

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: P882250

Luminaire Tested: **NAV-SB2A-740-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882250
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7463 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

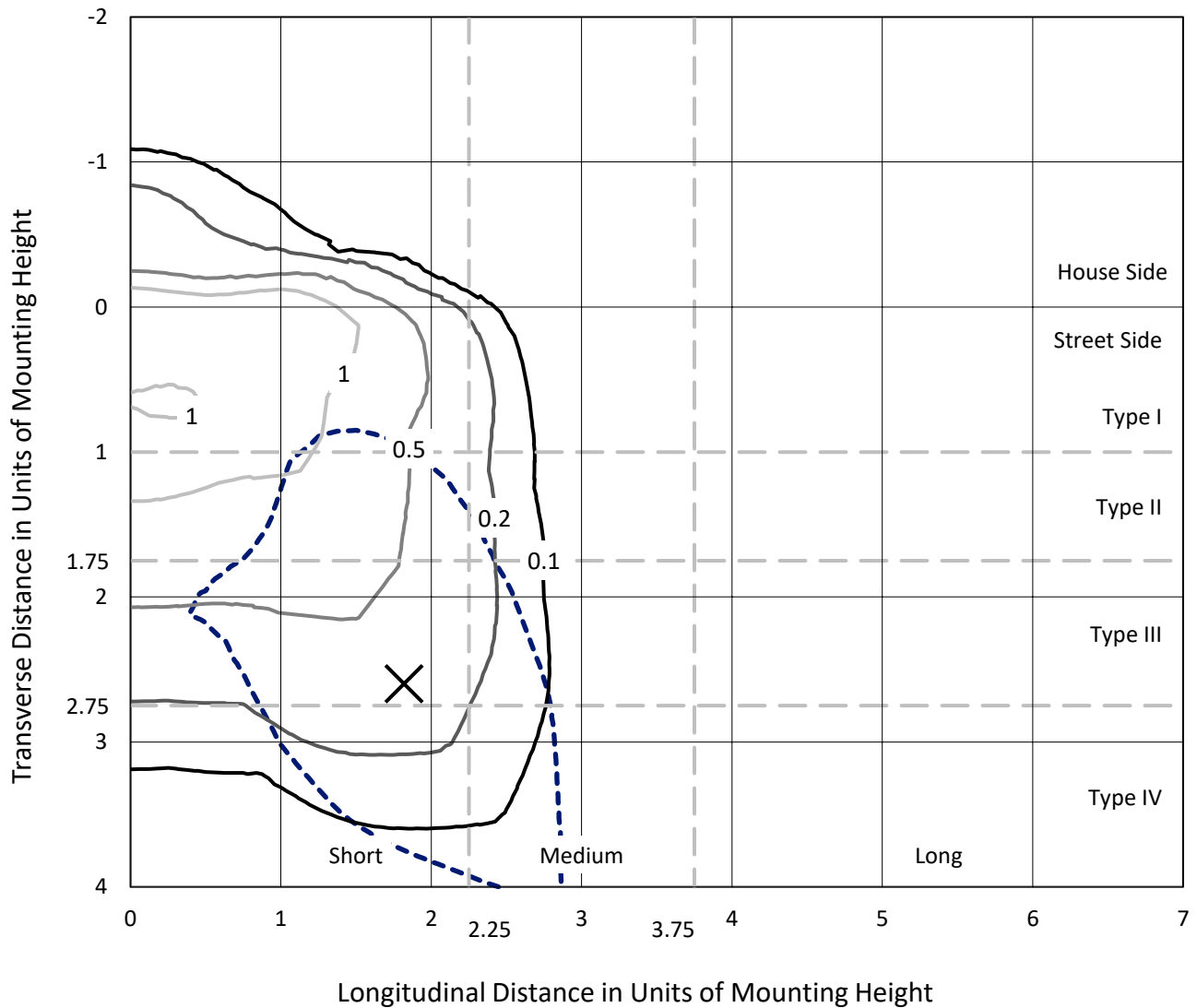
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

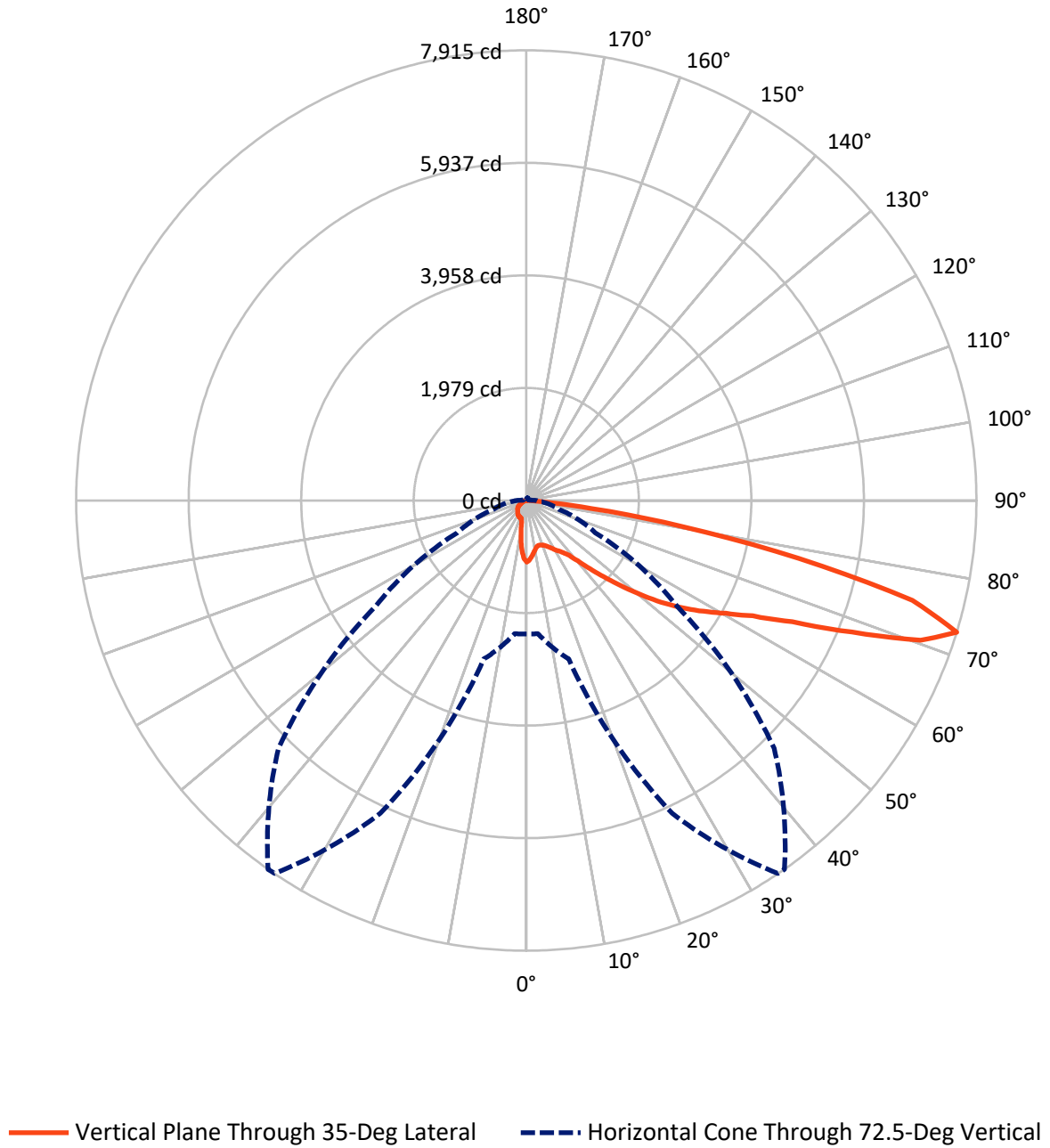
✕ Max cd
 - - - 1/2 Max cd



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



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	839.9	0.0	839.9
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	6623.1	0.0	6623.1
	% Fixture	88.7	0.0	88.7
Total	Lumens	7463.0	0.0	7463.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.9	1.2
10°-20°	207.9	2.8
20°-30°	337.8	4.5
30°-40°	563.6	7.6
40°-50°	1066.3	14.3
50°-60°	1694.3	22.7
60°-70°	2096.0	28.1
70°-80°	1302.9	17.5
80°-90°	105.3	1.4
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°	7463.0	100.0
0°-180°	7463.0	100.0

Coefficient of Utilization



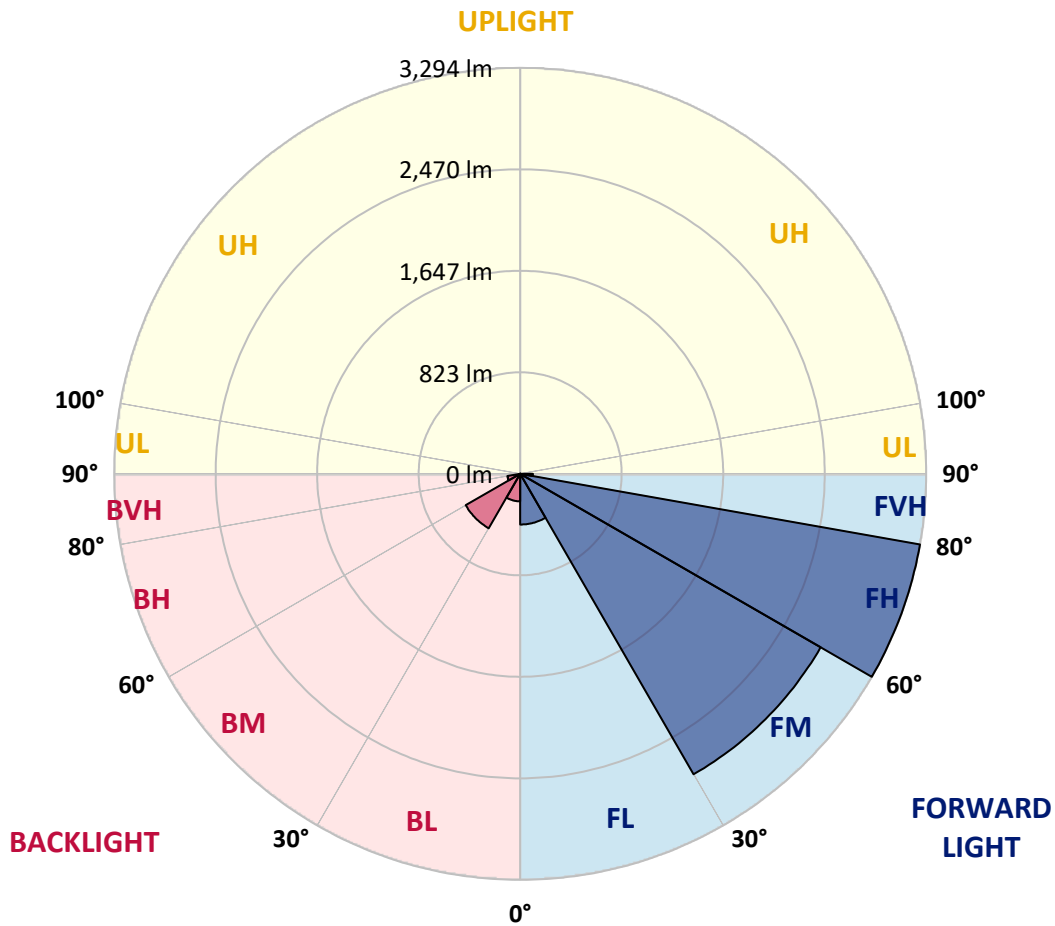
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	411.4	5.5			
FM (30°-60°)	2814.3	37.7			
FH (60°-80°)	3293.5	44.1			G2/5000
FVH (80°-90°)	103.9	1.4			G2/225
BL (0°-30°)	223.2	3.0	B1/500		
BM (30°-60°)	509.9	6.8	B1/1000		
BH (60°-80°)	105.4	1.4	B0/110		G0/110
BVH (80°-90°)	1.4	0.0			G0/10
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°	34°	35°	45°	55°	65°	75°	85°
0°	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6
2.5°	1033.5	1042.3	1043.9	1046.6	1046.6	1049.9	1055.4	1063.0	1075.6	1082.2	1086.6
5°	952.6	959.1	967.4	973.9	986.5	988.1	1009.5	1030.2	1059.2	1081.1	1096.4
7.5°	871.1	878.8	889.7	905.6	922.0	926.9	959.1	994.1	1040.1	1081.1	1106.8
10°	813.7	814.2	824.1	839.9	866.2	872.2	911.6	961.3	1018.8	1074.5	1116.6
12.5°	781.4	785.3	789.6	801.7	826.8	830.6	872.7	931.3	997.4	1070.7	1128.1
15°	781.4	784.2	786.9	792.9	813.1	816.4	853.6	912.1	986.5	1072.3	1146.7
17.5°	789.6	794.0	791.8	798.9	820.3	822.4	855.2	906.7	985.9	1082.7	1175.1
20°	809.3	812.6	808.2	812.6	833.9	838.3	872.2	917.0	995.2	1100.8	1210.7
22.5°	840.5	842.1	831.7	835.0	856.9	862.4	901.7	946.6	1017.7	1129.8	1258.3
25°	879.9	883.1	867.3	871.1	891.9	898.4	943.8	990.9	1053.2	1169.7	1319.0
27.5°	925.2	926.9	913.2	912.7	939.5	948.8	994.7	1045.5	1100.8	1220.0	1395.5
30°	977.2	982.1	969.0	966.8	1000.7	1008.4	1053.8	1112.8	1170.8	1295.5	1504.3
32.5°	1018.2	1022.0	1014.4	1019.8	1054.3	1060.3	1125.4	1208.0	1280.7	1402.6	1652.5
35°	1077.3	1079.5	1062.0	1071.8	1111.2	1126.5	1223.3	1341.4	1419.0	1537.2	1846.1
37.5°	1291.1	1291.1	1216.7	1168.0	1205.8	1219.4	1357.2	1509.3	1589.6	1717.6	2090.0
40°	1586.9	1582.0	1473.2	1373.6	1368.7	1395.5	1548.1	1720.9	1810.0	1934.2	2364.5
42.5°	1902.4	1894.8	1746.6	1648.2	1631.8	1641.1	1768.5	1981.7	2072.5	2198.3	2659.8
45°	2182.4	2180.2	2044.6	1912.3	1882.8	1912.3	2043.5	2286.9	2351.9	2484.3	2954.5
47.5°	2417.0	2417.0	2318.0	2231.6	2216.3	2233.8	2415.9	2625.4	2619.3	2788.9	3241.6
50°	2687.1	2685.0	2590.9	2553.7	2569.6	2594.2	2844.6	2981.9	2896.0	3088.0	3498.1
52.5°	2876.4	2889.5	2857.2	2851.2	2932.1	2974.8	3279.9	3330.8	3143.8	3371.8	3690.0
55°	3026.2	3041.5	3078.7	3120.8	3276.6	3332.4	3701.5	3661.6	3351.0	3617.9	3800.5
57.5°	3238.4	3216.5	3273.9	3357.0	3609.1	3676.4	4110.0	3973.8	3517.8	3817.5	3812.5
60°	3495.9	3499.2	3509.0	3614.0	3941.0	4027.4	4512.5	4269.1	3625.0	3939.9	3679.1
62.5°	3805.4	3810.3	3830.6	3991.9	4386.7	4468.2	4941.2	4510.8	3674.2	3905.5	3334.6
65°	3784.1	3804.9	4030.7	4582.5	5064.2	5144.6	5441.6	4680.4	3599.8	3590.5	2715.0
67.5°	3447.2	3481.1	3859.0	5287.9	6085.7	6175.4	6046.4	4713.7	3278.8	2792.1	1771.2
70°	3005.4	3017.4	3471.9	5922.2	7268.5	7359.3	6587.7	4346.8	2488.1	1557.4	793.5
72.5°	2347.0	2349.7	2882.9	6069.3	7910.5	7915.4	6162.8	3226.9	1338.1	598.2	275.6
75°	1676.6	1660.2	1930.9	4922.1	6959.6	7015.3	4620.2	1513.6	511.3	282.7	137.3
77.5°	899.0	917.0	1092.6	2919.0	4807.8	4902.9	2520.9	436.4	260.3	192.5	90.8
80°	277.8	293.1	447.9	1336.5	2723.2	2780.7	934.5	194.1	181.5	137.3	59.6
82.5°	87.5	90.8	208.9	561.6	1130.3	1156.6	270.7	109.9	124.1	90.8	35.0
85°	25.2	25.7	93.0	209.4	279.4	284.9	76.0	42.7	71.1	56.3	18.0
87.5°	2.7	8.7	35.0	35.0	24.6	24.1	8.2	9.3	20.2	7.1	3.3
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°	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6	1081.6
2.5°	1083.8	1084.4	1077.3	1065.2	1052.1	1041.2	1027.5	1016.6	1008.9	1006.7	1010.6
5°	1091.5	1087.7	1067.4	1030.8	987.0	949.3	907.2	873.8	852.0	842.7	846.0
7.5°	1103.0	1092.0	1047.7	975.6	891.9	817.5	742.1	683.5	646.4	627.8	630.5
10°	1112.8	1090.9	1014.9	895.7	767.8	655.1	553.4	482.9	443.5	424.9	425.4
12.5°	1122.1	1090.4	972.3	801.1	627.8	490.0	395.4	360.4	349.4	345.6	344.5
15°	1139.6	1092.0	918.7	692.8	488.3	370.2	335.8	335.2	337.4	336.3	335.8
17.5°	1163.7	1093.7	858.0	578.0	376.8	326.5	324.8	329.7	333.0	331.4	330.8
20°	1194.8	1100.2	793.5	464.3	323.7	315.5	319.4	323.7	326.5	323.7	323.2
22.5°	1238.6	1111.7	722.9	372.9	306.8	309.0	312.2	317.2	319.9	316.1	315.5
25°	1292.2	1129.8	653.5	324.3	298.6	301.3	306.2	311.7	315.0	311.1	310.6
27.5°	1361.6	1158.7	589.5	313.3	290.4	292.0	299.1	307.3	311.7	306.8	306.8
30°	1462.2	1206.3	534.3	318.3	285.4	281.6	291.5	302.9	307.9	303.5	302.9
32.5°	1595.7	1273.6	500.4	325.9	283.3	269.6	278.9	293.7	301.9	299.1	299.1
35°	1770.7	1375.8	487.2	334.7	281.6	257.0	263.6	279.4	293.7	296.4	296.4
37.5°	1982.8	1518.0	491.1	338.5	276.7	246.6	249.9	263.6	282.2	290.9	293.1
40°	2224.0	1683.7	512.9	334.7	271.2	237.9	238.4	248.8	265.2	278.3	282.7
42.5°	2472.8	1877.3	553.4	320.4	266.3	230.2	228.6	235.7	246.6	255.9	259.7
45°	2709.6	2076.3	593.3	300.8	260.3	222.6	218.7	221.5	223.7	227.5	229.7
47.5°	2916.3	2216.3	581.8	282.7	252.1	213.8	207.3	206.2	199.6	199.0	198.5
50°	3059.0	2246.9	516.8	264.7	240.1	204.0	193.6	187.0	175.5	170.1	170.6
52.5°	3104.4	2126.1	422.2	246.6	220.4	190.8	176.1	165.7	151.5	146.6	146.0
55°	3044.2	1889.3	337.4	224.7	193.0	173.3	156.9	143.3	131.8	125.8	125.8
57.5°	2897.1	1588.0	266.9	199.0	164.1	153.7	137.3	123.6	113.7	107.7	106.6
60°	2653.2	1261.0	211.1	168.4	140.0	132.3	115.4	106.6	97.9	90.8	89.1
62.5°	2283.0	900.1	165.7	133.4	117.0	108.3	98.4	91.9	81.5	71.6	70.0
65°	1781.6	550.7	128.0	97.9	94.1	89.7	83.7	77.7	65.1	55.2	53.6
67.5°	1123.7	260.8	91.3	73.8	74.4	72.2	69.4	64.5	55.2	46.5	45.4
70°	494.9	126.3	60.2	56.3	55.2	55.2	57.4	55.8	47.0	38.8	37.2
72.5°	168.4	67.8	44.8	42.7	39.9	39.4	48.1	46.5	37.7	30.1	28.4
75°	88.0	45.4	32.8	30.6	24.1	29.0	38.3	36.1	26.8	19.7	18.0
77.5°	57.4	32.3	22.4	19.7	13.7	19.1	28.4	25.2	15.9	9.8	8.7
80°	36.1	21.3	13.1	9.3	6.6	10.4	15.3	10.9	6.0	2.2	1.6
82.5°	19.1	10.9	4.9	3.3	2.7	3.3	3.8	2.7	1.1	0.0	0.0
85°	7.7	3.8	1.6	1.1	0.5	0.0	1.1	0.5	0.0	0.0	0.0
87.5°	2.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)