

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: P196995

Luminaire Tested: **NAV-AF-03-D-UNV-RW-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-03-D-UNV-RW-8030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9952 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

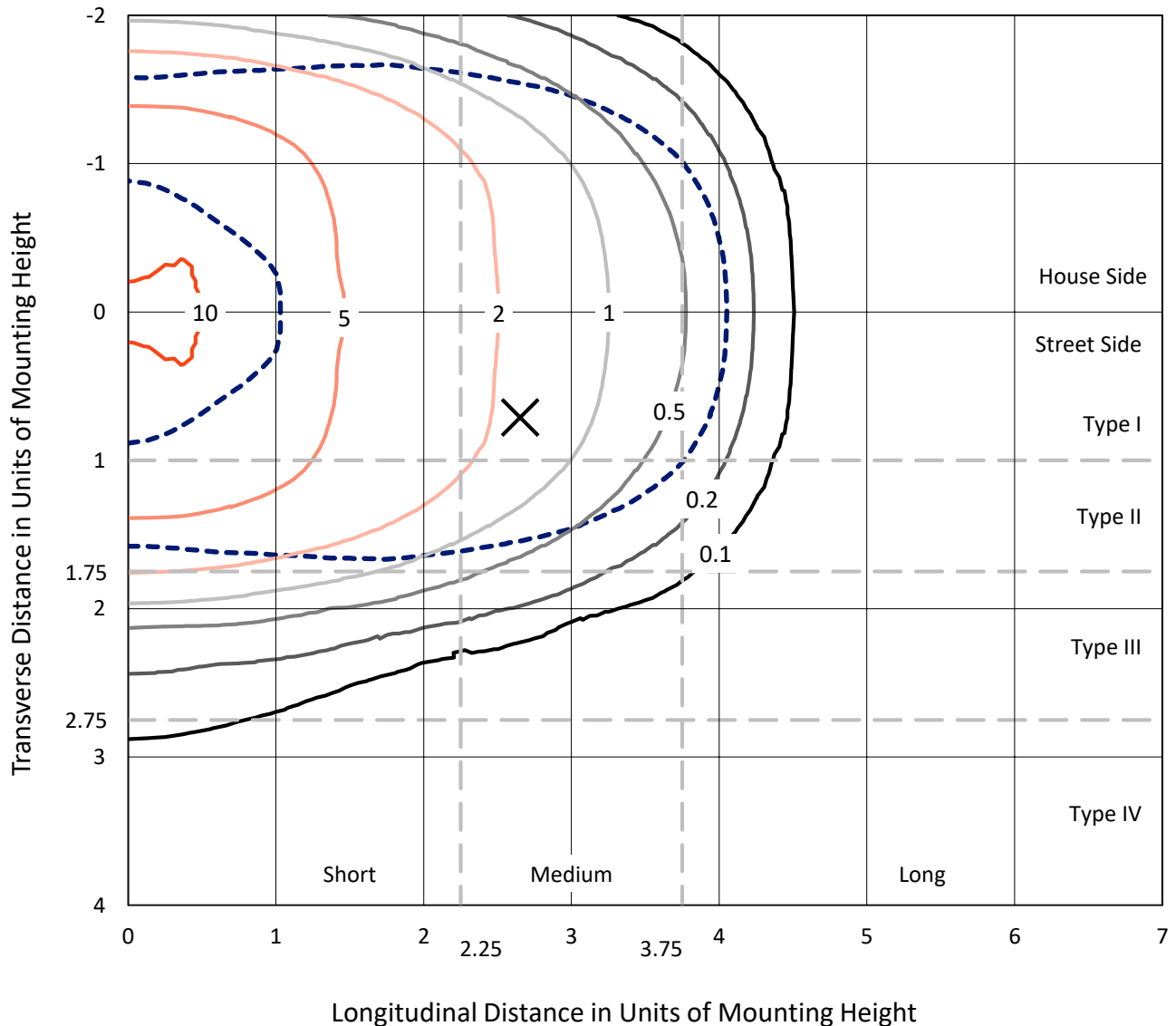
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196995
 CATALOG NUMBER: NAV-AF-03-D-UNV-RW-8030-600

Iso-Footcandle Lines of Horizontal Illumination

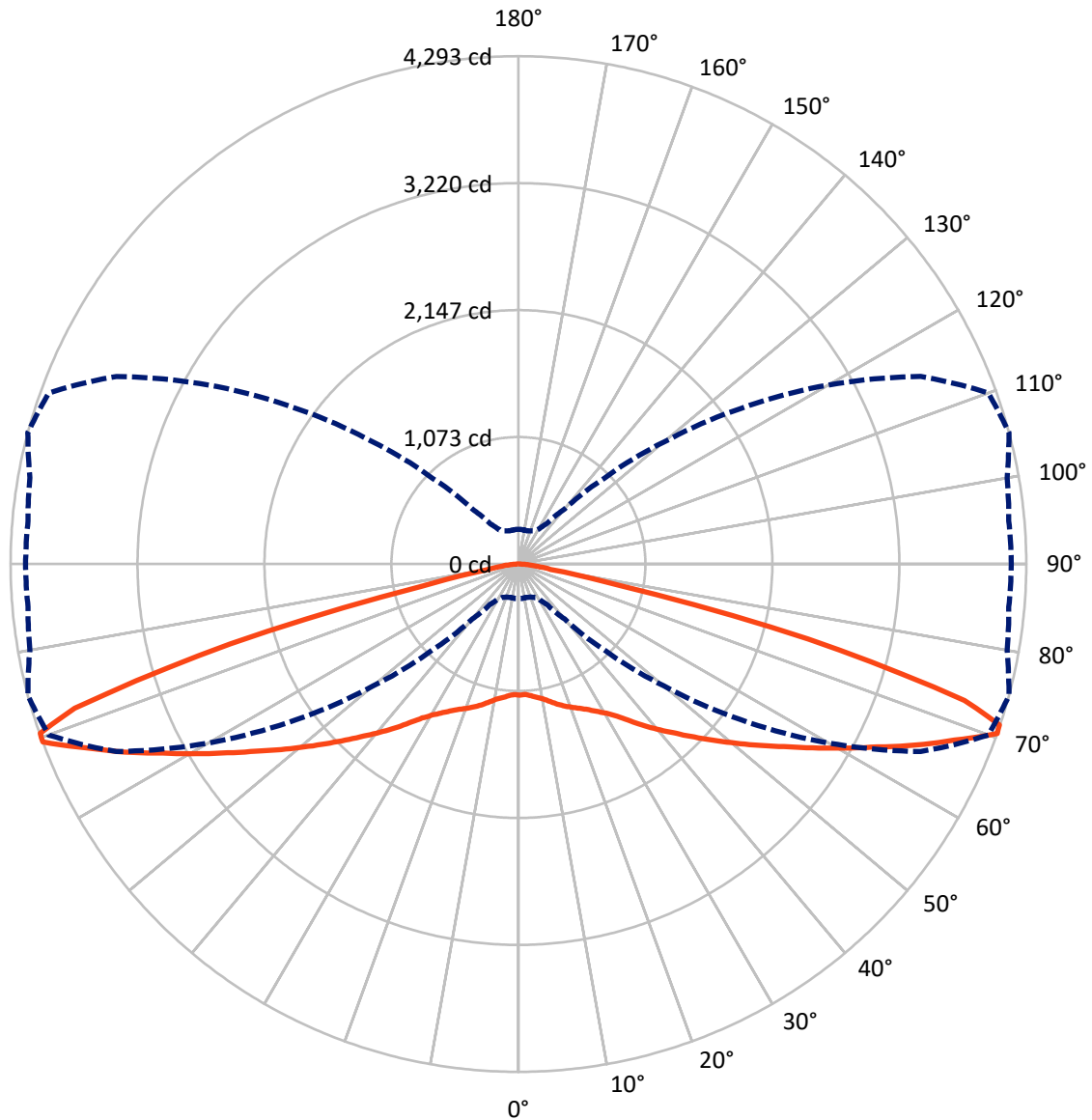
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.2 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P196995
CATALOG NUMBER: NAV-AF-03-D-UNV-RW-8030-600

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P196995

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-8030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4976.0	0.0	4976.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4976.0	0.0	4976.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	9952.0	0.0	9952.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.3	1.1
10°-20°	329.7	3.3
20°-30°	619.2	6.2
30°-40°	1090.7	11.0
40°-50°	1807.7	18.2
50°-60°	2514.7	25.3
60°-70°	2374.0	23.9
70°-80°	1013.9	10.2
80°-90°	95.8	1.0
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°	9952.0	100.0
0°-180°	9952.0	100.0



REPORT NUMBER: P196995

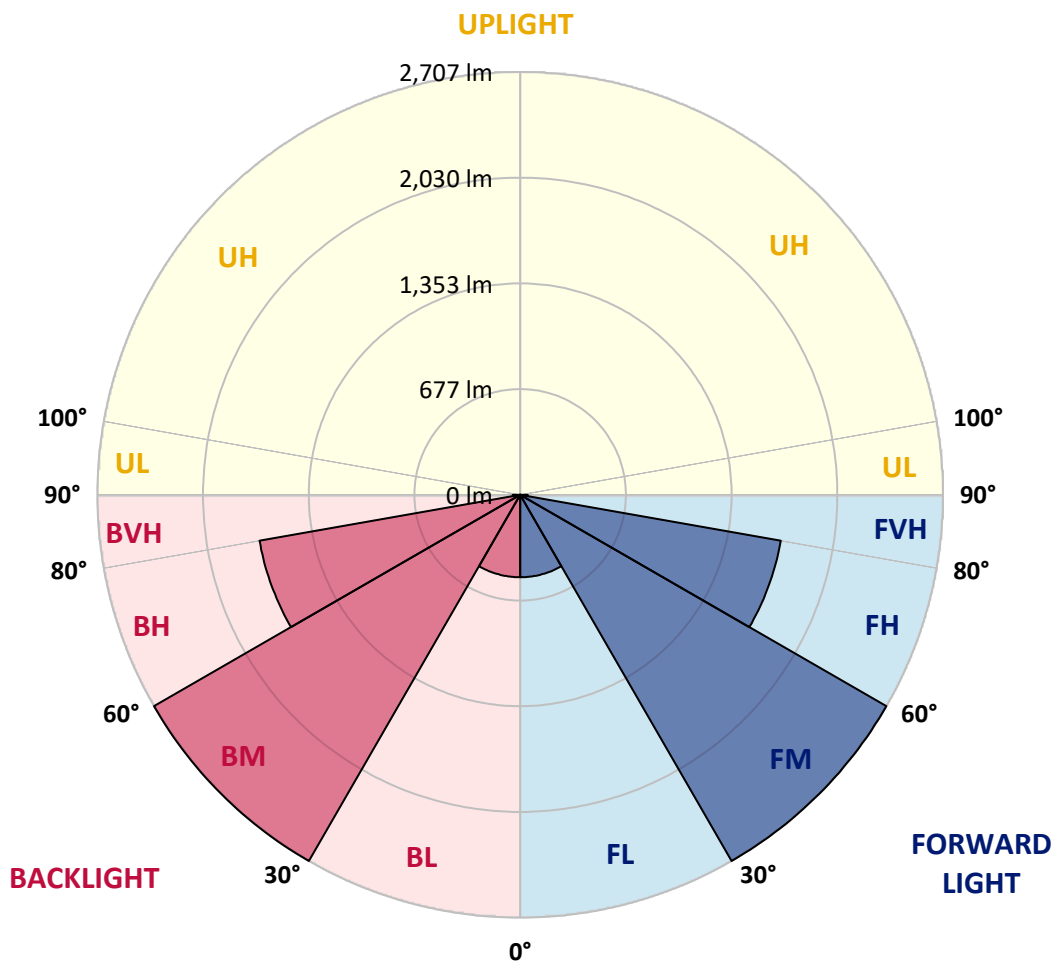
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	527.6	5.3			
FM (30°-60°)	2706.6	27.2			
FH (60°-80°)	1693.9	17.0			G1/1800
FVH (80°-90°)	47.9	0.5			G1/100
BL (0°-30°)	527.6	5.3	B2/1000		
BM (30°-60°)	2706.6	27.2	B3/5000		
BH (60°-80°)	1693.9	17.0	B3/2500		G3/2500
BVH (80°-90°)	47.9	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium





REPORT NUMBER: P196995

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-8030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1108.3	1108.3	1108.3	1108.3	1108.3	1108.3	1108.3	1108.3	1108.3	1108.3	1108.3
2.5°	1115.1	1114.5	1115.1	1113.2	1113.9	1113.2	1113.2	1110.7	1110.7	1109.5	1107.6
5°	1102.6	1103.9	1103.9	1103.9	1105.8	1105.8	1108.3	1108.9	1110.7	1112.6	1113.9
7.5°	1082.1	1082.7	1084.6	1085.8	1089.5	1094.5	1099.5	1105.1	1110.1	1116.4	1123.2
10°	1064.6	1065.8	1069.0	1072.1	1078.9	1085.2	1093.9	1102.6	1111.4	1122.0	1132.6
12.5°	1055.2	1057.1	1062.1	1067.1	1077.7	1085.8	1097.6	1111.4	1123.2	1133.2	1145.0
15°	1056.5	1057.1	1064.0	1070.8	1085.8	1097.0	1113.9	1130.1	1144.4	1155.7	1169.4
17.5°	1074.6	1075.8	1082.7	1092.7	1107.0	1121.3	1139.4	1156.3	1175.6	1188.7	1204.9
20°	1110.1	1112.0	1119.5	1130.1	1145.7	1160.6	1179.4	1196.8	1216.8	1232.4	1248.6
22.5°	1156.3	1159.4	1167.5	1180.6	1196.2	1214.3	1233.6	1251.7	1270.4	1286.0	1299.7
25°	1218.0	1221.8	1230.5	1243.6	1259.2	1278.5	1298.5	1317.2	1336.5	1348.4	1359.6
27.5°	1301.0	1307.2	1316.6	1327.2	1340.9	1361.5	1380.2	1395.8	1414.5	1427.6	1435.1
30°	1412.6	1421.3	1428.8	1440.0	1450.0	1471.8	1486.8	1499.3	1513.6	1521.1	1523.0
32.5°	1549.2	1557.3	1564.8	1572.9	1586.6	1606.6	1620.9	1627.8	1635.2	1634.0	1627.1
35°	1703.2	1709.5	1713.8	1728.2	1750.6	1763.7	1774.3	1776.8	1778.1	1765.0	1751.9
37.5°	1865.4	1872.9	1876.6	1899.1	1920.3	1935.2	1940.2	1945.8	1942.1	1920.3	1896.6
40°	2040.6	2048.7	2060.0	2079.3	2104.2	2118.6	2124.8	2124.2	2121.1	2095.5	2056.8
42.5°	2212.8	2222.7	2232.1	2265.8	2286.4	2310.7	2313.8	2313.2	2306.3	2277.0	2232.1
45°	2358.7	2370.5	2389.9	2427.3	2460.4	2489.7	2501.5	2505.9	2499.0	2467.8	2416.7
47.5°	2479.1	2487.2	2511.5	2557.0	2599.4	2642.5	2666.2	2683.0	2682.4	2659.9	2605.7
50°	2561.4	2570.7	2600.7	2651.8	2704.8	2755.4	2802.1	2840.2	2858.3	2842.0	2791.5
52.5°	2585.1	2596.9	2636.2	2697.4	2759.1	2827.1	2896.9	2964.3	3004.8	3014.8	2975.5
55°	2485.3	2498.4	2555.8	2640.6	2742.3	2842.7	2948.7	3044.7	3128.3	3167.0	3151.4
57.5°	2194.7	2204.0	2277.0	2386.8	2532.1	2708.6	2886.9	3062.8	3206.3	3306.7	3324.1
60°	1735.7	1747.5	1827.3	1943.3	2108.6	2331.9	2581.3	2869.5	3150.8	3380.9	3495.0
62.5°	1171.2	1179.4	1256.1	1362.1	1542.9	1758.1	2036.3	2401.1	2802.1	3213.1	3534.9
65°	614.9	614.9	666.7	740.9	885.0	1077.7	1362.7	1736.9	2214.0	2727.3	3265.5
67.5°	356.7	356.1	368.0	384.8	430.3	508.3	665.5	940.5	1392.0	1989.5	2601.9
70°	294.4	292.5	290.6	290.6	297.5	309.3	339.3	414.7	606.8	1025.9	1600.9
71°	281.3	280.0	275.0	273.2	276.3	282.5	295.6	330.5	431.0	699.8	1195.6
72.5°	265.7	262.6	255.1	252.0	252.6	255.1	258.8	272.5	303.1	397.9	681.7
75°	242.0	234.5	225.1	220.8	218.9	218.3	218.3	222.0	228.9	240.1	279.4
77.5°	214.5	203.9	194.0	189.6	186.5	184.6	183.4	180.9	179.6	184.6	198.9
80°	181.5	170.3	162.2	159.7	157.8	154.0	149.1	144.1	140.9	143.4	152.2
82.5°	140.3	129.1	130.3	131.0	127.9	121.6	116.6	111.0	105.4	104.2	108.5
85°	111.6	106.0	102.3	110.4	103.5	96.0	89.2	79.8	66.7	54.9	59.9
87.5°	48.0	48.6	69.9	105.4	92.3	74.2	61.7	49.9	31.8	23.7	24.3
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: P196995

CATALOG NUMBER: NAV-AF-03-D-UNV-RW-8030-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1108.3	1108.3	1108.3	1108.3	1108.3	1108.3	1108.3	1108.3
2.5°	1107.0	1107.0	1105.1	1103.9	1103.9	1103.9	1102.6	1103.3
5°	1114.5	1115.7	1117.0	1116.4	1118.2	1120.1	1119.5	1118.9
7.5°	1127.0	1130.7	1134.4	1136.3	1138.8	1141.3	1141.9	1140.1
10°	1139.4	1146.9	1152.5	1157.5	1160.6	1163.1	1165.0	1164.4
12.5°	1155.0	1165.6	1175.6	1185.6	1192.4	1196.2	1199.9	1198.7
15°	1180.6	1192.4	1204.9	1218.0	1228.6	1234.2	1239.8	1238.6
17.5°	1215.5	1226.1	1236.1	1249.2	1262.3	1268.5	1274.8	1274.1
20°	1259.2	1267.3	1272.9	1280.4	1292.9	1299.7	1305.3	1303.5
22.5°	1309.1	1311.6	1312.2	1314.7	1324.7	1332.8	1340.3	1342.1
25°	1363.3	1361.5	1357.7	1355.8	1362.7	1371.4	1380.8	1383.3
27.5°	1430.7	1424.5	1415.1	1407.6	1409.5	1420.7	1431.3	1433.8
30°	1515.5	1501.2	1481.2	1466.9	1464.4	1476.2	1487.4	1491.2
32.5°	1612.2	1592.8	1565.4	1543.6	1534.2	1544.8	1554.8	1560.4
35°	1726.9	1705.7	1672.7	1644.6	1629.6	1636.5	1654.0	1660.2
37.5°	1862.9	1833.6	1796.8	1761.2	1736.3	1737.5	1756.2	1763.7
40°	2013.2	1970.8	1924.0	1879.7	1843.6	1841.1	1857.9	1863.5
42.5°	2169.7	2115.5	2060.6	2002.6	1957.7	1949.6	1971.4	1972.0
45°	2338.1	2268.3	2200.3	2132.9	2086.2	2071.8	2093.0	2095.5
47.5°	2517.7	2430.4	2350.0	2277.0	2226.5	2204.0	2224.6	2228.4
50°	2704.8	2614.4	2520.9	2439.8	2380.5	2353.1	2377.4	2379.9
52.5°	2890.1	2804.6	2711.7	2618.8	2547.0	2515.9	2544.6	2553.3
55°	3076.5	2994.2	2906.9	2814.0	2723.5	2696.1	2727.3	2736.6
57.5°	3270.5	3191.3	3112.1	3018.5	2930.6	2888.8	2922.5	2935.6
60°	3484.4	3414.6	3339.7	3245.6	3158.9	3110.2	3138.9	3153.9
62.5°	3694.6	3680.2	3612.3	3514.4	3404.6	3355.9	3380.3	3390.9
65°	3712.1	3944.7	3941.6	3844.3	3690.8	3609.1	3616.0	3621.0
67.5°	3239.9	3773.8	4114.9	4145.5	3974.6	3846.8	3831.8	3834.9
70°	2293.8	3026.6	3750.7	4226.0	4293.3	4194.1	4161.7	4166.7
71°	1837.9	2596.9	3394.0	4033.2	4288.3	4259.6	4241.5	4254.6
72.5°	1173.1	1913.4	2689.2	3453.9	3943.4	4083.8	4104.3	4112.4
75°	426.0	823.2	1393.3	1996.4	2530.2	2897.5	3099.6	3115.8
77.5°	228.9	295.0	455.9	681.0	855.7	949.2	960.4	964.8
80°	168.4	195.2	223.3	255.1	275.0	278.8	271.9	257.6
82.5°	119.1	134.7	145.9	157.2	165.3	158.4	131.6	100.4
85°	69.2	76.1	82.3	87.9	89.2	84.2	55.5	45.5
87.5°	27.4	29.9	29.3	33.1	31.8	29.3	21.8	18.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)