

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: P960823

Luminaire Tested: **NAV-SB1D-727-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960823
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-727-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III ROADWAY
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8057.5 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

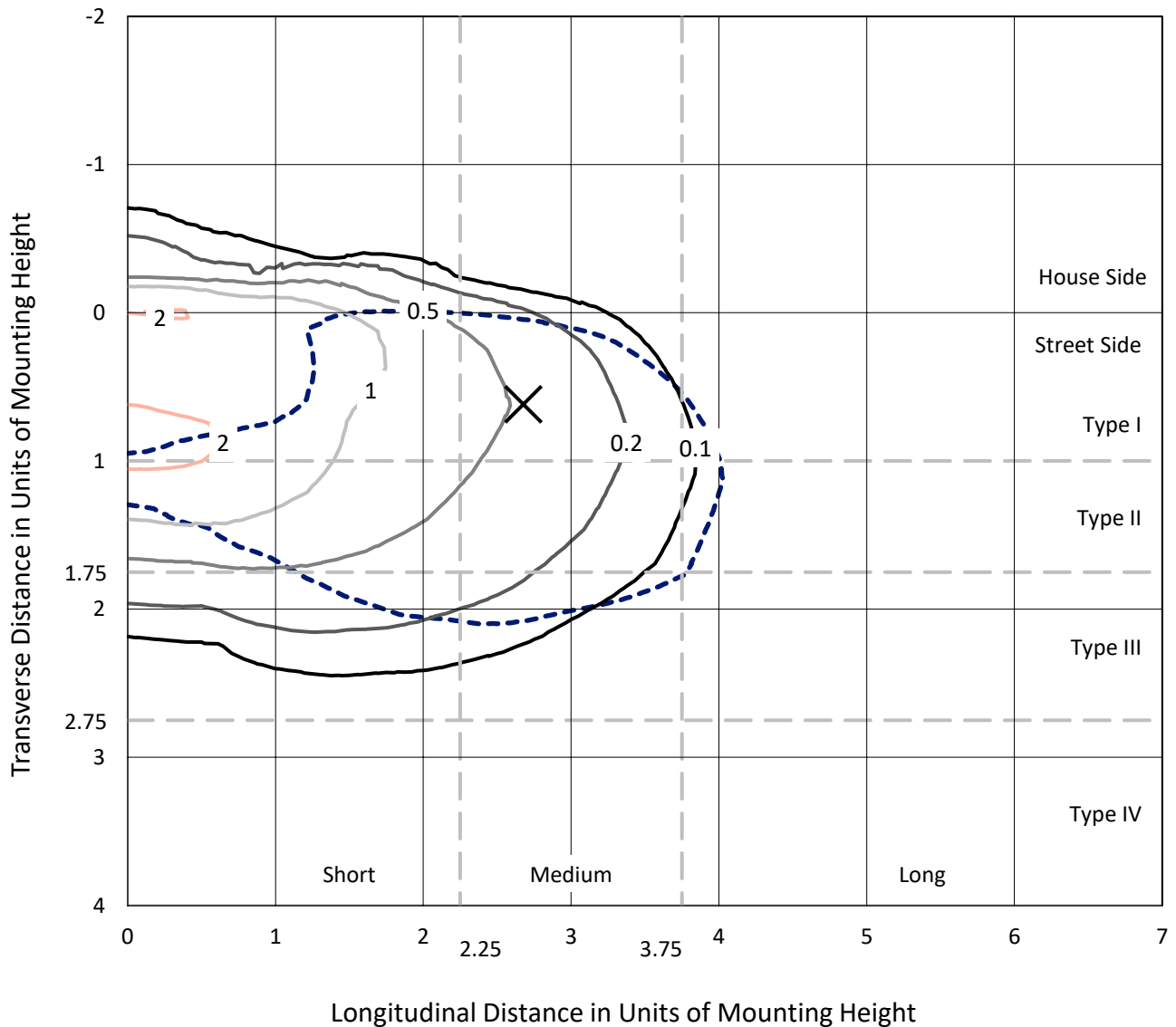
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P960823
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Iso-Footcandle Lines of Horizontal Illumination

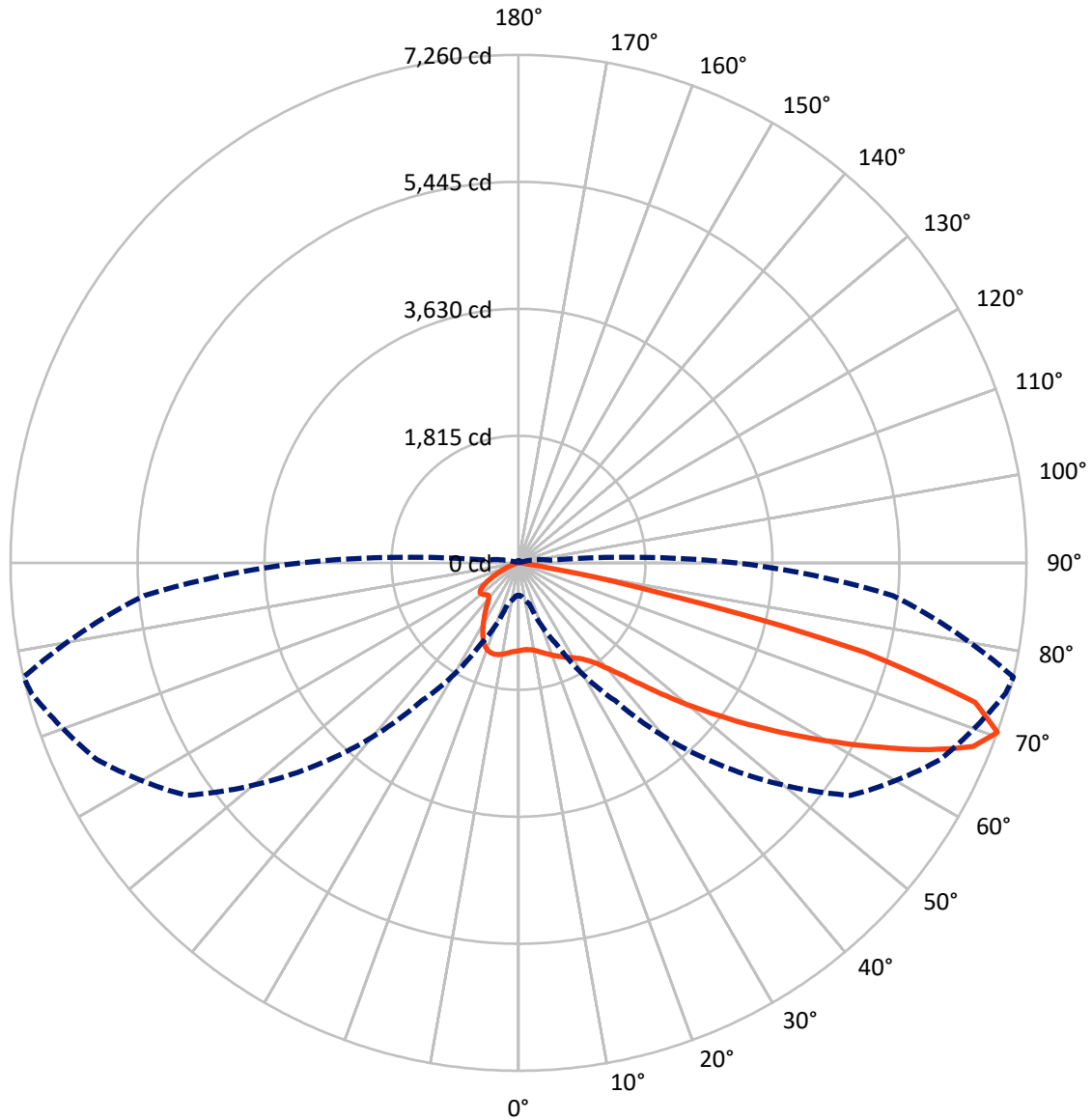
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 fc
 Type III - Medium - N/A

REPORT NUMBER: P960823
CATALOG NUMBER: NAV-SB1D-727-U-T3R-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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 CATALOG NUMBER: NAV-SB1D-727-U-T3R-HSS

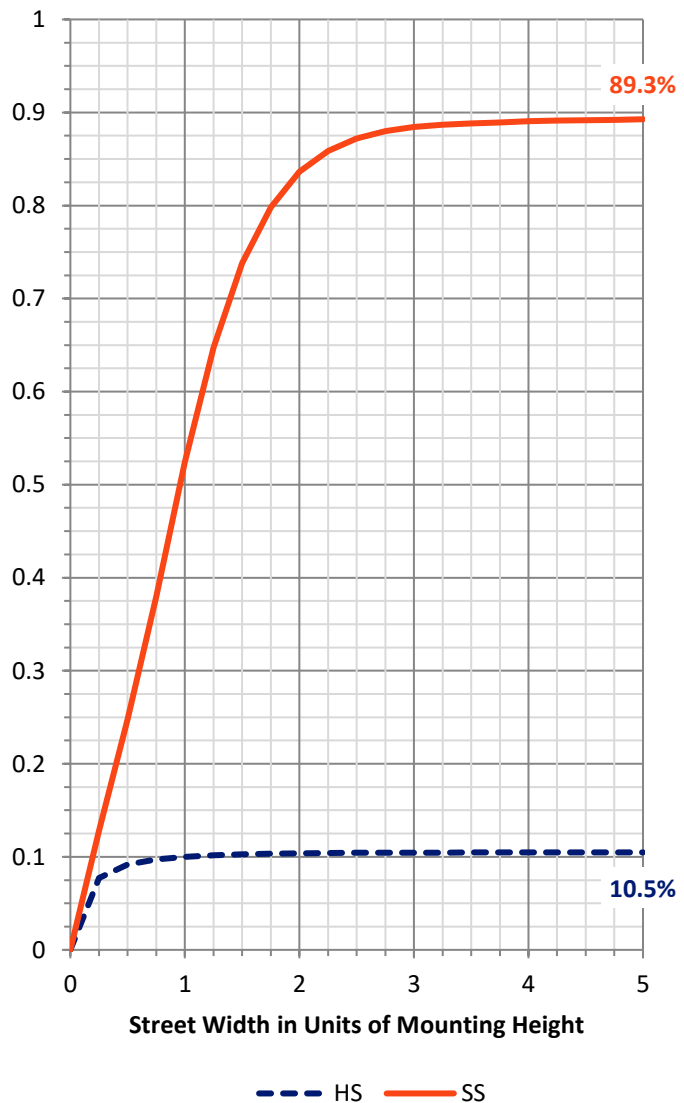
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	849.4	0.0	849.4
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	7208.1	0.0	7208.1
	% Fixture	89.5	0.0	89.5
Total	Lumens	8057.5	0.0	8057.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.3	1.3
10°-20°	257.1	3.2
20°-30°	397.7	4.9
30°-40°	721.7	9.0
40°-50°	1362.3	16.9
50°-60°	1968.4	24.4
60°-70°	2095.3	26.0
70°-80°	1110.3	13.8
80°-90°	36.5	0.5
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°	8057.5	100.0
0°-180°	8057.5	100.0

Coefficient of Utilization

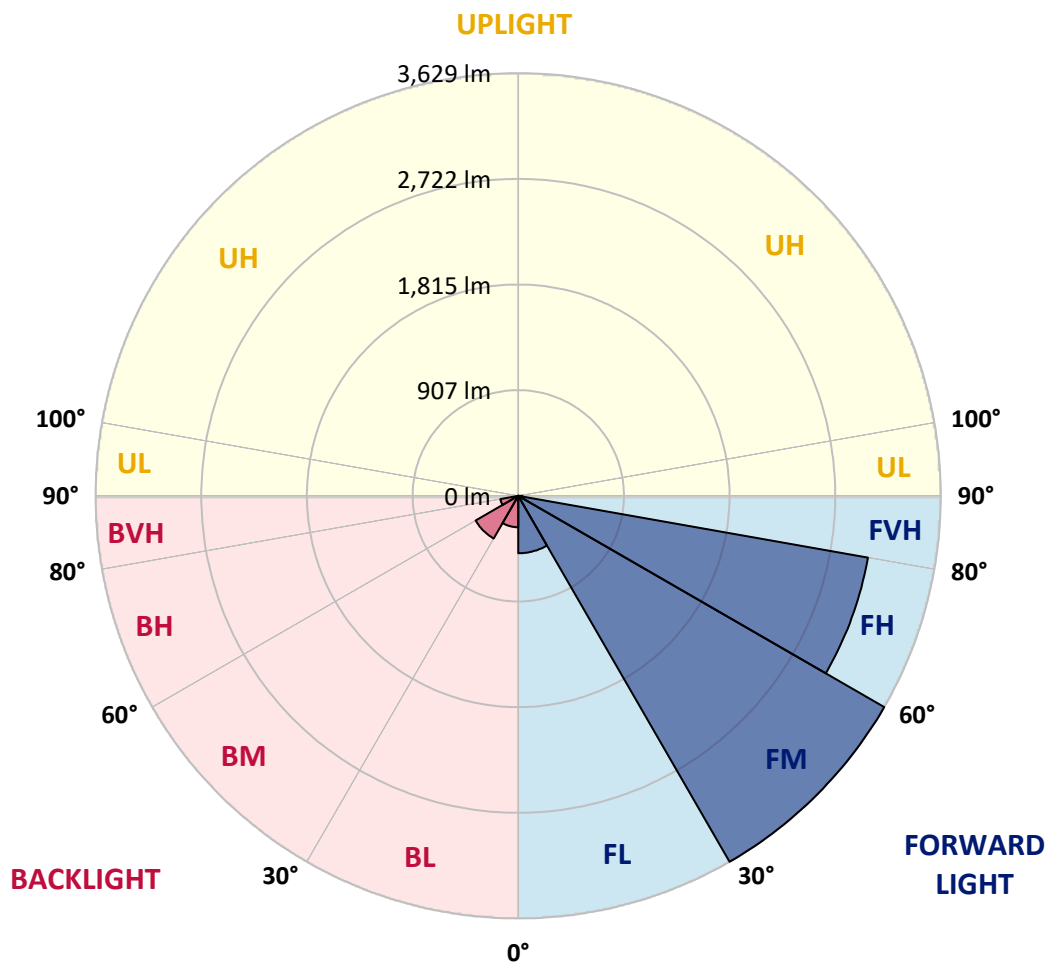


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	493.3	6.1			
FM (30°-60°)	3629.5	45.0			
FH (60°-80°)	3049.9	37.9			G2/5000
FVH (80°-90°)	35.5	0.4			G1/100
BL (0°-30°)	269.9	3.3	B1/500		
BM (30°-60°)	422.8	5.2	B1/1000		
BH (60°-80°)	155.7	1.9	B1/500		G1/500
BVH (80°-90°)	1.0	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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9
2.5°	1180.0	1190.6	1189.1	1196.3	1198.8	1209.0	1219.1	1232.9	1248.1	1247.6	1257.9
5°	1113.4	1124.0	1126.6	1136.2	1148.4	1164.2	1185.1	1212.6	1241.1	1245.7	1266.0
7.5°	1034.4	1045.7	1052.3	1071.6	1094.0	1126.6	1160.6	1200.9	1248.1	1254.8	1294.0
10°	955.6	965.8	974.5	1001.9	1037.5	1085.9	1141.3	1199.4	1262.9	1272.6	1328.1
12.5°	906.7	916.5	926.1	950.0	994.2	1053.3	1128.6	1206.4	1287.4	1301.1	1374.3
15°	889.5	898.1	905.7	927.1	968.3	1035.5	1126.1	1221.2	1318.4	1336.7	1430.4
17.5°	892.0	896.6	901.7	918.0	958.2	1027.4	1130.7	1246.6	1355.0	1371.3	1486.4
20°	906.7	909.3	909.8	921.0	956.6	1026.3	1139.8	1271.1	1389.6	1411.5	1541.8
22.5°	925.6	926.6	925.6	933.2	966.3	1033.9	1152.0	1300.6	1428.3	1448.6	1597.8
25°	1013.6	994.2	969.9	955.1	982.6	1048.7	1170.3	1340.3	1470.6	1490.4	1652.2
27.5°	1286.9	1231.4	1143.9	1045.7	1016.2	1070.1	1195.8	1380.5	1513.3	1531.0	1710.7
30°	1730.5	1657.8	1509.2	1287.9	1124.0	1114.9	1228.9	1420.6	1558.6	1577.9	1773.2
32.5°	2175.3	2157.4	1986.0	1679.7	1366.7	1214.6	1283.8	1475.1	1618.6	1633.8	1857.8
35°	2625.1	2588.9	2448.5	2145.7	1740.8	1417.6	1375.3	1546.3	1697.5	1714.8	1980.9
37.5°	2969.5	2947.7	2860.7	2611.4	2184.5	1731.0	1532.1	1656.8	1812.0	1831.3	2138.7
40°	3273.8	3263.7	3234.2	3069.8	2680.6	2141.2	1775.8	1827.8	1970.8	1993.6	2332.0
42.5°	3513.0	3537.0	3553.7	3508.0	3192.0	2609.3	2103.5	2067.9	2192.1	2215.4	2578.3
45°	3757.8	3766.0	3833.6	3899.7	3699.7	3098.8	2472.9	2349.3	2467.4	2496.4	2873.4
47.5°	3915.0	3947.6	4066.6	4183.1	4126.6	3584.2	2869.8	2681.6	2786.4	2840.9	3204.1
50°	3926.7	3988.3	4152.1	4355.1	4437.5	4046.3	3301.3	3060.1	3171.6	3231.6	3557.3
52.5°	3731.8	3827.5	4081.3	4378.6	4605.5	4437.5	3747.6	3438.8	3581.7	3660.1	3923.6
55°	2861.2	2986.3	3815.3	4251.3	4612.1	4734.3	4182.1	3833.1	4038.6	4127.2	4319.6
57.5°	2492.8	2555.9	2999.6	4030.5	4489.5	4853.8	4575.0	4208.5	4535.7	4645.7	4693.5
60°	2074.0	2157.0	2515.7	3669.2	4323.0	4865.5	4921.9	4693.0	5074.7	5198.3	5036.4
62.5°	1409.5	1499.6	1856.3	3048.5	4095.6	4859.9	5206.4	5191.6	5673.6	5806.3	5327.0
65°	873.2	929.7	1164.7	2489.2	3777.6	4866.0	5504.0	5797.2	6305.5	6440.4	5551.9
67.5°	690.0	716.0	838.6	1911.2	3229.6	4728.6	5801.3	6366.6	6900.3	7007.2	5620.6
70°	463.5	479.3	610.1	1281.2	2402.7	4094.6	5795.7	6652.6	7206.7	7260.1	5370.3
72.5°	244.3	256.5	356.7	593.3	1451.2	2910.6	4885.4	6310.6	6901.8	6821.5	4590.3
75°	122.1	142.5	240.2	301.2	619.7	1623.2	3033.7	4975.5	5432.4	5120.9	2945.1
77.5°	92.6	111.9	198.4	198.4	215.8	546.5	1284.8	2713.6	2502.9	2084.2	864.5
80°	59.0	76.4	173.5	150.1	90.1	138.9	334.8	760.2	531.8	404.6	157.2
82.5°	34.6	49.8	144.5	99.2	50.3	51.4	94.6	161.8	137.9	107.3	48.4
85°	13.7	32.6	99.2	39.2	19.9	12.7	28.5	34.6	28.5	21.3	12.2
87.5°	0.0	7.6	17.3	0.0	1.5	1.0	2.0	2.6	2.6	2.0	4.1
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°	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9	1256.9
2.5°	1262.4	1263.4	1266.5	1267.0	1259.9	1250.7	1247.1	1245.7	1239.5	1239.0	1240.0
5°	1277.7	1282.3	1277.7	1264.4	1232.9	1188.7	1155.1	1127.6	1102.7	1095.0	1090.4
7.5°	1308.2	1312.8	1299.1	1247.1	1167.8	1079.7	1000.4	944.4	894.0	875.2	867.6
10°	1352.0	1358.1	1314.9	1210.0	1069.6	928.1	793.8	699.2	625.4	595.3	582.6
12.5°	1406.9	1409.5	1323.5	1153.5	941.9	739.8	549.5	448.3	382.6	358.2	350.5
15°	1467.5	1463.9	1324.5	1076.7	767.8	523.1	358.7	294.6	268.1	260.0	260.0
17.5°	1531.0	1516.4	1304.1	965.8	577.0	357.7	266.1	250.8	246.3	244.3	243.7
20°	1593.7	1560.6	1267.0	820.7	414.2	267.1	241.7	237.1	234.6	233.6	232.6
22.5°	1650.7	1594.2	1203.4	652.3	300.7	236.1	228.5	224.4	219.9	217.8	217.3
25°	1706.1	1613.6	1113.9	495.1	240.7	220.8	214.7	207.0	201.0	198.4	197.4
27.5°	1760.0	1625.8	1001.9	366.3	214.7	206.5	195.4	184.7	180.1	179.1	178.0
30°	1817.5	1629.9	874.7	273.3	199.0	188.8	172.5	160.3	157.7	158.3	158.3
32.5°	1887.7	1635.9	746.5	223.9	185.7	167.4	148.1	135.3	133.4	135.3	134.9
35°	1971.8	1648.1	622.8	206.1	174.0	145.5	124.6	114.0	111.9	113.5	113.0
37.5°	2085.8	1668.0	507.3	202.5	164.3	127.2	104.9	96.1	96.1	96.7	96.1
40°	2237.4	1720.9	404.1	200.0	159.3	113.5	88.6	85.0	86.5	87.5	87.5
42.5°	2422.1	1833.3	334.4	196.9	153.6	107.3	80.4	78.8	81.4	82.4	82.4
45°	2629.1	1975.8	309.9	191.9	148.6	111.4	76.9	74.8	77.9	78.3	78.8
47.5°	2843.4	2115.2	306.8	186.2	143.5	117.6	75.8	71.2	74.8	75.3	75.8
50°	3060.1	2206.3	309.9	177.6	135.3	117.6	76.4	67.6	70.7	72.3	72.8
52.5°	3278.5	2248.0	307.8	158.8	121.1	110.4	76.4	64.6	67.6	68.7	68.7
55°	3490.1	2239.9	276.9	130.8	102.8	97.7	74.3	62.1	64.1	64.6	64.6
57.5°	3657.5	2126.5	219.4	101.8	83.4	81.4	67.6	59.0	60.6	60.1	60.1
60°	3745.0	1877.1	156.7	78.3	65.6	64.1	59.6	54.9	56.0	53.4	52.9
62.5°	3746.1	1547.3	104.9	62.1	52.4	50.8	50.8	49.4	48.4	43.3	41.7
65°	3666.2	1181.5	69.7	49.4	42.2	39.7	42.7	42.2	38.6	31.6	30.5
67.5°	3485.0	774.5	52.9	38.6	32.6	31.1	34.1	35.6	33.1	26.4	25.9
70°	3112.5	450.8	43.8	30.0	24.4	22.9	27.5	30.5	27.5	21.3	20.4
72.5°	2585.4	243.2	35.6	22.3	16.8	15.3	21.8	24.9	21.8	15.8	15.3
75°	1677.6	130.3	27.5	14.8	8.6	9.6	16.3	18.3	15.3	10.1	9.1
77.5°	563.2	57.5	17.3	7.1	4.1	4.1	9.6	11.2	7.1	3.6	3.1
80°	125.7	23.9	7.1	3.1	1.5	1.5	2.0	2.0	1.0	0.0	0.0
82.5°	41.2	9.6	3.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	15.8	3.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.1	0.5	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)