

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: P270343

Luminaire Tested: **NAV-AF-02-D-UNV-RW-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270343
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-02-D-UNV-RW-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8737.2 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 85
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

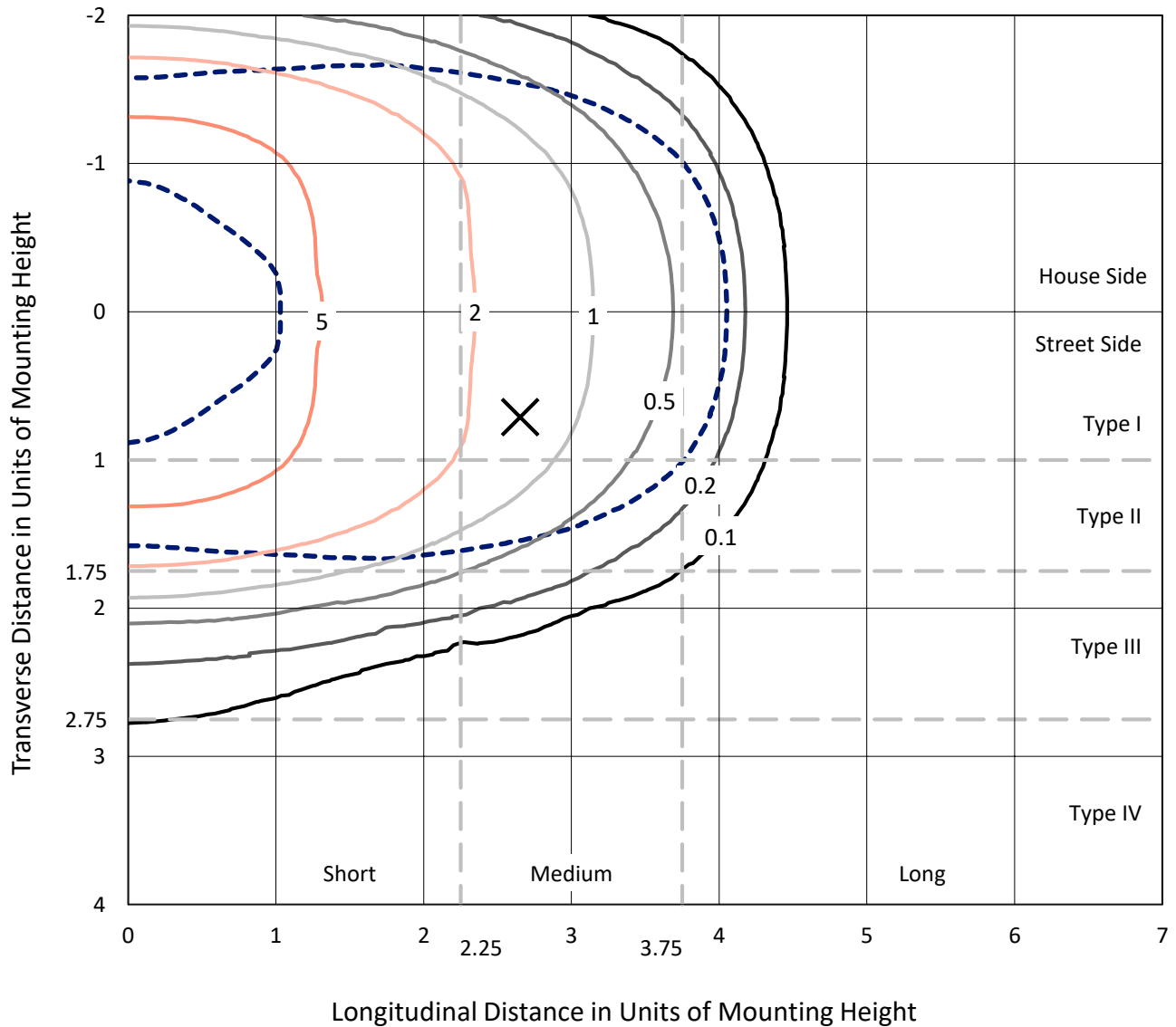


REPORT NUMBER: P270343

CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-800

Iso-Footcandle Lines of Horizontal Illumination

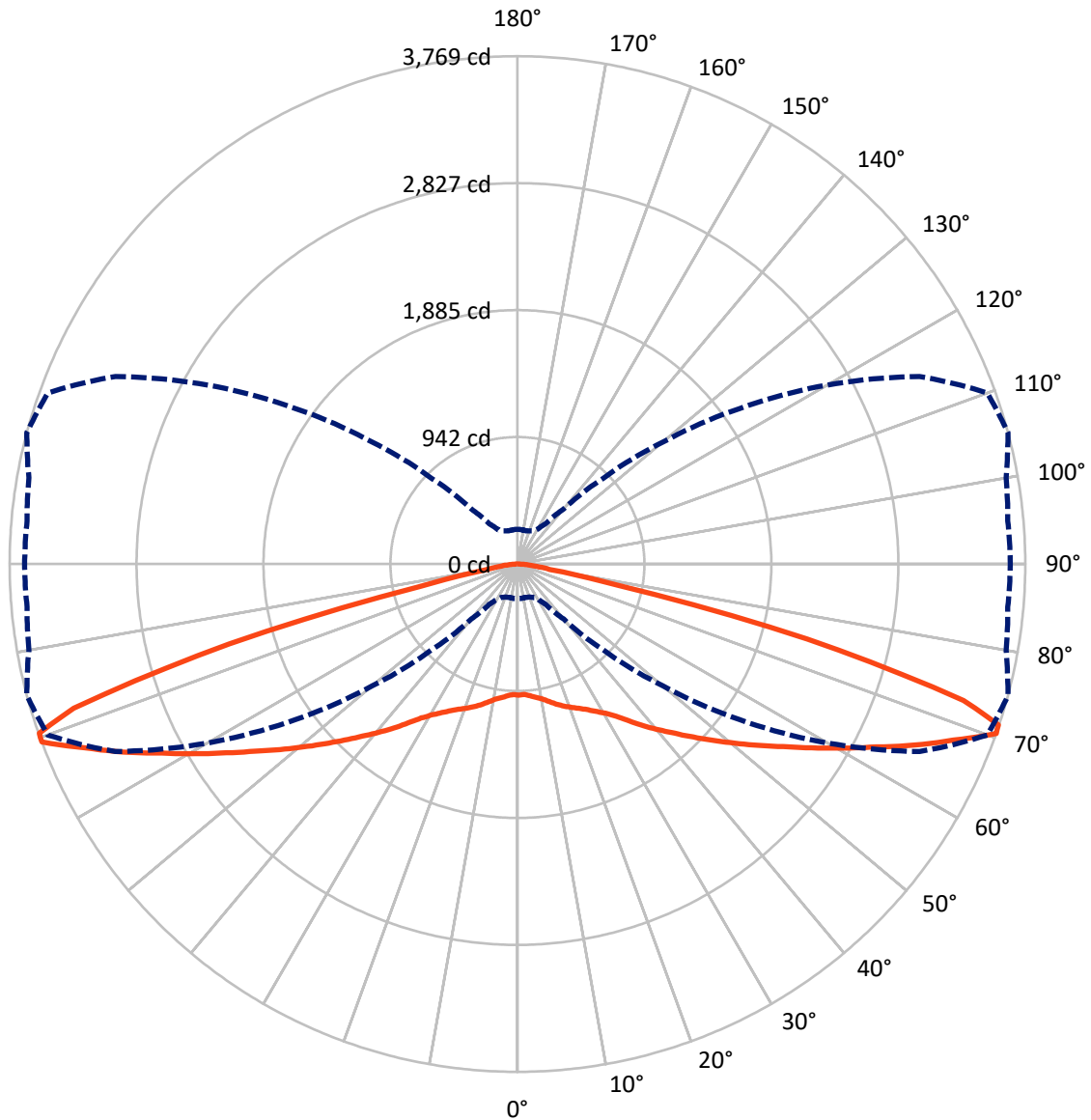
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.8 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P270343
CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-800

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270343

CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4368.6	0.0	4368.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4368.6	0.0	4368.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	8737.2	0.0	8737.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.3	1.1
10°-20°	289.4	3.3
20°-30°	543.6	6.2
30°-40°	957.6	11.0
40°-50°	1587.0	18.2
50°-60°	2207.8	25.3
60°-70°	2084.2	23.9
70°-80°	890.2	10.2
80°-90°	84.1	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°	8737.2	100.0
0°-180°	8737.2	100.0

Coefficient of Utilization



REPORT NUMBER: P270343

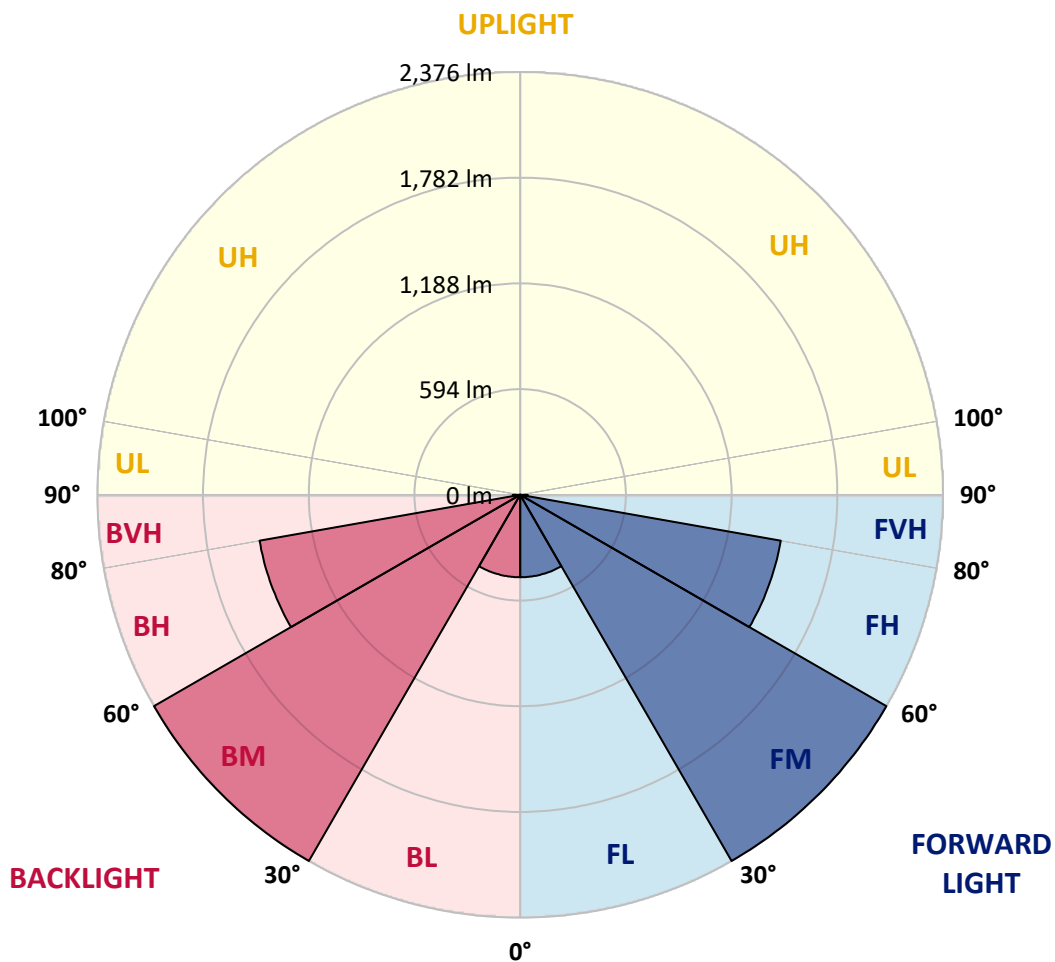
CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	463.2	5.3			
FM	(30°-60°)	2376.2	27.2			
FH	(60°-80°)	1487.2	17.0			G1/1800
FVH	(80°-90°)	42.1	0.5			G1/100
BL	(0°-30°)	463.2	5.3	B1/500		
BM	(30°-60°)	2376.2	27.2	B2/2500		
BH	(60°-80°)	1487.2	17.0	B3/2500		G3/2500
BVH	(80°-90°)	42.1	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: P270343

CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	973.0	973.0	973.0	973.0	973.0	973.0	973.0	973.0	973.0	973.0	973.0
2.5°	979.1	978.4	979.1	977.4	977.8	977.4	977.4	975.2	975.2	974.0	972.4
5°	968.1	969.1	969.1	969.1	970.8	970.8	973.0	973.6	975.2	976.7	977.8
7.5°	950.0	950.5	952.2	953.2	956.5	960.9	965.3	970.2	974.7	980.1	986.1
10°	934.6	935.8	938.5	941.2	947.3	952.7	960.4	968.1	975.6	985.0	994.3
12.5°	926.4	928.0	932.4	936.8	946.2	953.2	963.6	975.6	986.1	994.9	1005.3
15°	927.5	928.0	934.1	940.2	953.2	963.2	977.8	992.1	1004.8	1014.5	1026.7
17.5°	943.4	944.5	950.5	959.3	971.8	984.5	1000.4	1015.2	1032.2	1043.7	1057.8
20°	974.7	976.3	982.8	992.1	1005.8	1018.9	1035.3	1050.7	1068.3	1081.9	1096.1
22.5°	1015.2	1017.9	1025.0	1036.5	1050.2	1066.1	1083.0	1098.8	1115.3	1129.0	1141.0
25°	1069.3	1072.7	1080.3	1091.8	1105.5	1122.4	1139.9	1156.4	1173.4	1183.7	1193.6
27.5°	1142.1	1147.7	1155.8	1165.1	1177.1	1195.3	1211.8	1225.4	1241.7	1253.3	1259.9
30°	1240.2	1247.8	1254.5	1264.3	1273.0	1292.2	1305.2	1316.2	1328.9	1335.4	1337.0
32.5°	1360.0	1367.2	1373.8	1380.9	1392.9	1410.5	1423.0	1429.1	1435.6	1434.6	1428.6
35°	1495.3	1500.8	1504.7	1517.1	1536.9	1548.4	1557.8	1559.9	1561.1	1549.5	1538.0
37.5°	1637.7	1644.3	1647.5	1667.3	1685.8	1699.1	1703.4	1708.2	1705.1	1685.8	1665.1
40°	1791.5	1798.6	1808.5	1825.4	1847.4	1860.0	1865.4	1864.9	1862.1	1839.6	1805.8
42.5°	1942.7	1951.4	1959.7	1989.1	2007.3	2028.6	2031.3	2030.8	2024.8	1999.1	1959.7
45°	2070.8	2081.2	2098.1	2131.0	2160.1	2185.8	2196.1	2199.9	2194.0	2166.6	2121.6
47.5°	2176.5	2183.6	2204.9	2244.9	2282.1	2320.0	2340.8	2355.4	2354.9	2335.2	2287.7
50°	2248.6	2256.9	2283.2	2328.0	2374.7	2419.0	2460.1	2493.4	2509.3	2495.1	2450.8
52.5°	2269.5	2279.9	2314.5	2368.1	2422.3	2481.9	2543.3	2602.4	2638.1	2646.8	2612.4
55°	2182.0	2193.4	2243.7	2318.3	2407.5	2495.6	2588.7	2673.0	2746.4	2780.3	2766.7
57.5°	1926.8	1934.9	1999.1	2095.3	2222.9	2378.0	2534.6	2688.9	2814.8	2903.1	2918.4
60°	1523.7	1534.1	1604.3	1706.2	1851.1	2047.2	2266.2	2519.1	2766.2	2968.2	3068.4
62.5°	1028.3	1035.3	1102.7	1195.9	1354.6	1543.5	1787.6	2108.1	2460.1	2820.9	3103.5
65°	539.9	539.9	585.3	650.5	776.9	946.2	1196.4	1525.0	1943.8	2394.3	2866.9
67.5°	313.1	312.6	323.0	337.9	377.7	446.3	584.2	825.7	1222.1	1746.7	2284.3
70°	258.4	256.7	255.2	255.2	261.1	271.6	297.9	364.2	532.8	900.7	1405.5
71°	246.9	245.9	241.5	239.8	242.5	248.0	259.5	290.2	378.4	614.4	1049.6
72.5°	233.3	230.5	223.9	221.3	221.7	223.9	227.2	239.3	266.1	349.4	598.5
75°	212.4	205.9	197.6	193.9	192.1	191.7	191.7	194.9	201.0	210.8	245.2
77.5°	188.4	179.0	170.3	166.5	163.8	162.1	160.9	158.8	157.7	162.1	174.7
80°	159.3	149.5	142.3	140.1	138.5	135.3	130.9	126.5	123.7	125.9	133.6
82.5°	123.2	113.4	114.4	115.1	112.3	106.8	102.3	97.5	92.5	91.4	95.3
85°	98.1	93.1	89.8	96.8	90.9	84.4	78.3	70.1	58.6	48.1	52.6
87.5°	42.2	42.7	61.4	92.5	81.0	65.1	54.2	43.7	27.9	20.8	21.4
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: P270343

CATALOG NUMBER: NAV-AF-02-D-UNV-RW-7027-800

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	973.0	973.0	973.0	973.0	973.0	973.0	973.0	973.0
2.5°	971.8	971.8	970.2	969.1	969.1	969.1	968.1	968.6
5°	978.4	979.5	980.6	980.1	981.8	983.4	982.8	982.2
7.5°	989.5	992.6	996.0	997.6	999.9	1002.0	1002.5	1000.9
10°	1000.4	1006.9	1011.9	1016.3	1018.9	1021.2	1022.8	1022.2
12.5°	1014.0	1023.3	1032.2	1040.9	1046.9	1050.2	1053.4	1052.4
15°	1036.5	1046.9	1057.8	1069.3	1078.7	1083.5	1088.4	1087.4
17.5°	1067.1	1076.4	1085.2	1096.7	1108.1	1113.7	1119.2	1118.6
20°	1105.5	1112.6	1117.5	1124.0	1135.1	1141.0	1146.0	1144.4
22.5°	1149.3	1151.4	1151.9	1154.2	1162.9	1170.1	1176.6	1178.2
25°	1196.9	1195.3	1192.1	1190.3	1196.4	1204.0	1212.3	1214.4
27.5°	1256.0	1250.6	1242.4	1235.8	1237.4	1247.2	1256.5	1258.7
30°	1330.5	1318.0	1300.3	1287.8	1285.7	1296.1	1305.9	1309.2
32.5°	1415.4	1398.4	1374.2	1355.2	1346.9	1356.3	1365.1	1369.9
35°	1516.1	1497.6	1468.5	1443.8	1430.7	1436.7	1452.1	1457.5
37.5°	1635.5	1609.8	1577.5	1546.3	1524.3	1525.4	1541.9	1548.4
40°	1767.4	1730.2	1689.2	1650.2	1618.4	1616.3	1631.1	1636.1
42.5°	1904.9	1857.2	1809.0	1758.2	1718.6	1711.6	1730.8	1731.4
45°	2052.6	1991.5	1931.6	1872.5	1831.6	1818.9	1837.6	1839.6
47.5°	2210.4	2133.7	2063.0	1999.1	1954.7	1934.9	1953.1	1956.2
50°	2374.7	2295.3	2213.2	2142.0	2089.9	2065.8	2087.2	2089.4
52.5°	2537.3	2462.3	2380.7	2299.1	2236.2	2208.8	2233.9	2241.6
55°	2700.9	2628.7	2552.1	2470.5	2391.1	2366.9	2394.3	2402.5
57.5°	2871.3	2801.8	2732.1	2650.1	2572.8	2536.2	2565.7	2577.2
60°	3059.1	2997.7	2932.1	2849.3	2773.2	2730.6	2755.7	2768.8
62.5°	3243.6	3231.1	3171.2	3085.4	2989.0	2946.4	2967.6	2977.0
65°	3259.0	3463.1	3460.5	3375.0	3240.2	3168.6	3174.6	3179.0
67.5°	2844.5	3313.0	3612.7	3639.5	3489.5	3377.2	3364.1	3366.8
70°	2013.8	2657.1	3292.8	3710.1	3769.2	3682.2	3653.6	3658.1
71°	1613.5	2279.9	2979.7	3540.8	3764.8	3739.6	3723.7	3735.2
72.5°	1029.8	1679.8	2360.9	3032.3	3462.1	3585.2	3603.3	3610.5
75°	374.0	722.7	1223.2	1752.7	2221.4	2543.8	2721.2	2735.5
77.5°	201.0	259.0	400.3	597.9	751.3	833.4	843.1	847.0
80°	147.9	171.3	196.0	223.9	241.5	244.8	238.7	226.2
82.5°	104.7	118.2	128.1	138.0	145.0	139.1	115.5	88.2
85°	60.7	66.8	72.3	77.3	78.3	73.9	48.7	40.0
87.5°	24.1	26.3	25.7	29.0	27.9	25.7	19.1	16.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)