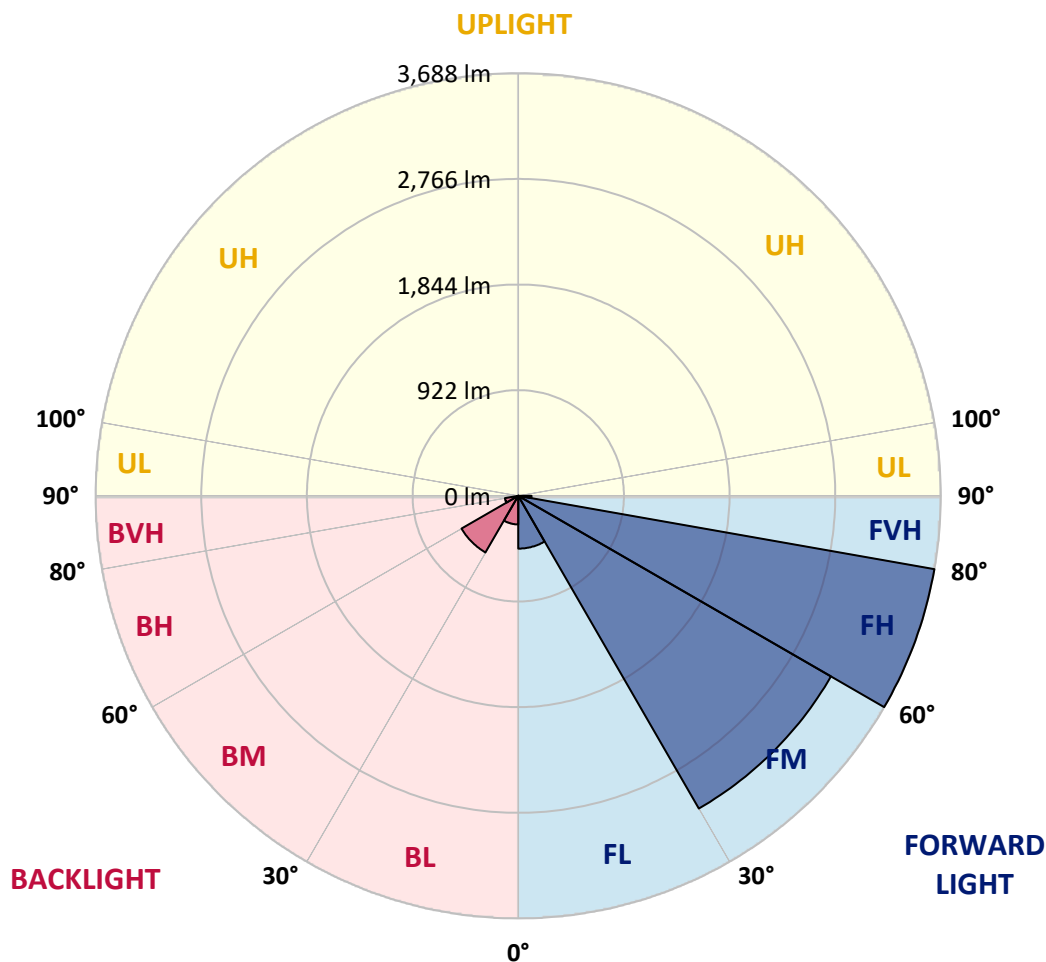
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	460.7	5.5			
FM	(30°-60°)	3151.7	37.7			
FH	(60°-80°)	3688.4	44.1			G2/5000
FVH	(80°-90°)	116.3	1.4			G2/225
BL	(0°-30°)	249.9	3.0	B1/500		
BM	(30°-60°)	571.0	6.8	B1/1000		
BH	(60°-80°)	118.0	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°	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3
2.5°	1157.4	1167.3	1169.1	1172.2	1172.2	1175.8	1181.9	1190.5	1204.6	1212.0	1216.9
5°	1066.8	1074.2	1083.3	1090.7	1104.7	1106.6	1130.5	1153.7	1186.2	1210.7	1227.8
7.5°	975.6	984.1	996.4	1014.1	1032.5	1038.0	1074.2	1113.4	1164.8	1210.7	1239.5
10°	911.2	911.8	922.9	940.6	970.1	976.8	1020.9	1076.6	1140.9	1203.4	1250.5
12.5°	875.1	879.4	884.3	897.8	926.0	930.3	977.4	1042.9	1117.0	1199.0	1263.4
15°	875.1	878.2	881.3	888.0	910.6	914.3	955.9	1021.5	1104.7	1200.9	1284.2
17.5°	884.3	889.2	886.7	894.7	918.6	921.1	957.8	1015.4	1104.1	1212.6	1316.1
20°	906.3	910.0	905.2	910.0	933.9	938.8	976.8	1027.0	1114.6	1232.8	1355.9
22.5°	941.3	943.1	931.4	935.1	959.6	965.8	1009.8	1060.1	1139.7	1265.3	1409.2
25°	985.3	989.0	971.3	975.6	998.9	1006.1	1057.0	1109.7	1179.5	1309.9	1477.1
27.5°	1036.2	1038.0	1022.7	1022.1	1052.1	1062.5	1114.0	1171.0	1232.8	1366.2	1562.8
30°	1094.4	1099.8	1085.2	1082.7	1120.7	1129.2	1180.1	1246.2	1311.2	1450.8	1684.7
32.5°	1140.3	1144.6	1136.0	1142.2	1180.7	1187.5	1260.3	1352.8	1434.3	1570.8	1850.6
35°	1206.4	1208.9	1189.3	1200.3	1244.5	1261.6	1369.9	1502.2	1589.2	1721.5	2067.4
37.5°	1445.9	1445.9	1362.6	1308.1	1350.3	1365.6	1520.0	1690.2	1780.2	1923.5	2340.6
40°	1777.1	1771.7	1649.8	1538.3	1532.9	1562.8	1733.7	1927.2	2027.0	2166.0	2648.0
42.5°	2130.6	2122.0	1956.0	1845.8	1827.4	1837.8	1980.5	2219.3	2321.0	2461.8	2978.8
45°	2444.1	2441.7	2289.7	2141.5	2108.5	2141.5	2288.5	2561.1	2633.9	2782.2	3308.8
47.5°	2706.8	2706.8	2596.0	2499.3	2482.0	2501.6	2705.6	2940.1	2933.4	3123.3	3630.3
50°	3009.3	3006.9	2901.6	2860.0	2877.7	2905.3	3185.7	3339.4	3243.3	3458.2	3917.6
52.5°	3221.3	3235.9	3199.8	3193.1	3283.7	3331.5	3673.2	3730.2	3520.7	3776.1	4132.5
55°	3389.1	3406.2	3447.8	3494.9	3669.5	3732.0	4145.3	4100.6	3752.8	4051.6	4256.2
57.5°	3626.7	3602.2	3666.4	3759.5	4041.9	4117.2	4602.9	4450.3	3939.6	4275.2	4269.6
60°	3915.1	3918.8	3929.7	4047.4	4413.5	4510.3	5053.6	4781.0	4059.6	4412.3	4120.3
62.5°	4261.7	4267.2	4289.9	4470.5	4912.7	5003.9	5533.7	5051.7	4114.8	4373.8	3734.4
65°	4237.9	4261.1	4514.0	5132.0	5671.4	5761.5	6094.0	5241.5	4031.4	4021.1	3040.6
67.5°	3860.6	3898.6	4321.7	5921.9	6815.4	6915.9	6771.4	5279.0	3672.0	3127.0	1983.6
70°	3365.8	3379.2	3888.1	6632.4	8140.0	8241.7	7377.6	4868.0	2786.5	1744.1	888.6
72.5°	2628.4	2631.5	3228.5	6797.1	8859.0	8864.5	6901.7	3613.7	1498.6	669.9	308.6
75°	1877.6	1859.2	2162.4	5512.2	7794.1	7856.5	5174.2	1695.1	572.6	316.6	153.8
77.5°	1006.8	1027.0	1223.5	3269.0	5384.2	5490.8	2823.2	488.7	291.5	215.6	101.7
80°	311.1	328.2	501.5	1496.7	3049.8	3114.1	1046.6	217.4	203.4	153.8	66.7
82.5°	98.0	101.7	233.9	628.9	1265.9	1295.2	303.1	123.1	139.0	101.7	39.2
85°	28.2	28.8	104.1	234.5	312.9	319.1	85.1	47.8	79.6	63.0	20.2
87.5°	3.1	9.8	39.2	39.2	27.6	27.0	9.2	10.5	22.7	8.0	3.7
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°	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3	1211.3
2.5°	1213.8	1214.4	1206.4	1193.0	1178.2	1166.0	1150.7	1138.5	1129.9	1127.4	1131.7
5°	1222.3	1218.1	1195.5	1154.4	1105.4	1063.1	1016.0	978.7	954.2	943.7	947.4
7.5°	1235.2	1222.9	1173.3	1092.5	998.9	915.5	831.1	765.5	723.9	703.0	706.1
10°	1246.2	1221.7	1136.6	1003.1	859.8	733.7	619.7	540.8	496.6	475.8	476.4
12.5°	1256.6	1221.1	1088.9	897.2	703.0	548.7	442.8	403.5	391.3	387.0	385.8
15°	1276.2	1222.9	1028.8	775.9	546.8	414.6	376.0	375.4	377.8	376.6	376.0
17.5°	1303.2	1224.8	960.8	647.3	422.0	365.6	363.8	369.3	373.0	371.2	370.5
20°	1338.1	1232.2	888.6	519.9	362.5	353.3	357.6	362.5	365.6	362.5	361.9
22.5°	1387.1	1245.0	809.6	417.7	343.6	346.0	349.7	355.2	358.2	353.9	353.3
25°	1447.1	1265.3	731.8	363.2	334.4	337.4	343.0	349.1	352.7	348.5	347.9
27.5°	1524.9	1297.6	660.2	350.9	325.2	327.0	335.0	344.2	349.1	343.6	343.6
30°	1637.5	1350.9	598.3	356.4	319.7	315.4	326.4	339.3	344.8	339.9	339.3
32.5°	1787.0	1426.3	560.4	365.0	317.2	302.0	312.3	328.8	338.0	335.0	335.0
35°	1983.0	1540.8	545.6	374.7	315.4	287.8	295.2	312.9	328.8	331.9	331.9
37.5°	2220.6	1700.1	549.9	379.0	309.9	276.2	279.8	295.2	316.0	325.8	328.2
40°	2490.6	1885.6	574.4	374.7	303.7	266.4	267.0	278.6	297.0	311.7	316.6
42.5°	2769.2	2102.4	619.7	358.9	298.3	257.8	255.9	263.9	276.2	286.6	290.9
45°	3034.4	2325.3	664.5	336.8	291.5	249.3	245.0	248.0	250.5	254.7	257.2
47.5°	3266.0	2482.0	651.6	316.6	282.3	239.4	232.1	230.8	223.6	222.9	222.3
50°	3425.8	2516.4	578.7	296.4	268.9	228.5	216.8	209.4	196.6	190.4	191.1
52.5°	3476.6	2381.0	472.7	276.2	246.8	213.7	197.2	185.5	169.6	164.1	163.5
55°	3409.3	2115.8	377.8	251.7	216.2	194.1	175.8	160.4	147.6	140.8	140.8
57.5°	3244.5	1778.4	298.9	222.9	183.7	172.1	153.8	138.4	127.4	120.6	119.4
60°	2971.4	1412.2	236.4	188.6	156.8	148.2	129.3	119.4	109.6	101.7	99.8
62.5°	2556.8	1008.0	185.5	149.4	131.1	121.3	110.2	102.9	91.2	80.3	78.4
65°	1995.2	616.6	143.3	109.6	105.4	100.4	93.7	86.9	72.9	61.8	60.1
67.5°	1258.5	292.1	102.3	82.7	83.3	80.9	77.8	72.3	61.8	52.1	50.8
70°	554.2	141.4	67.3	63.0	61.8	61.8	64.3	62.4	52.7	43.5	41.6
72.5°	188.6	76.0	50.2	47.8	44.7	44.1	53.9	52.1	42.2	33.7	31.9
75°	98.6	50.8	36.7	34.3	27.0	32.5	42.8	40.4	30.0	22.0	20.2
77.5°	64.3	36.2	25.1	22.0	15.3	21.4	31.9	28.2	17.7	11.1	9.8
80°	40.4	23.9	14.7	10.5	7.4	11.7	17.1	12.2	6.8	2.5	1.8
82.5°	21.4	12.2	5.5	3.7	3.1	3.7	4.3	3.1	1.2	0.0	0.0
85°	8.6	4.3	1.8	1.2	0.6	0.0	1.2	0.6	0.0	0.0	0.0
87.5°	3.1	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)