

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: P963624

Luminaire Tested: **NAV-SB3A-827-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963624
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3A-827-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12200.6 lumens
Efficiency: N/A
Efficacy: 144.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 84.7
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: 24 FT

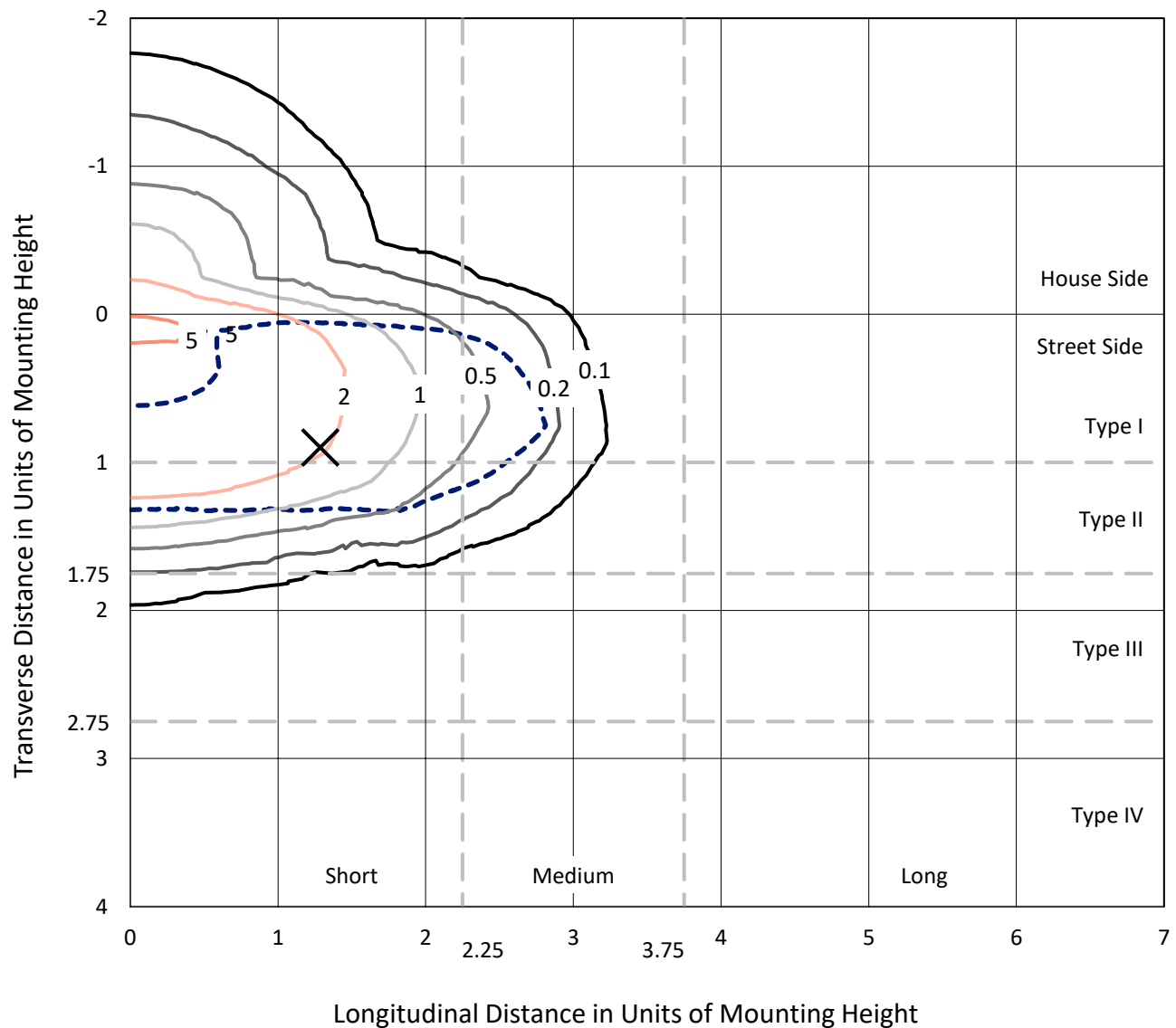


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Iso-Footcandle Lines of Horizontal Illumination

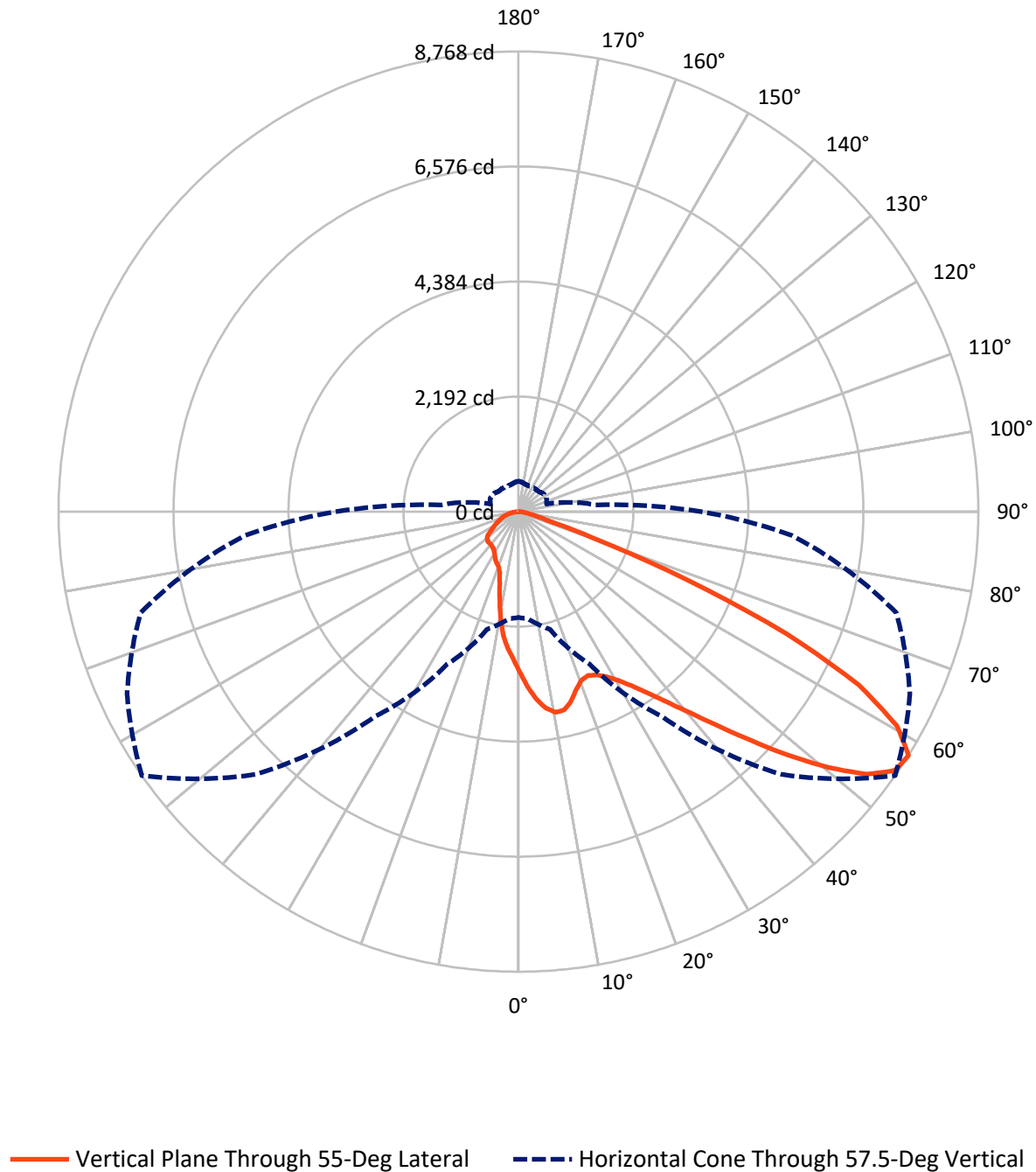
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2207.6	0.0	2207.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	9992.9	0.0	9992.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	12200.6	0.0	12200.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.7	2.3
10°-20°	716.0	5.9
20°-30°	1142.6	9.4
30°-40°	1809.0	14.8
40°-50°	2768.8	22.7
50°-60°	2965.6	24.3
60°-70°	1865.7	15.3
70°-80°	551.7	4.5
80°-90°	97.5	0.8
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°	12200.6	100.0
0°-180°	12200.6	100.0

Coefficient of Utilization



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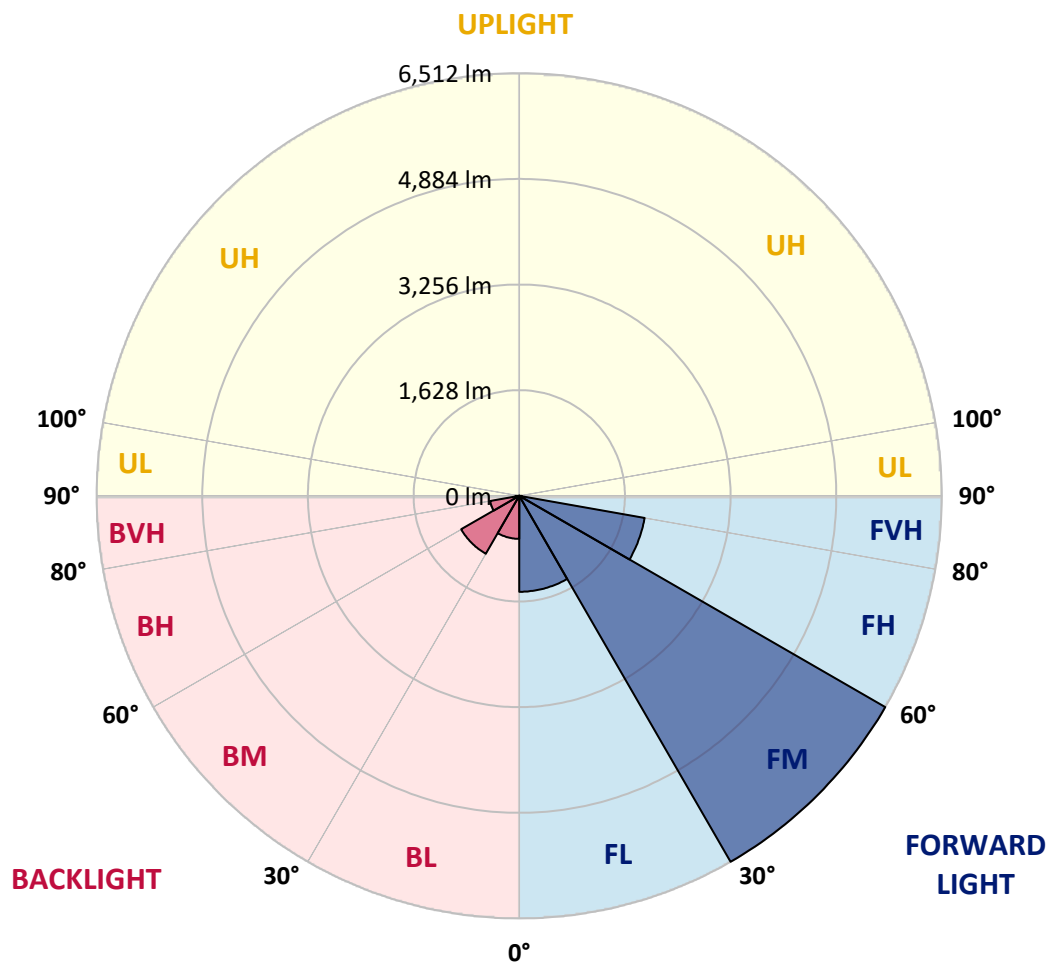
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1478.7	12.1			
FM	(30°-60°)	6511.5	53.4			
FH	(60°-80°)	1961.5	16.1			G2/5000
FVH	(80°-90°)	41.2	0.3			G1/100
BL	(0°-30°)	663.5	5.4	B2/1000		
BM	(30°-60°)	1031.8	8.5	B2/2500		
BH	(60°-80°)	455.9	3.7	B1/500		G1/500
BVH	(80°-90°)	56.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1
2.5°	3507.4	3504.9	3518.7	3471.5	3439.3	3395.7	3338.3	3265.2	3186.3	3103.1	3067.2
5°	3823.4	3801.3	3815.8	3780.5	3745.1	3679.5	3594.5	3475.3	3329.5	3163.7	3075.4
7.5°	3773.5	3758.5	3795.7	3827.1	3853.7	3845.5	3783.1	3658.1	3470.1	3229.3	3101.2
10°	3371.8	3354.7	3407.1	3516.3	3676.5	3815.8	3891.5	3813.9	3613.9	3301.1	3126.5
12.5°	3017.3	3009.1	3043.8	3132.1	3310.0	3577.5	3877.7	3950.1	3763.5	3386.3	3160.5
15°	2866.0	2855.9	2878.0	2922.7	3036.3	3285.4	3751.5	4043.5	3910.4	3484.7	3214.7
17.5°	2832.5	2821.2	2830.6	2854.0	2927.1	3117.0	3561.1	4089.5	4063.7	3594.5	3260.1
20°	2894.4	2884.9	2886.2	2884.9	2936.0	3086.7	3428.5	4071.9	4197.4	3695.3	3304.3
22.5°	3043.8	3028.1	3028.7	2995.3	3023.0	3139.7	3393.9	4024.6	4316.6	3783.7	3337.7
25°	3287.3	3258.9	3264.5	3179.4	3171.9	3258.3	3448.1	3988.0	4435.2	3854.3	3344.1
27.5°	3620.3	3588.1	3571.1	3444.3	3383.7	3426.7	3558.5	4000.6	4547.4	3915.5	3328.3
30°	4036.6	3997.5	3962.8	3783.1	3673.3	3657.5	3730.1	4083.9	4679.9	3979.8	3301.1
32.5°	4546.8	4501.4	4438.4	4199.9	4045.4	3962.8	3952.1	4232.1	4835.0	4061.8	3287.3
35°	5154.2	5094.9	5005.4	4697.0	4501.4	4332.4	4244.7	4445.9	5047.6	4185.4	3303.1
37.5°	5779.9	5713.0	5631.0	5263.9	5023.6	4774.4	4601.6	4736.0	5330.8	4353.2	3344.7
40°	6356.9	6281.9	6205.6	5878.9	5620.9	5320.7	5038.8	5103.1	5677.1	4553.8	3415.3
42.5°	6697.6	6642.0	6613.0	6436.4	6237.1	5932.5	5582.5	5538.3	6066.2	4784.6	3496.1
45°	6682.4	6659.7	6749.2	6822.4	6775.1	6606.1	6219.5	6019.5	6456.6	4984.6	3570.5
47.5°	6325.4	6340.5	6540.5	6951.8	7132.8	7221.0	6944.8	6491.9	6796.0	5134.0	3603.9
50°	5354.1	5366.7	5829.7	6716.5	7224.8	7722.5	7664.4	6953.0	7059.0	5225.4	3596.3
52.5°	4585.3	4593.4	4792.2	6018.9	6920.8	7974.7	8312.9	7387.6	7251.4	5250.7	3554.1
55°	3453.7	3482.1	3704.8	4722.2	6129.9	7774.8	8707.6	7835.3	7373.0	5253.2	3509.9
57.5°	2017.6	2048.6	2323.6	3205.3	4764.4	7077.8	8767.5	8232.7	7455.6	5233.0	3483.5
60°	988.3	1001.5	1121.5	1684.6	2937.9	5735.1	8285.7	8425.1	7501.7	5222.3	3482.1
62.5°	666.0	664.1	669.2	831.3	1447.5	3684.7	7281.6	8088.3	7477.1	5181.3	3469.5
65°	572.7	565.8	546.8	583.4	749.9	1685.3	5625.9	7083.0	7289.8	5078.5	3383.1
67.5°	495.1	495.7	496.4	485.0	535.5	777.7	3438.1	5579.3	6617.4	4591.6	3050.1
70°	410.0	415.6	418.2	418.2	436.4	510.2	1467.7	3824.0	5219.8	3600.1	2456.6
72.5°	373.4	361.4	362.6	356.4	356.4	388.5	591.0	2167.8	3288.5	2025.2	1499.2
75°	304.6	312.2	313.4	309.0	294.6	296.4	350.7	909.5	1407.1	840.1	741.1
77.5°	263.0	263.0	265.6	262.4	251.0	222.0	234.0	352.6	478.7	344.4	370.2
80°	211.3	210.6	221.4	227.7	210.0	164.0	149.4	194.9	212.6	151.4	192.4
82.5°	102.8	109.2	152.0	173.4	159.6	118.6	91.4	121.1	113.6	66.8	86.4
85°	60.0	56.8	68.2	96.5	91.4	65.6	44.2	63.0	59.2	34.0	34.6
87.5°	19.0	17.6	13.8	32.8	26.4	18.2	12.0	18.2	16.4	7.6	7.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1	3057.1
2.5°	3022.4	2948.0	2874.2	2806.7	2765.7	2739.2	2712.7	2683.0	2671.7	2654.6
5°	2992.1	2848.3	2720.2	2609.9	2509.6	2430.8	2351.4	2287.0	2258.0	2277.5
7.5°	2974.4	2766.3	2568.9	2366.4	2171.6	2015.8	1880.2	1784.9	1742.0	1752.7
10°	2958.7	2673.6	2372.8	2053.0	1772.9	1579.9	1441.1	1368.7	1341.5	1347.2
12.5°	2944.2	2569.6	2136.2	1715.5	1417.9	1290.5	1250.7	1251.3	1256.3	1260.1
15°	2941.6	2444.0	1872.0	1420.3	1226.1	1217.9	1260.8	1287.9	1302.5	1306.9
17.5°	2937.9	2294.0	1602.7	1219.1	1179.5	1234.9	1274.7	1292.3	1303.7	1304.3
20°	2922.7	2103.4	1354.1	1123.3	1169.3	1217.3	1241.9	1255.7	1265.3	1268.3
22.5°	2876.0	1891.5	1160.5	1080.5	1128.9	1167.5	1196.5	1212.3	1217.9	1221.7
25°	2792.2	1654.4	1026.8	1039.5	1072.9	1121.5	1144.7	1147.9	1146.1	1151.7
27.5°	2682.4	1400.1	943.5	983.9	1026.8	1068.5	1081.1	1079.1	1075.3	1081.7
30°	2550.0	1171.9	890.5	921.5	980.1	1017.9	1029.3	1024.9	1017.3	1024.3
32.5°	2410.0	985.1	847.1	877.9	941.7	978.9	990.3	985.8	980.1	985.8
35°	2279.4	854.6	806.7	848.9	911.4	947.9	962.5	963.1	963.1	970.1
37.5°	2159.6	778.3	773.3	830.7	890.5	923.3	944.1	945.5	918.3	920.2
40°	2048.6	746.1	758.1	818.7	870.4	901.9	903.2	832.5	782.7	781.5
42.5°	1957.7	739.8	762.5	817.4	855.9	857.1	768.2	713.3	699.5	700.1
45°	1872.6	737.9	772.6	817.4	834.5	740.5	680.5	666.0	667.3	672.3
47.5°	1777.4	730.4	774.5	806.1	772.6	658.5	640.8	634.5	632.0	633.2
50°	1673.3	703.3	750.5	783.3	666.7	623.1	601.1	599.2	602.3	604.2
52.5°	1563.5	659.1	709.5	742.3	618.1	592.2	567.6	572.1	585.9	590.3
55°	1491.7	607.4	655.3	660.4	584.0	563.2	542.4	552.5	578.4	586.6
57.5°	1472.7	552.5	593.5	587.8	540.5	538.0	525.4	534.2	567.0	579.0
60°	1467.1	503.3	533.0	528.5	498.3	510.2	507.1	511.5	522.9	526.6
62.5°	1422.9	464.2	478.7	472.4	460.4	481.2	488.8	479.4	488.2	492.6
65°	1310.7	432.7	425.7	421.3	426.4	445.3	460.4	441.5	449.7	462.3
67.5°	1125.1	389.8	370.8	375.9	391.7	401.8	421.3	399.9	406.8	428.2
70°	910.1	335.6	318.5	333.0	348.2	369.0	372.1	357.6	374.0	398.0
72.5°	644.0	280.6	268.7	298.4	303.4	330.5	323.6	316.6	339.3	347.5
75°	446.6	226.4	219.5	242.2	260.5	283.8	278.8	287.0	334.9	338.7
77.5°	282.6	176.0	171.6	186.0	211.3	237.2	245.4	338.7	572.1	594.8
80°	164.0	131.2	126.2	137.5	159.6	183.6	236.5	415.6	377.2	372.8
82.5°	91.4	90.2	83.8	87.0	106.6	132.4	334.3	292.6	237.8	245.4
85°	42.8	53.0	45.4	43.6	60.0	155.2	223.2	167.2	111.0	108.4
87.5°	11.4	10.0	10.0	11.4	25.2	133.8	89.0	71.2	42.2	41.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)