

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: P965768

Luminaire Tested: **NAV-SB4A-830-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965768
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-SB4A-830-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16182.7 lumens
Efficiency: N/A
Efficacy: 142.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B2 - U0 - G3

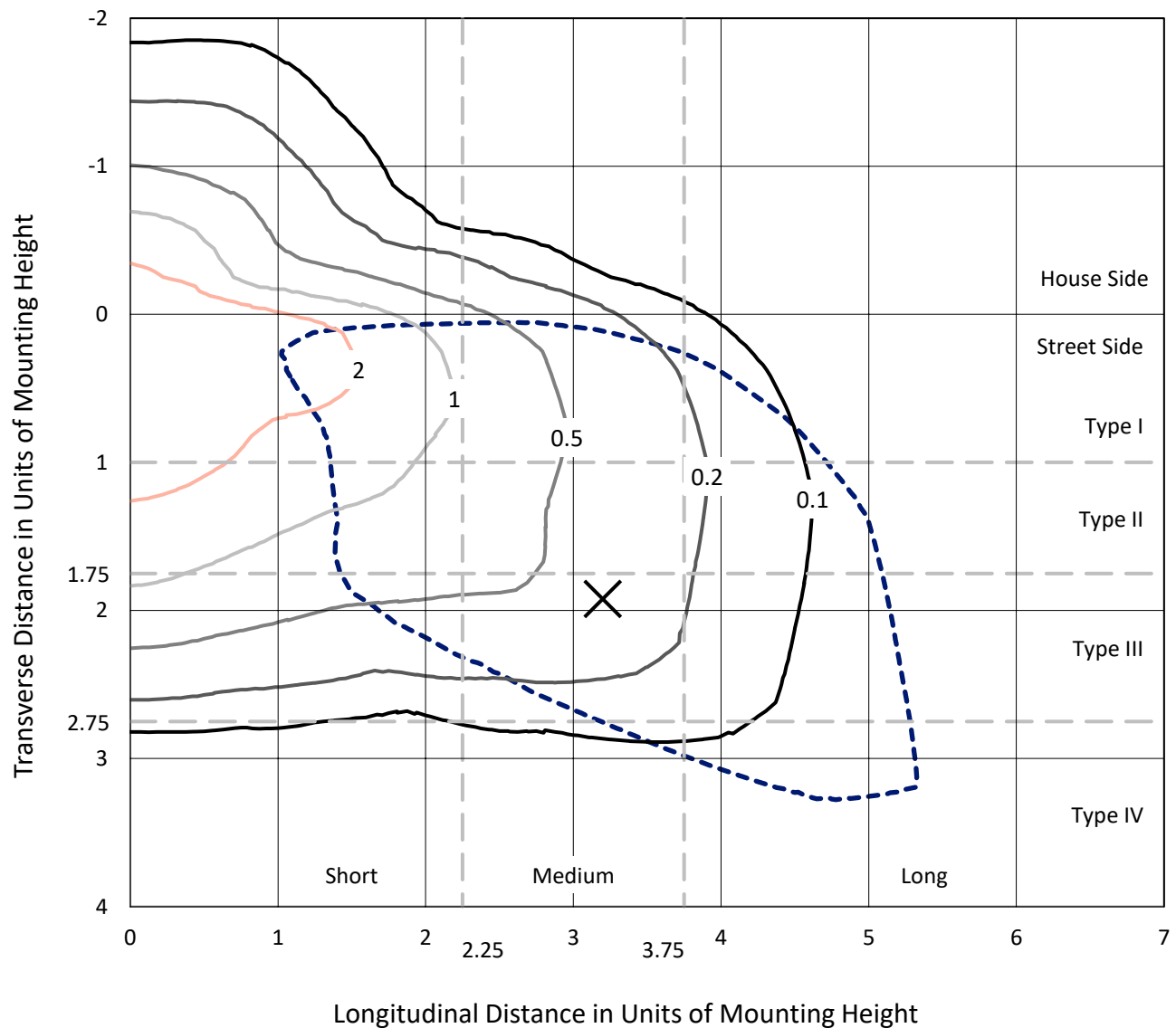
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

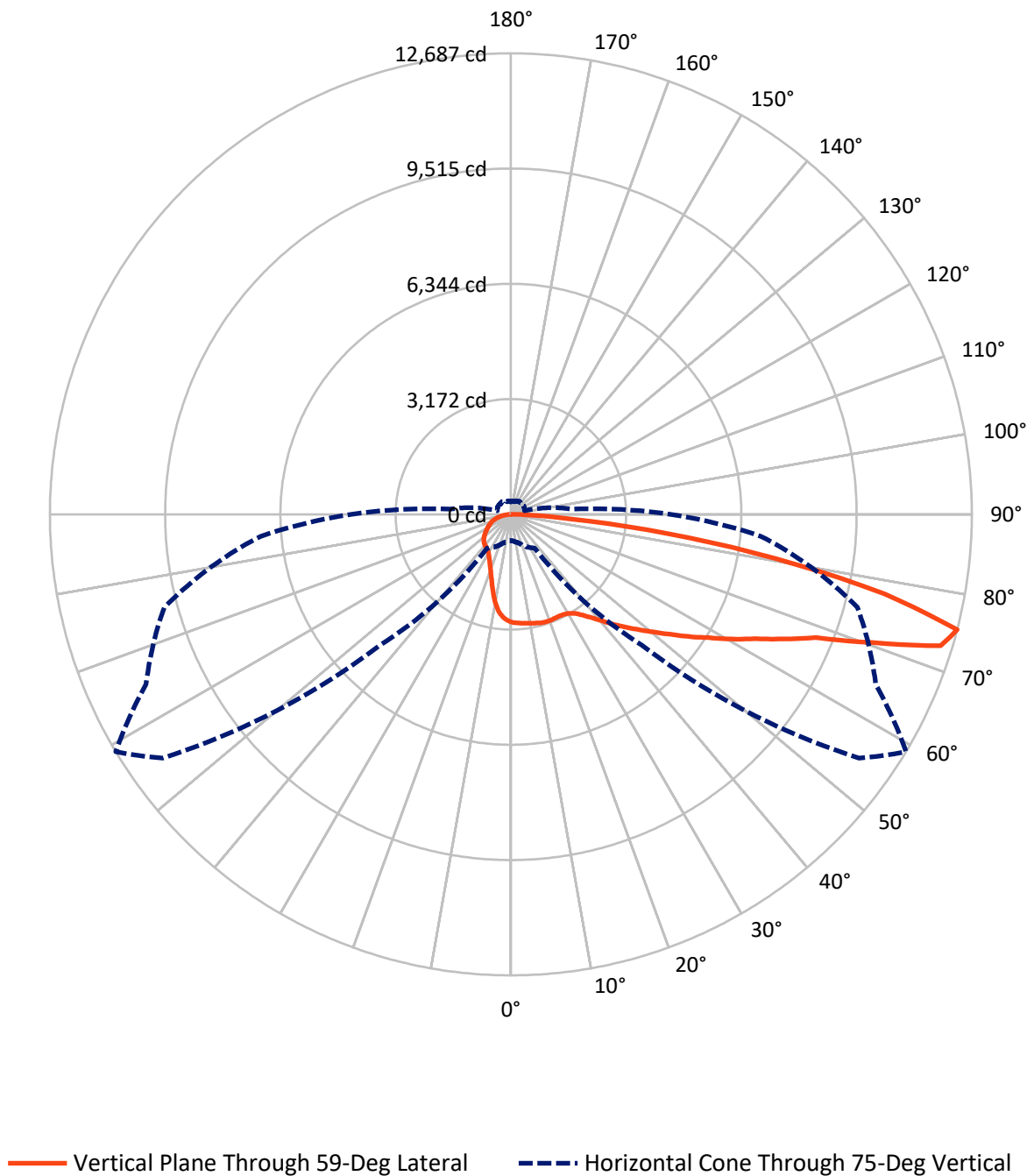


Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3035.2	0.0	3035.2
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	13147.5	0.0	13147.5
	% Fixture	81.2	0.0	81.2
Total	Lumens	16182.7	0.0	16182.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.3	1.6
10°-20°	680.8	4.2
20°-30°	1034.0	6.4
30°-40°	1537.1	9.5
40°-50°	2285.9	14.1
50°-60°	3102.8	19.2
60°-70°	3788.0	23.4
70°-80°	2972.8	18.4
80°-90°	515.0	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°	16182.7	100.0
0°-180°	16182.7	100.0

Coefficient of Utilization



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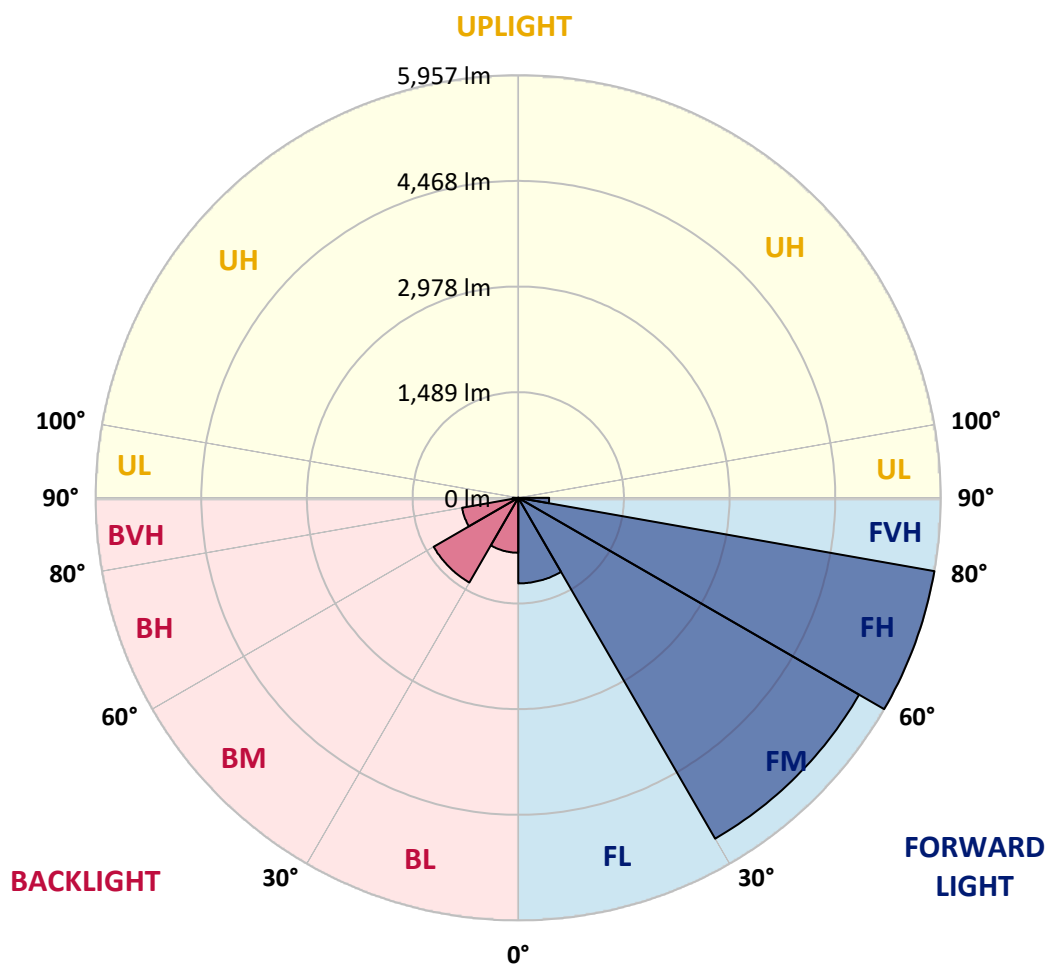
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1206.6	7.5			
FM	(30°-60°)	5548.1	34.3			
FH	(60°-80°)	5956.7	36.8			G3/7500
FVH	(80°-90°)	436.1	2.7			G3/500
BL	(0°-30°)	774.5	4.8	B2/1000		
BM	(30°-60°)	1377.7	8.5	B2/2500		
BH	(60°-80°)	804.1	5.0	B2/1000		G2/1000
BVH	(80°-90°)	78.8	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3
2.5°	2995.6	2985.1	2995.6	2991.2	2989.4	2985.9	2986.8	2992.9	2989.4	2993.8	2979.0
5°	2975.5	2969.4	2979.9	2977.2	2988.6	2990.3	3001.6	3008.6	3013.0	3013.8	3002.5
7.5°	2942.5	2936.3	2951.2	2963.4	2987.7	2994.6	3018.2	3029.5	3035.6	3046.0	3029.5
10°	2821.4	2818.9	2855.3	2901.6	2959.0	2994.6	3030.4	3049.5	3059.1	3087.0	3067.8
12.5°	2607.3	2610.8	2658.6	2747.4	2862.3	2977.2	3044.2	3072.1	3087.0	3121.7	3113.0
15°	2402.7	2401.9	2454.1	2549.0	2710.0	2900.6	3051.2	3099.2	3124.4	3175.8	3168.8
17.5°	2284.3	2280.8	2317.4	2389.7	2539.3	2783.2	3033.9	3114.0	3167.9	3232.3	3226.2
20°	2262.6	2255.6	2274.8	2310.5	2416.6	2654.3	2988.6	3114.0	3202.7	3286.4	3282.9
22.5°	2341.7	2330.4	2322.6	2318.2	2365.3	2548.0	2937.2	3103.5	3254.1	3363.7	3357.7
25°	2501.1	2483.7	2443.6	2404.4	2390.5	2500.2	2891.9	3100.8	3330.7	3468.3	3445.6
27.5°	2758.8	2737.0	2656.1	2562.0	2477.5	2524.6	2871.9	3116.5	3415.2	3578.8	3533.6
30°	3078.3	3054.7	2952.9	2808.4	2656.9	2615.1	2897.2	3162.7	3523.1	3726.0	3637.1
32.5°	3364.7	3338.5	3251.5	3104.3	2899.8	2771.8	2977.2	3250.6	3692.9	3930.5	3793.0
35°	3618.9	3588.4	3510.0	3374.2	3197.5	2992.1	3121.7	3406.5	3934.0	4263.1	4004.5
37.5°	3867.8	3832.2	3746.8	3603.2	3479.6	3285.4	3321.1	3606.7	4254.4	4667.0	4284.8
40°	4146.4	4095.1	3991.5	3849.6	3729.5	3629.3	3583.2	3852.2	4579.9	5117.9	4634.7
42.5°	4416.3	4367.5	4243.9	4122.9	3972.3	3943.6	3887.0	4139.5	4936.0	5613.3	4990.0
45°	4707.0	4648.7	4498.9	4345.8	4250.9	4152.5	4181.2	4426.8	5285.1	6118.2	5362.6
47.5°	4979.6	4914.3	4737.5	4566.9	4514.6	4328.4	4451.1	4742.8	5648.1	6630.1	5731.7
50°	5126.6	5062.2	4915.1	4761.0	4720.1	4545.2	4743.6	5090.0	6028.5	7140.3	6085.9
52.5°	5249.4	5179.7	4987.3	4902.1	4889.9	4781.0	5104.0	5487.0	6408.9	7591.2	6428.1
55°	5379.9	5302.5	5057.0	4980.4	5036.1	5045.7	5531.4	5937.1	6811.1	8030.8	6751.1
57.5°	5530.6	5432.2	5124.0	5046.6	5178.9	5355.6	6022.4	6403.7	7206.4	8438.2	7038.4
60°	5672.5	5573.2	5252.8	5151.9	5333.0	5715.1	6585.6	6968.7	7653.9	8801.2	7310.0
62.5°	5700.3	5618.5	5355.6	5354.7	5541.9	6134.7	7252.5	7538.9	8044.7	9159.9	7553.7
65°	5218.1	5166.7	5010.8	5346.9	5841.4	6738.9	7995.1	8268.5	8541.7	9473.3	7767.9
67.5°	3971.5	3978.4	3967.1	4615.7	5599.4	7606.8	9070.2	9049.3	9155.5	9824.9	8014.3
70°	1816.0	1856.9	2123.3	3186.2	4485.9	7707.0	10847.9	10577.1	9926.0	10280.2	8227.5
72.5°	981.1	1012.4	1121.2	1543.4	2697.0	6852.0	12176.3	12368.7	10950.6	10586.7	7993.4
75°	720.0	737.4	813.1	981.1	1132.6	5092.7	11700.2	12687.3	11078.5	9872.0	6902.6
77.5°	538.8	546.7	608.5	777.4	579.7	2684.8	9348.8	10507.5	9483.7	8110.8	5098.8
80°	390.8	399.5	445.7	583.2	406.5	982.0	6419.4	7375.3	6495.1	5170.2	2541.1
82.5°	269.9	273.4	293.4	397.0	283.8	381.3	3642.3	4324.9	3625.8	1814.2	686.0
85°	162.8	167.2	175.9	231.5	161.0	181.1	1572.2	1626.2	1083.8	433.6	213.3
87.5°	67.0	71.3	78.3	97.5	63.6	50.5	259.4	325.5	202.8	127.1	66.1
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°	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3	2970.3
2.5°	2974.7	2968.6	2952.0	2929.3	2908.5	2882.4	2871.0	2861.5	2852.8	2836.3	2828.4
5°	2992.9	2976.4	2932.0	2874.5	2809.2	2737.9	2668.2	2620.3	2579.4	2549.0	2523.8
7.5°	3020.8	2989.4	2908.5	2791.0	2641.2	2488.0	2349.6	2251.2	2177.2	2150.2	2103.2
10°	3049.5	3012.1	2871.0	2663.9	2405.3	2169.4	1985.7	1884.8	1825.5	1806.4	1776.7
12.5°	3083.5	3028.7	2812.7	2487.2	2141.5	1883.0	1722.8	1663.6	1633.1	1622.7	1625.3
15°	3133.1	3042.5	2724.8	2266.1	1890.0	1674.0	1570.5	1529.5	1513.9	1513.0	1516.5
17.5°	3170.5	3045.2	2588.1	2029.2	1696.7	1547.9	1462.5	1446.9	1457.2	1472.9	1479.1
20°	3212.4	3021.7	2408.8	1813.3	1560.9	1437.3	1401.6	1412.0	1437.3	1459.9	1467.7
22.5°	3241.9	2979.0	2192.1	1645.3	1443.4	1373.7	1372.0	1393.7	1407.6	1419.0	1425.1
25°	3268.0	2906.8	1962.2	1504.3	1346.7	1335.4	1354.5	1347.6	1338.0	1347.6	1353.7
27.5°	3287.2	2792.7	1756.7	1380.7	1278.8	1309.3	1298.0	1282.3	1281.5	1286.7	1295.4
30°	3281.1	2640.4	1587.8	1263.2	1230.9	1260.5	1233.6	1230.9	1228.4	1230.9	1240.6
32.5°	3281.1	2467.1	1458.2	1182.2	1200.5	1189.2	1186.5	1180.5	1170.0	1169.1	1180.5
35°	3299.4	2293.8	1346.7	1138.7	1175.3	1148.2	1149.9	1135.2	1113.5	1103.0	1113.5
37.5°	3336.8	2154.5	1236.1	1117.8	1130.9	1130.0	1123.0	1097.8	1059.4	1026.3	1037.7
40°	3427.3	2113.7	1160.4	1108.2	1110.0	1120.4	1102.1	1053.4	966.3	912.4	919.3
42.5°	3569.3	2182.4	1143.9	1084.7	1096.0	1106.5	1070.8	957.6	895.7	863.6	863.6
45°	3749.4	2302.6	1179.6	1050.7	1062.9	1081.2	975.0	921.1	893.2	894.0	898.4
47.5°	3977.5	2428.8	1245.8	1021.1	1015.1	1025.5	911.4	878.4	840.1	849.6	874.0
50°	4241.2	2556.8	1308.4	981.1	962.0	928.0	870.5	839.2	790.5	767.8	773.9
52.5°	4526.8	2680.4	1333.6	932.3	904.5	865.3	842.7	804.4	745.2	707.8	706.8
55°	4797.6	2792.7	1305.8	874.0	847.1	816.6	813.1	789.6	726.0	673.8	673.8
57.5°	5053.6	2886.7	1236.1	814.9	788.7	770.4	794.0	782.6	702.5	635.5	632.0
60°	5270.2	2951.2	1135.2	754.8	736.5	726.9	762.6	759.1	669.4	594.6	591.9
62.5°	5442.6	2976.4	1023.8	697.3	693.0	675.6	719.0	719.0	627.7	554.5	552.0
65°	5577.5	2952.0	910.6	640.7	649.4	623.3	665.9	660.7	583.2	518.9	515.4
67.5°	5696.8	2871.9	785.3	585.0	605.1	571.9	610.3	598.1	534.5	483.2	479.7
70°	5749.9	2685.6	642.5	529.3	553.7	521.4	554.5	531.9	479.7	444.8	437.9
72.5°	5323.3	2232.0	505.8	471.0	491.9	465.8	494.5	468.3	420.5	404.8	391.8
75°	4404.1	1675.0	389.1	407.4	423.1	403.0	422.2	403.0	359.6	370.8	338.7
77.5°	3198.4	1130.9	297.8	340.4	347.4	336.9	353.4	331.7	292.5	289.9	276.9
80°	1590.5	662.5	233.3	269.0	266.4	259.4	278.6	268.1	235.0	249.0	246.4
82.5°	460.5	283.8	169.7	188.9	183.7	185.4	199.4	204.6	306.5	303.8	310.8
85°	144.5	111.4	101.9	105.4	100.1	102.7	117.6	233.3	215.9	126.3	136.6
87.5°	37.4	38.3	25.2	27.0	27.9	33.1	37.4	141.9	67.9	44.4	47.0
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)