

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: P884287

Luminaire Tested: **NAV-SB5A-740-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884287
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-740-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24316 lumens
Efficiency: N/A
Efficacy: 171.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

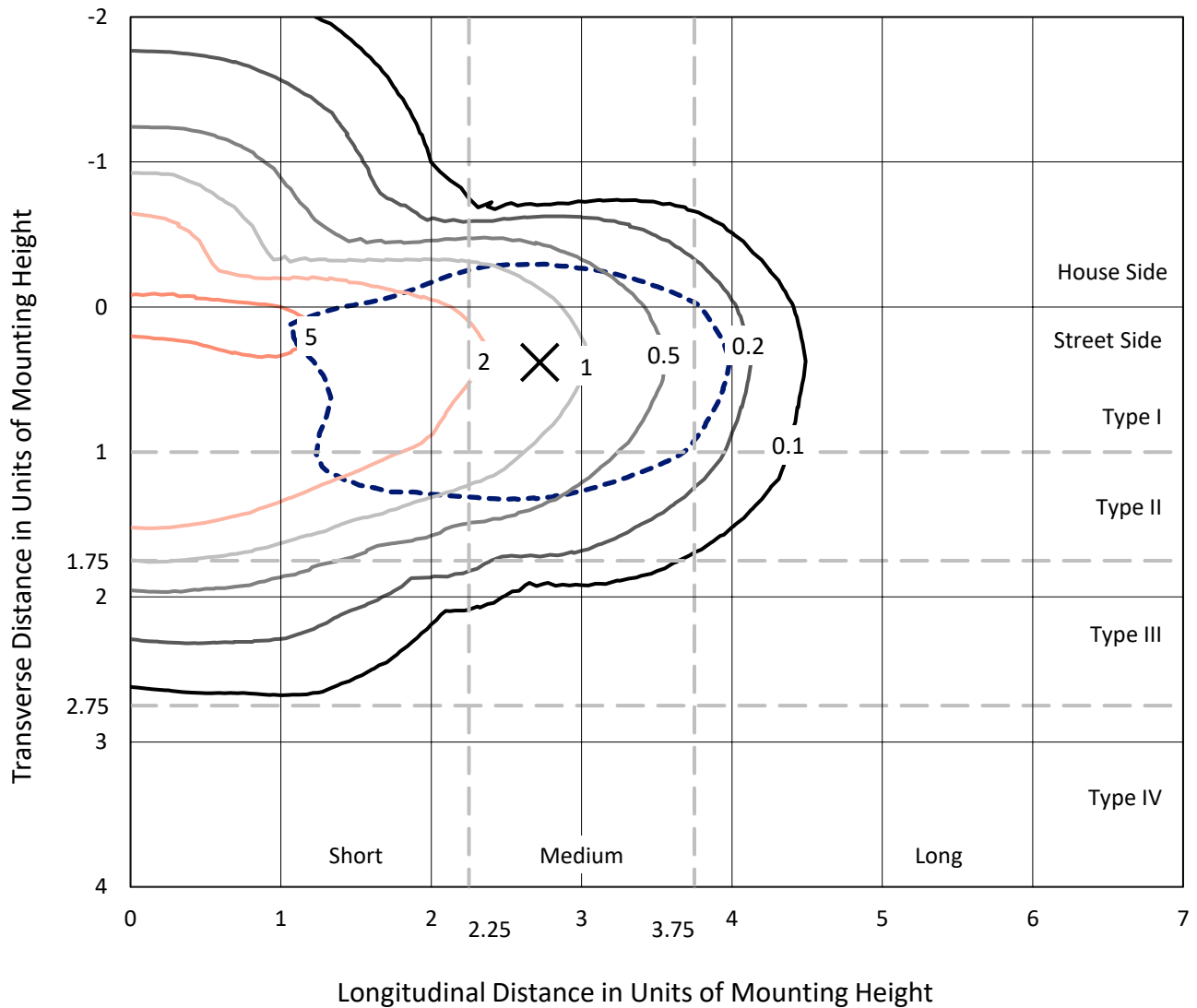
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

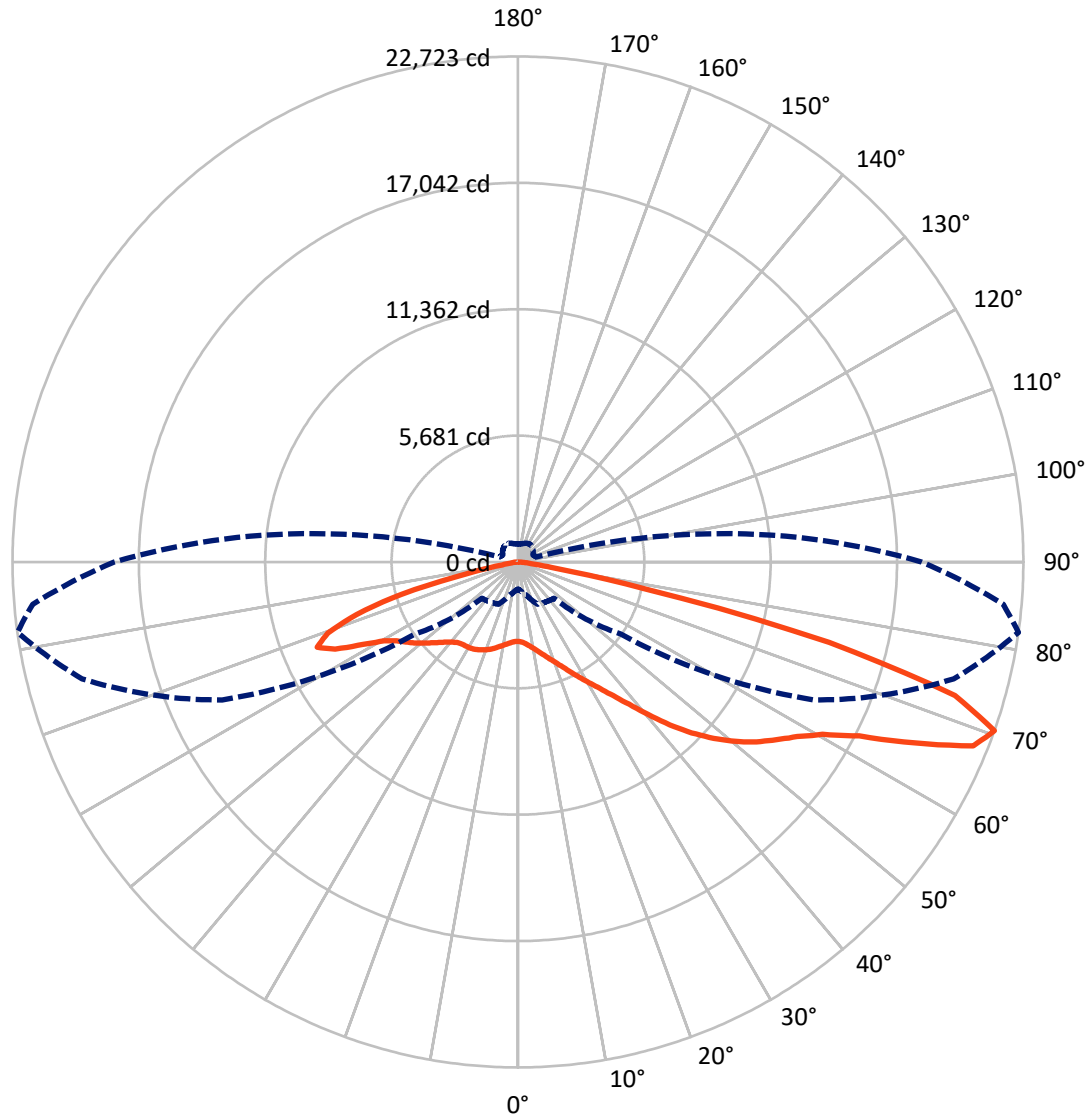
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5994.5	0.0	5994.5
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	18321.5	0.0	18321.5
	% Fixture	75.3	0.0	75.3
Total	Lumens	24316.0	0.0	24316.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	336.6	1.4
10°-20°	967.1	4.0
20°-30°	1617.8	6.7
30°-40°	2527.5	10.4
40°-50°	4025.3	16.6
50°-60°	5601.7	23.0
60°-70°	5859.6	24.1
70°-80°	3062.5	12.6
80°-90°	318.0	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°	24316.0	100.0
0°-180°	24316.0	100.0

Coefficient of Utilization



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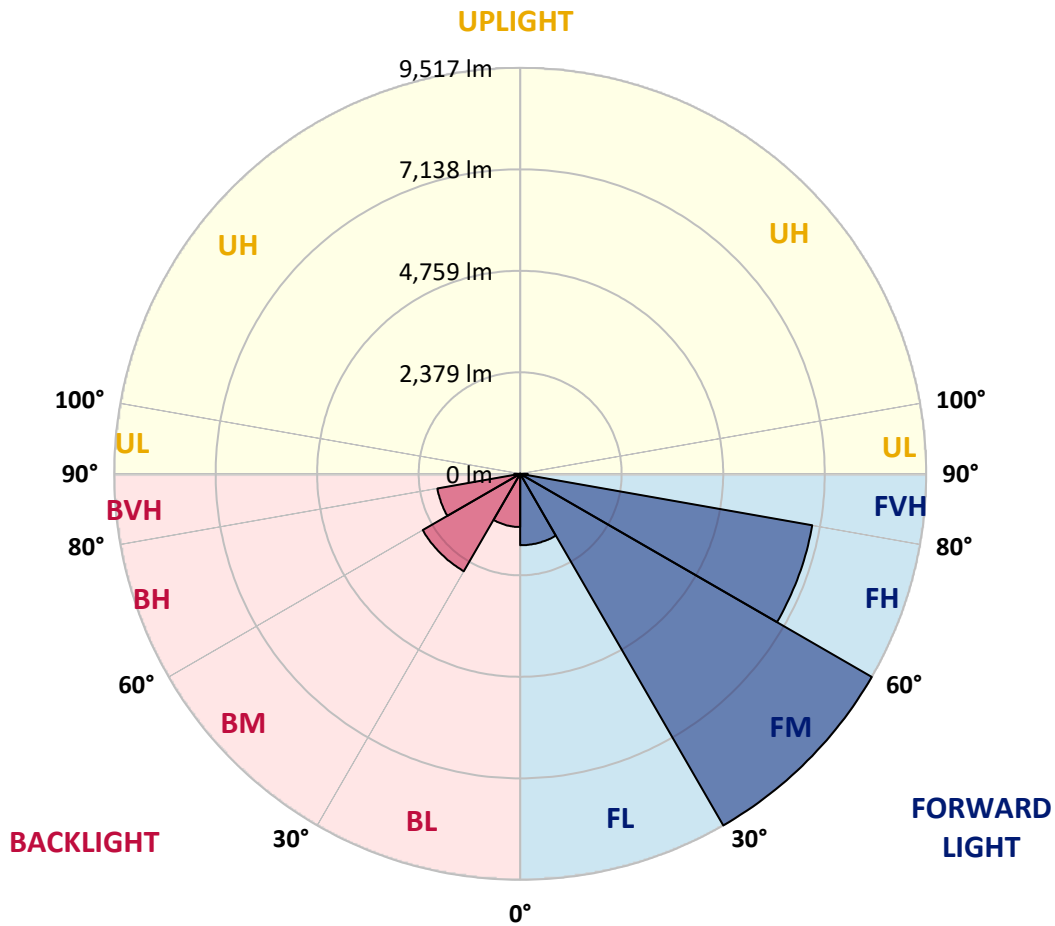
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1674.4	6.9			
FM (30°-60°)	9517.0	39.1			
FH (60°-80°)	6952.0	28.6			G3/7500
FVH (80°-90°)	178.0	0.7			G2/225
BL (0°-30°)	1247.1	5.1	B3/2500		
BM (30°-60°)	2637.3	10.8	B3/5000		
BH (60°-80°)	1970.1	8.1	B3/2500		G3/2500
BVH (80°-90°)	140.0	0.6			G2/225
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°	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0
2.5°	3650.2	3670.8	3664.4	3657.9	3657.9	3648.9	3647.6	3634.7	3624.4	3607.6	3603.7
5°	3696.6	3718.6	3716.0	3721.2	3737.9	3741.8	3745.7	3737.9	3717.3	3696.6	3687.6
7.5°	3655.3	3679.9	3687.6	3718.6	3770.2	3816.6	3851.5	3865.7	3846.3	3816.6	3802.4
10°	3516.0	3543.1	3570.2	3643.7	3735.3	3845.0	3937.9	3993.4	3989.5	3961.1	3936.6
12.5°	3233.4	3261.8	3319.9	3463.1	3630.8	3824.4	3997.3	4113.4	4153.4	4132.8	4090.2
15°	3007.6	3032.1	3076.0	3223.1	3441.2	3735.3	4019.2	4245.0	4346.9	4335.3	4283.7
17.5°	3001.2	3011.5	3038.6	3108.3	3276.0	3596.0	3996.0	4374.0	4568.9	4567.6	4503.1
20°	3114.7	3118.6	3134.1	3148.3	3243.8	3490.2	3936.6	4481.1	4817.9	4817.9	4748.2
22.5°	3272.1	3269.6	3285.0	3272.1	3318.6	3481.2	3899.2	4575.3	5095.3	5115.9	5028.2
25°	3508.3	3495.4	3491.5	3461.8	3470.8	3565.0	3940.5	4682.4	5424.3	5466.9	5357.2
27.5°	3823.1	3802.4	3788.2	3719.9	3696.6	3737.9	4066.9	4811.4	5790.8	5864.3	5724.9
30°	4233.4	4196.0	4175.3	4056.6	3972.8	3979.2	4257.9	4983.0	6174.0	6292.7	6115.9
32.5°	4793.4	4735.3	4679.8	4485.0	4331.5	4281.1	4504.3	5220.5	6589.4	6779.1	6552.0
35°	5420.4	5374.0	5314.6	5014.0	4777.9	4661.8	4837.2	5552.1	7075.9	7376.5	7081.0
37.5°	6024.3	5984.3	6012.7	5607.5	5303.0	5134.0	5273.4	5997.2	7675.8	8119.7	7744.2
40°	6648.8	6617.8	6621.7	6234.6	5879.8	5690.1	5802.4	6555.9	8363.6	9003.5	8541.6
42.5°	7327.5	7304.2	7226.8	6883.6	6484.9	6308.2	6411.4	7201.0	9101.6	10010.0	9416.4
45°	8087.4	8073.3	8001.0	7607.5	7150.7	6952.0	7091.4	7913.3	9843.5	10957.0	10295.1
47.5°	8744.2	8755.8	8746.8	8415.2	7941.6	7650.0	7816.5	8656.5	10533.8	11847.3	11137.7
50°	9060.3	9121.0	9210.0	9106.8	8812.6	8515.8	8548.1	9373.8	11191.8	12682.1	11945.4
52.5°	8895.2	9010.0	9252.6	9417.7	9531.3	9469.3	9382.9	10086.1	11811.2	13435.6	12709.2
55°	8279.7	8441.0	8843.5	9242.2	9821.6	10271.9	10385.4	10875.7	12415.0	14098.8	13431.8
57.5°	7158.4	7420.4	7781.6	8588.1	9563.5	10660.3	11554.4	11971.2	13055.0	14807.2	14187.9
60°	5235.9	5586.9	6035.9	7235.9	8660.3	10452.5	12549.2	13653.7	13964.6	15724.6	15172.3
62.5°	3350.8	3567.6	3980.5	5110.8	6748.1	9388.0	12853.7	15756.8	15506.5	17229.0	16648.4
65°	2294.1	2433.5	2811.5	3446.3	4362.4	6988.1	12038.3	17333.6	17955.5	19613.5	19172.2
67.5°	1667.0	1772.8	2095.4	2651.5	2842.5	4135.3	9341.6	17261.3	20336.0	22070.2	21383.7
70°	1215.4	1290.3	1561.2	2095.4	2187.0	2300.6	5659.1	14673.0	20284.4	22723.0	21901.1
72.5°	900.6	952.2	1134.2	1625.7	1770.3	1553.5	2801.2	10664.1	17430.3	20552.8	19893.5
75°	651.6	690.3	824.5	1243.8	1416.7	1183.2	1397.4	6232.0	12158.3	14457.5	14573.7
77.5°	498.0	527.7	615.5	910.9	1134.2	887.7	867.1	2867.0	5764.9	5793.3	6118.5
80°	400.0	419.3	467.1	641.3	869.6	664.5	565.1	1157.4	1821.9	1541.9	1618.0
82.5°	294.2	326.4	394.8	450.3	621.9	458.0	344.5	584.5	692.9	596.1	601.3
85°	167.7	189.7	238.7	322.6	397.4	280.0	197.4	259.3	322.6	264.5	236.1
87.5°	59.4	77.4	83.9	126.4	172.9	116.1	76.1	74.8	105.8	78.7	65.8
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°	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0	3565.0
2.5°	3590.8	3584.4	3558.6	3523.7	3487.6	3452.8	3441.2	3416.6	3399.9	3390.8	3401.2
5°	3663.1	3642.4	3581.8	3504.4	3423.1	3335.4	3273.4	3216.7	3175.4	3136.7	3152.1
7.5°	3766.3	3730.2	3625.7	3490.2	3345.7	3199.9	3091.5	3008.9	2953.4	2917.3	2925.1
10°	3886.3	3830.8	3670.8	3468.3	3245.0	3036.0	2908.3	2837.3	2802.5	2783.1	2788.3
12.5°	4024.4	3945.7	3717.3	3417.9	3091.5	2852.8	2765.1	2744.4	2745.7	2747.0	2749.6
15°	4194.7	4085.0	3754.7	3308.3	2891.5	2712.2	2696.7	2730.2	2765.1	2781.8	2780.5
17.5°	4386.9	4232.1	3761.2	3127.6	2695.4	2621.8	2670.9	2743.1	2796.0	2819.3	2824.4
20°	4593.4	4381.8	3714.7	2872.2	2534.1	2548.3	2636.0	2728.9	2787.0	2816.7	2824.4
22.5°	4829.5	4541.8	3603.7	2603.8	2402.5	2468.3	2571.5	2661.8	2722.5	2752.2	2759.9
25°	5099.2	4721.1	3429.6	2378.0	2288.9	2378.0	2481.2	2556.0	2605.1	2632.2	2639.9
27.5°	5398.5	4908.2	3197.3	2198.6	2189.6	2285.1	2370.2	2428.3	2454.1	2474.7	2482.5
30°	5699.1	5078.5	2916.0	2063.1	2103.1	2193.5	2254.1	2279.9	2287.7	2291.5	2300.6
32.5°	6024.3	5225.6	2620.5	1950.9	2020.6	2104.4	2140.6	2152.2	2116.1	2091.5	2099.3
35°	6417.8	5383.0	2331.5	1861.9	1939.3	2011.5	2023.2	2012.8	1970.2	1919.9	1922.5
37.5°	6904.3	5579.1	2100.6	1798.6	1863.2	1910.9	1896.7	1894.1	1898.0	1838.6	1842.5
40°	7500.4	5834.6	1931.5	1749.6	1801.2	1811.5	1771.5	1793.5	1812.8	1722.5	1725.1
42.5°	8162.3	6143.0	1824.4	1716.1	1749.6	1725.1	1663.2	1687.7	1685.1	1566.4	1565.1
45°	8837.1	6478.5	1787.0	1691.6	1701.9	1652.8	1584.5	1590.9	1536.7	1429.6	1433.5
47.5°	9508.0	6838.5	1810.3	1670.9	1642.5	1587.0	1534.1	1505.8	1425.8	1345.8	1345.8
50°	10166.1	7216.5	1895.4	1629.6	1561.2	1529.0	1490.3	1439.9	1354.8	1286.4	1281.2
52.5°	10776.4	7597.1	1990.9	1561.2	1459.3	1478.7	1454.1	1396.1	1312.2	1242.5	1243.8
55°	11354.4	7977.8	2028.3	1467.0	1363.8	1434.8	1420.6	1313.5	1212.9	1156.1	1150.9
57.5°	11984.1	8435.8	1987.0	1347.0	1286.4	1384.5	1330.3	1211.6	1153.5	1110.9	1107.1
60°	12856.3	9154.5	1898.0	1198.7	1212.9	1309.6	1216.7	1167.7	1104.5	1056.7	1054.2
62.5°	14305.3	10495.1	1754.8	1051.6	1126.4	1198.7	1162.5	1113.5	1049.0	1002.5	1002.5
65°	16447.1	12358.3	1485.1	936.7	1029.6	1090.3	1104.5	1055.4	988.4	939.3	941.9
67.5°	18253.5	13527.2	1123.8	841.3	930.3	1002.5	1042.5	994.8	923.8	876.1	877.4
70°	18154.2	12678.2	858.0	747.1	842.5	916.1	967.7	930.3	854.2	809.0	812.9
72.5°	16124.6	10606.1	694.2	651.6	753.5	825.8	887.7	859.3	781.9	738.0	738.0
75°	11846.0	7528.8	554.8	554.8	642.6	731.6	800.0	781.9	710.9	680.0	670.9
77.5°	4993.4	3158.6	434.8	460.6	534.2	628.4	713.5	720.0	658.0	696.7	632.2
80°	1327.7	870.9	331.6	362.6	419.3	518.7	620.6	618.0	550.9	514.8	478.7
82.5°	505.8	343.2	236.1	255.5	303.2	397.4	491.6	507.1	440.0	380.6	380.6
85°	194.8	147.1	145.8	153.5	176.8	263.2	371.6	384.5	331.6	281.3	290.3
87.5°	50.3	43.9	54.2	51.6	81.3	140.6	212.9	220.6	202.6	117.4	167.7
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)