

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: P883441

Luminaire Tested: **NAV-SB3D-740-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883441
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-740-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 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: 32525 lumens
Efficiency: N/A
Efficacy: 149.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

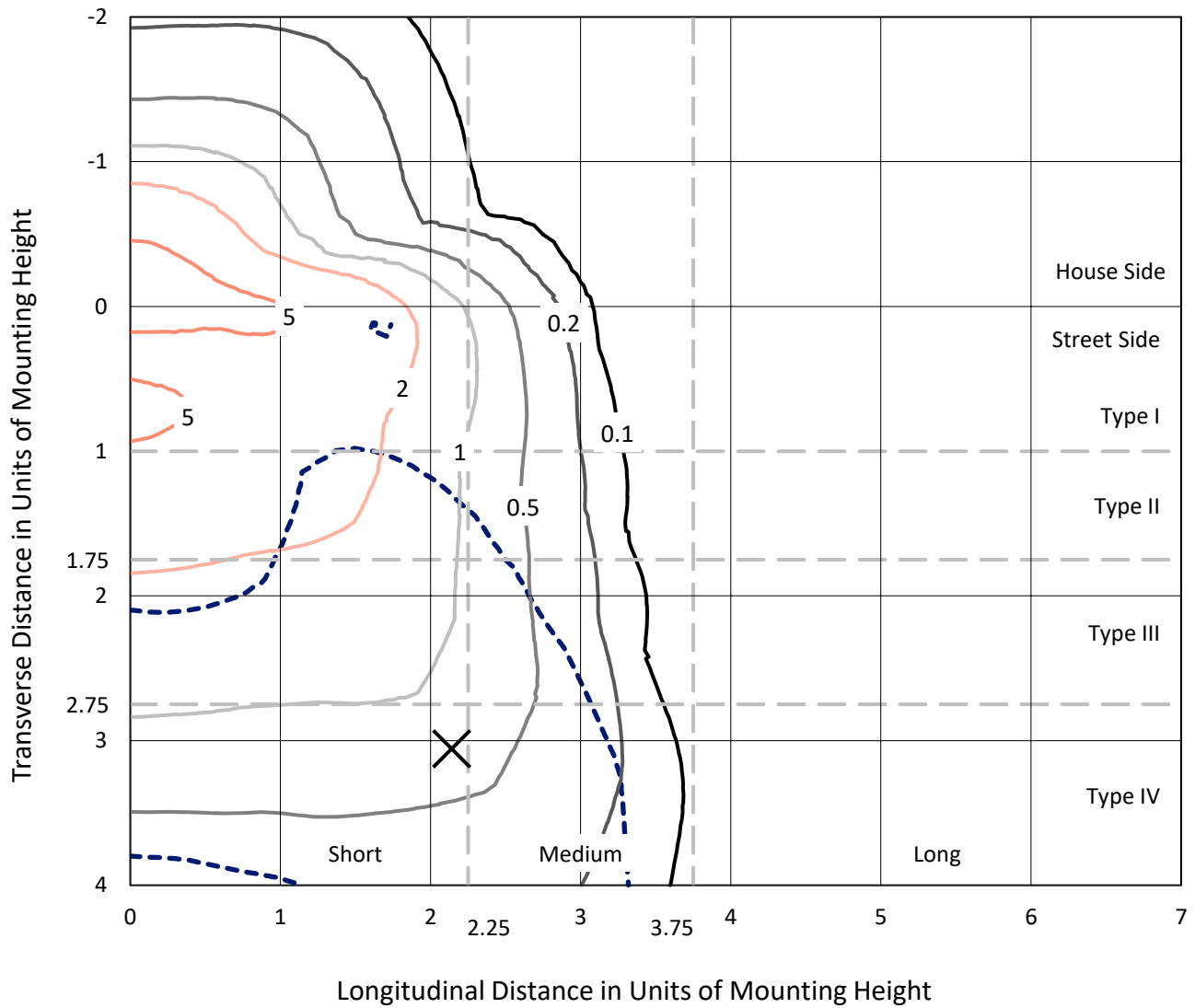
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

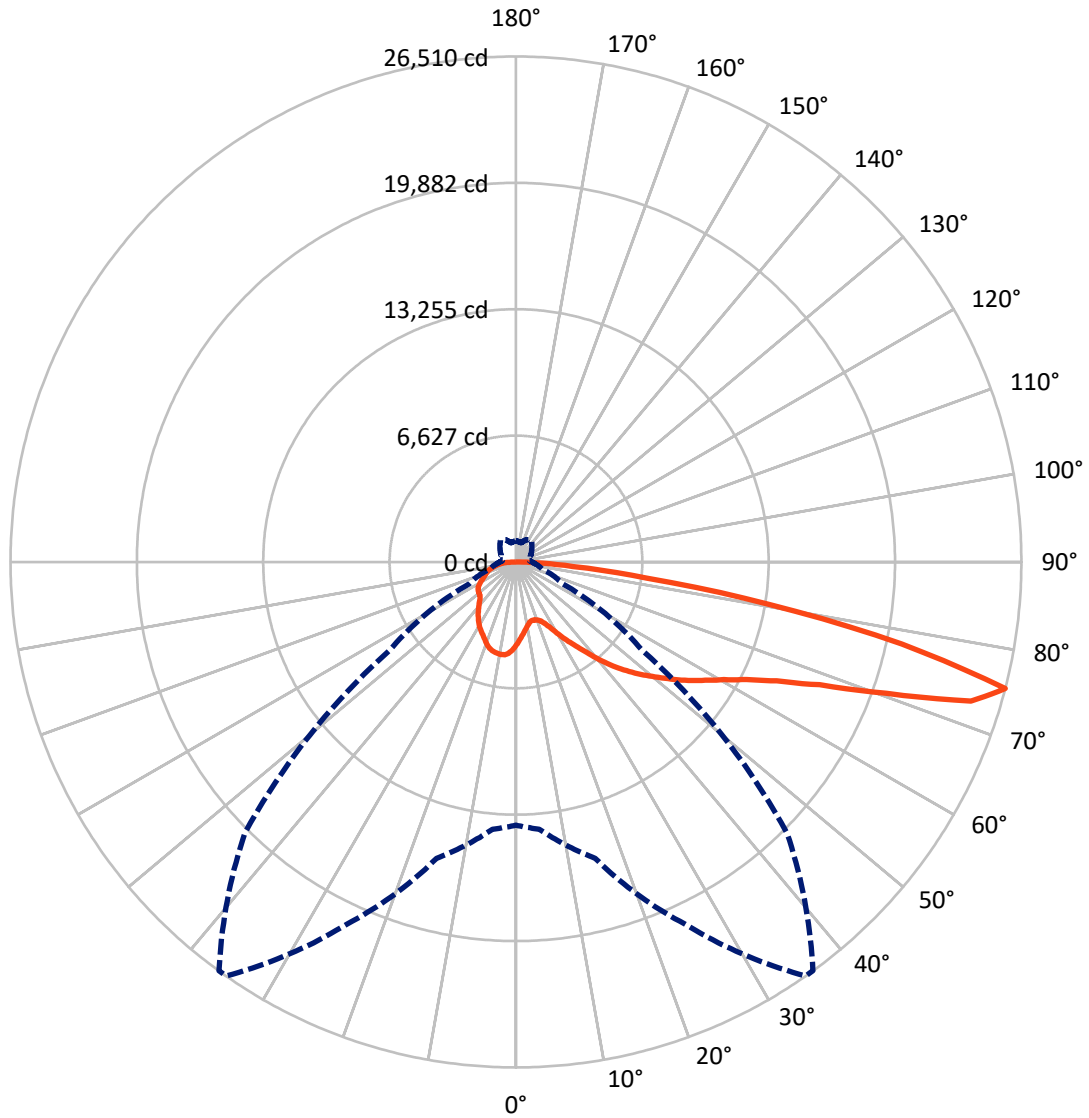
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.7 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	7740.1	0.0	7740.1
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	24784.9	0.0	24784.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	32525.0	0.0	32525.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	410.4	1.3
10°-20°	1183.7	3.6
20°-30°	1987.7	6.1
30°-40°	3089.1	9.5
40°-50°	4585.1	14.1
50°-60°	6330.0	19.5
60°-70°	7679.7	23.6
70°-80°	6346.7	19.5
80°-90°	912.8	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°	32525.0	100.0
0°-180°	32525.0	100.0



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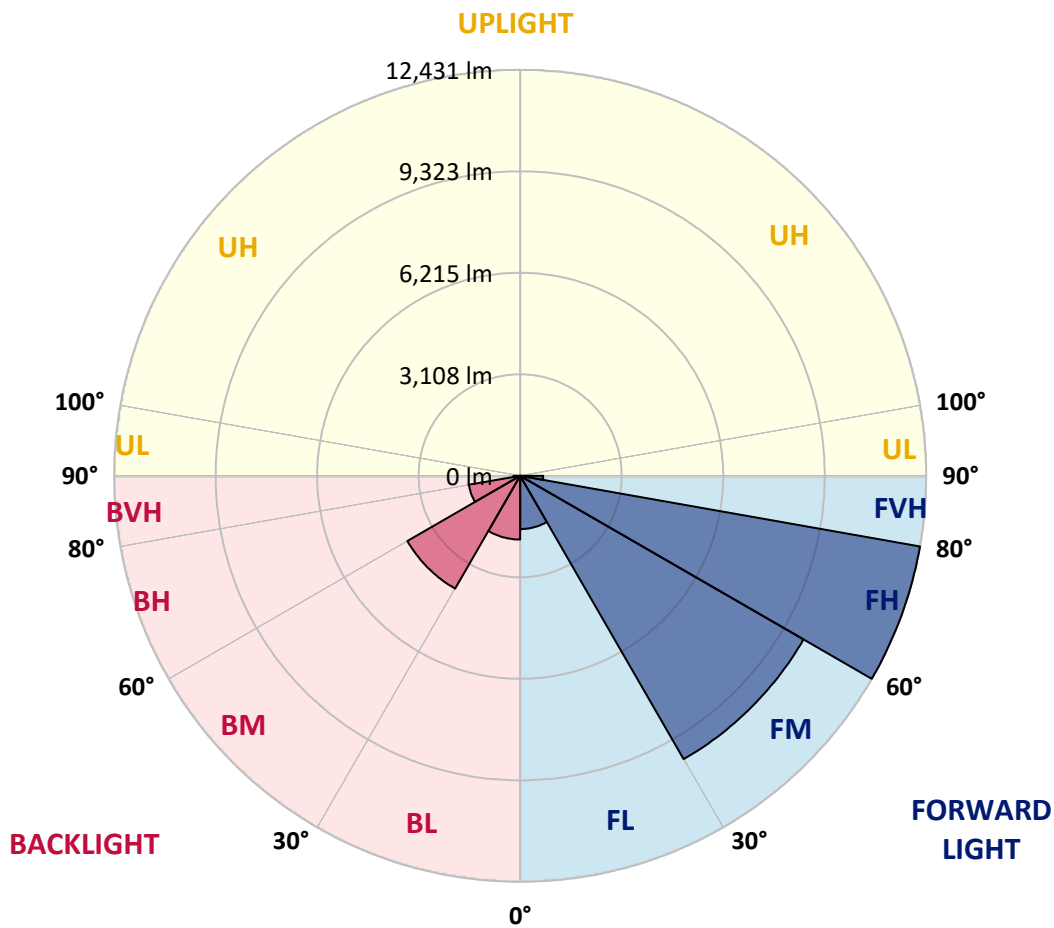
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1631.1	5.0			
FM (30°-60°)	10015.9	30.8			
FH (60°-80°)	12430.6	38.2			G5
FVH (80°-90°)	707.3	2.2			G4/750
BL (0°-30°)	1950.6	6.0	B3/2500		
BM (30°-60°)	3988.2	12.3	B3/5000		
BH (60°-80°)	1595.8	4.9	B3/2500		G3/2500
BVH (80°-90°)	205.6	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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2
2.5°	3996.6	4021.2	4031.8	4026.5	4052.9	4049.3	4086.3	4132.0	4195.3	4256.8	4346.5
5°	3688.9	3715.3	3738.1	3759.2	3810.2	3826.0	3884.1	3972.0	4088.0	4205.8	4353.5
7.5°	3402.3	3425.1	3460.3	3499.0	3585.1	3601.0	3697.7	3834.8	3996.6	4168.9	4372.9
10°	3168.4	3191.3	3228.2	3272.2	3379.4	3398.8	3521.8	3704.7	3915.7	4133.7	4394.0
12.5°	3068.2	3075.2	3096.3	3140.3	3233.5	3245.8	3381.2	3590.4	3836.6	4107.4	4425.6
15°	3062.9	3077.0	3078.8	3101.6	3179.0	3184.3	3309.1	3516.6	3787.3	4102.1	4473.1
17.5°	3115.7	3126.2	3110.4	3124.5	3189.5	3198.3	3296.8	3481.4	3771.5	4124.9	4554.0
20°	3256.3	3265.1	3217.7	3198.3	3245.8	3252.8	3349.5	3504.3	3787.3	4172.4	4664.7
22.5°	3555.3	3560.5	3444.5	3365.4	3368.9	3372.4	3456.8	3597.5	3848.9	4258.6	4805.4
25°	4021.2	4017.7	3833.1	3680.1	3592.2	3572.8	3629.1	3748.7	3952.6	4372.9	4986.5
27.5°	4566.3	4539.9	4355.3	4126.7	3935.0	3906.9	3894.6	3945.6	4100.3	4524.1	5208.0
30°	5181.7	5157.1	4958.4	4659.5	4394.0	4348.2	4232.2	4205.8	4320.1	4729.8	5515.7
32.5°	5856.9	5841.0	5603.7	5241.5	4886.3	4833.5	4638.4	4568.0	4657.7	5041.0	5944.8
35°	6423.0	6409.0	6212.0	5839.3	5405.0	5339.9	5141.2	5062.1	5107.8	5440.1	6505.7
37.5°	6934.7	6927.6	6758.9	6465.2	6016.9	5937.7	5714.4	5688.1	5679.3	5965.9	7186.1
40°	7409.4	7391.8	7216.0	7061.3	6729.0	6656.9	6459.9	6437.1	6370.3	6612.9	7956.2
42.5°	7935.1	7889.4	7634.5	7562.4	7472.7	7412.9	7295.1	7298.6	7151.0	7342.6	8772.1
45°	8364.2	8337.8	8075.8	8033.6	8130.3	8105.7	8207.7	8234.1	7947.5	8107.5	9619.6
47.5°	8824.8	8800.2	8578.7	8548.8	8810.8	8817.8	9178.3	9187.0	8724.6	8902.2	10468.8
50°	9392.8	9357.6	9137.8	9174.7	9468.4	9494.7	10154.1	10094.3	9440.2	9709.3	11311.1
52.5°	9767.3	9788.4	9740.9	9800.7	10201.6	10226.2	11114.1	10961.2	10148.8	10505.8	12137.5
55°	10043.3	10085.5	10233.2	10370.4	10975.2	10999.8	12019.6	11785.8	10736.1	11244.2	12914.6
57.5°	10398.5	10338.7	10614.8	10882.0	11710.2	11775.2	12900.5	12580.5	11256.6	11880.7	13447.4
60°	10908.4	10866.2	11080.7	11476.3	12533.1	12636.8	13832.4	13296.2	11638.1	12385.4	13551.1
62.5°	11942.3	11836.8	11870.2	12220.1	13570.5	13707.6	14883.9	13920.4	11828.0	12582.3	12995.5
65°	13487.8	13306.7	13137.9	13380.6	15031.6	15167.0	16070.7	14410.9	11757.7	12200.8	11520.3
67.5°	15434.2	15254.9	15047.4	15276.0	17183.7	17291.0	17535.4	14687.0	11203.8	10730.8	8912.8
70°	17039.6	16972.7	17220.7	18161.3	20621.2	20624.7	19413.2	14458.4	9686.4	7608.1	5157.1
72.5°	16826.8	16786.4	18092.8	21001.0	24953.6	24860.4	21190.9	12728.2	6525.0	3432.2	1932.4
75°	13804.3	14066.3	16090.1	20950.0	26509.7	26497.4	20102.5	8091.6	2699.0	1422.5	998.7
77.5°	7402.4	7817.3	10446.0	15467.6	20695.0	21006.2	14133.1	2830.8	1158.7	910.8	691.0
80°	2414.1	2776.3	4163.6	7875.4	13447.4	13389.4	6057.3	1111.2	793.0	645.3	478.3
82.5°	1025.1	1067.3	1860.3	3718.8	6901.3	6794.0	1928.8	638.3	557.4	441.3	295.4
85°	400.9	448.4	821.1	1719.6	2989.1	2924.0	696.3	316.5	356.9	288.4	175.8
87.5°	131.9	160.0	293.6	589.0	930.1	896.7	170.6	109.0	154.7	131.9	63.3
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°	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2	4334.2
2.5°	4371.1	4399.2	4432.6	4481.9	4524.1	4559.2	4596.2	4619.0	4627.8	4654.2	4652.4
5°	4402.7	4464.3	4546.9	4627.8	4706.9	4754.4	4796.6	4817.7	4837.0	4851.1	4854.6
7.5°	4455.5	4534.6	4664.7	4770.2	4837.0	4875.7	4903.9	4896.8	4903.9	4907.4	4912.7
10°	4501.2	4612.0	4766.7	4866.9	4917.9	4919.7	4912.7	4888.0	4875.7	4877.5	4881.0
12.5°	4555.7	4678.8	4845.8	4930.2	4944.3	4905.6	4875.7	4833.5	4817.7	4810.7	4807.2
15°	4629.6	4770.2	4932.0	4963.6	4928.5	4879.2	4828.3	4759.7	4724.5	4696.4	4705.2
17.5°	4719.2	4874.0	4998.8	4976.0	4900.3	4819.5	4736.8	4633.1	4561.0	4531.1	4532.9
20°	4844.1	4983.0	5049.8	4949.6	4835.3	4712.2	4571.5	4444.9	4378.1	4348.2	4344.7
22.5°	4995.3	5128.9	5099.0	4903.9	4742.1	4545.2	4369.3	4276.2	4242.7	4221.6	4225.2
25°	5176.4	5290.7	5134.2	4837.0	4589.1	4323.6	4188.2	4158.3	4142.5	4126.7	4126.7
27.5°	5412.0	5473.5	5160.6	4738.6	4350.0	4088.0	4038.8	4044.1	4038.8	4012.4	4017.7
30°	5723.2	5710.9	5185.2	4578.6	4075.7	3875.3	3878.8	3901.6	3905.2	3887.6	3896.4
32.5°	6132.9	6008.1	5197.5	4371.1	3813.7	3688.9	3692.4	3717.0	3734.6	3704.7	3718.8
35°	6628.7	6354.4	5178.2	4110.9	3611.5	3511.3	3484.9	3492.0	3497.2	3469.1	3488.4
37.5°	7207.2	6743.0	5092.0	3822.5	3444.5	3337.2	3281.0	3233.5	3205.4	3179.0	3196.6
40°	7842.0	7166.8	4933.8	3541.2	3258.1	3152.6	3068.2	2978.5	2883.6	2848.4	2864.2
42.5°	8506.6	7602.8	4742.1	3272.2	3043.6	2957.4	2867.8	2737.7	2595.2	2523.1	2531.9
45°	9195.8	8049.4	4554.0	3006.7	2823.8	2786.9	2683.1	2526.7	2371.9	2280.5	2273.5
47.5°	9871.0	8471.4	4277.9	2739.4	2618.1	2658.5	2577.6	2433.5	2261.2	2117.0	2101.2
50°	10516.3	8867.0	3826.0	2468.6	2451.1	2619.8	2542.5	2335.0	2138.1	1953.5	1937.6
52.5°	11156.3	9187.0	3247.6	2222.5	2361.4	2609.3	2496.8	2268.2	2027.3	1833.9	1812.8
55°	11699.6	9352.3	2690.2	2011.5	2231.3	2519.6	2442.3	2189.1	1870.8	1665.1	1647.5
57.5°	12009.1	9218.7	2226.0	1804.0	2051.9	2371.9	2349.1	2020.3	1684.4	1526.2	1505.1
60°	11875.5	8677.1	1846.2	1622.9	1881.4	2211.9	2187.3	1853.2	1542.0	1392.6	1371.5
62.5°	11138.7	7645.0	1545.5	1464.7	1726.6	2048.4	2025.5	1724.9	1433.0	1288.8	1266.0
65°	9654.8	6219.1	1311.7	1332.8	1570.1	1851.5	1884.9	1617.6	1346.8	1206.2	1183.3
67.5°	7363.7	4504.7	1128.8	1218.5	1417.2	1658.1	1754.8	1540.3	1274.8	1141.1	1120.0
70°	4197.0	2558.3	974.1	1107.7	1281.8	1478.7	1654.5	1478.7	1197.4	1086.6	1072.6
72.5°	1591.2	1174.5	842.2	996.9	1151.7	1327.5	1543.8	1382.0	1107.7	1025.1	1011.0
75°	849.3	715.6	708.6	866.8	1002.2	1179.8	1404.9	1287.1	1040.9	1083.1	1118.3
77.5°	578.5	506.4	592.5	742.0	838.7	1016.3	1257.2	1142.9	902.0	898.5	828.2
80°	400.9	358.7	481.8	597.8	648.8	854.5	1097.2	981.1	735.0	685.7	655.8
82.5°	240.9	233.9	360.4	446.6	458.9	659.4	909.0	822.9	601.3	524.0	527.5
85°	131.9	138.9	230.3	262.0	267.3	460.7	712.1	636.5	462.4	388.6	392.1
87.5°	36.9	47.5	84.4	103.7	128.4	239.1	423.7	378.0	232.1	161.8	161.8
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)