

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: P969426

Luminaire Tested: **NAV-SB5D-827-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969426
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-SB5D-827-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 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: 44778.2 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - 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



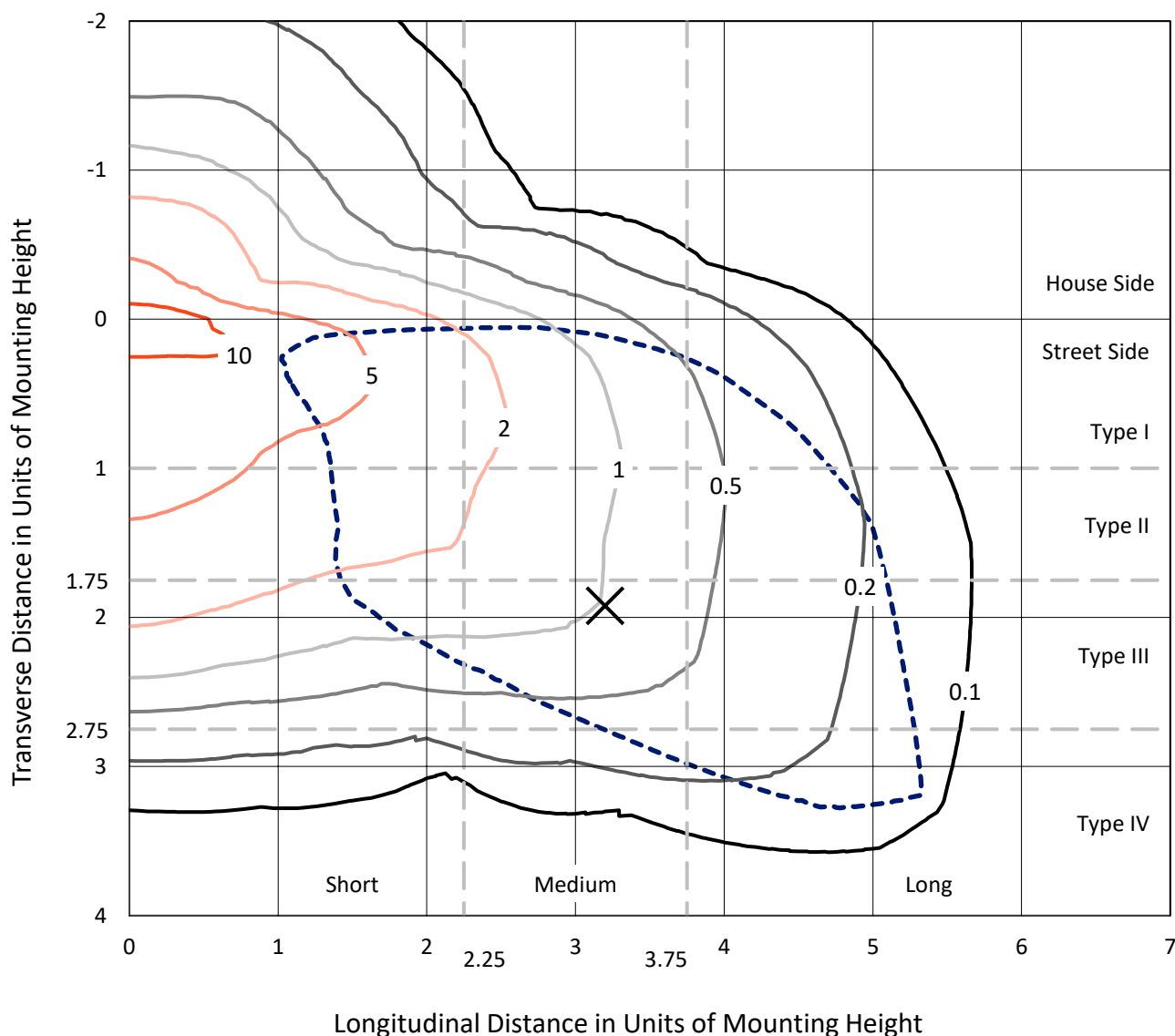
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

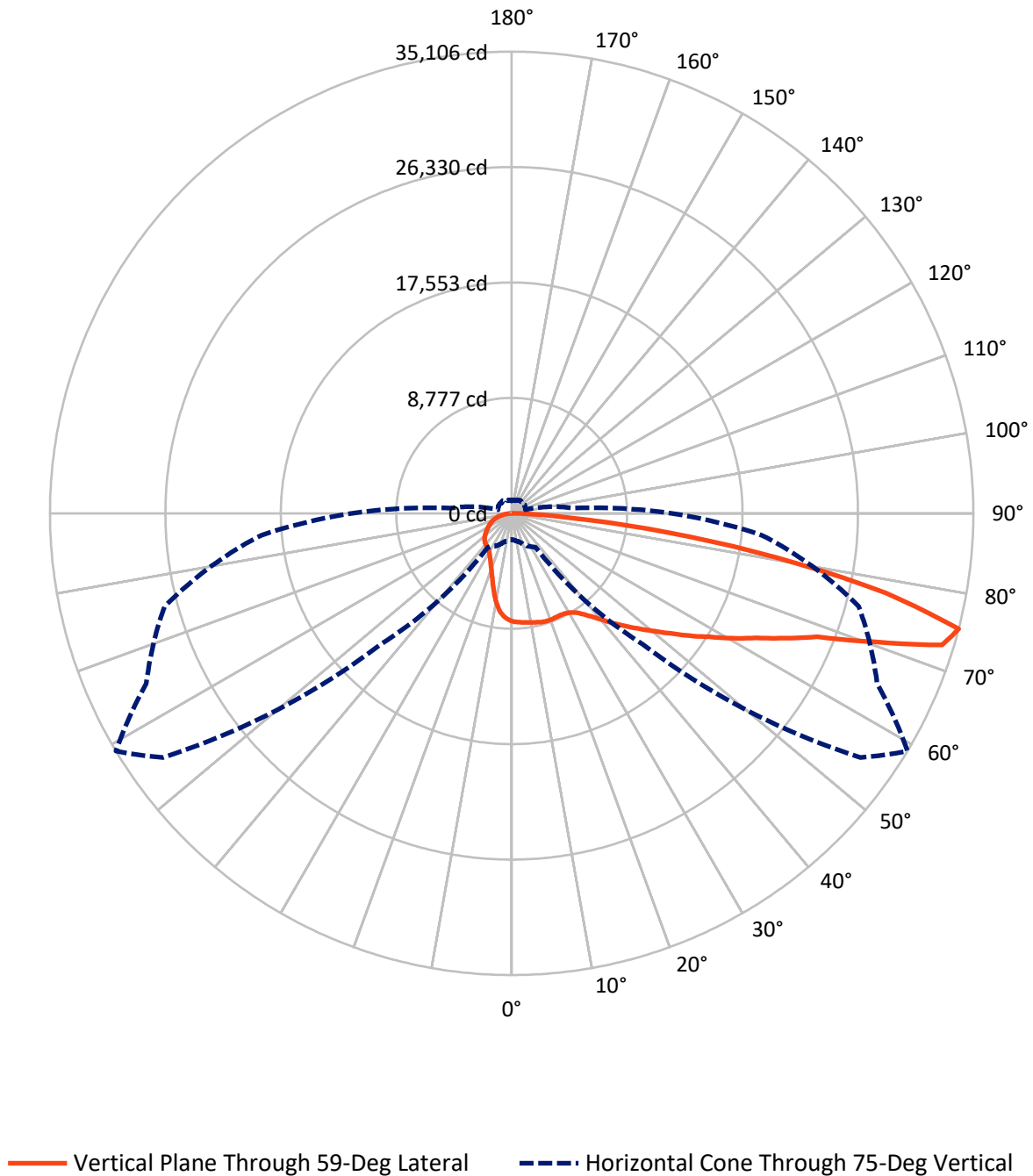
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.2 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	8398.5	0.0	8398.5
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	36379.7	0.0	36379.7
	% Fixture	81.2	0.0	81.2
Total	Lumens	44778.2	0.0	44778.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	737.0	1.6
10°-20°	1883.7	4.2
20°-30°	2861.2	6.4
30°-40°	4253.1	9.5
40°-50°	6325.1	14.1
50°-60°	8585.6	19.2
60°-70°	10481.6	23.4
70°-80°	8225.8	18.4
80°-90°	1424.9	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°	44778.2	100.0
0°-180°	44778.2	100.0

Coefficient of Utilization



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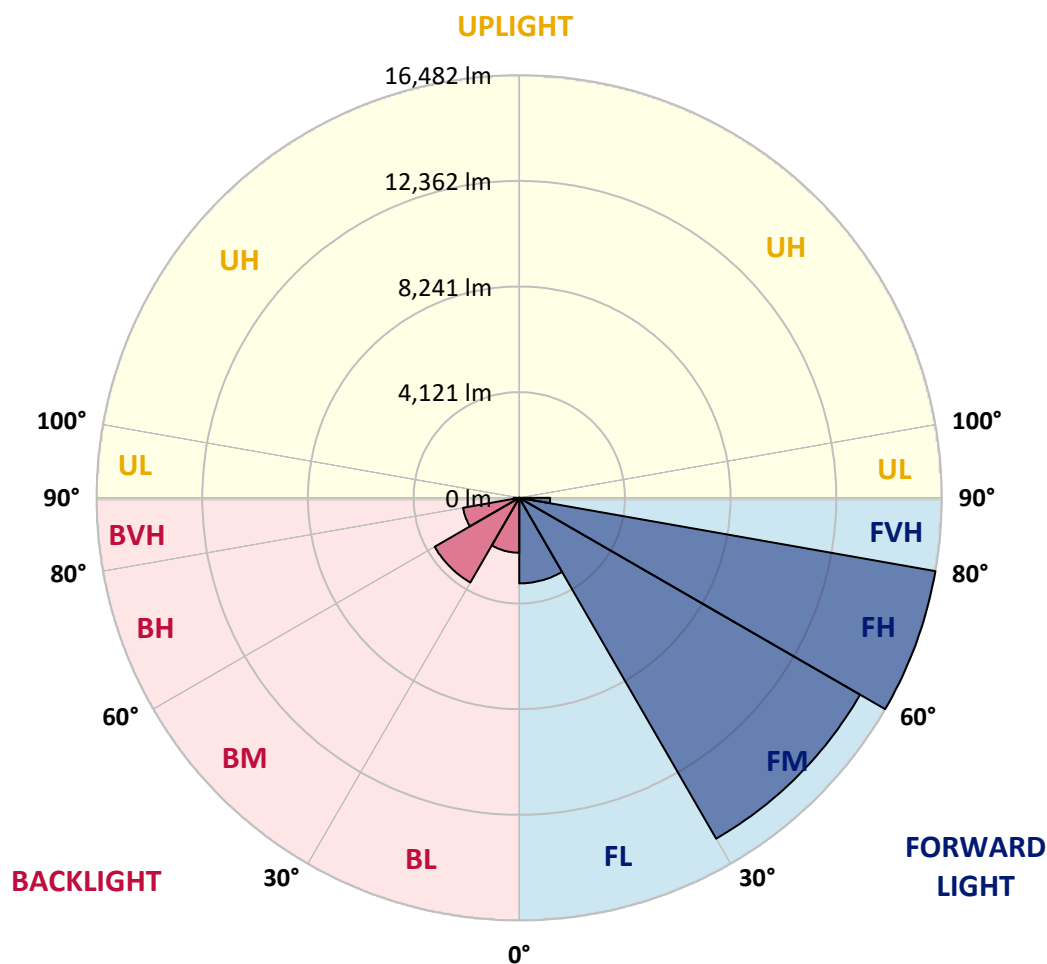
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3338.7	7.5			
FM	(30°-60°)	15351.8	34.3			
FH	(60°-80°)	16482.4	36.8			G5
FVH	(80°-90°)	1206.8	2.7			G5
BL	(0°-30°)	2143.2	4.8	B3/2500		
BM	(30°-60°)	3812.1	8.5	B3/5000		
BH	(60°-80°)	2225.1	5.0	B3/2500		G3/2500
BVH	(80°-90°)	218.1	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°	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0
2.5°	8288.8	8259.9	8288.8	8276.8	8272.0	8262.3	8264.7	8281.6	8272.0	8283.9	8243.0
5°	8233.4	8216.5	8245.4	8238.2	8269.5	8274.3	8305.7	8324.9	8336.9	8339.4	8308.0
7.5°	8141.9	8125.0	8166.0	8199.7	8267.1	8286.4	8351.4	8382.8	8399.6	8428.5	8382.8
10°	7807.0	7799.8	7901.0	8028.6	8187.6	8286.4	8385.1	8438.1	8464.7	8541.7	8488.7
12.5°	7214.5	7224.1	7356.5	7602.2	7920.3	8238.2	8423.7	8500.7	8541.7	8638.1	8614.0
15°	6648.4	6646.0	6790.5	7053.0	7498.7	8026.3	8442.9	8575.5	8645.3	8787.4	8768.2
17.5°	6320.8	6311.1	6412.3	6612.3	7026.6	7701.0	8394.8	8616.4	8765.7	8943.9	8927.1
20°	6260.6	6241.3	6294.3	6393.0	6686.9	7344.5	8269.5	8616.4	8862.0	9093.3	9083.7
22.5°	6479.7	6448.5	6426.7	6414.8	6544.8	7050.7	8127.4	8587.4	9004.2	9307.7	9290.9
25°	6920.6	6872.4	6761.6	6653.2	6614.6	6918.1	8002.2	8580.3	9216.2	9596.8	9534.1
27.5°	7633.6	7573.3	7349.4	7089.2	6855.5	6985.6	7946.7	8623.6	9449.9	9902.7	9777.5
30°	8517.6	8452.6	8170.8	7770.9	7351.7	7236.1	8016.6	8751.2	9748.6	10309.8	10064.1
32.5°	9310.2	9237.9	8996.9	8589.9	8023.8	7669.8	8238.2	8994.6	10218.2	10875.9	10495.3
35°	10013.5	9929.2	9712.4	9336.6	8847.6	8279.1	8638.1	9425.8	10885.5	11796.0	11080.7
37.5°	10702.4	10603.6	10367.6	9970.2	9628.1	9090.9	9189.6	9979.8	11771.9	12913.8	11856.3
40°	11473.2	11331.2	11044.5	10651.8	10319.4	10042.4	9914.7	10659.1	12672.9	14161.5	12824.6
42.5°	12219.9	12085.1	11743.0	11408.2	10991.5	10912.0	10755.4	11454.0	13658.0	15532.1	13807.5
45°	13024.6	12863.1	12448.8	12024.9	11762.3	11490.1	11569.6	12248.9	14624.0	16929.3	14838.4
47.5°	13778.5	13597.9	13108.8	12636.7	12492.2	11976.7	12316.4	13123.3	15628.5	18345.7	15859.7
50°	14185.6	14007.3	13600.2	13173.9	13060.7	12576.5	13125.7	14084.4	16681.2	19757.2	16840.1
52.5°	14525.3	14332.6	13800.2	13564.1	13530.4	13229.3	14123.0	15182.8	17733.8	21005.0	17786.8
55°	14886.6	14672.2	13992.9	13780.9	13935.1	13961.6	15305.7	16428.2	18846.7	22221.5	18680.5
57.5°	15303.2	15031.1	14178.4	13964.0	14330.1	14819.1	16664.2	17719.4	19940.4	23348.8	19475.4
60°	15695.9	15421.3	14534.9	14255.5	14756.5	15814.0	18222.8	19282.7	21178.4	24353.3	20226.9
62.5°	15773.0	15546.6	14819.1	14816.7	15334.6	16975.0	20068.0	20860.5	22260.0	25345.7	20901.4
65°	14438.6	14296.4	13865.3	14795.1	16163.2	18646.8	22122.7	22879.0	23635.5	26212.9	21494.0
67.5°	10989.1	11008.4	10977.0	12771.6	15493.6	21048.4	25097.6	25039.8	25333.7	27186.1	22175.7
70°	5024.9	5138.0	5875.1	8816.3	12412.7	21325.3	30016.4	29267.3	27465.5	28445.9	22765.9
72.5°	2714.7	2801.4	3102.6	4270.9	7462.5	18959.9	33692.3	34224.6	30300.6	29293.8	22117.9
75°	1992.1	2040.3	2249.9	2714.7	3133.9	14091.7	32374.7	35106.2	30654.8	27316.1	19099.6
77.5°	1491.1	1512.7	1683.8	2151.1	1604.3	7428.8	25868.4	29074.5	26241.8	22443.1	14108.5
80°	1081.6	1105.7	1233.3	1614.0	1124.9	2717.2	17762.7	20407.6	17972.2	14306.0	7031.4
82.5°	746.7	756.3	811.8	1098.4	785.3	1055.0	10078.5	11967.1	10032.8	5020.0	1898.2
85°	450.5	462.5	486.6	640.7	445.7	501.0	4350.3	4499.6	2998.9	1199.6	590.2
87.5°	185.5	197.5	216.8	269.8	175.9	139.7	717.8	900.9	561.3	351.7	183.1
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°	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0	8219.0
2.5°	8231.0	8214.1	8168.3	8105.7	8047.9	7975.6	7944.4	7917.8	7893.7	7848.0	7826.3
5°	8281.6	8235.8	8113.0	7954.0	7773.3	7575.8	7383.1	7250.5	7137.4	7053.0	6983.2
7.5°	8358.7	8272.0	8047.9	7722.8	7308.4	6884.4	6501.5	6229.2	6024.4	5949.8	5819.7
10°	8438.1	8334.6	7944.4	7371.0	6655.6	6002.8	5494.5	5215.1	5051.3	4998.3	4916.4
12.5°	8532.1	8380.3	7782.9	6882.1	5925.7	5210.3	4767.1	4603.3	4518.9	4490.0	4497.3
15°	8669.3	8418.8	7539.6	6270.2	5229.5	4632.2	4345.5	4232.3	4189.0	4186.5	4196.1
17.5°	8773.0	8426.1	7161.5	5615.0	4694.8	4282.9	4046.8	4003.4	4032.3	4075.7	4092.6
20°	8888.6	8361.0	6665.3	5017.6	4319.0	3977.0	3878.2	3907.1	3977.0	4039.6	4061.3
22.5°	8970.5	8243.0	6065.4	4552.6	3993.8	3801.1	3796.3	3856.6	3895.1	3926.4	3943.3
25°	9042.8	8043.1	5429.5	4162.4	3726.5	3695.1	3748.1	3728.8	3702.4	3728.8	3745.8
27.5°	9095.7	7727.6	4861.1	3820.4	3538.6	3622.9	3591.6	3548.2	3545.8	3560.2	3584.3
30°	9078.8	7306.0	4393.7	3495.2	3406.1	3488.0	3413.4	3406.1	3398.9	3406.1	3432.6
32.5°	9078.8	6826.6	4034.8	3271.2	3321.8	3290.5	3283.3	3266.4	3237.5	3235.1	3266.4
35°	9129.5	6347.3	3726.5	3150.7	3251.9	3177.3	3182.1	3141.1	3080.9	3051.9	3080.9
37.5°	9233.1	5961.8	3420.5	3092.9	3129.1	3126.7	3107.4	3037.5	2931.5	2840.0	2871.3
40°	9483.6	5848.6	3211.0	3066.4	3071.3	3100.2	3049.6	2914.7	2673.8	2524.5	2543.7
42.5°	9876.2	6038.9	3165.2	3001.4	3032.7	3061.6	2962.9	2649.7	2478.7	2389.6	2389.6
45°	10374.8	6371.4	3264.0	2907.4	2941.1	2991.8	2697.9	2548.6	2471.5	2473.8	2485.9
47.5°	11005.9	6720.6	3447.1	2825.5	2808.7	2837.6	2522.0	2430.5	2324.5	2351.0	2418.5
50°	11735.8	7074.8	3620.5	2714.7	2661.7	2567.8	2408.9	2322.1	2187.2	2124.6	2141.4
52.5°	12525.9	7416.8	3690.3	2579.8	2502.7	2394.4	2331.8	2225.8	2062.0	1958.4	1956.0
55°	13275.1	7727.6	3613.2	2418.5	2343.8	2259.5	2249.9	2184.8	2009.0	1864.5	1864.5
57.5°	13983.3	7987.7	3420.5	2254.7	2182.4	2131.8	2196.9	2165.5	1943.9	1758.5	1748.9
60°	14583.1	8166.0	3141.1	2088.4	2037.9	2011.4	2110.2	2100.5	1852.4	1645.2	1638.1
62.5°	15060.0	8235.8	2832.8	1929.5	1917.5	1869.3	1989.7	1989.7	1736.8	1534.4	1527.1
65°	15433.4	8168.3	2519.7	1772.9	1797.0	1724.8	1842.7	1828.3	1614.0	1435.6	1426.0
67.5°	15763.4	7946.7	2172.8	1618.8	1674.1	1582.6	1688.6	1654.9	1479.0	1336.9	1327.3
70°	15910.4	7431.2	1777.8	1464.5	1532.0	1442.9	1534.4	1471.8	1327.3	1230.9	1211.7
72.5°	14730.0	6176.2	1399.5	1303.2	1361.0	1288.7	1368.2	1295.9	1163.5	1120.1	1083.9
75°	12186.2	4634.6	1076.8	1127.3	1170.7	1115.3	1168.3	1115.3	994.9	1026.1	937.1
77.5°	8850.1	3129.1	823.8	941.9	961.1	932.2	978.0	917.8	809.3	802.2	766.0
80°	4400.9	1833.1	645.5	744.4	737.1	717.8	770.8	741.9	650.4	688.9	681.7
82.5°	1274.3	785.3	469.8	522.8	508.3	513.1	551.7	566.1	847.9	840.7	860.0
85°	399.9	308.3	281.9	291.5	277.1	284.2	325.2	645.5	597.4	349.3	378.2
87.5°	103.6	106.0	69.9	74.7	77.1	91.5	103.6	392.7	187.9	122.9	130.1
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)