

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: P969312

Luminaire Tested: **NAV-SB5D-735-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969312
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-735-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 53665.9 lumens
Efficiency: N/A
Efficacy: 147.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
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



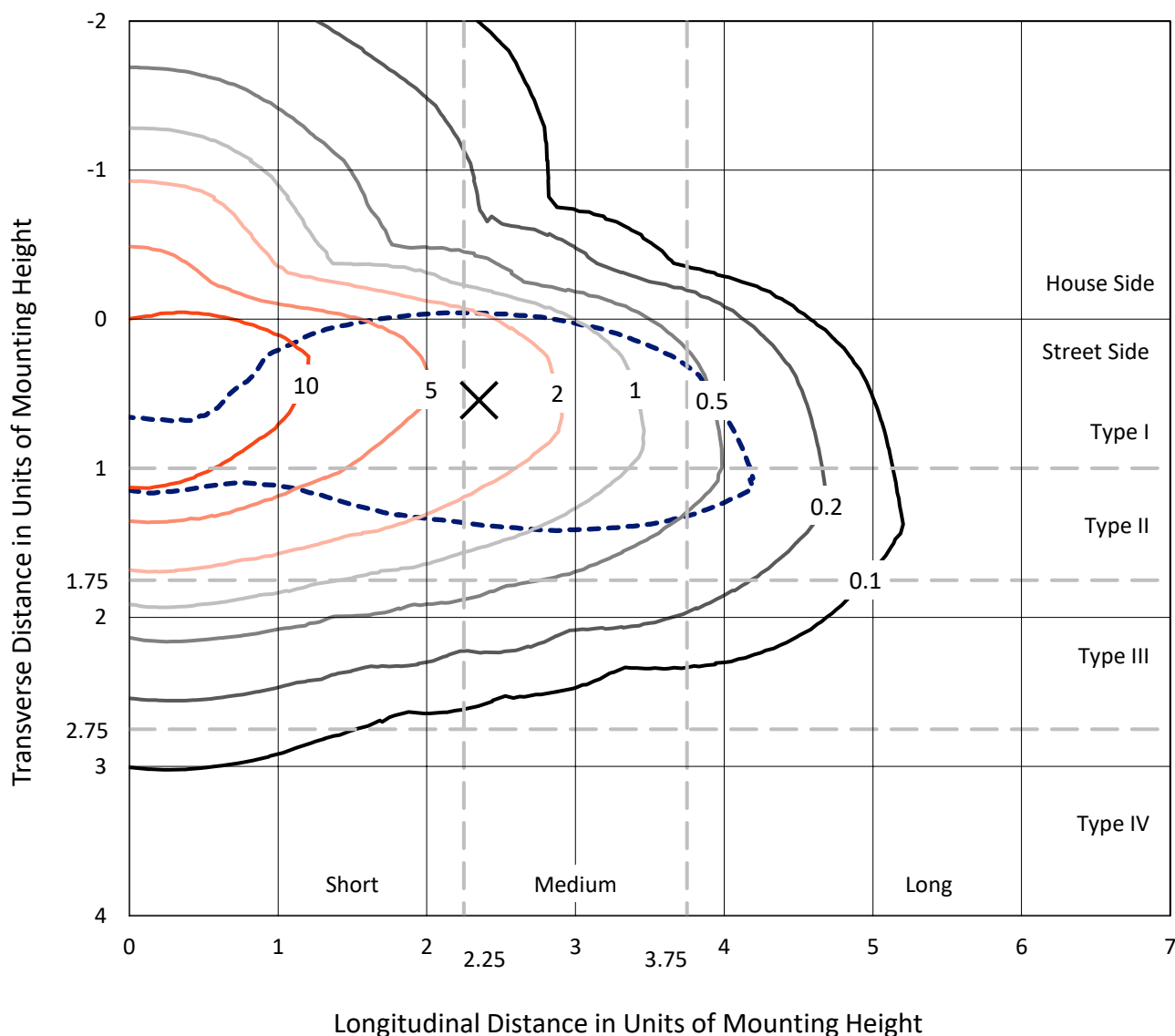
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

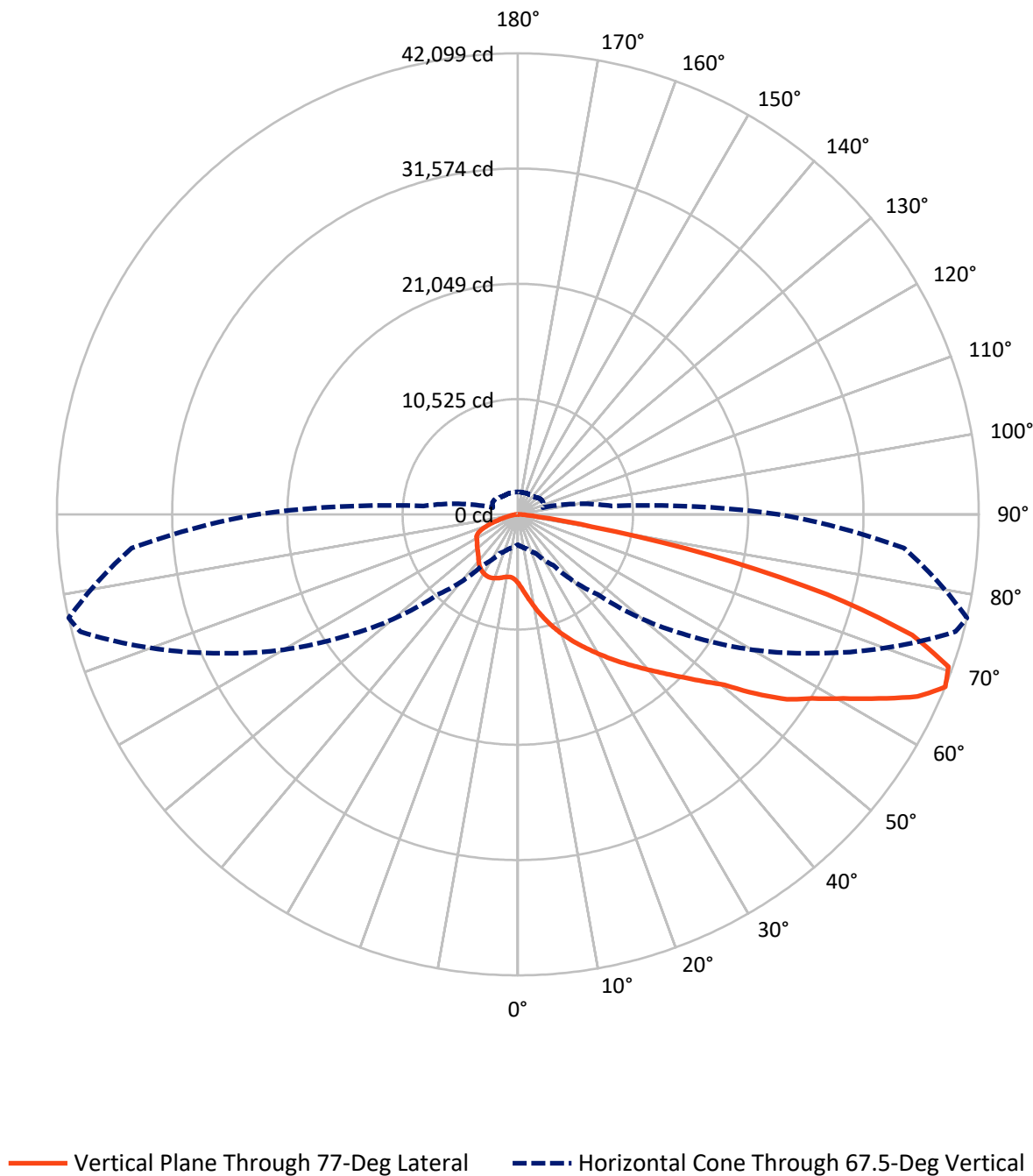
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 19.7 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10151.4	0.0	10151.4
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	43514.5	0.0	43514.5
	% Fixture	81.1	0.0	81.1
Total	Lumens	53665.9	0.0	53665.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	674.9	1.3
10°-20°	2424.7	4.5
20°-30°	4578.1	8.5
30°-40°	7375.2	13.7
40°-50°	10088.0	18.8
50°-60°	11379.3	21.2
60°-70°	10621.2	19.8
70°-80°	5822.2	10.8
80°-90°	702.3	1.3
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°	53665.9	100.0
0°-180°	53665.9	100.0

Coefficient of Utilization



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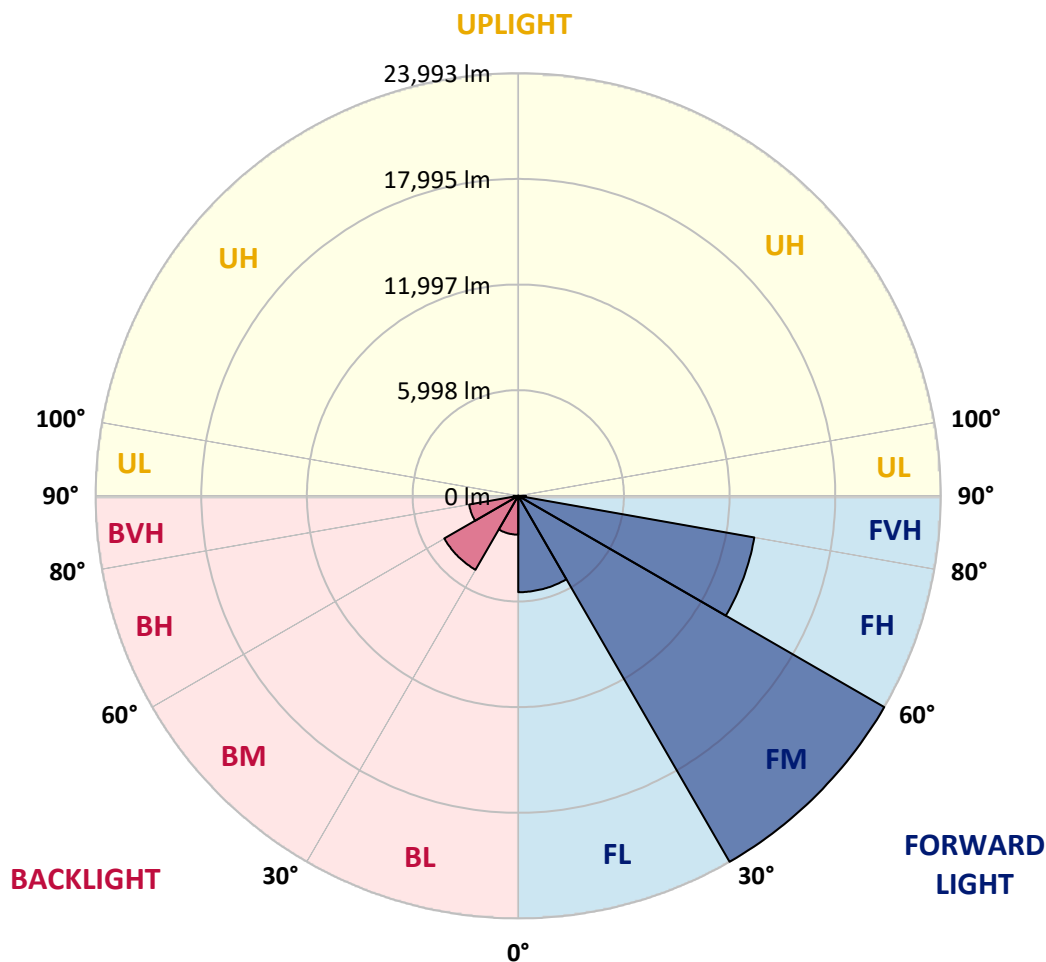
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5470.6	10.2			
FM	(30°-60°)	23993.4	44.7			
FH	(60°-80°)	13611.3	25.4			G5
FVH	(80°-90°)	439.2	0.8			G3/500
BL	(0°-30°)	2207.2	4.1	B3/2500		
BM	(30°-60°)	4849.1	9.0	B3/5000		
BH	(60°-80°)	2832.1	5.3	B4/5000		G4/5000
BVH	(80°-90°)	263.1	0.5			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 II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7
2.5°	7884.0	7939.4	7870.2	7870.2	7637.5	7515.6	7282.8	7105.6	6787.0	6731.6	6521.0
5°	9319.0	9388.2	9291.3	9249.7	8975.5	8723.4	8332.7	7947.7	7379.8	7321.7	6825.8
7.5°	10429.8	10518.4	10432.6	10388.3	10144.5	9861.9	9404.9	8867.5	8066.9	7953.3	7235.8
10°	11335.7	11349.5	11321.8	11338.4	11147.3	10914.6	10446.5	9820.4	8820.3	8665.2	7731.7
12.5°	11848.2	11911.9	11967.3	12067.0	12033.8	11889.7	11468.6	10720.7	9618.2	9418.7	8271.9
15°	12089.2	12200.0	12324.6	12554.6	12740.1	12776.2	12454.9	11687.5	10429.8	10188.8	8817.6
17.5°	12175.1	12280.3	12477.0	12809.4	13208.4	13477.0	13333.0	12626.6	11233.2	10956.1	9391.0
20°	12610.0	12640.5	12759.6	13075.4	13507.6	13953.5	14061.6	13529.7	12028.3	11715.2	9983.8
22.5°	13540.8	13479.9	13513.1	13657.1	13967.4	14399.5	14646.1	14327.6	12845.4	12485.3	10582.2
25°	15078.3	14900.9	14723.6	14557.5	14715.3	14959.2	15238.9	15125.3	13701.5	13244.3	11186.1
27.5°	17020.1	16804.1	16413.4	15867.7	15676.6	15762.4	15887.1	15865.0	14493.7	14031.1	11809.4
30°	18931.5	18679.5	18214.1	17424.6	16920.4	16693.3	16599.1	16535.4	15355.2	14862.2	12438.3
32.5°	20458.0	20258.5	19801.5	18917.7	18186.4	17798.6	17485.6	17258.4	16255.6	15762.4	13103.1
35°	21793.2	21607.6	21084.0	20120.0	19324.9	18912.2	18502.2	18017.4	17191.9	16693.3	13817.8
37.5°	23012.1	22826.5	22109.0	21106.2	20305.7	20020.3	19654.6	18831.9	18131.0	17660.0	14574.1
40°	23782.3	23740.6	23070.3	21934.5	21103.4	20962.2	20840.3	19776.6	19172.6	18734.9	15405.1
42.5°	23979.0	24070.3	23538.4	22604.8	21812.6	21699.0	21984.4	20845.8	20341.6	19923.3	16347.0
45°	23505.2	23768.4	23419.3	22784.9	22316.8	22255.8	22998.2	22014.8	21635.3	21253.1	17482.8
47.5°	22305.7	22751.7	22607.7	22519.0	22452.5	22715.7	23890.3	23255.9	23100.7	22768.3	18779.2
50°	19884.6	20729.5	20981.5	21541.1	22183.8	23073.1	24701.9	24610.6	24812.8	24477.5	20358.2
52.5°	15698.8	16862.3	18324.9	19726.6	21358.3	22954.0	25593.9	26555.2	27408.4	27225.6	22868.1
55°	12959.1	13482.6	14607.3	17178.1	19757.1	22452.5	25995.6	28125.9	29984.7	29821.2	24771.2
57.5°	10853.6	11321.8	12014.4	14161.3	17335.9	21314.0	26244.9	29084.4	31749.4	31732.8	26649.4
60°	8596.0	9091.9	9800.9	11321.8	14507.5	19347.1	26189.6	30175.9	34001.5	34140.0	28940.4
62.5°	6047.4	6593.1	7379.8	8798.2	11618.3	16798.5	25059.3	30965.4	36652.6	37029.4	31696.7
65°	3975.3	4335.3	4928.2	6152.7	8656.9	13521.4	22901.3	31067.9	39489.3	40126.5	34284.1
67.5°	2786.9	2925.4	3274.4	3939.3	5706.6	10368.9	19463.5	30006.9	41381.3	42098.8	35406.1
70°	2174.6	2243.8	2421.2	2687.1	3584.6	6972.6	14914.8	27247.8	40976.9	41724.9	34234.2
72.5°	1878.2	1944.7	2011.2	2044.4	2404.5	4304.9	10102.9	22782.2	37167.8	37674.8	29765.9
75°	1703.7	1720.3	1775.7	1764.6	1833.8	2792.4	5831.3	16599.1	29325.5	29150.9	21973.2
77.5°	1432.2	1454.4	1545.8	1532.0	1628.9	1908.7	3027.8	10712.4	19011.9	17826.3	12230.5
80°	1213.4	1224.5	1324.2	1307.5	1415.5	1382.3	1545.8	5460.1	8064.1	6831.3	3526.5
82.5°	421.1	520.8	1011.2	1041.6	1080.4	836.6	892.1	2227.2	2462.7	1886.5	739.6
85°	205.0	218.8	515.3	731.3	728.6	421.1	434.9	795.1	775.6	609.5	246.5
87.5°	33.2	41.5	61.0	285.4	227.1	110.8	149.5	155.1	160.7	138.5	55.5
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°	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7	6296.7
2.5°	6366.0	6227.4	5936.6	5667.8	5457.3	5255.1	5141.5	5044.5	4989.2	4978.0	4978.0
5°	6537.7	6252.4	5723.3	5277.2	4986.4	4770.2	4656.7	4584.7	4548.6	4526.5	4523.7
7.5°	6784.3	6366.0	5612.5	5105.5	4800.8	4645.6	4587.5	4576.4	4573.7	4576.4	4584.7
10°	7125.0	6551.5	5601.3	5063.9	4809.1	4723.2	4720.4	4723.2	4734.3	4737.0	4739.8
12.5°	7493.4	6742.7	5645.7	5100.0	4914.4	4867.2	4858.9	4856.1	4864.4	4870.0	4872.7
15°	7895.1	6994.8	5720.5	5177.5	5030.7	4980.8	4972.5	4955.9	4953.1	4950.3	4947.6
17.5°	8307.8	7244.1	5803.5	5260.6	5105.5	5036.2	5005.8	4966.9	4936.5	4928.2	4936.5
20°	8726.1	7490.6	5861.8	5302.2	5111.1	5014.1	4953.1	4886.7	4834.0	4803.6	4814.6
22.5°	9172.1	7748.3	5897.7	5291.0	5061.1	4928.2	4817.4	4739.8	4659.4	4606.9	4609.6
25°	9607.1	7972.7	5895.0	5232.9	4964.2	4795.3	4653.9	4554.2	4443.4	4388.0	4388.0
27.5°	10025.4	8174.9	5825.8	5130.4	4825.7	4637.3	4468.4	4349.2	4241.1	4188.6	4185.8
30°	10457.6	8343.9	5717.8	4980.8	4662.2	4454.4	4268.9	4166.4	4069.5	4019.5	4016.8
32.5°	10886.9	8499.0	5565.3	4795.3	4473.9	4274.5	4091.6	3997.4	3939.3	3939.3	3942.0
35°	11341.2	8607.0	5363.1	4579.2	4274.5	4083.3	3939.3	3883.8	3878.3	3845.1	3836.8
37.5°	11820.5	8676.3	5116.6	4357.6	4077.8	3897.7	3853.4	3786.9	3731.5	3659.5	3648.4
40°	12324.6	8745.5	4820.2	4127.6	3870.0	3770.3	3750.9	3662.2	3504.3	3327.0	3302.0
42.5°	12936.8	8792.7	4512.7	3897.7	3651.2	3617.8	3645.6	3493.2	3241.2	3108.2	3111.0
45°	13646.0	8870.2	4230.1	3670.5	3426.8	3426.8	3543.1	3343.7	3135.9	3052.8	3066.6
47.5°	14565.8	9050.2	3967.0	3421.2	3219.0	3274.4	3316.0	3163.6	3047.2	2944.7	2942.0
50°	15895.5	9482.4	3695.4	3169.1	3061.1	3171.9	3113.7	3025.1	2889.4	2806.2	2797.9
52.5°	17546.5	9737.3	3454.5	2942.0	2925.4	3036.2	2953.0	2869.9	2767.4	2656.6	2634.5
55°	18671.2	9784.3	3252.2	2775.7	2833.9	2822.8	2792.4	2717.6	2662.1	2515.4	2518.1
57.5°	19928.9	9878.5	3086.0	2676.1	2775.7	2653.8	2642.8	2579.1	2507.0	2407.3	2374.1
60°	21433.1	10025.4	2942.0	2637.2	2725.9	2543.0	2487.7	2462.7	2390.7	2340.8	2354.6
62.5°	23073.1	10158.4	2795.2	2642.8	2667.7	2435.0	2351.9	2343.6	2299.3	2282.7	2282.7
65°	24192.3	9795.4	2612.3	2637.2	2576.3	2324.2	2218.9	2216.2	2180.2	2174.6	2171.9
67.5°	23801.6	8645.8	2365.8	2559.6	2482.1	2213.4	2097.0	2086.0	2038.8	2041.6	2041.6
70°	21845.8	7005.9	2025.0	2368.6	2365.8	2113.7	1969.6	1933.6	1869.9	1881.0	1892.0
72.5°	18178.1	5191.3	1567.9	2050.0	2180.2	2022.2	1822.8	1764.6	1684.3	1695.4	1692.6
75°	13128.0	3529.3	1141.3	1559.6	1897.6	1914.2	1678.7	1579.0	1482.0	1498.7	1504.2
77.5°	6717.7	2000.1	839.4	1074.8	1490.4	1739.7	1548.6	1415.5	1393.4	1548.6	1526.4
80°	2191.2	1002.9	581.8	753.5	977.8	1423.9	1357.4	1205.0	1199.5	1235.5	1061.0
82.5°	653.7	423.8	374.0	495.9	540.2	1091.4	1171.8	911.4	783.9	825.5	853.2
85°	224.4	205.0	213.3	246.5	257.6	639.9	820.0	603.9	570.6	628.8	620.5
87.5°	52.7	72.1	61.0	55.5	55.5	155.1	318.6	252.0	349.0	232.7	224.4
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)