

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: P883409

Luminaire Tested: **NAV-SB3D-727-U-T3**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883409  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-727-U-T3  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

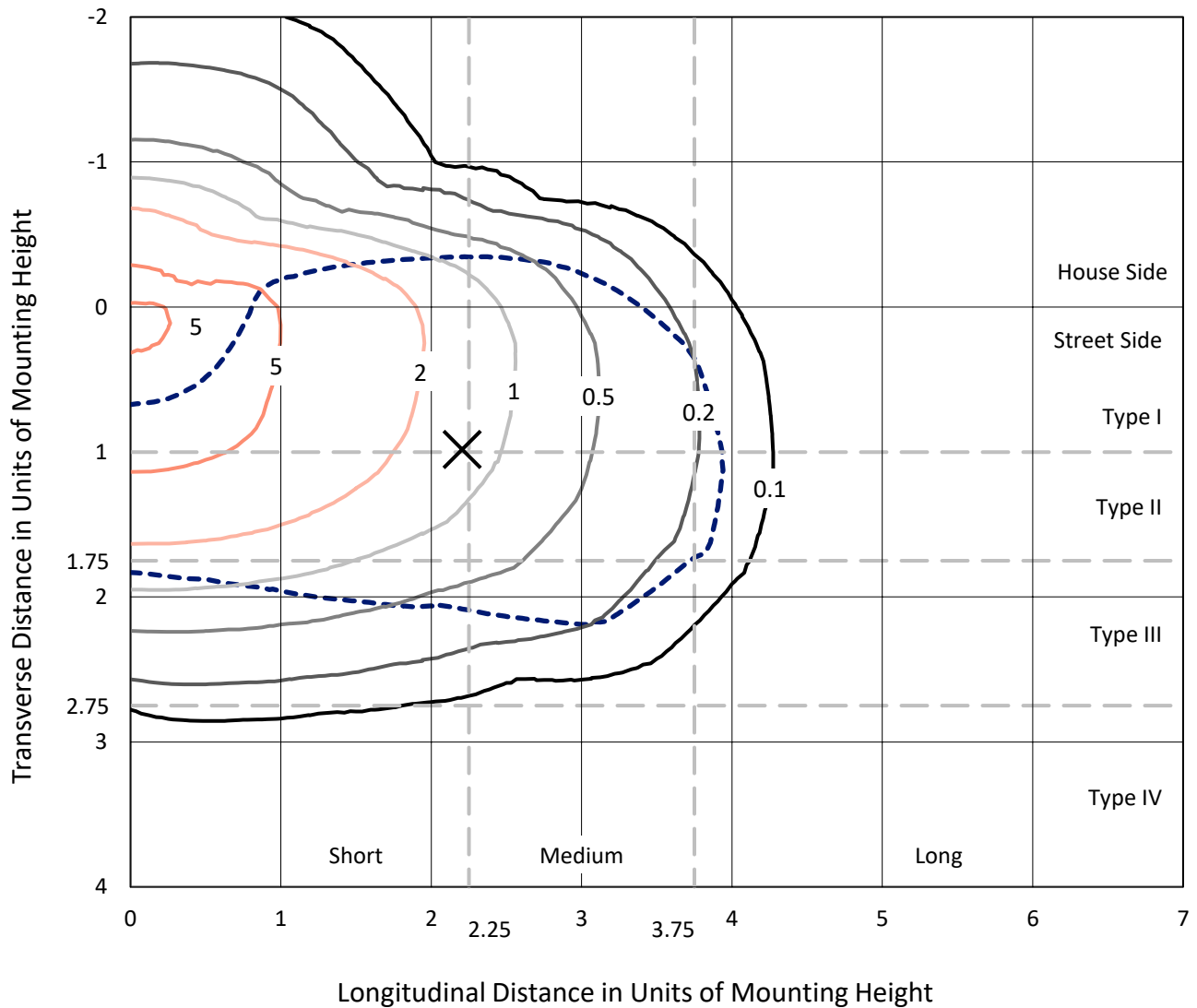
Lumens per Lamp: N/A  
Luminaire Lumens: 27680 lumens  
Efficiency: N/A  
Efficacy: 126.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 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

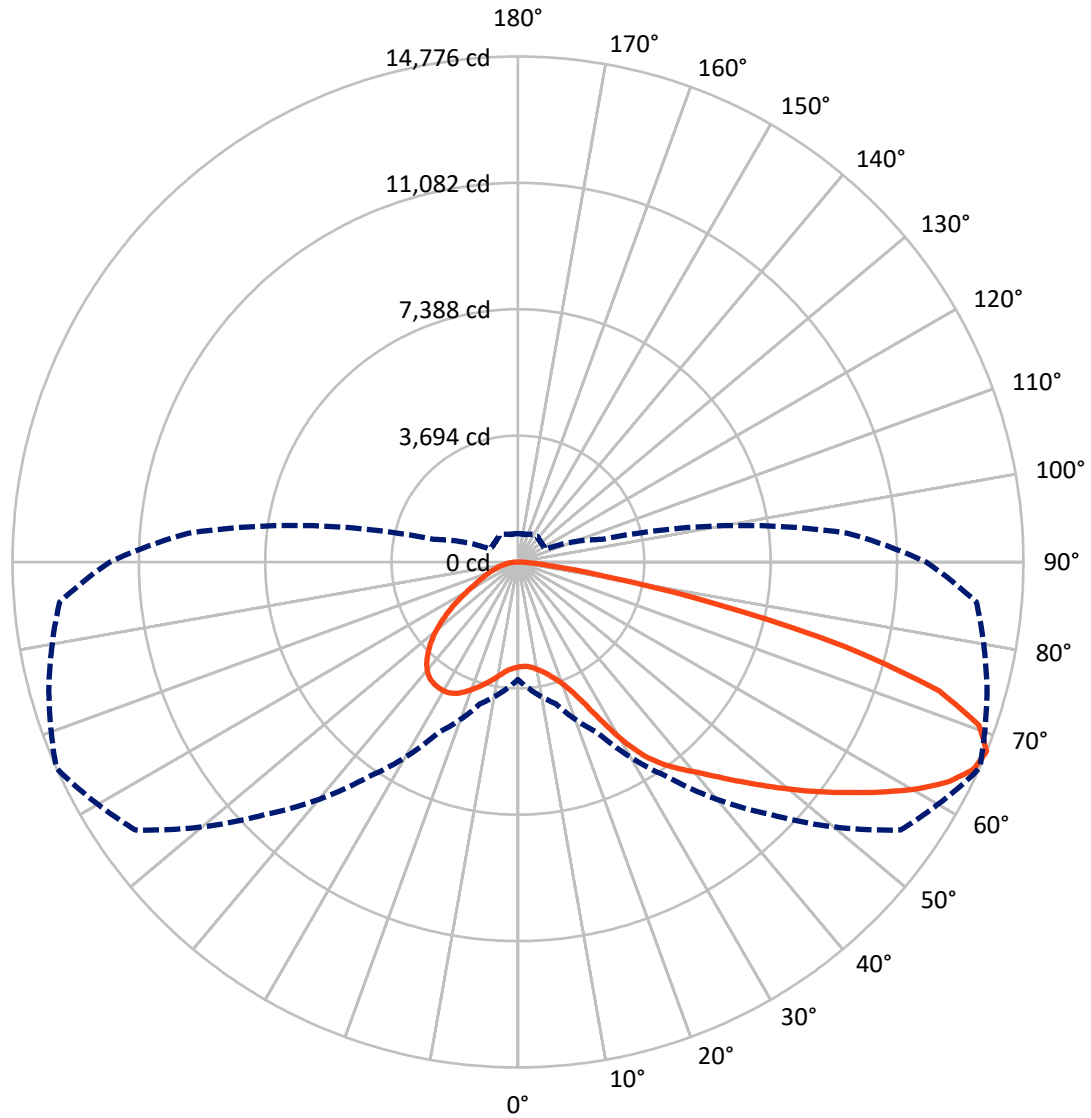
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6882.6	0.0	6882.6
	% Fixture	24.9	0.0	24.9
<b>Street Side</b>	Lumens	20797.4	0.0	20797.4
	% Fixture	75.1	0.0	75.1
<b>Total</b>	Lumens	27680.0	0.0	27680.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	304.4	1.1
10°-20°	1005.7	3.6
20°-30°	1938.3	7.0
30°-40°	3398.6	12.3
40°-50°	5052.6	18.3
50°-60°	6404.7	23.1
60°-70°	6266.8	22.6
70°-80°	2989.3	10.8
80°-90°	319.5	1.2
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°	27680.0	100.0
0°-180°	27680.0	100.0

**Coefficient of Utilization**



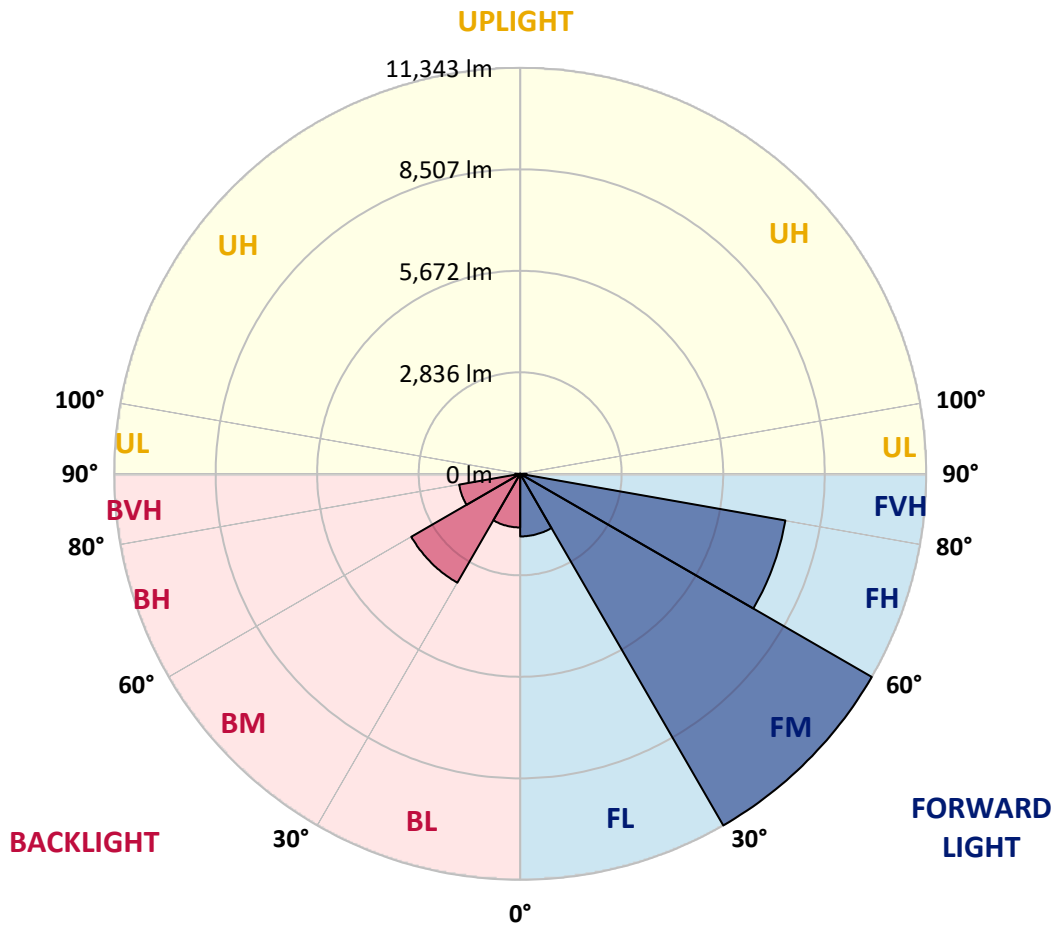
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1749.1	6.3			
FM (30°-60°)	11343.0	41.0			
FH (60°-80°)	7524.2	27.2			G4/12000
FVH (80°-90°)	181.1	0.7			G2/225
BL (0°-30°)	1499.3	5.4	B3/2500		
BM (30°-60°)	3512.9	12.7	B3/5000		
BH (60°-80°)	1732.0	6.3	B3/2500		G3/2500
BVH (80°-90°)	138.3	0.5			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 III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1
2.5°	3038.1	3055.5	3051.2	3043.9	3042.4	3045.4	3049.7	3054.1	3052.6	3059.9	3071.5
5°	3029.4	3046.8	3045.4	3045.4	3051.2	3062.8	3070.1	3077.3	3070.1	3078.8	3094.8
7.5°	3035.2	3048.3	3054.1	3059.9	3074.4	3096.3	3113.7	3129.7	3121.0	3131.2	3151.5
10°	3109.3	3119.5	3125.3	3125.3	3135.5	3160.2	3177.7	3206.8	3199.5	3215.5	3241.7
12.5°	3244.6	3254.8	3254.8	3249.0	3256.2	3272.2	3278.0	3310.0	3297.0	3323.1	3349.3
15°	3410.4	3430.8	3414.8	3404.6	3407.5	3423.5	3422.0	3446.7	3433.7	3455.5	3478.7
17.5°	3593.6	3619.8	3593.6	3592.2	3586.4	3603.8	3605.3	3627.1	3603.8	3619.8	3635.8
20°	3810.3	3846.7	3824.9	3832.1	3819.1	3826.3	3833.6	3865.6	3829.2	3840.9	3836.5
22.5°	4115.7	4159.4	4136.1	4163.7	4155.0	4149.2	4147.7	4204.5	4147.7	4152.1	4109.9
25°	4560.8	4613.1	4572.4	4610.2	4610.2	4629.1	4650.9	4723.6	4629.1	4601.5	4492.4
27.5°	5218.1	5270.5	5190.5	5213.8	5206.5	5253.0	5229.7	5410.1	5308.3	5263.2	5043.6
30°	6009.3	6102.3	5951.1	5945.3	5938.0	6012.2	6045.6	6164.9	6061.6	6016.5	5751.9
32.5°	6864.4	6961.8	6781.5	6729.2	6701.5	6746.6	6719.0	6815.0	6743.7	6673.9	6346.7
35°	7769.0	7865.0	7693.4	7591.6	7481.0	7386.5	7287.6	7312.3	7245.4	7139.3	6800.4
37.5°	8624.1	8800.1	8618.3	8509.2	8305.6	8120.9	7844.6	7729.7	7667.2	7569.8	7228.0
40°	9495.3	9595.6	9457.5	9364.4	9143.3	8853.9	8411.8	8168.9	8084.6	7990.1	7700.6
42.5°	10136.6	10232.6	10158.5	10094.5	9921.4	9585.4	9013.9	8709.9	8587.8	8481.6	8235.8
45°	10645.7	10716.9	10670.4	10693.6	10619.5	10293.7	9637.8	9290.2	9163.7	9034.3	8840.8
47.5°	10850.7	10926.3	11000.5	11138.7	11265.2	11025.2	10308.2	9918.5	9784.7	9652.3	9461.8
50°	10827.4	10904.5	11119.8	11413.5	11806.2	11726.2	11015.0	10587.5	10463.9	10312.6	10136.6
52.5°	10641.3	10728.5	11004.9	11493.5	12118.9	12251.2	11734.9	11278.3	11161.9	10981.6	10805.6
55°	10152.6	10205.0	10619.5	11311.7	12193.1	12617.7	12440.3	12014.2	11897.8	11646.2	11454.3
57.5°	9246.6	9322.2	9925.8	10821.6	12006.9	12866.4	13059.8	12787.9	12675.9	12313.8	12113.1
60°	8064.2	8184.9	8875.7	9998.5	11532.8	12864.9	13622.7	13548.5	13455.4	12971.1	12761.7
62.5°	6726.2	6865.9	7530.5	8835.0	10703.8	12499.9	13974.6	14185.5	14137.5	13577.6	13310.0
65°	5165.8	5261.7	5923.5	7329.8	9413.8	11716.0	14015.3	14620.3	14629.0	14038.6	13596.5
67.5°	3439.5	3715.8	4290.3	5500.3	7686.1	10434.8	13657.6	14691.6	14775.9	14197.1	13452.5
70°	1678.3	2041.9	2604.7	3574.7	5500.3	8470.0	12722.4	14106.9	14294.5	13734.6	12594.4
72.5°	696.6	814.4	1121.3	1764.1	3157.3	5715.5	10843.4	12521.7	12869.3	12169.8	10588.9
75°	469.7	509.0	641.4	904.6	1438.3	2818.5	7819.9	9336.8	9896.7	9191.3	7513.0
77.5°	362.1	386.9	466.8	632.6	855.1	1066.0	4185.5	5626.8	5916.2	5477.0	3909.2
80°	285.0	304.0	349.0	461.0	606.5	570.1	1426.7	2549.4	2716.7	2278.9	1256.5
82.5°	247.2	254.5	250.1	312.7	402.8	333.0	468.3	940.9	1038.4	753.3	410.1
85°	178.9	199.2	208.0	193.4	213.8	168.7	192.0	333.0	366.5	327.2	231.2
87.5°	72.7	107.6	132.3	125.1	78.5	48.0	59.6	97.4	112.0	122.2	75.6
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°	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1	3070.1
2.5°	3073.0	3083.2	3090.4	3099.2	3105.0	3113.7	3131.2	3141.3	3142.8	3150.1	3148.6
5°	3100.6	3115.2	3131.2	3154.4	3180.6	3202.4	3235.9	3259.1	3267.9	3275.1	3273.7
7.5°	3160.2	3180.6	3209.7	3250.4	3288.2	3317.3	3358.0	3385.7	3413.3	3423.5	3424.9
10°	3249.0	3278.0	3320.2	3375.5	3416.2	3454.0	3496.2	3519.5	3547.1	3558.7	3564.5
12.5°	3359.5	3390.0	3445.3	3522.4	3560.2	3586.4	3600.9	3595.1	3600.9	3611.1	3614.0
15°	3486.0	3519.5	3582.0	3664.9	3691.1	3667.8	3635.8	3606.7	3602.4	3605.3	3615.4
17.5°	3635.8	3660.5	3733.2	3803.1	3784.2	3688.2	3618.4	3571.8	3548.6	3541.3	3551.5
20°	3845.2	3845.2	3904.9	3948.5	3822.0	3659.1	3550.0	3474.4	3426.4	3406.0	3401.7
22.5°	4099.7	4076.5	4114.3	4083.7	3814.7	3577.6	3426.4	3295.5	3222.8	3193.7	3189.3
25°	4422.6	4395.0	4384.8	4195.7	3762.3	3448.2	3202.4	3043.9	2979.9	2963.9	2966.8
27.5°	4909.8	4840.0	4707.6	4256.8	3666.4	3244.6	2940.6	2793.8	2757.4	2758.9	2763.2
30°	5558.4	5418.8	5094.5	4267.0	3509.3	2956.6	2673.0	2568.3	2550.9	2558.2	2582.9
32.5°	6159.1	6026.7	5490.1	4220.4	3267.9	2674.5	2433.1	2363.3	2337.1	2345.8	2357.5
35°	6630.3	6593.9	5856.6	4155.0	2971.2	2409.8	2217.8	2158.2	2107.3	2095.7	2104.4
37.5°	7075.3	7060.7	6131.4	4063.4	2677.4	2222.2	2044.8	1966.2	1892.1	1851.4	1852.8
40°	7563.9	7549.4	6311.8	3922.3	2417.1	2059.3	1889.2	1785.9	1694.3	1620.1	1627.4
42.5°	8113.7	8027.9	6397.6	3720.2	2196.0	1921.2	1762.6	1623.0	1502.3	1434.0	1438.3
45°	8714.3	8520.9	6396.1	3462.7	2009.9	1794.6	1627.4	1429.6	1317.6	1253.6	1250.7
47.5°	9351.3	8992.1	6317.6	3177.7	1829.5	1655.0	1418.0	1266.7	1192.5	1153.3	1144.6
50°	10008.7	9432.7	6183.8	2850.5	1644.8	1496.5	1287.1	1183.8	1127.1	1090.7	1077.7
52.5°	10626.7	9832.7	6022.4	2479.6	1457.2	1342.3	1228.9	1148.9	1089.3	1048.6	1031.1
55°	11201.2	10177.4	5794.0	2100.0	1304.5	1239.1	1201.3	1134.4	1066.0	1018.0	999.1
57.5°	11711.7	10401.3	5399.9	1743.7	1195.5	1167.8	1172.2	1109.6	1031.1	990.4	964.2
60°	12136.3	10565.7	4816.7	1413.6	1106.7	1098.0	1127.1	1063.1	971.5	925.0	904.6
62.5°	12390.8	10562.8	4101.2	1157.6	1031.1	1034.0	1067.5	1004.9	911.9	868.2	855.1
65°	12369.0	10303.9	3315.9	990.4	958.4	961.3	1004.9	940.9	862.4	836.2	834.8
67.5°	11931.3	9672.7	2543.6	881.3	878.4	891.5	942.4	897.3	831.9	829.0	833.3
70°	10746.0	8362.4	1832.4	794.1	795.5	814.4	881.3	869.7	815.9	821.7	820.2
72.5°	8616.9	6375.8	1230.4	702.4	703.9	734.4	823.1	847.9	799.9	877.0	888.6
75°	5738.8	3976.1	791.2	605.0	606.5	645.7	772.2	805.7	756.2	874.0	881.3
77.5°	2757.4	1787.4	573.0	509.0	509.0	545.4	667.5	721.3	644.3	679.2	622.5
80°	952.6	671.9	450.8	410.1	401.4	426.1	562.8	625.4	555.6	511.9	479.9
82.5°	375.2	349.0	362.1	318.5	289.4	305.4	437.8	516.3	408.7	369.4	367.9
85°	215.2	226.9	256.0	210.9	167.2	187.6	321.4	370.9	308.3	272.0	277.8
87.5°	58.2	80.0	117.8	109.1	75.6	80.0	152.7	205.1	177.4	136.7	141.1
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)