

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: P883994

Luminaire Tested: **NAV-SB4C-835-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883994
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25385 lumens
Efficiency: N/A
Efficacy: 126.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

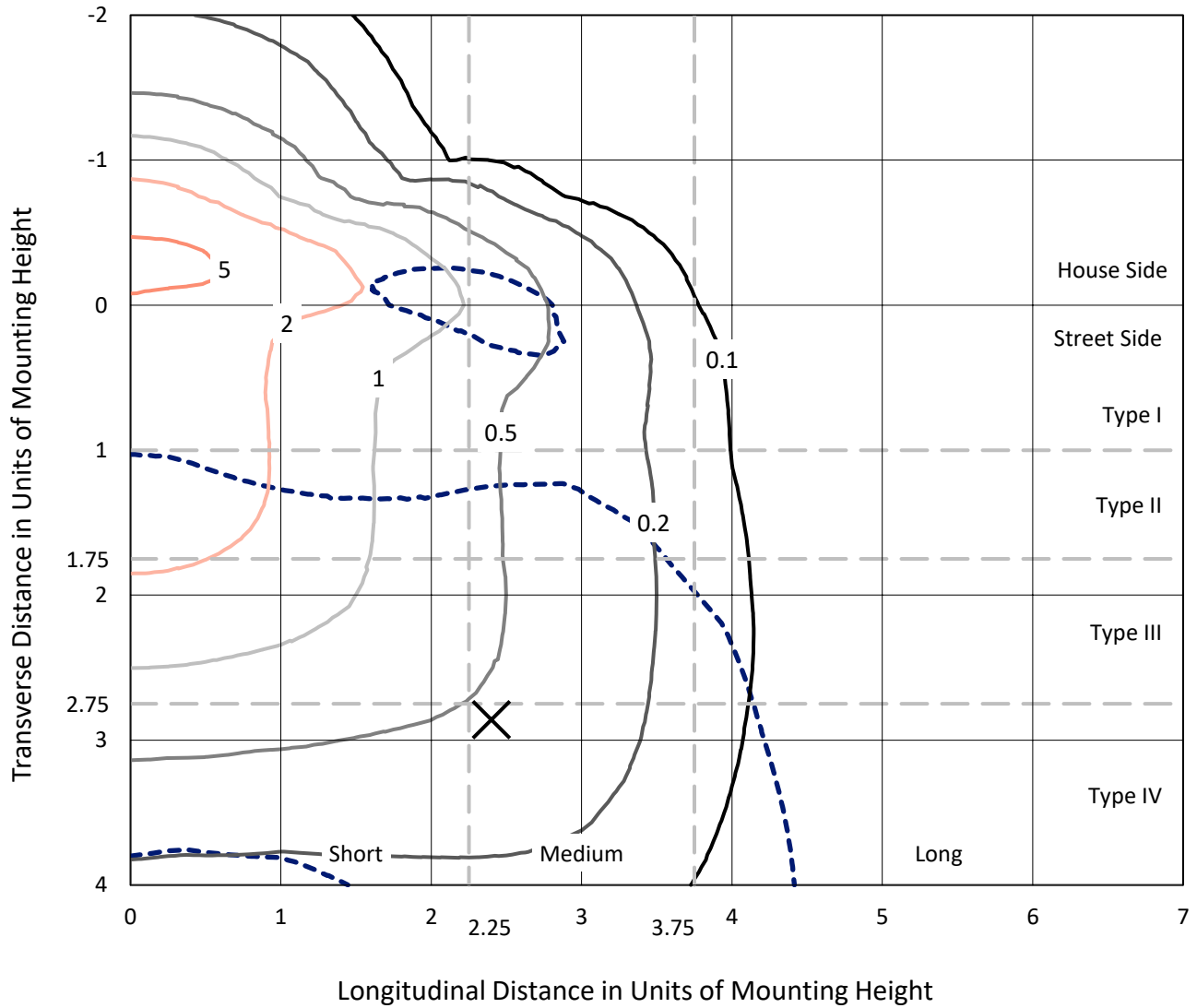
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

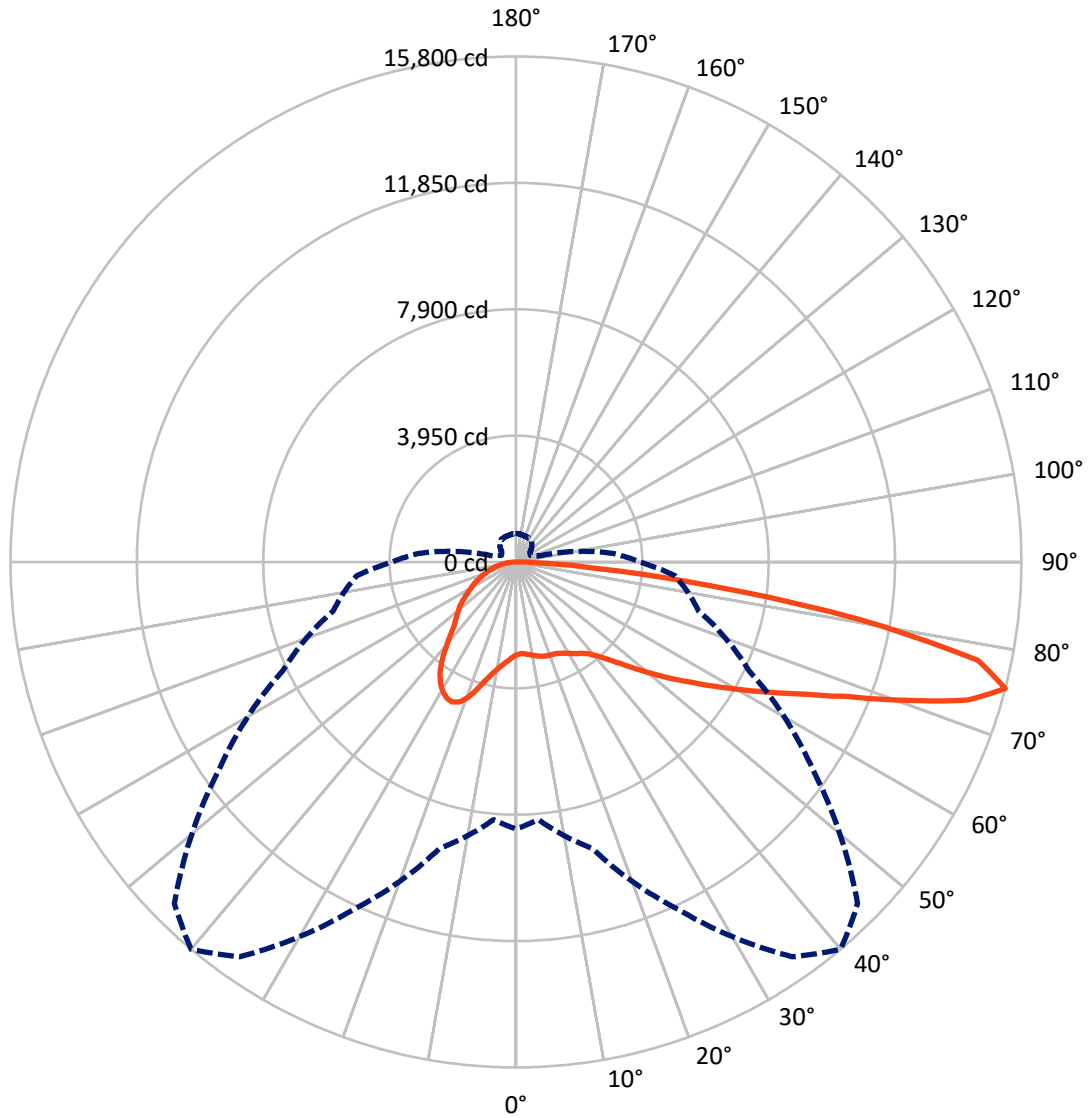
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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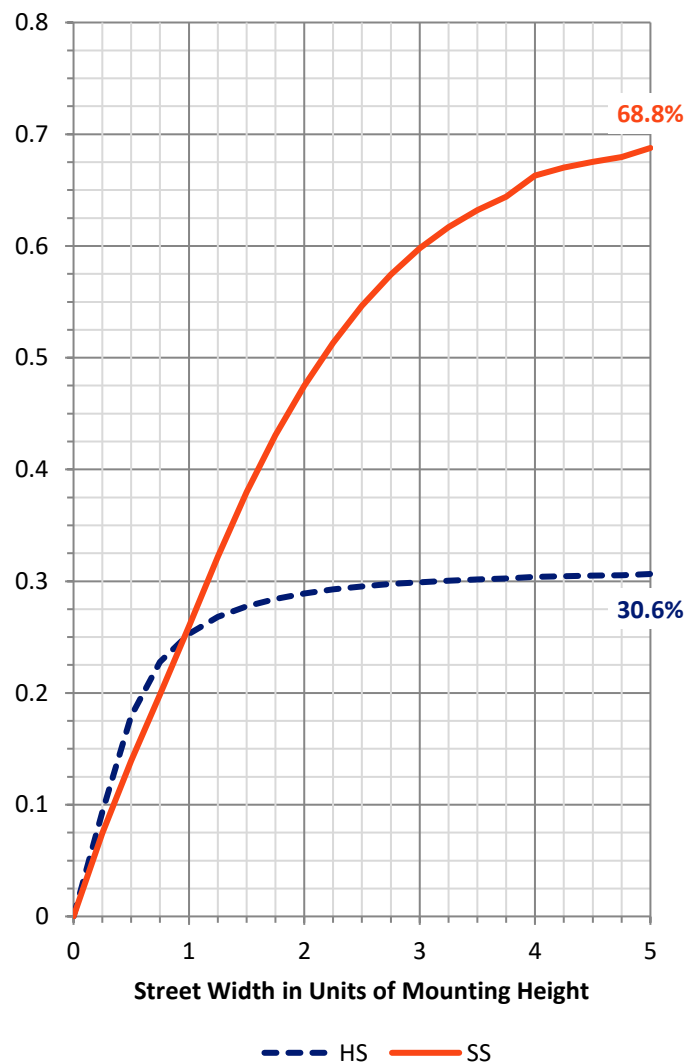
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7865.1	0.0	7865.1
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	17519.9	0.0	17519.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	25385.0	0.0	25385.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.8	1.1
10°-20°	972.8	3.8
20°-30°	1776.3	7.0
30°-40°	2519.3	9.9
40°-50°	3401.8	13.4
50°-60°	4576.4	18.0
60°-70°	5808.5	22.9
70°-80°	5271.6	20.8
80°-90°	768.4	3.0
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°	25385.0	100.0
0°-180°	25385.0	100.0

Coefficient of Utilization



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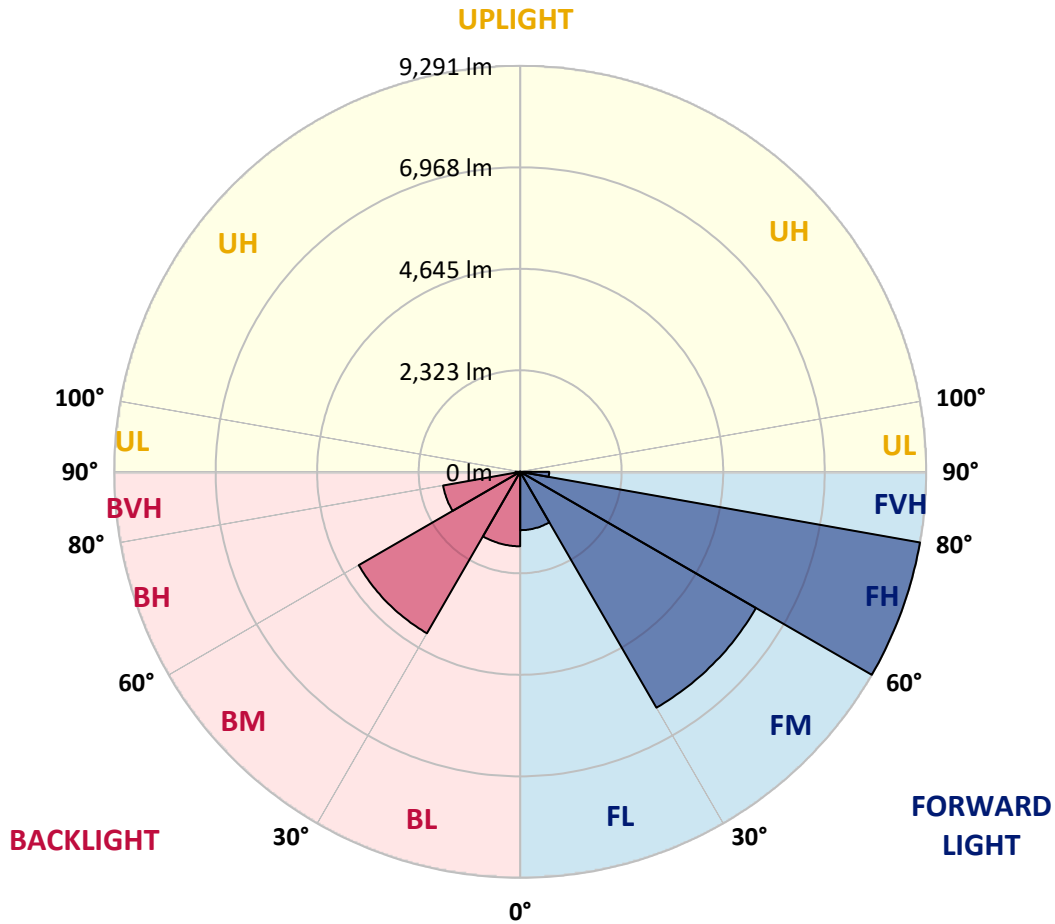
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1335.3	5.3			
FM (30°-60°)	6231.4	24.5			
FH (60°-80°)	9290.5	36.6			G4/12000
FVH (80°-90°)	662.6	2.6			G4/750
BL (0°-30°)	1703.7	6.7	B3/2500		
BM (30°-60°)	4266.1	16.8	B3/5000		
BH (60°-80°)	1789.5	7.0	B3/2500		G3/2500
BVH (80°-90°)	105.8	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8
2.5°	2858.4	2874.5	2870.5	2865.1	2865.1	2866.5	2865.1	2874.5	2884.0	2893.4	2908.2
5°	2888.0	2904.2	2896.1	2889.3	2884.0	2882.6	2878.6	2877.2	2882.6	2894.7	2914.9
7.5°	2945.9	2962.0	2949.9	2937.8	2927.0	2921.7	2916.3	2908.2	2904.2	2910.9	2939.2
10°	3010.5	3026.7	3011.9	2990.3	2972.8	2966.1	2960.7	2952.6	2947.2	2951.3	2982.2
12.5°	3075.1	3091.3	3071.1	3041.5	3018.6	3014.6	3007.8	3005.1	3003.8	3002.4	3033.4
15°	3135.7	3149.2	3123.6	3088.6	3064.4	3057.6	3050.9	3055.0	3061.7	3069.8	3104.8
17.5°	3182.9	3196.3	3158.6	3112.8	3090.0	3087.3	3083.2	3096.7	3115.5	3135.7	3178.8
20°	3225.9	3239.4	3190.9	3129.0	3102.1	3102.1	3103.4	3131.7	3158.6	3188.2	3247.5
22.5°	3286.5	3297.3	3238.1	3153.2	3114.2	3116.9	3127.7	3155.9	3189.6	3230.0	3312.1
25°	3376.7	3384.8	3312.1	3199.0	3154.6	3162.7	3172.1	3185.5	3217.9	3265.0	3375.4
27.5°	3522.1	3528.9	3433.3	3279.8	3212.5	3225.9	3239.4	3230.0	3244.8	3285.2	3426.6
30°	3726.8	3730.8	3609.7	3406.4	3310.8	3317.5	3320.2	3281.1	3252.9	3285.2	3462.9
32.5°	3969.1	3967.8	3823.7	3559.8	3422.5	3415.8	3392.9	3316.1	3250.2	3278.5	3495.2
35°	4344.8	4330.0	4144.2	3775.3	3549.1	3507.3	3453.5	3355.2	3263.6	3271.7	3523.5
37.5°	4966.8	4921.0	4663.9	4128.0	3737.6	3631.2	3551.8	3418.5	3293.3	3269.0	3557.2
40°	5668.3	5610.4	5327.7	4611.4	4020.3	3849.3	3721.4	3508.7	3341.7	3281.1	3607.0
42.5°	6500.4	6418.2	6113.9	5180.9	4378.4	4130.7	3938.2	3623.1	3413.1	3320.2	3674.3
45°	7522.3	7413.2	6982.4	5823.1	4829.5	4499.6	4242.5	3796.8	3522.1	3395.6	3775.3
47.5°	8554.9	8581.9	7969.3	6558.2	5370.7	4954.7	4623.5	4058.0	3681.0	3516.8	3938.2
50°	9652.2	9671.1	8950.8	7372.8	5984.7	5469.0	5051.6	4350.2	3901.8	3689.1	4181.9
52.5°	10508.5	10511.2	9842.1	8225.1	6624.2	6034.5	5513.5	4684.1	4157.6	3918.0	4506.4
55°	11044.4	11037.7	10466.8	9031.6	7359.3	6628.3	6025.1	5063.8	4470.0	4187.3	4914.3
57.5°	11433.5	11413.3	10897.6	9724.9	8142.9	7329.7	6604.0	5494.6	4838.9	4507.7	5451.5
60°	11581.6	11569.5	11189.8	10324.1	8966.9	8105.2	7271.8	5976.6	5257.6	4886.0	6142.2
62.5°	11638.2	11661.1	11476.6	10904.4	9848.8	8964.2	8005.6	6552.9	5728.9	5314.2	6870.6
65°	11837.4	11879.2	11841.5	11663.7	10845.1	9970.0	8979.0	7238.2	6243.2	5773.3	7631.3
67.5°	12231.9	12273.7	12289.8	12572.6	12062.3	11223.5	10193.5	8091.8	6845.0	6249.9	8203.5
70°	12222.5	12210.4	12495.8	13295.6	13586.4	12959.0	11830.7	9142.0	7562.7	6645.8	8276.2
72.5°	11125.2	11028.2	11702.8	13287.5	14854.7	14771.2	13830.1	10496.4	8182.0	6694.2	7181.6
75°	8346.2	8087.7	9279.3	11974.8	15066.1	15799.8	15101.1	11336.6	8035.2	5914.7	4997.8
77.5°	3569.3	3309.4	4713.7	8864.6	13484.1	14769.9	13935.1	9890.6	6414.2	3911.3	2454.5
80°	934.4	933.0	1424.5	4019.0	9170.2	10907.1	9568.8	6387.3	3664.9	1397.5	677.2
82.5°	386.4	377.0	523.7	1563.2	4480.8	6120.7	4995.1	2849.0	1323.5	378.3	224.8
85°	144.1	142.7	254.5	539.9	1580.7	2524.5	1827.0	728.4	329.9	184.5	101.0
87.5°	40.4	39.0	55.2	187.1	385.1	584.3	312.4	119.8	92.9	72.7	29.6
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8	2902.8
2.5°	2912.2	2919.0	2931.1	2940.5	2952.6	2966.1	2984.9	2997.1	3009.2	3017.3	3011.9
5°	2924.4	2939.2	2970.1	3001.1	3037.4	3071.1	3110.2	3138.4	3161.3	3168.0	3170.7
7.5°	2951.3	2975.5	3028.0	3080.5	3138.4	3193.6	3250.2	3298.6	3337.7	3352.5	3353.8
10°	2998.4	3030.7	3104.8	3178.8	3255.6	3340.4	3413.1	3483.1	3538.3	3561.2	3562.5
12.5°	3057.6	3098.0	3195.0	3297.3	3403.7	3520.8	3615.0	3701.2	3769.9	3800.8	3800.8
15°	3134.4	3186.9	3310.8	3448.1	3604.3	3767.2	3887.0	3982.6	4059.4	4097.1	4094.4
17.5°	3217.9	3287.9	3444.1	3651.4	3874.9	4089.0	4229.0	4299.0	4378.4	4414.8	4413.5
20°	3298.6	3384.8	3608.3	3909.9	4207.5	4435.0	4548.1	4566.9	4572.3	4576.4	4587.1
22.5°	3382.1	3497.9	3814.3	4235.7	4554.8	4712.4	4728.5	4647.7	4534.6	4482.1	4496.9
25°	3473.7	3627.2	4083.6	4595.2	4853.7	4872.6	4748.7	4552.1	4338.1	4239.8	4254.6
27.5°	3562.5	3776.6	4406.7	4938.5	5069.1	4903.5	4637.0	4358.3	4099.7	3996.1	4008.2
30°	3651.4	3947.6	4763.5	5238.8	5167.4	4826.8	4460.6	4149.6	3889.7	3780.7	3792.8
32.5°	3741.6	4146.9	5174.2	5455.6	5149.9	4663.9	4241.1	3915.3	3686.4	3572.0	3586.8
35°	3843.9	4391.9	5563.3	5574.0	5032.8	4424.2	3951.6	3635.2	3436.0	3344.4	3364.6
37.5°	3977.2	4702.9	5906.6	5603.7	4828.1	4072.8	3592.2	3304.0	3139.8	3098.0	3127.7
40°	4142.8	5077.2	6169.1	5556.5	4525.2	3646.0	3199.0	2968.8	2875.9	2885.3	2917.6
42.5°	4358.3	5495.9	6353.6	5435.4	4103.8	3205.7	2854.3	2752.0	2796.4	2834.1	2869.1
45°	4638.3	5930.8	6468.0	5229.4	3627.2	2832.8	2651.0	2675.3	2708.9	2713.0	2739.9
47.5°	4996.4	6371.1	6543.4	4918.3	3141.1	2570.3	2521.8	2527.2	2520.4	2492.2	2513.7
50°	5443.4	6799.3	6610.8	4506.4	2727.8	2406.0	2341.4	2322.5	2229.6	2138.1	2150.2
52.5°	5952.4	7192.4	6639.0	3994.7	2406.0	2268.7	2163.6	2045.2	1871.5	1843.2	1852.6
55°	6517.9	7555.9	6566.3	3366.0	2135.4	2092.3	1933.4	1790.7	1771.8	1747.6	1751.6
57.5°	7193.7	7947.7	6418.2	2664.5	1858.0	1886.3	1731.5	1747.6	1713.9	1676.3	1669.5
60°	7932.9	8353.0	6158.4	2025.0	1571.2	1629.1	1678.9	1677.6	1668.2	1637.2	1626.4
62.5°	8598.0	8619.6	5646.7	1551.0	1319.5	1429.9	1565.8	1564.5	1556.4	1538.9	1532.2
65°	8993.9	8579.2	4793.1	1221.2	1112.1	1265.6	1412.4	1423.1	1424.5	1423.1	1423.1
67.5°	8923.8	8106.6	3621.8	972.1	941.1	1098.7	1260.2	1275.0	1285.8	1288.5	1291.2
70°	8132.2	7068.5	2361.6	775.5	789.0	951.9	1116.2	1131.0	1140.4	1151.2	1156.5
72.5°	6338.8	5197.1	1351.8	627.4	655.7	825.3	973.4	990.9	996.3	1016.5	1024.6
75°	3862.8	3056.3	729.7	494.1	538.6	705.5	832.1	852.3	861.7	885.9	888.6
77.5°	1836.5	1323.5	416.0	385.1	433.5	576.3	702.8	725.7	700.1	713.6	702.8
80°	620.7	491.4	262.5	293.5	331.2	449.7	562.8	585.7	531.8	529.1	523.7
82.5°	216.8	199.3	167.0	195.2	214.1	321.8	425.5	455.1	395.8	394.5	375.6
85°	84.8	80.8	92.9	106.4	127.9	197.9	280.0	294.9	243.7	196.6	193.9
87.5°	17.5	18.8	22.9	24.2	39.0	68.7	101.0	123.9	98.3	83.5	76.7
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)