

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: P969467

Luminaire Tested: **NAV-SB5D-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969467
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-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48222.1 lumens
Efficiency: N/A
Efficacy: 132.2 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

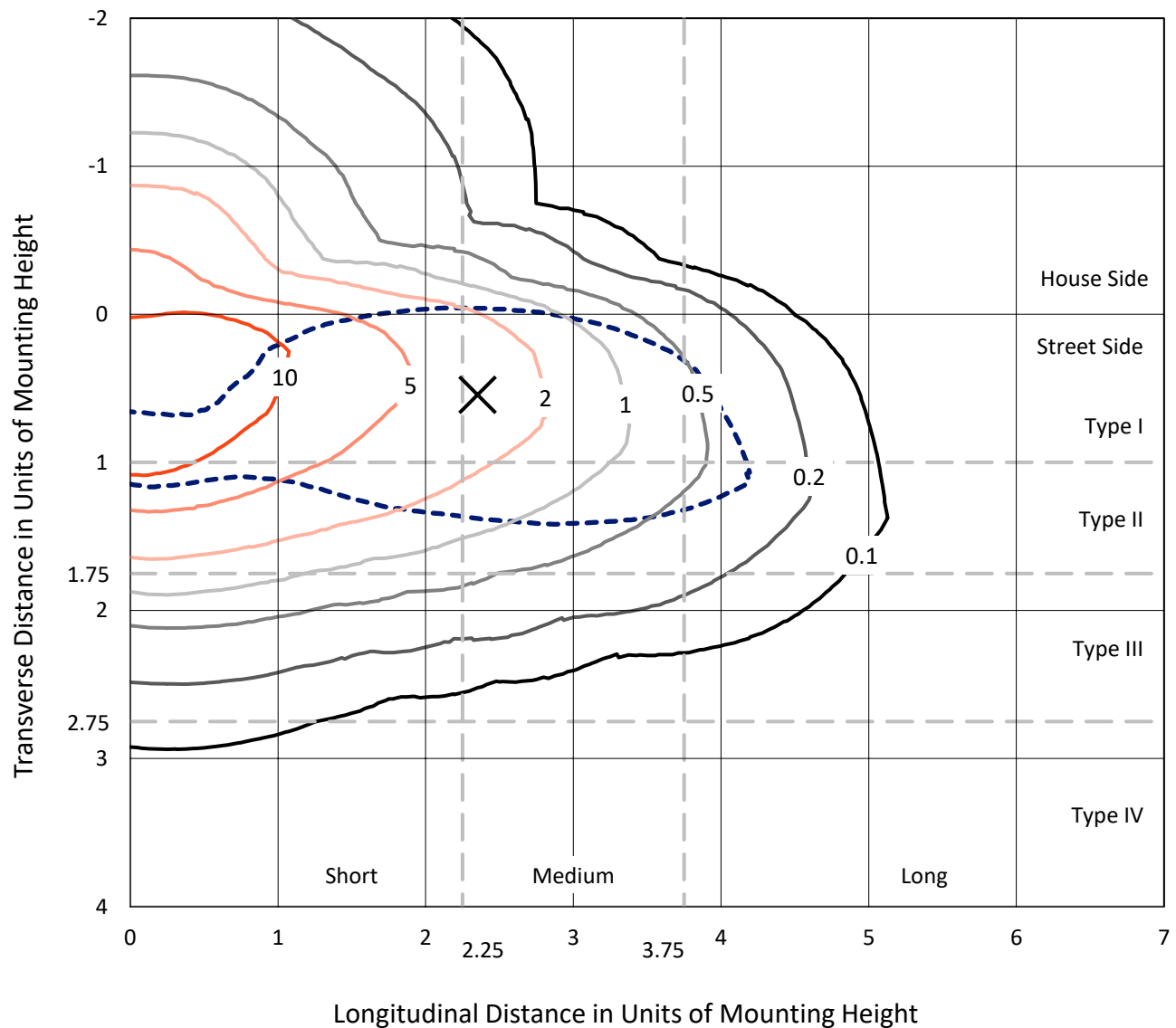


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Iso-Footcandle Lines of Horizontal Illumination

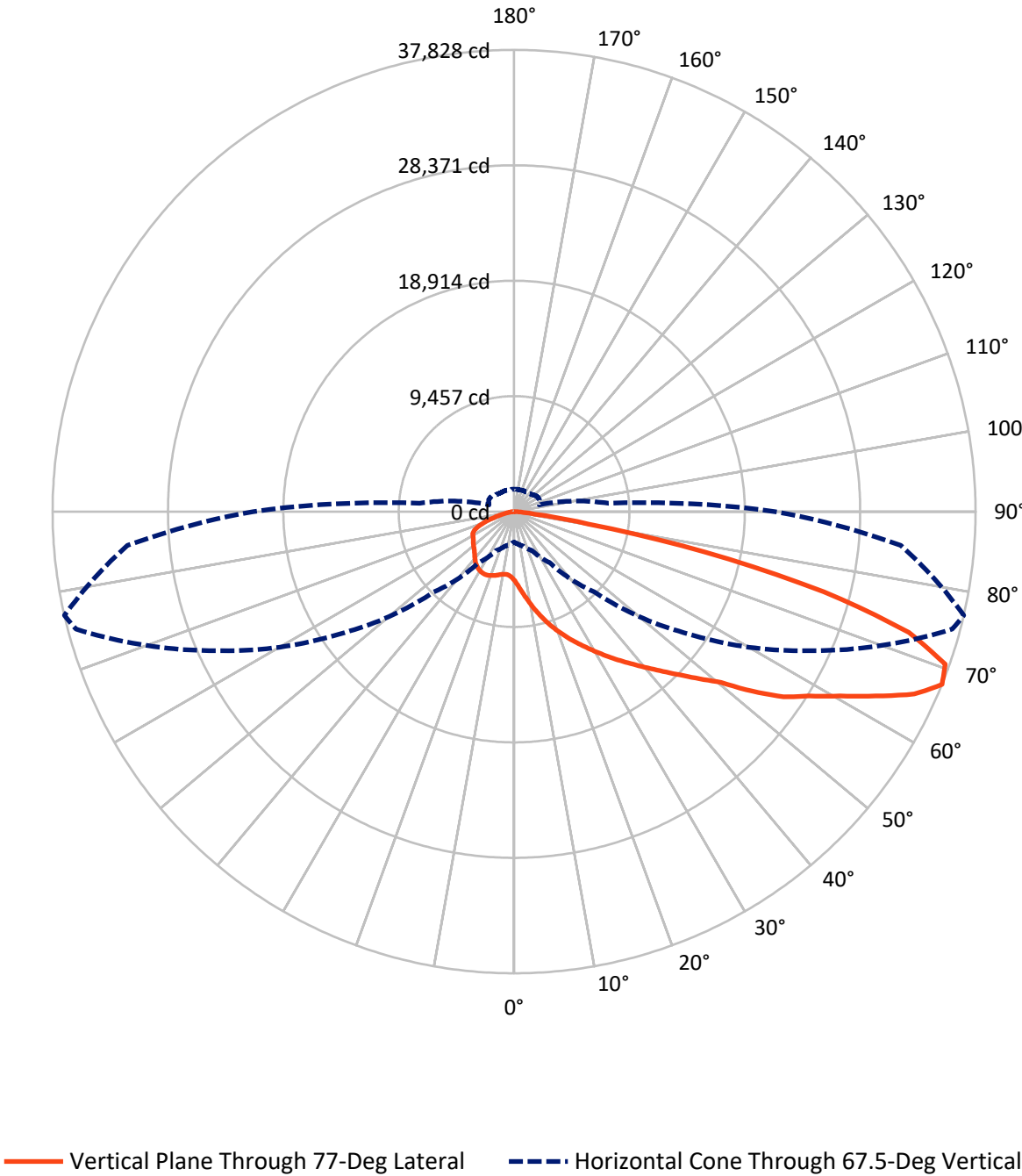
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 17.7 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	9121.7	0.0	9121.7
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	39100.5	0.0	39100.5
	% Fixture	81.1	0.0	81.1
Total	Lumens	48222.1	0.0	48222.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	606.5	1.3
10°-20°	2178.8	4.5
20°-30°	4113.7	8.5
30°-40°	6627.1	13.7
40°-50°	9064.7	18.8
50°-60°	10225.0	21.2
60°-70°	9543.8	19.8
70°-80°	5231.6	10.8
80°-90°	631.0	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°	48222.1	100.0
0°-180°	48222.1	100.0

Coefficient of Utilization



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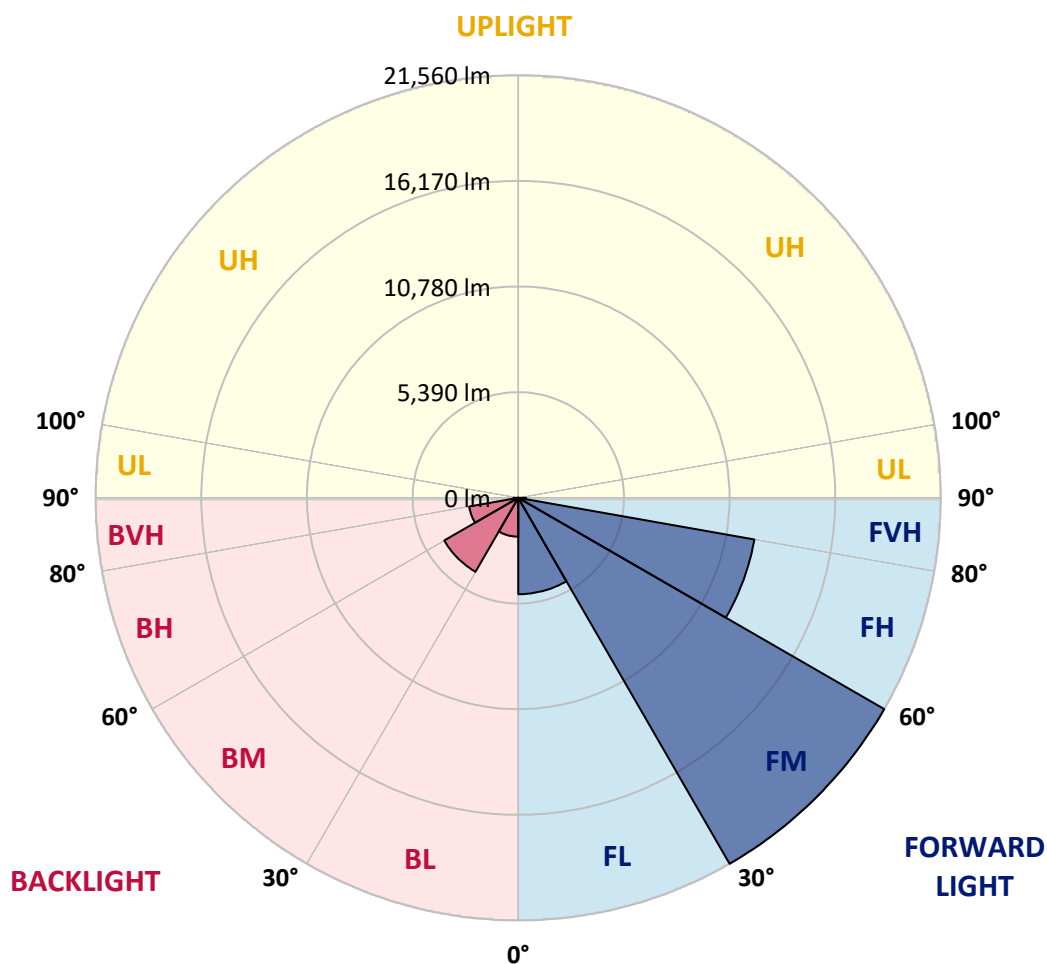
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4915.6	10.2			
FM	(30°-60°)	21559.6	44.7			
FH	(60°-80°)	12230.6	25.4			G5
FVH	(80°-90°)	394.6	0.8			G3/500
BL	(0°-30°)	1983.3	4.1	B3/2500		
BM	(30°-60°)	4357.2	9.0	B3/5000		
BH	(60°-80°)	2544.8	5.3	B4/5000		G4/5000
BVH	(80°-90°)	236.4	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°	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0
2.5°	7084.3	7134.1	7071.8	7071.8	6862.7	6753.2	6544.1	6384.8	6098.5	6048.7	5859.6
5°	8373.6	8436.0	8348.8	8311.4	8065.0	7838.5	7487.5	7141.5	6631.2	6579.0	6133.4
7.5°	9371.9	9451.5	9374.3	9334.5	9115.4	8861.5	8450.8	7967.9	7248.6	7146.5	6501.8
10°	10185.8	10198.2	10173.3	10188.3	10016.5	9807.4	9386.7	8824.2	7925.6	7786.2	6947.3
12.5°	10646.4	10703.6	10753.4	10843.0	10813.1	10683.7	10305.2	9633.3	8642.5	8463.3	7432.8
15°	10862.8	10962.5	11074.5	11281.0	11447.8	11480.2	11191.5	10501.9	9371.9	9155.3	7923.1
17.5°	10940.0	11034.6	11211.3	11510.0	11868.5	12110.0	11980.5	11345.8	10093.7	9844.8	8438.4
20°	11330.9	11358.2	11465.2	11749.1	12137.3	12538.1	12635.2	12157.2	10808.1	10526.9	8971.1
22.5°	12167.3	12112.4	12142.4	12271.8	12550.5	12938.9	13160.4	12874.1	11542.4	11218.8	9508.7
25°	13548.8	13389.4	13230.1	13080.7	13222.6	13441.6	13693.1	13591.1	12311.6	11900.9	10051.4
27.5°	15293.6	15099.5	14748.5	14258.2	14086.4	14163.6	14275.6	14255.7	13023.5	12607.8	10611.5
30°	17011.2	16784.7	16366.5	15657.1	15204.0	15000.0	14915.3	14858.1	13797.6	13354.5	11176.5
32.5°	18382.8	18203.5	17792.8	16998.8	16341.6	15993.1	15711.8	15507.7	14606.7	14163.6	11774.0
35°	19582.5	19415.8	18945.3	18079.1	17364.6	16993.8	16625.4	16189.8	15448.0	15000.0	12416.1
37.5°	20677.8	20511.1	19866.3	18965.3	18245.8	17989.5	17660.9	16921.6	16291.9	15868.6	13095.7
40°	21369.8	21332.5	20730.1	19709.5	18962.7	18835.8	18726.2	17770.4	17227.8	16834.5	13842.4
42.5°	21546.5	21628.6	21150.8	20311.9	19599.9	19498.0	19754.3	18731.3	18278.2	17902.3	14688.8
45°	21120.8	21357.3	21043.8	20473.7	20053.0	19998.3	20665.3	19781.7	19440.7	19097.2	15709.4
47.5°	20043.1	20443.8	20314.4	20234.7	20175.0	20411.4	21466.9	20896.9	20757.5	20458.8	16874.3
50°	17867.5	18626.7	18853.2	19356.0	19933.5	20732.6	22196.2	22114.1	22295.8	21994.6	18293.2
52.5°	14106.4	15151.8	16466.1	17725.6	19191.8	20625.6	22997.7	23861.5	24628.2	24463.9	20548.4
55°	11644.5	12115.0	13125.5	15435.6	17753.0	20175.0	23358.6	25272.9	26943.2	26796.3	22258.5
57.5°	9752.7	10173.3	10795.7	12724.8	15577.4	19151.9	23582.7	26134.1	28528.7	28513.9	23946.2
60°	7724.0	8169.6	8806.8	10173.3	13035.9	17384.6	23532.9	27114.8	30552.5	30676.9	26004.7
62.5°	5433.9	5924.3	6631.2	7905.7	10439.7	15094.6	22517.3	27824.3	32934.6	33273.1	28481.5
65°	3572.0	3895.6	4428.3	5528.5	7778.7	12149.8	20578.2	27916.4	35483.6	36056.1	30806.4
67.5°	2504.2	2628.6	2942.3	3539.6	5127.8	9317.0	17489.2	26963.0	37183.7	37828.4	31814.5
70°	1954.1	2016.3	2175.6	2414.5	3221.1	6265.3	13401.9	24483.8	36820.3	37492.3	30761.6
72.5°	1687.7	1747.4	1807.2	1837.0	2160.6	3868.2	9078.1	20471.2	33397.6	33853.2	26746.5
75°	1530.8	1545.8	1595.6	1585.6	1647.9	2509.1	5239.8	14915.3	26350.7	26193.9	19744.4
77.5°	1286.9	1306.9	1389.0	1376.6	1463.7	1715.0	2720.7	9625.8	17083.4	16018.0	10989.8
80°	1090.3	1100.2	1189.8	1174.9	1272.0	1242.1	1389.0	4906.3	7246.0	6138.4	3168.8
82.5°	378.3	468.0	908.6	935.9	970.8	751.7	801.6	2001.3	2212.9	1695.1	664.6
85°	184.2	196.7	463.0	657.1	654.7	378.3	390.8	714.4	697.0	547.7	221.5
87.5°	29.8	37.3	54.7	256.4	204.1	99.5	134.4	139.4	144.4	124.4	49.8
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°	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0	5658.0
2.5°	5720.2	5595.7	5334.4	5092.9	4903.7	4722.0	4620.0	4532.9	4483.0	4473.1	4473.1
5°	5874.5	5618.1	5142.7	4742.0	4480.6	4286.4	4184.4	4119.7	4087.3	4067.4	4064.8
7.5°	6096.1	5720.2	5043.1	4587.6	4313.8	4174.4	4122.1	4112.2	4109.6	4112.2	4119.7
10°	6402.3	5887.0	5033.2	4550.3	4321.3	4244.1	4241.6	4244.1	4254.1	4256.5	4259.0
12.5°	6733.3	6058.7	5073.0	4582.6	4415.8	4373.6	4366.1	4363.5	4371.0	4376.0	4378.5
15°	7094.2	6285.2	5140.2	4652.3	4520.4	4475.6	4468.1	4453.2	4450.7	4448.2	4445.7
17.5°	7465.1	6509.3	5214.9	4727.0	4587.6	4525.4	4498.0	4463.2	4435.8	4428.3	4435.8
20°	7840.9	6730.8	5267.2	4764.3	4592.6	4505.5	4450.7	4391.0	4343.6	4316.3	4326.2
22.5°	8241.7	6962.3	5299.6	4754.4	4547.8	4428.3	4328.7	4259.0	4186.8	4139.6	4142.0
25°	8632.6	7163.9	5297.0	4702.1	4460.7	4308.8	4181.9	4092.2	3992.7	3942.9	3942.9
27.5°	9008.4	7345.7	5234.8	4610.0	4336.2	4166.9	4015.1	3908.0	3811.0	3763.7	3761.1
30°	9396.7	7497.5	5137.7	4475.6	4189.3	4002.6	3835.9	3743.7	3656.7	3611.8	3609.3
32.5°	9782.6	7636.9	5000.8	4308.8	4020.0	3840.9	3676.6	3591.9	3539.6	3539.6	3542.1
35°	10190.8	7733.9	4819.1	4114.7	3840.9	3669.1	3539.6	3489.8	3484.9	3455.0	3447.6
37.5°	10621.5	7796.2	4597.5	3915.5	3664.1	3502.3	3462.4	3402.7	3353.0	3288.2	3278.3
40°	11074.5	7858.4	4331.2	3708.9	3477.4	3387.8	3370.4	3290.8	3148.8	2989.5	2967.2
42.5°	11624.5	7900.7	4054.9	3502.3	3280.7	3250.9	3275.8	3138.9	2912.3	2792.9	2795.4
45°	12261.8	7970.4	3801.0	3298.1	3079.1	3079.1	3183.6	3004.5	2817.8	2743.1	2755.5
47.5°	13088.2	8132.2	3564.5	3074.2	2892.4	2942.3	2979.6	2842.6	2738.1	2646.0	2643.6
50°	14283.1	8520.5	3320.6	2847.7	2750.6	2850.1	2797.8	2718.2	2596.2	2521.6	2514.1
52.5°	15766.7	8749.5	3104.0	2643.6	2628.6	2728.1	2653.5	2578.8	2486.8	2387.1	2367.2
55°	16777.2	8791.8	2922.3	2494.1	2546.4	2536.5	2509.1	2441.9	2392.1	2260.2	2262.7
57.5°	17907.4	8876.5	2772.9	2404.5	2494.1	2384.7	2374.7	2317.4	2252.7	2163.2	2133.2
60°	19258.9	9008.4	2643.6	2369.7	2449.3	2285.1	2235.3	2212.9	2148.2	2103.4	2115.8
62.5°	20732.6	9127.9	2511.6	2374.7	2397.1	2188.0	2113.3	2105.9	2066.0	2051.1	2051.1
65°	21738.2	8801.8	2347.4	2369.7	2315.0	2088.4	1993.8	1991.4	1959.0	1954.1	1951.5
67.5°	21387.2	7768.8	2125.7	2300.0	2230.3	1988.9	1884.4	1874.4	1832.1	1834.5	1834.5
70°	19629.9	6295.2	1819.6	2128.3	2125.7	1899.2	1769.9	1737.5	1680.2	1690.1	1700.2
72.5°	16334.2	4664.8	1408.9	1842.0	1959.0	1817.1	1637.8	1585.6	1513.4	1523.4	1520.9
75°	11796.3	3171.2	1025.5	1401.4	1705.1	1720.1	1508.5	1418.8	1331.7	1346.6	1351.7
77.5°	6036.3	1797.2	754.2	965.9	1339.2	1563.2	1391.4	1272.0	1252.0	1391.4	1371.6
80°	1968.9	901.1	522.8	677.0	878.7	1279.4	1219.8	1082.8	1077.8	1110.2	953.4
82.5°	587.4	380.9	336.0	445.6	485.4	980.7	1053.0	819.0	704.5	741.8	766.7
85°	201.6	184.2	191.7	221.5	231.4	575.0	736.8	542.6	512.8	565.1	557.6
87.5°	47.3	64.7	54.7	49.8	49.8	139.4	286.3	226.5	313.6	209.1	201.6
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)