

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: P883936

Luminaire Tested: **NAV-SB4C-735-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883936
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-735-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 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: 22163 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

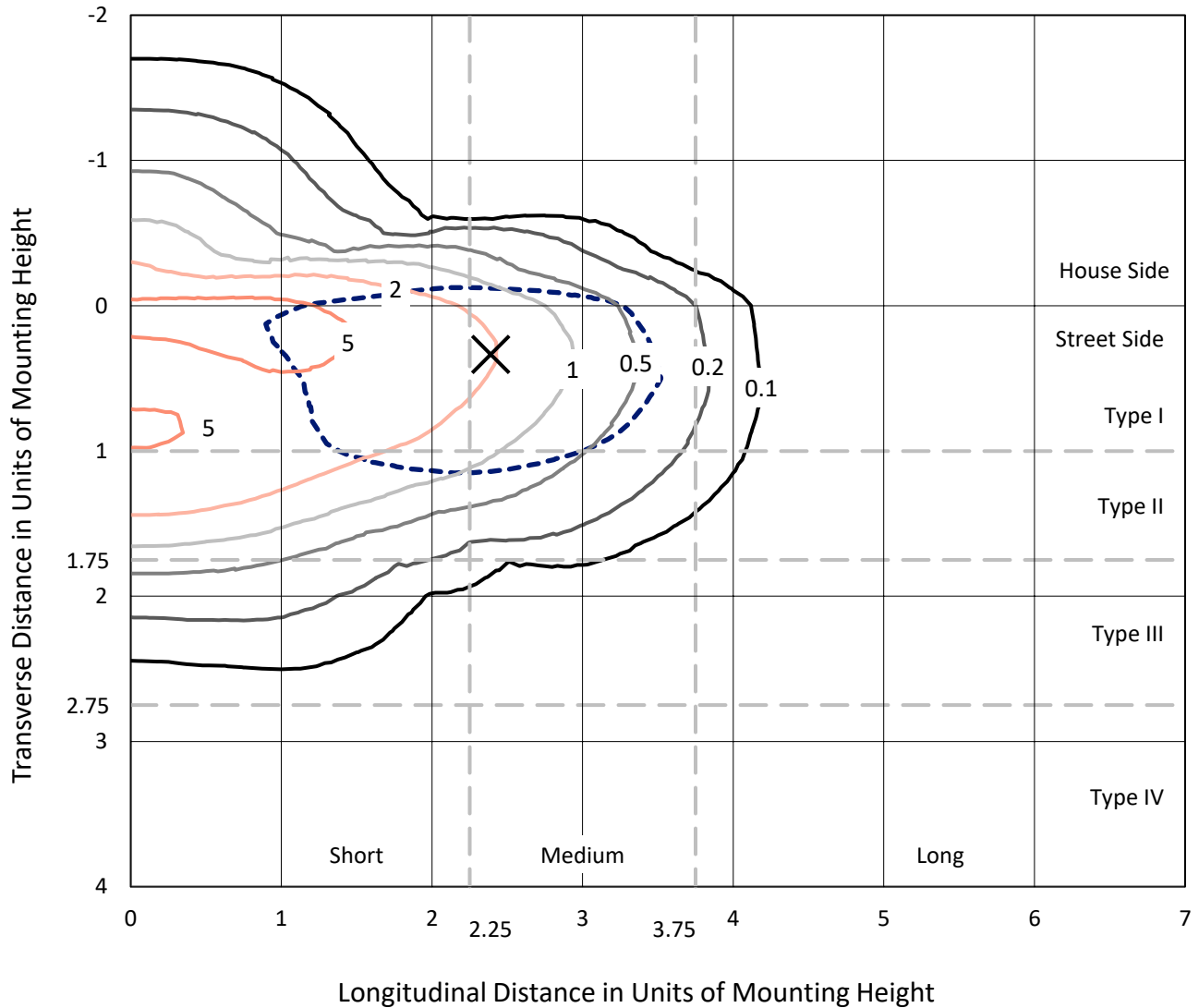
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

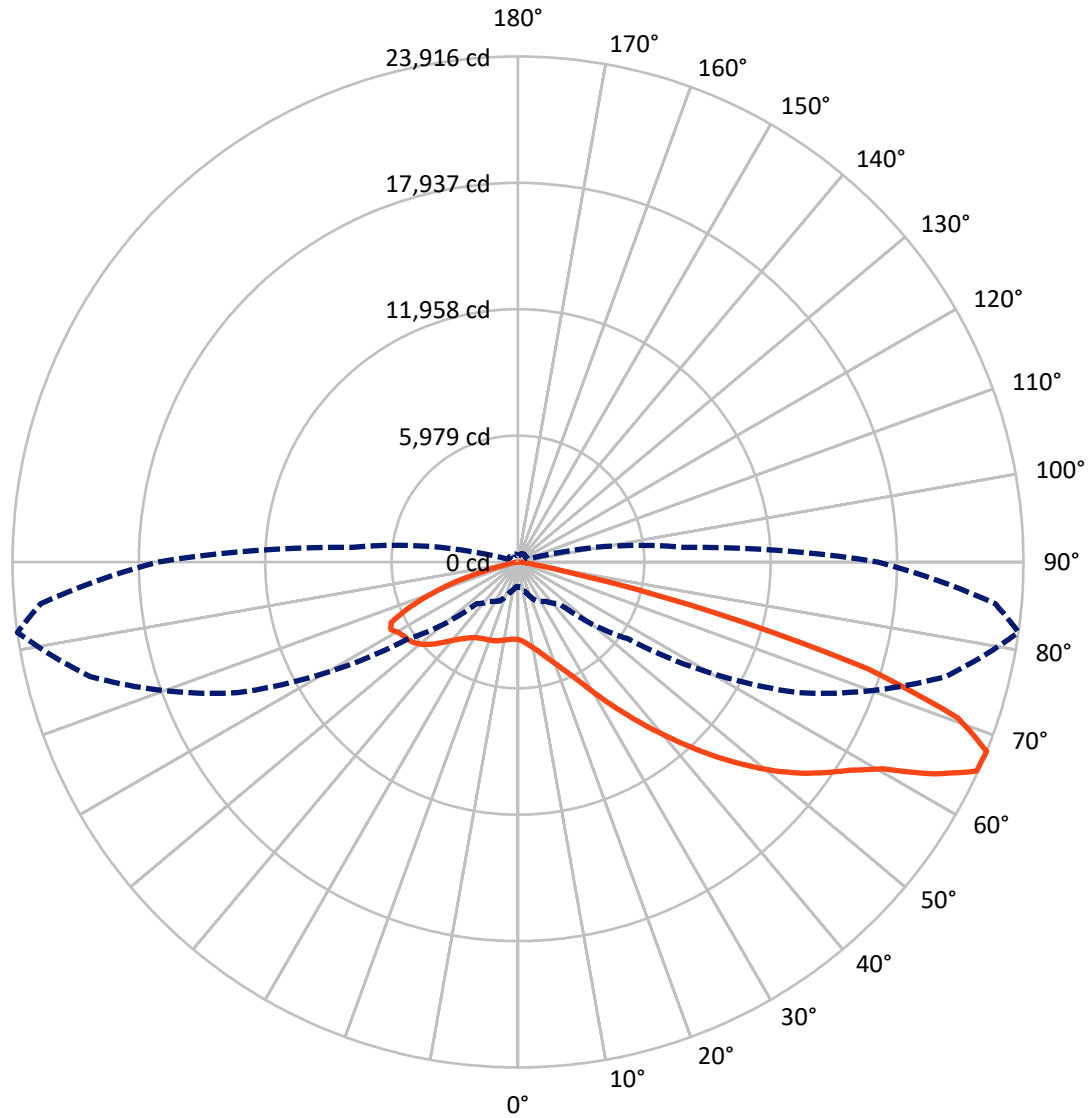
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 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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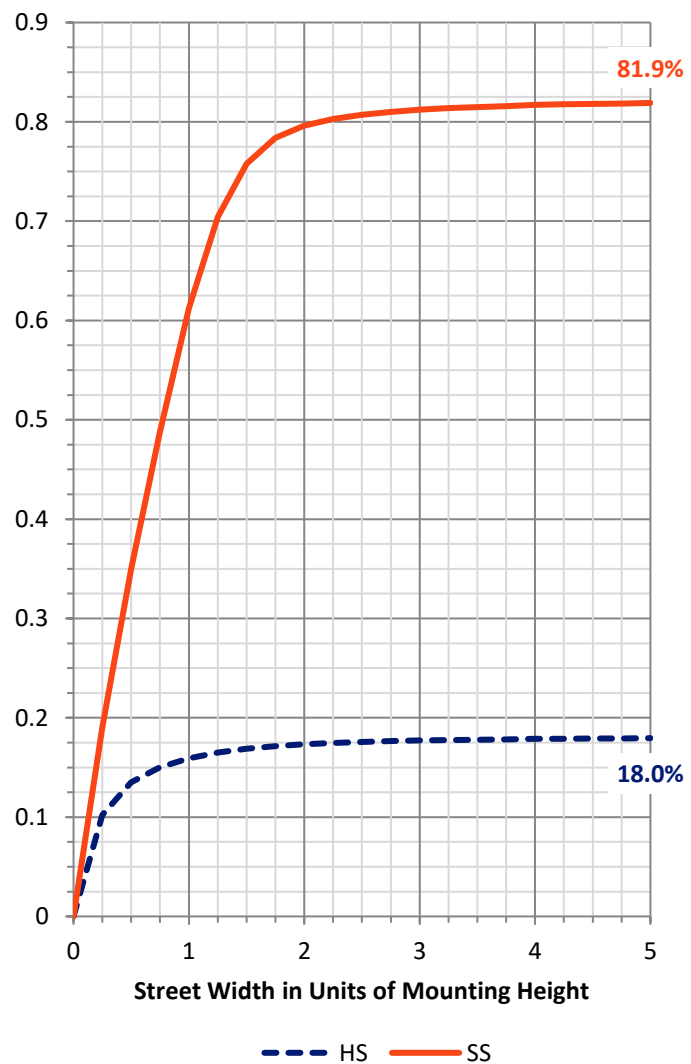
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4014.6	0.0	4014.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	18148.4	0.0	18148.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	22163.0	0.0	22163.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.1	1.5
10°-20°	850.1	3.8
20°-30°	1361.5	6.1
30°-40°	2407.6	10.9
40°-50°	4218.3	19.0
50°-60°	5626.0	25.4
60°-70°	5237.5	23.6
70°-80°	2010.2	9.1
80°-90°	124.8	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°	22163.0	100.0
0°-180°	22163.0	100.0

Coefficient of Utilization



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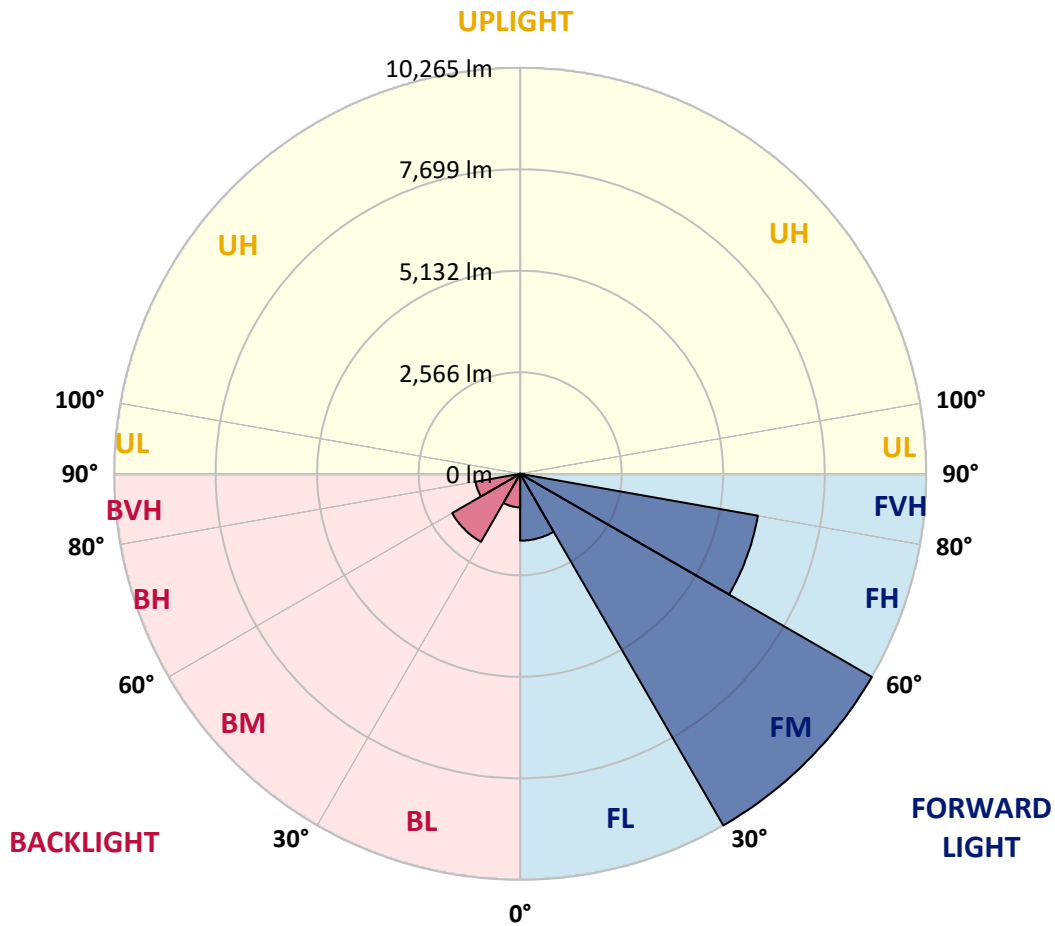
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1690.8	7.6			
FM (30°-60°)	10265.0	46.3			
FH (60°-80°)	6101.8	27.5			G3/7500
FVH (80°-90°)	90.8	0.4			G1/100
BL (0°-30°)	847.9	3.8	B2/1000		
BM (30°-60°)	1986.8	9.0	B2/2500		
BH (60°-80°)	1145.9	5.2	B3/2500		G3/2500
BVH (80°-90°)	34.1	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°	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7
2.5°	3880.7	3903.0	3890.3	3883.9	3872.7	3856.8	3844.0	3804.1	3762.6	3735.5	3725.9
5°	3958.9	3981.2	3979.6	3986.0	3994.0	3998.8	3995.6	3950.9	3891.9	3845.6	3818.5
7.5°	3891.9	3917.4	3938.1	3970.1	4025.9	4084.9	4113.7	4104.1	4043.5	3979.6	3946.1
10°	3702.0	3729.1	3778.6	3853.6	3971.6	4099.3	4206.2	4255.7	4217.4	4147.2	4100.9
12.5°	3354.1	3381.2	3478.6	3641.3	3839.2	4061.0	4265.3	4397.7	4407.3	4337.1	4282.8
15°	2963.2	2990.3	3094.0	3298.3	3599.9	3955.7	4297.2	4547.7	4632.3	4571.6	4506.2
17.5°	2720.6	2744.6	2822.8	2987.1	3301.5	3745.1	4286.0	4707.3	4900.3	4852.5	4774.3
20°	2647.2	2668.0	2704.7	2819.6	3081.3	3526.5	4212.6	4857.2	5189.2	5162.0	5074.3
22.5°	2725.4	2744.6	2755.7	2806.8	2971.2	3382.8	4120.0	5010.4	5524.2	5527.4	5420.5
25°	2905.7	2924.9	2912.1	2944.0	3015.8	3338.2	4084.9	5190.7	5945.5	5980.6	5859.3
27.5°	3202.5	3204.1	3173.8	3172.2	3183.4	3405.2	4121.6	5383.8	6476.9	6542.3	6392.3
30°	3797.7	3773.8	3657.3	3531.2	3473.8	3606.2	4223.8	5612.0	7104.0	7220.5	7032.2
32.5°	4715.2	4680.1	4466.3	4164.7	3861.5	3930.2	4407.3	5872.1	7786.9	7997.5	7767.8
35°	5710.9	5701.4	5478.0	5029.6	4499.8	4391.3	4705.7	6213.6	8532.1	8867.2	8594.3
37.5°	6636.4	6631.6	6504.0	5975.8	5331.2	5034.4	5184.4	6660.4	9329.9	9815.0	9492.7
40°	7482.1	7496.5	7368.8	6896.5	6247.1	5859.3	5835.4	7212.5	10217.1	10847.4	10464.5
42.5°	8213.0	8228.9	8099.7	7750.2	7151.8	6772.1	6634.8	7889.0	11083.6	11956.4	11503.3
45°	8709.2	8808.2	8789.0	8509.8	8080.5	7686.4	7595.4	8737.9	12071.3	13132.4	12601.1
47.5°	8849.6	8940.6	9084.2	9122.5	8860.8	8473.1	8581.6	9760.8	13070.2	14310.1	13705.3
50°	8503.4	8587.9	8886.3	9283.7	9465.6	9345.9	9540.6	10857.0	14093.0	15484.5	14788.8
52.5°	7820.4	7906.6	8283.2	8911.9	9653.9	10030.4	10502.8	11937.3	15084.0	16596.7	15814.8
55°	6832.7	6923.7	7407.1	8118.8	9294.8	10312.9	11305.4	13016.0	15991.9	17597.2	16740.3
57.5°	5489.1	5556.2	6058.8	7054.5	8391.7	10032.0	11897.4	14193.6	16847.2	18580.1	17657.8
60°	3577.5	3636.6	4220.6	5331.2	6894.9	9093.8	12015.5	15506.8	17983.3	19858.2	18894.4
62.5°	2379.2	2419.1	2765.3	3580.7	4855.7	7292.3	11324.5	16555.2	19649.2	22082.6	21015.1
65°	1632.4	1672.3	2018.5	2586.6	3137.1	4823.7	9337.9	16416.4	21158.7	23849.0	22586.8
67.5°	1164.8	1198.4	1492.0	2028.1	2270.7	2802.0	6330.1	14642.0	20941.7	23916.0	22671.4
70°	834.5	853.7	1096.2	1579.7	1804.7	1683.4	3520.1	11198.5	18336.0	22084.2	20944.9
72.5°	584.0	590.4	761.1	1203.1	1453.7	1228.7	1675.5	7466.2	13868.1	17333.9	16237.6
75°	395.7	403.7	512.2	882.4	1166.4	938.3	887.2	4003.6	8141.2	9594.8	8600.7
77.5°	242.5	245.7	330.3	603.2	872.8	714.9	571.3	1696.2	3149.9	3092.4	2636.1
80°	137.2	137.2	210.6	375.0	595.2	461.2	400.5	721.2	997.3	876.0	772.3
82.5°	76.6	78.2	153.2	233.0	394.1	272.9	220.2	333.5	430.8	381.4	331.9
85°	31.9	35.1	94.1	110.1	188.3	135.6	89.4	140.4	159.6	142.0	103.7
87.5°	3.2	4.8	28.7	20.7	22.3	27.1	12.8	27.1	22.3	22.3	16.0
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°	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7	3671.7
2.5°	3695.6	3671.7	3611.0	3540.8	3448.3	3403.6	3342.9	3301.5	3266.4	3269.5	3237.6
5°	3767.4	3706.8	3571.1	3402.0	3191.4	3041.4	2881.8	2771.7	2682.3	2663.2	2620.1
7.5°	3866.3	3770.6	3532.8	3228.1	2872.2	2602.6	2361.6	2206.8	2096.7	2061.6	2026.5
10°	3994.0	3855.2	3483.4	3009.5	2497.2	2154.2	1895.7	1774.4	1699.4	1673.9	1654.7
12.5°	4142.4	3952.5	3417.9	2743.0	2111.1	1780.8	1616.4	1555.8	1531.9	1523.9	1519.1
15°	4329.1	4073.8	3319.0	2427.0	1784.0	1552.6	1482.4	1474.4	1477.6	1474.4	1472.8
17.5°	4550.9	4206.2	3157.9	2101.5	1563.8	1436.1	1410.6	1417.0	1424.9	1423.3	1420.2
20°	4793.4	4337.1	2952.0	1812.7	1413.8	1353.1	1338.8	1345.2	1351.5	1348.3	1346.8
22.5°	5069.5	4477.5	2723.8	1587.7	1313.2	1276.5	1260.6	1262.2	1262.2	1255.8	1252.6
25°	5399.8	4632.3	2484.5	1428.1	1236.7	1207.9	1188.8	1182.4	1172.8	1153.7	1150.5
27.5°	5793.9	4796.6	2254.7	1316.4	1176.0	1148.9	1126.5	1110.6	1086.7	1054.7	1051.6
30°	6237.5	4996.1	2060.0	1246.2	1128.1	1101.0	1075.5	1051.6	1016.4	976.6	973.4
32.5°	6759.3	5209.9	1918.0	1200.0	1085.1	1056.3	1026.0	997.3	959.0	919.1	920.7
35°	7381.6	5468.4	1835.0	1168.0	1051.6	1013.3	979.7	947.8	919.1	884.0	880.8
37.5°	8056.6	5742.9	1809.5	1152.1	1029.2	970.2	931.9	909.5	906.3	885.6	884.0
40°	8795.4	6068.4	1828.6	1142.5	1005.3	928.7	887.2	882.4	890.4	853.7	855.3
42.5°	9577.3	6454.5	1860.6	1131.3	971.8	887.2	847.3	847.3	840.9	789.9	789.9
45°	10423.0	6899.7	1892.5	1104.2	931.9	845.7	815.4	804.2	777.1	727.6	726.0
47.5°	11275.1	7352.9	1916.4	1054.7	884.0	810.6	783.5	757.9	718.1	673.4	671.8
50°	12084.1	7759.8	1890.9	981.3	829.8	777.1	748.4	713.3	670.2	639.9	635.1
52.5°	12806.9	8112.4	1782.4	895.2	772.3	742.0	716.5	679.8	644.7	612.7	609.5
55°	13435.6	8398.1	1590.9	813.8	721.2	711.7	686.1	639.9	592.0	564.9	561.7
57.5°	14038.8	8615.1	1351.5	746.8	675.0	678.2	639.9	598.4	553.7	525.0	521.8
60°	14841.4	8905.5	1109.0	684.5	625.5	635.1	593.6	563.3	507.4	470.7	465.9
62.5°	16124.3	9357.1	880.8	608.0	568.1	571.3	553.7	517.0	450.0	406.9	403.7
65°	17142.4	9191.1	694.1	525.0	502.6	507.4	507.4	467.5	395.7	346.3	341.5
67.5°	17027.5	7869.9	553.7	443.6	440.4	443.6	454.8	421.3	351.0	311.2	304.8
70°	15685.5	6259.9	443.6	368.6	383.0	375.0	406.9	384.6	315.9	276.1	271.3
72.5°	12798.9	4509.4	338.3	304.8	293.6	306.4	367.0	346.3	263.3	218.6	213.8
75°	7479.0	2406.3	252.1	240.9	212.2	255.3	325.5	295.2	201.1	161.2	156.4
77.5°	2435.0	839.3	185.1	177.1	158.0	205.8	277.6	248.9	164.4	127.7	122.9
80°	652.6	253.7	126.1	116.5	102.1	153.2	220.2	197.9	118.1	83.0	81.4
82.5°	261.7	106.9	73.4	65.4	55.8	105.3	173.9	159.6	87.8	52.7	52.7
85°	84.6	35.1	27.1	20.7	25.5	65.4	103.7	108.5	62.2	27.1	20.7
87.5°	11.2	4.8	4.8	6.4	4.8	11.2	31.9	30.3	17.6	3.2	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)