

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: P196826

Luminaire Tested: **NAV-AF-02-D-UNV-T4FT-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196826
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24256)
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-T4FT-7030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7823 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 66
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

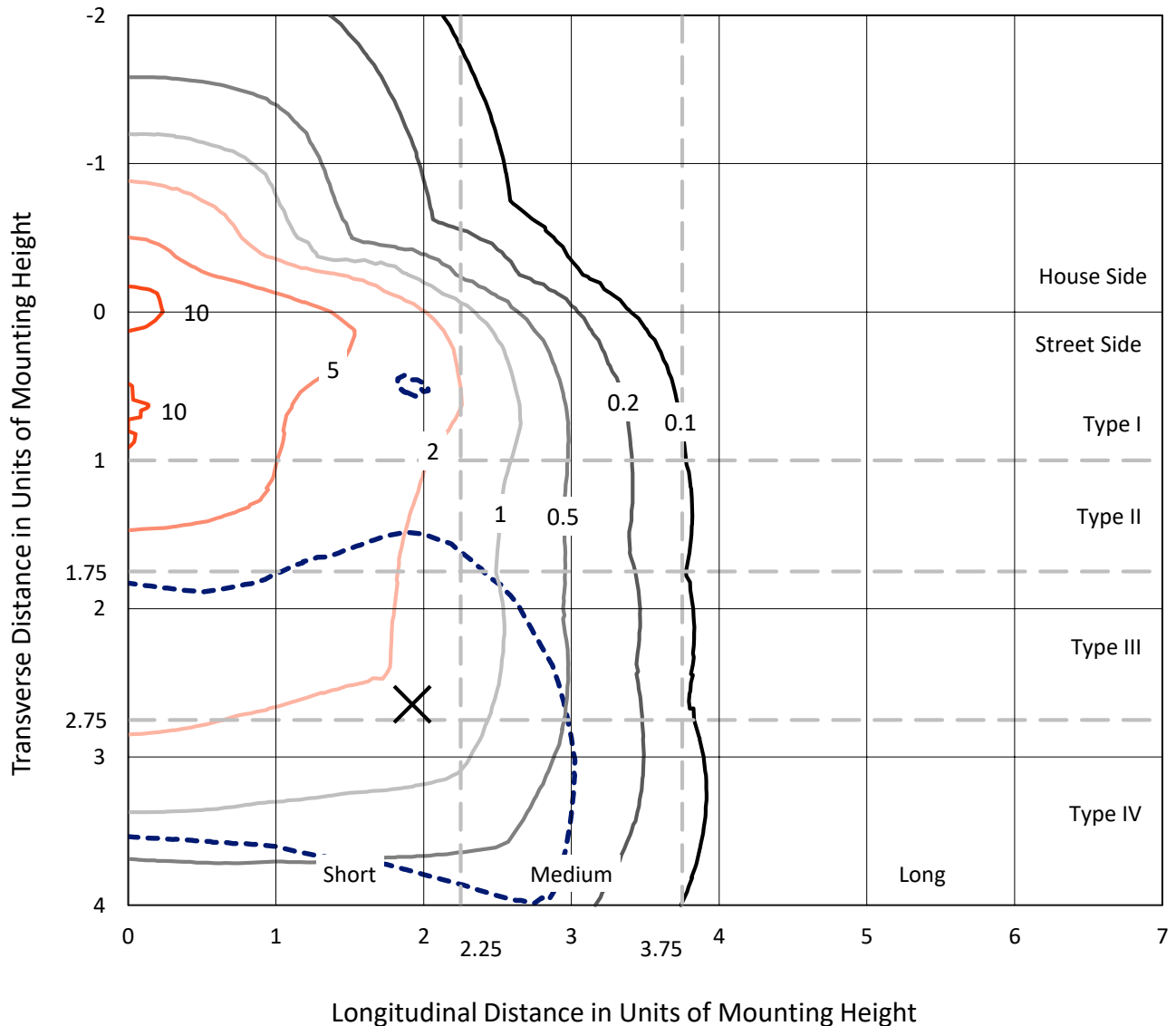


REPORT NUMBER: P196826

CATALOG NUMBER: NAV-AF-02-D-UNV-T4FT-7030-600

Iso-Footcandle Lines of Horizontal Illumination

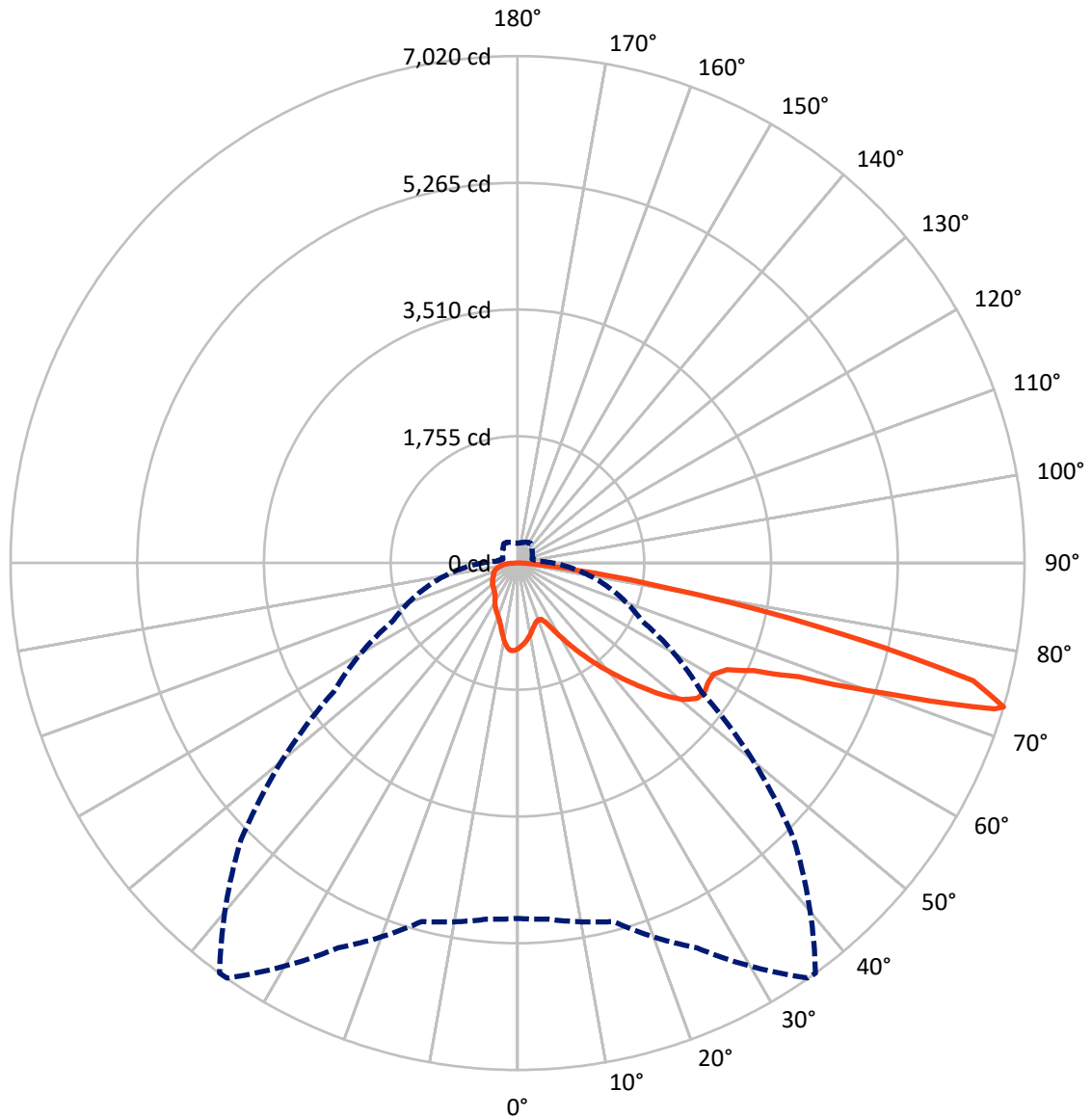
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P196826
CATALOG NUMBER: NAV-AF-02-D-UNV-T4FT-7030-600

Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

REPORT NUMBER: P196826

CATALOG NUMBER: NAV-AF-02-D-UNV-T4FT-7030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1508.5	0.0	1508.5
	% Fixture	19.3	0.0	19.3
Street Side	Lumens	6314.5	0.0	6314.5
	% Fixture	80.7	0.0	80.7
Total	Lumens	7823.0	0.0	7823.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.6	1.4
10°-20°	270.3	3.5
20°-30°	433.4	5.5
30°-40°	716.8	9.2
40°-50°	1109.2	14.2
50°-60°	1484.9	19.0
60°-70°	1939.8	24.8
70°-80°	1584.5	20.3
80°-90°	176.4	2.3
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°	7823.0	100.0
0°-180°	7823.0	100.0

Coefficient of Utilization



REPORT NUMBER: P196826

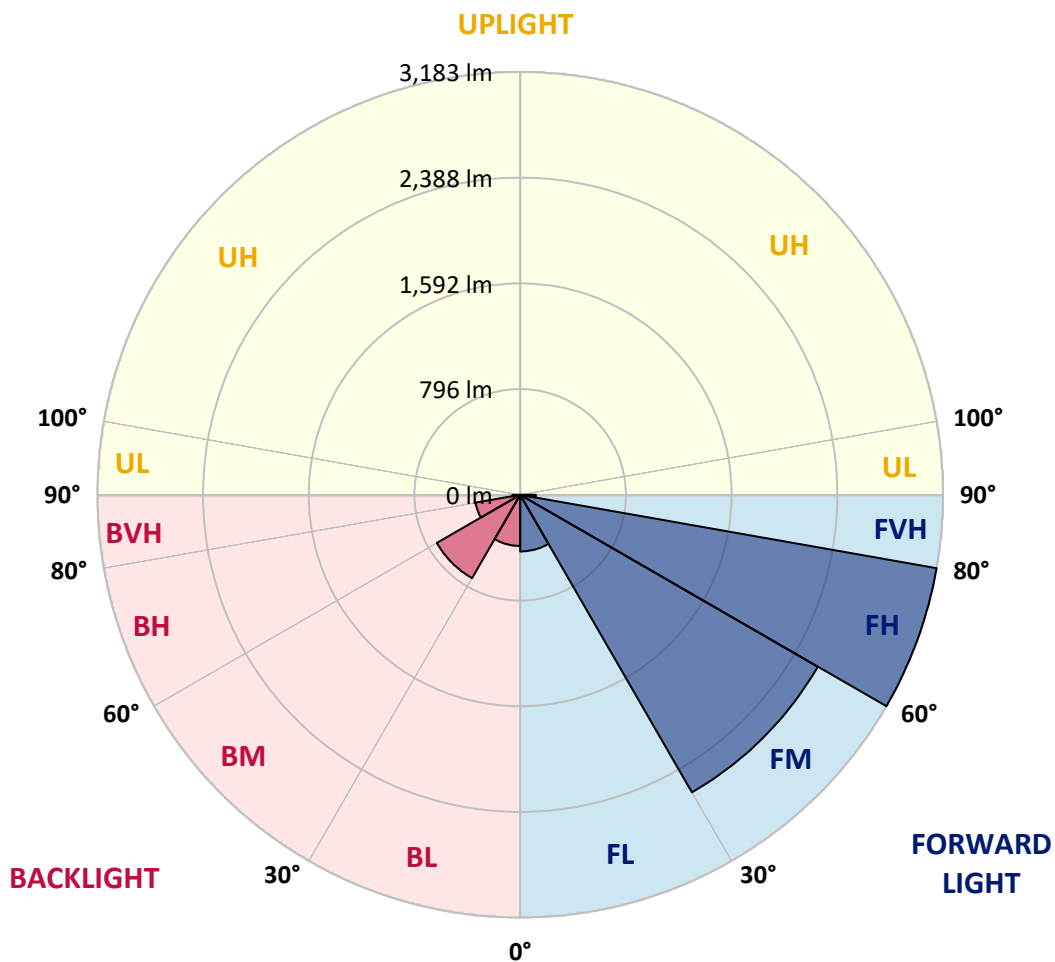
CATALOG NUMBER: NAV-AF-02-D-UNV-T4FT-7030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	426.3	5.4			
FM (30°-60°)	2586.5	33.1			
FH (60°-80°)	3183.4	40.7			G2/5000
FVH (80°-90°)	118.3	1.5			G2/225
BL (0°-30°)	385.1	4.9	B1/500		
BM (30°-60°)	724.5	9.3	B1/1000		
BH (60°-80°)	340.9	4.4	B1/500		G1/500
BVH (80°-90°)	58.1	0.7			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





REPORT NUMBER: P196826

CATALOG NUMBER: NAV-AF-02-D-UNV-T4FT-7030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9
2.5°	1139.7	1142.8	1143.2	1146.6	1146.6	1146.1	1147.7	1153.7	1156.6	1163.6	1169.5
5°	1083.6	1087.0	1088.5	1094.4	1102.0	1102.4	1107.9	1119.4	1130.3	1145.7	1158.5
7.5°	1020.5	1024.5	1028.3	1040.8	1051.7	1052.7	1063.2	1081.5	1096.0	1114.9	1138.3
10°	959.3	960.3	964.2	980.2	994.6	996.1	1010.9	1031.9	1051.3	1077.7	1103.9
12.5°	909.1	912.1	911.1	923.0	935.5	936.5	956.3	982.7	1010.9	1040.8	1072.2
15°	891.7	891.2	880.7	880.3	885.8	886.7	906.1	936.9	968.7	1005.5	1045.8
17.5°	903.6	899.6	872.3	855.4	851.9	852.9	867.3	901.2	934.9	977.3	1025.4
20°	969.2	953.9	889.7	849.0	837.5	837.5	846.0	873.3	910.5	959.9	1020.5
22.5°	1124.9	1101.0	964.2	891.7	851.4	847.5	841.0	861.8	903.1	962.2	1040.8
25°	1320.6	1309.3	1101.0	1005.5	922.4	909.6	866.9	874.3	918.6	989.2	1096.5
27.5°	1502.1	1482.2	1280.4	1171.0	1053.7	1033.8	943.4	913.1	955.4	1038.8	1177.0
30°	1608.0	1594.5	1464.8	1360.4	1220.8	1195.4	1065.8	989.6	1020.9	1120.8	1291.3
32.5°	1723.2	1715.3	1649.7	1554.8	1401.7	1372.3	1223.7	1114.3	1121.3	1229.7	1429.0
35°	1835.1	1845.5	1808.2	1738.7	1596.5	1569.2	1436.0	1277.4	1245.1	1352.0	1576.2
37.5°	1969.3	1971.8	1948.4	1903.2	1801.2	1779.0	1669.1	1451.4	1379.8	1482.2	1718.3
40°	2237.2	2198.0	2106.5	2070.7	2010.1	1996.1	1870.8	1610.9	1505.0	1615.8	1852.5
42.5°	2526.9	2465.9	2322.7	2264.1	2239.7	2226.7	2038.9	1717.3	1622.4	1749.6	1984.1
45°	2760.6	2710.8	2570.8	2498.1	2501.2	2480.3	2185.5	1812.2	1749.6	1883.8	2131.3
47.5°	2990.8	2907.7	2750.6	2740.2	2774.9	2744.1	2325.7	1907.1	1882.3	2029.9	2278.5
50°	3005.6	2930.2	2866.4	2950.0	3009.5	2971.3	2452.9	2031.4	2019.9	2206.8	2468.2
52.5°	2824.3	2813.3	2910.2	3050.8	3149.7	3115.4	2556.7	2159.2	2160.6	2428.1	2699.5
55°	2758.1	2744.1	2860.5	3033.5	3167.2	3146.7	2634.3	2303.3	2316.8	2696.4	2947.5
57.5°	2869.4	2834.6	2857.4	3000.7	3126.5	3114.4	2714.9	2463.4	2487.8	3005.6	3176.6
60°	3214.9	3143.8	3022.5	3049.3	3127.9	3120.9	2830.2	2641.8	2682.6	3327.7	3321.7
62.5°	3732.3	3651.8	3404.7	3285.4	3268.1	3254.7	3020.6	2861.0	2881.3	3560.3	3237.3
65°	4299.9	4213.5	3919.6	3724.3	3622.0	3593.1	3327.7	3125.4	2997.6	3559.7	2908.2
67.5°	4937.1	4845.6	4553.0	4366.5	4255.6	4206.5	3826.3	3339.2	2960.0	3258.6	2327.1
70°	5589.7	5502.8	5368.6	5433.7	5482.4	5407.3	4611.7	3410.2	2688.6	2554.8	1562.7
72.5°	5243.4	5236.4	5338.3	5955.6	6894.5	6909.4	5395.9	3209.4	2077.1	1518.4	833.0
73°	4921.7	4951.1	5139.9	5878.5	7015.3	7020.2	5411.3	3105.4	1907.1	1308.3	731.6
75°	2549.8	2748.6	3449.6	4766.7	6495.9	6519.2	4770.2	2351.0	1136.8	726.7	493.1
77.5°	683.0	674.0	1111.3	2322.2	4330.7	4299.9	3014.0	1138.3	544.7	455.8	346.0
80°	234.2	237.1	378.2	849.5	2021.6	2093.5	1308.3	496.6	358.4	317.6	245.1
82.5°	119.3	123.3	197.9	361.3	845.4	827.5	420.9	292.3	240.1	192.9	137.2
85°	63.6	65.5	108.8	187.4	310.2	313.7	148.1	156.0	152.6	109.4	67.6
87.5°	31.3	32.3	52.2	82.5	114.8	110.8	51.7	67.6	75.1	61.6	37.2
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: P196826

CATALOG NUMBER: NAV-AF-02-D-UNV-T4FT-7030-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9	1184.9
2.5°	1177.0	1177.0	1183.5	1194.4	1202.4	1209.8	1214.8	1222.7	1227.2	1226.7	1226.2
5°	1169.1	1174.0	1187.0	1200.3	1209.3	1215.3	1215.3	1218.8	1218.8	1217.2	1215.3
7.5°	1150.6	1159.1	1178.1	1190.0	1192.4	1185.9	1173.0	1163.1	1150.6	1144.2	1141.8
10°	1121.3	1132.3	1156.1	1161.7	1148.7	1125.8	1094.4	1067.7	1043.8	1032.8	1029.3
12.5°	1092.5	1106.9	1129.3	1120.8	1090.0	1045.3	997.1	960.3	933.4	923.0	919.5
15°	1068.7	1086.0	1103.4	1077.1	1023.4	961.3	908.1	873.8	853.5	845.4	843.5
17.5°	1052.7	1073.2	1079.1	1029.9	955.4	885.8	838.6	816.1	807.2	803.7	802.7
20°	1053.7	1076.6	1062.2	984.1	889.7	819.7	788.3	781.9	781.9	781.9	781.3
22.5°	1081.1	1101.0	1055.2	941.4	826.5	763.9	750.5	756.0	760.0	760.0	759.5
25°	1137.7	1148.7	1060.2	900.2	767.4	715.7	716.2	726.7	730.2	730.2	729.2
27.5°	1224.2	1215.3	1069.1	854.4	709.3	672.1	678.9	688.5	690.8	689.4	688.9
30°	1332.5	1296.8	1076.6	800.8	654.6	631.2	637.2	642.7	640.7	637.2	636.8
32.5°	1453.8	1379.8	1072.2	740.6	606.4	589.0	592.5	595.5	592.5	584.0	584.0
35°	1574.1	1454.9	1047.8	675.0	568.1	548.3	547.7	557.2	556.6	546.8	547.3
37.5°	1679.6	1514.0	1000.6	614.8	535.3	518.4	520.4	526.4	529.4	515.9	514.4
40°	1771.4	1554.8	933.9	563.7	508.9	509.9	504.4	495.1	491.5	485.6	484.6
42.5°	1858.0	1583.0	863.3	520.9	495.6	507.0	488.6	466.2	456.8	462.2	465.8
45°	1942.9	1614.9	795.3	485.6	478.7	498.0	472.6	447.9	436.9	439.4	442.8
47.5°	2046.9	1659.1	713.3	447.9	452.8	481.7	462.7	436.0	419.5	409.6	406.6
50°	2183.5	1723.2	606.9	407.1	425.4	463.7	454.3	418.5	400.7	380.8	375.8
52.5°	2354.5	1783.8	499.6	374.3	403.0	448.3	440.5	403.6	381.8	357.9	353.9
55°	2525.0	1792.3	407.1	346.0	377.7	427.4	423.5	391.7	360.9	341.4	337.5
57.5°	2644.3	1712.3	344.9	322.1	353.4	401.6	408.1	377.3	343.5	328.6	326.0
60°	2646.3	1521.0	307.1	306.2	335.0	379.2	392.1	360.3	332.4	322.6	320.5
62.5°	2436.1	1225.7	282.9	294.2	321.6	360.9	380.2	350.9	330.1	326.0	324.1
65°	2041.8	905.6	263.5	283.3	309.2	345.5	370.3	347.9	329.1	327.6	326.0
67.5°	1507.6	620.8	247.0	269.5	295.2	329.5	360.9	343.5	323.1	329.1	327.0
70°	948.4	414.5	231.6	253.5	276.9	311.2	348.4	335.5	315.6	312.2	305.7
72.5°	535.3	299.7	213.3	233.2	253.1	286.8	331.5	322.1	298.8	284.8	278.4
73°	483.6	283.8	208.8	228.2	247.6	281.8	327.6	318.1	293.8	278.4	272.4
75°	353.9	232.0	188.4	207.8	224.6	259.0	308.6	298.3	271.8	253.5	249.5
77.5°	256.4	178.9	162.0	179.4	194.4	227.2	280.4	268.4	242.5	232.6	228.7
80°	184.8	135.7	134.2	151.1	164.0	197.3	249.9	237.6	212.7	242.0	235.6
82.5°	110.4	87.0	98.5	117.4	130.7	165.5	217.2	202.7	178.9	181.0	154.0
85°	52.7	49.1	61.1	77.0	86.6	113.3	181.0	169.5	143.1	117.4	114.8
87.5°	23.4	22.4	29.3	34.3	46.2	68.1	123.8	109.8	103.9	62.2	48.7
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)