

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: P969321

Luminaire Tested: **NAV-SB5D-735-U-T4FT**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969321
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-735-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52076.2 lumens
Efficiency: N/A
Efficacy: 142.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

Input Watts (W): 364.9
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

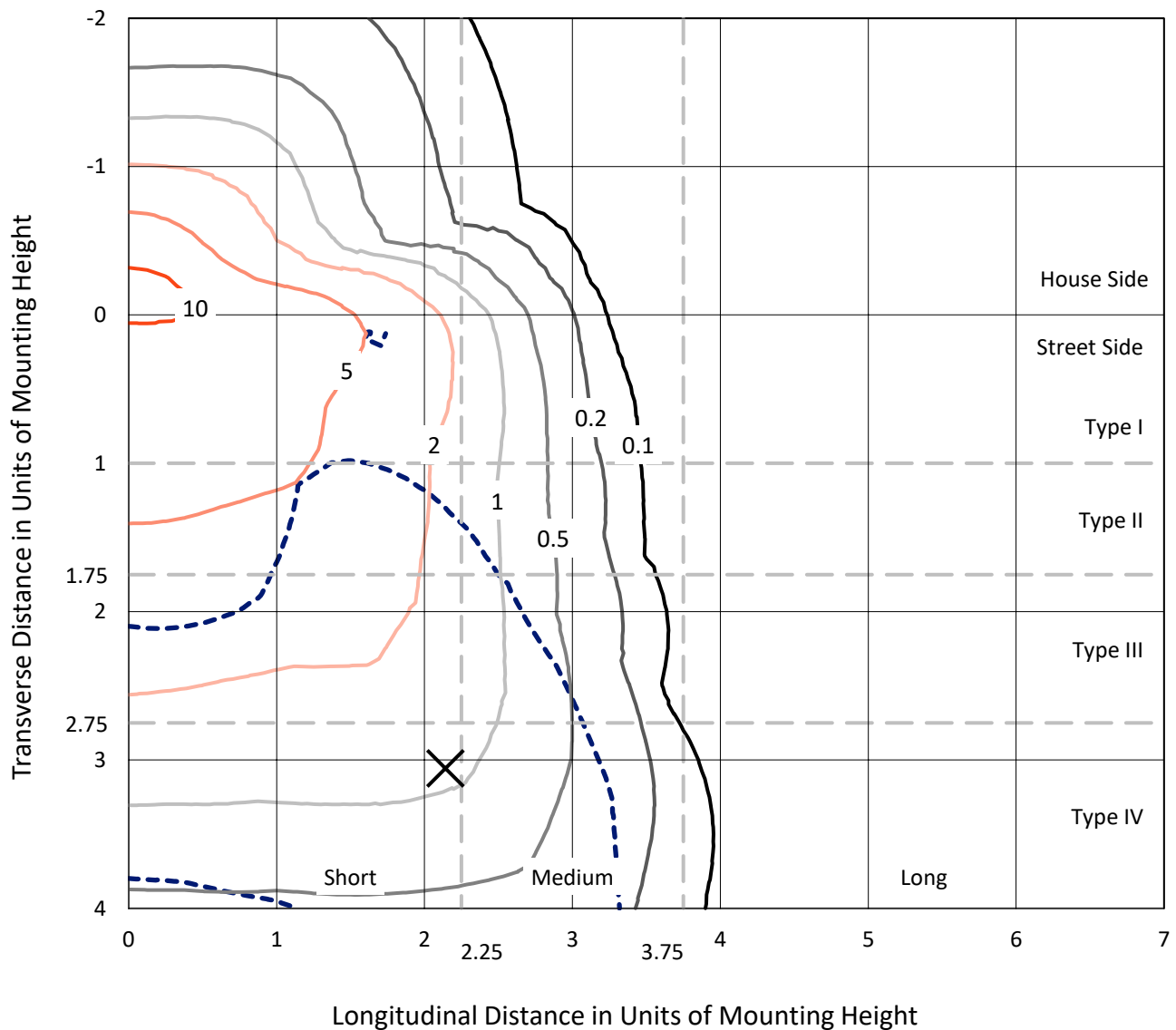


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Iso-Footcandle Lines of Horizontal Illumination

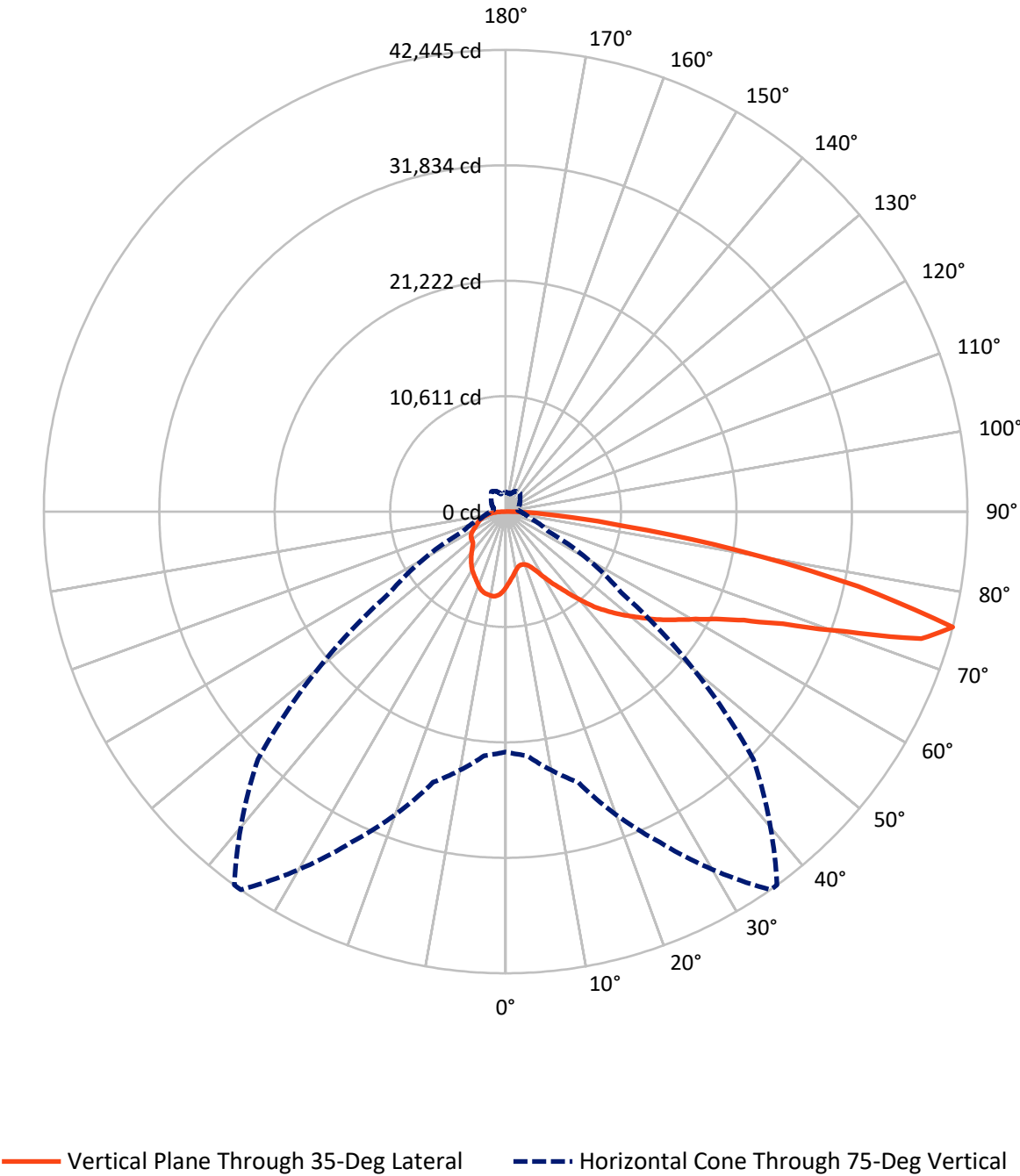
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.3 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12392.8	0.0	12392.8
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	39683.3	0.0	39683.3
	% Fixture	76.2	0.0	76.2
Total	Lumens	52076.2	0.0	52076.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	657.0	1.3
10°-20°	1895.2	3.6
20°-30°	3182.5	6.1
30°-40°	4946.0	9.5
40°-50°	7341.2	14.1
50°-60°	10135.0	19.5
60°-70°	12296.0	23.6
70°-80°	10161.7	19.5
80°-90°	1461.6	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°	52076.2	100.0
0°-180°	52076.2	100.0

Coefficient of Utilization



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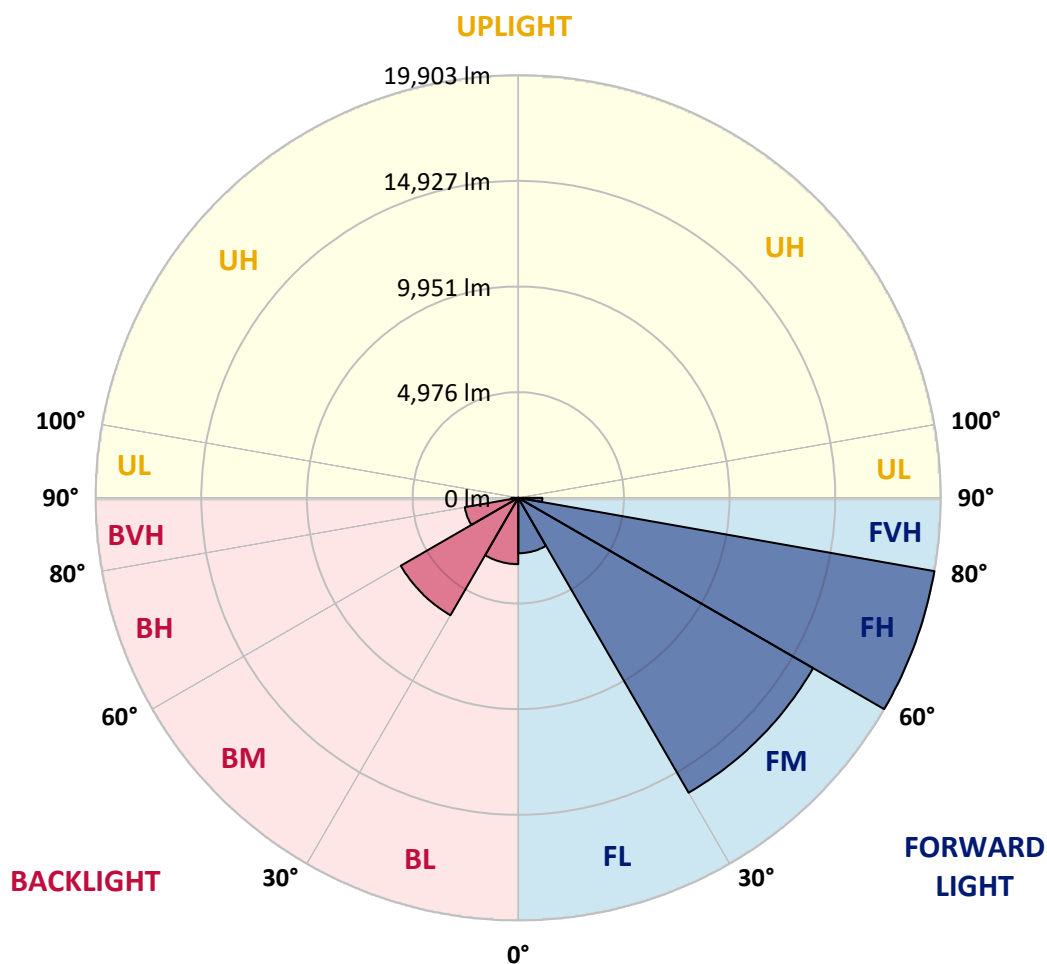
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2611.5	5.0			
FM	(30°-60°)	16036.6	30.8			
FH	(60°-80°)	19902.7	38.2			G5
FVH	(80°-90°)	1132.5	2.2			G5
BL	(0°-30°)	3123.2	6.0	B4/5000		
BM	(30°-60°)	6385.5	12.3	B4/8500		
BH	(60°-80°)	2555.0	4.9	B4/5000		G4/5000
BVH	(80°-90°)	329.1	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-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5
2.5°	6399.0	6438.4	6455.2	6446.8	6489.1	6483.4	6542.6	6615.8	6717.1	6815.6	6959.2
5°	5906.4	5948.6	5985.2	6018.9	6100.6	6125.9	6218.8	6359.6	6545.3	6733.9	6970.5
7.5°	5447.5	5484.1	5540.3	5602.2	5740.2	5765.5	5920.4	6140.0	6399.0	6674.9	7001.5
10°	5073.0	5109.6	5168.8	5239.1	5410.9	5441.8	5638.8	5931.7	6269.5	6618.5	7035.2
12.5°	4912.5	4923.8	4957.6	5027.9	5177.2	5196.9	5413.6	5748.7	6142.8	6576.3	7085.9
15°	4904.1	4926.7	4929.4	4966.0	5089.9	5098.3	5298.2	5630.4	6064.0	6567.9	7161.9
17.5°	4988.6	5005.5	4980.1	5002.6	5106.8	5120.9	5278.5	5574.2	6038.6	6604.5	7291.4
20°	5213.8	5227.8	5151.9	5120.9	5196.9	5208.1	5363.0	5610.7	6064.0	6680.5	7468.8
22.5°	5692.3	5700.8	5515.0	5388.3	5394.0	5399.6	5534.7	5759.9	6162.5	6818.4	7694.0
25°	6438.4	6432.8	6137.2	5892.2	5751.5	5720.5	5810.6	6002.0	6328.6	7001.5	7983.9
27.5°	7311.1	7268.9	6973.3	6607.4	6300.5	6255.4	6235.7	6317.4	6565.1	7243.6	8338.7
30°	8296.5	8257.0	7938.9	7460.4	7035.2	6962.0	6776.2	6733.9	6917.0	7572.9	8831.3
32.5°	9377.5	9352.1	8972.1	8392.2	7823.5	7739.1	7426.5	7313.9	7457.5	8071.3	9518.3
35°	10283.9	10261.5	9946.2	9349.3	8654.0	8549.8	8231.7	8105.0	8178.2	8710.2	10416.3
37.5°	11103.2	11091.9	10821.6	10351.6	9633.7	9507.0	9149.5	9107.2	9093.2	9552.0	11505.7
40°	11863.3	11835.2	11553.6	11305.9	10773.8	10658.4	10343.1	10306.5	10199.5	10588.0	12738.8
42.5°	12705.1	12631.9	12223.6	12108.2	11964.6	11869.0	11680.3	11685.9	11449.5	11756.3	14045.1
45°	13391.9	13349.7	12930.3	12862.7	13017.5	12978.1	13141.4	13183.7	12724.8	12980.9	15402.1
47.5°	14129.5	14090.2	13735.4	13687.5	14107.1	14118.2	14695.4	14709.5	13969.1	14253.4	16761.8
50°	15038.9	14982.5	14630.6	14689.8	15160.0	15202.2	16257.8	16162.1	15114.9	15545.6	18110.2
52.5°	15638.5	15672.2	15596.3	15692.0	16333.9	16373.2	17794.9	17550.0	16249.4	16820.9	19433.4
55°	16080.5	16148.1	16384.5	16604.1	17572.6	17612.0	19244.8	18870.4	17189.7	18003.3	20677.7
57.5°	16649.2	16553.4	16995.4	17423.4	18749.3	18853.4	20655.2	20142.9	18023.0	19022.4	21530.7
60°	17465.6	17398.0	17741.5	18374.9	20066.8	20232.9	22147.3	21288.6	18633.9	19830.4	21696.9
62.5°	19121.0	18952.0	19005.6	19565.7	21727.8	21947.4	23830.7	22288.0	18937.9	20145.7	20807.2
65°	21595.5	21305.5	21035.3	21423.7	24067.2	24284.0	25731.1	23073.5	18825.4	19534.8	18445.3
67.5°	24711.9	24424.8	24092.6	24458.6	27513.0	27684.8	28076.1	23515.4	17938.5	17181.3	14270.4
70°	27282.2	27175.2	27572.2	29078.3	33016.8	33022.4	31082.7	23149.5	15509.0	12181.4	8257.0
72.5°	26941.6	26876.8	28968.6	33624.9	39953.5	39804.3	33928.9	20379.4	10447.2	5495.3	3094.0
75°	22102.3	22521.7	25762.0	33543.2	42444.9	42425.3	32186.3	12955.6	4321.4	2277.5	1599.0
77.5°	11852.1	12516.5	16725.1	24765.4	33135.1	33633.3	22628.7	4532.4	1855.2	1458.3	1106.4
80°	3865.3	4445.2	6666.4	12609.3	21530.7	21437.9	9698.4	1779.2	1269.7	1033.2	765.8
82.5°	1641.2	1708.9	2978.4	5954.2	11049.7	10878.0	3088.3	1021.9	892.5	706.6	472.9
85°	641.9	717.9	1314.7	2753.3	4785.8	4681.7	1114.8	506.8	571.4	461.7	281.6
87.5°	211.2	256.1	470.2	943.1	1489.2	1435.7	273.1	174.6	247.7	211.2	101.4
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°	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5	6939.5
2.5°	6998.6	7043.7	7097.1	7176.0	7243.6	7299.8	7359.0	7395.6	7409.6	7451.9	7449.1
5°	7049.3	7147.8	7280.2	7409.6	7536.3	7612.4	7679.9	7713.6	7744.7	7767.1	7772.8
7.5°	7133.8	7260.4	7468.8	7637.7	7744.7	7806.6	7851.6	7840.3	7851.6	7857.2	7865.7
10°	7207.0	7384.3	7632.0	7792.5	7874.2	7876.9	7865.7	7826.3	7806.6	7809.4	7815.0
12.5°	7294.2	7491.3	7758.7	7893.8	7916.4	7854.5	7806.6	7739.1	7713.6	7702.5	7696.8
15°	7412.5	7637.7	7896.7	7947.3	7891.1	7812.2	7730.6	7620.8	7564.5	7519.4	7533.5
17.5°	7556.0	7803.7	8003.6	7967.0	7846.0	7716.5	7584.2	7418.1	7302.6	7254.8	7257.6
20°	7755.9	7978.3	8085.3	7924.8	7741.8	7544.8	7319.5	7116.9	7009.9	6962.0	6956.4
22.5°	7998.0	8212.0	8164.1	7851.6	7592.6	7277.3	6995.8	6846.6	6793.1	6759.4	6765.0
25°	8287.9	8471.0	8220.4	7744.7	7347.7	6922.6	6705.9	6658.0	6632.7	6607.4	6607.4
27.5°	8665.2	8763.8	8262.6	7586.9	6964.9	6545.3	6466.5	6475.0	6466.5	6424.3	6432.8
30°	9163.5	9143.8	8302.1	7330.8	6525.7	6204.7	6210.4	6247.0	6252.6	6224.4	6238.6
32.5°	9819.5	9619.6	8321.8	6998.6	6106.2	5906.4	5912.0	5951.4	5979.5	5931.7	5954.2
35°	10613.4	10174.2	8290.8	6581.9	5782.4	5622.0	5579.8	5591.0	5599.5	5554.4	5585.4
37.5°	11539.6	10796.3	8152.8	6120.3	5515.0	5343.2	5253.2	5177.2	5132.2	5089.9	5118.0
40°	12555.8	11474.8	7899.5	5669.8	5216.6	5047.7	4912.5	4769.0	4616.9	4560.6	4586.0
42.5°	13620.0	12173.0	7592.6	5239.1	4873.2	4735.2	4591.6	4383.3	4155.2	4039.8	4053.9
45°	14723.6	12888.0	7291.4	4814.0	4521.3	4462.1	4296.0	4045.5	3797.7	3651.4	3640.1
47.5°	15804.6	13563.7	6849.5	4386.1	4191.8	4256.6	4127.1	3896.2	3620.4	3389.5	3364.2
50°	16837.8	14197.1	6125.9	3952.6	3924.4	4194.7	4070.8	3738.6	3423.3	3127.7	3102.4
52.5°	17862.6	14709.5	5199.7	3558.4	3780.8	4177.8	3997.6	3631.6	3246.0	2936.3	2902.5
55°	18732.4	14974.1	4307.3	3220.7	3572.5	4034.2	3910.4	3505.0	2995.4	2666.0	2637.8
57.5°	19227.9	14760.2	3564.0	2888.4	3285.3	3797.7	3761.1	3234.7	2697.0	2443.6	2409.8
60°	19014.0	13893.1	2956.0	2598.5	3012.3	3541.6	3502.1	2967.3	2468.9	2229.7	2195.9
62.5°	17834.4	12240.6	2474.6	2345.1	2764.5	3279.7	3243.1	2761.8	2294.4	2063.5	2026.9
65°	15458.3	9957.4	2100.1	2133.9	2514.0	2964.4	3017.9	2590.0	2156.5	1931.2	1894.6
67.5°	11790.1	7212.6	1807.4	1951.0	2269.0	2654.7	2809.6	2466.1	2041.0	1827.1	1793.3
70°	6719.9	4096.1	1559.6	1773.6	2052.3	2367.5	2649.1	2367.5	1917.2	1739.8	1717.3
72.5°	2547.7	1880.6	1348.5	1596.2	1844.0	2125.4	2471.8	2212.8	1773.6	1641.2	1618.8
75°	1359.8	1145.7	1134.6	1387.8	1604.6	1889.0	2249.4	2060.8	1666.6	1734.2	1790.5
77.5°	926.2	810.8	948.7	1188.0	1342.9	1627.2	2012.9	1829.9	1444.2	1438.6	1325.9
80°	641.9	574.3	771.4	957.1	1038.8	1368.2	1756.6	1570.9	1176.8	1098.0	1050.1
82.5°	385.7	374.4	577.1	715.0	734.7	1055.8	1455.5	1317.5	962.8	839.0	844.6
85°	211.2	222.4	368.8	419.4	427.9	737.6	1140.2	1019.2	740.4	622.2	627.8
87.5°	59.1	76.1	135.1	166.0	205.5	382.8	678.4	605.3	371.6	259.0	259.0
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)