

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: P883481

Luminaire Tested: **NAV-SB3D-830-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883481
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-SB3D-830-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 900mA 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: 26397 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

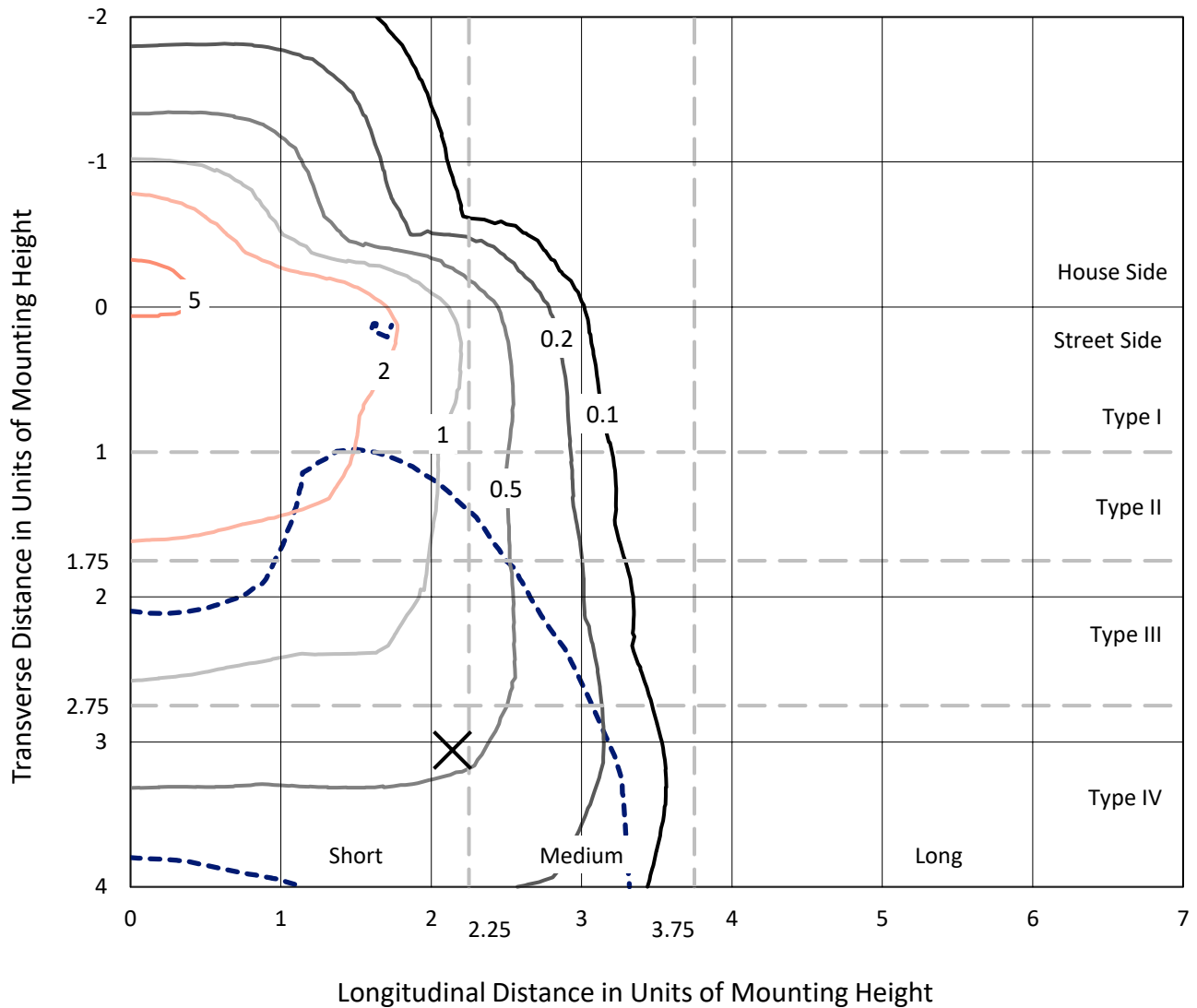
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

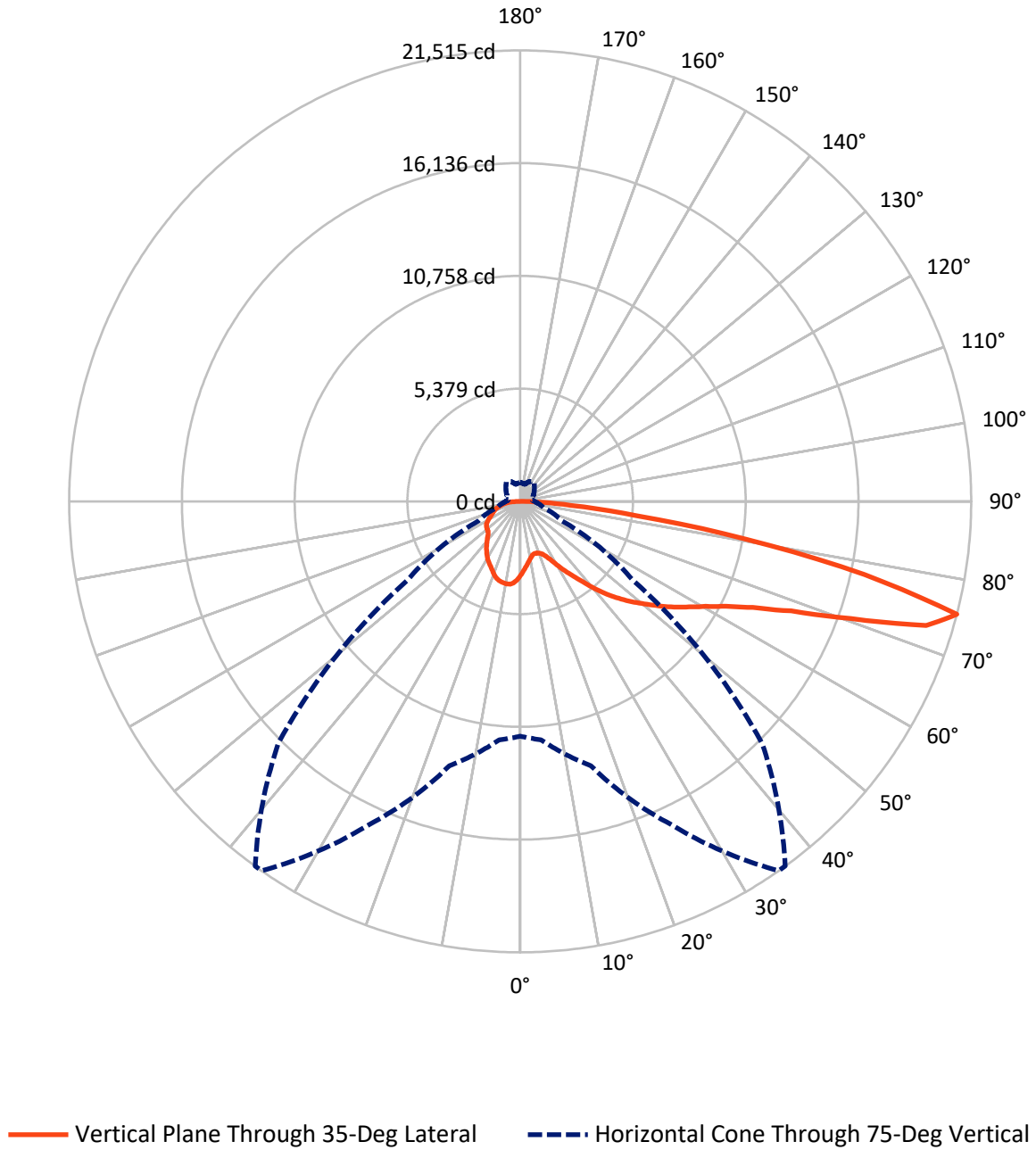
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6281.8	0.0	6281.8
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	20115.2	0.0	20115.2
	% Fixture	76.2	0.0	76.2
Total	Lumens	26397.0	0.0	26397.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.0	1.3
10°-20°	960.6	3.6
20°-30°	1613.2	6.1
30°-40°	2507.1	9.5
40°-50°	3721.2	14.1
50°-60°	5137.3	19.5
60°-70°	6232.8	23.6
70°-80°	5150.9	19.5
80°-90°	740.9	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°	26397.0	100.0
0°-180°	26397.0	100.0

Coefficient of Utilization



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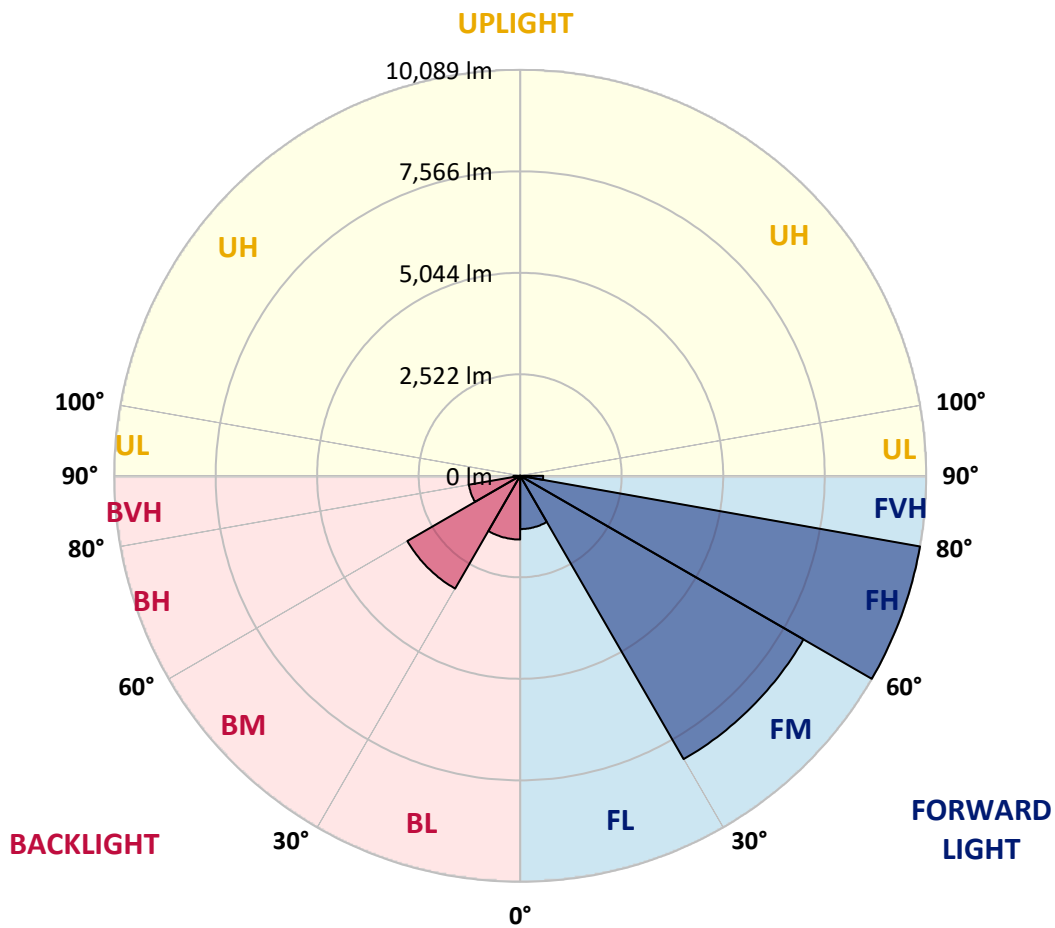
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1323.8	5.0			
FM (30°-60°)	8128.8	30.8			
FH (60°-80°)	10088.5	38.2			G4/12000
FVH (80°-90°)	574.0	2.2			G4/750
BL (0°-30°)	1583.1	6.0	B3/2500		
BM (30°-60°)	3236.8	12.3	B3/5000		
BH (60°-80°)	1295.1	4.9	B3/2500		G3/2500
BVH (80°-90°)	166.8	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°	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6
2.5°	3243.6	3263.6	3272.1	3267.9	3289.3	3286.4	3316.4	3353.5	3404.8	3454.8	3527.6
5°	2993.9	3015.3	3033.8	3050.9	3092.3	3105.2	3152.3	3223.6	3317.8	3413.4	3533.3
7.5°	2761.3	2779.8	2808.4	2839.7	2909.7	2922.5	3001.0	3112.3	3243.6	3383.4	3549.0
10°	2571.5	2590.0	2620.0	2655.7	2742.7	2758.4	2858.3	3006.7	3178.0	3354.9	3566.1
12.5°	2490.1	2495.8	2513.0	2548.6	2624.3	2634.3	2744.1	2914.0	3113.7	3333.5	3591.8
15°	2485.9	2497.3	2498.7	2517.2	2580.0	2584.3	2685.6	2854.0	3073.8	3329.2	3630.3
17.5°	2528.7	2537.2	2524.4	2535.8	2588.6	2595.7	2675.6	2825.5	3060.9	3347.8	3696.0
20°	2642.8	2650.0	2611.4	2595.7	2634.3	2640.0	2718.5	2844.0	3073.8	3386.3	3785.9
22.5°	2885.4	2889.7	2795.5	2731.3	2734.2	2737.0	2805.5	2919.7	3123.7	3456.2	3900.0
25°	3263.6	3260.7	3110.9	2986.7	2915.4	2899.7	2945.3	3042.4	3207.9	3549.0	4047.0
27.5°	3705.9	3684.5	3534.7	3349.2	3193.6	3170.8	3160.8	3202.2	3327.8	3671.7	4226.8
30°	4205.4	4185.4	4024.2	3781.6	3566.1	3529.0	3434.8	3413.4	3506.2	3838.7	4476.5
32.5°	4753.4	4740.5	4547.9	4253.9	3965.7	3922.8	3764.5	3707.4	3780.1	4091.2	4824.7
35°	5212.9	5201.5	5041.6	4739.1	4386.6	4333.8	4172.6	4108.4	4145.5	4415.2	5279.9
37.5°	5628.1	5622.4	5485.4	5247.1	4883.2	4819.0	4637.8	4616.4	4609.2	4841.8	5832.2
40°	6013.4	5999.1	5856.4	5730.9	5461.2	5402.7	5242.8	5224.3	5170.1	5367.0	6457.2
42.5°	6440.1	6403.0	6196.1	6137.6	6064.8	6016.3	5920.7	5923.5	5803.6	5959.2	7119.4
45°	6788.3	6766.9	6554.3	6520.0	6598.5	6578.5	6661.3	6682.7	6450.1	6579.9	7807.2
47.5°	7162.2	7142.2	6962.4	6938.1	7150.7	7156.5	7449.0	7456.1	7080.8	7224.9	8496.4
50°	7623.1	7594.5	7416.2	7446.1	7684.4	7705.9	8241.0	8192.5	7661.6	7879.9	9180.0
52.5°	7927.0	7944.2	7905.6	7954.2	8279.5	8299.5	9020.1	8896.0	8236.7	8526.4	9850.6
55°	8151.1	8185.3	8305.2	8416.5	8907.4	8927.4	9755.0	9565.2	8713.3	9125.7	10481.4
57.5°	8439.3	8390.8	8614.9	8831.8	9503.9	9556.7	10470.0	10210.3	9135.7	9642.3	10913.8
60°	8853.2	8818.9	8993.0	9314.1	10171.7	10255.9	11226.3	10791.0	9445.4	10051.9	10998.0
62.5°	9692.2	9606.6	9633.7	9917.7	11013.7	11125.0	12079.6	11297.6	9599.5	10211.7	10547.0
65°	10946.6	10799.6	10662.6	10859.5	12199.5	12309.4	13042.9	11695.8	9542.4	9902.0	9349.8
67.5°	12526.3	12380.7	12212.3	12397.9	13946.2	14033.2	14231.6	11919.8	9092.9	8709.0	7233.5
70°	13829.2	13774.9	13976.1	14739.6	16736.0	16738.8	15755.6	11734.3	7861.4	6174.7	4185.4
72.5°	13656.5	13623.7	14683.9	17044.2	20252.1	20176.5	17198.3	10330.1	5295.6	2785.5	1568.3
75°	11203.5	11416.1	13058.6	17002.8	21515.0	21505.0	16315.0	6567.1	2190.5	1154.5	810.5
77.5°	6007.7	6344.5	8477.9	12553.4	16795.9	17048.5	11470.3	2297.5	940.4	739.2	560.8
80°	1959.3	2253.2	3379.2	6391.6	10913.8	10866.7	4916.0	901.9	643.6	523.7	388.1
82.5°	831.9	866.2	1509.8	3018.1	5601.0	5514.0	1565.4	518.0	452.4	358.2	239.7
85°	325.4	363.9	666.4	1395.6	2425.9	2373.1	565.1	256.9	289.7	234.0	142.7
87.5°	107.0	129.9	238.3	478.0	754.9	727.8	138.4	88.5	125.6	107.0	51.4
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°	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6	3517.6
2.5°	3547.5	3570.4	3597.5	3637.4	3671.7	3700.2	3730.2	3748.8	3755.9	3777.3	3775.9
5°	3573.2	3623.2	3690.2	3755.9	3820.1	3858.6	3892.9	3910.0	3925.7	3937.1	3940.0
7.5°	3616.0	3680.3	3785.9	3871.5	3925.7	3957.1	3979.9	3974.2	3979.9	3982.8	3987.1
10°	3653.1	3743.0	3868.6	3950.0	3991.3	3992.8	3987.1	3967.1	3957.1	3958.5	3961.4
12.5°	3697.4	3797.3	3932.8	4001.3	4012.8	3981.4	3957.1	3922.8	3910.0	3904.3	3901.4
15°	3757.3	3871.5	4002.8	4028.4	3999.9	3960.0	3918.6	3862.9	3834.4	3811.5	3818.7
17.5°	3830.1	3955.7	4057.0	4038.4	3977.1	3911.4	3844.4	3760.2	3701.7	3677.4	3678.8
20°	3931.4	4044.1	4098.4	4017.0	3924.3	3824.4	3710.2	3607.5	3553.3	3529.0	3526.1
22.5°	4054.1	4162.6	4138.3	3979.9	3848.6	3688.8	3546.1	3470.5	3443.4	3426.3	3429.1
25°	4201.1	4293.9	4166.9	3925.7	3724.5	3509.0	3399.1	3374.9	3362.0	3349.2	3349.2
27.5°	4392.3	4442.3	4188.3	3845.8	3530.4	3317.8	3277.8	3282.1	3277.8	3256.4	3260.7
30°	4644.9	4634.9	4208.3	3715.9	3307.8	3145.1	3148.0	3166.5	3169.4	3155.1	3162.3
32.5°	4977.4	4876.1	4218.2	3547.5	3095.2	2993.9	2996.7	3016.7	3031.0	3006.7	3018.1
35°	5379.8	5157.2	4202.5	3336.3	2931.1	2849.7	2828.3	2834.0	2838.3	2815.5	2831.2
37.5°	5849.3	5472.6	4132.6	3102.3	2795.5	2708.5	2662.8	2624.3	2601.4	2580.0	2594.3
40°	6364.5	5816.5	4004.2	2874.0	2644.2	2558.6	2490.1	2417.4	2340.3	2311.8	2324.6
42.5°	6903.9	6170.4	3848.6	2655.7	2470.2	2400.2	2327.5	2221.9	2106.3	2047.8	2054.9
45°	7463.3	6532.9	3696.0	2440.2	2291.8	2261.8	2177.6	2050.6	1925.0	1850.8	1845.1
47.5°	8011.2	6875.3	3471.9	2223.3	2124.8	2157.6	2092.0	1975.0	1835.1	1718.1	1705.3
50°	8534.9	7196.4	3105.2	2003.5	1989.3	2126.2	2063.5	1895.1	1735.2	1585.4	1572.6
52.5°	9054.4	7456.1	2635.7	1803.7	1916.5	2117.7	2026.4	1840.8	1645.3	1488.4	1471.2
55°	9495.3	7590.3	2183.3	1632.5	1810.9	2044.9	1982.1	1776.6	1518.3	1351.4	1337.1
57.5°	9746.5	7481.8	1806.6	1464.1	1665.3	1925.0	1906.5	1639.6	1367.1	1238.6	1221.5
60°	9638.0	7042.3	1498.4	1317.1	1526.9	1795.2	1775.2	1504.1	1251.5	1130.2	1113.1
62.5°	9040.1	6204.6	1254.3	1188.7	1401.3	1662.5	1643.9	1399.9	1163.0	1046.0	1027.4
65°	7835.7	5047.3	1064.5	1081.7	1274.3	1502.6	1529.8	1312.8	1093.1	978.9	960.4
67.5°	5976.3	3656.0	916.1	988.9	1150.2	1345.7	1424.2	1250.1	1034.6	926.1	909.0
70°	3406.3	2076.3	790.6	899.0	1040.3	1200.1	1342.8	1200.1	971.8	881.9	870.5
72.5°	1291.4	953.2	683.5	809.1	934.7	1077.4	1252.9	1121.6	899.0	831.9	820.5
75°	689.2	580.8	575.1	703.5	813.4	957.5	1140.2	1044.6	844.8	879.0	907.6
77.5°	469.5	411.0	480.9	602.2	680.7	824.8	1020.3	927.6	732.1	729.2	672.1
80°	325.4	291.1	391.0	485.2	526.6	693.5	890.5	796.3	596.5	556.5	532.3
82.5°	195.5	189.8	292.5	362.5	372.4	535.1	737.8	667.8	488.0	425.2	428.1
85°	107.0	112.7	186.9	212.6	216.9	373.9	577.9	516.6	375.3	315.4	318.2
87.5°	30.0	38.5	68.5	84.2	104.2	194.1	343.9	306.8	188.4	131.3	131.3
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)