

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: P967240

Luminaire Tested: **NAV-SB4D-740-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967240
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-740-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36820 lumens
Efficiency: N/A
Efficacy: 125.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G5

Input Watts (W): 293.6
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

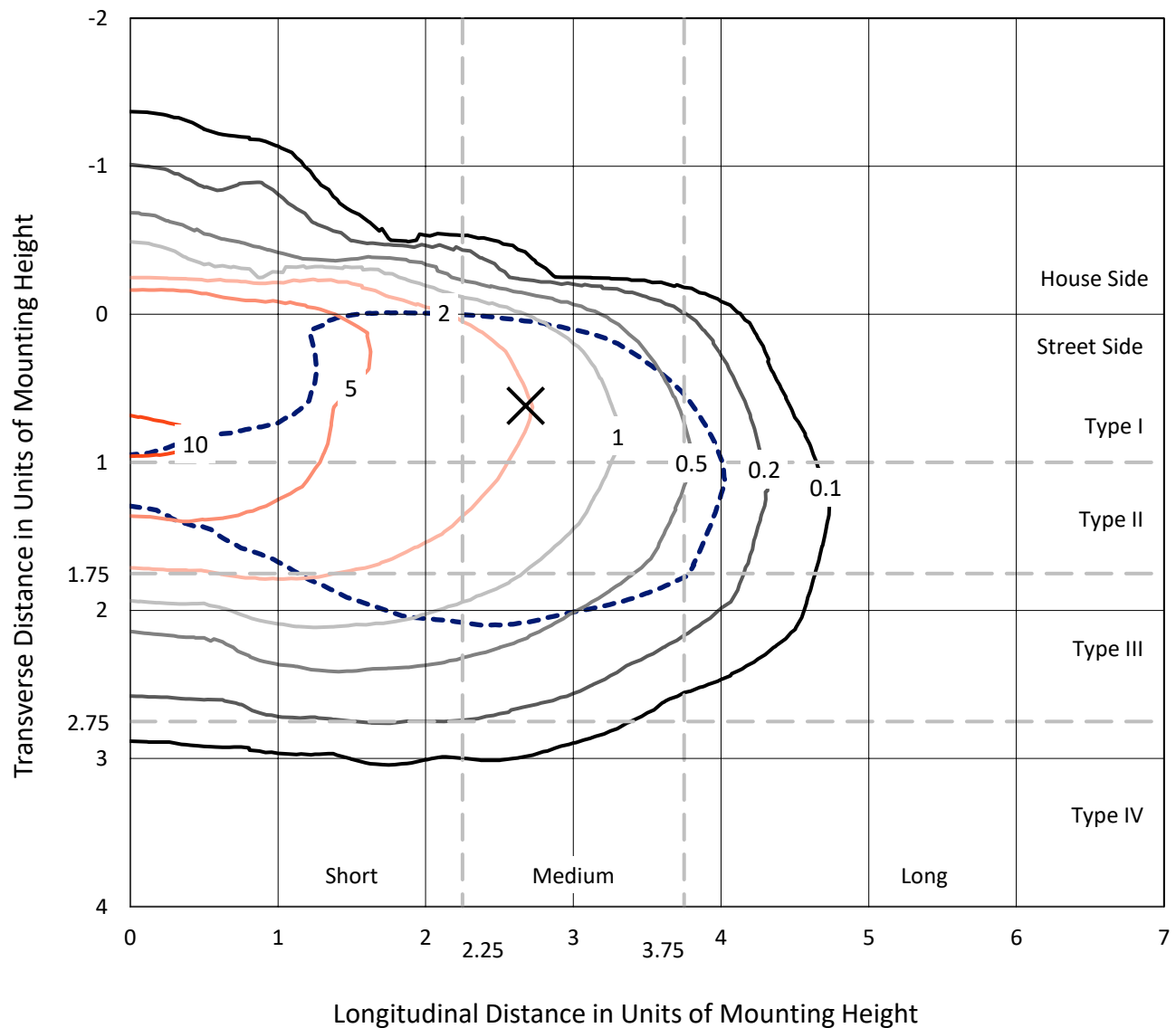


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Iso-Footcandle Lines of Horizontal Illumination

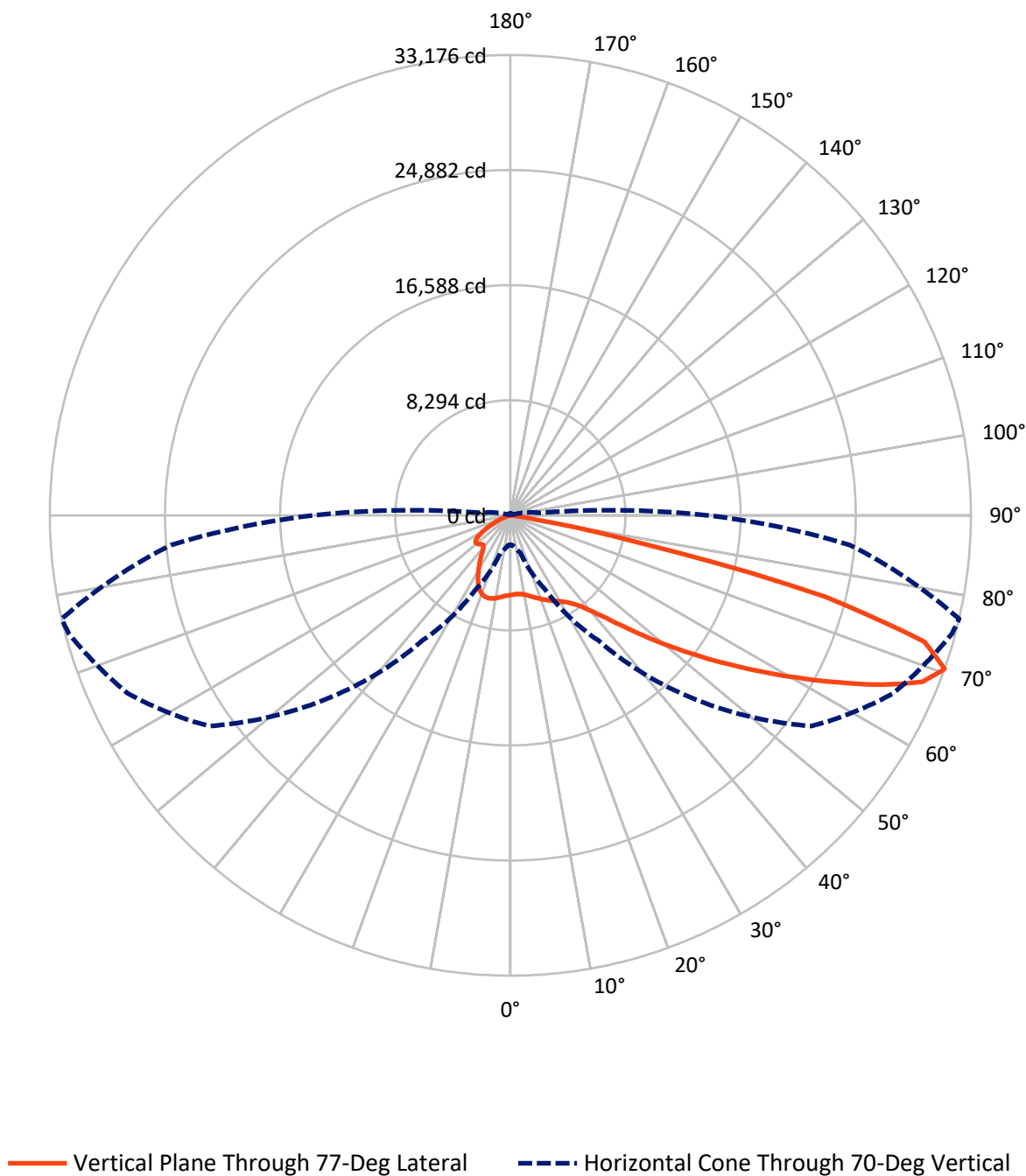
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.8 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3881.4	0.0	3881.4
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	32938.7	0.0	32938.7
	% Fixture	89.5	0.0	89.5
Total	Lumens	36820.0	0.0	36820.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	495.0	1.3
10°-20°	1175.0	3.2
20°-30°	1817.4	4.9
30°-40°	3297.8	9.0
40°-50°	6225.0	16.9
50°-60°	8994.7	24.4
60°-70°	9574.6	26.0
70°-80°	5073.9	13.8
80°-90°	166.6	0.5
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°	36820.0	100.0
0°-180°	36820.0	100.0

Coefficient of Utilization



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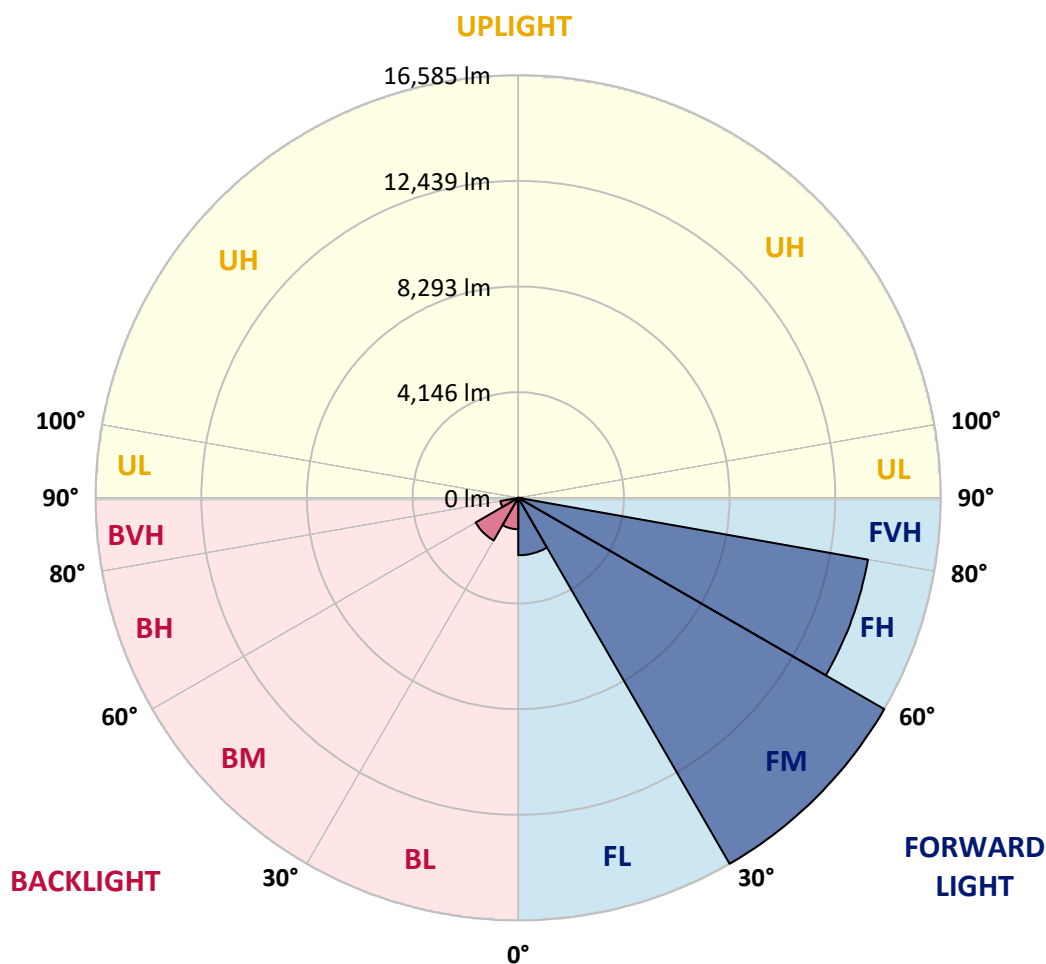
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2254.3	6.1			
FM	(30°-60°)	16585.4	45.0			
FH	(60°-80°)	13936.9	37.9			G5
FVH	(80°-90°)	162.1	0.4			G2/225
BL	(0°-30°)	1233.2	3.3	B3/2500		
BM	(30°-60°)	1932.1	5.2	B2/2500		
BH	(60°-80°)	711.6	1.9	B2/1000		G2/1000
BVH	(80°-90°)	4.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3
2.5°	5392.1	5441.0	5434.0	5466.5	5478.2	5524.6	5571.2	5634.0	5703.7	5701.5	5747.9
5°	5087.6	5136.4	5148.0	5192.1	5248.0	5320.1	5415.4	5540.9	5671.2	5692.1	5785.1
7.5°	4727.2	4778.3	4808.5	4896.9	4999.2	5148.0	5303.8	5487.4	5703.7	5734.0	5913.0
10°	4366.7	4413.2	4452.8	4578.4	4741.1	4962.0	5215.4	5480.5	5771.2	5815.3	6068.8
12.5°	4143.6	4187.7	4231.9	4341.2	4543.4	4813.2	5157.3	5513.1	5882.8	5945.5	6280.4
15°	4064.4	4104.0	4138.8	4236.5	4424.8	4731.8	5145.7	5580.5	6024.6	6108.3	6536.1
17.5°	4076.1	4097.0	4120.3	4194.7	4378.4	4694.6	5166.6	5696.7	6192.0	6266.4	6792.0
20°	4143.6	4155.1	4157.5	4208.6	4371.4	4690.0	5208.4	5808.4	6350.2	6450.1	7045.3
22.5°	4229.6	4234.2	4229.6	4264.4	4415.6	4724.8	5264.3	5943.3	6526.9	6619.9	7301.2
25°	4631.8	4543.4	4431.9	4364.4	4490.0	4792.3	5347.9	6124.6	6719.9	6810.5	7549.9
27.5°	5880.4	5627.0	5227.1	4778.3	4643.5	4889.9	5464.3	6308.3	6915.2	6996.5	7817.4
30°	7908.1	7575.6	6896.6	5885.1	5136.4	5094.6	5615.4	6491.9	7122.1	7210.5	8103.3
32.5°	9940.2	9858.9	9075.2	7675.5	6245.5	5550.3	5866.5	6740.8	7396.5	7466.2	8489.4
35°	11995.8	11830.7	11188.9	9805.4	7954.5	6478.0	6285.0	7066.4	7756.9	7835.9	9052.1
37.5°	13569.9	13469.9	13072.3	11932.9	9982.2	7910.3	7001.2	7570.9	8280.1	8368.4	9772.9
40°	14960.4	14913.9	14779.1	14027.9	12249.2	9784.4	8114.9	8352.1	9005.5	9110.2	10656.4
42.5°	16053.2	16162.5	16239.3	16030.0	14586.1	11923.6	9612.4	9449.7	10017.0	10123.9	11781.9
45°	17171.6	17208.8	17518.1	17820.3	16906.6	14160.5	11300.5	10735.4	11274.9	11407.4	13130.5
47.5°	17890.1	18039.0	18583.0	19115.5	18857.4	16378.8	13114.2	12253.9	12732.9	12981.6	14641.8
50°	17943.6	18225.0	18973.7	19901.5	20278.1	18490.1	15086.0	13983.8	14493.0	14767.4	16255.6
52.5°	17053.0	17490.2	18650.5	20008.4	21045.5	20278.1	17125.2	15713.8	16367.1	16725.2	17929.7
55°	13074.6	13646.6	17434.4	19427.1	21075.6	21633.8	19110.9	17515.8	18455.1	18859.8	19738.7
57.5°	11391.2	11679.6	13707.1	18418.0	20515.3	22180.2	20905.9	19231.8	20726.9	21229.2	21447.7
60°	9477.6	9856.6	11495.8	16767.1	19754.9	22233.7	22491.8	21445.4	23189.3	23754.3	23014.9
62.5°	6440.8	6852.4	8482.4	13930.4	18715.6	22208.1	23791.5	23724.1	25926.0	26532.9	24342.6
65°	3990.0	4248.1	5322.4	11374.9	17262.3	22235.9	25151.8	26491.1	28814.0	29430.1	25370.4
67.5°	3153.0	3271.6	3832.0	8733.5	14758.1	21608.1	26509.7	29093.0	31532.2	32020.4	25684.2
70°	2118.3	2190.3	2787.9	5854.9	10979.6	18711.0	26484.2	30399.8	32931.9	33176.1	24540.2
72.5°	1116.1	1171.9	1630.0	2711.2	6631.4	13300.2	22324.3	28837.2	31539.1	31171.7	20975.7
75°	558.0	651.1	1097.5	1376.5	2832.1	7417.4	13862.9	22735.8	24824.0	23400.9	13458.4
77.5°	423.2	511.6	906.8	906.8	985.8	2497.3	5871.2	12400.3	11437.7	9524.1	3950.6
80°	269.7	348.8	792.9	685.9	411.5	634.8	1530.0	3473.8	2429.9	1848.6	718.5
82.5°	158.2	227.9	660.4	453.5	230.2	234.8	432.4	739.4	630.2	490.7	220.9
85°	62.7	148.8	453.5	179.1	90.7	58.1	130.2	158.2	130.2	97.7	55.8
87.5°	0.0	34.8	79.0	0.0	7.0	4.6	9.3	11.6	11.6	9.3	18.6
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°	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3	5743.3
2.5°	5768.8	5773.5	5787.5	5789.8	5757.2	5715.4	5699.1	5692.1	5664.3	5661.9	5666.5
5°	5838.6	5859.5	5838.6	5778.1	5634.0	5431.7	5278.2	5152.7	5038.7	5003.8	4982.9
7.5°	5978.1	5999.0	5936.3	5699.1	5336.4	4934.0	4571.4	4315.6	4085.3	3999.3	3964.5
10°	6178.1	6206.0	6008.3	5529.4	4887.6	4241.1	3627.4	3194.8	2857.7	2720.5	2662.3
12.5°	6429.2	6440.8	6047.9	5271.3	4304.0	3380.9	2511.2	2048.5	1748.5	1636.9	1602.1
15°	6705.9	6689.7	6052.5	4920.1	3508.8	2390.3	1639.3	1346.3	1225.4	1188.2	1188.2
17.5°	6996.5	6929.1	5959.6	4413.2	2636.8	1634.7	1216.1	1146.4	1125.4	1116.1	1113.8
20°	7282.5	7131.4	5789.8	3750.6	1892.8	1220.8	1104.4	1083.5	1071.9	1067.2	1062.6
22.5°	7543.0	7284.9	5499.1	2980.9	1374.2	1078.9	1044.1	1025.4	1004.5	995.2	992.8
25°	7796.5	7373.2	5089.8	2262.4	1099.8	1009.1	981.2	946.4	918.5	906.8	902.2
27.5°	8042.9	7429.0	4578.4	1674.1	981.2	944.0	892.9	844.1	823.1	818.5	813.8
30°	8305.7	7447.6	3997.0	1248.7	909.2	862.6	788.2	732.5	720.8	723.1	723.1
32.5°	8626.5	7475.5	3411.1	1023.1	848.7	765.0	676.6	618.5	609.2	618.5	616.2
35°	9010.2	7531.4	2846.0	941.7	795.2	665.0	569.7	520.8	511.6	518.5	516.2
37.5°	9531.1	7622.0	2318.2	925.5	751.0	581.3	479.0	439.4	439.4	441.8	439.4
40°	10224.0	7863.9	1846.2	913.8	727.7	518.5	404.6	388.3	395.2	400.0	400.0
42.5°	11067.9	8377.7	1527.7	899.8	702.2	490.7	367.4	360.4	372.1	376.7	376.7
45°	12014.3	9028.8	1416.0	876.6	679.0	509.2	351.1	341.8	355.8	358.0	360.4
47.5°	12993.3	9665.9	1402.1	851.1	655.7	537.1	346.4	325.5	341.8	344.1	346.4
50°	13983.8	10082.1	1416.0	811.5	618.5	537.1	348.8	309.2	323.2	330.2	332.5
52.5°	14981.3	10272.8	1406.7	725.5	553.4	504.6	348.8	295.3	309.2	313.9	313.9
55°	15948.6	10235.5	1265.0	597.6	469.7	446.5	339.5	283.7	292.9	295.3	295.3
57.5°	16713.5	9717.0	1002.1	465.0	381.3	372.1	309.2	269.7	276.8	274.4	274.4
60°	17113.5	8577.7	716.2	358.0	299.9	292.9	272.0	251.1	255.7	244.2	241.8
62.5°	17118.2	7071.0	479.0	283.7	239.5	232.5	232.5	225.5	220.9	197.6	190.6
65°	16753.1	5399.1	318.6	225.5	193.0	181.3	195.4	193.0	176.7	144.1	139.5
67.5°	15925.3	3538.9	241.8	176.7	148.8	141.9	155.8	162.8	151.2	121.0	118.6
70°	14223.3	2060.1	200.0	137.1	111.6	104.7	125.6	139.5	125.6	97.7	93.0
72.5°	11814.4	1111.4	162.8	102.3	76.8	69.8	99.9	114.0	99.9	72.1	69.8
75°	7666.2	595.2	125.6	67.4	39.6	44.2	74.4	83.7	69.8	46.5	41.8
77.5°	2574.0	262.7	79.0	32.6	18.6	18.6	44.2	51.1	32.6	16.3	13.9
80°	574.3	109.3	32.6	13.9	7.0	7.0	9.3	9.3	4.6	0.0	0.0
82.5°	188.3	44.2	13.9	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	72.1	16.3	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	27.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)