

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: P883951

Luminaire Tested: **NAV-SB4C-740-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883951
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-SB4C-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 615mA 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: 32341 lumens
Efficiency: N/A
Efficacy: 161.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

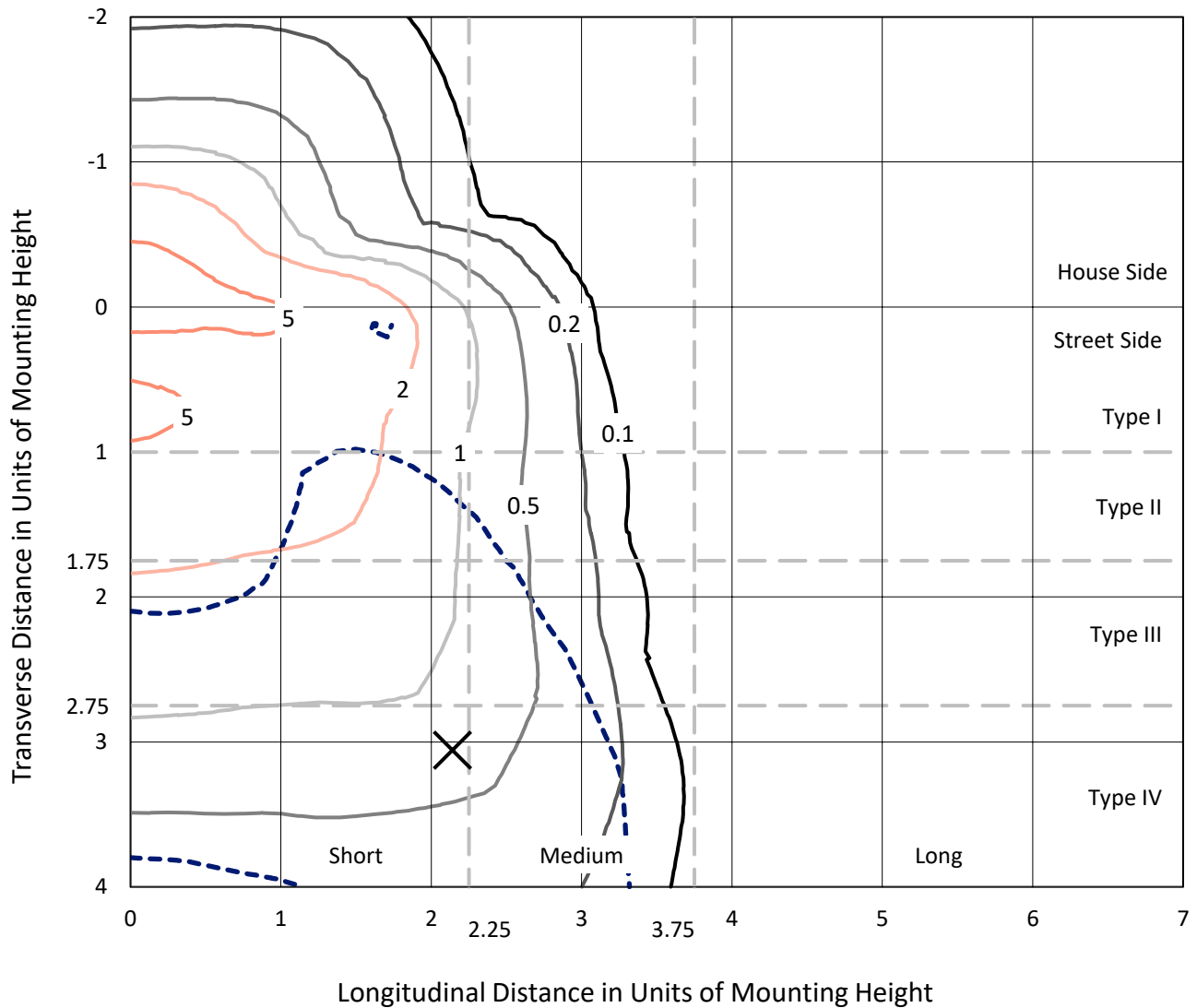
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

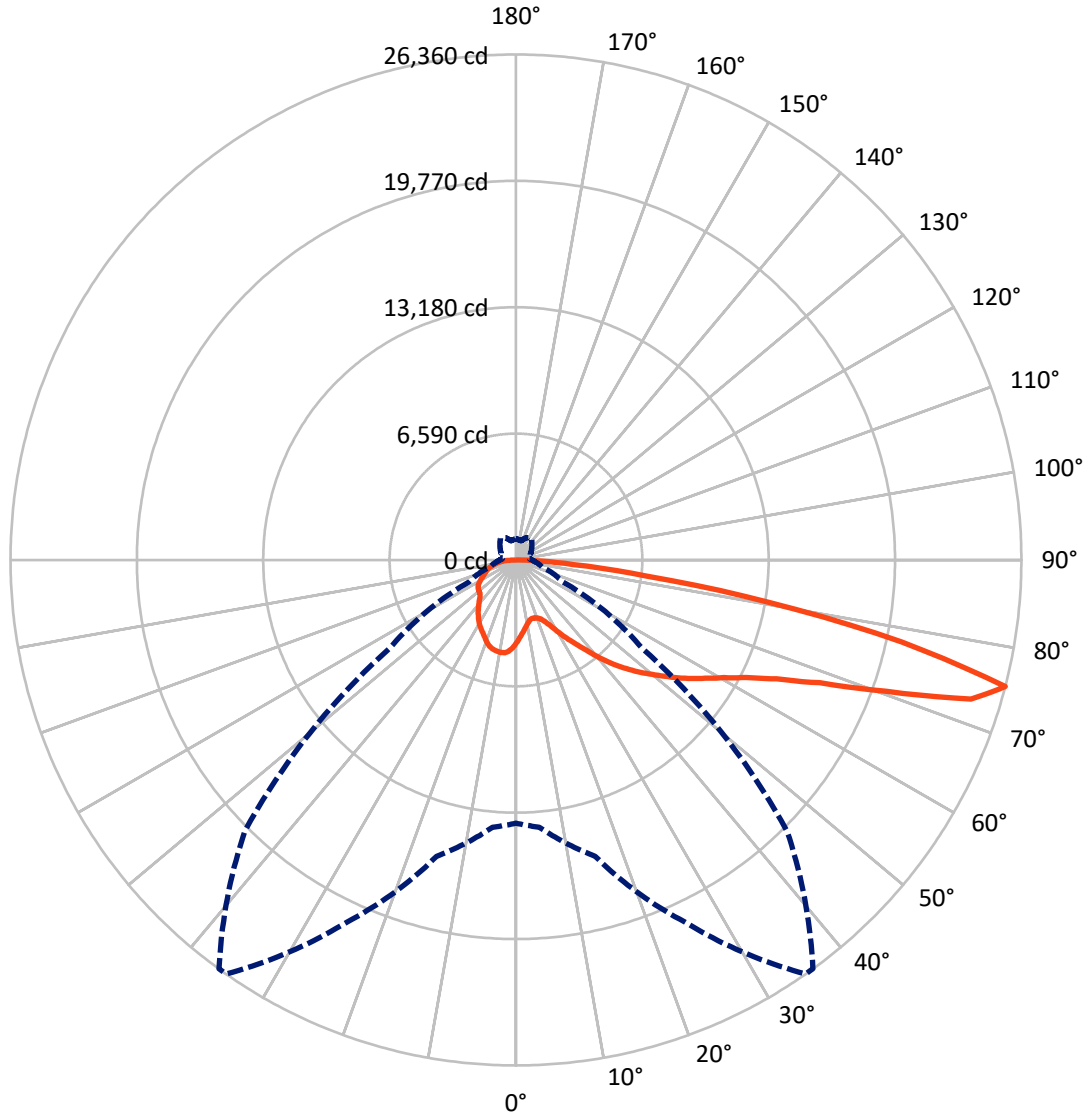
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 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	7696.3	0.0	7696.3
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	24644.6	0.0	24644.6
	% Fixture	76.2	0.0	76.2
Total	Lumens	32341.0	0.0	32341.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	408.0	1.3
10°-20°	1177.0	3.6
20°-30°	1976.4	6.1
30°-40°	3071.6	9.5
40°-50°	4559.1	14.1
50°-60°	6294.1	19.5
60°-70°	7636.2	23.6
70°-80°	6310.8	19.5
80°-90°	907.7	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°	32341.0	100.0
0°-180°	32341.0	100.0



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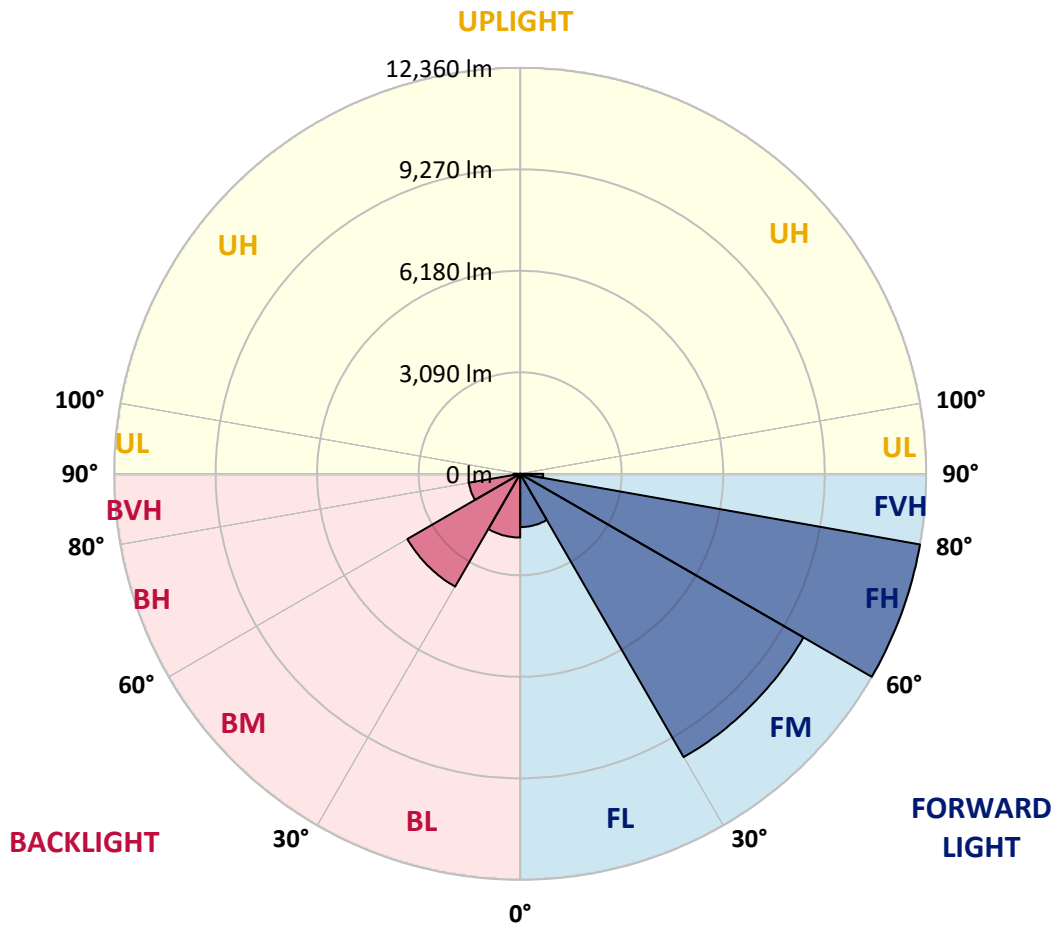
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1621.8	5.0			
FM (30°-60°)	9959.3	30.8			
FH (60°-80°)	12360.2	38.2			G5
FVH (80°-90°)	703.3	2.2			G4/750
BL (0°-30°)	1939.6	6.0	B3/2500		
BM (30°-60°)	3965.6	12.3	B3/5000		
BH (60°-80°)	1586.8	4.9	B3/2500		G3/2500
BVH (80°-90°)	204.4	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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7
2.5°	3974.0	3998.5	4008.9	4003.7	4029.9	4026.4	4063.1	4108.6	4171.5	4232.7	4321.9
5°	3668.0	3694.2	3717.0	3737.9	3788.7	3804.4	3862.1	3949.5	4064.9	4182.0	4328.9
7.5°	3383.0	3405.8	3440.7	3479.2	3564.9	3580.6	3676.8	3813.1	3974.0	4145.3	4348.1
10°	3150.5	3173.2	3210.0	3253.7	3360.3	3379.5	3501.9	3683.8	3893.6	4110.3	4369.1
12.5°	3050.9	3057.8	3078.8	3122.5	3215.2	3227.4	3362.1	3570.1	3814.9	4084.1	4400.6
15°	3045.6	3059.6	3061.3	3084.1	3161.0	3166.2	3290.4	3496.7	3765.9	4078.9	4447.8
17.5°	3098.1	3108.5	3092.8	3106.8	3171.5	3180.2	3278.1	3461.7	3750.2	4101.6	4528.2
20°	3237.9	3246.7	3199.5	3180.2	3227.4	3234.4	3330.6	3484.4	3765.9	4148.8	4638.3
22.5°	3535.1	3540.4	3425.0	3346.3	3349.8	3353.3	3437.2	3577.1	3827.1	4234.5	4778.2
25°	3998.5	3995.0	3811.4	3659.3	3571.9	3552.6	3608.6	3727.5	3930.3	4348.1	4958.3
27.5°	4540.4	4514.2	4330.6	4103.4	3912.8	3884.8	3872.6	3923.3	4077.1	4498.5	5178.6
30°	5152.4	5127.9	4930.3	4633.1	4369.1	4323.6	4208.3	4182.0	4295.7	4703.0	5484.5
32.5°	5823.7	5808.0	5572.0	5211.8	4858.6	4806.2	4612.1	4542.2	4631.4	5012.5	5911.1
35°	6386.7	6372.7	6176.9	5806.2	5374.4	5309.7	5112.1	5033.5	5078.9	5409.4	6468.9
37.5°	6895.5	6888.5	6720.6	6428.6	5982.8	5904.1	5682.1	5655.9	5647.1	5932.1	7145.5
40°	7367.5	7350.0	7175.2	7021.3	6690.9	6619.2	6423.4	6400.7	6334.2	6575.5	7911.2
42.5°	7890.3	7844.8	7591.3	7519.6	7430.4	7371.0	7253.9	7257.4	7110.5	7301.1	8722.5
45°	8316.9	8290.6	8030.1	7988.2	8084.3	8059.8	8161.2	8187.5	7902.5	8061.6	9565.2
47.5°	8774.9	8750.4	8530.1	8500.4	8760.9	8767.9	9126.3	9135.1	8675.3	8851.8	10409.6
50°	9339.6	9304.7	9086.1	9122.8	9414.8	9441.0	10096.7	10037.2	9386.8	9654.3	11247.1
52.5°	9712.0	9733.0	9685.8	9745.2	10143.9	10168.3	11051.3	10899.1	10091.4	10446.3	12068.8
55°	9986.5	10028.5	10175.3	10311.7	10913.1	10937.6	11951.6	11719.1	10675.4	11180.6	12841.6
57.5°	10339.7	10280.2	10554.7	10820.5	11643.9	11708.6	12827.6	12509.4	11192.9	11813.5	13371.3
60°	10846.7	10804.7	11018.0	11411.4	12462.2	12565.3	13754.2	13220.9	11572.3	12315.3	13474.5
62.5°	11874.7	11769.8	11803.0	12151.0	13493.7	13630.1	14799.7	13841.6	11761.1	12511.1	12922.0
65°	13411.5	13231.4	13063.6	13304.9	14946.6	15081.2	15979.8	14329.4	11691.1	12131.7	11455.1
67.5°	15346.9	15168.6	14962.3	15189.6	17086.5	17193.2	17436.2	14603.9	11140.4	10670.1	8862.3
70°	16943.2	16876.7	17123.2	18058.6	20504.5	20508.0	19303.4	14376.6	9631.6	7565.1	5127.9
72.5°	16731.6	16691.4	17990.4	20882.2	24812.4	24719.8	21071.0	12656.2	6488.1	3412.8	1921.4
75°	13726.2	13986.7	15999.1	20831.5	26359.7	26347.5	19988.8	8045.9	2683.7	1414.4	993.1
77.5°	7360.5	7773.1	10386.9	15380.1	20578.0	20887.4	14053.2	2814.8	1152.2	905.6	687.1
80°	2400.5	2760.6	4140.1	7830.8	13371.3	13313.6	6023.0	1105.0	788.5	641.6	475.5
82.5°	1019.3	1061.2	1849.7	3697.7	6862.2	6755.6	1917.9	634.6	554.2	438.8	293.7
85°	398.6	445.8	816.5	1709.9	2972.2	2907.5	692.3	314.7	354.9	286.7	174.8
87.5°	131.1	159.1	292.0	585.7	924.9	891.7	169.6	108.4	153.9	131.1	62.9
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°	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7	4309.7
2.5°	4346.4	4374.3	4407.6	4456.5	4498.5	4533.4	4570.2	4592.9	4601.6	4627.9	4626.1
5°	4377.8	4439.0	4521.2	4601.6	4680.3	4727.5	4769.5	4790.5	4809.7	4823.7	4827.2
7.5°	4430.3	4509.0	4638.3	4743.2	4809.7	4848.1	4876.1	4869.1	4876.1	4879.6	4884.9
10°	4475.7	4585.9	4739.7	4839.4	4890.1	4891.9	4884.9	4860.4	4848.1	4849.9	4853.4
12.5°	4529.9	4652.3	4818.4	4902.3	4916.3	4877.9	4848.1	4806.2	4790.5	4783.5	4780.0
15°	4603.4	4743.2	4904.1	4935.6	4900.6	4851.6	4800.9	4732.8	4697.8	4669.8	4678.6
17.5°	4692.5	4846.4	4970.5	4947.8	4872.6	4792.2	4710.0	4606.9	4535.2	4505.5	4507.2
20°	4816.7	4954.8	5021.2	4921.6	4807.9	4685.6	4545.7	4419.8	4353.4	4323.6	4320.1
22.5°	4967.0	5099.9	5070.2	4876.1	4715.3	4519.5	4344.6	4252.0	4218.7	4197.8	4201.3
25°	5147.1	5260.8	5105.2	4809.7	4563.2	4299.2	4164.5	4134.8	4119.1	4103.4	4103.4
27.5°	5381.4	5442.6	5131.4	4711.8	4325.4	4064.9	4015.9	4021.2	4015.9	3989.7	3995.0
30°	5690.8	5678.6	5155.9	4552.7	4052.7	3853.3	3856.8	3879.6	3883.1	3865.6	3874.3
32.5°	6098.2	5974.1	5168.1	4346.4	3792.1	3668.0	3671.5	3696.0	3713.5	3683.8	3697.7
35°	6591.2	6318.5	5148.9	4087.6	3591.1	3491.4	3465.2	3472.2	3477.4	3449.5	3468.7
37.5°	7166.4	6704.9	5063.2	3800.9	3425.0	3318.3	3262.4	3215.2	3187.2	3161.0	3178.5
40°	7797.6	7126.2	4905.8	3521.2	3239.7	3134.8	3050.9	2961.7	2867.3	2832.3	2848.0
42.5°	8458.5	7559.8	4715.3	3253.7	3026.4	2940.7	2851.5	2722.2	2580.5	2508.9	2517.6
45°	9143.8	8003.9	4528.2	2989.7	2807.8	2771.1	2668.0	2512.4	2358.5	2267.6	2260.6
47.5°	9815.2	8423.5	4253.7	2723.9	2603.3	2643.5	2563.1	2419.7	2248.4	2105.0	2089.3
50°	10456.8	8816.9	3804.4	2454.7	2437.2	2605.0	2528.1	2321.8	2126.0	1942.4	1926.7
52.5°	11093.2	9135.1	3229.2	2209.9	2348.0	2594.5	2482.6	2255.4	2015.8	1823.5	1802.5
55°	11633.5	9299.4	2675.0	2000.1	2218.6	2505.4	2428.4	2176.7	1860.2	1655.7	1638.2
57.5°	11941.2	9166.5	2213.4	1793.8	2040.3	2358.5	2335.8	2008.8	1674.9	1517.6	1496.6
60°	11808.3	8628.1	1835.8	1613.7	1870.7	2199.4	2174.9	1842.7	1533.3	1384.7	1363.7
62.5°	11075.7	7601.8	1536.8	1456.4	1716.9	2036.8	2014.1	1715.1	1424.9	1281.5	1258.8
65°	9600.1	6183.9	1304.3	1325.2	1561.3	1841.0	1874.2	1608.5	1339.2	1199.4	1176.6
67.5°	7322.0	4479.2	1122.4	1211.6	1409.2	1648.7	1744.8	1531.5	1267.5	1134.7	1113.7
70°	4173.3	2543.8	968.6	1101.5	1274.5	1470.4	1645.2	1470.4	1190.6	1080.5	1066.5
72.5°	1582.2	1167.9	837.5	991.3	1145.2	1320.0	1535.0	1374.2	1101.5	1019.3	1005.3
75°	844.4	711.6	704.6	861.9	996.6	1173.1	1396.9	1279.8	1035.0	1077.0	1111.9
77.5°	575.2	503.5	589.2	737.8	834.0	1010.5	1250.1	1136.4	896.9	893.4	823.5
80°	398.6	356.7	479.0	594.4	645.1	849.7	1091.0	975.6	730.8	681.9	652.1
82.5°	239.5	232.5	358.4	444.1	456.3	655.6	903.9	818.2	597.9	521.0	524.5
85°	131.1	138.1	229.0	260.5	265.7	458.1	708.1	632.9	459.8	386.4	389.9
87.5°	36.7	47.2	83.9	103.2	127.6	237.8	421.3	375.9	230.8	160.8	160.8
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)