

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: P967392

Luminaire Tested: **NAV-SB4D-835-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967392
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-835-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39293.4 lumens
Efficiency: N/A
Efficacy: 133.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

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

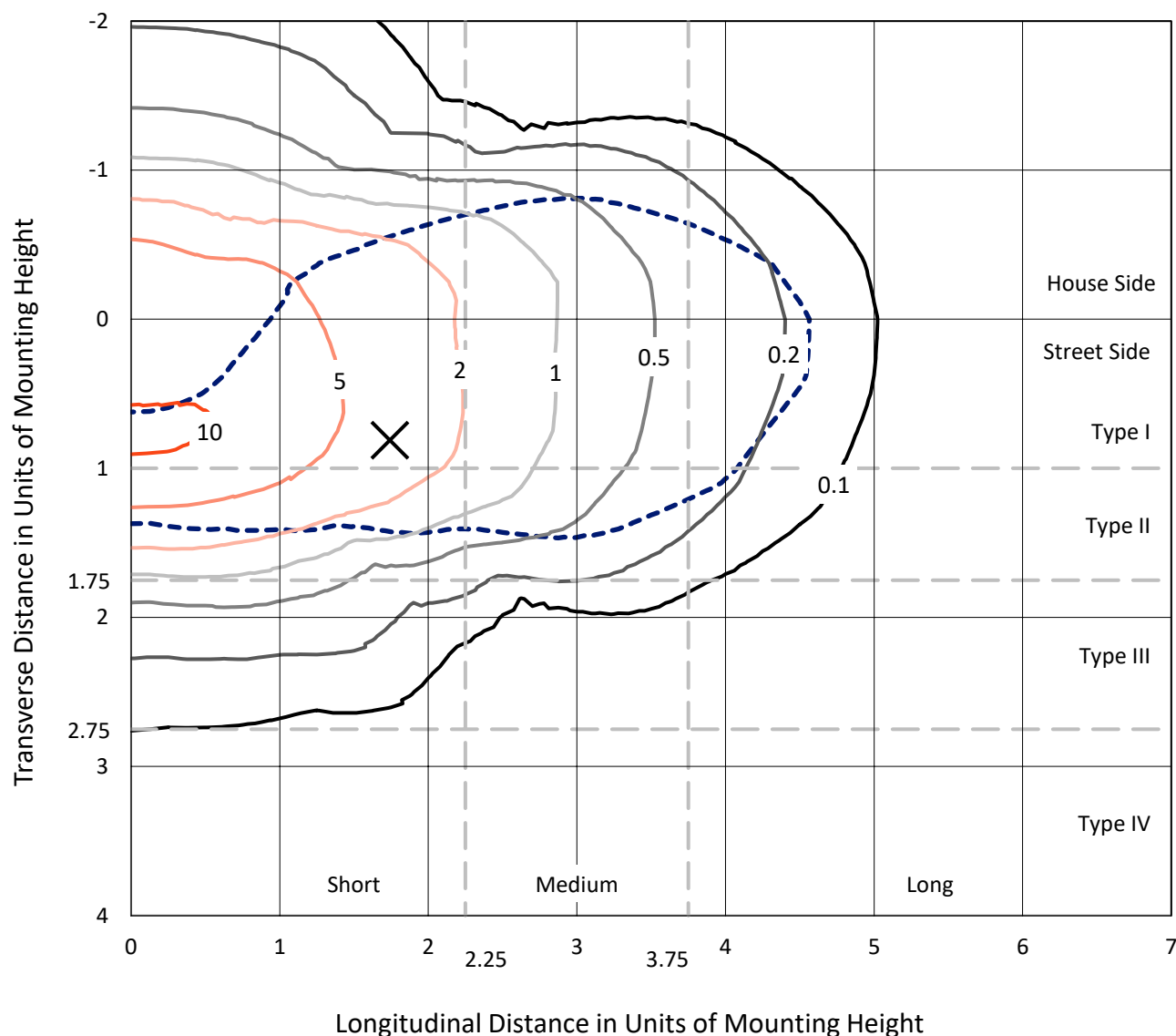


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd



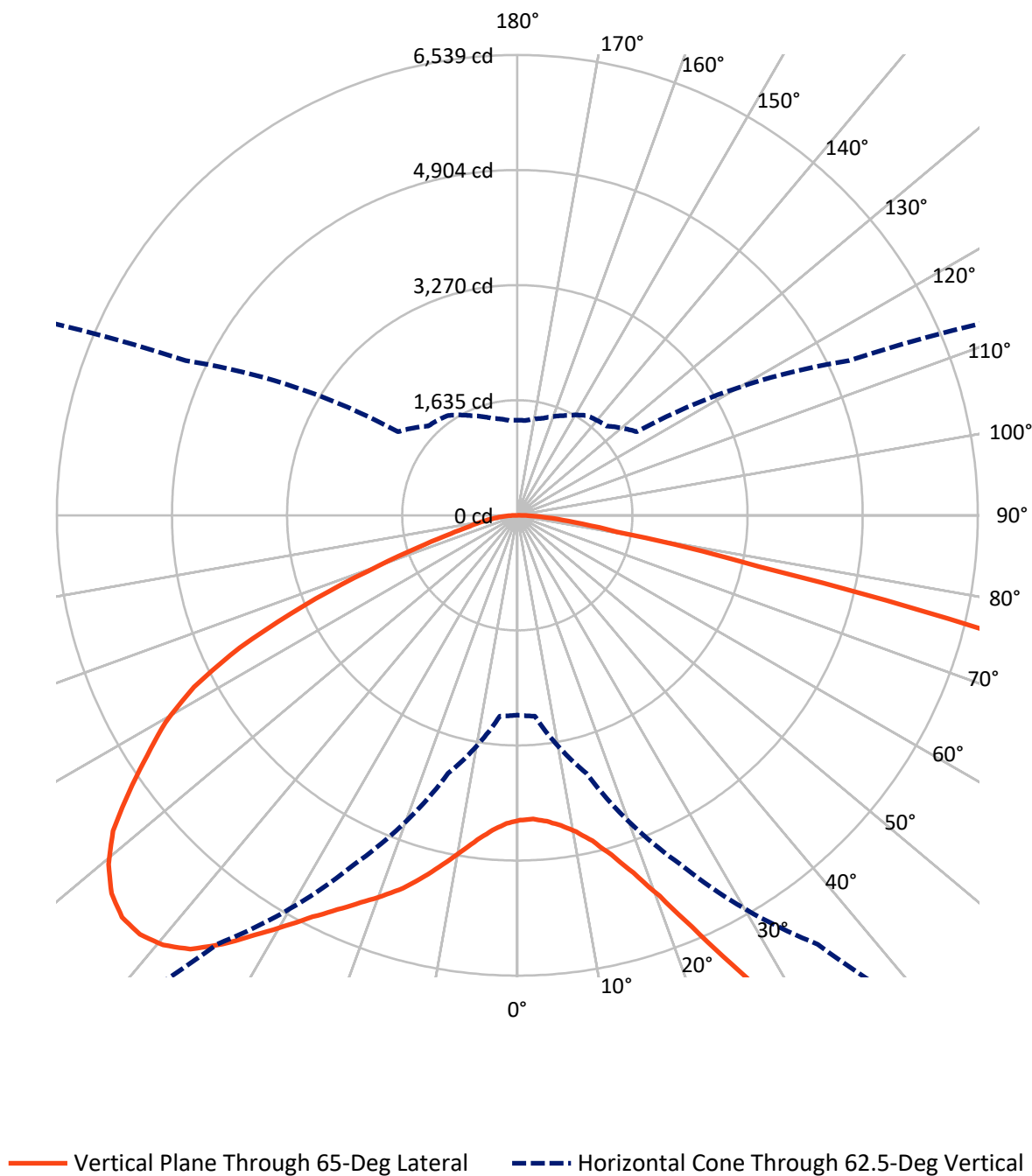
Based on 25 foot mounting height. Maximum calculated value = 11 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12399.3	0.0	12399.3
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	26894.1	0.0	26894.1
	% Fixture	68.4	0.0	68.4
Total	Lumens	39293.4	0.0	39293.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	431.7	1.1
10°-20°	1463.9	3.7
20°-30°	2968.2	7.6
30°-40°	5136.5	13.1
40°-50°	7773.1	19.8
50°-60°	9113.4	23.2
60°-70°	7640.5	19.4
70°-80°	4218.2	10.7
80°-90°	547.9	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°	39293.4	100.0
0°-180°	39293.4	100.0

Coefficient of Utilization



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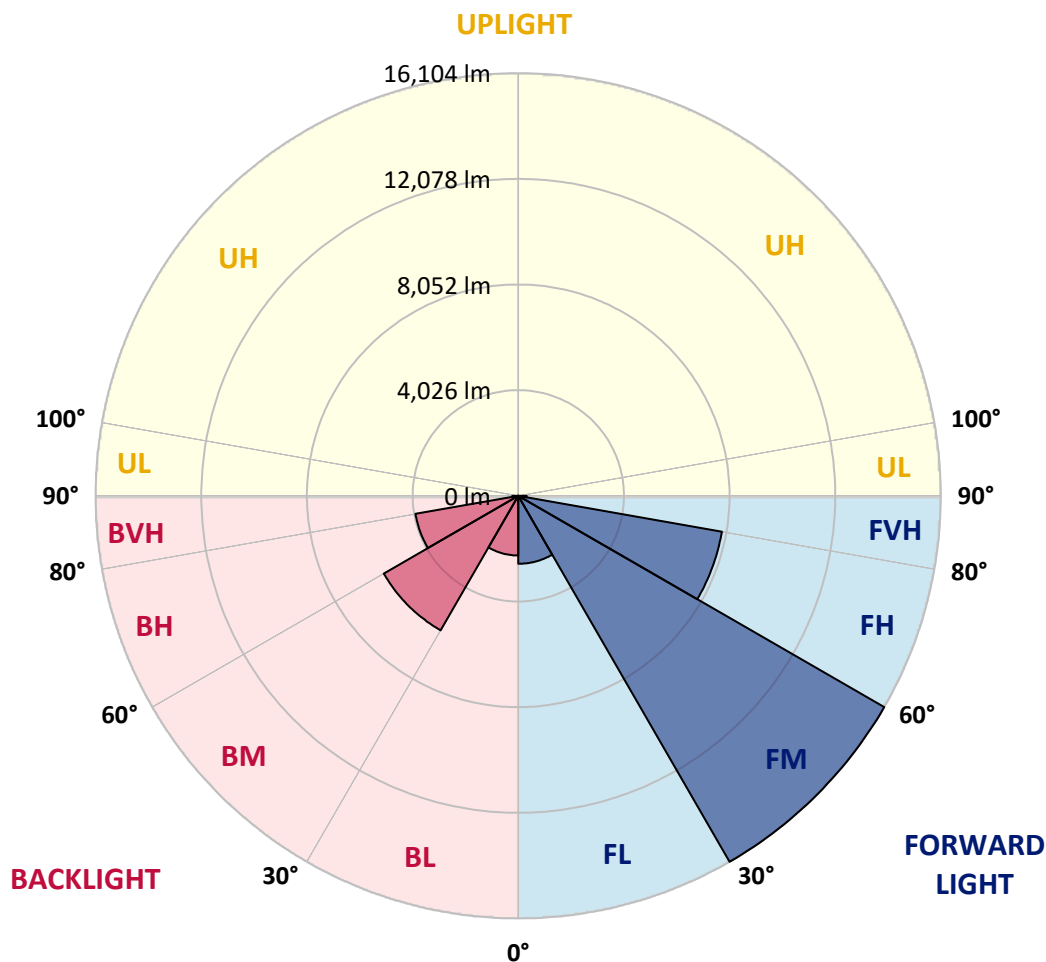
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2590.0	6.6			
FM	(30°-60°)	16103.7	41.0			
FH	(60°-80°)	7881.1	20.1			G4/12000
FVH	(80°-90°)	319.3	0.8			G3/500
BL	(0°-30°)	2273.9	5.8	B3/2500		
BM	(30°-60°)	5919.2	15.1	B4/8500		
BH	(60°-80°)	3977.6	10.1	B4/5000		G4/5000
BVH	(80°-90°)	228.6	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0
2.5°	4301.4	4289.2	4299.4	4299.4	4303.5	4301.4	4315.7	4319.8	4325.9	4338.1	4338.1
5°	4258.6	4256.6	4275.0	4291.3	4307.6	4321.8	4340.2	4366.7	4370.7	4385.1	4403.3
7.5°	4244.3	4232.1	4260.6	4281.0	4319.8	4354.4	4403.3	4448.2	4466.5	4472.7	4507.3
10°	4354.4	4334.0	4360.6	4372.8	4405.3	4440.0	4497.1	4568.4	4588.8	4613.3	4652.1
12.5°	4542.0	4519.5	4558.3	4576.6	4607.2	4637.8	4676.6	4745.9	4756.0	4800.9	4837.6
15°	4798.8	4772.3	4796.8	4819.2	4870.2	4898.7	4937.4	5004.8	5004.8	5039.4	5065.9
17.5°	5147.4	5112.8	5131.2	5139.2	5171.9	5214.7	5280.0	5339.0	5369.7	5357.4	5320.7
20°	5667.2	5624.5	5624.5	5583.7	5571.5	5606.1	5691.7	5773.3	5805.9	5742.7	5653.0
22.5°	6448.1	6386.9	6352.2	6213.7	6158.6	6162.6	6248.3	6348.1	6374.7	6262.5	6060.7
25°	7440.9	7345.0	7298.1	7094.3	6969.9	6861.9	6929.2	7057.6	7094.3	6955.6	6629.5
27.5°	8433.6	8439.7	8394.9	8150.3	7944.4	7746.6	7712.0	7846.5	7885.2	7728.3	7324.6
30°	9826.0	9681.2	9595.6	9302.1	9008.5	8731.3	8588.6	8643.6	8653.8	8466.3	7997.4
32.5°	11026.7	10990.0	10806.6	10549.7	10172.5	9738.3	9499.8	9412.2	9395.9	9128.8	8572.3
35°	12394.6	12374.2	12180.6	11874.7	11467.1	10863.7	10433.5	10182.8	10162.4	9787.2	9141.1
37.5°	13784.9	13784.9	13595.3	13261.0	12839.0	12084.7	11430.4	11032.8	10967.6	10478.4	9720.0
40°	14894.0	14826.6	14861.3	14720.6	14237.5	13436.3	12537.3	11960.4	11872.8	11285.7	10335.6
42.5°	15523.8	15501.4	15709.4	15866.3	15668.6	15028.4	13756.4	12965.4	12843.1	12174.4	11045.1
45°	15664.5	15640.1	16011.1	16585.9	16863.2	16600.2	15081.4	14023.4	13874.6	13104.0	11805.4
47.5°	15340.4	15291.5	15835.7	16743.0	17631.7	18094.5	16516.6	15171.1	14955.1	14009.2	12586.3
50°	14365.9	14319.0	15142.6	16347.4	17890.7	19109.7	18074.1	16388.2	16058.0	14979.6	13375.1
52.5°	12247.8	12270.3	13560.6	15216.0	17550.2	19741.7	19415.6	17670.5	17273.0	15972.4	14115.2
55°	9540.6	9589.5	11175.6	12998.0	16188.4	19645.9	20330.9	18991.5	18596.0	16906.0	14879.6
57.5°	6831.3	7047.4	8533.5	10337.6	13572.9	18127.1	20530.6	20247.2	19864.0	17925.3	15627.8
60°	4427.8	4466.5	5995.5	7813.9	10335.6	15428.0	20125.0	21199.3	20899.6	18965.0	16253.6
62.5°	2837.7	2864.3	3795.9	5465.4	7438.8	11414.1	18759.0	21613.1	21521.4	19652.0	16855.0
65°	2085.5	2065.1	2550.3	3612.4	5010.8	7039.3	16106.8	21413.3	21594.8	20082.1	17352.4
67.5°	1741.0	1712.4	1950.9	2501.3	3691.8	3997.7	11917.6	20114.7	20779.3	20033.2	17717.3
70°	1586.0	1561.6	1706.3	1857.2	2880.6	2676.7	6007.7	17487.0	18510.4	19476.6	17658.3
72.5°	1343.5	1300.6	1498.3	1649.2	2240.4	2052.9	2483.0	13432.2	14679.8	17692.9	16826.5
75°	1041.7	1013.2	1182.3	1451.5	1683.9	1602.3	1569.7	8156.4	9518.2	13683.0	14720.6
77.5°	825.6	786.9	941.9	1131.4	1514.6	1208.9	1143.7	3512.5	4862.0	8735.4	11014.4
80°	621.8	587.1	715.6	894.9	1164.0	911.2	740.0	1433.2	1832.7	4425.7	5538.8
82.5°	442.4	411.8	499.5	656.4	782.8	817.4	454.6	803.2	903.1	1706.3	1237.4
85°	283.4	265.1	334.4	411.8	497.4	525.9	277.3	419.9	460.7	703.4	515.8
87.5°	155.0	126.4	179.4	191.7	230.3	210.0	132.5	152.9	165.1	254.8	218.1
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°	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0	4330.0
2.5°	4346.3	4352.4	4372.8	4378.9	4393.2	4411.5	4423.7	4436.0	4436.0	4448.2	4448.2
5°	4405.3	4419.7	4462.4	4484.9	4521.6	4558.3	4580.7	4607.2	4623.5	4631.7	4635.8
7.5°	4519.5	4542.0	4603.2	4641.8	4705.1	4756.0	4790.6	4827.3	4835.5	4858.0	4849.8
10°	4674.5	4701.0	4770.2	4843.6	4919.1	4982.3	5014.9	5041.5	5051.6	5055.7	5045.5
12.5°	4851.8	4890.6	4980.3	5070.0	5149.5	5204.5	5212.6	5206.6	5178.0	5153.6	5153.6
15°	5070.0	5104.6	5204.5	5302.3	5379.8	5390.1	5339.0	5306.4	5271.8	5265.6	5265.6
17.5°	5330.9	5349.3	5441.0	5536.8	5542.9	5508.2	5432.8	5402.3	5369.7	5347.2	5349.3
20°	5634.6	5628.6	5693.8	5734.6	5691.7	5585.7	5471.6	5420.6	5388.0	5361.5	5363.5
22.5°	5997.5	5950.6	5942.4	5932.3	5818.1	5595.9	5441.0	5375.7	5324.8	5288.1	5300.4
25°	6525.6	6346.1	6221.7	6152.5	5895.6	5540.8	5343.1	5198.4	5102.6	5039.4	5063.8
27.5°	7186.1	6884.3	6570.4	6401.1	5895.6	5428.7	5106.7	4872.2	4715.2	4650.0	4682.6
30°	7815.9	7499.9	7037.2	6700.8	5881.3	5245.3	4725.5	4399.3	4215.8	4150.5	4189.3
32.5°	8354.2	8009.7	7532.6	7029.0	5846.7	4947.7	4252.5	3891.6	3714.3	3636.8	3675.5
35°	8853.5	8486.6	8030.0	7389.8	5755.0	4511.4	3732.6	3457.4	3259.7	3135.4	3176.2
37.5°	9365.2	8929.0	8500.9	7716.1	5589.8	4001.7	3333.1	3098.7	2866.2	2699.1	2743.9
40°	9921.8	9400.0	9004.4	7909.7	5318.7	3516.6	3023.2	2809.2	2562.5	2385.2	2419.8
42.5°	10572.2	9964.6	9565.1	8009.7	4947.7	3172.1	2821.4	2611.4	2379.0	2234.3	2262.8
45°	11250.9	10586.4	10076.8	8007.6	4533.8	3011.0	2756.1	2548.3	2291.4	2140.5	2165.0
47.5°	11962.5	11236.7	10519.1	7877.1	4175.0	3033.4	2719.4	2411.6	2128.3	1981.5	2001.9
50°	12676.0	11948.1	10947.2	7632.5	4022.1	2984.5	2582.9	2220.0	1885.7	1753.2	1761.4
52.5°	13383.3	12704.5	11316.2	7283.9	3867.2	2803.1	2407.6	1971.3	1785.8	1694.0	1694.0
55°	14094.8	13452.6	11717.8	6776.3	3479.9	2591.0	2114.1	1877.5	1706.3	1622.7	1614.6
57.5°	14808.3	14317.0	12099.0	6268.7	2992.7	2330.1	1952.9	1763.4	1626.8	1555.4	1543.2
60°	15550.4	15305.7	12492.5	5801.8	2511.6	1995.8	1834.7	1671.7	1533.0	1453.6	1447.4
62.5°	16314.8	16394.4	12800.3	5200.4	2069.2	1791.9	1728.8	1561.6	1427.0	1351.6	1349.5
65°	17085.4	17444.2	13002.1	4366.7	1677.7	1598.3	1614.6	1441.3	1304.7	1239.4	1237.4
67.5°	17666.4	18200.5	12945.0	3304.6	1376.1	1414.8	1471.9	1314.9	1186.4	1135.5	1137.5
70°	17731.7	18110.8	12382.4	2262.8	1151.8	1235.4	1312.8	1190.5	1058.0	1021.3	1023.4
72.5°	16863.2	16887.7	10814.7	1477.9	974.5	1084.6	1145.6	1064.2	935.7	899.0	897.0
75°	14586.1	13966.3	7940.3	974.5	815.4	931.6	988.7	931.6	807.3	815.4	786.9
77.5°	11051.1	9891.2	4821.3	693.1	680.9	782.8	860.3	819.5	713.5	801.1	705.3
80°	5693.8	5351.3	2150.8	517.8	538.2	625.9	707.4	654.4	564.7	538.2	491.3
82.5°	1304.7	1516.7	848.1	371.0	389.4	450.5	540.2	491.3	405.7	342.5	338.5
85°	456.6	499.5	375.2	232.4	228.4	281.4	367.0	328.2	275.2	220.2	232.4
87.5°	144.7	189.6	140.6	93.8	97.9	126.4	169.2	155.0	128.4	83.5	87.6
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)