

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: P966807

Luminaire Tested: **NAV-SB4C-827-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966807
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-SB4C-827-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27463.9 lumens
Efficiency: N/A
Efficacy: 136.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 200.7
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



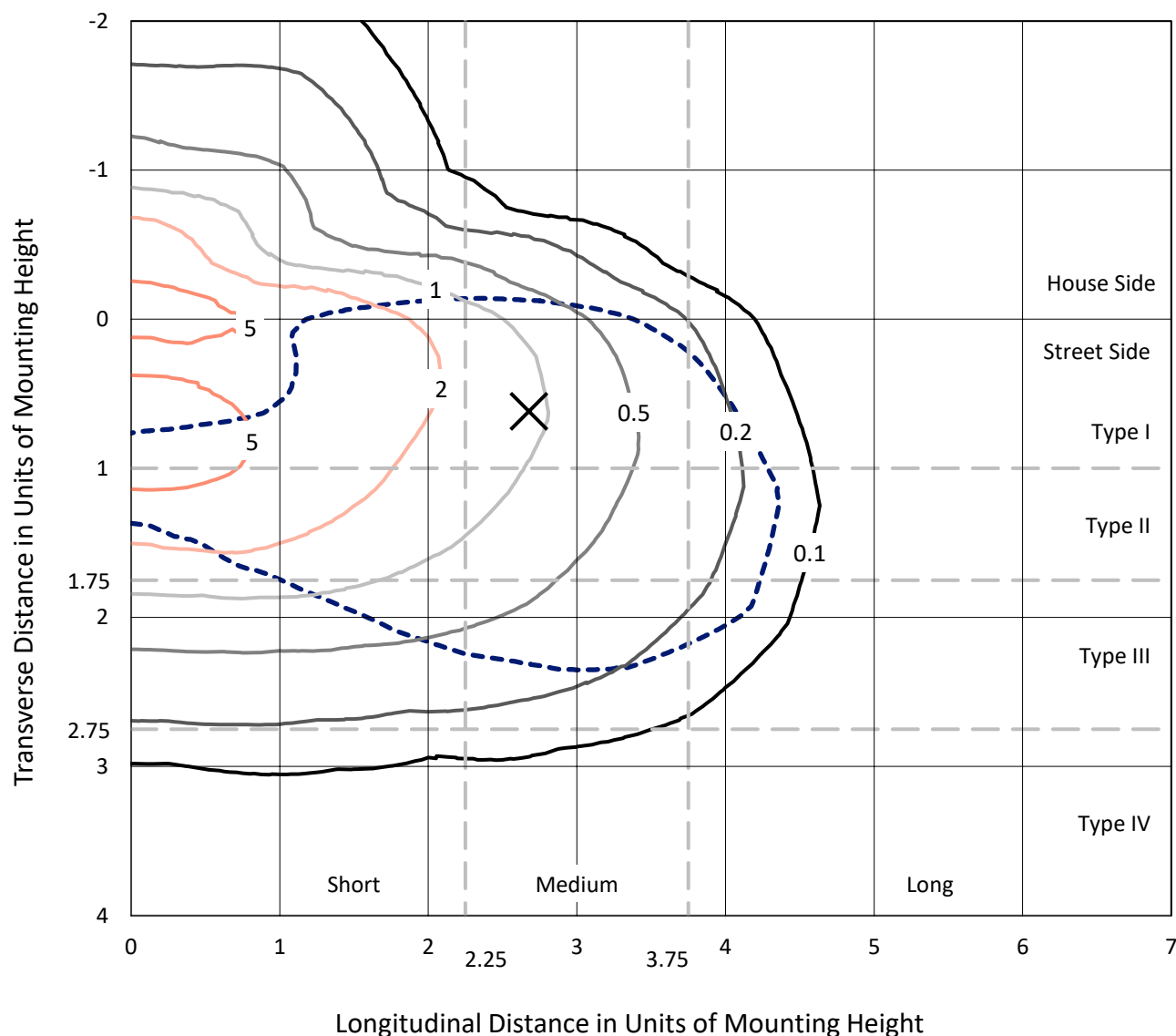
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

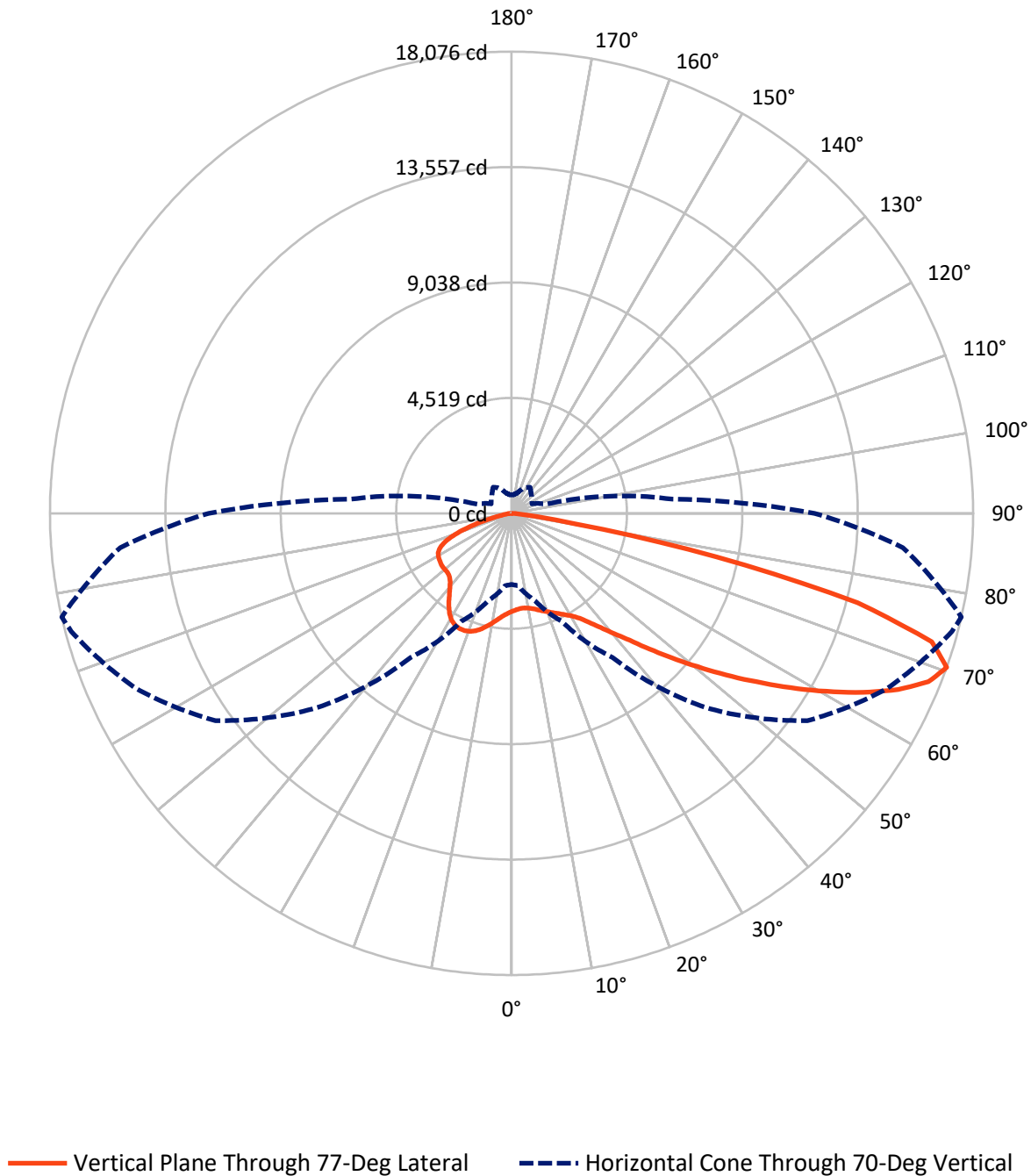


Based on 25 foot mounting height. Maximum calculated value = 7.3 fc

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	6014.2	0.0	6014.2
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	21449.7	0.0	21449.7
	% Fixture	78.1	0.0	78.1
Total	Lumens	27463.9	0.0	27463.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	365.4	1.3
10°-20°	1054.6	3.8
20°-30°	1803.6	6.6
30°-40°	2900.3	10.6
40°-50°	4528.2	16.5
50°-60°	6048.6	22.0
60°-70°	6446.8	23.5
70°-80°	3968.6	14.5
80°-90°	347.8	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°	27463.9	100.0
0°-180°	27463.9	100.0

Coefficient of Utilization



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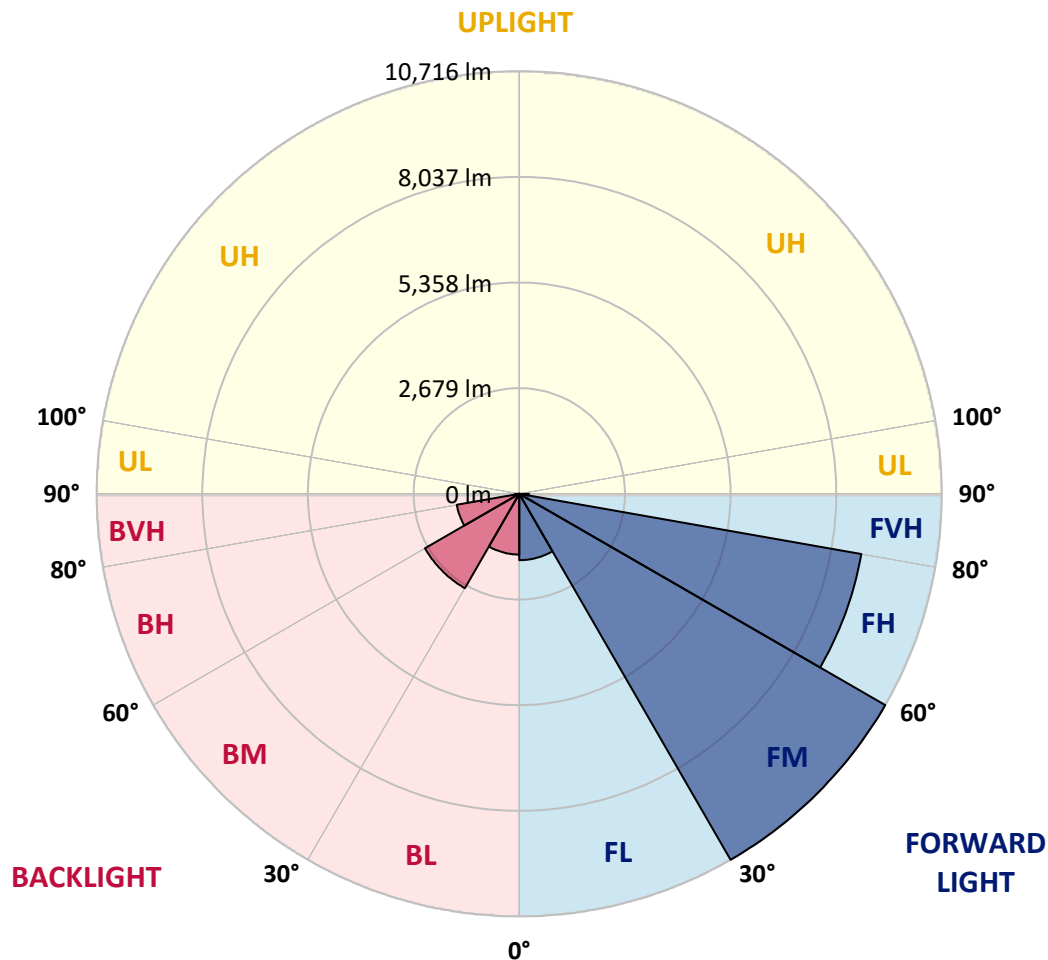
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1682.6	6.1			
FM	(30°-60°)	10715.8	39.0			
FH	(60°-80°)	8808.1	32.1			G4/12000
FVH	(80°-90°)	243.2	0.9			G3/500
BL	(0°-30°)	1541.0	5.6	B3/2500		
BM	(30°-60°)	2761.2	10.1	B3/5000		
BH	(60°-80°)	1607.3	5.9	B3/2500		G3/2500
BVH	(80°-90°)	104.6	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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4
2.5°	3531.8	3530.4	3548.8	3554.4	3588.1	3612.0	3657.0	3704.9	3766.8	3773.7	3811.8
5°	3327.9	3327.9	3349.0	3371.5	3415.1	3463.0	3531.8	3614.9	3721.8	3738.6	3832.9
7.5°	3155.0	3166.1	3184.5	3228.0	3278.7	3347.6	3453.1	3571.2	3711.9	3738.6	3890.5
10°	3015.7	3028.4	3050.8	3086.0	3161.9	3257.6	3395.4	3547.3	3735.8	3778.0	3975.0
12.5°	2972.1	2984.7	2997.4	3024.1	3094.4	3206.9	3371.5	3558.6	3793.5	3835.7	4090.3
15°	3073.4	3088.8	3079.0	3071.9	3108.5	3211.1	3382.8	3599.4	3865.2	3925.6	4232.3
17.5°	3306.9	3312.4	3289.9	3223.8	3218.2	3273.0	3436.2	3655.7	3955.3	4021.4	4375.8
20°	3683.7	3673.9	3627.5	3496.7	3422.2	3410.9	3527.6	3740.0	4048.0	4118.3	4530.5
22.5°	4195.7	4184.5	4091.7	3885.0	3718.9	3609.2	3659.9	3849.7	4152.2	4230.9	4681.0
25°	4834.3	4818.8	4682.4	4401.1	4143.7	3872.2	3839.9	3994.6	4280.2	4353.3	4838.5
27.5°	5579.8	5567.2	5419.5	5048.1	4676.8	4232.3	4063.5	4164.8	4413.8	4496.8	5015.7
30°	6381.5	6418.1	6156.5	5757.0	5287.3	4702.1	4364.6	4374.4	4586.8	4661.3	5231.0
32.5°	7323.9	7387.3	7072.2	6565.8	5924.4	5212.7	4744.3	4666.9	4838.5	4900.4	5502.4
35°	8257.9	8329.7	8068.0	7508.2	6769.7	5814.7	5141.0	5003.1	5173.3	5240.8	5862.5
37.5°	9065.2	9160.9	9025.8	8539.2	7674.2	6540.5	5658.6	5398.4	5585.4	5669.8	6346.4
40°	9702.4	9848.7	9838.9	9535.1	8740.4	7421.0	6315.4	5886.5	6097.4	6188.8	6932.9
42.5°	10220.1	10346.7	10456.3	10440.9	9852.9	8421.1	7087.7	6520.7	6681.2	6786.6	7592.6
45°	10577.3	10712.4	10948.6	11203.2	10923.3	9491.4	7972.3	7273.3	7419.6	7578.5	8378.9
47.5°	10896.6	11049.9	11356.5	11760.2	11832.0	10566.0	8941.5	8149.6	8283.2	8447.7	9167.9
50°	10924.8	11057.0	11532.4	12104.8	12477.5	11598.5	9982.4	9132.8	9257.9	9433.8	10013.2
52.5°	10245.4	10453.6	11283.4	12095.0	12774.4	12462.1	11016.2	10155.3	10296.0	10507.0	10888.2
55°	7952.7	8257.9	10553.4	11718.0	12668.9	13020.5	11999.4	11242.6	11422.6	11643.5	11768.6
57.5°	6850.0	6983.5	8377.4	11031.7	12187.8	13165.4	12829.2	12341.1	12630.9	12872.8	12699.7
60°	6156.5	6267.6	7091.9	9964.0	11554.8	12936.1	13470.6	13365.1	13865.8	14154.1	13652.1
62.5°	5413.8	5519.3	6269.0	8319.8	10744.7	12554.9	13875.6	14310.3	15131.8	15446.7	14549.4
65°	4676.8	4766.9	5485.6	6990.6	9715.1	12173.7	14085.2	15127.5	16303.3	16629.7	15294.8
67.5°	3855.3	3930.0	4609.3	5897.6	8463.2	11651.9	14189.4	15770.3	17323.1	17603.0	15663.4
70°	2782.2	2839.9	3541.7	4664.2	6892.1	10754.5	14147.2	16226.1	17852.0	18075.7	15384.9
72.5°	1315.2	1367.1	2191.4	3028.4	4868.1	9007.6	13293.3	15864.5	17314.7	17203.6	13680.2
75°	701.9	746.9	1258.9	1661.1	2571.2	6174.8	10878.3	13666.1	14539.5	13999.4	10110.3
77.5°	475.4	510.6	779.2	997.2	1174.4	2931.3	6992.0	9461.9	9103.2	8211.5	5063.6
80°	377.0	413.5	638.6	675.2	568.3	1059.1	2889.1	4380.0	3146.4	2516.4	1440.3
82.5°	289.8	330.6	537.3	489.4	309.4	434.6	841.1	1385.5	806.0	613.3	348.8
85°	177.2	220.8	422.0	312.2	174.5	198.3	285.6	385.4	246.1	205.3	125.2
87.5°	90.0	126.6	213.8	114.0	78.7	46.4	76.0	76.0	64.7	56.3	32.4
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°	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4	3831.4
2.5°	3845.5	3873.7	3921.4	3966.4	4001.6	4035.4	4069.1	4087.5	4093.0	4115.6	4128.3
5°	3890.5	3942.6	4035.4	4122.7	4177.5	4211.2	4235.1	4249.2	4252.0	4259.1	4270.3
7.5°	3973.5	4056.5	4185.9	4273.1	4313.9	4311.0	4301.2	4266.0	4252.0	4239.4	4242.2
10°	4090.3	4199.9	4358.9	4419.4	4394.1	4326.5	4239.4	4136.7	4088.8	4042.4	4028.4
12.5°	4235.1	4374.4	4530.5	4527.7	4402.5	4229.6	4027.0	3869.5	3769.5	3697.8	3681.0
15°	4411.0	4571.3	4690.9	4595.2	4321.0	4010.1	3713.3	3508.0	3418.0	3339.1	3330.7
17.5°	4592.4	4764.0	4818.8	4574.2	4115.6	3685.2	3349.0	3187.2	3098.7	3056.4	3069.1
20°	4769.6	4939.8	4894.8	4453.1	3803.4	3316.7	3017.1	2928.4	2910.2	2920.0	2915.8
22.5°	4956.7	5108.6	4910.3	4219.6	3405.3	2939.7	2775.1	2778.0	2818.7	2848.3	2855.3
25°	5148.0	5250.7	4869.5	3882.1	2977.7	2662.6	2621.8	2666.8	2747.0	2804.7	2820.2
27.5°	5332.3	5377.3	4780.9	3464.4	2610.6	2464.3	2471.3	2564.1	2685.1	2765.2	2785.0
30°	5540.4	5489.8	4610.7	2994.5	2356.0	2294.1	2353.2	2461.4	2582.4	2654.1	2671.0
32.5°	5775.4	5586.9	4340.7	2559.9	2176.0	2157.6	2254.7	2325.0	2378.5	2399.6	2410.8
35°	6067.9	5723.3	3994.6	2254.7	2014.2	2057.8	2150.7	2115.5	2094.4	2083.1	2094.4
37.5°	6447.7	5907.5	3589.6	2056.4	1883.3	1986.0	2024.1	1914.3	1831.4	1790.6	1800.4
40°	6904.8	6177.6	3199.9	1903.1	1800.4	1924.1	1858.0	1725.9	1620.3	1562.7	1566.9
42.5°	7412.6	6460.3	2872.2	1787.7	1754.0	1873.5	1735.7	1578.2	1407.9	1389.7	1407.9
45°	7945.6	6751.5	2648.5	1699.1	1731.4	1829.9	1665.3	1410.8	1289.9	1364.4	1403.7
47.5°	8478.7	7018.7	2513.5	1633.0	1720.3	1780.7	1603.5	1317.9	1232.2	1340.5	1391.1
50°	9072.3	7257.8	2453.0	1585.2	1707.5	1761.1	1510.6	1294.1	1171.7	1243.4	1296.8
52.5°	9661.6	7443.4	2408.0	1537.4	1689.3	1745.6	1465.6	1265.9	1098.5	1102.7	1132.3
55°	10249.6	7564.5	2358.8	1474.1	1648.5	1711.7	1461.4	1234.9	1043.7	1024.0	1038.0
57.5°	10876.9	7633.4	2298.4	1403.7	1578.2	1626.0	1457.2	1211.0	1026.7	994.5	998.7
60°	11515.5	7734.6	2219.5	1317.9	1483.9	1523.3	1447.3	1202.6	1016.9	962.1	966.3
62.5°	12087.9	7769.8	2125.3	1236.4	1362.9	1422.0	1426.3	1195.6	990.3	896.0	896.0
65°	12463.5	7617.9	1960.7	1143.5	1232.2	1317.9	1385.5	1171.7	942.4	848.2	848.2
67.5°	12448.0	7184.7	1703.3	1024.0	1105.6	1202.6	1326.4	1130.9	884.7	789.0	793.2
70°	11868.5	6329.5	1377.0	884.7	966.3	1078.8	1250.4	1070.4	815.8	724.4	732.8
72.5°	10179.3	4953.9	1000.1	721.6	804.5	950.8	1152.0	997.2	745.5	666.7	662.5
75°	7271.9	3135.2	677.9	554.2	626.0	806.0	1029.6	911.4	680.8	669.5	631.5
77.5°	3714.7	1497.9	448.6	405.1	436.0	635.8	865.0	814.4	690.6	552.8	492.3
80°	1208.3	552.8	282.7	275.7	289.8	423.3	669.5	668.1	523.3	375.6	332.0
82.5°	385.4	237.7	184.3	177.2	170.1	265.9	467.0	528.9	353.0	237.7	236.3
85°	153.3	142.1	108.3	99.8	71.8	125.2	244.8	351.7	263.0	171.6	175.8
87.5°	56.3	56.3	29.5	21.1	15.5	42.2	66.1	105.5	150.5	88.7	87.2
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)