

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: P967737

Luminaire Tested: **NAV-SB5A-735-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967737
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-735-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23843.5 lumens
Efficiency: N/A
Efficacy: 168.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 141.7
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



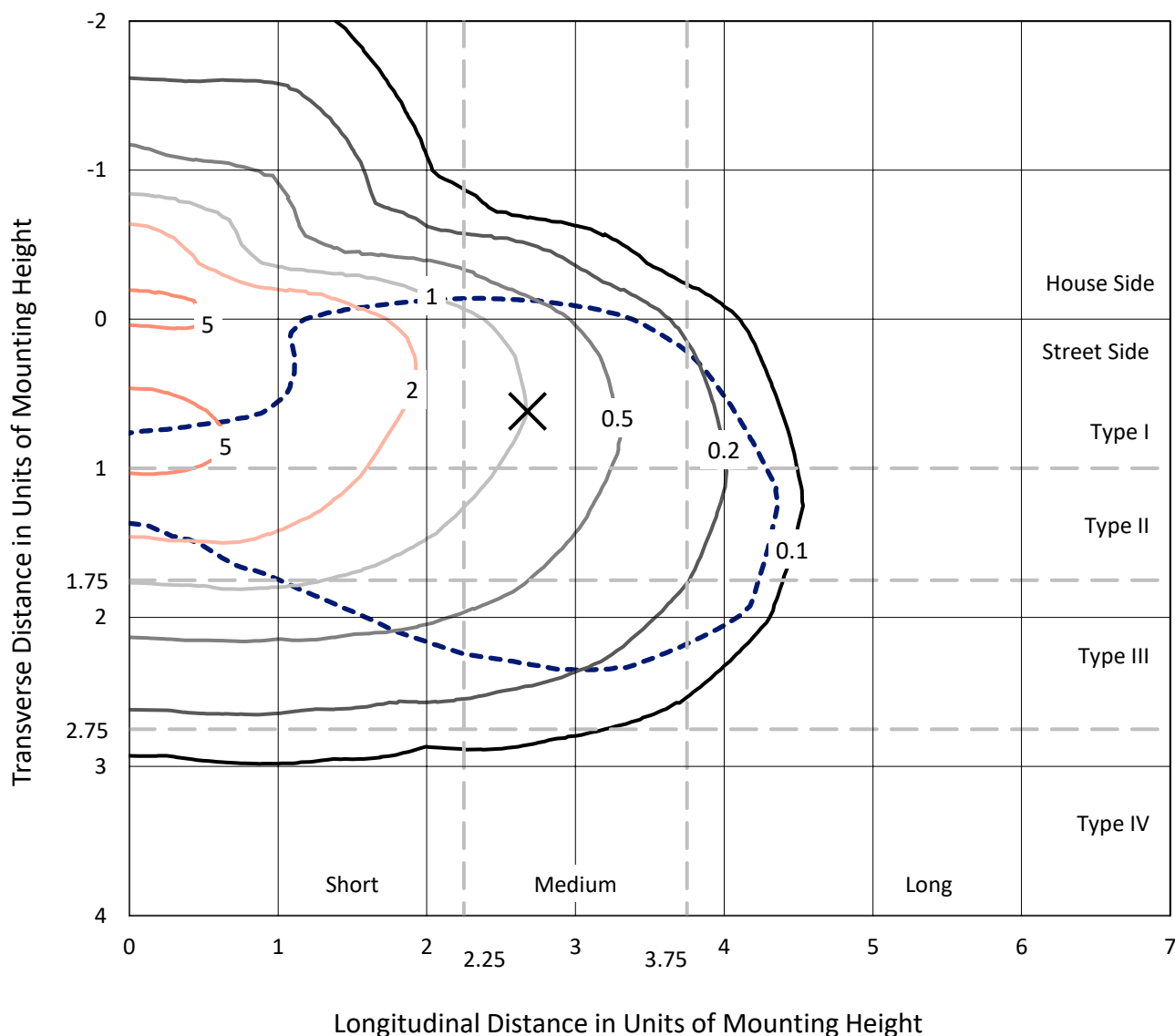
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

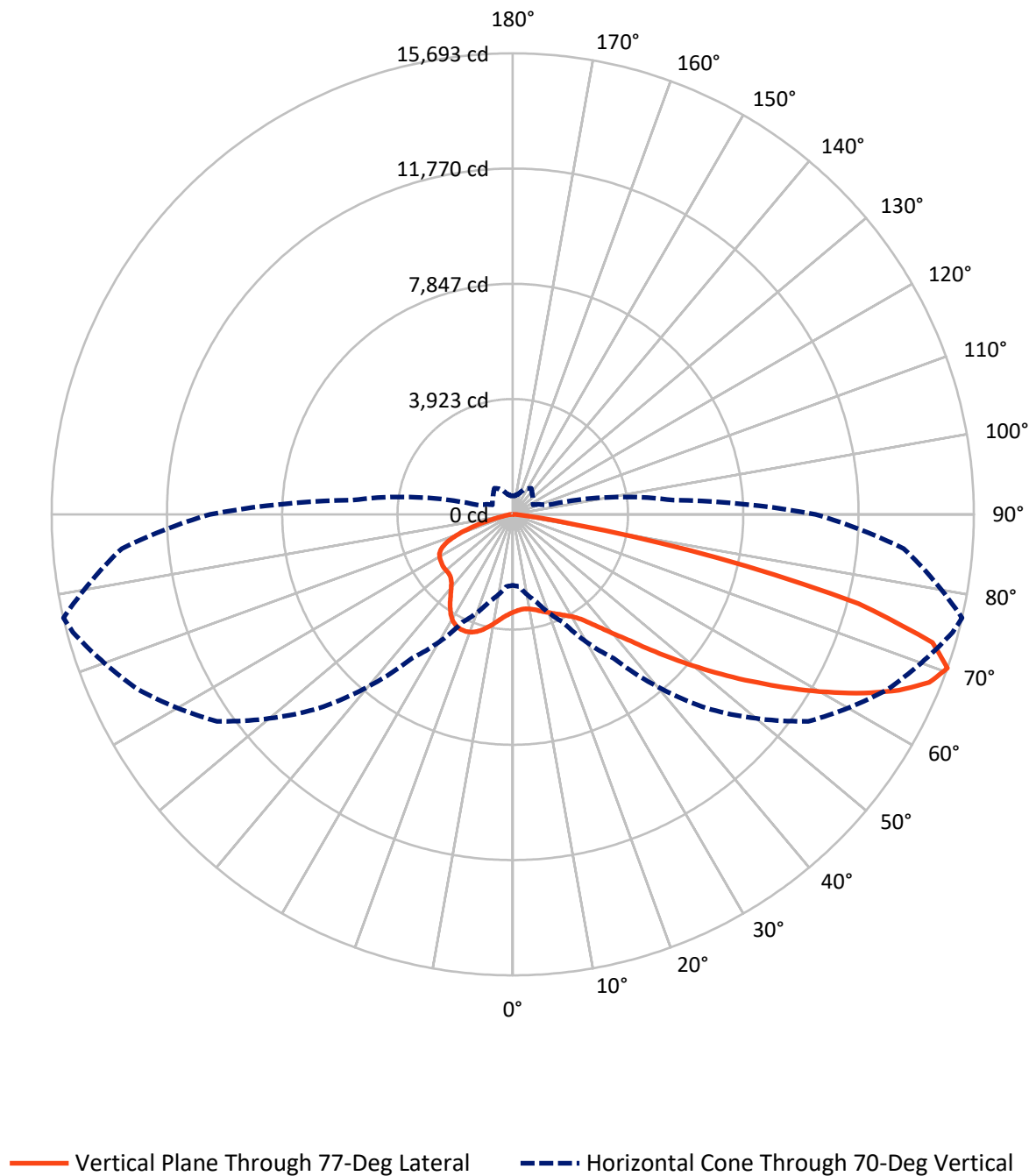


Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5221.4	0.0	5221.4
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	18622.2	0.0	18622.2
	% Fixture	78.1	0.0	78.1
Total	Lumens	23843.5	0.0	23843.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.2	1.3
10°-20°	915.6	3.8
20°-30°	1565.8	6.6
30°-40°	2518.0	10.6
40°-50°	3931.3	16.5
50°-60°	5251.2	22.0
60°-70°	5597.0	23.5
70°-80°	3445.5	14.5
80°-90°	301.9	1.3
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°	23843.5	100.0
0°-180°	23843.5	100.0

Coefficient of Utilization



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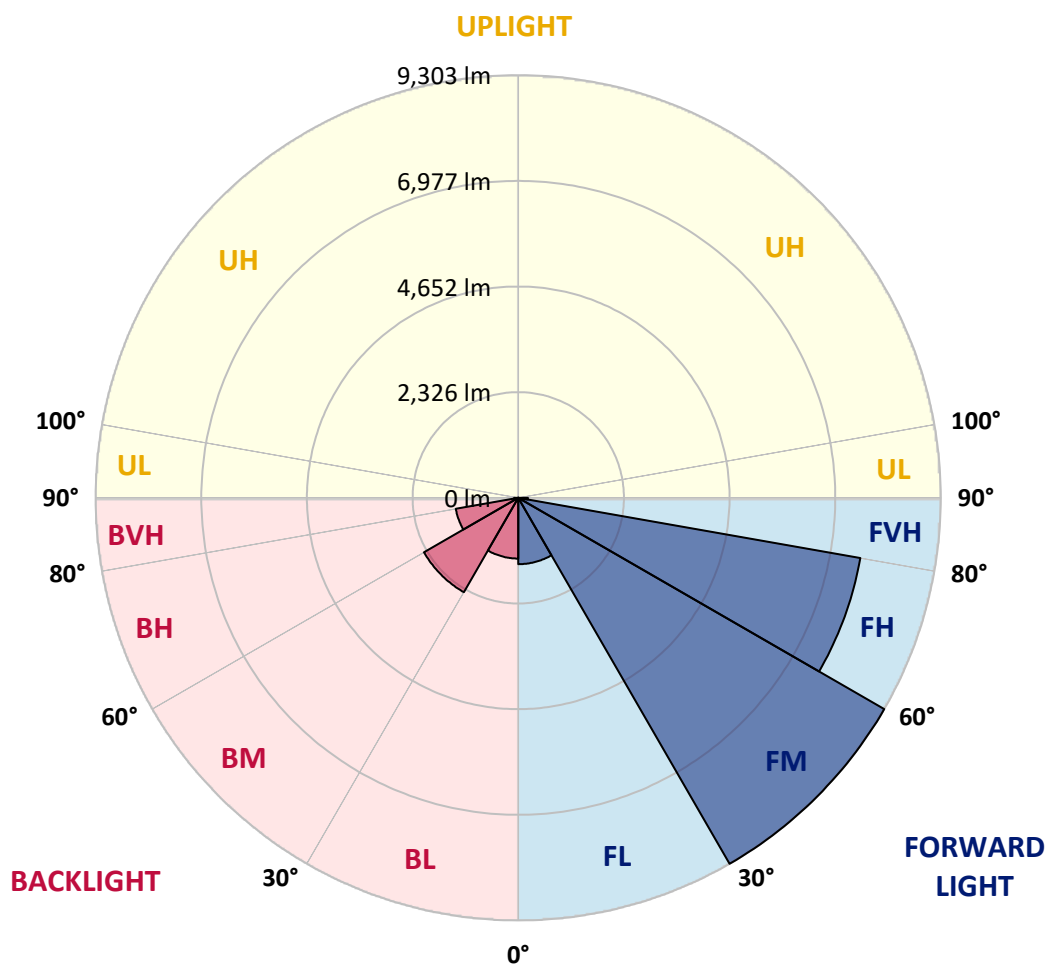
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1460.8	6.1			
FM	(30°-60°)	9303.2	39.0			
FH	(60°-80°)	7647.0	32.1			G4/12000
FVH	(80°-90°)	211.1	0.9			G2/225
BL	(0°-30°)	1337.9	5.6	B3/2500		
BM	(30°-60°)	2397.2	10.1	B2/2500		
BH	(60°-80°)	1395.4	5.9	B3/2500		G3/2500
BVH	(80°-90°)	90.8	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4
2.5°	3066.3	3065.1	3080.9	3085.9	3115.2	3135.9	3174.9	3216.4	3270.3	3276.3	3309.3
5°	2889.3	2889.3	2907.5	2927.1	2964.9	3006.4	3066.3	3138.3	3231.1	3245.8	3327.7
7.5°	2739.0	2748.7	2764.6	2802.6	2846.5	2906.3	2997.9	3100.5	3222.6	3245.8	3377.7
10°	2618.2	2629.1	2648.7	2679.1	2745.2	2828.2	2947.8	3079.7	3243.3	3280.0	3451.0
12.5°	2580.2	2591.3	2602.3	2625.4	2686.5	2784.2	2927.1	3089.5	3293.4	3330.0	3551.1
15°	2668.2	2681.6	2673.1	2666.9	2698.7	2787.9	2936.8	3124.9	3355.7	3408.2	3674.4
17.5°	2870.9	2875.7	2856.3	2798.9	2793.9	2841.6	2983.3	3173.7	3433.9	3491.3	3799.0
20°	3198.2	3189.6	3149.3	3035.7	2971.1	2961.2	3062.6	3247.0	3514.4	3575.5	3933.3
22.5°	3642.6	3632.9	3552.3	3372.8	3228.7	3133.4	3177.4	3342.2	3604.8	3673.2	4063.9
25°	4197.1	4183.6	4065.2	3821.0	3597.4	3361.8	3333.7	3468.1	3715.9	3779.5	4200.8
27.5°	4844.3	4833.3	4705.1	4382.7	4060.3	3674.4	3527.8	3615.8	3832.0	3904.0	4354.6
30°	5540.3	5572.1	5345.0	4998.1	4590.3	4082.3	3789.2	3797.7	3982.1	4046.9	4541.5
32.5°	6358.5	6413.4	6140.0	5700.3	5143.4	4525.6	4119.0	4051.7	4200.8	4254.5	4777.1
35°	7169.4	7231.6	7004.4	6518.5	5877.3	5048.2	4463.3	4343.6	4491.3	4550.0	5089.7
37.5°	7870.3	7953.3	7836.0	7413.5	6662.6	5678.3	4912.6	4686.7	4849.2	4922.5	5509.8
40°	8423.4	8550.4	8541.9	8278.1	7588.2	6442.7	5482.9	5110.4	5293.6	5373.0	6019.0
42.5°	8872.8	8982.7	9078.0	9064.6	8554.1	7311.0	6153.4	5661.2	5800.5	5892.0	6591.8
45°	9183.0	9300.2	9505.3	9726.4	9483.4	8240.3	6921.4	6314.5	6441.5	6579.5	7274.3
47.5°	9460.2	9593.3	9859.5	10210.0	10272.2	9173.2	7762.8	7075.3	7191.3	7334.2	7959.4
50°	9484.6	9599.4	10012.2	10509.1	10832.7	10069.5	8666.5	7928.9	8037.5	8190.2	8693.3
52.5°	8894.8	9075.6	9796.0	10500.6	11090.4	10819.3	9564.0	8816.6	8938.7	9121.9	9452.9
55°	6904.3	7169.4	9162.3	10173.3	10998.9	11304.1	10417.6	9760.6	9916.9	10108.7	10217.3
57.5°	5946.9	6063.0	7273.1	9577.4	10581.2	11429.9	11138.1	10714.3	10965.9	11175.9	11025.7
60°	5345.0	5441.4	6157.0	8650.6	10031.7	11230.8	11694.8	11603.3	12038.0	12288.3	11852.4
62.5°	4700.1	4791.8	5442.6	7223.1	9328.3	10900.0	12046.6	12423.9	13137.0	13410.6	12631.5
65°	4060.3	4138.4	4762.5	6069.1	8434.4	10569.0	12228.6	13133.4	14154.2	14437.5	13278.7
67.5°	3347.1	3411.9	4001.7	5120.3	7347.6	10115.9	12318.9	13691.4	15039.6	15282.6	13598.7
70°	2415.4	2465.5	3074.8	4049.3	5983.6	9336.8	12282.3	14087.1	15498.7	15693.0	13356.9
72.5°	1141.7	1186.9	1902.5	2629.1	4226.4	7820.2	11541.0	13773.2	15032.2	14935.8	11876.9
75°	609.4	648.4	1093.0	1442.2	2232.2	5360.9	9444.3	11864.6	12623.0	12154.0	8777.6
77.5°	412.8	443.3	676.5	865.8	1019.7	2544.9	6070.3	8214.7	7903.3	7129.1	4396.1
80°	327.3	359.1	554.4	586.2	493.3	919.5	2508.3	3802.6	2731.7	2184.6	1250.5
82.5°	251.5	287.0	466.5	425.0	268.7	377.3	730.2	1202.8	699.7	532.4	302.9
85°	153.9	191.7	366.3	271.1	151.4	172.2	247.8	334.6	213.7	178.2	108.6
87.5°	78.1	109.9	185.6	98.9	68.4	40.3	65.9	65.9	56.2	48.9	28.1
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°	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4	3326.4
2.5°	3338.6	3363.0	3404.5	3443.6	3474.1	3503.4	3532.8	3548.7	3553.6	3573.0	3584.0
5°	3377.7	3422.9	3503.4	3579.2	3626.8	3656.1	3676.9	3689.1	3691.5	3697.6	3707.4
7.5°	3449.7	3521.8	3634.1	3709.8	3745.2	3742.8	3734.3	3703.7	3691.5	3680.6	3682.9
10°	3551.1	3646.3	3784.3	3836.8	3814.8	3756.2	3680.6	3591.4	3549.9	3509.6	3497.4
12.5°	3676.9	3797.7	3933.3	3930.9	3822.2	3672.0	3496.2	3359.3	3272.6	3210.4	3195.7
15°	3829.5	3968.7	4072.5	3989.5	3751.4	3481.5	3223.8	3045.5	2967.4	2899.0	2891.6
17.5°	3987.0	4136.0	4183.6	3971.2	3573.0	3199.4	2907.5	2767.1	2690.2	2653.5	2664.5
20°	4140.9	4288.7	4249.5	3866.1	3301.9	2879.4	2619.4	2542.4	2526.5	2535.1	2531.4
22.5°	4303.3	4435.2	4263.0	3663.5	2956.4	2552.1	2409.4	2411.7	2447.2	2472.8	2479.0
25°	4469.4	4558.5	4227.6	3370.4	2585.2	2311.6	2276.2	2315.3	2384.9	2435.0	2448.4
27.5°	4629.3	4668.5	4150.6	3007.7	2266.5	2139.5	2145.5	2226.1	2331.2	2400.8	2417.9
30°	4810.1	4766.1	4002.9	2599.8	2045.4	1991.7	2042.9	2137.0	2242.0	2304.3	2319.0
32.5°	5014.0	4850.4	3768.4	2222.5	1889.1	1873.2	1957.4	2018.5	2065.0	2083.3	2093.0
35°	5268.0	4968.8	3468.1	1957.4	1748.6	1786.6	1867.1	1836.6	1818.2	1808.5	1818.2
37.5°	5597.7	5128.8	3116.3	1785.3	1635.1	1724.3	1757.3	1661.9	1589.9	1554.5	1563.0
40°	5994.6	5363.2	2778.1	1652.2	1563.0	1670.5	1613.1	1498.3	1406.7	1356.7	1360.4
42.5°	6435.5	5608.7	2493.6	1552.1	1522.7	1626.6	1506.9	1370.1	1222.4	1206.5	1222.4
45°	6898.2	5861.5	2299.4	1475.2	1503.3	1588.7	1445.9	1224.8	1119.8	1184.5	1218.7
47.5°	7361.0	6093.5	2182.2	1417.8	1493.4	1546.0	1392.1	1144.2	1069.7	1163.8	1207.8
50°	7876.4	6301.1	2129.6	1376.3	1482.5	1528.9	1311.5	1123.5	1017.2	1079.5	1125.9
52.5°	8388.0	6462.3	2090.6	1334.8	1466.6	1515.5	1272.4	1099.0	953.8	957.4	983.0
55°	8898.4	6567.3	2047.8	1279.7	1431.2	1486.1	1268.7	1072.1	906.1	889.0	901.2
57.5°	9443.1	6627.1	1995.4	1218.7	1370.1	1411.6	1265.1	1051.4	891.4	863.4	867.0
60°	9997.5	6715.1	1927.0	1144.2	1288.3	1322.5	1256.5	1044.1	882.9	835.3	839.0
62.5°	10494.5	6745.6	1845.1	1073.4	1183.3	1234.6	1238.2	1038.0	859.7	777.9	777.9
65°	10820.5	6613.7	1702.3	992.8	1069.7	1144.2	1202.8	1017.2	818.2	736.4	736.4
67.5°	10807.1	6237.6	1478.8	889.0	959.8	1044.1	1151.6	981.8	768.1	685.1	688.7
70°	10304.0	5495.1	1195.5	768.1	839.0	936.6	1085.6	929.3	708.3	628.8	636.2
72.5°	8837.4	4300.9	868.3	626.5	698.5	825.5	1000.1	865.8	647.2	578.8	575.1
75°	6313.3	2721.9	588.6	481.1	543.5	699.7	893.9	791.3	591.0	581.3	548.3
77.5°	3225.1	1300.5	389.5	351.7	378.5	552.0	751.0	707.0	599.6	479.9	427.4
80°	1049.0	479.9	245.5	239.3	251.5	367.6	581.3	580.0	454.3	326.1	288.2
82.5°	334.6	206.3	160.0	153.9	147.8	230.8	405.4	459.2	306.5	206.3	205.1
85°	133.1	123.3	94.0	86.7	62.3	108.6	212.5	305.2	228.4	148.9	152.6
87.5°	48.9	48.9	25.6	18.3	13.4	36.6	57.4	91.6	130.7	77.0	75.7
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)