

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: P967380

Luminaire Tested: **NAV-SB4D-835-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967380
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-835-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37894.2 lumens
Efficiency: N/A
Efficacy: 129.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

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

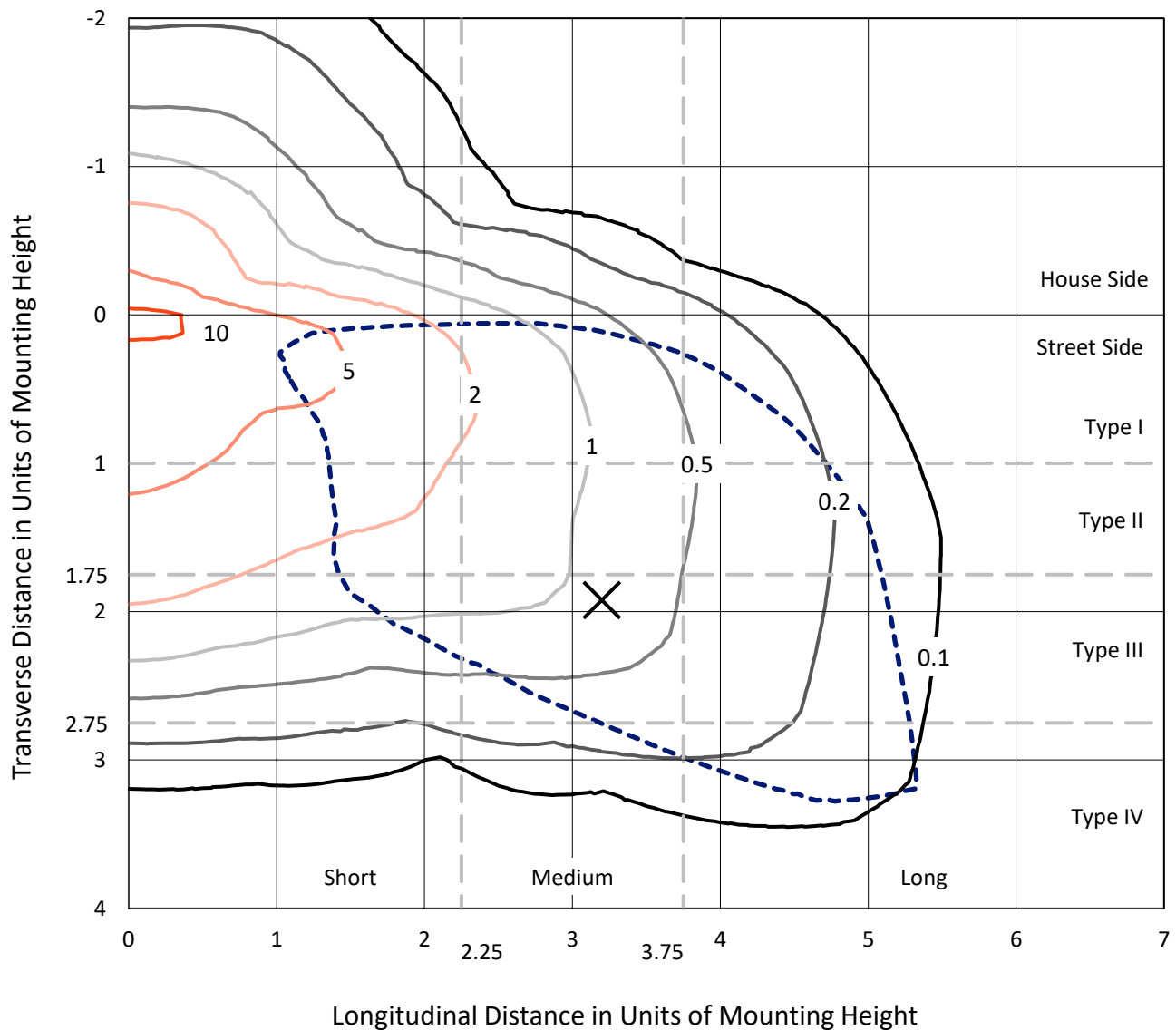


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

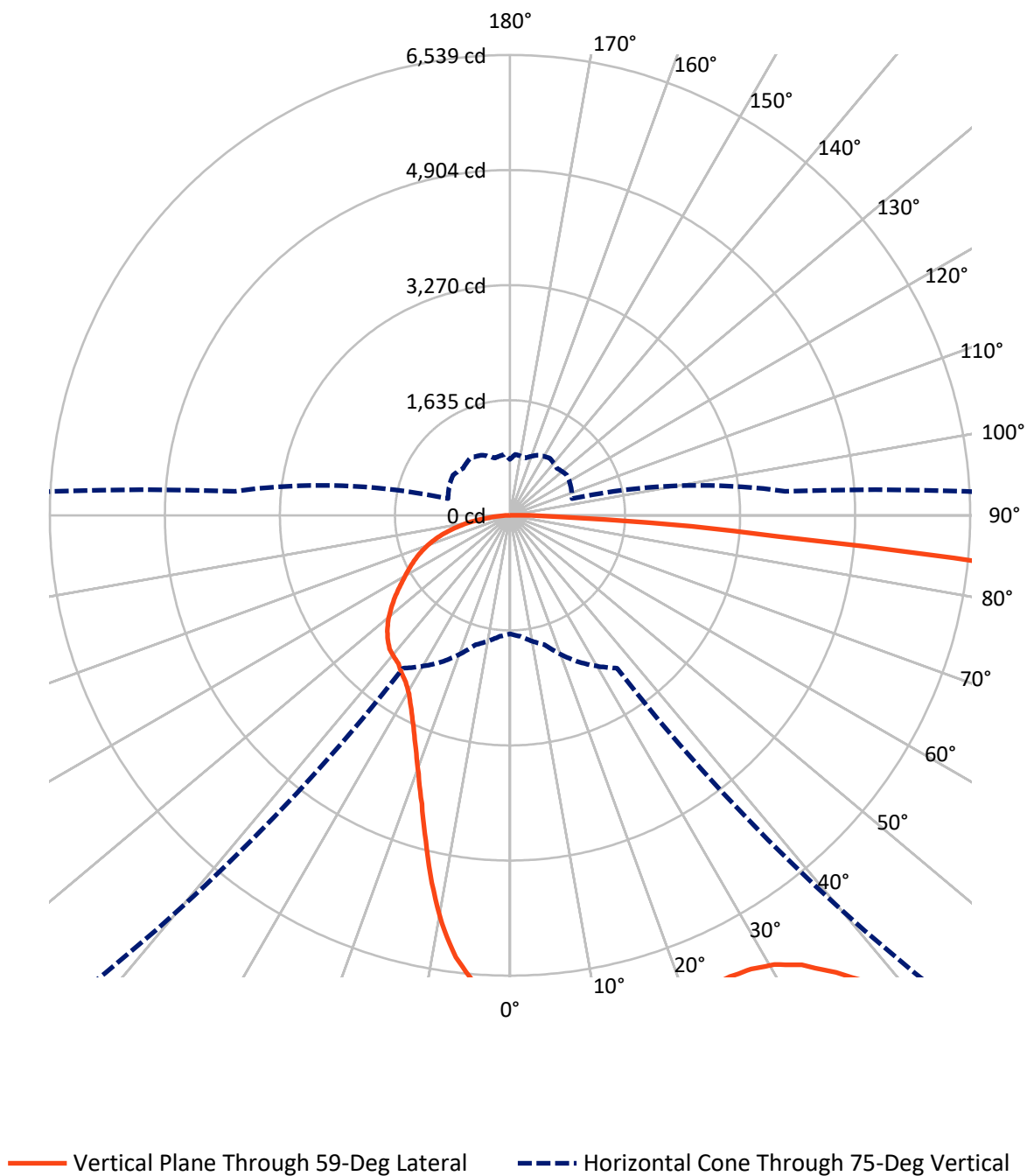


Based on 25 foot mounting height. Maximum calculated value = 11.1 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7107.3	0.0	7107.3
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	30786.9	0.0	30786.9
	% Fixture	81.2	0.0	81.2
Total	Lumens	37894.2	0.0	37894.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	623.7	1.6
10°-20°	1594.1	4.2
20°-30°	2421.4	6.4
30°-40°	3599.3	9.5
40°-50°	5352.8	14.1
50°-60°	7265.7	19.2
60°-70°	8870.3	23.4
70°-80°	6961.2	18.4
80°-90°	1205.9	3.2
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°	37894.2	100.0
0°-180°	37894.2	100.0

Coefficient of Utilization



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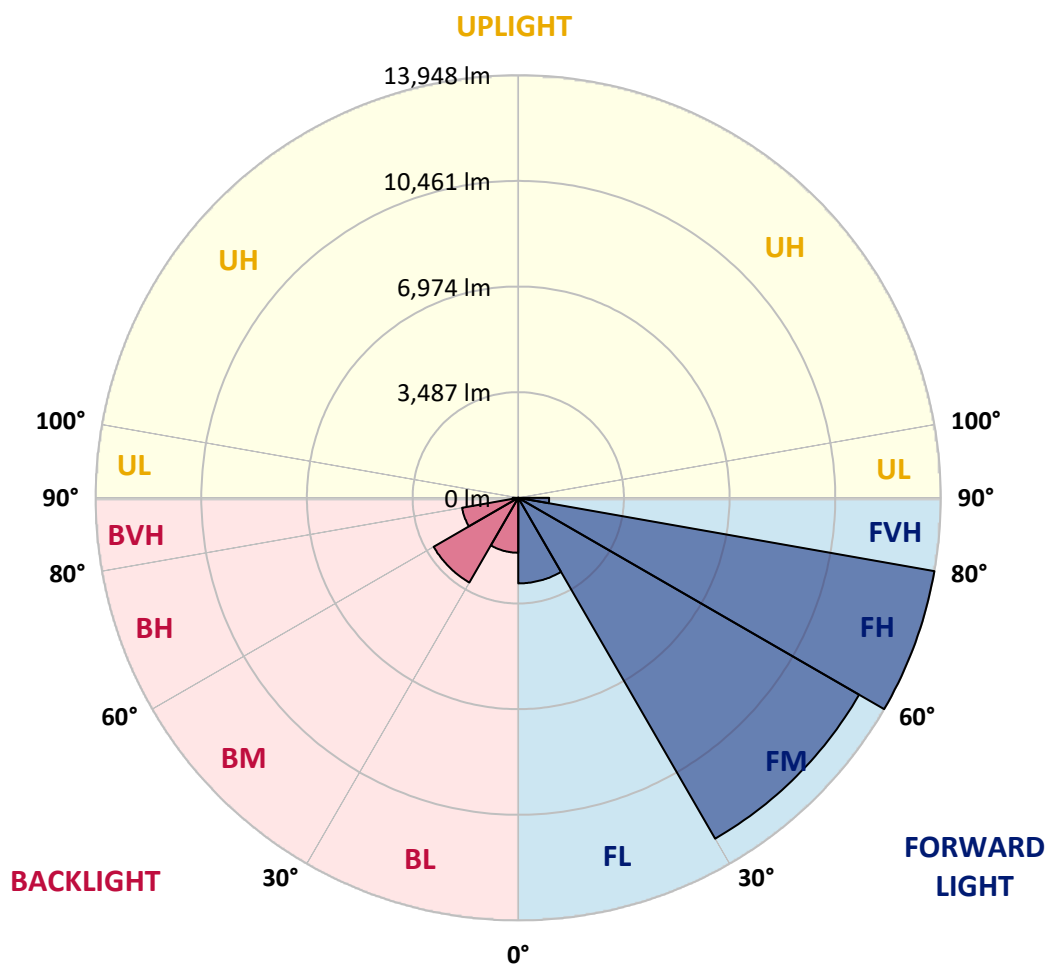
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2825.4	7.5			
FM	(30°-60°)	12991.7	34.3			
FH	(60°-80°)	13948.5	36.8			G5
FVH	(80°-90°)	1021.3	2.7			G5
BL	(0°-30°)	1813.7	4.8	B3/2500		
BM	(30°-60°)	3226.0	8.5	B3/5000		
BH	(60°-80°)	1883.0	5.0	B3/2500		G3/2500
BVH	(80°-90°)	184.6	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4
2.5°	7014.5	6990.1	7014.5	7004.3	7000.2	6992.1	6994.1	7008.4	7000.2	7010.5	6975.7
5°	6967.6	6953.4	6977.8	6971.7	6998.2	7002.3	7028.8	7045.1	7055.3	7057.3	7030.8
7.5°	6890.2	6875.9	6910.6	6939.1	6996.1	7012.4	7067.5	7094.0	7108.3	7132.8	7094.0
10°	6606.8	6600.7	6686.3	6794.3	6928.9	7012.4	7096.1	7140.9	7163.3	7228.6	7183.7
12.5°	6105.3	6113.5	6225.6	6433.5	6702.7	6971.7	7128.7	7193.9	7228.6	7310.1	7289.7
15°	5626.3	5624.3	5746.6	5968.8	6345.9	6792.4	7145.0	7257.1	7316.2	7436.5	7420.2
17.5°	5349.1	5340.9	5426.6	5595.7	5946.3	6517.2	7104.2	7291.7	7418.1	7569.0	7554.8
20°	5298.1	5281.8	5326.6	5410.3	5658.9	6215.4	6998.2	7291.7	7499.7	7695.4	7687.2
22.5°	5483.6	5457.1	5438.8	5428.6	5538.7	5966.7	6878.0	7267.2	7620.0	7876.8	7862.6
25°	5856.6	5815.8	5722.1	5630.3	5597.7	5854.6	6772.0	7261.2	7799.3	8121.5	8068.4
27.5°	6460.1	6409.1	6219.5	5999.3	5801.6	5911.7	6725.0	7297.9	7997.0	8380.3	8274.3
30°	7208.2	7153.2	6914.6	6576.2	6221.5	6123.7	6784.2	7405.9	8249.8	8724.8	8516.9
32.5°	7878.9	7817.7	7613.8	7269.3	6790.3	6490.6	6971.7	7611.9	8647.4	9203.9	8881.8
35°	8474.1	8402.7	8219.3	7901.3	7487.4	7006.4	7310.1	7976.7	9212.1	9982.6	9377.1
37.5°	9057.1	8973.6	8773.8	8437.4	8147.9	7693.3	7776.9	8445.6	9962.2	10928.4	10033.5
40°	9709.4	9589.2	9346.6	9014.3	8733.0	8498.6	8390.5	9020.4	10724.6	11984.4	10853.0
42.5°	10341.3	10227.2	9937.8	9654.4	9301.8	9234.4	9102.0	9693.1	11558.4	13144.3	11684.8
45°	11022.2	10885.7	10535.1	10176.3	9954.1	9723.7	9791.0	10365.8	12375.8	14326.6	12557.3
47.5°	11660.3	11507.4	11093.6	10694.0	10571.7	10135.5	10422.9	11105.8	13225.9	15525.3	13421.6
50°	12004.8	11853.9	11509.4	11148.6	11052.8	10643.1	11107.8	11919.2	14116.7	16719.9	14251.3
52.5°	12292.2	12129.1	11678.6	11478.9	11450.3	11195.6	11951.8	12848.8	15007.5	17775.9	15052.3
55°	12598.0	12416.5	11841.7	11662.3	11792.8	11815.2	12952.7	13902.7	15949.3	18805.3	15808.7
57.5°	12950.7	12720.4	11998.6	11817.2	12127.1	12541.0	14102.5	14995.3	16874.8	19759.3	16481.4
60°	13283.0	13050.6	12300.4	12063.9	12487.9	13382.8	15421.3	16318.3	17922.6	20609.4	17117.4
62.5°	13348.2	13156.6	12541.0	12538.9	12977.2	14365.4	16982.8	17653.5	18837.9	21449.3	17688.2
65°	12218.8	12098.6	11733.7	12520.6	13678.4	15780.1	18721.7	19361.8	20001.8	22183.0	18189.6
67.5°	9299.7	9316.0	9289.5	10808.2	13111.7	17812.6	21239.2	21190.3	21439.0	23006.6	18766.5
70°	4252.3	4348.2	4972.0	7461.0	10504.4	18047.0	25401.9	24767.9	23243.1	24072.8	19266.0
72.5°	2297.4	2370.8	2625.6	3614.3	6315.3	16045.1	28512.6	28963.2	25642.4	24790.3	18717.6
75°	1685.8	1726.6	1903.9	2297.4	2652.1	11925.3	27397.6	29709.3	25942.1	23116.7	16163.3
77.5°	1261.9	1280.2	1425.0	1820.4	1357.6	6286.7	21891.5	24604.8	22207.5	18992.8	11939.6
80°	915.3	935.7	1043.8	1365.8	952.0	2299.5	15032.0	17270.3	15209.4	12106.7	5950.4
82.5°	631.9	640.1	687.0	929.6	664.5	892.9	8529.1	10127.3	8490.4	4248.2	1606.4
85°	381.2	391.3	411.7	542.2	377.1	424.0	3681.6	3808.0	2537.9	1015.2	499.5
87.5°	156.9	167.2	183.5	228.3	148.8	118.2	607.5	762.4	475.0	297.7	154.9
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°	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4	6955.4
2.5°	6965.6	6951.3	6912.6	6859.6	6810.7	6749.5	6723.0	6700.6	6680.2	6641.5	6623.1
5°	7008.4	6969.7	6865.8	6731.2	6578.2	6411.2	6248.1	6136.0	6040.1	5968.8	5909.6
7.5°	7073.6	7000.2	6810.7	6535.5	6184.8	5826.1	5502.0	5271.6	5098.3	5035.1	4925.0
10°	7140.9	7053.2	6723.0	6237.8	5632.4	5080.0	4649.8	4413.3	4274.8	4229.9	4160.6
12.5°	7220.4	7092.0	6586.4	5824.0	5014.7	4409.3	4034.2	3895.6	3824.3	3799.8	3805.9
15°	7336.6	7124.6	6380.5	5306.2	4425.6	3920.0	3677.5	3581.7	3545.0	3542.9	3551.1
17.5°	7424.3	7130.7	6060.5	4751.8	3973.1	3624.5	3424.7	3388.0	3412.4	3449.1	3463.5
20°	7522.1	7075.7	5640.6	4246.3	3655.0	3365.6	3282.0	3306.4	3365.6	3418.6	3436.9
22.5°	7591.5	6975.7	5133.0	3852.8	3379.8	3216.8	3212.7	3263.7	3296.3	3322.7	3337.1
25°	7652.5	6806.6	4594.8	3522.5	3153.6	3127.1	3172.0	3155.7	3133.2	3155.7	3169.9
27.5°	7697.4	6539.5	4113.7	3233.1	2994.5	3065.9	3039.4	3002.7	3000.7	3012.9	3033.3
30°	7683.2	6182.8	3718.3	2957.8	2882.5	2951.8	2888.6	2882.5	2876.4	2882.5	2904.8
32.5°	7683.2	5777.1	3414.5	2768.3	2811.1	2784.6	2778.5	2764.2	2739.7	2737.7	2764.2
35°	7725.9	5371.5	3153.6	2666.3	2752.0	2688.8	2692.9	2658.2	2607.3	2582.8	2607.3
37.5°	7813.6	5045.4	2894.7	2617.4	2648.0	2646.0	2629.6	2570.6	2480.9	2403.4	2429.9
40°	8025.6	4949.5	2717.4	2595.0	2599.1	2623.6	2580.7	2466.6	2262.8	2136.4	2152.7
42.5°	8358.0	5110.5	2678.6	2540.0	2566.5	2591.0	2507.4	2242.4	2097.7	2022.2	2022.2
45°	8779.8	5391.9	2762.2	2460.5	2489.0	2531.9	2283.1	2156.7	2091.5	2093.6	2103.7
47.5°	9314.0	5687.4	2917.1	2391.2	2376.9	2401.4	2134.4	2056.9	1967.2	1989.6	2046.6
50°	9931.6	5987.1	3063.9	2297.4	2252.5	2173.1	2038.5	1965.1	1850.9	1798.0	1812.2
52.5°	10600.2	6276.6	3123.0	2183.2	2118.1	2026.3	1973.3	1883.5	1745.0	1657.3	1655.3
55°	11234.2	6539.5	3057.8	2046.6	1983.5	1912.1	1903.9	1848.9	1700.2	1577.8	1577.8
57.5°	11833.5	6759.7	2894.7	1908.0	1846.8	1804.1	1859.1	1832.6	1645.1	1488.1	1480.0
60°	12341.2	6910.6	2658.2	1767.4	1724.6	1702.1	1785.8	1777.6	1567.6	1392.3	1386.2
62.5°	12744.7	6969.7	2397.3	1632.8	1622.7	1581.9	1683.8	1683.8	1469.7	1298.6	1292.4
65°	13060.8	6912.6	2132.3	1500.4	1520.7	1459.6	1559.4	1547.2	1365.8	1214.9	1206.8
67.5°	13340.1	6725.0	1838.7	1369.9	1416.8	1339.3	1429.0	1400.5	1251.6	1131.4	1123.2
70°	13464.4	6288.8	1504.4	1239.4	1296.5	1221.1	1298.6	1245.6	1123.2	1041.7	1025.4
72.5°	12465.5	5226.8	1184.4	1102.8	1151.8	1090.6	1157.8	1096.8	984.6	947.9	917.4
75°	10312.8	3922.1	911.2	954.1	990.8	943.8	988.7	943.8	841.9	868.4	792.9
77.5°	7489.5	2648.0	697.2	797.0	813.3	788.9	827.6	776.6	684.9	678.9	648.2
80°	3724.3	1551.3	546.3	629.9	623.8	607.5	652.3	627.8	550.4	583.0	576.9
82.5°	1078.4	664.5	397.5	442.4	430.1	434.2	466.8	479.1	717.6	711.5	727.7
85°	338.4	261.0	238.5	246.6	234.4	240.6	275.2	546.3	505.5	295.6	320.0
87.5°	87.6	89.7	59.1	63.2	65.2	77.5	87.6	332.3	159.0	103.9	110.1
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)