

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: P884451

Luminaire Tested: **NAV-SB5B-735-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884451
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28242 lumens
Efficiency: N/A
Efficacy: 154.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

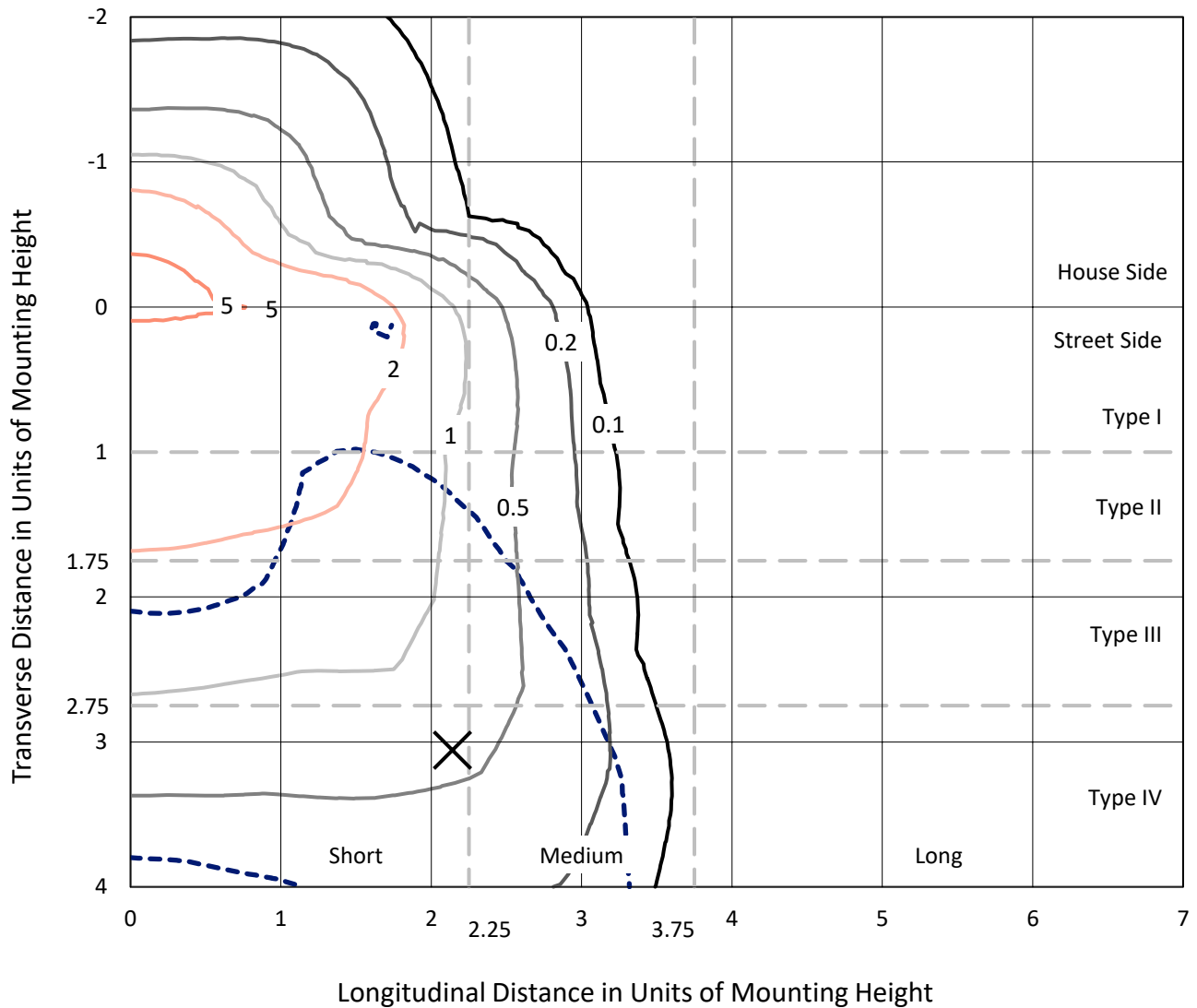
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

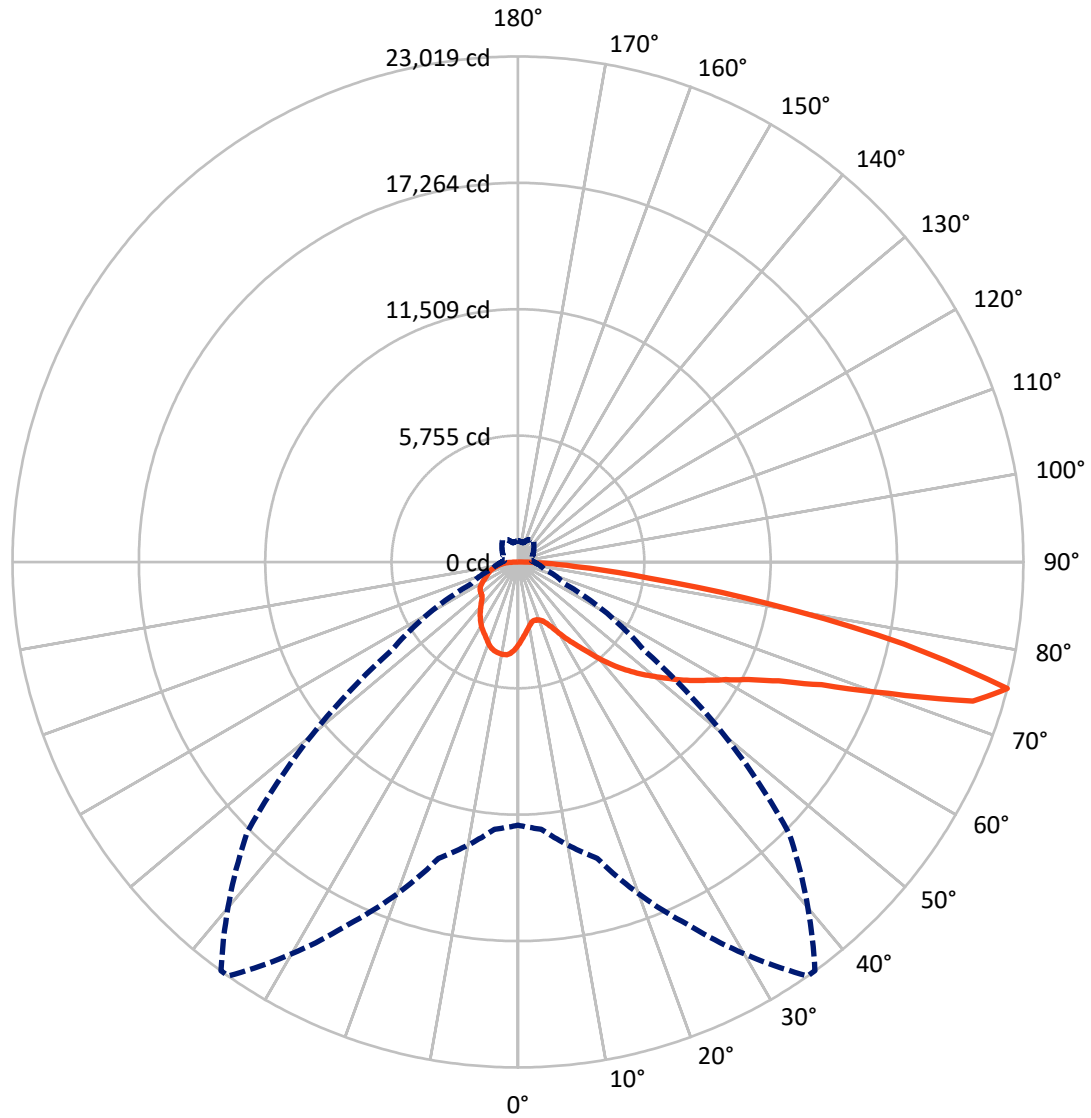
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6720.9	0.0	6720.9
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	21521.1	0.0	21521.1
	% Fixture	76.2	0.0	76.2
Total	Lumens	28242.0	0.0	28242.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.3	1.3
10°-20°	1027.8	3.6
20°-30°	1725.9	6.1
30°-40°	2682.3	9.5
40°-50°	3981.3	14.1
50°-60°	5496.4	19.5
60°-70°	6668.4	23.6
70°-80°	5510.9	19.5
80°-90°	792.6	2.8
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°	28242.0	100.0
0°-180°	28242.0	100.0

Coefficient of Utilization



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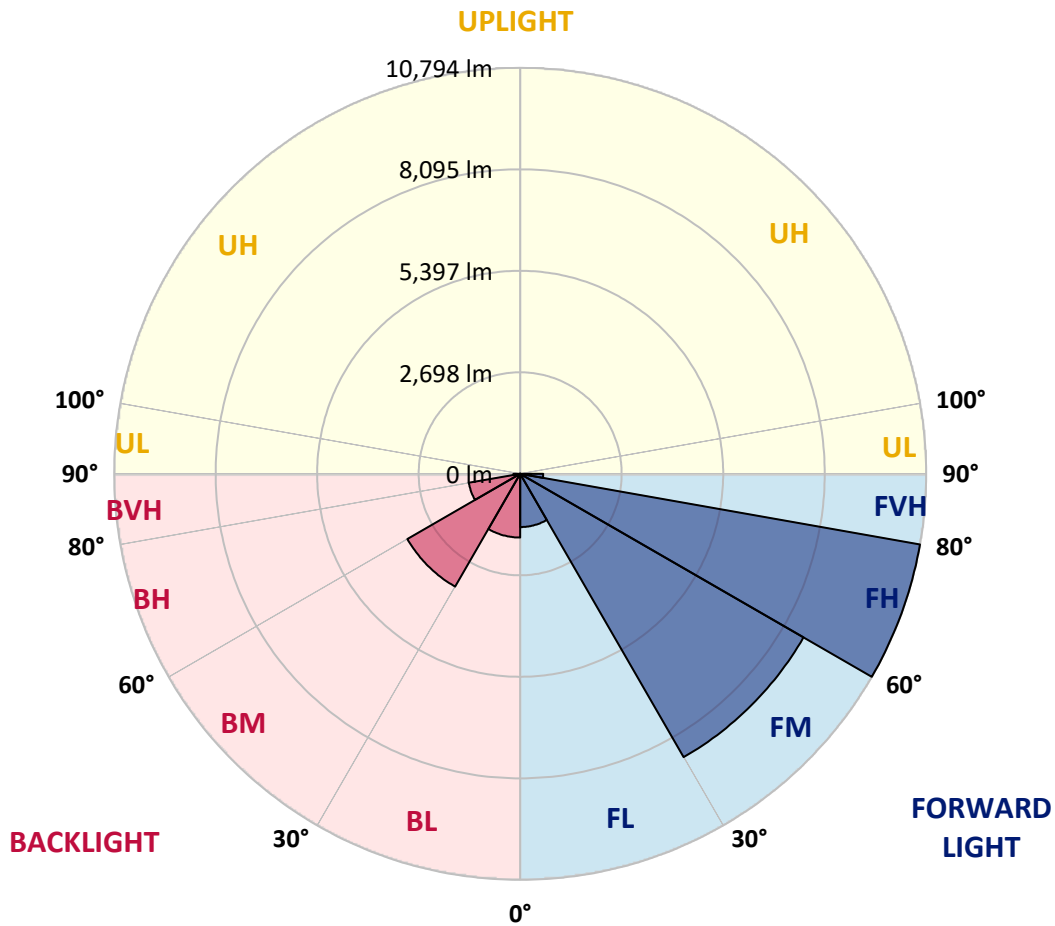
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1416.3	5.0			
FM (30°-60°)	8697.0	30.8			
FH (60°-80°)	10793.7	38.2			G4/12000
FVH (80°-90°)	614.2	2.2			G4/750
BL (0°-30°)	1693.8	6.0	B3/2500		
BM (30°-60°)	3463.0	12.3	B3/5000		
BH (60°-80°)	1385.6	4.9	B3/2500		G3/2500
BVH (80°-90°)	178.5	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4
2.5°	3470.3	3491.7	3500.8	3496.3	3519.2	3516.1	3548.2	3587.9	3642.8	3696.3	3774.1
5°	3203.1	3226.0	3245.9	3264.2	3308.5	3322.2	3372.6	3448.9	3549.7	3652.0	3780.2
7.5°	2954.3	2974.1	3004.6	3038.2	3113.0	3126.8	3210.8	3329.8	3470.3	3619.9	3797.0
10°	2751.2	2771.1	2803.1	2841.3	2934.4	2951.2	3058.1	3216.9	3400.1	3589.4	3815.3
12.5°	2664.2	2670.3	2688.6	2726.8	2807.7	2818.4	2935.9	3117.6	3331.4	3566.5	3842.8
15°	2659.6	2671.8	2673.3	2693.2	2760.4	2764.9	2873.3	3053.5	3288.6	3561.9	3884.1
17.5°	2705.4	2714.6	2700.8	2713.0	2769.5	2777.2	2862.7	3023.0	3274.9	3581.8	3954.3
20°	2827.5	2835.2	2794.0	2777.2	2818.4	2824.5	2908.5	3042.8	3288.6	3623.0	4050.5
22.5°	3087.1	3091.7	2990.9	2922.2	2925.3	2928.3	3001.6	3123.7	3342.1	3697.8	4172.6
25°	3491.7	3488.6	3328.3	3195.5	3119.1	3102.4	3151.2	3255.0	3432.1	3797.0	4329.9
27.5°	3965.0	3942.1	3781.8	3583.3	3416.9	3392.4	3381.8	3426.0	3560.4	3928.3	4522.2
30°	4499.3	4478.0	4305.4	4045.9	3815.3	3775.7	3674.9	3652.0	3751.2	4107.0	4789.4
32.5°	5085.6	5071.9	4865.8	4551.2	4242.8	4197.0	4027.6	3966.5	4044.4	4377.2	5161.9
35°	5577.2	5565.0	5394.0	5070.3	4693.2	4636.7	4464.2	4395.5	4435.2	4723.8	5649.0
37.5°	6021.5	6015.4	5868.8	5613.9	5224.5	5155.8	4961.9	4939.0	4931.4	5180.3	6239.8
40°	6433.7	6418.5	6265.8	6131.4	5842.9	5780.3	5609.3	5589.4	5531.4	5742.1	6908.5
42.5°	6890.2	6850.5	6629.1	6566.5	6488.7	6436.8	6334.5	6337.5	6209.3	6375.7	7617.0
45°	7262.7	7239.8	7012.4	6975.7	7059.7	7038.3	7126.9	7149.8	6900.9	7039.8	8352.8
47.5°	7662.8	7641.4	7449.0	7423.1	7650.5	7656.6	7969.6	7977.3	7575.7	7729.9	9090.3
50°	8155.9	8125.4	7934.5	7966.6	8221.5	8244.4	8817.0	8765.1	8197.1	8430.7	9821.6
52.5°	8481.1	8499.4	8458.2	8510.1	8858.2	8879.6	9650.6	9517.8	8812.4	9122.3	10539.2
55°	8720.8	8757.4	8885.7	9004.8	9530.0	9551.3	10436.9	10233.8	9322.3	9763.6	11214.0
57.5°	9029.2	8977.3	9217.0	9449.1	10168.2	10224.6	11201.8	10923.9	9774.3	10316.2	11676.6
60°	9472.0	9435.3	9621.6	9965.1	10882.7	10972.7	12010.9	11545.3	10105.6	10754.4	11766.7
62.5°	10369.7	10278.1	10307.1	10610.9	11783.5	11902.5	12923.9	12087.3	10270.4	10925.4	11284.2
65°	11711.7	11554.4	11407.9	11618.6	13052.2	13169.7	13954.5	12513.2	10209.4	10594.1	10003.3
67.5°	13401.8	13246.1	13065.9	13264.4	14920.9	15014.1	15226.3	12752.9	9728.4	9317.8	7739.1
70°	14795.7	14737.7	14953.0	15769.8	17905.7	17908.8	16856.8	12554.5	8410.9	6606.2	4478.0
72.5°	14611.0	14575.9	15710.3	18235.5	21667.6	21586.7	18400.4	11052.1	5665.8	2980.2	1677.9
75°	11986.5	12214.0	13971.3	18191.2	23018.8	23008.1	17455.3	7026.1	2343.6	1235.1	867.2
77.5°	6427.6	6787.9	9070.4	13430.8	17969.8	18240.1	12272.0	2458.1	1006.1	790.9	600.0
80°	2096.2	2410.7	3615.3	6838.3	11676.6	11626.2	5259.7	964.9	688.6	560.3	415.3
82.5°	890.1	926.7	1615.3	3229.1	5992.5	5899.4	1674.8	554.2	484.0	383.2	256.5
85°	348.1	389.3	713.0	1493.2	2595.5	2539.0	604.6	274.8	309.9	250.4	152.7
87.5°	114.5	138.9	255.0	511.5	807.7	778.6	148.1	94.7	134.4	114.5	55.0
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°	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4	3763.4
2.5°	3795.5	3819.9	3848.9	3891.7	3928.3	3958.9	3990.9	4010.8	4018.4	4041.3	4039.8
5°	3823.0	3876.4	3948.2	4018.4	4087.1	4128.3	4165.0	4183.3	4200.1	4212.3	4215.4
7.5°	3868.8	3937.5	4050.5	4142.1	4200.1	4233.7	4258.1	4252.0	4258.1	4261.2	4265.7
10°	3908.5	4004.7	4139.0	4226.0	4270.3	4271.8	4265.7	4244.4	4233.7	4235.2	4238.3
12.5°	3955.8	4062.7	4207.7	4281.0	4293.2	4259.6	4233.7	4197.0	4183.3	4177.2	4174.1
15°	4019.9	4142.1	4282.5	4310.0	4279.5	4236.7	4192.5	4132.9	4102.4	4077.9	4085.6
17.5°	4097.8	4232.1	4340.5	4320.7	4255.1	4184.8	4113.1	4023.0	3960.4	3934.4	3936.0
20°	4206.2	4326.8	4384.8	4297.8	4198.6	4091.7	3969.5	3859.6	3801.6	3775.7	3772.6
22.5°	4337.5	4453.5	4427.6	4258.1	4117.6	3946.6	3794.0	3713.1	3684.0	3665.7	3668.8
25°	4494.8	4594.0	4458.1	4200.1	3984.8	3754.3	3636.7	3610.8	3597.0	3583.3	3583.3
27.5°	4699.3	4752.8	4481.0	4114.6	3777.2	3549.7	3506.9	3511.5	3506.9	3484.0	3488.6
30°	4969.6	4958.9	4502.4	3975.7	3539.0	3365.0	3368.0	3387.9	3390.9	3375.6	3383.3
32.5°	5325.3	5216.9	4513.1	3795.5	3311.5	3203.1	3206.2	3227.5	3242.8	3216.9	3229.1
35°	5755.8	5517.7	4496.3	3569.5	3135.9	3048.9	3026.0	3032.1	3036.7	3012.3	3029.1
37.5°	6258.1	5855.1	4421.5	3319.2	2990.9	2897.8	2848.9	2807.7	2783.3	2760.4	2775.6
40°	6809.3	6223.0	4284.1	3074.9	2829.1	2737.5	2664.2	2586.3	2503.9	2473.3	2487.1
42.5°	7386.4	6601.7	4117.6	2841.3	2642.8	2568.0	2490.1	2377.1	2253.5	2190.9	2198.5
45°	7984.9	6989.5	3954.3	2610.7	2452.0	2419.9	2329.8	2193.9	2059.6	1980.2	1974.1
47.5°	8571.2	7355.9	3714.6	2378.7	2273.3	2308.4	2238.2	2113.0	1963.4	1838.2	1824.5
50°	9131.5	7699.4	3322.2	2143.6	2128.3	2274.9	2207.7	2027.5	1856.5	1696.2	1682.5
52.5°	9687.2	7977.3	2819.9	1929.8	2050.4	2265.7	2168.0	1969.5	1760.3	1592.4	1574.1
55°	10159.0	8120.8	2335.9	1746.6	1937.4	2187.8	2120.7	1900.8	1624.5	1445.8	1430.6
57.5°	10427.7	8004.7	1932.9	1566.4	1781.7	2059.6	2039.7	1754.2	1462.6	1325.2	1306.9
60°	10311.7	7534.5	1603.1	1409.2	1633.6	1920.7	1899.3	1609.2	1339.0	1209.2	1190.9
62.5°	9672.0	6638.3	1342.0	1271.8	1499.3	1778.7	1758.8	1497.7	1244.3	1119.1	1099.3
65°	8383.4	5400.1	1139.0	1157.3	1363.4	1607.7	1636.7	1404.6	1169.5	1047.4	1027.5
67.5°	6394.0	3911.5	980.2	1058.0	1230.6	1439.7	1523.7	1337.4	1106.9	990.9	972.5
70°	3644.4	2221.4	845.8	961.9	1113.0	1284.0	1436.7	1284.0	1039.7	943.5	931.3
72.5°	1381.7	1019.9	731.3	865.7	1000.0	1152.7	1340.5	1200.0	961.9	890.1	877.9
75°	737.4	621.4	615.3	752.7	870.2	1024.4	1219.9	1117.6	903.8	940.5	971.0
77.5°	502.3	439.7	514.5	644.3	728.3	882.5	1091.6	992.4	783.2	780.2	719.1
80°	348.1	311.5	418.3	519.1	563.4	742.0	952.7	851.9	638.2	595.4	569.5
82.5°	209.2	203.1	313.0	387.8	398.5	572.5	789.3	714.5	522.1	455.0	458.0
85°	114.5	120.6	200.0	227.5	232.1	400.0	618.3	552.7	401.5	337.4	340.5
87.5°	32.1	41.2	73.3	90.1	111.5	207.6	367.9	328.3	201.5	140.5	140.5
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)