

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: P196520

Luminaire Tested: **NAV-AF-02-D-UNV-RW-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196520  
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-7030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9726.3 lumens  
Efficiency: N/A  
Efficacy: 114.4 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

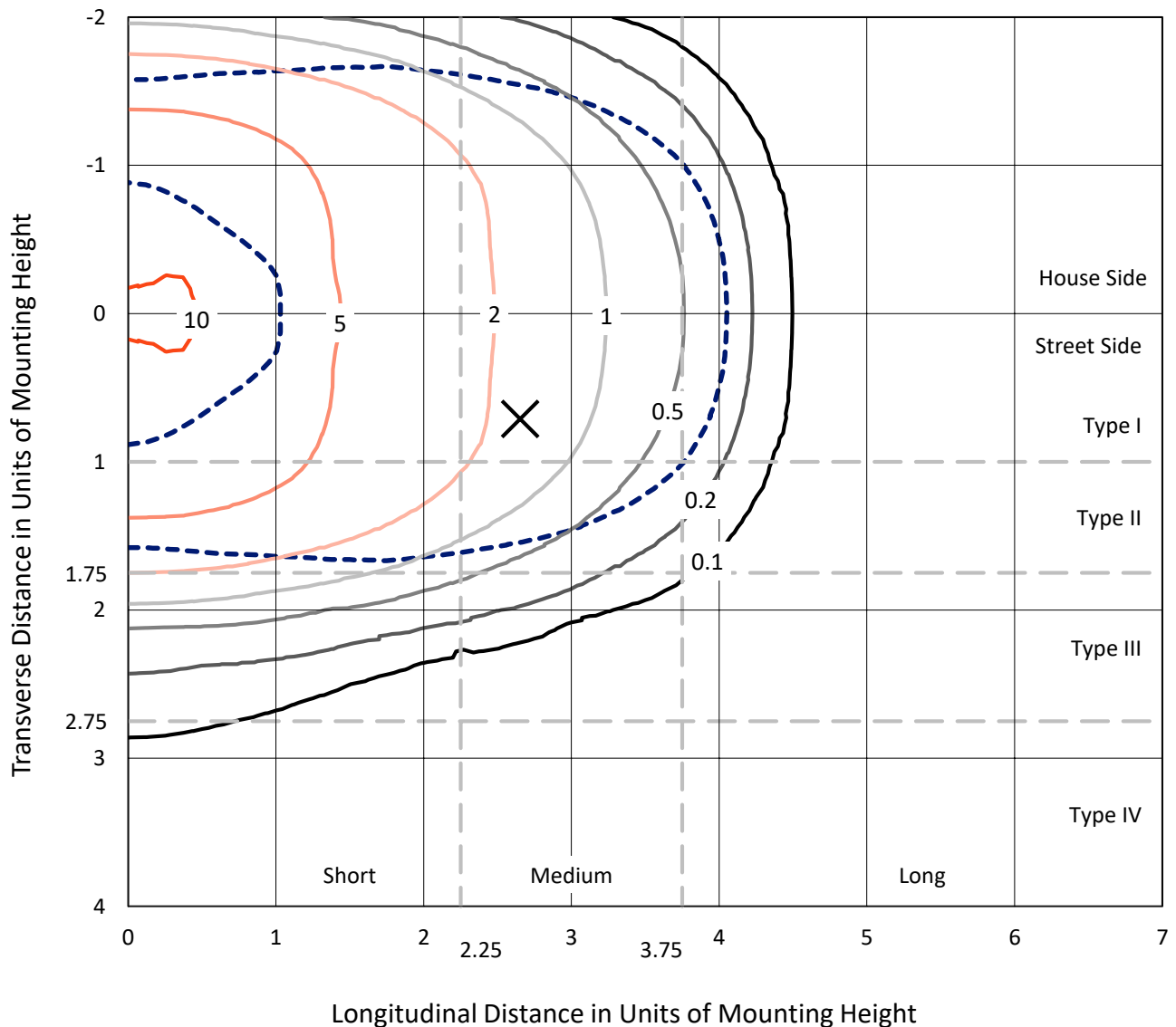
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

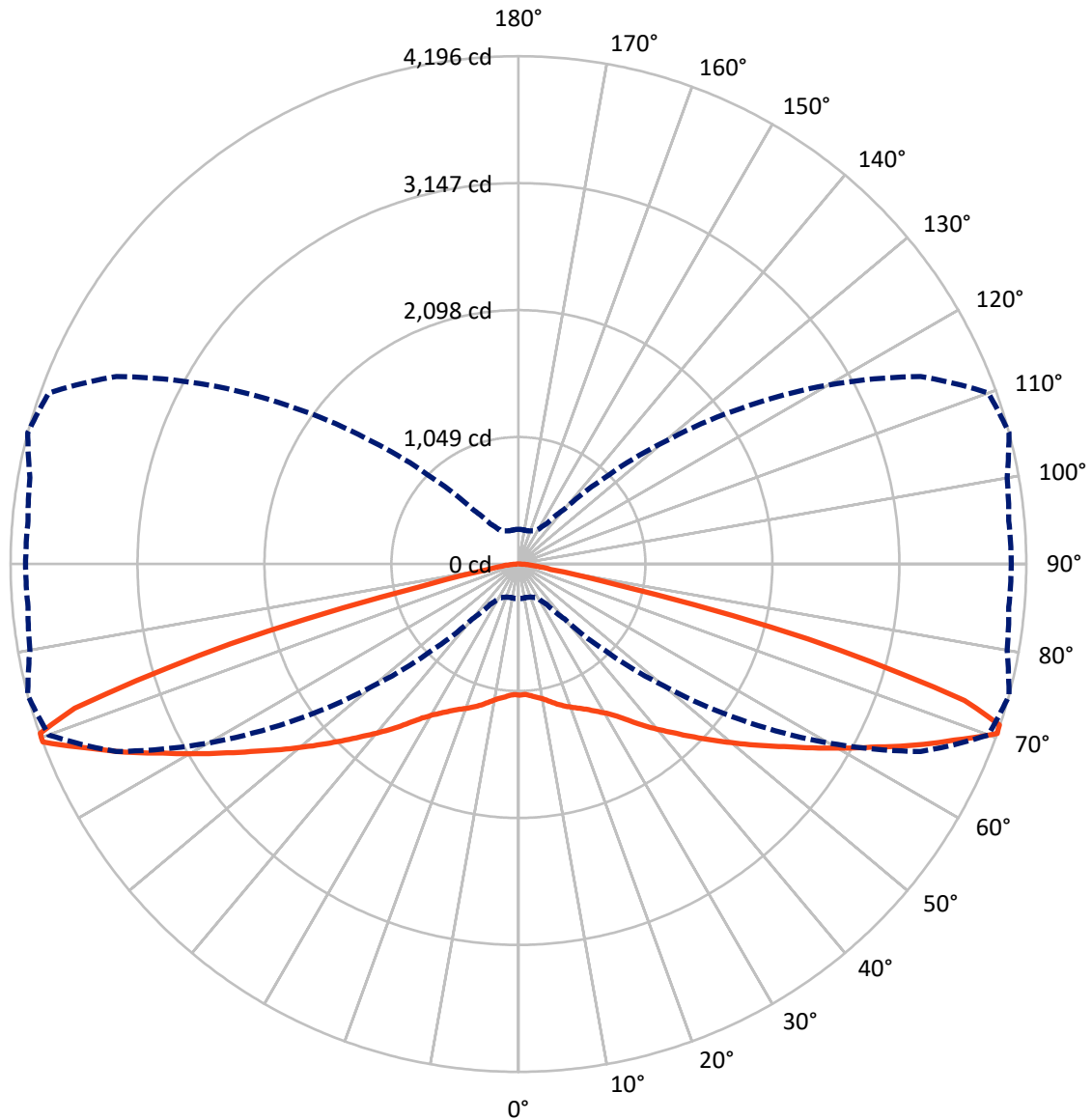
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.9 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4863.1	0.0	4863.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	4863.1	0.0	4863.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	9726.3	0.0	9726.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.9	1.1
10°-20°	322.2	3.3
20°-30°	605.1	6.2
30°-40°	1066.0	11.0
40°-50°	1766.7	18.2
50°-60°	2457.7	25.3
60°-70°	2320.1	23.9
70°-80°	990.9	10.2
80°-90°	93.6	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°	9726.3	100.0
0°-180°	9726.3	100.0



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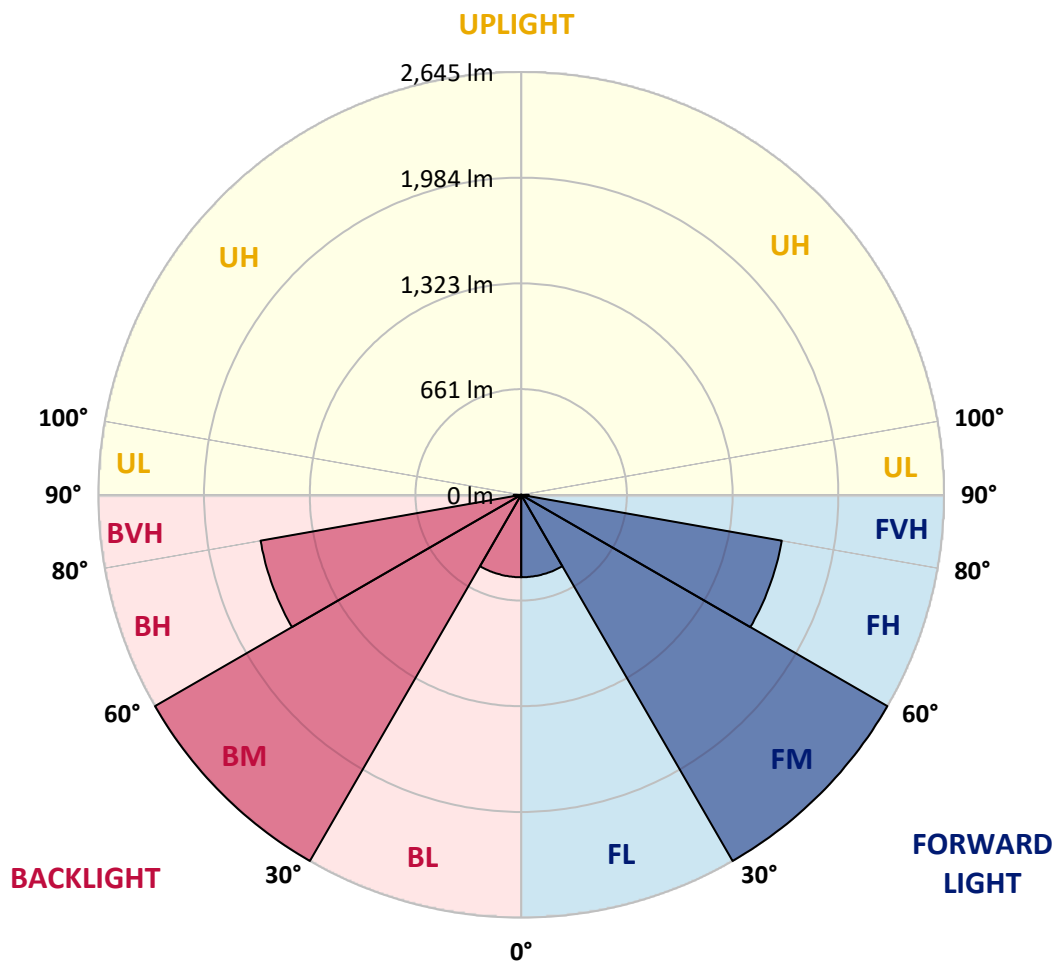
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	515.6	5.3			
FM	(30°-60°)	2645.2	27.2			
FH	(60°-80°)	1655.5	17.0			G1/1800
FVH	(80°-90°)	46.8	0.5			G1/100
BL	(0°-30°)	515.6	5.3	B2/1000		
BM	(30°-60°)	2645.2	27.2	B3/5000		
BH	(60°-80°)	1655.5	17.0	B3/2500		G3/2500
BVH	(80°-90°)	46.8	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1083.1	1083.1	1083.1	1083.1	1083.1	1083.1	1083.1	1083.1	1083.1	1083.1	1083.1
2.5°	1089.9	1089.2	1089.9	1088.0	1088.5	1088.0	1088.0	1085.6	1085.6	1084.3	1082.5
5°	1077.7	1078.8	1078.8	1078.8	1080.7	1080.7	1083.1	1083.8	1085.6	1087.3	1088.5
7.5°	1057.5	1058.1	1060.0	1061.1	1064.8	1069.7	1074.6	1080.0	1085.0	1091.1	1097.7
10°	1040.4	1041.7	1044.7	1047.8	1054.5	1060.6	1069.1	1077.7	1086.1	1096.5	1106.9
12.5°	1031.3	1033.1	1038.0	1042.9	1053.3	1061.1	1072.7	1086.1	1097.7	1107.5	1119.1
15°	1032.5	1033.1	1039.8	1046.6	1061.1	1072.2	1088.5	1104.4	1118.5	1129.4	1142.9
17.5°	1050.2	1051.4	1058.1	1067.9	1081.8	1095.9	1113.6	1130.1	1149.0	1161.8	1177.6
20°	1085.0	1086.8	1094.1	1104.4	1119.7	1134.3	1152.5	1169.6	1189.2	1204.4	1220.2
22.5°	1130.1	1133.1	1141.0	1153.8	1169.1	1186.8	1205.6	1223.2	1241.6	1256.8	1270.2
25°	1190.4	1194.1	1202.6	1215.4	1230.6	1249.5	1269.0	1287.3	1306.2	1317.7	1328.7
27.5°	1271.4	1277.6	1286.7	1297.0	1310.4	1330.6	1349.0	1364.1	1382.3	1395.2	1402.5
30°	1380.6	1389.1	1396.5	1407.4	1417.1	1438.5	1453.0	1465.2	1479.3	1486.6	1488.4
32.5°	1514.0	1522.0	1529.3	1537.2	1550.6	1570.2	1584.1	1590.9	1598.1	1597.0	1590.3
35°	1664.6	1670.7	1675.0	1688.9	1710.9	1723.7	1734.1	1736.5	1737.8	1724.9	1712.1
37.5°	1823.1	1830.4	1834.0	1856.0	1876.7	1891.4	1896.2	1901.6	1898.1	1876.7	1853.6
40°	1994.3	2002.2	2013.2	2032.1	2056.5	2070.6	2076.6	2076.0	2072.9	2047.9	2010.2
42.5°	2162.6	2172.3	2181.5	2214.3	2234.5	2258.3	2261.3	2260.7	2254.0	2225.4	2181.5
45°	2305.2	2316.8	2335.6	2372.2	2404.6	2433.2	2444.7	2449.0	2442.4	2411.9	2361.8
47.5°	2422.9	2430.8	2454.5	2499.0	2540.5	2582.6	2605.8	2622.1	2621.5	2599.6	2546.7
50°	2503.2	2512.4	2541.7	2591.6	2643.5	2692.8	2738.6	2775.7	2793.4	2777.6	2728.2
52.5°	2526.4	2538.0	2576.5	2636.2	2696.5	2762.9	2831.2	2897.0	2936.7	2946.4	2908.1
55°	2429.0	2441.7	2497.7	2580.7	2680.0	2778.1	2881.8	2975.6	3057.3	3095.1	3079.9
57.5°	2144.9	2154.0	2225.4	2332.5	2474.6	2647.2	2821.5	2993.3	3133.5	3231.7	3248.8
60°	1696.2	1707.8	1785.9	1899.3	2060.7	2279.0	2522.8	2804.3	3079.3	3304.2	3415.8
62.5°	1144.7	1152.5	1227.5	1331.3	1508.0	1718.2	1990.0	2346.7	2738.6	3140.2	3454.8
65°	601.0	601.0	651.6	724.1	864.9	1053.3	1331.8	1697.6	2163.8	2665.4	3191.5
67.5°	348.6	348.0	359.6	376.1	420.5	496.8	650.3	919.2	1360.5	1944.4	2542.9
70°	287.7	285.8	284.1	284.1	290.7	302.3	331.6	405.4	593.1	1002.7	1564.6
71°	274.9	273.7	268.8	266.9	270.0	276.1	288.9	323.1	421.2	683.9	1168.4
72.5°	259.7	256.6	249.3	246.3	246.8	249.3	252.9	266.4	296.2	388.9	666.2
75°	236.5	229.2	220.0	215.8	213.9	213.4	213.4	217.0	223.7	234.7	273.0
77.5°	209.7	199.3	189.6	185.3	182.3	180.4	179.1	176.8	175.6	180.4	194.5
80°	177.3	166.4	158.4	156.0	154.2	150.6	145.7	140.8	137.7	140.2	148.7
82.5°	137.1	126.2	127.4	128.1	125.0	118.9	113.9	108.5	103.0	101.8	106.1
85°	109.2	103.6	100.0	107.8	101.2	93.9	87.2	78.0	65.2	53.6	58.6
87.5°	47.0	47.5	68.3	103.0	90.2	72.5	60.3	48.7	31.1	23.2	23.8
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1083.1	1083.1	1083.1	1083.1	1083.1	1083.1	1083.1	1083.1
2.5°	1081.8	1081.8	1080.0	1078.8	1078.8	1078.8	1077.7	1078.3
5°	1089.2	1090.4	1091.6	1091.1	1092.9	1094.7	1094.1	1093.4
7.5°	1101.5	1105.0	1108.8	1110.5	1113.1	1115.4	1116.0	1114.2
10°	1113.6	1120.9	1126.4	1131.3	1134.3	1136.8	1138.6	1137.9
12.5°	1128.8	1139.1	1149.0	1158.7	1165.4	1169.1	1172.7	1171.5
15°	1153.8	1165.4	1177.6	1190.4	1200.8	1206.2	1211.6	1210.5
17.5°	1187.9	1198.3	1208.1	1220.9	1233.6	1239.8	1245.9	1245.2
20°	1230.6	1238.6	1244.0	1251.3	1263.6	1270.2	1275.7	1273.9
22.5°	1279.4	1281.8	1282.3	1284.9	1294.6	1302.6	1309.8	1311.6
25°	1332.4	1330.6	1327.0	1325.1	1331.8	1340.3	1349.5	1351.9
27.5°	1398.2	1392.2	1383.0	1375.7	1377.5	1388.4	1398.8	1401.2
30°	1481.1	1467.2	1447.5	1433.6	1431.2	1442.8	1453.7	1457.4
32.5°	1575.6	1556.7	1529.8	1508.6	1499.4	1509.8	1519.6	1525.0
35°	1687.7	1667.1	1634.7	1607.3	1592.7	1599.3	1616.5	1622.5
37.5°	1820.6	1792.0	1756.1	1721.3	1696.9	1698.1	1716.4	1723.7
40°	1967.5	1926.1	1880.4	1837.0	1801.6	1799.3	1815.8	1821.3
42.5°	2120.5	2067.5	2013.8	1957.2	1913.2	1905.4	1926.7	1927.4
45°	2285.0	2216.9	2150.3	2084.5	2038.9	2024.8	2045.6	2047.9
47.5°	2460.6	2375.3	2296.6	2225.4	2176.0	2154.0	2174.2	2177.7
50°	2643.5	2555.1	2463.7	2384.5	2326.5	2299.7	2323.5	2325.9
52.5°	2824.5	2741.0	2650.2	2559.4	2489.3	2458.8	2486.8	2495.4
55°	3006.7	2926.3	2841.0	2750.2	2661.8	2634.9	2665.4	2674.5
57.5°	3196.3	3119.0	3041.4	2950.1	2864.1	2823.3	2856.2	2869.0
60°	3405.4	3337.1	3264.0	3171.9	3087.2	3039.7	3067.7	3082.3
62.5°	3610.8	3596.9	3530.2	3434.7	3327.4	3279.9	3303.6	3314.0
65°	3627.9	3855.2	3852.2	3757.1	3607.0	3527.3	3534.0	3538.9
67.5°	3166.5	3688.1	4021.7	4051.5	3884.5	3759.5	3744.9	3747.9
70°	2241.8	2957.9	3665.6	4130.1	4195.9	4099.0	4067.2	4072.2
71°	1796.2	2538.0	3317.0	3941.7	4191.0	4163.0	4145.3	4158.1
72.5°	1146.4	1870.0	2628.2	3375.6	3854.0	3991.1	4011.2	4019.2
75°	416.3	804.5	1361.7	1951.1	2472.9	2831.8	3029.3	3045.2
77.5°	223.7	288.3	445.6	665.6	836.3	927.7	938.6	942.9
80°	164.6	190.7	218.2	249.3	268.8	272.5	265.7	251.8
82.5°	116.5	131.6	142.6	153.6	161.4	154.8	128.6	98.2
85°	67.6	74.4	80.5	86.0	87.2	82.3	54.2	44.5
87.5°	26.8	29.3	28.6	32.3	31.1	28.6	21.3	18.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)