

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: P883916

Luminaire Tested: **NAV-SB4C-727-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883916
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-727-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20085 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

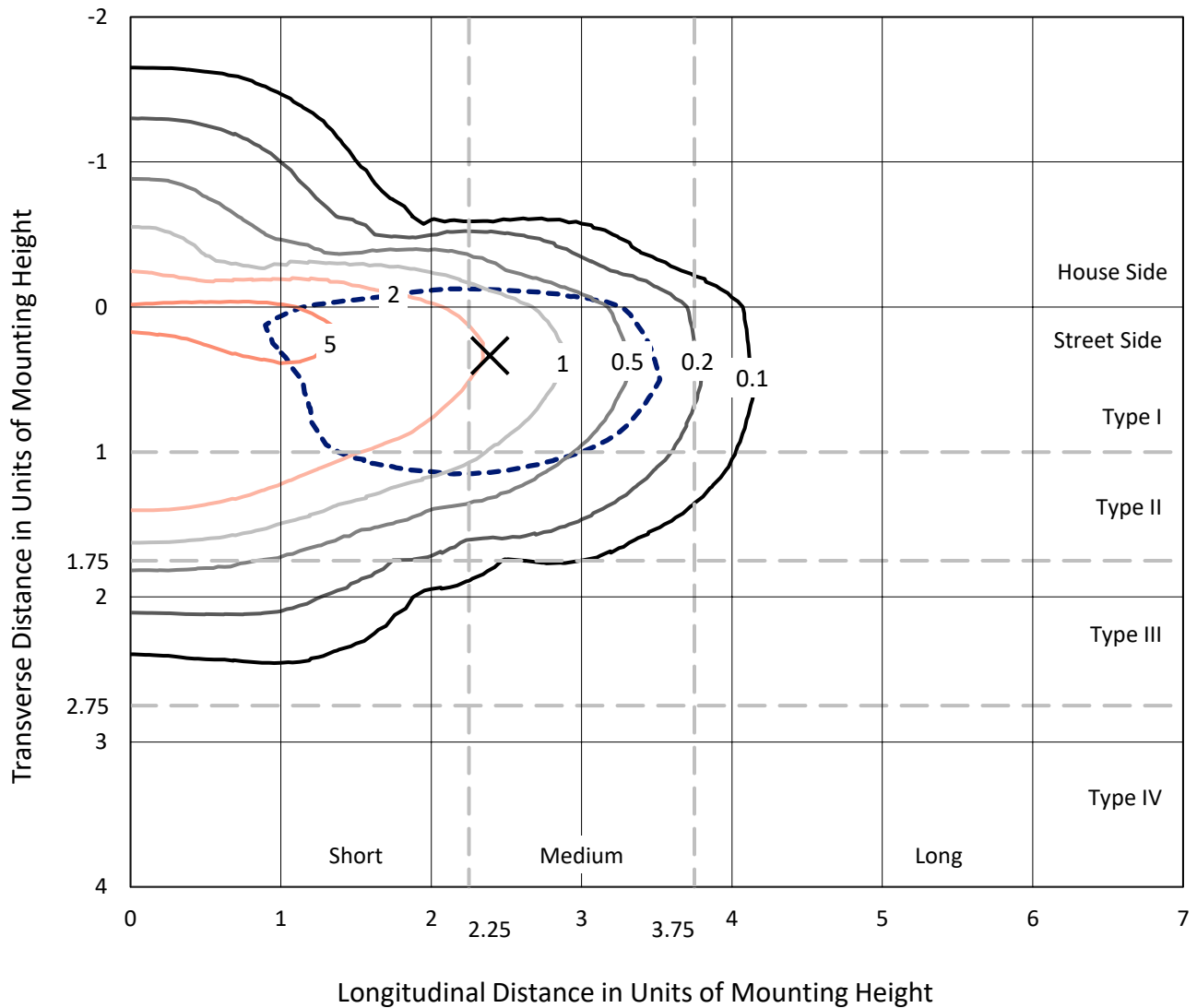
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

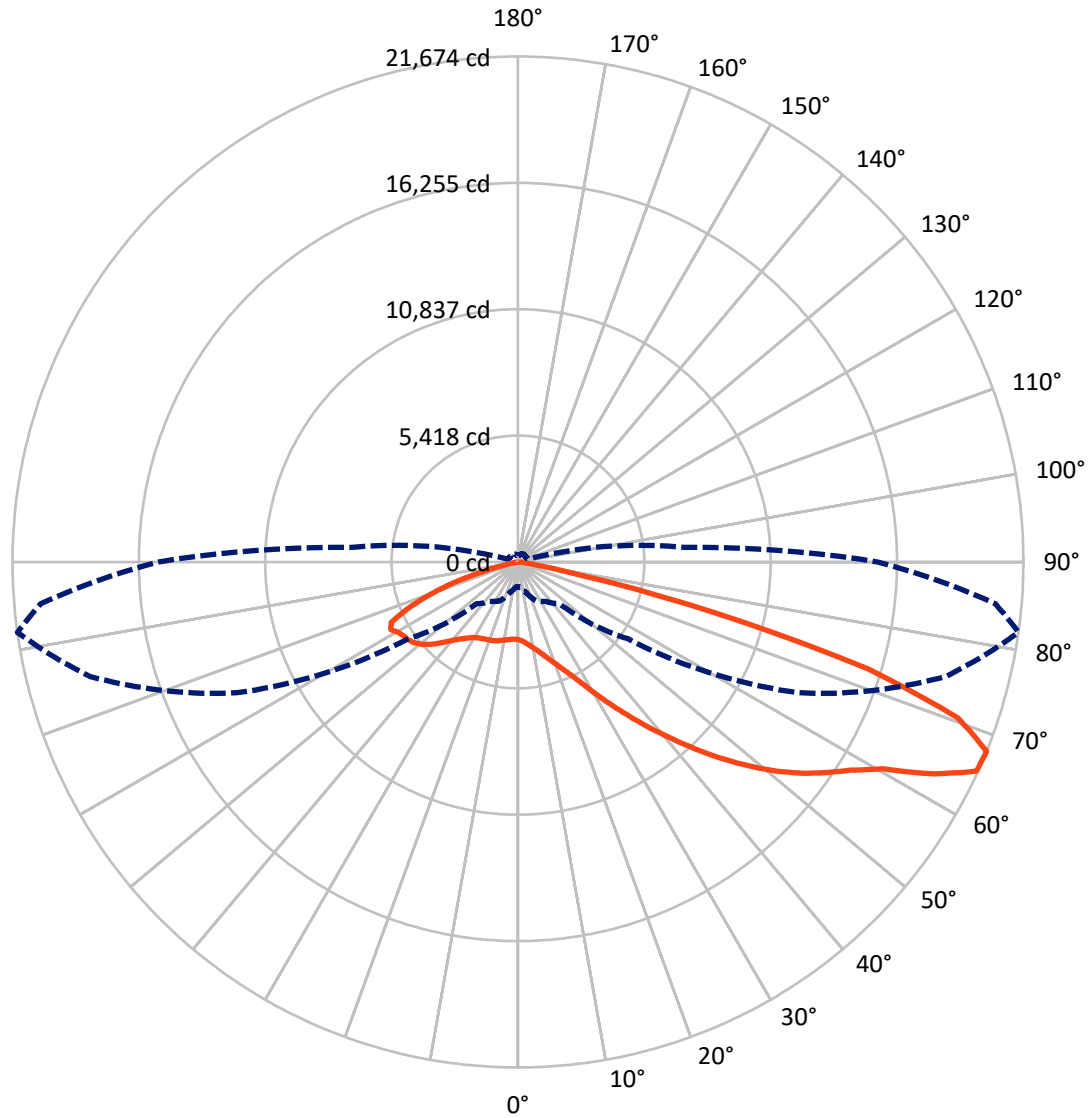
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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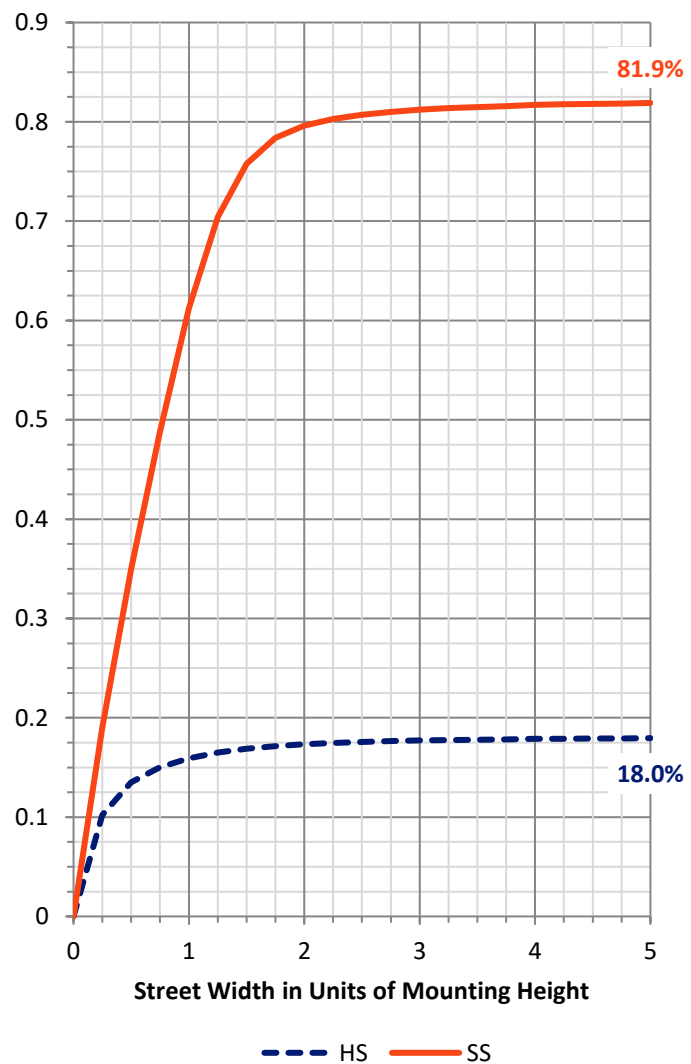
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3638.2	0.0	3638.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	16446.8	0.0	16446.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	20085.0	0.0	20085.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.4	1.5
10°-20°	770.3	3.8
20°-30°	1233.9	6.1
30°-40°	2181.8	10.9
40°-50°	3822.8	19.0
50°-60°	5098.5	25.4
60°-70°	4746.4	23.6
70°-80°	1821.7	9.1
80°-90°	113.1	0.6
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°	20085.0	100.0
0°-180°	20085.0	100.0

Coefficient of Utilization



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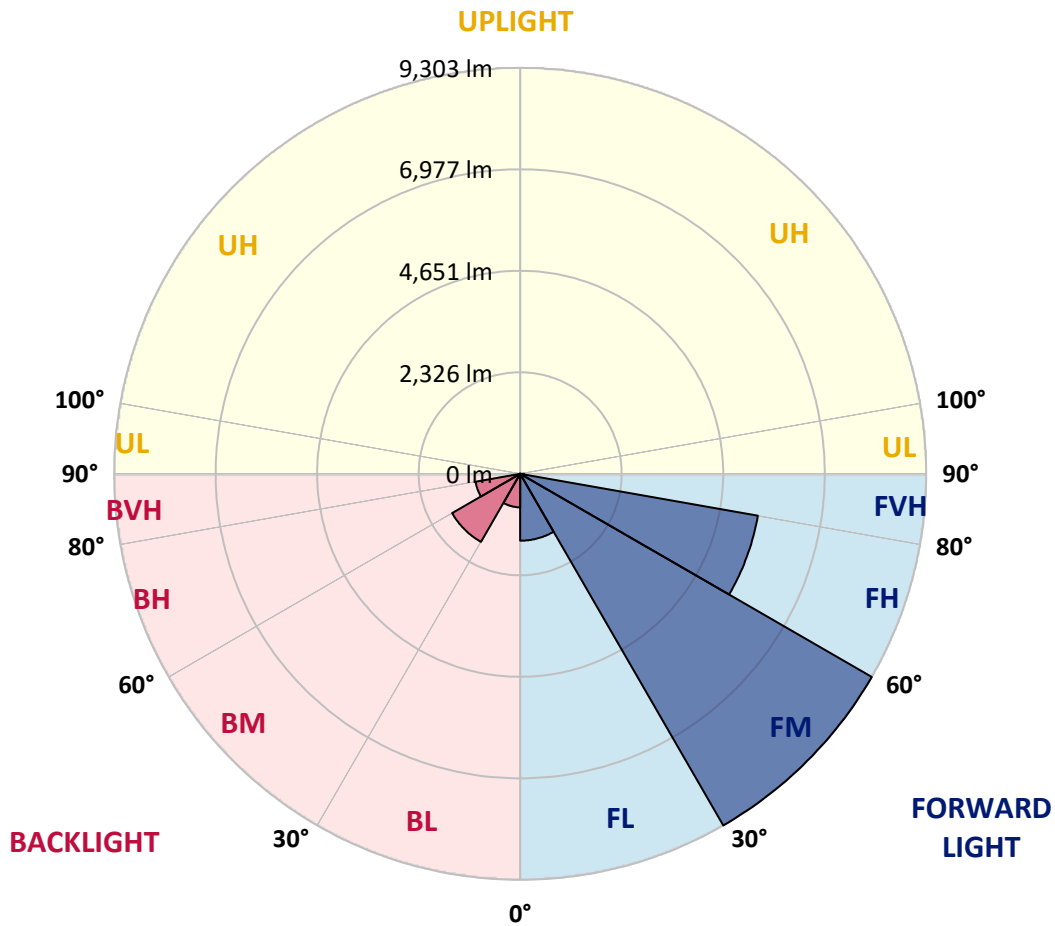
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1532.3	7.6			
FM (30°-60°)	9302.6	46.3			
FH (60°-80°)	5529.7	27.5			G3/7500
FVH (80°-90°)	82.3	0.4			G1/100
BL (0°-30°)	768.4	3.8	B2/1000		
BM (30°-60°)	1800.5	9.0	B2/2500		
BH (60°-80°)	1038.4	5.2	B3/2500		G3/2500
BVH (80°-90°)	30.9	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4
2.5°	3516.8	3537.1	3525.5	3519.7	3509.6	3495.1	3483.6	3447.4	3409.8	3385.2	3376.6
5°	3587.7	3607.9	3606.5	3612.3	3619.5	3623.8	3621.0	3580.5	3527.0	3485.0	3460.4
7.5°	3527.0	3550.1	3568.9	3597.8	3648.4	3701.9	3728.0	3719.3	3664.3	3606.5	3576.1
10°	3354.9	3379.5	3424.3	3492.3	3599.3	3715.0	3811.8	3856.7	3822.0	3758.3	3716.4
12.5°	3039.6	3064.2	3152.4	3299.9	3479.2	3680.2	3865.3	3985.4	3994.0	3930.4	3881.2
15°	2685.4	2709.9	2803.9	2989.0	3262.3	3584.8	3894.3	4121.3	4197.9	4143.0	4083.7
17.5°	2465.5	2487.2	2558.1	2707.0	2991.9	3393.9	3884.1	4265.9	4440.9	4397.5	4326.6
20°	2399.0	2417.8	2451.1	2555.2	2792.4	3195.8	3817.6	4401.8	4702.6	4678.0	4598.5
22.5°	2469.9	2487.2	2497.4	2543.6	2692.6	3065.7	3733.8	4540.7	5006.3	5009.2	4912.3
25°	2633.3	2650.6	2639.1	2668.0	2733.1	3025.2	3701.9	4704.1	5388.1	5419.9	5310.0
27.5°	2902.3	2903.7	2876.2	2874.8	2884.9	3085.9	3735.2	4879.0	5869.6	5928.9	5793.0
30°	3441.6	3420.0	3314.4	3200.2	3148.1	3268.1	3827.7	5085.8	6437.9	6543.5	6372.8
32.5°	4273.1	4241.3	4047.5	3774.2	3499.5	3561.7	3994.0	5321.5	7056.8	7247.7	7039.5
35°	5175.5	5166.8	4964.4	4558.0	4077.9	3979.6	4264.5	5631.0	7732.1	8035.8	7788.5
37.5°	6014.2	6009.9	5894.2	5415.5	4831.3	4562.3	4698.3	6035.9	8455.2	8894.8	8602.7
40°	6780.6	6793.6	6677.9	6249.9	5661.4	5310.0	5288.3	6536.2	9259.2	9830.4	9483.3
42.5°	7442.9	7457.4	7340.2	7023.6	6481.3	6137.1	6012.8	7149.4	10044.4	10835.4	10424.7
45°	7892.6	7982.3	7964.9	7711.9	7322.9	6965.7	6883.3	7918.7	10939.5	11901.1	11419.6
47.5°	8019.9	8102.3	8232.5	8267.2	8030.0	7678.6	7777.0	8845.6	11844.8	12968.3	12420.3
50°	7706.1	7782.7	8053.2	8413.2	8578.1	8469.6	8646.0	9839.1	12771.7	14032.7	13402.2
52.5°	7087.2	7165.3	7506.5	8076.3	8748.7	9090.0	9518.0	10818.0	13669.7	15040.6	14332.0
55°	6192.1	6274.5	6712.7	7357.6	8423.4	9345.9	10245.4	11795.6	14492.5	15947.2	15170.7
57.5°	4974.5	5035.2	5490.7	6393.1	7604.9	9091.4	10781.9	12862.8	15267.6	16838.0	16002.2
60°	3242.1	3295.6	3824.9	4831.3	6248.5	8241.1	10888.9	14052.9	16297.2	17996.3	17122.9
62.5°	2156.1	2192.2	2506.0	3245.0	4400.4	6608.5	10262.8	15003.0	17806.9	20012.1	19044.7
65°	1479.3	1515.5	1829.3	2344.1	2843.0	4371.5	8462.4	14877.2	19174.9	21612.9	20469.1
67.5°	1055.6	1086.0	1352.1	1838.0	2057.8	2539.3	5736.6	13269.1	18978.2	21673.7	20545.7
70°	756.3	773.6	993.4	1431.6	1635.5	1525.6	3190.0	10148.5	16616.8	20013.6	18981.1
72.5°	529.3	535.0	689.8	1090.3	1317.4	1113.5	1518.4	6766.2	12567.8	15708.6	14715.2
75°	358.6	365.9	464.2	799.7	1057.1	850.3	804.0	3628.2	7377.8	8695.2	7794.3
77.5°	219.8	222.7	299.3	546.6	791.0	647.8	517.7	1537.2	2854.5	2802.5	2388.9
80°	124.4	124.4	190.9	339.8	539.4	417.9	363.0	653.6	903.8	793.9	699.9
82.5°	69.4	70.9	138.8	211.1	357.2	247.3	199.6	302.2	390.4	345.6	300.8
85°	28.9	31.8	85.3	99.8	170.6	122.9	81.0	127.3	144.6	128.7	94.0
87.5°	2.9	4.3	26.0	18.8	20.2	24.6	11.6	24.6	20.2	20.2	14.5
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°	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4	3327.4
2.5°	3349.1	3327.4	3272.5	3208.8	3125.0	3084.5	3029.5	2991.9	2960.1	2963.0	2934.1
5°	3414.2	3359.2	3236.3	3083.0	2892.1	2756.2	2611.6	2511.8	2430.8	2413.5	2374.4
7.5°	3503.8	3417.1	3201.6	2925.4	2602.9	2358.5	2140.2	1999.9	1900.1	1868.3	1836.5
10°	3619.5	3493.7	3156.8	2727.3	2263.1	1952.2	1717.9	1608.0	1540.1	1516.9	1499.6
12.5°	3754.0	3581.9	3097.5	2485.8	1913.1	1613.8	1464.9	1409.9	1388.2	1381.0	1376.7
15°	3923.2	3691.8	3007.8	2199.5	1616.7	1407.0	1343.4	1336.2	1339.1	1336.2	1334.7
17.5°	4124.2	3811.8	2861.8	1904.5	1417.1	1301.5	1278.3	1284.1	1291.3	1289.9	1287.0
20°	4344.0	3930.4	2675.2	1642.7	1281.2	1226.3	1213.3	1219.0	1224.8	1221.9	1220.5
22.5°	4594.2	4057.7	2468.4	1438.8	1190.1	1156.9	1142.4	1143.8	1143.8	1138.1	1135.2
25°	4893.5	4197.9	2251.5	1294.2	1120.7	1094.7	1077.3	1071.5	1062.9	1045.5	1042.6
27.5°	5250.7	4346.9	2043.3	1193.0	1065.8	1041.2	1020.9	1006.5	984.8	955.9	953.0
30°	5652.7	4527.6	1866.9	1129.4	1022.4	997.8	974.7	953.0	921.1	885.0	882.1
32.5°	6125.5	4721.4	1738.2	1087.4	983.3	957.3	929.8	903.8	869.1	832.9	834.4
35°	6689.5	4955.7	1663.0	1058.5	953.0	918.3	887.9	859.0	832.9	801.1	798.2
37.5°	7301.2	5204.4	1639.8	1044.1	932.7	879.2	844.5	824.3	821.4	802.6	801.1
40°	7970.7	5499.4	1657.2	1035.4	911.0	841.6	804.0	799.7	806.9	773.6	775.1
42.5°	8679.3	5849.3	1686.1	1025.3	880.7	804.0	767.9	767.9	762.1	715.8	715.8
45°	9445.7	6252.8	1715.0	1000.7	844.5	766.4	738.9	728.8	704.2	659.4	658.0
47.5°	10217.9	6663.5	1736.7	955.9	801.1	734.6	710.0	686.9	650.7	610.2	608.8
50°	10951.1	7032.2	1713.6	889.3	752.0	704.2	678.2	646.4	607.3	579.9	575.5
52.5°	11606.1	7351.8	1615.3	811.2	699.9	672.4	649.3	616.0	584.2	555.3	552.4
55°	12175.9	7610.7	1441.7	737.5	653.6	644.9	621.8	579.9	536.5	511.9	509.0
57.5°	12722.5	7807.3	1224.8	676.8	611.7	614.6	579.9	542.3	501.8	475.8	472.9
60°	13449.9	8070.5	1005.0	620.4	566.9	575.5	537.9	510.5	459.8	426.6	422.3
62.5°	14612.5	8479.7	798.2	551.0	514.8	517.7	501.8	468.5	407.8	368.7	365.9
65°	15535.1	8329.4	629.0	475.8	455.5	459.8	459.8	423.7	358.6	313.8	309.5
67.5°	15431.0	7132.0	501.8	402.0	399.1	402.0	412.1	381.8	318.1	282.0	276.2
70°	14214.9	5672.9	402.0	334.0	347.1	339.8	368.7	348.5	286.3	250.2	245.8
72.5°	11598.9	4086.6	306.6	276.2	266.1	277.6	332.6	313.8	238.6	198.1	193.8
75°	6777.7	2180.7	228.5	218.4	192.3	231.4	295.0	267.5	182.2	146.1	141.7
77.5°	2206.7	760.6	167.7	160.5	143.2	186.5	251.6	225.6	148.9	115.7	111.3
80°	591.4	229.9	114.2	105.6	92.5	138.8	199.6	179.3	107.0	75.2	73.7
82.5°	237.2	96.9	66.5	59.3	50.6	95.4	157.6	144.6	79.5	47.7	47.7
85°	76.6	31.8	24.6	18.8	23.1	59.3	94.0	98.3	56.4	24.6	18.8
87.5°	10.1	4.3	4.3	5.8	4.3	10.1	28.9	27.5	15.9	2.9	0.0
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)