

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: P882281

Luminaire Tested: **NAV-SB2A-827-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882281
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-SB2A-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7342 lumens
Efficiency: N/A
Efficacy: 128.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

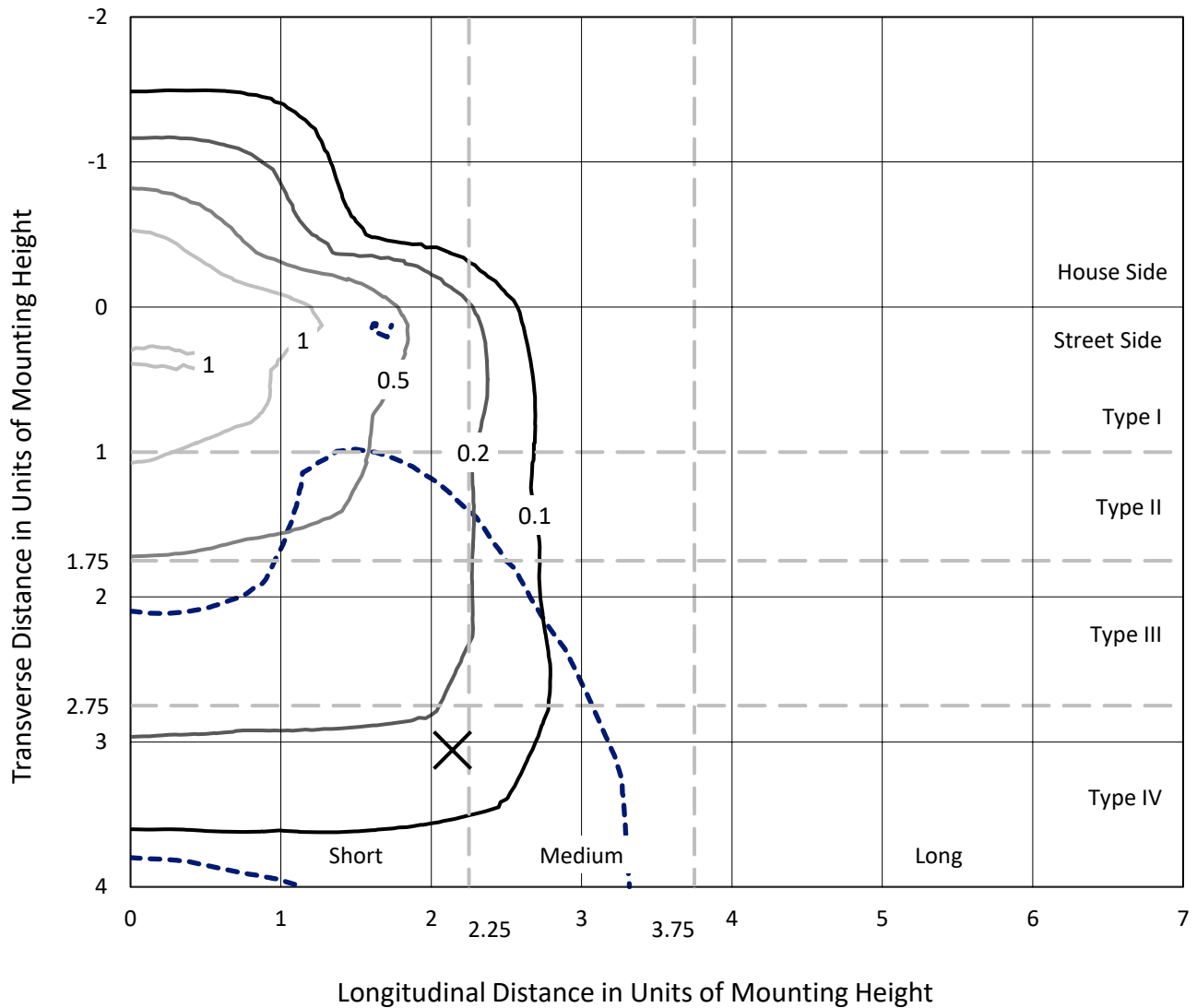
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

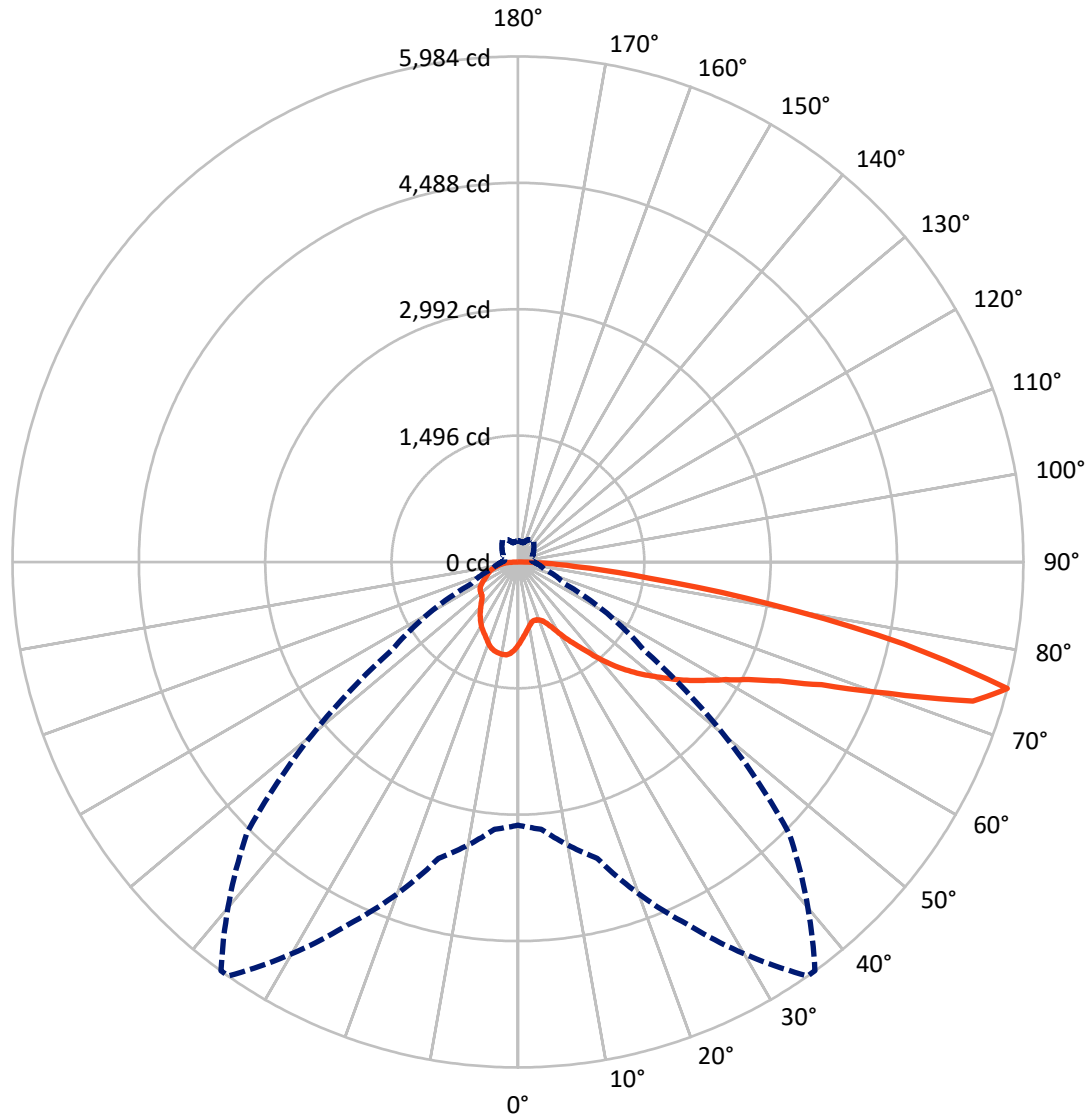
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 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	1747.2	0.0	1747.2
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	5594.8	0.0	5594.8
	% Fixture	76.2	0.0	76.2
Total	Lumens	7342.0	0.0	7342.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.6	1.3
10°-20°	267.2	3.6
20°-30°	448.7	6.1
30°-40°	697.3	9.5
40°-50°	1035.0	14.1
50°-60°	1428.9	19.5
60°-70°	1733.6	23.6
70°-80°	1432.7	19.5
80°-90°	206.1	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°	7342.0	100.0
0°-180°	7342.0	100.0

Coefficient of Utilization



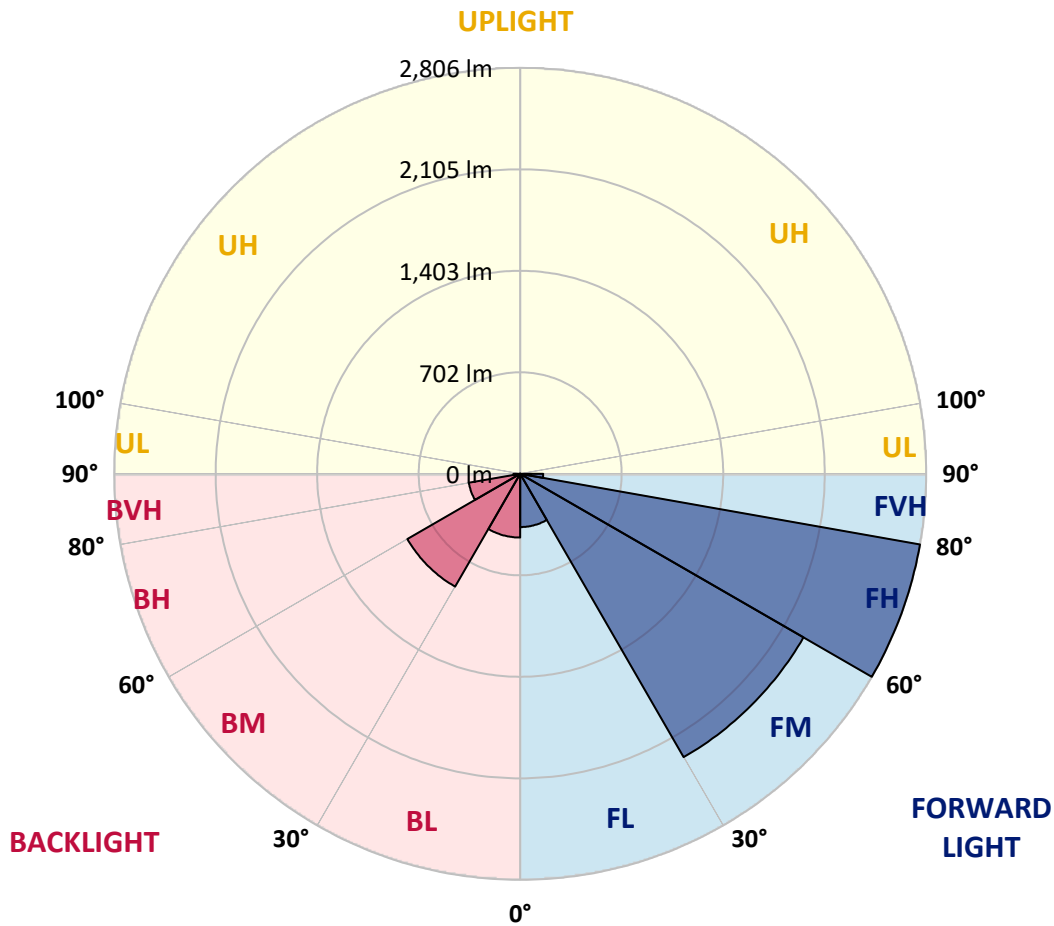
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	368.2	5.0			
FM (30°-60°)	2260.9	30.8			
FH (60°-80°)	2806.0	38.2			G2/5000
FVH (80°-90°)	159.7	2.2			G2/225
BL (0°-30°)	440.3	6.0	B1/500		
BM (30°-60°)	900.3	12.3	B1/1000		
BH (60°-80°)	360.2	4.9	B1/500		G1/500
BVH (80°-90°)	46.4	0.6			G1/100
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°	35°	36°	45°	55°	65°	75°	85°
0°	978.4	978.4	978.4	978.4	978.4	978.4	978.4	978.4	978.4	978.4	978.4
2.5°	902.2	907.7	910.1	908.9	914.9	914.1	922.4	932.7	947.0	960.9	981.1
5°	832.7	838.7	843.8	848.6	860.1	863.7	876.8	896.6	922.8	949.4	982.7
7.5°	768.0	773.2	781.1	789.8	809.3	812.9	834.7	865.7	902.2	941.1	987.1
10°	715.2	720.4	728.7	738.6	762.9	767.2	795.0	836.3	883.9	933.1	991.9
12.5°	692.6	694.2	698.9	708.9	729.9	732.7	763.2	810.5	866.0	927.2	999.0
15°	691.4	694.6	695.0	700.1	717.6	718.8	747.0	793.8	854.9	926.0	1009.7
17.5°	703.3	705.7	702.1	705.3	720.0	722.0	744.2	785.9	851.4	931.1	1028.0
20°	735.1	737.1	726.3	722.0	732.7	734.3	756.1	791.0	854.9	941.9	1053.0
22.5°	802.5	803.7	777.5	759.7	760.5	761.3	780.3	812.1	868.8	961.3	1084.7
25°	907.7	906.9	865.3	830.7	810.9	806.5	819.2	846.2	892.2	987.1	1125.6
27.5°	1030.8	1024.8	983.1	931.5	888.3	881.9	879.1	890.7	925.6	1021.2	1175.6
30°	1169.7	1164.1	1119.3	1051.8	991.9	981.5	955.4	949.4	975.2	1067.7	1245.1
32.5°	1322.1	1318.5	1264.9	1183.2	1103.0	1091.1	1047.0	1031.2	1051.4	1137.9	1341.9
35°	1449.9	1446.7	1402.3	1318.1	1220.1	1205.4	1160.6	1142.7	1153.0	1228.0	1468.5
37.5°	1565.4	1563.8	1525.7	1459.4	1358.2	1340.3	1289.9	1284.0	1282.0	1346.7	1622.2
40°	1672.6	1668.6	1628.9	1594.0	1519.0	1502.7	1458.2	1453.1	1438.0	1492.8	1796.0
42.5°	1791.2	1780.9	1723.4	1707.1	1686.8	1673.4	1646.8	1647.6	1614.2	1657.5	1980.2
45°	1888.1	1882.1	1823.0	1813.5	1835.3	1829.7	1852.8	1858.7	1794.0	1830.1	2171.5
47.5°	1992.1	1986.5	1936.5	1929.8	1988.9	1990.5	2071.8	2073.8	1969.4	2009.5	2363.2
50°	2120.3	2112.3	2062.7	2071.1	2137.3	2143.3	2292.1	2278.6	2131.0	2191.7	2553.3
52.5°	2204.8	2209.6	2198.9	2212.3	2302.8	2308.4	2508.8	2474.3	2290.9	2371.5	2739.8
55°	2267.1	2276.6	2310.0	2340.9	2477.5	2483.0	2713.2	2660.5	2423.5	2538.2	2915.3
57.5°	2347.3	2333.8	2396.1	2456.4	2643.4	2658.1	2912.1	2839.9	2541.0	2681.9	3035.5
60°	2462.4	2452.9	2501.3	2590.6	2829.1	2852.6	3122.5	3001.4	2627.1	2795.8	3058.9
62.5°	2695.8	2672.0	2679.5	2758.5	3063.3	3094.3	3359.8	3142.3	2670.0	2840.3	2933.5
65°	3044.7	3003.8	2965.7	3020.4	3393.1	3423.7	3627.7	3253.0	2654.1	2754.1	2600.5
67.5°	3484.0	3443.5	3396.7	3448.3	3879.0	3903.2	3958.3	3315.3	2529.1	2422.3	2011.9
70°	3846.4	3831.3	3887.3	4099.6	4654.9	4655.7	4382.2	3263.8	2186.6	1717.4	1164.1
72.5°	3798.4	3789.3	4084.2	4740.6	5632.9	5611.8	4783.5	2873.2	1472.9	774.8	436.2
75°	3116.1	3175.2	3632.1	4729.1	5984.1	5981.4	4537.8	1826.6	609.2	321.1	225.4
77.5°	1671.0	1764.6	2358.0	3491.6	4671.6	4741.8	3190.3	639.0	261.6	205.6	156.0
80°	545.0	626.7	939.9	1777.7	3035.5	3022.4	1367.3	250.8	179.0	145.7	108.0
82.5°	231.4	240.9	419.9	839.5	1557.9	1533.6	435.4	144.1	125.8	99.6	66.7
85°	90.5	101.2	185.4	388.2	674.7	660.1	157.2	71.4	80.6	65.1	39.7
87.5°	29.8	36.1	66.3	133.0	210.0	202.4	38.5	24.6	34.9	29.8	14.3
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°	978.4	978.4	978.4	978.4	978.4	978.4	978.4	978.4	978.4	978.4	978.4
2.5°	986.7	993.1	1000.6	1011.7	1021.2	1029.2	1037.5	1042.7	1044.7	1050.6	1050.2
5°	993.9	1007.7	1026.4	1044.7	1062.5	1073.2	1082.8	1087.5	1091.9	1095.1	1095.9
7.5°	1005.8	1023.6	1053.0	1076.8	1091.9	1100.6	1107.0	1105.4	1107.0	1107.8	1109.0
10°	1016.1	1041.1	1076.0	1098.6	1110.1	1110.5	1109.0	1103.4	1100.6	1101.0	1101.8
12.5°	1028.4	1056.2	1093.9	1112.9	1116.1	1107.4	1100.6	1091.1	1087.5	1085.9	1085.1
15°	1045.1	1076.8	1113.3	1120.5	1112.5	1101.4	1089.9	1074.4	1066.5	1060.1	1062.1
17.5°	1065.3	1100.2	1128.4	1123.2	1106.2	1087.9	1069.3	1045.8	1029.6	1022.8	1023.2
20°	1093.5	1124.8	1139.9	1117.3	1091.5	1063.7	1032.0	1003.4	988.3	981.5	980.8
22.5°	1127.6	1157.8	1151.0	1107.0	1070.5	1026.0	986.3	965.3	957.7	953.0	953.8
25°	1168.5	1194.3	1159.0	1091.9	1035.9	976.0	945.4	938.7	935.1	931.5	931.5
27.5°	1221.7	1235.6	1164.9	1069.7	981.9	922.8	911.7	912.9	911.7	905.7	906.9
30°	1291.9	1289.1	1170.5	1033.5	920.0	874.8	875.6	880.7	881.5	877.6	879.5
32.5°	1384.4	1356.2	1173.3	986.7	860.9	832.7	833.5	839.1	843.0	836.3	839.5
35°	1496.3	1434.4	1168.9	928.0	815.2	792.6	786.7	788.3	789.4	783.1	787.5
37.5°	1626.9	1522.1	1149.4	862.9	777.5	753.3	740.6	729.9	723.6	717.6	721.6
40°	1770.2	1617.8	1113.7	799.4	735.5	711.7	692.6	672.4	650.9	643.0	646.6
42.5°	1920.2	1716.2	1070.5	738.6	687.0	667.6	647.4	618.0	585.8	569.6	571.5
45°	2075.8	1817.0	1028.0	678.7	637.4	629.1	605.7	570.4	535.4	514.8	513.2
47.5°	2228.2	1912.3	965.7	618.4	591.0	600.1	581.9	549.3	510.4	477.9	474.3
50°	2373.9	2001.6	863.7	557.3	553.3	591.4	573.9	527.1	482.6	441.0	437.4
52.5°	2518.4	2073.8	733.1	501.7	533.0	589.0	563.6	512.0	457.6	414.0	409.2
55°	2641.0	2111.1	607.3	454.1	503.7	568.8	551.3	494.1	422.3	375.9	371.9
57.5°	2710.9	2081.0	502.5	407.2	463.2	535.4	530.3	456.0	380.2	344.5	339.8
60°	2680.7	1958.7	416.8	366.3	424.7	499.3	493.7	418.3	348.1	314.3	309.6
62.5°	2514.4	1725.7	348.9	330.6	389.8	462.4	457.2	389.4	323.5	290.9	285.8
65°	2179.4	1403.9	296.1	300.9	354.4	417.9	425.5	365.2	304.0	272.3	267.1
67.5°	1662.2	1016.9	254.8	275.1	319.9	374.3	396.1	347.7	287.8	257.6	252.8
70°	947.4	577.5	219.9	250.1	289.3	333.8	373.5	333.8	270.3	245.3	242.1
72.5°	359.2	265.1	190.1	225.0	260.0	299.7	348.5	312.0	250.1	231.4	228.2
75°	191.7	161.5	160.0	195.7	226.2	266.3	317.1	290.5	235.0	244.5	252.4
77.5°	130.6	114.3	133.8	167.5	189.3	229.4	283.8	258.0	203.6	202.8	186.9
80°	90.5	81.0	108.8	134.9	146.5	192.9	247.7	221.5	165.9	154.8	148.0
82.5°	54.4	52.8	81.4	100.8	103.6	148.8	205.2	185.8	135.7	118.3	119.1
85°	29.8	31.4	52.0	59.1	60.3	104.0	160.7	143.7	104.4	87.7	88.5
87.5°	8.3	10.7	19.1	23.4	29.0	54.0	95.7	85.3	52.4	36.5	36.5
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)