

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: P884459

Luminaire Tested: **NAV-SB5B-740-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884459
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-740-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30827 lumens
Efficiency: N/A
Efficacy: 168.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

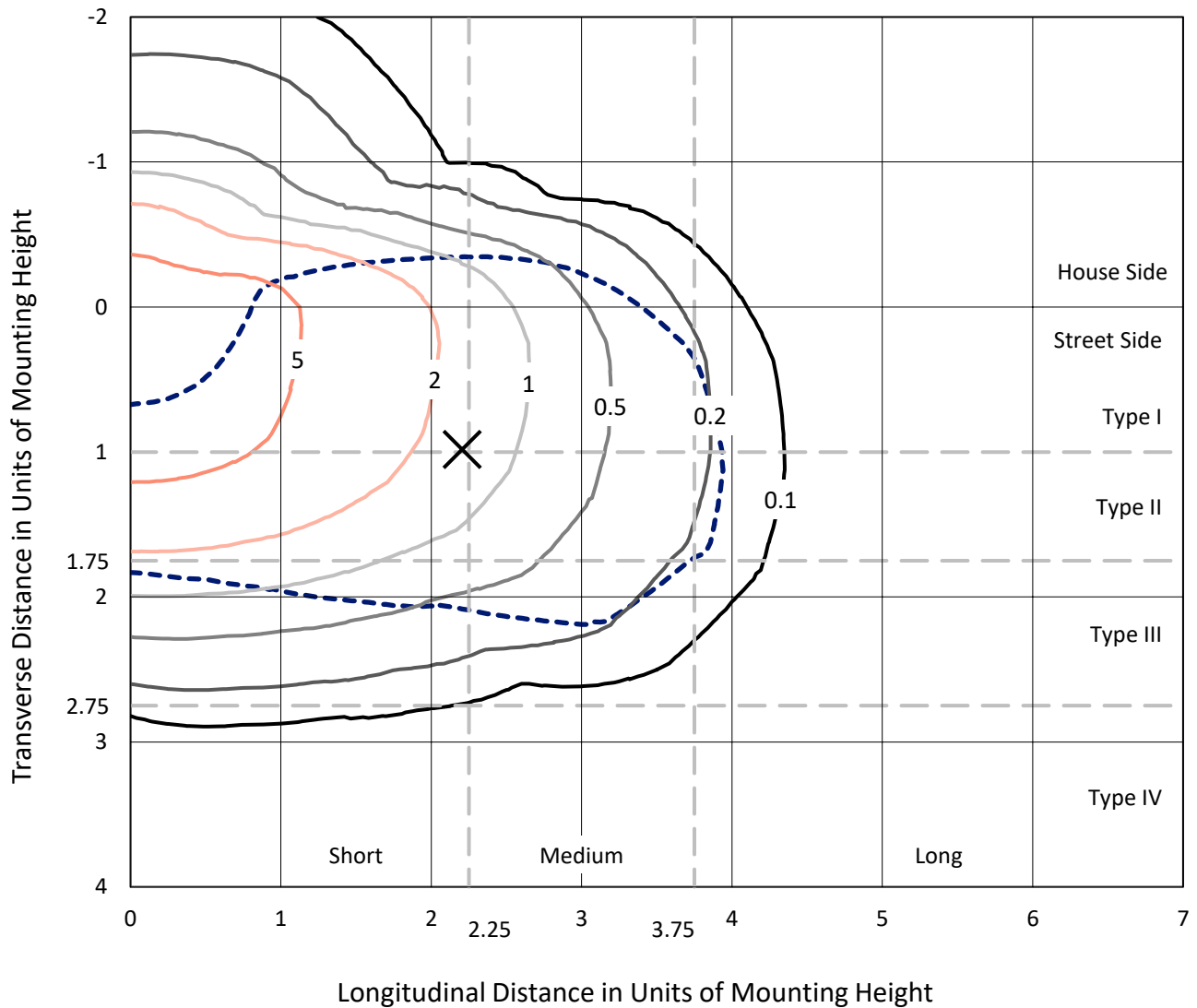
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

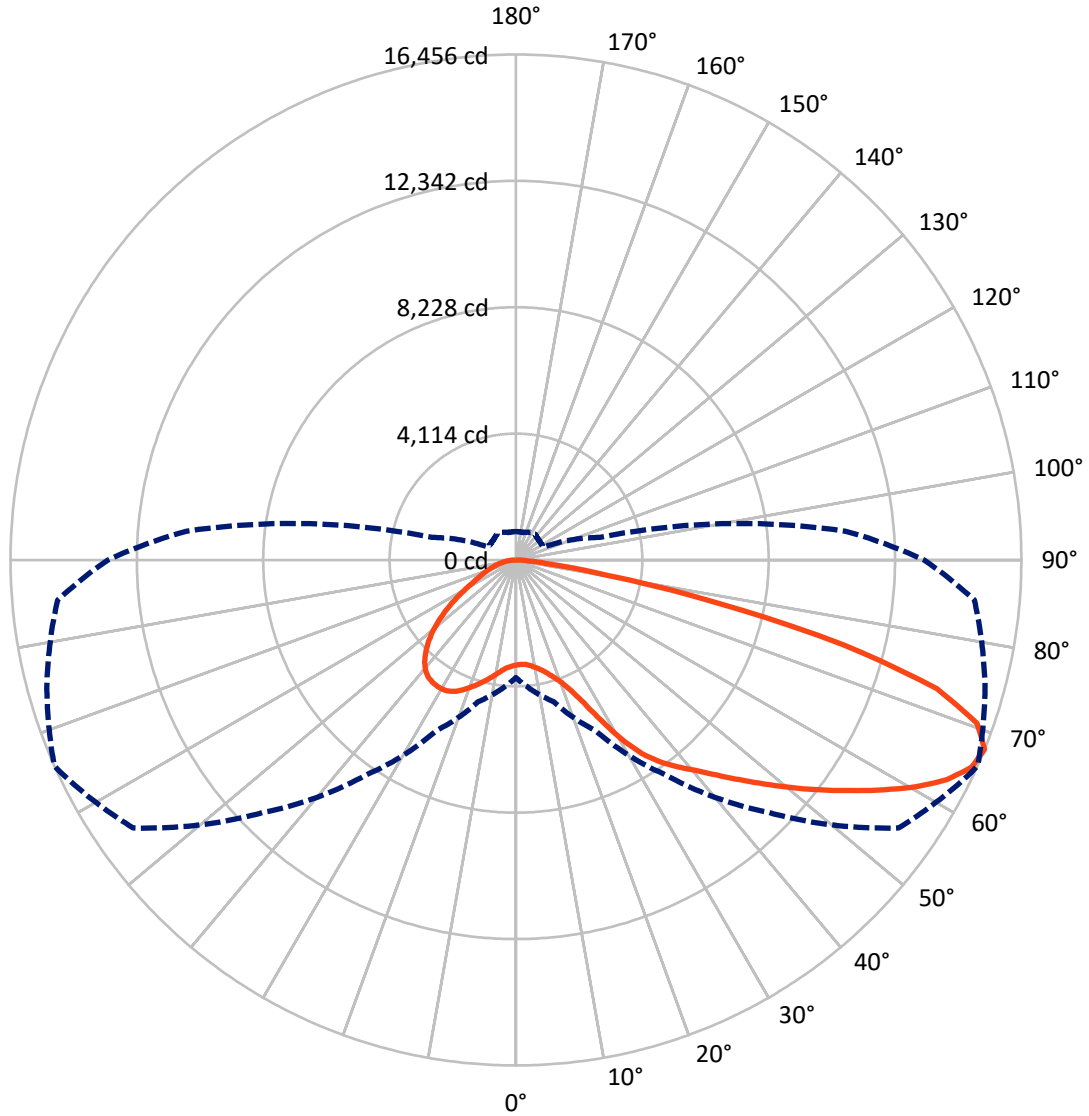
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7665.0	0.0	7665.0
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	23162.0	0.0	23162.0
	% Fixture	75.1	0.0	75.1
Total	Lumens	30827.0	0.0	30827.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.0	1.1
10°-20°	1120.0	3.6
20°-30°	2158.7	7.0
30°-40°	3785.0	12.3
40°-50°	5627.1	18.3
50°-60°	7132.9	23.1
60°-70°	6979.3	22.6
70°-80°	3329.2	10.8
80°-90°	355.8	1.2
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°	30827.0	100.0
0°-180°	30827.0	100.0

Coefficient of Utilization



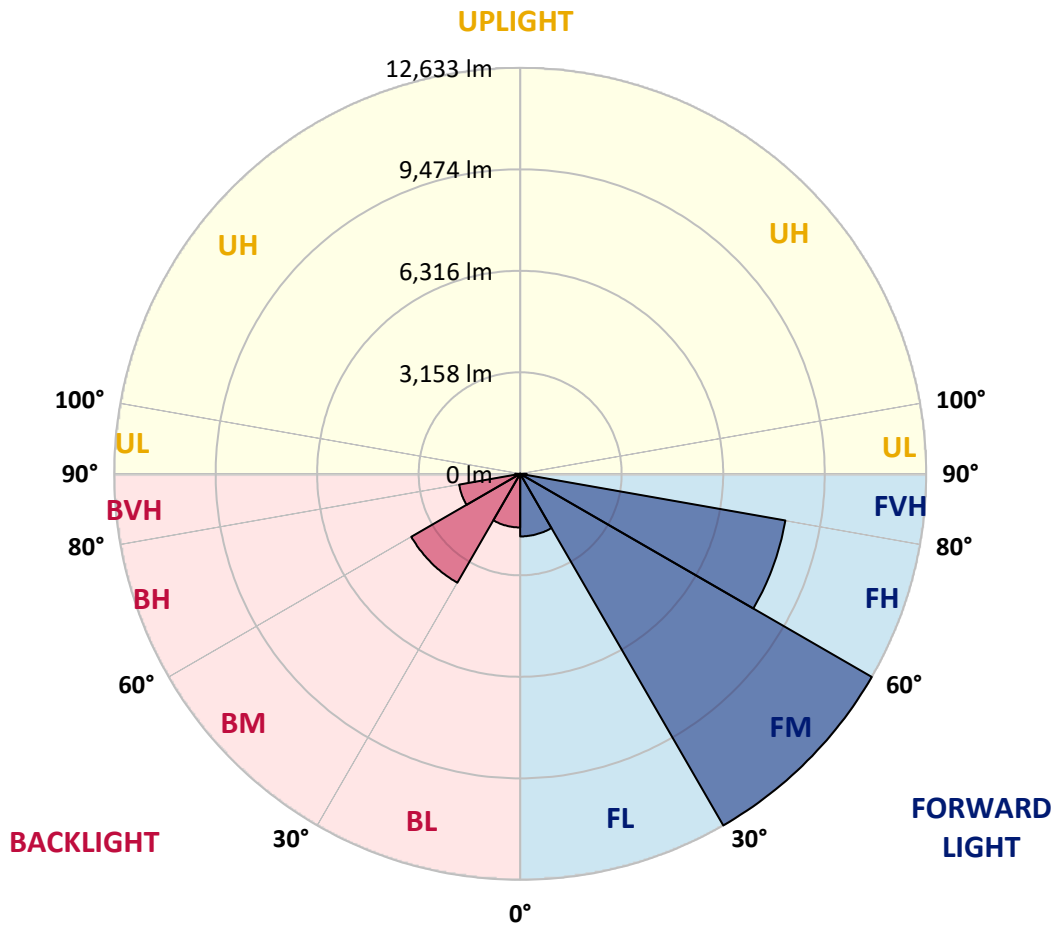
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1948.0	6.3			
FM (30°-60°)	12632.6	41.0			
FH (60°-80°)	8379.6	27.2			G4/12000
FVH (80°-90°)	201.7	0.7			G2/225
BL (0°-30°)	1669.7	5.4	B3/2500		
BM (30°-60°)	3912.3	12.7	B3/5000		
BH (60°-80°)	1928.9	6.3	B3/2500		G3/2500
BVH (80°-90°)	154.1	0.5			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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1
2.5°	3383.5	3402.9	3398.1	3390.0	3388.3	3391.6	3396.4	3401.3	3399.7	3407.8	3420.7
5°	3373.8	3393.2	3391.6	3391.6	3398.1	3411.0	3419.1	3427.2	3419.1	3428.8	3446.7
7.5°	3380.2	3394.8	3401.3	3407.8	3424.0	3448.3	3467.7	3485.5	3475.8	3487.1	3509.8
10°	3462.9	3474.2	3480.7	3480.7	3492.0	3519.5	3539.0	3571.4	3563.3	3581.1	3610.2
12.5°	3613.5	3624.8	3624.8	3618.3	3626.4	3644.3	3650.7	3686.4	3671.8	3700.9	3730.1
15°	3798.1	3820.8	3803.0	3791.6	3794.9	3812.7	3811.1	3838.6	3824.0	3848.3	3874.2
17.5°	4002.2	4031.4	4002.2	4000.6	3994.1	4013.5	4015.2	4039.5	4013.5	4031.4	4049.2
20°	4243.5	4284.0	4259.7	4267.8	4253.3	4261.3	4269.4	4305.1	4264.6	4277.5	4272.7
22.5°	4583.7	4632.3	4606.3	4637.1	4627.4	4620.9	4619.3	4682.5	4619.3	4624.2	4577.2
25°	5079.3	5137.6	5092.2	5134.4	5134.4	5155.4	5179.7	5260.7	5155.4	5124.6	5003.2
27.5°	5811.4	5869.7	5780.6	5806.5	5798.4	5850.2	5824.3	6025.2	5911.8	5861.6	5617.0
30°	6692.5	6796.1	6627.7	6621.2	6613.1	6695.7	6733.0	6865.8	6750.8	6700.6	6405.8
32.5°	7644.8	7753.4	7552.5	7494.2	7463.4	7513.6	7482.9	7589.8	7510.4	7432.7	7068.2
35°	8652.3	8759.2	8568.1	8454.7	8331.6	8226.3	8116.2	8143.7	8069.2	7951.0	7573.6
37.5°	9604.6	9800.6	9598.2	9476.7	9249.9	9044.2	8736.5	8608.5	8538.9	8430.4	8049.8
40°	10574.8	10686.6	10532.7	10429.1	10182.9	9860.5	9368.2	9097.7	9003.7	8898.5	8576.1
42.5°	11289.1	11396.0	11313.4	11242.1	11049.4	10675.2	10038.7	9700.2	9564.1	9445.9	9172.2
45°	11856.0	11935.3	11883.5	11909.4	11826.8	11464.0	10733.5	10346.4	10205.5	10061.4	9846.0
47.5°	12084.4	12168.6	12251.2	12405.0	12546.0	12278.7	11480.2	11046.1	10897.1	10749.7	10537.6
50°	12058.4	12144.3	12384.0	12711.2	13148.5	13059.4	12267.4	11791.2	11653.5	11485.1	11289.1
52.5°	11851.1	11948.3	12256.0	12800.2	13496.7	13644.1	13069.1	12560.5	12431.0	12230.1	12034.1
55°	11306.9	11365.2	11826.8	12597.8	13579.3	14052.3	13854.7	13380.1	13250.5	12970.3	12756.5
57.5°	10297.9	10382.1	11054.2	12052.0	13372.0	14329.2	14544.6	14241.8	14117.0	13713.7	13490.2
60°	8981.1	9115.5	9884.8	11135.2	12844.0	14327.6	15171.4	15088.8	14985.2	14445.8	14212.6
62.5°	7491.0	7646.5	8386.6	9839.5	11920.8	13921.1	15563.4	15798.3	15744.8	15121.2	14823.2
65°	5753.1	5860.0	6596.9	8163.1	10484.1	13048.1	15608.8	16282.5	16292.3	15634.7	15142.3
67.5°	3830.5	4138.3	4778.0	6125.6	8560.0	11621.1	15210.3	16361.9	16455.8	15811.2	14981.9
70°	1869.1	2274.0	2900.8	3981.1	6125.6	9433.0	14168.9	15710.8	15919.7	15296.2	14026.3
72.5°	775.8	907.0	1248.8	1964.7	3516.3	6365.3	12076.3	13945.4	14332.5	13553.4	11792.8
75°	523.2	566.9	714.3	1007.4	1601.9	3138.9	8709.0	10398.3	11021.8	10236.3	8367.2
77.5°	403.3	430.8	519.9	704.6	952.4	1187.2	4661.4	6266.5	6588.8	6099.7	4353.7
80°	317.5	338.5	388.7	513.4	675.4	634.9	1588.9	2839.3	3025.5	2538.0	1399.4
82.5°	275.3	283.4	278.6	348.2	448.6	370.9	521.5	1047.9	1156.4	839.0	456.7
85°	199.2	221.9	231.6	215.4	238.1	187.9	213.8	370.9	408.2	364.4	257.5
87.5°	81.0	119.9	147.4	139.3	87.5	53.4	66.4	108.5	124.7	136.1	84.2
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°	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1	3419.1
2.5°	3422.4	3433.7	3441.8	3451.5	3458.0	3467.7	3487.1	3498.5	3500.1	3508.2	3506.6
5°	3453.1	3469.3	3487.1	3513.1	3542.2	3566.5	3603.8	3629.7	3639.4	3647.5	3645.9
7.5°	3519.5	3542.2	3574.6	3620.0	3662.1	3694.5	3739.8	3770.6	3801.4	3812.7	3814.3
10°	3618.3	3650.7	3697.7	3759.3	3804.6	3846.7	3893.7	3919.6	3950.4	3963.3	3969.8
12.5°	3741.4	3775.4	3837.0	3922.8	3965.0	3994.1	4010.3	4003.8	4010.3	4021.6	4024.9
15°	3882.3	3919.6	3989.2	4081.6	4110.7	4084.8	4049.2	4016.8	4011.9	4015.2	4026.5
17.5°	4049.2	4076.7	4157.7	4235.4	4214.4	4107.5	4029.7	3977.9	3952.0	3943.9	3955.2
20°	4282.4	4282.4	4348.8	4397.4	4256.5	4075.1	3953.6	3869.4	3815.9	3793.3	3788.4
22.5°	4565.8	4539.9	4582.0	4548.0	4248.4	3984.4	3815.9	3670.2	3589.2	3556.8	3551.9
25°	4925.4	4894.6	4883.3	4672.7	4190.1	3840.2	3566.5	3390.0	3318.7	3300.9	3304.1
27.5°	5468.0	5390.3	5242.9	4740.8	4083.2	3613.5	3275.0	3111.4	3070.9	3072.5	3077.4
30°	6190.4	6034.9	5673.7	4752.1	3908.3	3292.8	2977.0	2860.3	2840.9	2849.0	2876.5
32.5°	6859.3	6711.9	6114.3	4700.3	3639.4	2978.6	2709.7	2632.0	2602.8	2612.5	2625.5
35°	7384.1	7343.6	6522.4	4627.4	3309.0	2683.8	2470.0	2403.6	2346.9	2333.9	2343.7
37.5°	7879.7	7863.5	6828.5	4525.4	2981.8	2474.9	2277.3	2189.8	2107.2	2061.8	2063.5
40°	8423.9	8407.7	7029.4	4368.2	2691.9	2293.5	2104.0	1989.0	1886.9	1804.3	1812.4
42.5°	9036.1	8940.6	7124.9	4143.1	2445.7	2139.6	1963.0	1807.6	1673.1	1597.0	1601.9
45°	9705.1	9489.6	7123.3	3856.4	2238.4	1998.7	1812.4	1592.1	1467.4	1396.2	1392.9
47.5°	10414.5	10014.4	7035.8	3539.0	2037.5	1843.2	1579.2	1410.7	1328.1	1284.4	1274.7
50°	11146.6	10505.2	6886.8	3174.6	1831.8	1666.6	1433.4	1318.4	1255.2	1214.8	1200.2
52.5°	11834.9	10950.6	6707.1	2761.5	1622.9	1495.0	1368.6	1279.5	1213.1	1167.8	1148.3
55°	12474.7	11334.4	6452.8	2338.8	1452.8	1380.0	1337.8	1263.3	1187.2	1133.8	1112.7
57.5°	13043.2	11583.9	6013.8	1942.0	1331.4	1300.6	1305.5	1235.8	1148.3	1103.0	1073.8
60°	13516.1	11766.9	5364.3	1574.3	1232.6	1222.9	1255.2	1184.0	1081.9	1030.1	1007.4
62.5°	13799.6	11763.7	4567.5	1289.3	1148.3	1151.6	1188.8	1119.2	1015.5	966.9	952.4
65°	13775.3	11475.4	3692.8	1103.0	1067.4	1070.6	1119.2	1047.9	960.5	931.3	929.7
67.5°	13287.8	10772.4	2832.8	981.5	978.3	992.9	1049.5	999.3	926.5	923.2	928.1
70°	11967.7	9313.1	2040.8	884.3	886.0	907.0	981.5	968.6	908.6	915.1	913.5
72.5°	9596.5	7100.6	1370.2	782.3	783.9	817.9	916.7	944.3	890.8	976.7	989.6
75°	6391.2	4428.2	881.1	673.8	675.4	719.1	860.0	897.3	842.2	973.4	981.5
77.5°	3070.9	1990.6	638.1	566.9	566.9	607.4	743.4	803.4	717.5	756.4	693.2
80°	1060.9	748.3	502.1	456.7	447.0	474.6	626.8	696.5	618.7	570.1	534.5
82.5°	417.9	388.7	403.3	354.7	322.3	340.1	487.5	575.0	455.1	411.4	409.8
85°	239.7	252.7	285.1	234.9	186.3	208.9	357.9	413.0	343.4	302.9	309.4
87.5°	64.8	89.1	131.2	121.5	84.2	89.1	170.1	228.4	197.6	152.2	157.1
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)