

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: P963133

Luminaire Tested: **NAV-SB2D-830-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963133
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-830-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18317.8 lumens
Efficiency: N/A
Efficacy: 124.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

Input Watts (W): 147.6
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

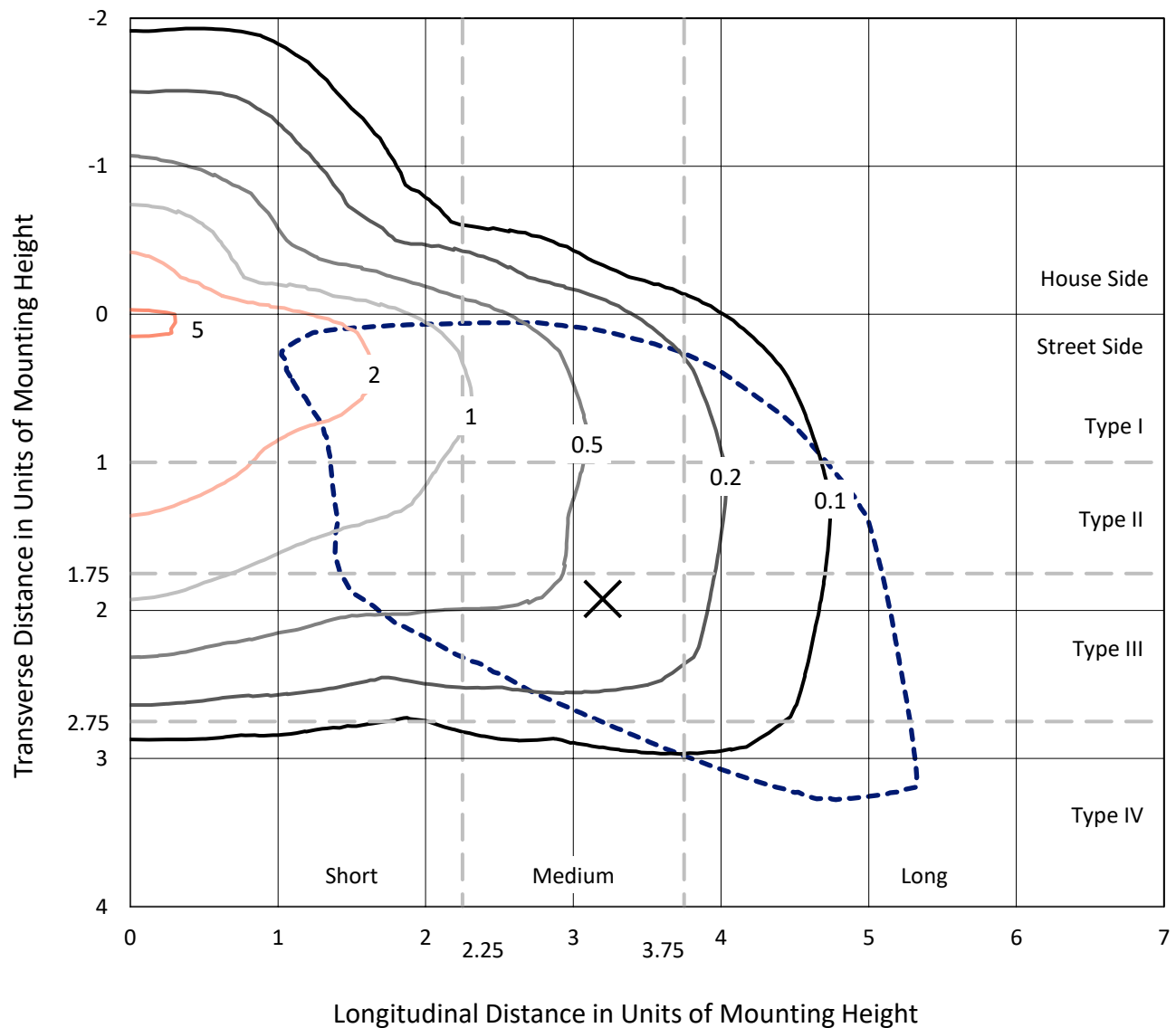


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Iso-Footcandle Lines of Horizontal Illumination

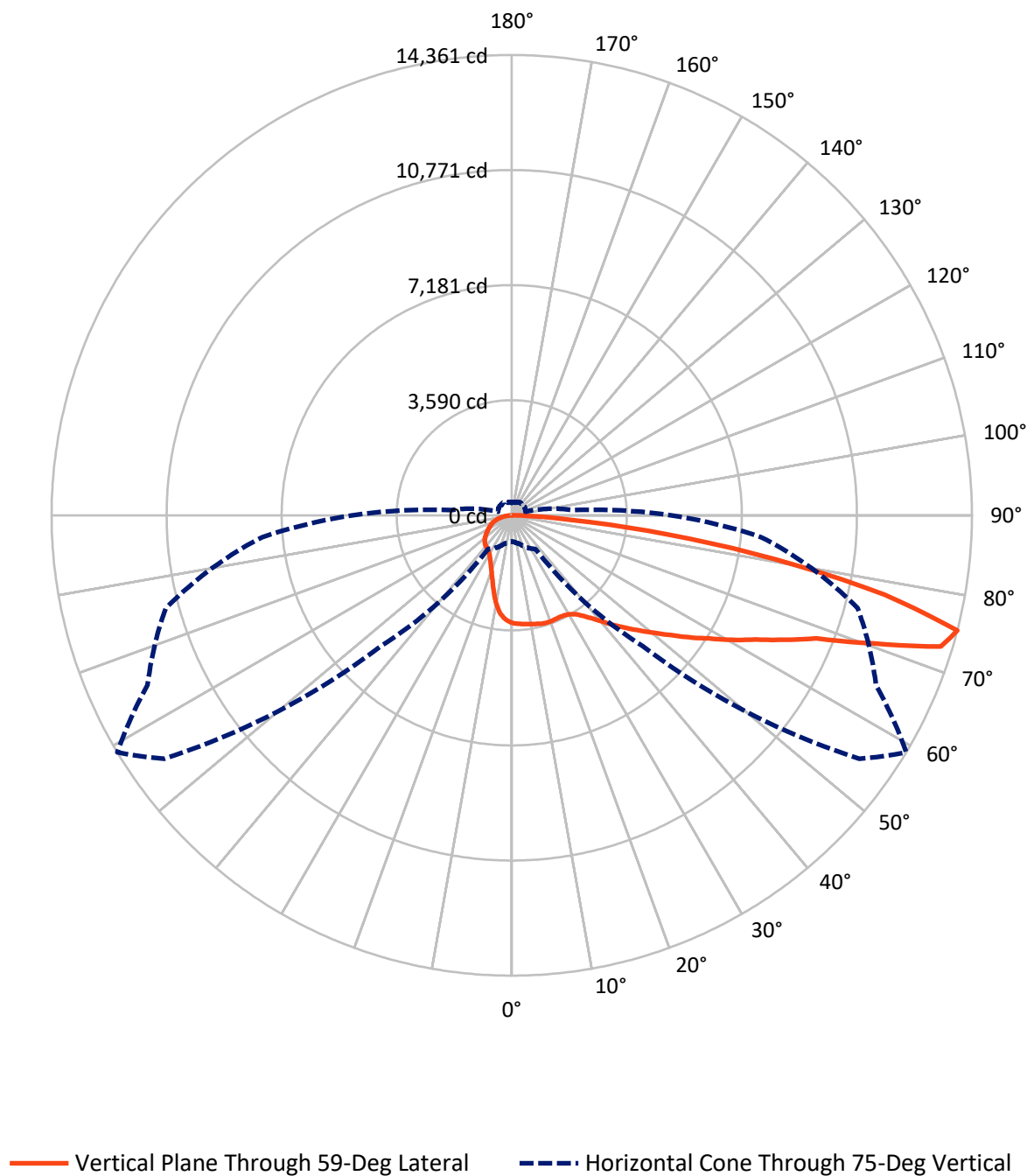
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3435.6	0.0	3435.6
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	14882.2	0.0	14882.2
	% Fixture	81.2	0.0	81.2
Total	Lumens	18317.8	0.0	18317.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.5	1.6
10°-20°	770.6	4.2
20°-30°	1170.5	6.4
30°-40°	1739.9	9.5
40°-50°	2587.5	14.1
50°-60°	3512.2	19.2
60°-70°	4287.8	23.4
70°-80°	3365.0	18.4
80°-90°	582.9	3.2
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°	18317.8	100.0
0°-180°	18317.8	100.0

Coefficient of Utilization



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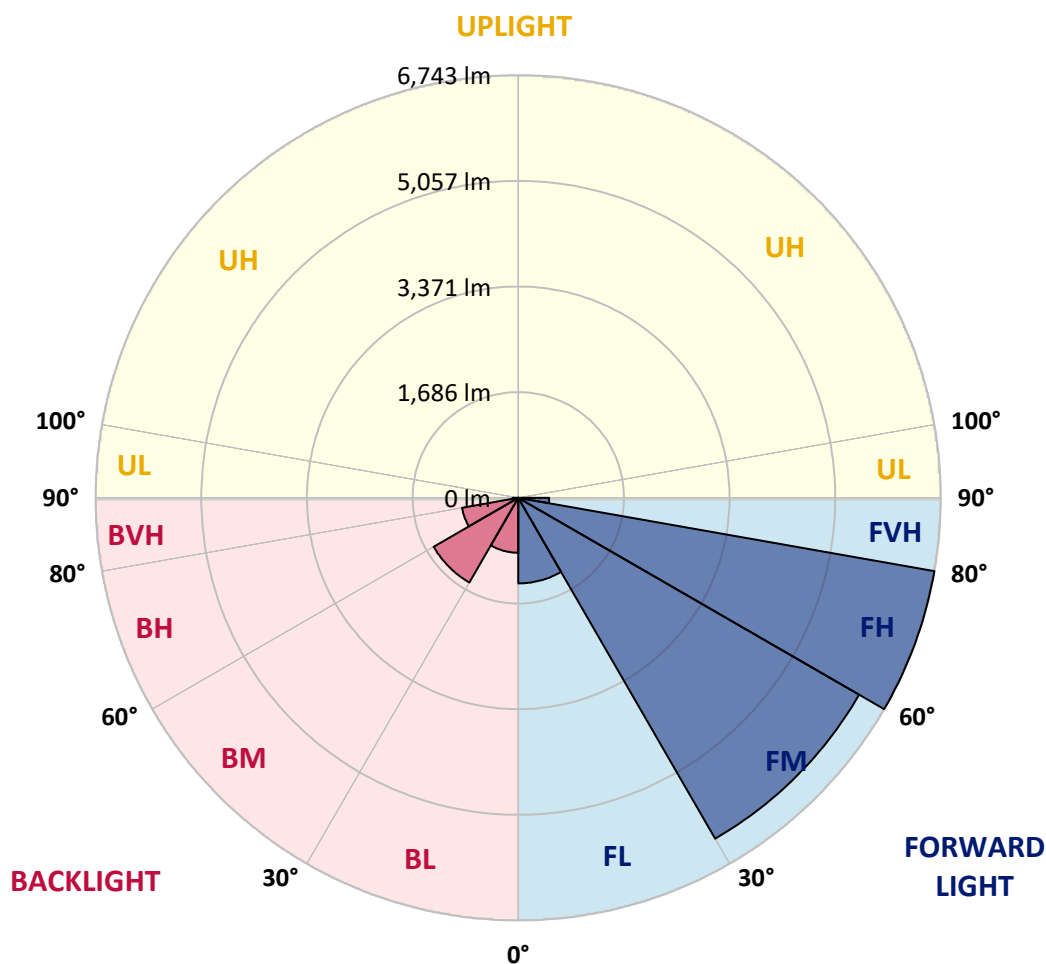
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1365.8	7.5			
FM	(30°-60°)	6280.1	34.3			
FH	(60°-80°)	6742.6	36.8			G3/7500
FVH	(80°-90°)	493.7	2.7			G3/500
BL	(0°-30°)	876.7	4.8	B2/1000		
BM	(30°-60°)	1559.4	8.5	B2/2500		
BH	(60°-80°)	910.2	5.0	B2/1000		G2/1000
BVH	(80°-90°)	89.2	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-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2
2.5°	3390.8	3378.9	3390.8	3385.9	3383.8	3379.9	3380.9	3387.8	3383.8	3388.8	3372.0
5°	3368.2	3361.2	3373.1	3370.1	3382.9	3384.9	3397.7	3405.6	3410.5	3411.5	3398.7
7.5°	3330.6	3323.8	3340.5	3354.3	3381.9	3389.8	3416.4	3429.2	3436.1	3447.9	3429.2
10°	3193.7	3190.7	3232.1	3284.3	3349.4	3389.8	3430.2	3451.9	3462.7	3494.2	3472.6
12.5°	2951.3	2955.2	3009.4	3110.0	3240.0	3370.1	3445.9	3477.5	3494.2	3533.7	3523.7
15°	2719.7	2718.7	2777.9	2885.3	3067.5	3283.4	3453.8	3508.1	3536.6	3594.8	3586.9
17.5°	2585.7	2581.8	2623.2	2705.0	2874.4	3150.3	3434.2	3524.8	3585.9	3658.8	3651.9
20°	2561.1	2553.2	2574.9	2615.3	2735.5	3004.5	3382.9	3524.8	3625.3	3719.9	3715.9
22.5°	2650.8	2637.9	2629.0	2624.1	2677.3	2884.2	3324.8	3513.0	3683.4	3807.6	3800.7
25°	2831.0	2811.4	2766.1	2721.7	2705.9	2830.0	3273.5	3510.0	3770.2	3925.9	3900.2
27.5°	3122.8	3098.1	3006.4	2900.0	2804.4	2857.7	3250.8	3527.7	3865.7	4051.0	3999.8
30°	3484.4	3457.7	3342.5	3178.9	3007.5	2960.1	3279.4	3579.9	3987.9	4217.5	4117.0
32.5°	3808.6	3779.0	3680.5	3513.9	3282.4	3137.5	3370.1	3679.4	4180.1	4449.1	4293.4
35°	4096.3	4061.9	3973.1	3819.5	3619.4	3386.8	3533.7	3855.8	4453.0	4825.5	4532.9
37.5°	4378.2	4337.7	4241.1	4078.6	3938.7	3718.9	3759.3	4082.5	4815.7	5282.7	4850.1
40°	4693.5	4635.4	4518.1	4357.5	4221.5	4108.1	4055.9	4360.3	5184.1	5793.2	5246.3
42.5°	4998.9	4943.8	4803.9	4666.8	4496.4	4463.9	4399.8	4685.6	5587.2	6353.9	5648.4
45°	5328.1	5262.0	5092.5	4919.1	4811.8	4700.3	4732.8	5010.7	5982.4	6925.4	6070.0
47.5°	5636.5	5562.6	5362.6	5169.4	5110.2	4899.4	5038.4	5368.4	6393.2	7504.8	6487.8
50°	5803.0	5730.1	5563.6	5389.1	5342.8	5144.8	5369.5	5761.6	6823.9	8082.2	6888.9
52.5°	5941.9	5863.1	5645.4	5548.8	5535.0	5411.8	5777.4	6211.0	7254.5	8592.7	7276.2
55°	6089.7	6002.1	5724.2	5637.5	5700.5	5711.4	6261.2	6720.4	7709.7	9090.3	7641.8
57.5°	6260.3	6148.9	5800.1	5712.3	5862.2	6062.2	6817.0	7248.6	8157.2	9551.5	7966.9
60°	6420.9	6308.6	5945.9	5831.6	6036.5	6469.2	7454.5	7888.1	8663.6	9962.4	8274.4
62.5°	6452.4	6359.8	6062.2	6061.2	6273.1	6944.1	8209.3	8533.5	9106.1	10368.4	8550.3
65°	5906.5	5848.3	5671.9	6052.3	6612.1	7627.9	9049.9	9359.4	9668.7	10723.1	8792.8
67.5°	4495.4	4503.2	4490.4	5224.6	6338.1	8610.4	10266.9	10243.2	10363.5	11121.2	9071.6
70°	2055.5	2101.9	2403.4	3606.6	5077.7	8723.8	12279.1	11972.6	11235.5	11636.6	9313.0
72.5°	1110.6	1146.1	1269.2	1747.1	3052.8	7756.1	13782.8	14000.6	12395.3	11983.5	9048.0
75°	815.0	834.7	920.3	1110.6	1282.0	5764.6	13243.8	14361.3	12540.2	11174.4	7813.3
77.5°	610.0	618.8	688.8	880.0	656.3	3039.0	10582.2	11893.8	10734.9	9181.0	5771.5
80°	442.5	452.3	504.5	660.2	460.2	1111.5	7266.3	8348.3	7352.1	5852.3	2876.4
82.5°	305.4	309.4	332.1	449.4	321.2	431.6	4123.0	4895.5	4104.2	2053.6	776.5
85°	184.3	189.2	199.1	262.1	182.3	205.0	1779.6	1840.7	1226.8	490.8	241.4
87.5°	75.8	80.8	88.7	110.4	72.0	57.2	293.7	368.6	229.6	143.9	74.9
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°	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2	3362.2
2.5°	3367.1	3360.3	3341.5	3315.9	3292.2	3262.7	3249.9	3239.0	3229.2	3210.4	3201.6
5°	3387.8	3369.1	3318.8	3253.8	3179.9	3099.1	3020.3	2966.0	2919.7	2885.3	2856.7
7.5°	3419.3	3383.8	3292.2	3159.2	2989.7	2816.3	2659.6	2548.3	2464.5	2434.0	2380.8
10°	3451.9	3409.5	3249.9	3015.3	2722.7	2455.6	2247.7	2133.4	2066.4	2044.7	2011.2
12.5°	3490.3	3428.2	3183.9	2815.3	2424.1	2131.4	1950.1	1883.1	1848.6	1836.8	1839.8
15°	3546.5	3444.0	3084.3	2565.0	2139.3	1894.9	1777.7	1731.3	1713.6	1712.7	1716.6
17.5°	3588.8	3447.0	2929.6	2296.9	1920.5	1752.0	1655.5	1637.7	1649.5	1667.3	1674.2
20°	3636.1	3420.3	2726.6	2052.6	1766.8	1626.9	1586.5	1598.3	1626.9	1652.5	1661.4
22.5°	3669.6	3372.0	2481.2	1862.4	1633.7	1554.9	1553.0	1577.6	1593.4	1606.2	1613.1
25°	3699.2	3290.2	2221.1	1702.7	1524.4	1511.6	1533.3	1525.4	1514.5	1525.4	1532.3
27.5°	3720.9	3161.2	1988.5	1562.8	1447.5	1482.0	1469.2	1451.5	1450.5	1456.4	1466.3
30°	3714.0	2988.7	1797.3	1429.8	1393.4	1426.9	1396.4	1393.4	1390.4	1393.4	1404.1
32.5°	3714.0	2792.6	1650.6	1338.1	1358.8	1346.0	1343.1	1336.2	1324.4	1323.4	1336.2
35°	3734.7	2596.5	1524.4	1288.9	1330.2	1299.7	1301.8	1284.9	1260.3	1248.6	1260.3
37.5°	3777.0	2438.9	1399.2	1265.3	1280.0	1279.1	1271.2	1242.6	1199.2	1161.8	1174.5
40°	3879.5	2392.6	1313.5	1254.4	1256.3	1268.2	1247.5	1192.4	1093.8	1032.7	1040.6
42.5°	4040.1	2470.4	1294.8	1227.8	1240.7	1252.4	1212.1	1083.9	1013.9	977.5	977.5
45°	4244.1	2606.4	1335.3	1189.4	1203.1	1223.8	1103.6	1042.5	1011.1	1012.0	1016.9
47.5°	4502.3	2749.3	1410.1	1155.9	1149.0	1160.8	1031.8	994.2	950.9	961.8	989.3
50°	4800.9	2894.1	1481.0	1110.6	1088.9	1050.4	985.4	950.0	894.7	869.1	876.1
52.5°	5124.1	3034.0	1509.6	1055.3	1023.9	979.5	953.9	910.5	843.5	801.1	800.1
55°	5430.6	3161.2	1478.0	989.3	958.8	924.3	920.3	893.8	821.8	762.7	762.7
57.5°	5720.2	3267.6	1399.2	922.3	892.8	872.1	898.7	885.9	795.2	719.3	715.4
60°	5965.6	3340.5	1284.9	854.3	833.6	822.8	863.3	859.3	757.8	673.0	670.0
62.5°	6160.8	3369.1	1158.9	789.4	784.3	764.6	814.0	814.0	710.4	627.7	624.7
65°	6313.5	3341.5	1030.7	725.3	735.1	705.5	753.8	747.9	660.2	587.3	583.3
67.5°	6448.5	3250.8	888.9	662.2	684.8	647.4	690.7	677.0	605.1	546.9	542.9
70°	6508.5	3039.9	727.2	599.1	626.7	590.3	627.7	602.1	542.9	503.6	495.7
72.5°	6025.8	2526.5	572.6	533.1	556.8	527.2	559.8	530.1	475.9	458.2	443.4
75°	4985.2	1895.9	440.4	461.1	478.9	456.2	478.0	456.2	406.9	419.7	383.3
77.5°	3620.4	1280.0	337.0	385.3	393.2	381.3	400.1	375.5	331.1	328.1	313.3
80°	1800.3	749.9	264.0	304.5	301.6	293.7	315.3	303.5	266.1	281.9	278.9
82.5°	521.3	321.2	192.2	213.8	207.9	209.9	225.7	231.5	346.9	343.9	351.8
85°	163.6	126.2	115.3	119.2	113.4	116.2	133.0	264.0	244.4	142.9	154.7
87.5°	42.3	43.4	28.6	30.5	31.6	37.4	42.3	160.6	76.9	50.2	53.2
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)