

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: P965223

Luminaire Tested: **NAV-SB3D-827-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965223
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-SB3D-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26963.6 lumens
Efficiency: N/A
Efficacy: 123.6 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): 218.1
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



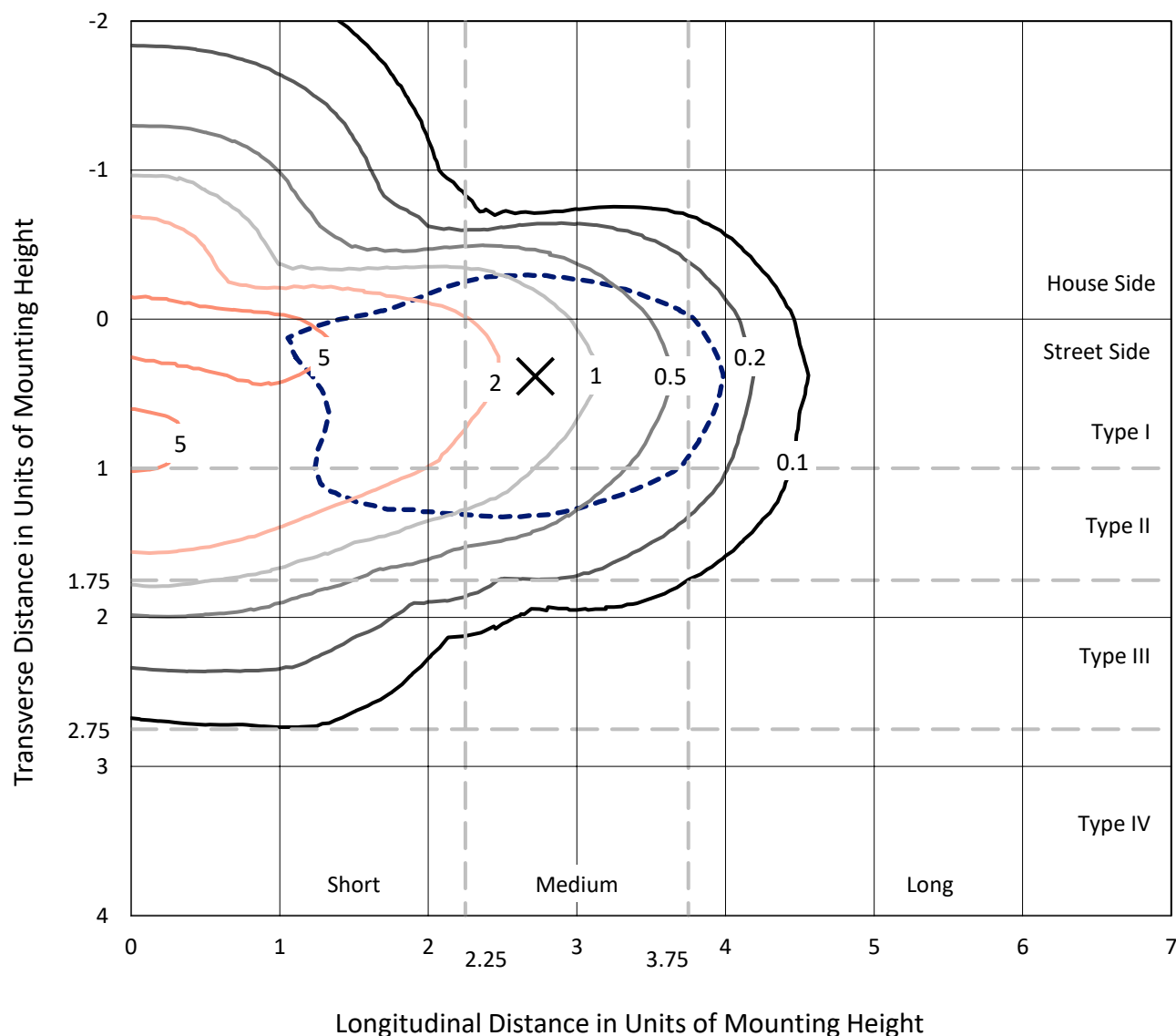
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

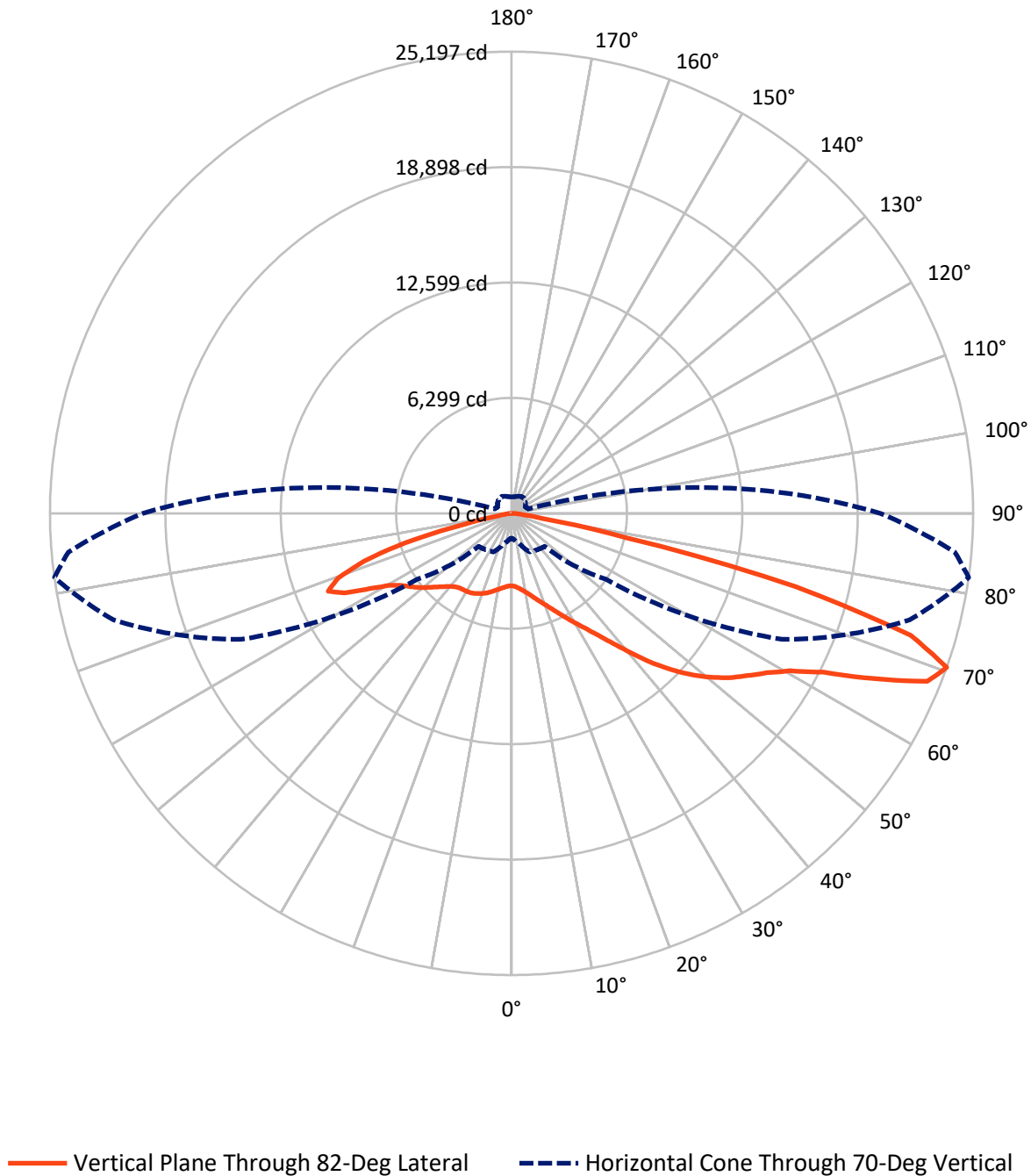
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 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	6647.2	0.0	6647.2
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	20316.4	0.0	20316.4
	% Fixture	75.3	0.0	75.3
Total	Lumens	26963.6	0.0	26963.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	373.3	1.4
10°-20°	1072.4	4.0
20°-30°	1794.0	6.7
30°-40°	2802.7	10.4
40°-50°	4463.6	16.6
50°-60°	6211.6	23.0
60°-70°	6497.6	24.1
70°-80°	3396.0	12.6
80°-90°	352.6	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°	26963.6	100.0
0°-180°	26963.6	100.0

Coefficient of Utilization



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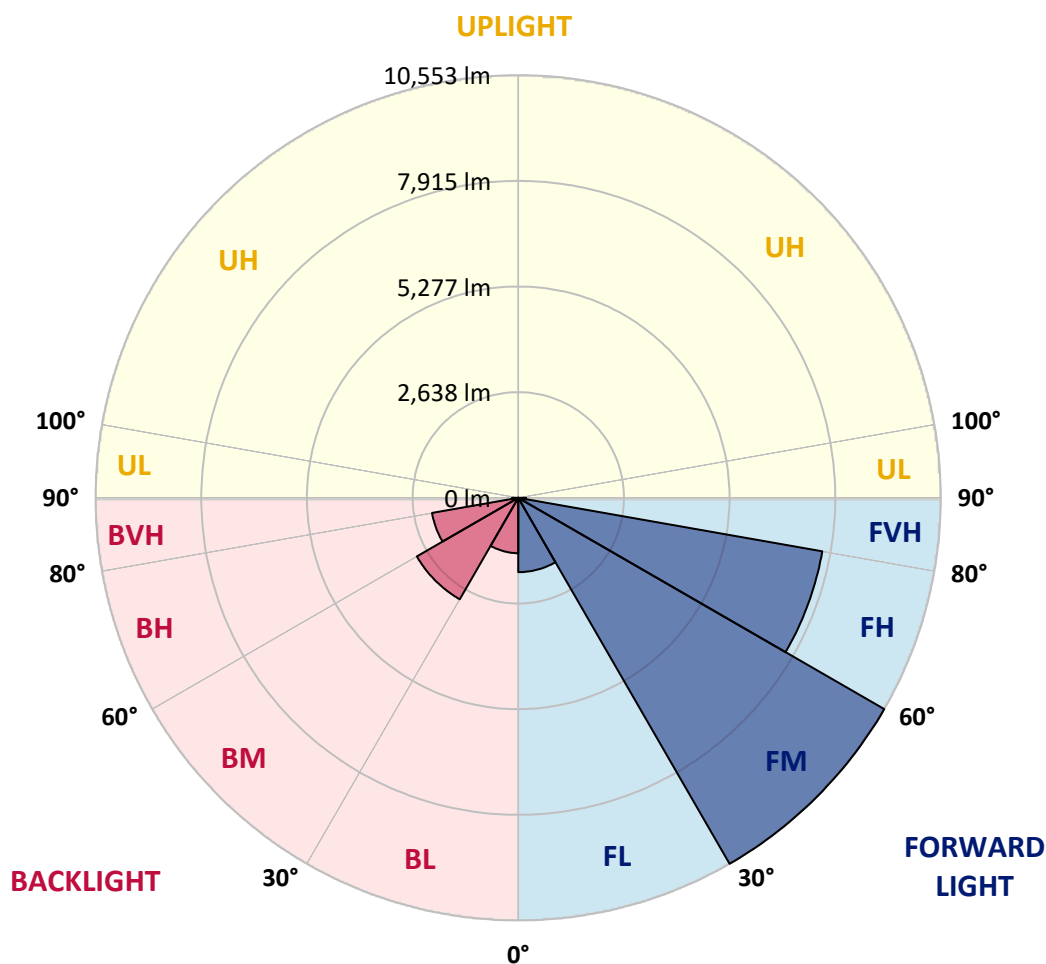
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1856.7	6.9			
FM	(30°-60°)	10553.3	39.1			
FH	(60°-80°)	7709.0	28.6			G4/12000
FVH	(80°-90°)	197.4	0.7			G2/225
BL	(0°-30°)	1382.9	5.1	B3/2500		
BM	(30°-60°)	2924.5	10.8	B3/5000		
BH	(60°-80°)	2184.6	8.1	B3/2500		G3/2500
BVH	(80°-90°)	155.2	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°	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2
2.5°	4047.6	4070.5	4063.4	4056.2	4056.2	4046.2	4044.8	4030.5	4019.0	4000.5	3996.2
5°	4099.2	4123.5	4120.6	4126.3	4144.9	4149.2	4153.5	4144.9	4122.0	4099.2	4089.1
7.5°	4053.4	4080.5	4089.1	4123.5	4180.7	4232.2	4270.9	4286.5	4265.1	4232.2	4216.4
10°	3898.8	3928.9	3959.0	4040.4	4142.0	4263.7	4366.7	4428.2	4423.9	4392.4	4365.3
12.5°	3585.4	3617.0	3681.4	3840.2	4026.2	4240.8	4432.5	4561.2	4605.6	4582.8	4535.5
15°	3335.1	3362.3	3411.0	3574.1	3815.9	4142.0	4456.8	4707.2	4820.3	4807.4	4750.2
17.5°	3328.0	3339.4	3369.5	3446.8	3632.7	3987.6	4431.1	4850.3	5066.4	5064.9	4993.4
20°	3453.8	3458.1	3475.4	3491.0	3596.9	3870.2	4365.3	4969.1	5342.5	5342.5	5265.2
22.5°	3628.4	3625.5	3642.7	3628.4	3680.0	3860.3	4323.8	5073.5	5650.1	5673.0	5575.7
25°	3890.3	3875.9	3871.6	3838.7	3848.8	3953.2	4369.6	5192.2	6014.9	6062.2	5940.6
27.5°	4239.4	4216.4	4200.8	4124.9	4099.2	4144.9	4509.8	5335.3	6421.3	6502.8	6348.3
30°	4694.3	4652.9	4629.9	4498.3	4405.3	4412.5	4721.6	5525.6	6846.2	6977.9	6781.8
32.5°	5315.3	5250.9	5189.4	4973.3	4803.0	4747.3	4994.8	5788.9	7306.9	7517.2	7265.4
35°	6010.6	5959.1	5893.3	5560.0	5298.1	5169.4	5363.9	6156.6	7846.4	8179.7	7852.0
37.5°	6680.2	6635.8	6667.4	6218.2	5880.4	5693.1	5847.5	6650.2	8511.6	9003.8	8587.4
40°	7372.7	7338.4	7342.7	6913.4	6520.0	6309.7	6434.1	7269.7	9274.2	9983.9	9471.7
42.5°	8125.3	8099.6	8013.8	7633.2	7191.0	6995.0	7109.5	7985.1	10092.7	11099.9	10441.8
45°	8968.0	8952.3	8872.2	8435.8	7929.3	7708.9	7863.5	8774.9	10915.3	12150.0	11416.0
47.5°	9696.3	9709.2	9699.2	9331.5	8806.4	8483.0	8667.6	9599.0	11680.8	13137.3	12350.3
50°	10046.8	10114.1	10212.8	10098.3	9772.1	9443.0	9478.8	10394.5	12410.5	14063.0	13246.1
52.5°	9863.7	9991.1	10260.0	10443.2	10569.1	10500.4	10404.6	11184.3	13097.2	14898.6	14093.0
55°	9181.2	9360.1	9806.5	10248.6	10891.0	11390.3	11516.3	12059.9	13766.9	15634.0	14894.3
57.5°	7937.9	8228.3	8629.0	9523.2	10604.9	11821.0	12812.5	13274.7	14476.5	16419.5	15732.7
60°	5806.0	6195.2	6693.1	8023.7	9603.3	11590.6	13915.6	15140.4	15485.2	17436.8	16824.4
62.5°	3715.7	3956.1	4414.0	5667.2	7482.9	10410.2	14253.3	17472.6	17195.0	19105.1	18461.2
65°	2543.9	2698.4	3117.6	3821.6	4837.4	7749.0	13349.1	19220.9	19910.5	21749.1	21259.7
67.5°	1848.6	1965.8	2323.6	2940.2	3152.0	4585.6	10358.8	19140.7	22550.3	24473.3	23712.1
70°	1347.8	1430.8	1731.2	2323.6	2425.1	2551.0	6275.4	16270.6	22493.1	25197.3	24285.8
72.5°	998.7	1056.0	1257.7	1802.8	1963.0	1722.6	3106.2	11825.3	19328.2	22790.7	22059.5
75°	722.5	765.5	914.3	1379.2	1571.0	1312.0	1549.5	6910.7	13482.1	16031.7	16160.6
77.5°	552.3	585.2	682.4	1010.1	1257.7	984.4	961.4	3179.1	6392.6	6424.2	6784.7
80°	443.5	465.0	517.9	711.0	964.3	736.9	626.7	1283.4	2020.3	1709.8	1794.2
82.5°	326.3	362.0	437.8	499.4	689.6	507.9	382.0	648.1	768.3	661.0	666.8
85°	186.0	210.3	264.7	357.7	440.6	310.5	218.9	287.6	357.7	293.4	261.8
87.5°	65.8	85.9	93.0	140.2	191.7	128.7	84.5	83.0	117.4	87.2	73.0
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°	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2	3953.2
2.5°	3981.8	3974.6	3946.0	3907.4	3867.3	3828.7	3815.9	3788.7	3770.1	3760.0	3771.5
5°	4062.0	4039.0	3971.8	3886.0	3795.8	3698.5	3629.8	3566.9	3521.1	3478.2	3495.4
7.5°	4176.4	4136.4	4020.5	3870.2	3710.0	3548.3	3428.1	3336.6	3275.0	3235.0	3243.5
10°	4309.5	4247.9	4070.5	3845.9	3598.4	3366.6	3225.0	3146.2	3107.6	3086.2	3091.9
12.5°	4462.5	4375.3	4122.0	3790.1	3428.1	3163.5	3066.1	3043.2	3044.7	3046.1	3049.0
15°	4651.4	4529.8	4163.5	3668.5	3206.3	3007.5	2990.3	3027.5	3066.1	3084.7	3083.3
17.5°	4864.6	4693.0	4170.7	3468.2	2988.9	2907.3	2961.7	3041.8	3100.5	3126.2	3132.0
20°	5093.5	4858.9	4119.2	3184.9	2810.0	2825.7	2923.1	3026.1	3090.5	3123.4	3132.0
22.5°	5355.3	5036.3	3996.2	2887.3	2664.1	2737.1	2851.5	2951.7	3018.9	3051.8	3060.4
25°	5654.4	5235.2	3803.0	2636.9	2538.2	2636.9	2751.4	2834.3	2888.8	2918.8	2927.3
27.5°	5986.3	5442.6	3545.5	2438.1	2428.0	2533.9	2628.3	2692.7	2721.3	2744.2	2752.8
30°	6319.7	5631.5	3233.6	2287.8	2332.2	2432.3	2499.6	2528.2	2536.8	2541.1	2551.0
32.5°	6680.2	5794.6	2905.9	2163.4	2240.5	2333.6	2373.6	2386.5	2346.4	2319.3	2327.9
35°	7116.7	5969.2	2585.4	2064.6	2150.4	2230.6	2243.4	2232.0	2184.8	2129.0	2131.8
37.5°	7656.0	6186.6	2329.3	1994.4	2066.0	2119.0	2103.2	2100.3	2104.6	2038.8	2043.1
40°	8317.1	6469.9	2141.8	1940.1	1997.3	2008.8	1964.4	1988.8	2010.2	1910.1	1913.0
42.5°	9051.1	6811.8	2023.1	1902.9	1940.1	1913.0	1844.3	1871.4	1868.6	1737.0	1735.5
45°	9799.3	7183.9	1981.6	1875.7	1887.2	1832.8	1757.0	1764.1	1704.1	1585.3	1589.6
47.5°	10543.4	7583.1	2007.4	1852.9	1821.3	1759.8	1701.2	1669.7	1581.0	1492.3	1492.3
50°	11273.1	8002.3	2101.8	1807.1	1731.2	1695.5	1652.5	1596.7	1502.3	1426.5	1420.8
52.5°	11949.8	8424.4	2207.6	1731.2	1618.2	1639.7	1612.4	1548.1	1455.1	1377.8	1379.2
55°	12590.8	8846.5	2249.2	1626.8	1512.3	1591.0	1575.3	1456.5	1344.9	1282.0	1276.2
57.5°	13288.9	9354.4	2203.3	1493.7	1426.5	1535.2	1475.1	1343.5	1279.1	1231.8	1227.6
60°	14256.1	10151.3	2104.6	1329.2	1344.9	1452.2	1349.2	1294.9	1224.8	1171.8	1168.9
62.5°	15862.9	11637.8	1945.9	1166.0	1249.1	1329.2	1289.1	1234.7	1163.2	1111.7	1111.7
65°	18238.0	13703.8	1646.8	1038.7	1141.7	1209.0	1224.8	1170.3	1095.9	1041.6	1044.5
67.5°	20241.1	15000.2	1246.2	932.9	1031.6	1111.7	1156.1	1103.1	1024.4	971.5	972.9
70°	20130.9	14058.7	951.5	828.4	934.3	1015.9	1073.1	1031.6	947.2	897.1	901.4
72.5°	17880.3	11761.0	769.8	722.5	835.6	915.7	984.4	952.8	867.0	818.4	818.4
75°	13135.9	8348.5	615.2	615.2	712.5	811.3	887.0	867.0	788.3	754.0	744.0
77.5°	5537.0	3502.5	482.2	510.8	592.3	696.8	791.2	798.4	729.7	772.6	701.1
80°	1472.3	965.8	367.7	402.0	465.0	575.1	688.2	685.3	610.9	570.9	530.8
82.5°	560.9	380.6	261.8	283.3	336.2	440.6	545.1	562.3	487.9	422.1	422.1
85°	216.1	163.1	161.6	170.3	196.0	291.9	412.0	426.4	367.7	311.9	322.0
87.5°	55.8	48.7	60.1	57.2	90.1	155.9	236.1	244.7	224.7	130.2	186.0
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)