

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: P966804

Luminaire Tested: **NAV-SB4C-827-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966804
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26507.5 lumens
Efficiency: N/A
Efficacy: 132.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

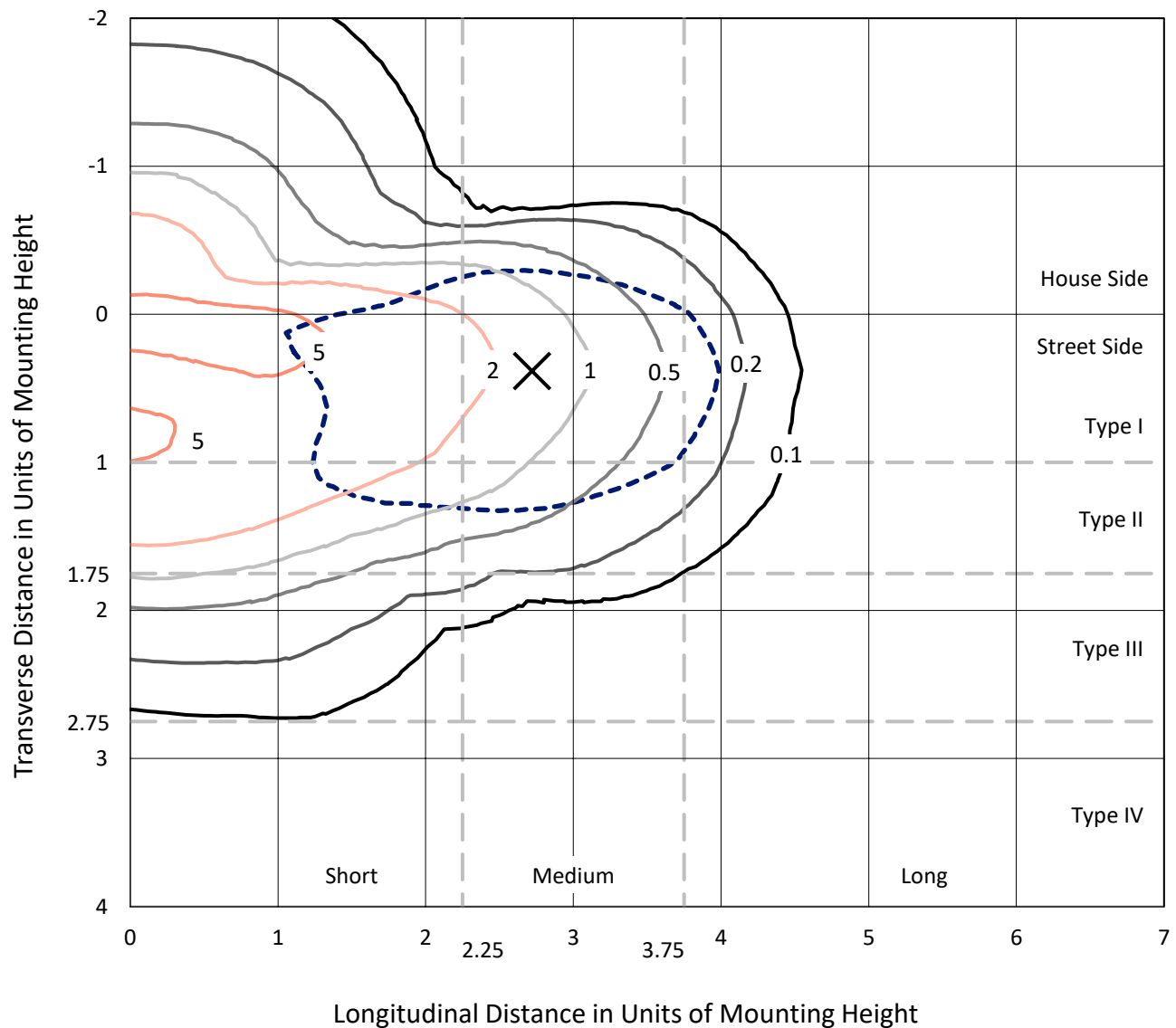
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

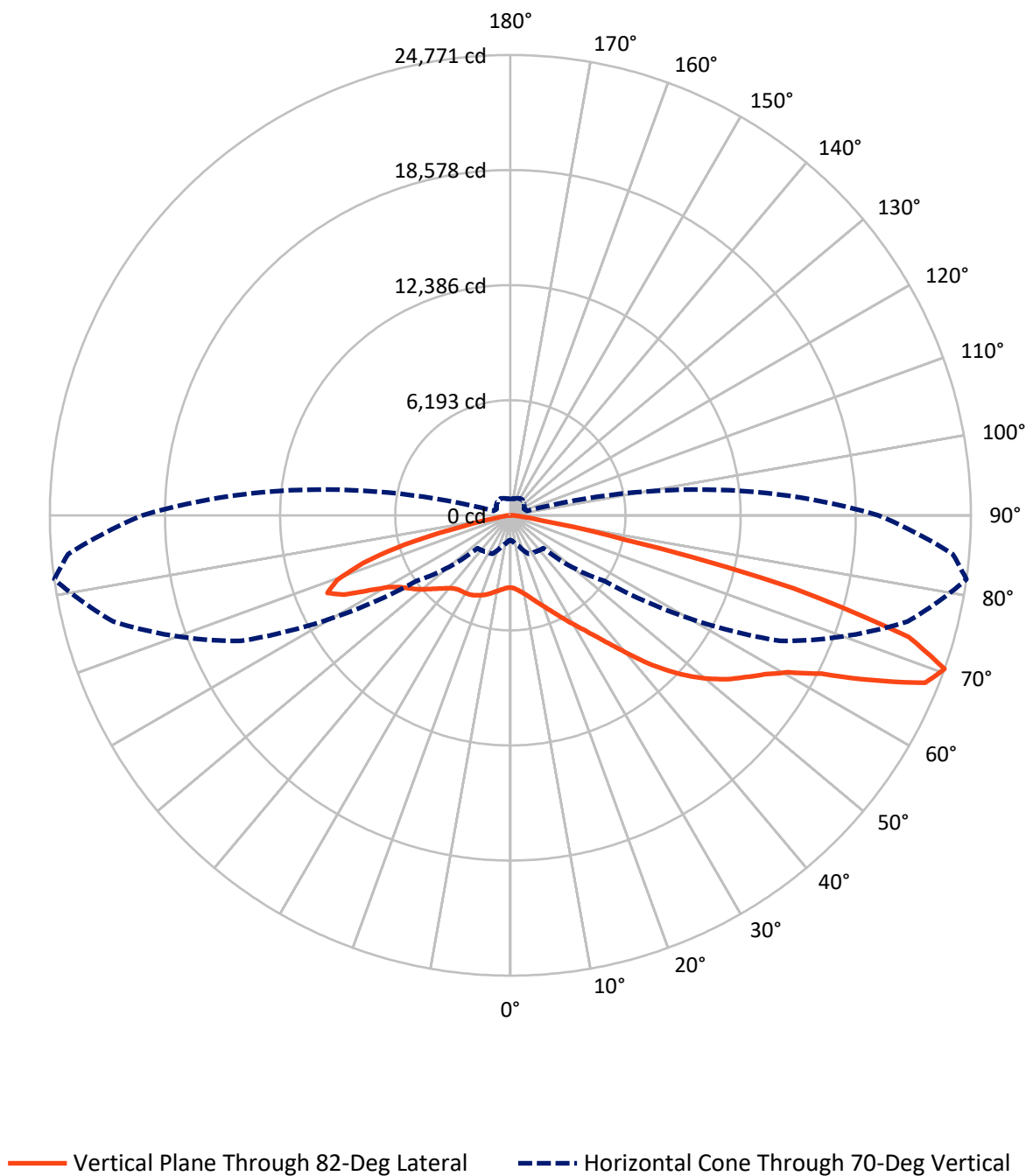
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6534.8	0.0	6534.8
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	19972.8	0.0	19972.8
	% Fixture	75.3	0.0	75.3
Total	Lumens	26507.5	0.0	26507.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.9	1.4
10°-20°	1054.2	4.0
20°-30°	1763.6	6.7
30°-40°	2755.2	10.4
40°-50°	4388.0	16.6
50°-60°	6106.5	23.0
60°-70°	6387.7	24.1
70°-80°	3338.6	12.6
80°-90°	346.7	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°	26507.5	100.0
0°-180°	26507.5	100.0

Coefficient of Utilization



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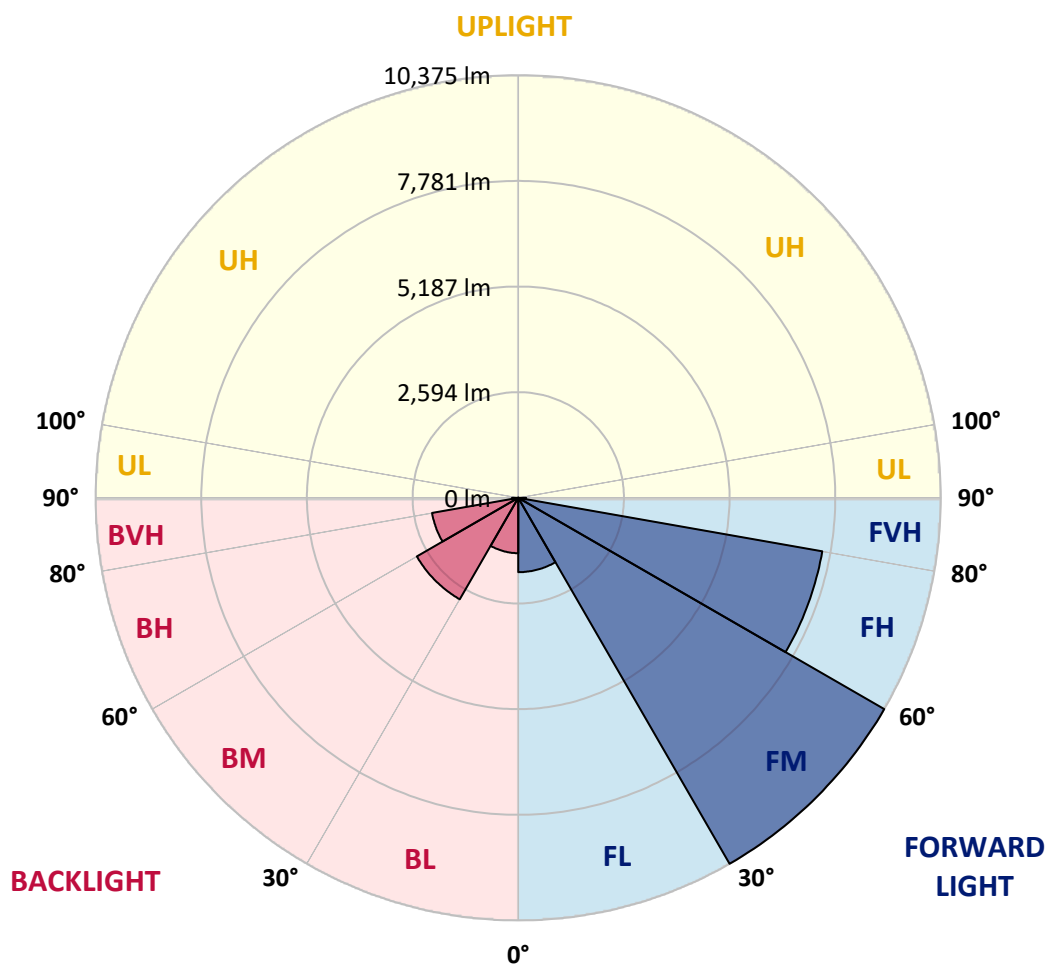
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1825.3	6.9			
FM	(30°-60°)	10374.8	39.1			
FH	(60°-80°)	7578.6	28.6			G4/12000
FVH	(80°-90°)	194.1	0.7			G2/225
BL	(0°-30°)	1359.5	5.1	B3/2500		
BM	(30°-60°)	2875.0	10.8	B3/5000		
BH	(60°-80°)	2147.7	8.1	B3/2500		G3/2500
BVH	(80°-90°)	152.6	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 II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3
2.5°	3979.2	4001.7	3994.6	3987.6	3987.6	3977.7	3976.4	3962.2	3951.1	3932.7	3928.5
5°	4029.8	4053.7	4050.9	4056.5	4074.8	4079.0	4083.3	4074.8	4052.3	4029.8	4019.9
7.5°	3984.8	4011.5	4019.9	4053.7	4109.9	4160.6	4198.6	4214.1	4193.0	4160.6	4145.1
10°	3832.9	3862.4	3891.9	3972.2	4072.0	4191.5	4292.8	4353.3	4349.1	4318.1	4291.5
12.5°	3524.9	3555.8	3619.1	3775.2	3958.0	4169.1	4357.6	4484.2	4527.7	4505.2	4458.9
15°	3278.7	3305.4	3353.3	3513.6	3751.3	4072.0	4381.5	4627.6	4738.7	4726.1	4669.8
17.5°	3271.7	3282.9	3312.5	3388.4	3571.3	3920.1	4356.1	4768.3	4980.7	4979.2	4908.9
20°	3395.4	3399.6	3416.5	3432.0	3536.1	3804.8	4291.5	4884.9	5252.1	5252.1	5176.1
22.5°	3567.0	3564.2	3581.1	3567.0	3617.6	3794.9	4250.7	4987.6	5554.5	5577.0	5481.4
25°	3824.5	3810.3	3806.1	3773.8	3783.7	3886.3	4295.7	5104.4	5913.2	5959.7	5840.0
27.5°	4167.6	4145.1	4129.6	4055.1	4029.8	4074.8	4433.5	5245.0	6312.7	6392.8	6240.9
30°	4615.0	4574.2	4551.6	4422.3	4330.8	4337.8	4641.6	5432.2	6730.4	6859.8	6667.1
32.5°	5225.3	5162.1	5101.6	4889.2	4721.9	4666.9	4910.3	5691.0	7183.3	7390.0	7142.5
35°	5909.0	5858.4	5793.6	5465.9	5208.5	5082.0	5273.2	6052.4	7713.6	8041.3	7719.2
37.5°	6567.3	6523.6	6554.6	6112.9	5781.0	5596.7	5748.6	6537.8	8367.7	8851.5	8442.2
40°	7248.0	7214.3	7218.5	6796.5	6409.7	6203.0	6325.3	7146.7	9117.4	9815.0	9311.4
42.5°	7987.8	7962.5	7878.2	7504.0	7069.4	6876.7	6989.2	7850.1	9921.9	10912.2	10265.1
45°	8816.3	8800.9	8722.1	8293.1	7795.1	7578.5	7730.4	8626.5	10730.6	11944.5	11222.9
47.5°	9532.3	9544.9	9535.1	9173.6	8657.4	8339.5	8520.9	9436.7	11483.2	12915.1	12141.4
50°	9876.9	9943.0	10040.1	9927.5	9606.8	9283.3	9318.5	10218.6	12200.6	13825.1	13022.0
52.5°	9696.8	9822.1	10086.5	10266.5	10390.3	10322.8	10228.6	10995.1	12875.6	14646.5	13854.6
55°	9025.9	9201.7	9640.5	10075.2	10706.7	11197.6	11321.4	11856.0	13534.0	15369.6	14642.3
57.5°	7803.6	8089.1	8483.0	9362.0	10425.5	11621.0	12595.8	13050.1	14231.6	16141.7	15466.5
60°	5707.8	6090.4	6579.9	7888.0	9440.9	11394.6	13680.3	14884.2	15223.2	17141.8	16539.8
62.5°	3652.9	3889.2	4339.2	5571.4	7356.3	10234.1	14012.2	17176.9	16904.1	18781.8	18148.9
65°	2500.9	2652.8	3064.9	3756.9	4755.6	7617.9	13123.3	18895.8	19573.7	21381.2	20900.2
67.5°	1817.3	1932.6	2284.2	2890.5	3098.7	4508.1	10183.5	18817.1	22168.8	24059.3	23311.0
70°	1325.0	1406.6	1701.9	2284.2	2384.1	2507.9	6169.2	15995.4	22112.6	24771.0	23875.0
72.5°	981.7	1038.0	1236.4	1772.2	1929.8	1693.5	3053.7	11625.2	19001.2	22405.2	21686.4
75°	710.3	752.6	898.8	1356.0	1544.4	1289.9	1523.4	6793.7	13254.1	15760.5	15887.1
77.5°	542.9	575.3	671.0	993.0	1236.4	967.7	945.3	3125.4	6284.5	6315.4	6669.9
80°	436.0	457.2	509.2	699.0	948.0	724.4	616.0	1261.7	1986.0	1680.8	1763.8
82.5°	320.7	355.9	430.4	490.9	677.9	499.4	375.6	637.1	755.3	649.8	655.5
85°	182.9	206.7	260.2	351.7	433.3	305.2	215.2	282.7	351.7	288.3	257.4
87.5°	64.7	84.4	91.4	137.9	188.5	126.6	83.0	81.6	115.3	85.8	71.8
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°	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3	3886.3
2.5°	3914.5	3907.4	3879.3	3841.3	3801.9	3764.0	3751.3	3724.5	3706.3	3696.5	3707.7
5°	3993.2	3970.7	3904.6	3820.2	3731.6	3636.0	3568.4	3506.5	3461.5	3419.4	3436.2
7.5°	4105.7	4066.4	3952.4	3804.8	3647.3	3488.3	3370.1	3280.1	3219.6	3180.3	3188.7
10°	4236.5	4176.1	4001.7	3780.8	3537.5	3309.6	3170.4	3093.0	3055.0	3034.0	3039.5
12.5°	4387.1	4301.3	4052.3	3726.0	3370.1	3110.0	3014.2	2991.8	2993.2	2994.5	2997.4
15°	4572.7	4453.2	4093.1	3606.5	3152.1	2956.6	2939.7	2976.3	3014.2	3032.6	3031.1
17.5°	4782.3	4613.5	4100.1	3409.6	2938.3	2858.1	2911.6	2990.3	3048.0	3073.4	3079.0
20°	5007.3	4776.7	4049.5	3131.0	2762.5	2778.0	2873.6	2974.9	3038.2	3070.5	3079.0
22.5°	5264.8	4951.1	3928.5	2838.4	2619.0	2690.7	2803.3	2901.8	2967.9	3000.2	3008.7
25°	5558.8	5146.6	3738.7	2592.3	2495.3	2592.3	2704.9	2786.4	2839.9	2869.4	2877.8
27.5°	5885.0	5350.6	3485.5	2396.8	2386.9	2491.1	2583.8	2647.2	2675.2	2697.8	2706.2
30°	6212.8	5536.2	3178.8	2249.1	2292.7	2391.1	2457.2	2485.4	2493.8	2498.0	2507.9
32.5°	6567.3	5696.5	2856.8	2126.8	2202.7	2294.2	2333.5	2346.1	2306.8	2280.0	2288.5
35°	6996.2	5868.2	2541.7	2029.7	2114.1	2192.8	2205.5	2194.2	2147.8	2092.9	2095.8
37.5°	7526.5	6081.9	2289.8	1960.7	2031.0	2083.1	2067.6	2064.9	2069.1	2004.4	2008.6
40°	8176.3	6360.4	2105.7	1907.3	1963.6	1974.8	1931.2	1955.1	1976.2	1877.8	1880.6
42.5°	8897.9	6696.6	1988.9	1870.7	1907.3	1880.6	1813.0	1839.8	1837.0	1707.5	1706.1
45°	9633.6	7062.4	1948.1	1844.0	1855.2	1801.8	1727.2	1734.3	1675.3	1558.5	1562.7
47.5°	10365.0	7454.8	1973.4	1821.5	1790.6	1730.1	1672.4	1641.4	1554.2	1467.1	1467.1
50°	11082.3	7866.9	2066.2	1776.5	1701.9	1666.8	1624.6	1569.7	1476.9	1402.3	1396.8
52.5°	11747.6	8281.8	2170.3	1701.9	1590.8	1611.9	1585.2	1521.9	1430.5	1354.5	1356.0
55°	12377.8	8696.8	2211.1	1599.3	1486.8	1564.0	1548.7	1431.9	1322.1	1260.2	1254.7
57.5°	13064.1	9196.1	2166.1	1468.4	1402.3	1509.2	1450.2	1320.7	1257.5	1211.0	1206.8
60°	14015.0	9979.6	2069.1	1306.7	1322.1	1427.6	1326.4	1272.9	1204.1	1152.0	1149.1
62.5°	15594.6	11440.9	1913.0	1146.4	1227.9	1306.7	1267.3	1213.9	1143.5	1092.9	1092.9
65°	17929.5	13472.1	1619.0	1021.2	1122.5	1188.6	1204.1	1150.6	1077.4	1024.0	1026.7
67.5°	19898.6	14746.4	1225.1	917.1	1014.1	1092.9	1136.5	1084.4	1007.1	955.1	956.4
70°	19790.4	13820.9	935.4	814.4	918.5	998.7	1054.9	1014.1	931.1	881.9	886.1
72.5°	17577.8	11562.0	756.8	710.3	821.4	900.2	967.7	936.7	852.4	804.5	804.5
75°	12913.7	8207.3	604.9	604.9	700.5	797.6	872.1	852.4	775.0	741.3	731.4
77.5°	5443.4	3443.3	474.1	502.1	582.3	685.0	777.9	784.8	717.4	759.5	689.2
80°	1447.4	949.5	361.5	395.2	457.2	565.4	676.6	673.7	600.6	561.2	521.8
82.5°	551.3	374.1	257.4	278.5	330.6	433.3	535.9	552.8	479.6	414.9	414.9
85°	212.4	160.3	159.0	167.4	192.7	286.9	405.1	419.1	361.5	306.7	316.5
87.5°	54.8	47.9	59.0	56.3	88.7	153.3	232.1	240.6	220.8	128.0	182.9
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)