

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: P884850

Luminaire Tested: **NAV-SB5D-835-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884850  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5D-835-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

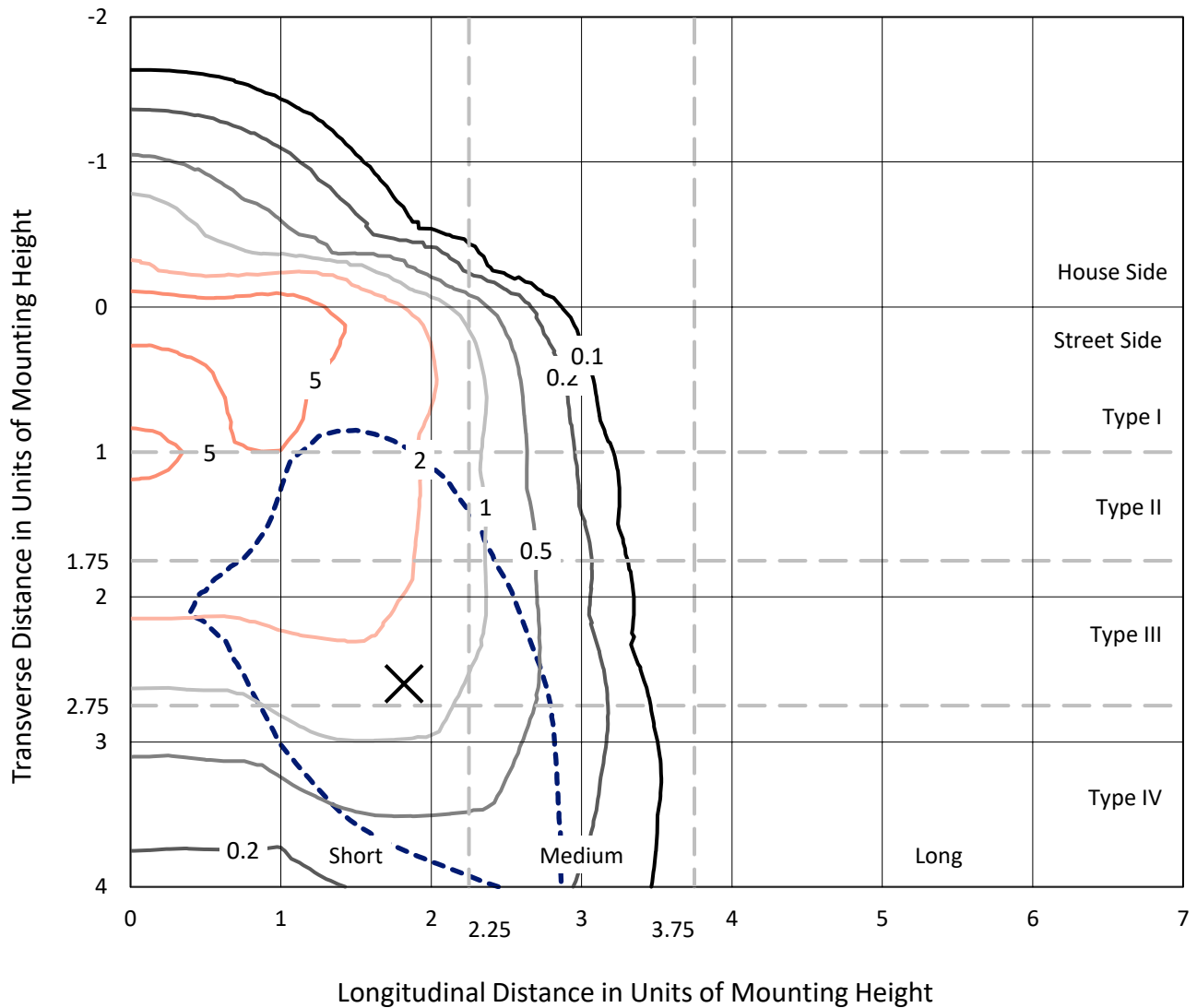
Lumens per Lamp: N/A  
Luminaire Lumens: 32988 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G5  
  
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 3.094  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 3.28  
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

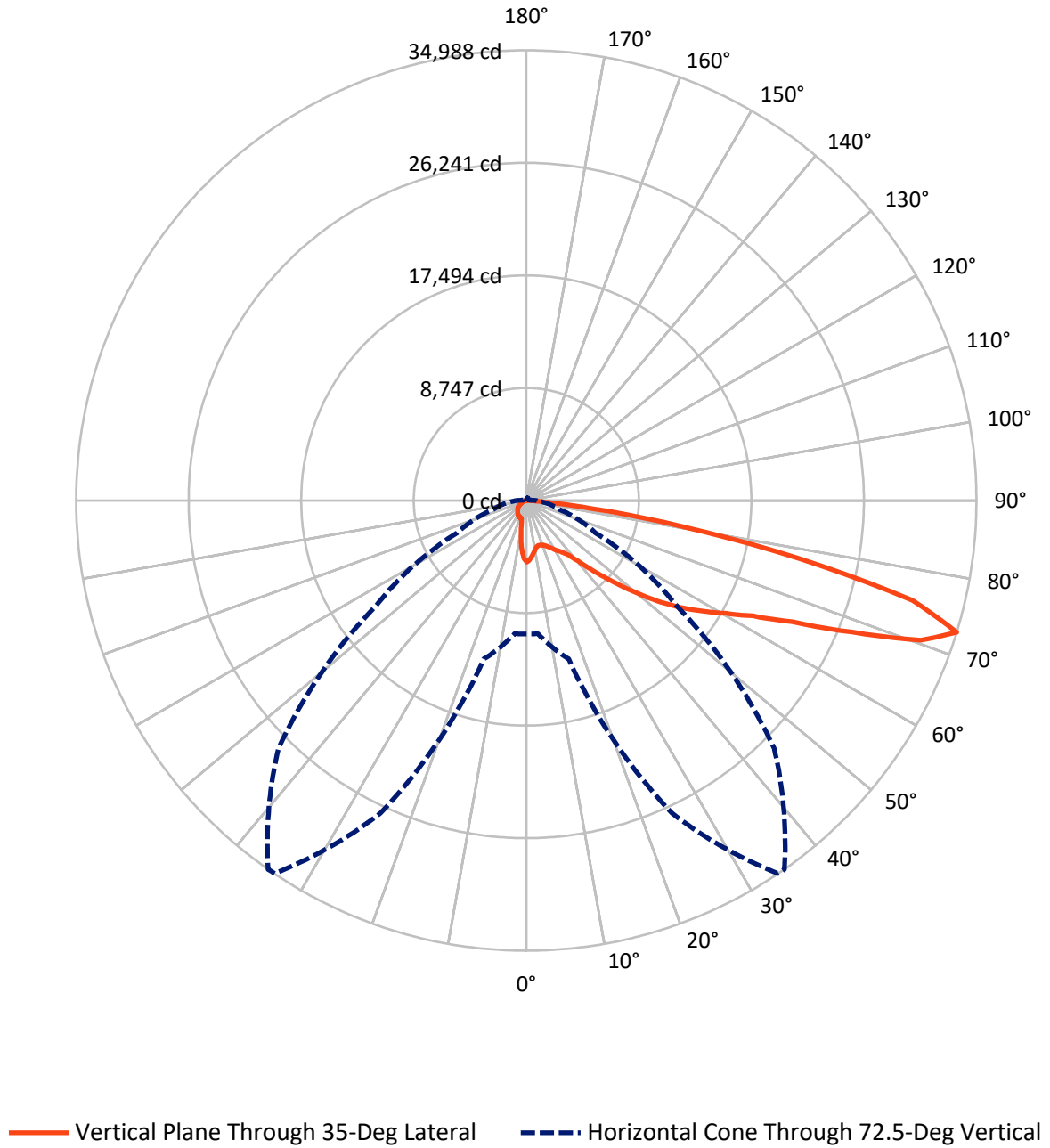
✕ Max cd  
 - - - 1/2 Max cd



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



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3712.6	0.0	3712.6
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	29275.4	0.0	29275.4
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	32988.0	0.0	32988.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	392.9	1.2
10°-20°	919.1	2.8
20°-30°	1493.0	4.5
30°-40°	2491.1	7.6
40°-50°	4713.3	14.3
50°-60°	7489.3	22.7
60°-70°	9264.8	28.1
70°-80°	5759.1	17.5
80°-90°	465.4	1.4
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°	32988.0	100.0
0°-180°	32988.0	100.0

**Coefficient of Utilization**



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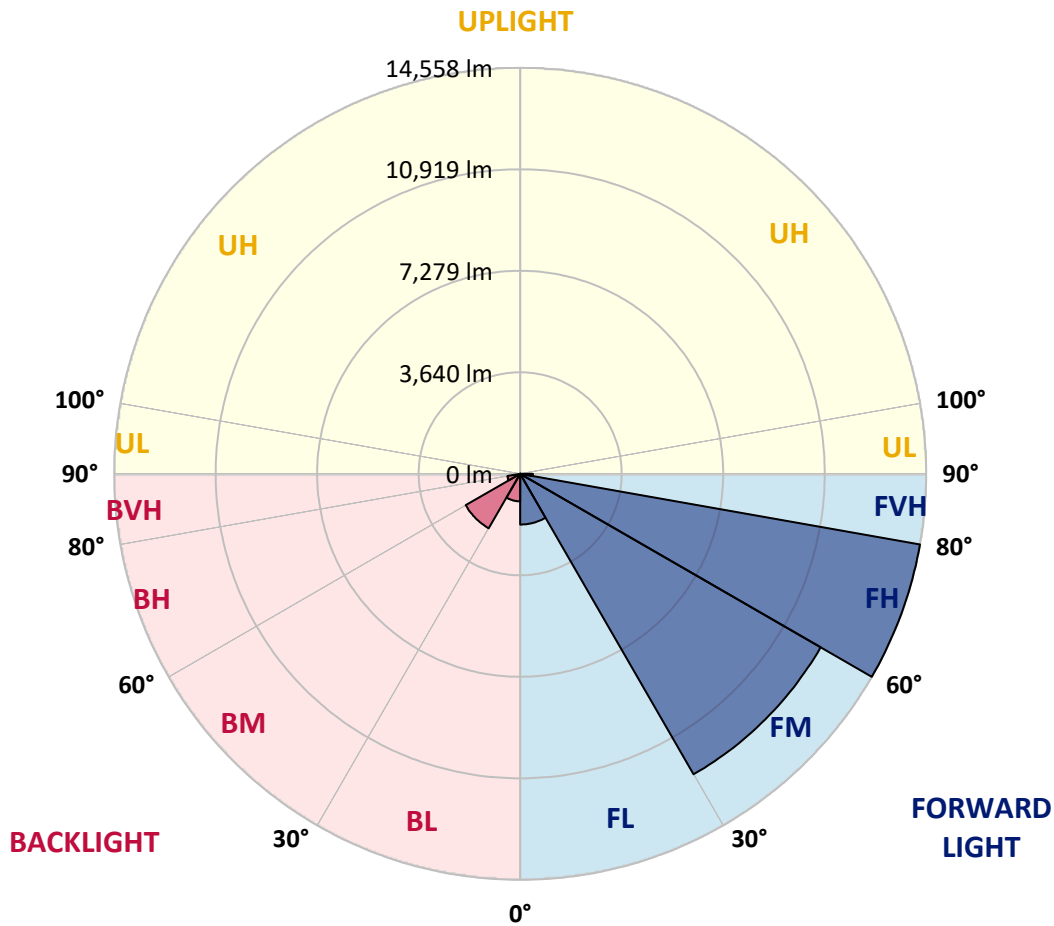
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1818.5	5.5			
FM (30°-60°)	12439.8	37.7			
FH (60°-80°)	14558.0	44.1			G5
FVH (80°-90°)	459.1	1.4			G3/500
BL (0°-30°)	986.5	3.0	B2/1000		
BM (30°-60°)	2253.9	6.8	B2/2500		
BH (60°-80°)	465.9	1.4	B1/500		G1/500
BVH (80°-90°)	6.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G5**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1
2.5°	4568.4	4607.0	4614.3	4626.4	4626.4	4640.9	4665.0	4698.9	4754.5	4783.5	4802.8
5°	4210.6	4239.6	4275.9	4304.9	4360.5	4367.7	4462.0	4553.9	4682.0	4778.7	4846.3
7.5°	3850.5	3884.3	3932.7	4002.8	4075.3	4097.0	4239.6	4394.3	4597.4	4778.7	4892.3
10°	3596.7	3599.1	3642.6	3712.7	3828.7	3855.3	4029.3	4249.3	4503.1	4749.6	4935.8
12.5°	3454.1	3471.0	3490.3	3543.5	3654.7	3671.6	3857.7	4116.4	4408.8	4732.7	4986.5
15°	3454.1	3466.2	3478.2	3504.8	3594.3	3608.8	3773.1	4031.8	4360.5	4740.0	5068.7
17.5°	3490.3	3509.7	3500.0	3531.4	3625.7	3635.4	3780.4	4007.6	4358.1	4785.9	5194.4
20°	3577.3	3591.8	3572.5	3591.8	3686.1	3705.4	3855.3	4053.5	4399.2	4865.7	5351.5
22.5°	3715.1	3722.4	3676.4	3690.9	3787.6	3811.8	3985.8	4184.0	4498.3	4993.8	5561.8
25°	3889.1	3903.7	3833.6	3850.5	3942.3	3971.3	4172.0	4379.8	4655.4	5170.2	5830.1
27.5°	4089.8	4097.0	4036.6	4034.2	4152.6	4193.7	4396.7	4621.5	4865.7	5392.6	6168.5
30°	4319.4	4341.2	4283.1	4273.5	4423.3	4457.2	4657.8	4918.8	5175.1	5726.2	6649.5
32.5°	4500.7	4517.6	4483.8	4507.9	4660.2	4686.8	4974.4	5339.4	5660.9	6199.9	7304.5
35°	4761.7	4771.4	4694.1	4737.6	4911.6	4979.3	5407.1	5929.2	6272.4	6794.5	8160.2
37.5°	5706.8	5706.8	5378.1	5163.0	5329.8	5390.2	5999.3	6671.3	7026.6	7592.2	9238.2
40°	7014.5	6992.7	6511.7	6071.8	6050.1	6168.5	6842.9	7606.7	8000.7	8549.4	10451.6
42.5°	8409.2	8375.3	7720.3	7285.2	7212.7	7253.8	7817.0	8759.6	9160.9	9716.8	11756.9
45°	9646.7	9637.1	9037.6	8452.7	8322.2	8452.7	9032.8	10108.4	10396.0	10981.0	13059.7
47.5°	10683.7	10683.7	10246.2	9864.3	9796.6	9873.9	10678.8	11604.6	11578.0	12327.3	14328.7
50°	11877.7	11868.1	11452.3	11288.0	11358.1	11466.8	12573.9	13180.6	12801.1	13649.5	15462.3
52.5°	12714.1	12772.1	12629.5	12602.9	12960.6	13149.1	14497.9	14722.7	13896.0	14904.0	16310.7
55°	13376.4	13444.0	13608.4	13794.5	14483.4	14729.9	16361.5	16185.0	14812.1	15991.7	16799.0
57.5°	14314.2	14217.5	14471.3	14838.7	15953.0	16250.3	18167.1	17565.2	15549.3	16873.9	16852.2
60°	15452.7	15467.2	15510.7	15974.8	17420.2	17802.1	19946.1	18870.5	16023.1	17415.4	16262.4
62.5°	16820.8	16842.5	16931.9	17645.0	19390.2	19750.3	21841.1	19938.8	16240.6	17263.1	14739.6
65°	16726.5	16818.3	17816.6	20255.5	22385.0	22740.3	24052.8	20688.1	15911.9	15870.8	12001.0
67.5°	15237.5	15387.4	17057.6	23373.6	26900.2	27296.6	26726.1	20835.6	14493.1	12341.8	7829.1
70°	13284.5	13337.7	15346.3	26177.4	32128.4	32529.6	29119.1	19213.7	10997.9	6884.0	3507.2
72.5°	10374.3	10386.4	12743.1	26827.6	34966.1	34987.8	27241.0	14263.4	5914.7	2644.3	1218.2
75°	7410.9	7338.4	8534.9	21756.5	30762.7	31009.3	20422.3	6690.6	2260.0	1249.7	606.7
77.5°	3973.7	4053.5	4829.4	12902.6	21251.3	21671.9	11142.9	1928.9	1150.6	850.8	401.2
80°	1227.9	1295.6	1979.6	5907.4	12037.3	12291.1	4130.9	858.1	802.5	606.7	263.5
82.5°	386.7	401.2	923.3	2482.4	4996.2	5112.2	1196.5	485.8	548.7	401.2	154.7
85°	111.2	113.6	410.9	925.8	1235.1	1259.3	336.0	188.5	314.2	249.0	79.8
87.5°	12.1	38.7	154.7	154.7	108.8	106.4	36.3	41.1	89.4	31.4	14.5
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°	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1	4781.1
2.5°	4790.7	4793.2	4761.7	4708.6	4650.5	4602.2	4541.8	4493.4	4459.6	4449.9	4466.8
5°	4824.6	4807.7	4718.2	4556.3	4362.9	4196.1	4010.0	3862.6	3765.9	3724.8	3739.3
7.5°	4875.3	4827.0	4631.2	4312.1	3942.3	3613.6	3280.0	3021.4	2857.0	2774.9	2786.9
10°	4918.8	4822.2	4486.2	3959.2	3393.6	2895.7	2446.1	2134.3	1960.3	1878.1	1880.5
12.5°	4959.9	4819.7	4297.6	3541.1	2774.9	2165.7	1747.6	1592.9	1544.5	1527.6	1522.8
15°	5037.3	4827.0	4060.8	3062.5	2158.5	1636.4	1484.1	1481.7	1491.4	1486.5	1484.1
17.5°	5143.6	4834.2	3792.5	2554.9	1665.4	1443.0	1435.8	1457.5	1472.0	1464.8	1462.4
20°	5281.4	4863.2	3507.2	2052.1	1430.9	1394.7	1411.6	1430.9	1443.0	1430.9	1428.5
22.5°	5474.8	4914.0	3195.4	1648.5	1356.0	1365.7	1380.2	1401.9	1414.0	1397.1	1394.7
25°	5711.7	4993.8	2888.5	1433.4	1319.7	1331.8	1353.6	1377.8	1392.3	1375.3	1372.9
27.5°	6018.6	5121.9	2605.7	1385.0	1283.5	1290.7	1322.2	1358.4	1377.8	1356.0	1356.0
30°	6463.4	5332.2	2361.5	1406.8	1261.7	1244.8	1288.3	1339.1	1360.8	1341.5	1339.1
32.5°	7053.2	5629.5	2211.7	1440.6	1252.1	1191.6	1232.7	1298.0	1334.3	1322.2	1322.2
35°	7826.6	6081.5	2153.7	1479.3	1244.8	1136.0	1165.1	1235.1	1298.0	1310.1	1310.1
37.5°	8764.5	6709.9	2170.6	1496.2	1223.1	1090.1	1104.6	1165.1	1247.2	1285.9	1295.6
40°	9830.4	7442.3	2267.3	1479.3	1198.9	1051.4	1053.9	1099.8	1172.3	1230.3	1249.7
42.5°	10930.2	8298.0	2446.1	1416.4	1177.1	1017.6	1010.4	1041.8	1090.1	1131.2	1148.1
45°	11976.8	9177.8	2622.6	1329.4	1150.6	983.8	966.8	978.9	988.6	1005.5	1015.2
47.5°	12890.5	9796.6	2571.8	1249.7	1114.3	945.1	916.1	911.3	882.2	879.8	877.4
50°	13521.4	9932.0	2284.2	1169.9	1061.1	901.6	855.7	826.7	775.9	751.7	754.1
52.5°	13722.0	9397.8	1866.0	1090.1	974.1	843.6	778.3	732.4	669.5	647.8	645.4
55°	13456.1	8351.2	1491.4	993.4	853.2	766.2	693.7	633.3	582.5	555.9	555.9
57.5°	12805.9	7019.3	1179.6	879.8	725.1	679.2	606.7	546.3	502.8	476.2	471.3
60°	11727.9	5573.9	933.0	744.5	618.8	584.9	510.0	471.3	432.7	401.2	394.0
62.5°	10091.5	3978.6	732.4	589.8	517.3	478.6	435.1	406.1	360.2	316.6	309.4
65°	7875.0	2434.0	565.6	432.7	415.7	396.4	369.8	343.2	287.6	244.1	236.9
67.5°	4967.2	1153.0	403.7	326.3	328.7	319.1	307.0	285.2	244.1	205.5	200.6
70°	2187.5	558.4	265.9	249.0	244.1	244.1	253.8	246.5	207.9	171.6	164.4
72.5°	744.5	299.7	198.2	188.5	176.4	174.0	212.7	205.5	166.8	132.9	125.7
75°	389.2	200.6	145.0	135.4	106.4	128.1	169.2	159.5	118.4	87.0	79.8
77.5°	253.8	142.6	99.1	87.0	60.4	84.6	125.7	111.2	70.1	43.5	38.7
80°	159.5	94.3	58.0	41.1	29.0	45.9	67.7	48.3	26.6	9.7	7.3
82.5°	84.6	48.3	21.8	14.5	12.1	14.5	16.9	12.1	4.8	0.0	0.0
85°	33.8	16.9	7.3	4.8	2.4	0.0	4.8	2.4	0.0	0.0	0.0
87.5°	12.1	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)