

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: P882111

Luminaire Tested: **NAV-SB1D-827-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882111
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8179 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

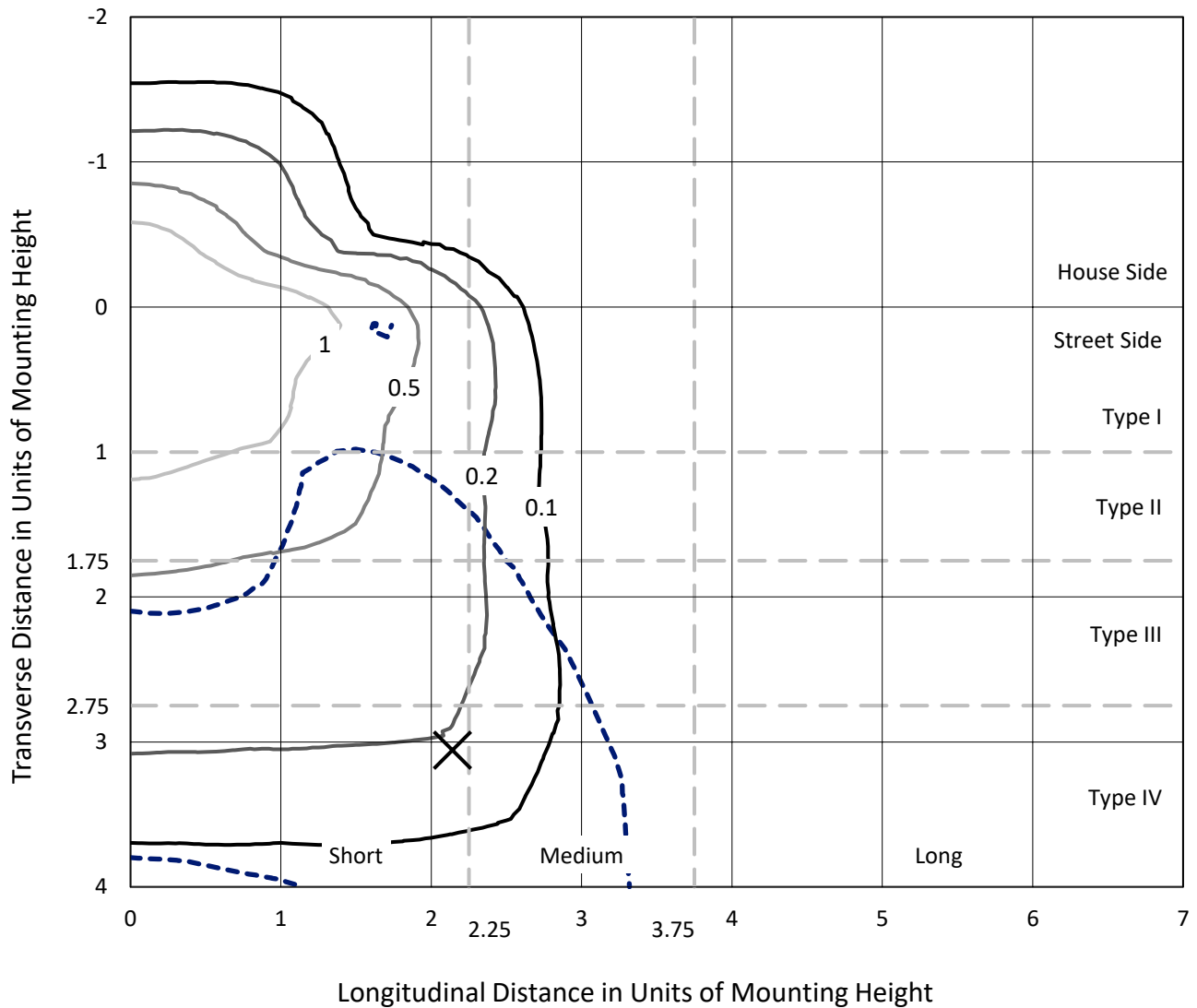
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

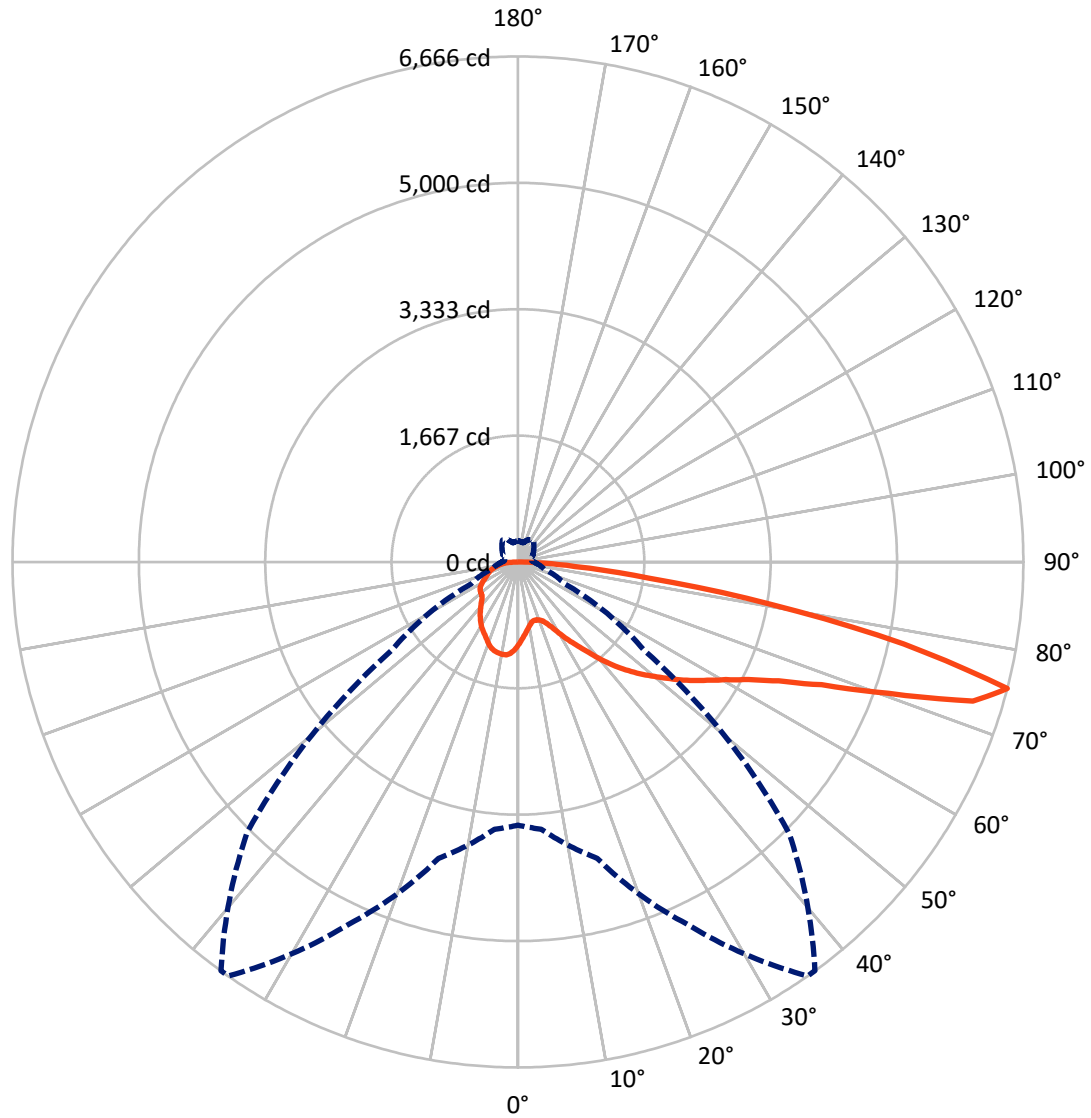
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1946.4	0.0	1946.4
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	6232.6	0.0	6232.6
	% Fixture	76.2	0.0	76.2
Total	Lumens	8179.0	0.0	8179.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.2	1.3
10°-20°	297.7	3.6
20°-30°	499.8	6.1
30°-40°	776.8	9.5
40°-50°	1153.0	14.1
50°-60°	1591.8	19.5
60°-70°	1931.2	23.6
70°-80°	1596.0	19.5
80°-90°	229.6	2.8
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°	8179.0	100.0
0°-180°	8179.0	100.0

Coefficient of Utilization



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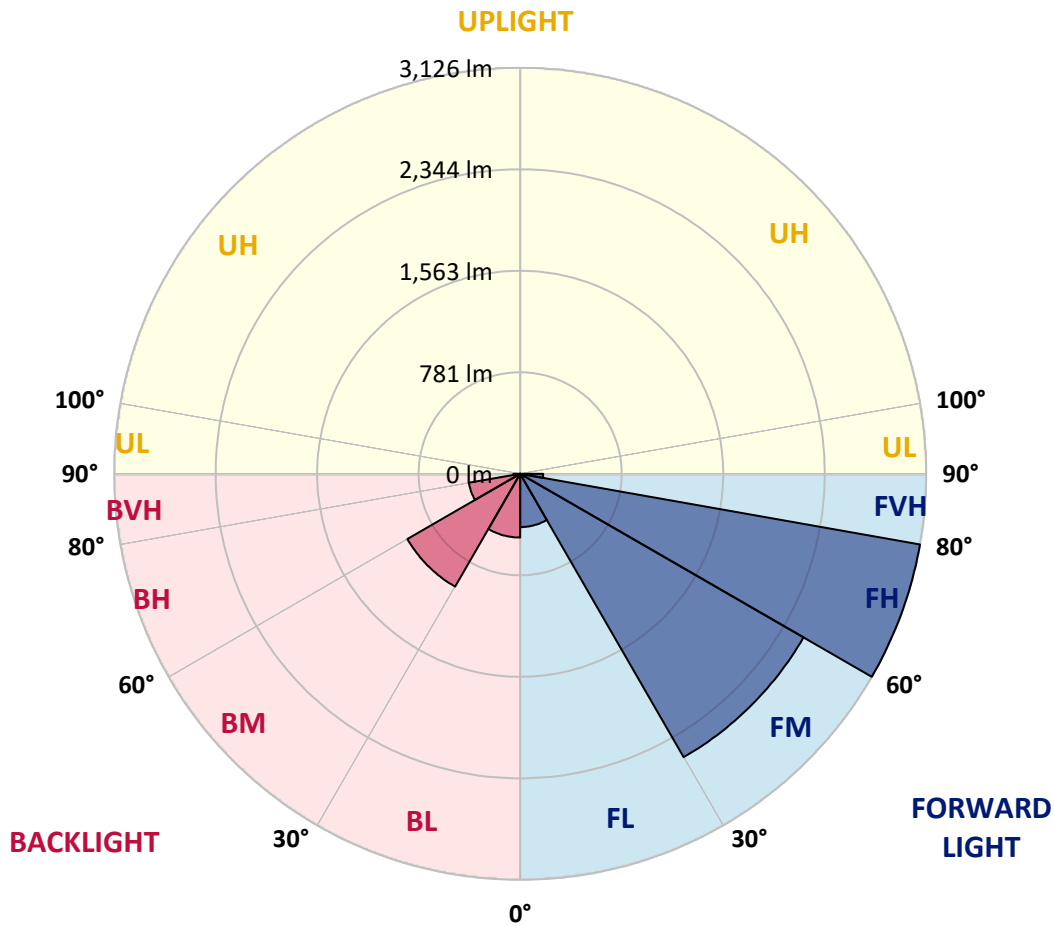
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	410.2	5.0			
FM (30°-60°)	2518.7	30.8			
FH (60°-80°)	3125.9	38.2			G2/5000
FVH (80°-90°)	177.9	2.2			G2/225
BL (0°-30°)	490.5	6.0	B1/500		
BM (30°-60°)	1002.9	12.3	B2/2500		
BH (60°-80°)	401.3	4.9	B1/500		G1/500
BVH (80°-90°)	51.7	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9
2.5°	1005.0	1011.2	1013.9	1012.5	1019.2	1018.3	1027.6	1039.1	1055.0	1070.5	1093.0
5°	927.6	934.3	940.0	945.3	958.1	962.1	976.7	998.8	1028.0	1057.6	1094.8
7.5°	855.6	861.3	870.2	879.9	901.5	905.5	929.8	964.3	1005.0	1048.3	1099.6
10°	796.8	802.5	811.8	822.8	849.8	854.7	885.6	931.6	984.7	1039.5	1104.9
12.5°	771.6	773.3	778.6	789.7	813.1	816.2	850.3	902.9	964.8	1032.9	1112.9
15°	770.2	773.8	774.2	780.0	799.4	800.7	832.1	884.3	952.4	1031.5	1124.8
17.5°	783.5	786.1	782.2	785.7	802.1	804.3	829.0	875.5	948.4	1037.3	1145.2
20°	818.9	821.1	809.1	804.3	816.2	818.0	842.3	881.2	952.4	1049.2	1173.0
22.5°	894.0	895.4	866.2	846.3	847.2	848.0	869.3	904.6	967.9	1070.9	1208.4
25°	1011.2	1010.3	963.9	925.4	903.3	898.5	912.6	942.7	994.0	1099.6	1253.9
27.5°	1148.3	1141.6	1095.2	1037.7	989.5	982.5	979.4	992.2	1031.1	1137.7	1309.7
30°	1303.0	1296.8	1246.9	1171.7	1104.9	1093.4	1064.3	1057.6	1086.4	1189.4	1387.0
32.5°	1472.8	1468.8	1409.1	1318.1	1228.7	1215.5	1166.4	1148.7	1171.3	1267.7	1494.9
35°	1615.2	1611.6	1562.1	1468.4	1359.2	1342.8	1292.9	1273.0	1284.5	1368.0	1636.0
37.5°	1743.9	1742.1	1699.6	1625.8	1513.0	1493.2	1437.0	1430.4	1428.2	1500.2	1807.1
40°	1863.2	1858.8	1814.6	1775.7	1692.1	1674.0	1624.5	1618.7	1601.9	1662.9	2000.7
42.5°	1995.4	1983.9	1919.8	1901.7	1879.2	1864.1	1834.5	1835.4	1798.2	1846.4	2205.9
45°	2103.3	2096.7	2030.8	2020.2	2044.5	2038.3	2064.0	2070.6	1998.5	2038.8	2419.0
47.5°	2219.2	2213.0	2157.3	2149.7	2215.6	2217.4	2308.0	2310.2	2194.0	2238.6	2632.6
50°	2362.0	2353.1	2297.9	2307.2	2381.0	2387.6	2553.4	2538.4	2373.9	2441.6	2844.4
52.5°	2456.2	2461.5	2449.5	2464.6	2565.4	2571.6	2794.8	2756.4	2552.1	2641.9	3052.2
55°	2525.6	2536.2	2573.3	2607.8	2759.9	2766.1	3022.6	2963.8	2699.8	2827.6	3247.6
57.5°	2614.9	2599.9	2669.3	2736.5	2944.7	2961.1	3244.1	3163.6	2830.7	2987.6	3381.6
60°	2743.1	2732.5	2786.4	2885.9	3151.7	3177.8	3478.4	3343.6	2926.6	3114.5	3407.7
62.5°	3003.1	2976.6	2985.0	3073.0	3412.5	3447.0	3742.8	3500.5	2974.4	3164.0	3268.0
65°	3391.8	3346.2	3303.8	3364.8	3780.0	3814.0	4041.3	3623.9	2956.7	3068.1	2897.0
67.5°	3881.2	3836.1	3783.9	3841.4	4321.2	4348.1	4409.6	3693.3	2817.4	2698.5	2241.3
70°	4284.9	4268.1	4330.4	4567.0	5185.6	5186.5	4881.8	3635.8	2435.8	1913.2	1296.8
72.5°	4231.4	4221.2	4549.8	5281.1	6275.0	6251.6	5328.8	3200.7	1640.8	863.1	485.9
75°	3471.3	3537.2	4046.1	5268.3	6666.3	6663.2	5055.1	2034.8	678.7	357.7	251.1
77.5°	1861.5	1965.8	2626.8	3889.6	5204.1	5282.4	3554.0	711.9	291.4	229.0	173.8
80°	607.1	698.2	1047.0	1980.4	3381.6	3367.0	1523.2	279.4	199.4	162.3	120.3
82.5°	257.8	268.4	467.8	935.2	1735.5	1708.5	485.0	160.5	140.2	111.0	74.3
85°	100.8	112.7	206.5	432.4	751.7	735.3	175.1	79.6	89.8	72.5	44.2
87.5°	33.2	40.2	73.8	148.1	233.9	225.5	42.9	27.4	38.9	33.2	15.9
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°	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9	1089.9
2.5°	1099.2	1106.3	1114.7	1127.0	1137.7	1146.5	1155.8	1161.5	1163.7	1170.4	1169.9
5°	1107.2	1122.6	1143.4	1163.7	1183.6	1195.6	1206.2	1211.5	1216.4	1219.9	1220.8
7.5°	1120.4	1140.3	1173.0	1199.6	1216.4	1226.1	1233.2	1231.4	1233.2	1234.0	1235.4
10°	1131.9	1159.8	1198.7	1223.9	1236.7	1237.1	1235.4	1229.2	1226.1	1226.5	1227.4
12.5°	1145.6	1176.6	1218.6	1239.8	1243.3	1233.6	1226.1	1215.5	1211.5	1209.7	1208.8
15°	1164.2	1199.6	1240.2	1248.2	1239.4	1227.0	1214.2	1196.9	1188.1	1181.0	1183.2
17.5°	1186.7	1225.6	1257.0	1251.3	1232.3	1211.9	1191.2	1165.1	1146.9	1139.4	1139.9
20°	1218.1	1253.1	1269.9	1244.7	1215.9	1185.0	1149.6	1117.8	1101.0	1093.4	1092.6
22.5°	1256.2	1289.8	1282.2	1233.2	1192.5	1143.0	1098.8	1075.3	1066.9	1061.6	1062.5
25°	1301.7	1330.4	1291.1	1216.4	1154.0	1087.3	1053.2	1045.7	1041.7	1037.7	1037.7
27.5°	1360.9	1376.4	1297.7	1191.6	1093.9	1028.0	1015.6	1017.0	1015.6	1009.0	1010.3
30°	1439.2	1436.1	1303.9	1151.4	1024.9	974.5	975.4	981.1	982.0	977.6	979.8
32.5°	1542.2	1510.8	1307.0	1099.2	959.0	927.6	928.5	934.7	939.1	931.6	935.2
35°	1666.9	1597.9	1302.1	1033.8	908.2	883.0	876.3	878.1	879.4	872.4	877.2
37.5°	1812.4	1695.7	1280.5	961.2	866.2	839.2	825.1	813.1	806.0	799.4	803.8
40°	1972.0	1802.2	1240.7	890.5	819.3	792.8	771.6	749.0	725.1	716.3	720.3
42.5°	2139.1	1911.9	1192.5	822.8	765.4	743.7	721.2	688.4	652.6	634.5	636.7
45°	2312.5	2024.2	1145.2	756.1	710.1	700.8	674.7	635.4	596.5	573.5	571.7
47.5°	2482.2	2130.3	1075.8	688.9	658.4	668.5	648.2	611.9	568.6	532.4	528.4
50°	2644.5	2229.8	962.1	620.8	616.4	658.8	639.4	587.2	537.7	491.2	487.3
52.5°	2805.5	2310.2	816.7	558.9	593.8	656.2	627.9	570.4	509.8	461.2	455.9
55°	2942.1	2351.8	676.5	505.8	561.1	633.6	614.2	550.5	470.5	418.7	414.3
57.5°	3019.9	2318.2	559.8	453.6	516.0	596.5	590.7	508.0	423.6	383.8	378.5
60°	2986.3	2182.0	464.3	408.1	473.1	556.2	550.0	466.0	387.8	350.2	344.9
62.5°	2801.0	1922.5	388.7	368.3	434.2	515.1	509.4	433.8	360.4	324.1	318.4
65°	2427.9	1563.9	329.8	335.2	394.8	465.6	474.0	406.8	338.7	303.3	297.6
67.5°	1851.7	1132.8	283.9	306.4	356.4	417.0	441.3	387.3	320.6	287.0	281.7
70°	1055.4	643.3	245.0	278.6	322.3	371.9	416.1	371.9	301.1	273.3	269.7
72.5°	400.1	295.4	211.8	250.7	289.6	333.8	388.2	347.5	278.6	257.8	254.2
75°	213.6	180.0	178.2	218.0	252.0	296.7	353.3	323.7	261.8	272.4	281.2
77.5°	145.5	127.3	149.0	186.6	210.9	255.6	316.1	287.4	226.8	225.9	208.3
80°	100.8	90.2	121.1	150.3	163.2	214.9	275.9	246.7	184.8	172.4	164.9
82.5°	60.6	58.8	90.6	112.3	115.4	165.8	228.6	206.9	151.2	131.8	132.6
85°	33.2	34.9	57.9	65.9	67.2	115.8	179.1	160.1	116.3	97.7	98.6
87.5°	9.3	11.9	21.2	26.1	32.3	60.1	106.6	95.1	58.4	40.7	40.7
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)