

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: P882107

Luminaire Tested: **NAV-SB1D-827-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882107
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8199 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

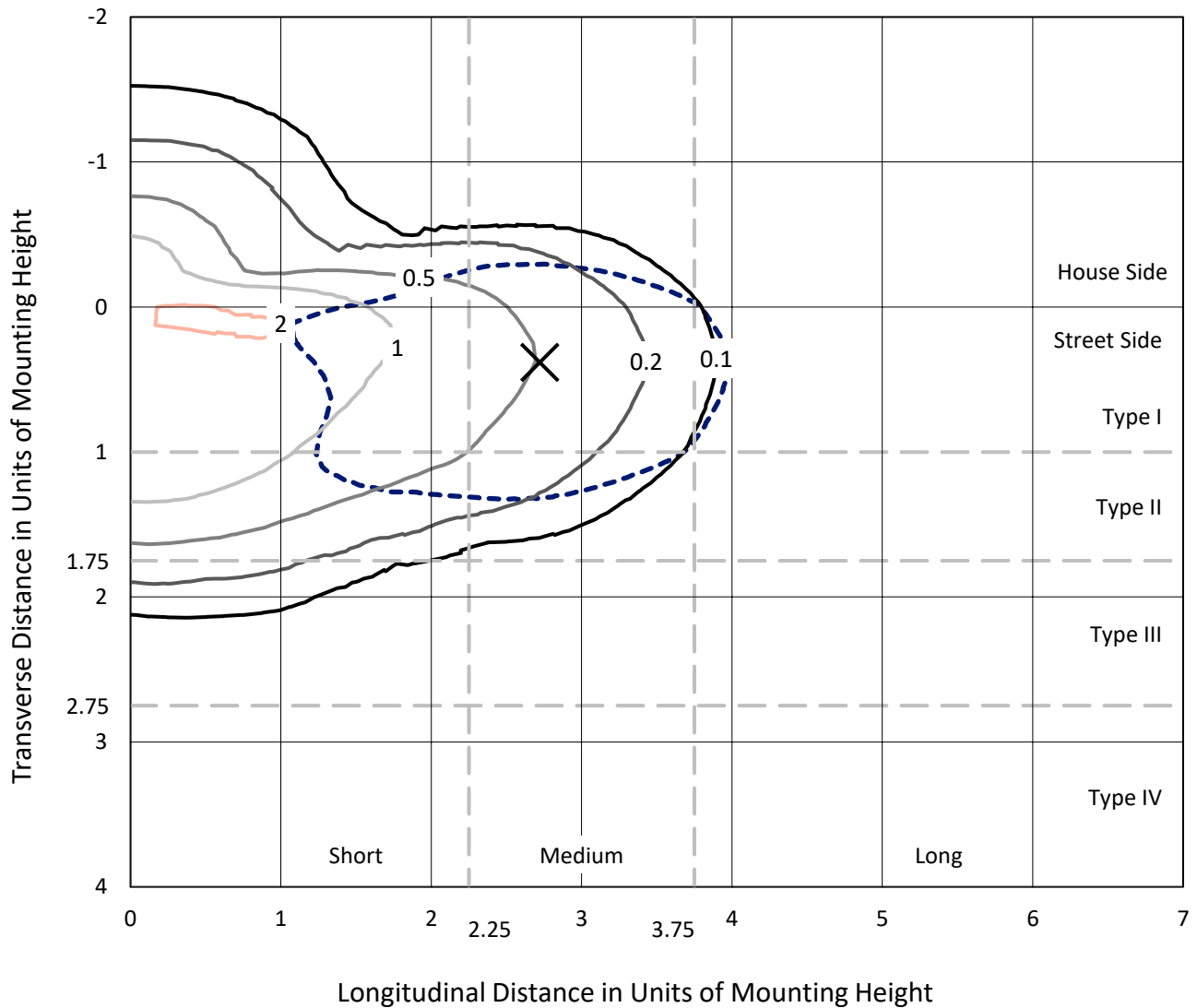
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

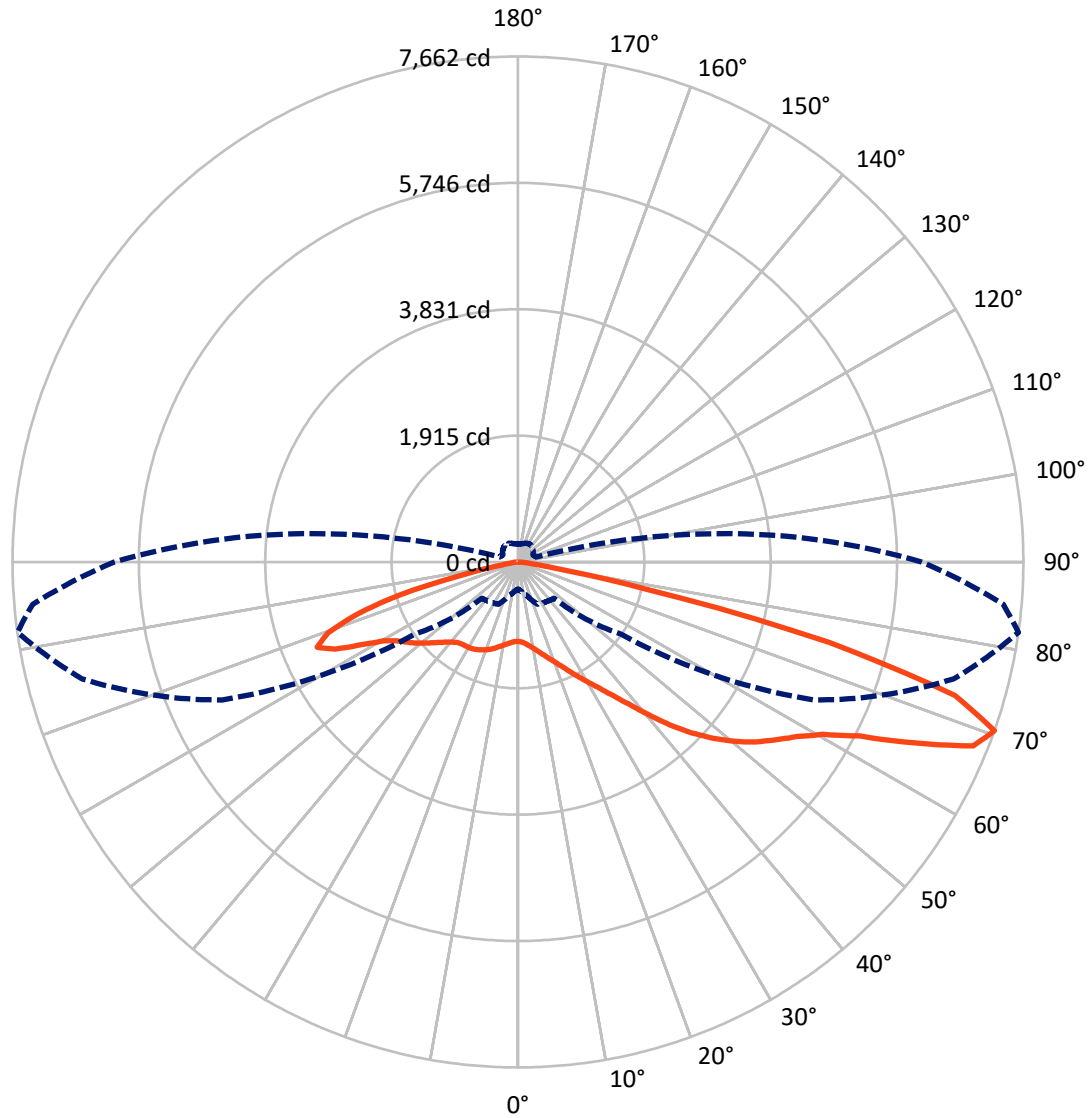
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2021.3	0.0	2021.3
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	6177.7	0.0	6177.7
	% Fixture	75.3	0.0	75.3
Total	Lumens	8199.0	0.0	8199.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.5	1.4
10°-20°	326.1	4.0
20°-30°	545.5	6.7
30°-40°	852.2	10.4
40°-50°	1357.3	16.6
50°-60°	1888.8	23.0
60°-70°	1975.8	24.1
70°-80°	1032.6	12.6
80°-90°	107.2	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°	8199.0	100.0
0°-180°	8199.0	100.0

Coefficient of Utilization

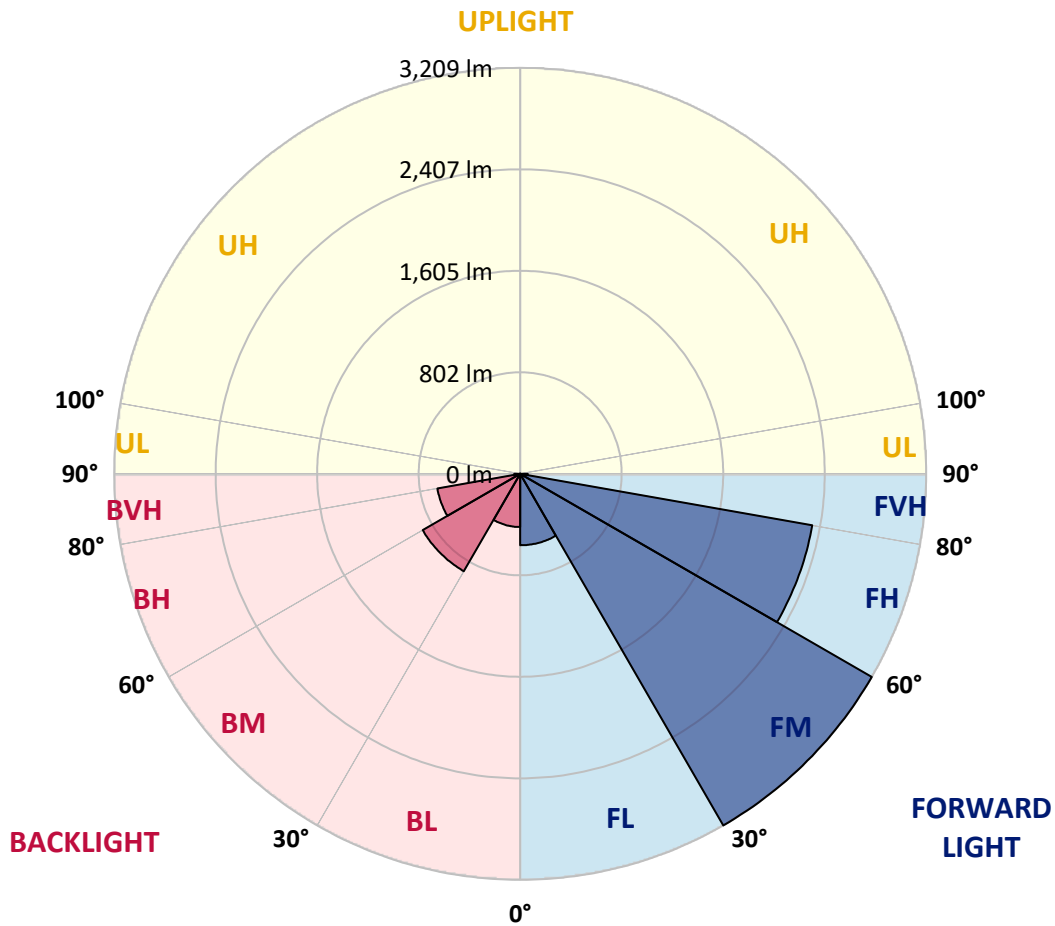


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	564.6	6.9			
FM (30°-60°)	3209.0	39.1			
FH (60°-80°)	2344.1	28.6			G2/5000
FVH (80°-90°)	60.0	0.7			G1/100
BL (0°-30°)	420.5	5.1	B1/500		
BM (30°-60°)	889.3	10.8	B1/1000		
BH (60°-80°)	664.3	8.1	B2/1000		G2/1000
BVH (80°-90°)	47.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type II Medium



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 CATALOG NUMBER: NAV-SB1D-827-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1
2.5°	1230.8	1237.8	1235.6	1233.4	1233.4	1230.4	1229.9	1225.6	1222.1	1216.4	1215.1
5°	1246.5	1253.8	1253.0	1254.7	1260.4	1261.7	1263.0	1260.4	1253.4	1246.5	1243.4
7.5°	1232.5	1240.8	1243.4	1253.8	1271.3	1286.9	1298.7	1303.4	1296.9	1286.9	1282.1
10°	1185.5	1194.7	1203.8	1228.6	1259.5	1296.5	1327.8	1346.5	1345.2	1335.6	1327.4
12.5°	1090.3	1099.8	1119.4	1167.7	1224.3	1289.5	1347.8	1387.0	1400.5	1393.5	1379.1
15°	1014.1	1022.4	1037.2	1086.8	1160.3	1259.5	1355.2	1431.4	1465.7	1461.8	1444.4
17.5°	1012.0	1015.4	1024.6	1048.1	1104.6	1212.5	1347.4	1474.9	1540.6	1540.1	1518.4
20°	1050.2	1051.5	1056.8	1061.6	1093.7	1176.8	1327.4	1511.0	1624.5	1624.5	1601.0
22.5°	1103.3	1102.4	1107.7	1103.3	1119.0	1173.8	1314.8	1542.7	1718.1	1725.0	1695.4
25°	1182.9	1178.6	1177.3	1167.3	1170.3	1202.1	1328.7	1578.8	1829.0	1843.4	1806.4
27.5°	1289.1	1282.1	1277.3	1254.3	1246.5	1260.4	1371.3	1622.3	1952.6	1977.4	1930.4
30°	1427.4	1414.8	1407.9	1367.8	1339.6	1341.7	1435.7	1680.2	2081.8	2121.8	2062.2
32.5°	1616.3	1596.7	1578.0	1512.3	1460.5	1443.5	1518.8	1760.3	2221.9	2285.8	2209.2
35°	1827.7	1812.0	1792.0	1690.7	1611.0	1571.9	1631.0	1872.1	2385.9	2487.2	2387.6
37.5°	2031.3	2017.8	2027.4	1890.8	1788.1	1731.1	1778.1	2022.2	2588.2	2737.8	2611.2
40°	2241.9	2231.4	2232.7	2102.2	1982.6	1918.6	1956.5	2210.5	2820.1	3035.9	2880.1
42.5°	2470.7	2462.9	2436.8	2321.1	2186.6	2127.0	2161.8	2428.1	3068.9	3375.2	3175.1
45°	2727.0	2722.2	2697.8	2565.1	2411.1	2344.1	2391.1	2668.2	3319.1	3694.5	3471.4
47.5°	2948.4	2952.3	2949.3	2837.5	2677.8	2579.5	2635.6	2918.8	3551.8	3994.7	3755.5
50°	3055.0	3075.5	3105.5	3070.7	2971.5	2871.4	2882.3	3160.7	3773.7	4276.2	4027.8
52.5°	2999.3	3038.0	3119.8	3175.5	3213.8	3192.9	3163.8	3400.9	3982.6	4530.3	4285.4
55°	2791.8	2846.2	2981.9	3116.3	3311.7	3463.5	3501.8	3667.1	4186.2	4753.9	4529.0
57.5°	2413.7	2502.0	2623.9	2895.8	3224.7	3594.5	3896.0	4036.5	4402.0	4992.8	4783.9
60°	1765.5	1883.8	2035.2	2439.8	2920.1	3524.4	4231.4	4603.8	4708.7	5302.1	5115.9
62.5°	1129.9	1202.9	1342.2	1723.3	2275.4	3165.5	4334.1	5313.0	5228.6	5809.4	5613.6
65°	773.5	820.5	948.0	1162.1	1470.9	2356.3	4059.1	5844.6	6054.3	6613.4	6464.6
67.5°	562.1	597.8	706.5	894.1	958.4	1394.4	3149.8	5820.3	6857.0	7441.7	7210.3
70°	409.8	435.1	526.4	706.5	737.4	775.7	1908.2	4947.5	6839.6	7661.9	7384.7
72.5°	303.7	321.1	382.4	548.2	596.9	523.8	944.5	3595.8	5877.3	6930.1	6707.8
75°	219.7	232.8	278.0	419.4	477.7	399.0	471.2	2101.3	4099.6	4874.9	4914.0
77.5°	167.9	177.9	207.5	307.2	382.4	299.3	292.4	966.7	1943.9	1953.4	2063.1
80°	134.9	141.4	157.5	216.2	293.2	224.1	190.6	390.3	614.3	519.9	545.6
82.5°	99.2	110.1	133.1	151.8	209.7	154.4	116.2	197.1	233.6	201.0	202.7
85°	56.6	64.0	80.5	108.8	134.0	94.4	66.6	87.4	108.8	89.2	79.6
87.5°	20.0	26.1	28.3	42.6	58.3	39.2	25.7	25.2	35.7	26.5	22.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P882107
 CATALOG NUMBER: NAV-SB1D-827-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1	1202.1
2.5°	1210.8	1208.6	1199.9	1188.2	1176.0	1164.2	1160.3	1152.0	1146.4	1143.3	1146.8
5°	1235.1	1228.2	1207.7	1181.6	1154.2	1124.6	1103.8	1084.6	1070.7	1057.6	1062.9
7.5°	1269.9	1257.8	1222.5	1176.8	1128.1	1079.0	1042.4	1014.6	995.9	983.7	986.3
10°	1310.4	1291.7	1237.8	1169.4	1094.2	1023.7	980.6	956.7	945.0	938.4	940.2
12.5°	1357.0	1330.4	1253.4	1152.5	1042.4	961.9	932.3	925.4	925.8	926.2	927.1
15°	1414.4	1377.4	1266.0	1115.5	975.0	914.5	909.3	920.6	932.3	938.0	937.6
17.5°	1479.2	1427.0	1268.2	1054.6	908.8	884.0	900.6	924.9	942.8	950.6	952.4
20°	1548.8	1477.5	1252.5	968.4	854.5	859.2	888.8	920.2	939.7	949.7	952.4
22.5°	1628.4	1531.4	1215.1	878.0	810.1	832.3	867.1	897.5	918.0	928.0	930.6
25°	1719.4	1591.9	1156.4	801.8	771.8	801.8	836.6	861.9	878.4	887.5	890.1
27.5°	1820.3	1655.0	1078.1	741.3	738.3	770.5	799.2	818.8	827.5	834.4	837.1
30°	1921.7	1712.4	983.2	695.7	709.2	739.6	760.1	768.8	771.4	772.7	775.7
32.5°	2031.3	1762.0	883.6	657.8	681.3	709.6	721.8	725.7	713.5	705.2	707.8
35°	2164.0	1815.1	786.2	627.8	653.9	678.3	682.2	678.7	664.3	647.4	648.2
37.5°	2328.0	1881.2	708.3	606.5	628.2	644.3	639.5	638.7	640.0	620.0	621.3
40°	2529.0	1967.3	651.3	589.9	607.3	610.8	597.3	604.7	611.3	580.8	581.7
42.5°	2752.2	2071.3	615.2	578.6	589.9	581.7	560.8	569.1	568.2	528.2	527.7
45°	2979.7	2184.4	602.6	570.4	573.8	557.3	534.3	536.4	518.2	482.0	483.4
47.5°	3206.0	2305.8	610.4	563.4	553.8	535.1	517.3	507.7	480.7	453.8	453.8
50°	3427.9	2433.3	639.1	549.5	526.4	515.5	502.5	485.5	456.8	433.8	432.0
52.5°	3633.6	2561.6	671.3	526.4	492.1	498.6	490.3	470.7	442.5	419.0	419.4
55°	3828.5	2690.0	683.9	494.7	459.9	483.8	479.0	442.9	409.0	389.8	388.1
57.5°	4040.9	2844.4	670.0	454.2	433.8	466.8	448.5	408.5	388.9	374.6	373.3
60°	4335.0	3086.8	640.0	404.2	409.0	441.6	410.3	393.7	372.4	356.3	355.4
62.5°	4823.5	3538.8	591.7	354.6	379.8	404.2	392.0	375.5	353.7	338.0	338.0
65°	5545.7	4167.0	500.8	315.9	347.2	367.6	372.4	355.9	333.3	316.7	317.6
67.5°	6154.8	4561.2	378.9	283.7	313.7	338.0	351.5	335.4	311.5	295.4	295.8
70°	6121.3	4274.9	289.3	251.9	284.1	308.9	326.3	313.7	288.0	272.8	274.1
72.5°	5437.0	3576.2	234.1	219.7	254.1	278.4	299.3	289.8	263.6	248.9	248.9
75°	3994.3	2538.6	187.1	187.1	216.7	246.7	269.7	263.6	239.7	229.3	226.2
77.5°	1683.7	1065.0	146.6	155.3	180.1	211.9	240.6	242.8	221.9	234.9	213.2
80°	447.7	293.7	111.8	122.3	141.4	174.9	209.3	208.4	185.8	173.6	161.4
82.5°	170.5	115.7	79.6	86.1	102.2	134.0	165.8	171.0	148.4	128.3	128.3
85°	65.7	49.6	49.2	51.8	59.6	88.8	125.3	129.6	111.8	94.8	97.9
87.5°	17.0	14.8	18.3	17.4	27.4	47.4	71.8	74.4	68.3	39.6	56.6
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)