

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: P882127

Luminaire Tested: **NAV-SB1D-835-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882127  
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-835-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8515 lumens  
Efficiency: N/A  
Efficacy: 107.0 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

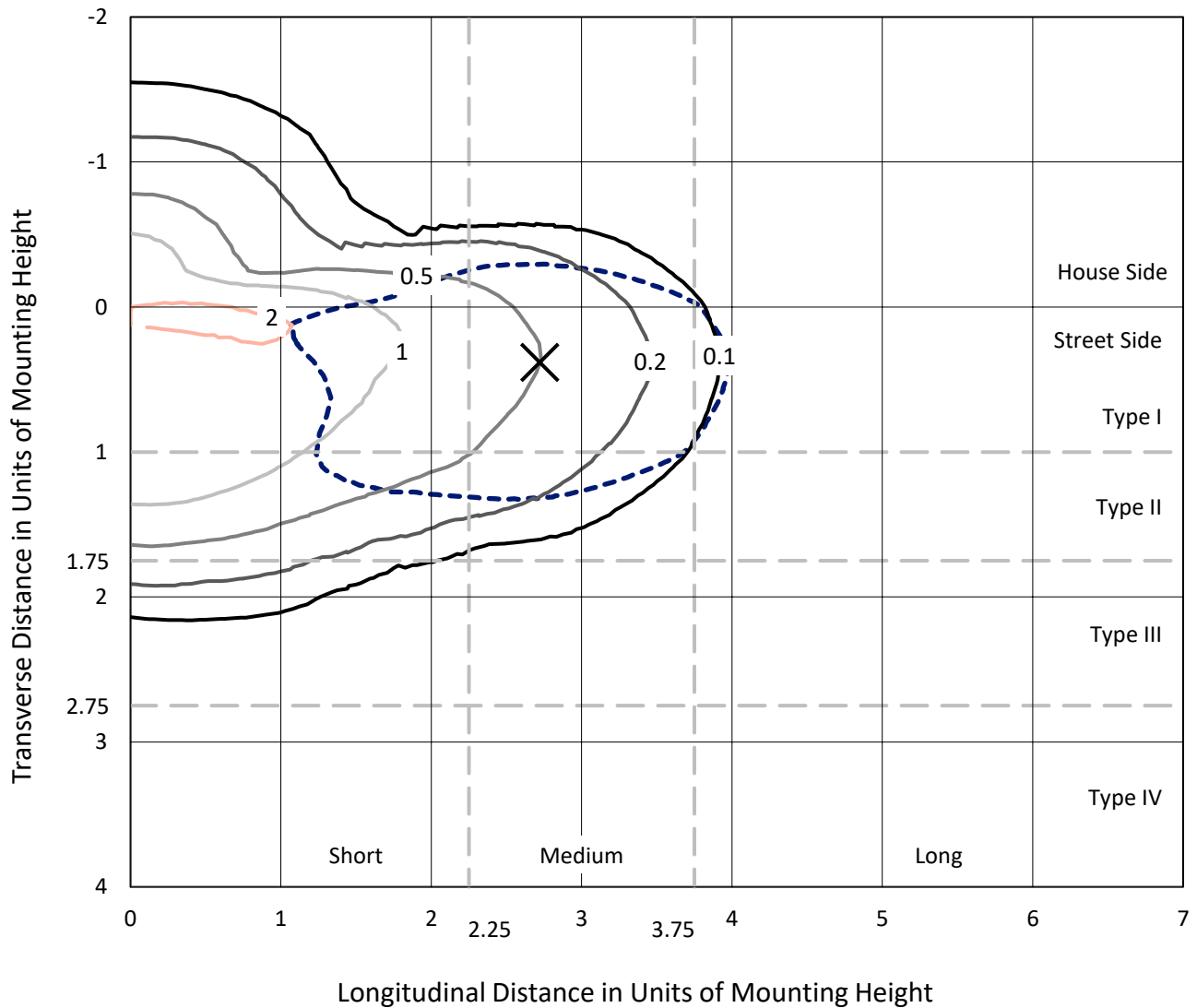
Input Watts (W): 79.6  
Input Voltage (V): 120.0  
Input Current (Ain): 0.638  
Voltage Rise (V): NR  
Power Factor: 0.997  
Total Harmonic Distortion (THDi): 6.673  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

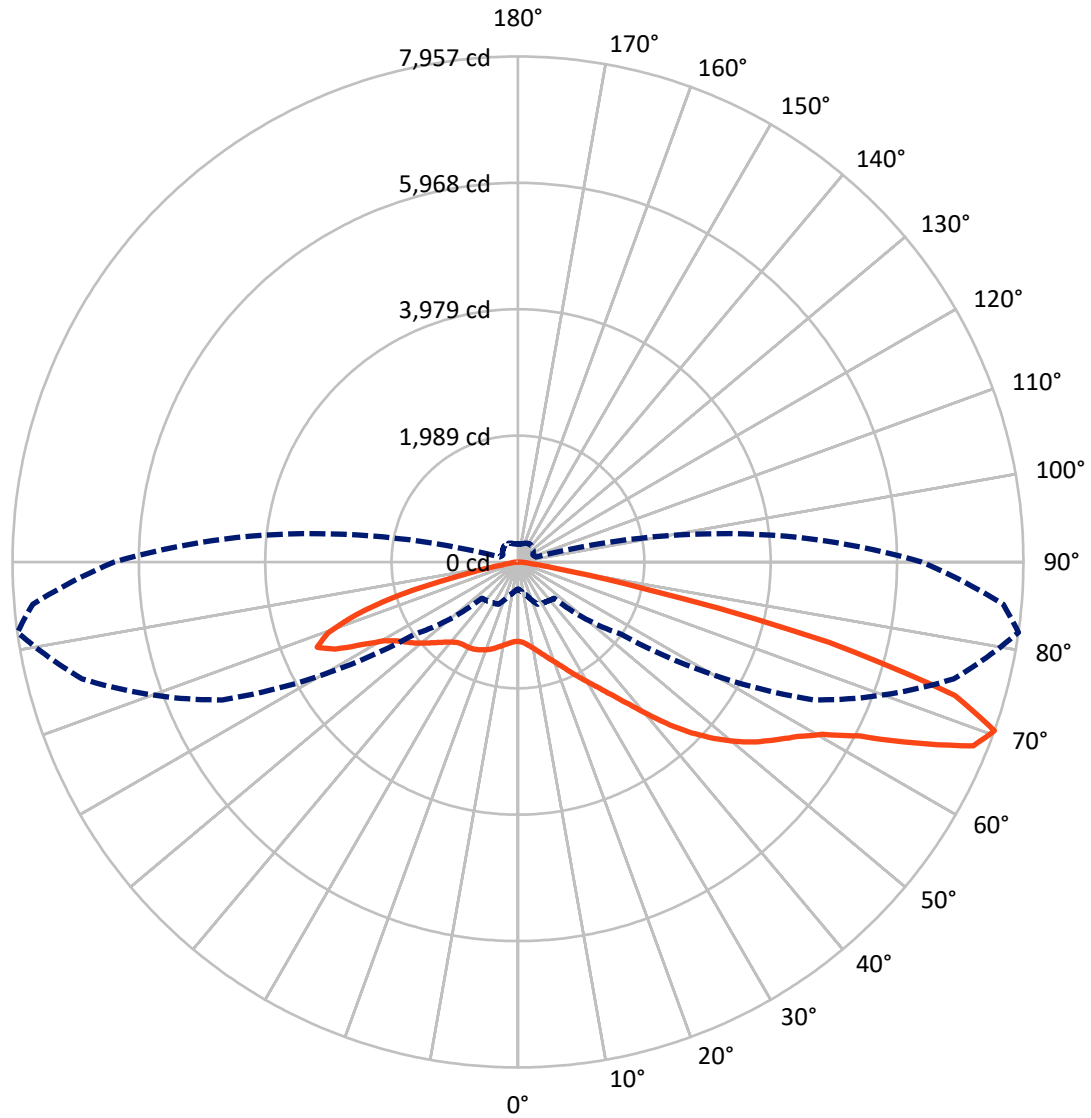
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 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
<b>House Side</b>	Lumens	2099.2	0.0	2099.2
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	6415.9	0.0	6415.9
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	8515.0	0.0	8515.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.9	1.4
10°-20°	338.7	4.0
20°-30°	566.5	6.7
30°-40°	885.1	10.4
40°-50°	1409.6	16.6
50°-60°	1961.6	23.0
60°-70°	2051.9	24.1
70°-80°	1072.4	12.6
80°-90°	111.4	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°	8515.0	100.0
0°-180°	8515.0	100.0

**Coefficient of Utilization**

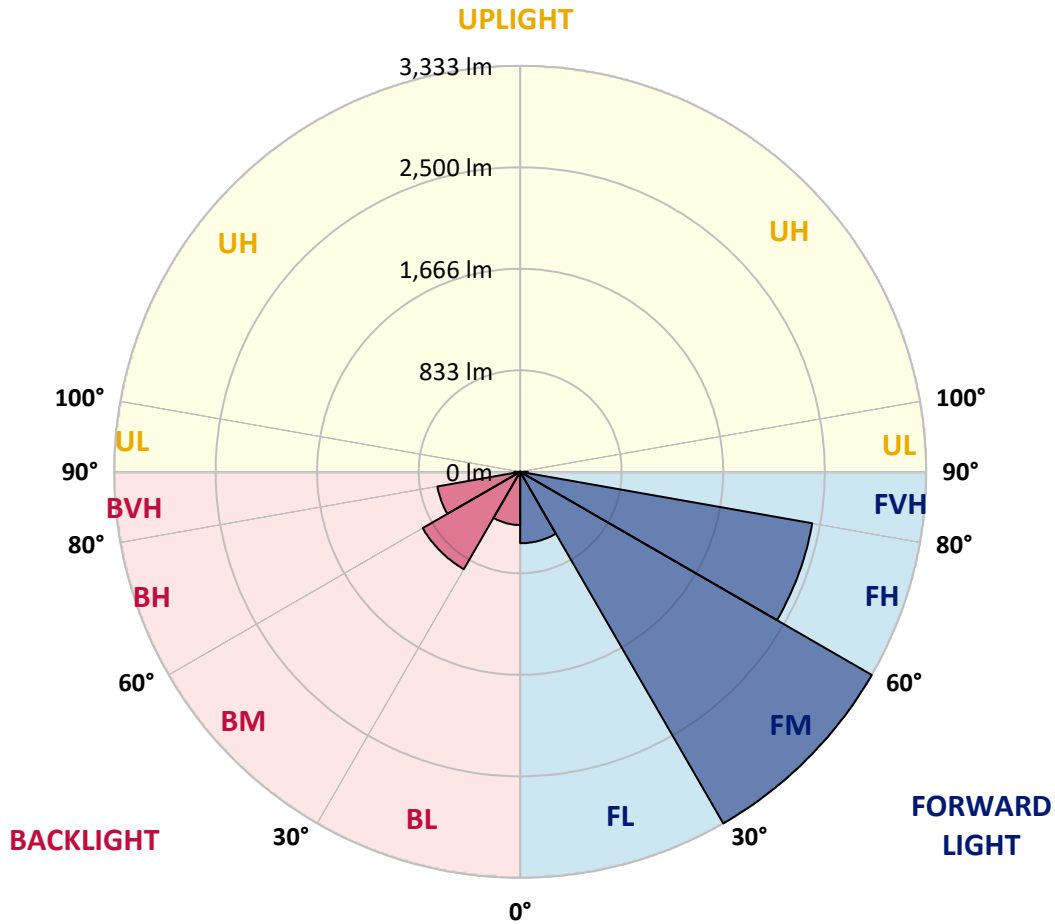


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	586.4	6.9			
FM	(30°-60°)	3332.7	39.1			
FH	(60°-80°)	2434.5	28.6			G2/5000
FVH	(80°-90°)	62.3	0.7			G1/100
BL	(0°-30°)	436.7	5.1	B1/500		
BM	(30°-60°)	923.5	10.8	B1/1000		
BH	(60°-80°)	689.9	8.1	B2/1000		G2/1000
BVH	(80°-90°)	49.0	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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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4
2.5°	1278.2	1285.5	1283.2	1280.9	1280.9	1277.8	1277.3	1272.8	1269.2	1263.3	1262.0
5°	1294.5	1302.2	1301.3	1303.1	1309.0	1310.3	1311.7	1309.0	1301.7	1294.5	1291.3
7.5°	1280.0	1288.6	1291.3	1302.2	1320.2	1336.5	1348.7	1353.7	1346.9	1336.5	1331.5
10°	1231.2	1240.7	1250.2	1276.0	1308.0	1346.5	1379.0	1398.4	1397.1	1387.1	1378.5
12.5°	1132.3	1142.2	1162.6	1212.7	1271.4	1339.2	1399.8	1440.4	1454.4	1447.2	1432.3
15°	1053.2	1061.8	1077.2	1128.7	1205.0	1308.0	1407.4	1486.5	1522.2	1518.1	1500.1
17.5°	1051.0	1054.6	1064.1	1088.5	1147.2	1259.2	1399.3	1531.7	1599.9	1599.5	1576.9
20°	1090.7	1092.1	1097.5	1102.5	1135.9	1222.2	1378.5	1569.2	1687.1	1687.1	1662.7
22.5°	1145.8	1144.9	1150.4	1145.8	1162.1	1219.0	1365.4	1602.2	1784.3	1791.5	1760.8
25°	1228.5	1224.0	1222.7	1212.3	1215.4	1248.4	1379.9	1639.7	1899.5	1914.4	1876.0
27.5°	1338.8	1331.5	1326.6	1302.6	1294.5	1309.0	1424.2	1684.9	2027.8	2053.6	2004.8
30°	1482.5	1469.4	1462.1	1420.6	1391.2	1393.4	1491.0	1745.0	2162.0	2203.6	2141.7
32.5°	1678.5	1658.2	1638.8	1570.6	1516.8	1499.2	1577.3	1828.1	2307.5	2373.9	2294.4
35°	1898.1	1881.9	1861.1	1755.8	1673.1	1632.5	1693.9	1944.2	2477.8	2583.1	2479.6
37.5°	2109.6	2095.6	2105.5	1963.7	1857.0	1797.8	1846.6	2100.1	2687.9	2843.4	2711.9
40°	2328.3	2317.4	2318.8	2183.2	2059.0	1992.6	2031.9	2295.7	2928.8	3152.9	2991.1
42.5°	2565.9	2557.8	2530.7	2410.5	2270.9	2209.0	2245.1	2521.7	3187.2	3505.3	3297.5
45°	2832.1	2827.1	2801.8	2664.0	2504.0	2434.5	2483.3	2771.1	3447.0	3836.9	3605.1
47.5°	3062.0	3066.1	3063.0	2946.8	2781.0	2678.9	2737.2	3031.3	3688.7	4148.7	3900.2
50°	3172.7	3194.0	3225.2	3189.0	3086.0	2982.1	2993.4	3282.5	3919.2	4441.0	4183.0
52.5°	3114.9	3155.1	3240.1	3297.9	3337.7	3316.0	3285.7	3532.0	4136.0	4704.9	4450.5
55°	2899.4	2955.9	3096.8	3236.5	3439.3	3597.0	3636.8	3808.5	4347.5	4937.1	4703.5
57.5°	2506.8	2598.5	2725.0	3007.4	3349.0	3733.0	4046.1	4192.1	4571.6	5185.2	4968.3
60°	1833.5	1956.4	2113.7	2533.9	3032.7	3660.3	4394.5	4781.3	4890.2	5506.4	5313.1
62.5°	1173.4	1249.3	1393.9	1789.7	2363.1	3287.5	4501.1	5517.7	5430.1	6033.3	5830.0
65°	803.4	852.2	984.5	1206.8	1527.6	2447.1	4215.6	6069.9	6287.7	6868.3	6713.7
67.5°	583.8	620.8	733.8	928.5	995.4	1448.1	3271.2	6044.6	7121.3	7728.5	7488.2
70°	425.6	451.8	546.7	733.8	765.9	805.6	1981.7	5138.2	7103.2	7957.2	7669.4
72.5°	315.4	333.5	397.2	569.3	619.9	544.0	980.9	3734.4	6103.8	7197.2	6966.3
75°	228.2	241.7	288.7	435.6	496.1	414.3	489.3	2182.3	4257.6	5062.8	5103.4
77.5°	174.4	184.8	215.5	319.0	397.2	310.9	303.6	1004.0	2018.8	2028.7	2142.6
80°	140.1	146.8	163.6	224.6	304.5	232.7	197.9	405.3	638.0	539.9	566.6
82.5°	103.0	114.3	138.3	157.7	217.8	160.4	120.6	204.7	242.6	208.7	210.6
85°	58.7	66.4	83.6	113.0	139.2	98.0	69.1	90.8	113.0	92.6	82.7
87.5°	20.8	27.1	29.4	44.3	60.5	40.7	26.7	26.2	37.1	27.6	23.0
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°	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4	1248.4
2.5°	1257.4	1255.2	1246.1	1233.9	1221.3	1209.1	1205.0	1196.4	1190.6	1187.4	1191.0
5°	1282.7	1275.5	1254.3	1227.2	1198.7	1168.0	1146.3	1126.4	1112.0	1098.4	1103.8
7.5°	1318.9	1306.2	1269.6	1222.2	1171.6	1120.5	1082.6	1053.7	1034.2	1021.6	1024.3
10°	1360.9	1341.5	1285.5	1214.5	1136.4	1063.2	1018.4	993.6	981.4	974.6	976.4
12.5°	1409.3	1381.7	1301.7	1196.9	1082.6	999.0	968.3	961.0	961.5	961.9	962.8
15°	1468.9	1430.5	1314.8	1158.5	1012.6	949.7	944.3	956.1	968.3	974.1	973.7
17.5°	1536.2	1482.0	1317.1	1095.2	943.9	918.1	935.3	960.6	979.1	987.2	989.1
20°	1608.5	1534.4	1300.8	1005.8	887.4	892.4	923.1	955.6	976.0	986.3	989.1
22.5°	1691.2	1590.4	1262.0	911.8	841.3	864.4	900.5	932.1	953.4	963.8	966.5
25°	1785.6	1653.2	1201.0	832.7	801.5	832.7	868.9	895.1	912.2	921.7	924.4
27.5°	1890.5	1718.8	1119.6	769.9	766.8	800.2	830.0	850.3	859.4	866.6	869.3
30°	1995.7	1778.4	1021.1	722.5	736.5	768.1	789.3	798.4	801.1	802.4	805.6
32.5°	2109.6	1829.9	917.7	683.2	707.6	736.9	749.6	753.7	741.0	732.4	735.1
35°	2247.4	1885.0	816.5	652.0	679.1	704.4	708.5	704.9	689.9	672.3	673.2
37.5°	2417.7	1953.7	735.6	629.9	652.4	669.2	664.2	663.3	664.6	643.9	645.2
40°	2626.5	2043.2	676.4	612.7	630.8	634.4	620.4	628.0	634.8	603.2	604.1
42.5°	2858.3	2151.2	638.9	600.9	612.7	604.1	582.4	591.0	590.1	548.5	548.1
45°	3094.6	2268.6	625.8	592.3	596.0	578.8	554.8	557.1	538.1	500.6	502.0
47.5°	3329.5	2394.7	633.9	585.1	575.2	555.8	537.2	527.3	499.3	471.3	471.3
50°	3560.0	2527.1	663.7	570.7	546.7	535.4	521.9	504.2	474.4	450.5	448.7
52.5°	3773.7	2660.4	697.2	546.7	511.0	517.8	509.2	488.9	459.5	435.1	435.6
55°	3976.1	2793.7	710.3	513.7	477.6	502.4	497.5	460.0	424.7	404.8	403.0
57.5°	4196.6	2954.1	695.8	471.7	450.5	484.8	465.8	424.3	403.9	389.0	387.7
60°	4502.0	3205.7	664.6	419.7	424.7	458.6	426.1	408.9	386.8	370.0	369.1
62.5°	5009.4	3675.2	614.5	368.2	394.4	419.7	407.1	389.9	367.3	351.1	351.1
65°	5759.5	4327.6	520.1	328.0	360.6	381.8	386.8	369.6	346.1	328.9	329.8
67.5°	6392.0	4737.0	393.5	294.6	325.8	351.1	365.1	348.4	323.5	306.8	307.2
70°	6357.2	4439.7	300.5	261.6	295.0	320.8	338.9	325.8	299.1	283.3	284.7
72.5°	5646.5	3714.0	243.1	228.2	263.9	289.2	310.9	300.9	273.8	258.4	258.4
75°	4148.2	2636.4	194.3	194.3	225.0	256.2	280.1	273.8	249.0	238.1	235.0
77.5°	1748.6	1106.1	152.3	161.3	187.1	220.0	249.9	252.1	230.4	244.0	221.4
80°	464.9	305.0	116.1	127.0	146.8	181.6	217.3	216.4	192.9	180.3	167.6
82.5°	177.1	120.2	82.7	89.5	106.2	139.2	172.1	177.6	154.1	133.3	133.3
85°	68.2	51.5	51.1	53.8	61.9	92.2	130.1	134.6	116.1	98.5	101.7
87.5°	17.6	15.4	19.0	18.1	28.5	49.2	74.6	77.3	70.9	41.1	58.7
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)