

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: P966076

Luminaire Tested: **NAV-SB4B-727-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966076
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-727-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21326.1 lumens
Efficiency: N/A
Efficacy: 145.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

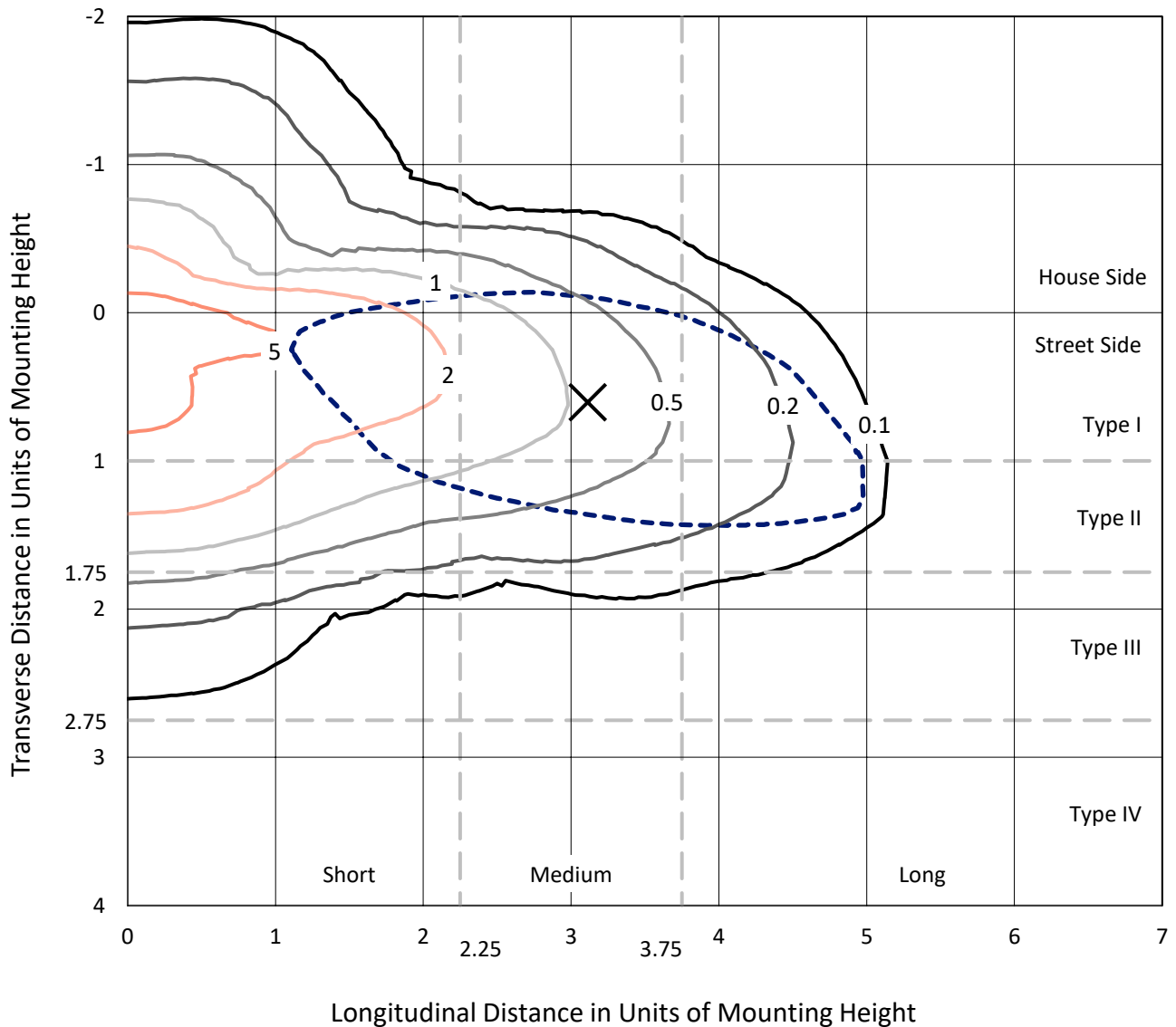
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

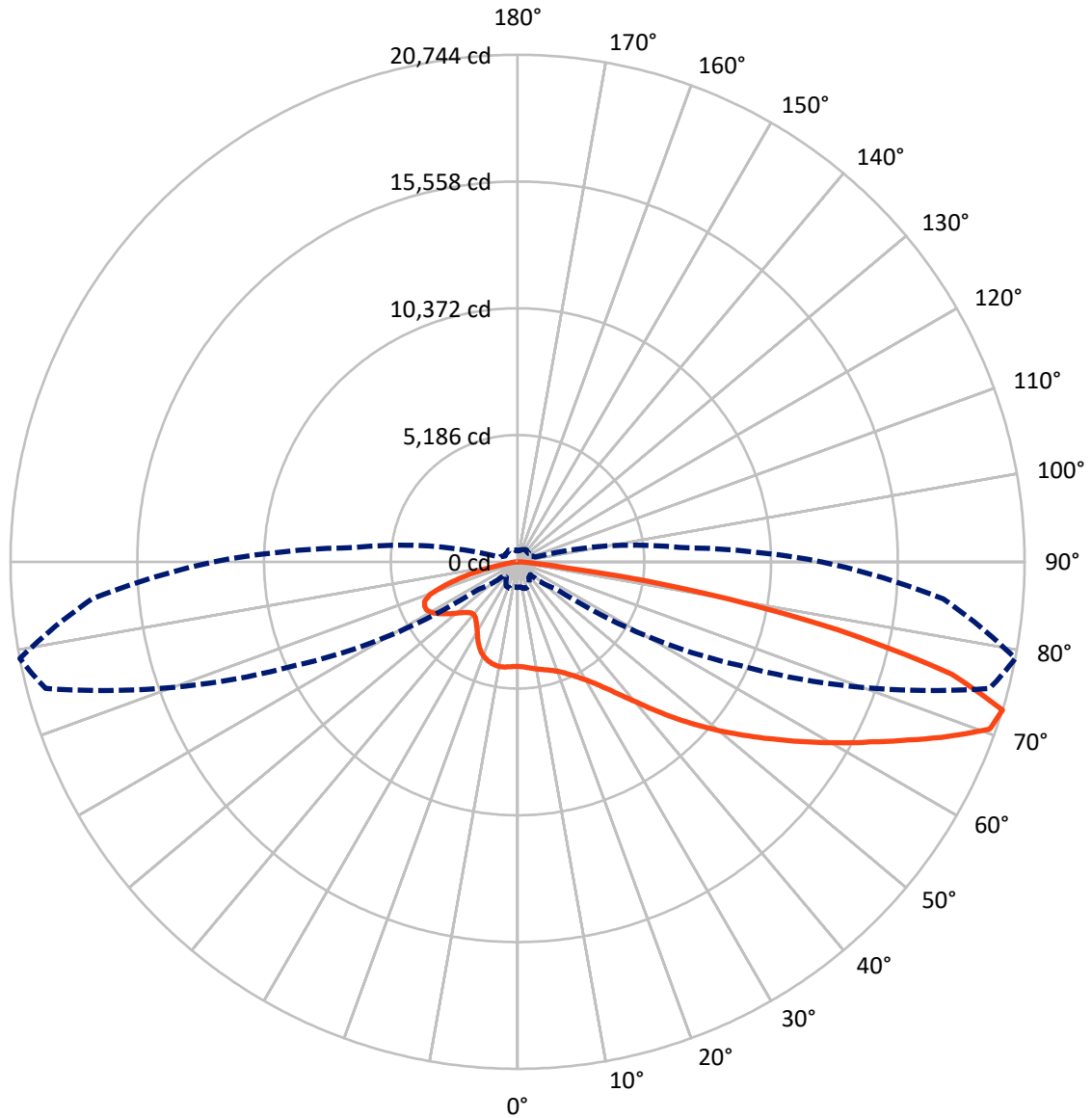
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4692.9	0.0	4692.9
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	16633.2	0.0	16633.2
	% Fixture	78.0	0.0	78.0
Total	Lumens	21326.1	0.0	21326.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	388.6	1.8
10°-20°	1016.0	4.8
20°-30°	1639.4	7.7
30°-40°	2460.5	11.5
40°-50°	3490.3	16.4
50°-60°	4407.8	20.7
60°-70°	4476.7	21.0
70°-80°	3051.1	14.3
80°-90°	395.9	1.9
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°	21326.1	100.0
0°-180°	21326.1	100.0

Coefficient of Utilization

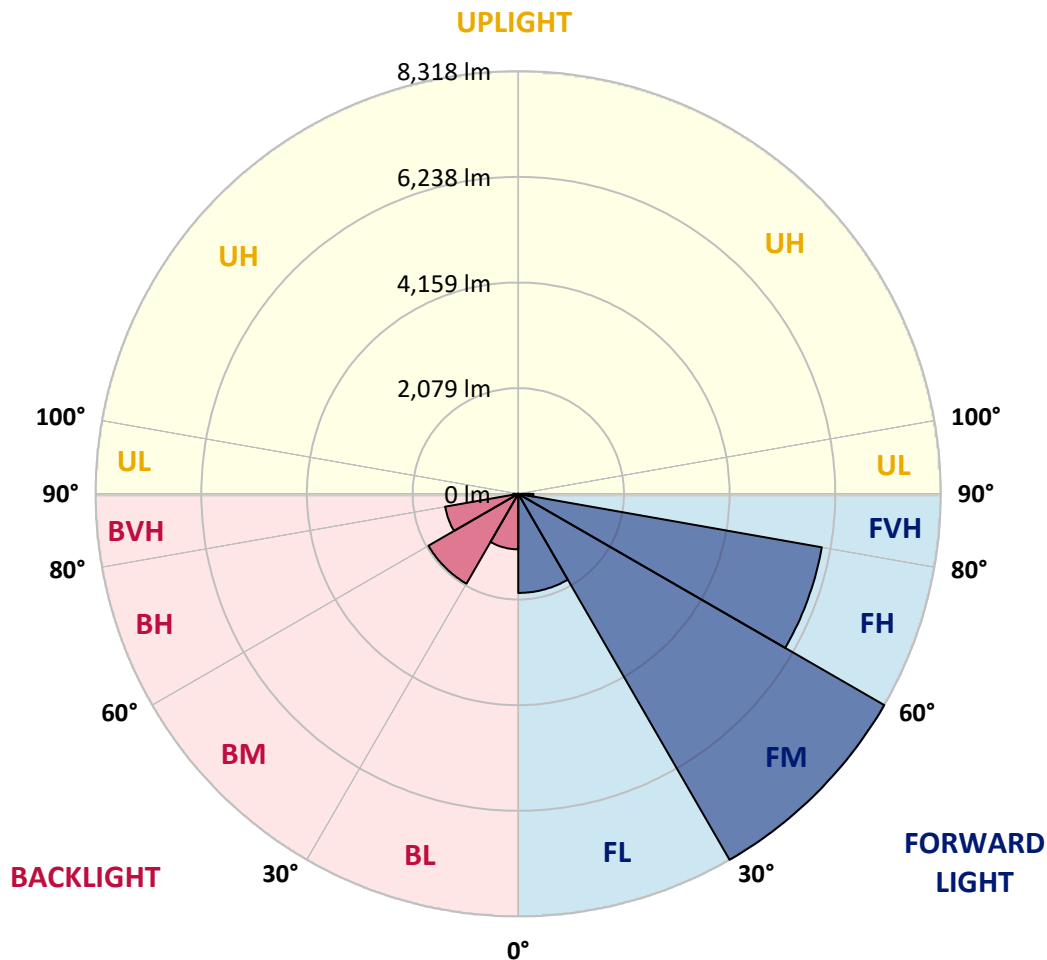


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1950.8	9.1			
FM (30°-60°)	8317.6	39.0			
FH (60°-80°)	6066.6	28.4			G3/7500
FVH (80°-90°)	298.2	1.4			G3/500
BL (0°-30°)	1093.1	5.1	B3/2500		
BM (30°-60°)	2040.9	9.6	B2/2500		
BH (60°-80°)	1461.2	6.9	B3/2500		G3/2500
BVH (80°-90°)	97.7	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0
2.5°	4283.3	4263.0	4275.4	4270.9	4276.5	4283.3	4285.5	4288.9	4300.2	4299.1	4297.9
5°	4274.2	4254.0	4270.9	4265.2	4279.9	4295.7	4309.2	4321.6	4339.6	4347.5	4336.3
7.5°	4255.1	4241.6	4258.5	4275.4	4302.4	4326.1	4345.3	4373.6	4399.5	4404.0	4411.9
10°	4143.4	4133.2	4172.8	4216.7	4291.2	4355.4	4397.2	4429.9	4458.1	4462.6	4473.9
12.5°	4027.2	4014.8	4058.8	4118.6	4239.3	4355.4	4443.5	4486.3	4511.1	4525.8	4542.7
15°	4008.1	3997.9	4022.7	4074.6	4175.0	4325.0	4475.0	4554.0	4575.5	4592.4	4599.2
17.5°	4100.5	4081.3	4091.5	4109.5	4168.3	4296.8	4499.9	4630.7	4663.4	4681.5	4681.5
20°	4314.8	4287.8	4272.0	4235.9	4225.8	4301.3	4497.6	4723.2	4766.0	4788.7	4794.3
22.5°	4600.3	4582.3	4548.3	4457.0	4357.7	4356.6	4540.4	4841.7	4921.7	4943.2	4929.6
25°	4945.4	4918.4	4875.5	4751.4	4560.7	4466.0	4612.7	4992.9	5127.0	5132.7	5093.2
27.5°	5342.5	5301.9	5243.3	5079.7	4822.5	4637.5	4723.2	5166.5	5362.8	5360.5	5279.4
30°	5761.0	5720.4	5658.4	5459.9	5136.1	4868.8	4876.6	5353.8	5642.6	5630.2	5491.4
32.5°	6066.8	6036.3	6023.9	5870.5	5497.1	5141.7	5052.6	5561.3	5987.7	5976.5	5782.4
35°	6301.4	6261.9	6276.6	6198.8	5890.8	5447.5	5268.1	5808.5	6407.5	6406.4	6164.9
37.5°	6533.8	6498.8	6511.2	6459.3	6255.2	5835.5	5530.9	6110.7	6927.5	6952.3	6627.4
40°	6745.8	6708.6	6758.2	6709.8	6538.3	6248.4	5829.9	6452.6	7529.9	7577.2	7186.9
42.5°	6873.3	6844.0	6926.3	6927.5	6784.2	6596.9	6158.1	6829.4	8227.0	8333.0	7875.1
45°	6917.3	6907.2	7031.3	7057.2	7001.9	6798.8	6453.7	7240.0	8978.3	9167.8	8659.1
47.5°	6870.0	6850.8	7022.3	7118.1	7162.1	6893.6	6698.5	7684.4	9745.4	10022.9	9514.2
50°	6630.8	6593.5	6848.5	7050.5	7207.2	6955.6	6945.5	8197.6	10617.4	10920.9	10373.7
52.5°	6201.0	6172.8	6462.7	6813.6	7108.0	6986.1	7223.1	8758.3	11445.4	11837.9	11254.7
55°	5651.6	5614.4	5933.6	6391.6	6860.9	6975.9	7500.5	9385.5	12422.3	12820.5	12165.1
57.5°	4780.8	4706.3	5110.1	5651.6	6458.2	6963.5	7789.3	10009.3	13415.0	13892.1	13136.4
60°	3510.5	3400.0	3895.2	4537.1	5670.8	6842.9	8146.9	10708.8	14606.2	15036.0	14196.8
62.5°	2044.1	1979.8	2303.5	2902.5	4274.2	6132.2	8347.7	11522.1	15777.2	16228.4	15239.1
65°	1587.2	1569.2	1597.4	1643.6	2379.1	4591.3	7728.4	12315.2	17266.2	17582.1	16325.4
67.5°	1451.8	1438.3	1450.7	1363.9	1207.0	2557.4	6114.1	12516.0	18861.3	19053.1	17276.4
70°	1290.5	1274.7	1315.3	1240.9	949.9	1163.1	3950.5	11787.2	20130.4	20490.3	17999.5
72.5°	1051.3	1033.3	1128.1	1094.2	799.8	746.8	1984.3	10055.6	19997.2	20744.1	17481.7
75°	807.7	797.6	910.3	938.6	652.0	587.7	952.1	7474.6	17597.9	18350.3	15066.5
77.5°	627.2	619.3	676.8	779.5	525.7	455.7	585.5	4741.2	13261.6	13393.6	10382.7
80°	470.4	447.8	500.8	603.5	409.5	332.8	397.1	2764.9	8382.7	7598.6	4519.0
82.5°	294.4	283.1	327.2	402.7	288.7	229.0	258.3	1527.5	3359.4	1978.7	872.0
85°	168.1	163.6	178.2	230.1	156.8	132.0	147.8	674.6	613.7	421.9	262.8
87.5°	67.6	65.4	81.2	102.7	57.5	48.5	51.9	162.5	135.4	125.3	86.8
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°	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0	4281.0
2.5°	4293.4	4293.4	4277.6	4252.8	4224.6	4206.6	4177.3	4169.4	4138.8	4129.8	4144.5
5°	4345.3	4336.3	4287.8	4217.9	4121.9	4034.0	3936.9	3876.0	3790.3	3759.9	3782.5
7.5°	4410.8	4386.0	4302.4	4149.0	3948.2	3750.8	3545.5	3389.9	3240.9	3188.0	3194.7
10°	4470.5	4435.6	4293.4	4025.0	3677.5	3335.7	3008.6	2779.6	2605.9	2534.7	2550.6
12.5°	4530.3	4466.0	4233.7	3818.5	3292.8	2829.2	2480.6	2302.4	2195.2	2109.4	2137.7
15°	4586.8	4496.5	4141.1	3542.1	2870.9	2400.5	2143.4	2001.2	1915.4	1859.0	1869.2
17.5°	4652.2	4522.4	4002.4	3191.3	2469.3	2103.8	1894.0	1808.3	1791.4	1784.6	1789.1
20°	4743.5	4546.1	3819.7	2798.8	2173.8	1866.9	1758.7	1750.8	1749.7	1746.3	1757.6
22.5°	4841.7	4574.4	3578.3	2442.3	1922.2	1719.1	1700.0	1684.2	1674.0	1672.9	1685.3
25°	4957.8	4583.4	3275.9	2150.1	1707.9	1649.2	1626.7	1603.0	1596.2	1596.2	1603.0
27.5°	5070.7	4552.8	2923.9	1896.2	1587.2	1585.0	1555.6	1547.7	1546.6	1550.0	1559.0
30°	5183.5	4495.3	2574.3	1661.6	1517.2	1517.2	1507.1	1512.7	1517.2	1528.6	1536.5
32.5°	5335.7	4434.5	2282.1	1487.9	1456.3	1445.0	1455.2	1466.5	1471.0	1485.6	1498.0
35°	5559.1	4391.6	2049.7	1393.2	1393.2	1378.5	1384.2	1381.9	1371.8	1365.0	1380.8
37.5°	5854.7	4389.4	1857.9	1349.2	1340.2	1337.9	1339.1	1324.4	1284.8	1237.5	1238.6
40°	6210.1	4450.2	1710.1	1318.7	1311.9	1325.5	1318.7	1279.2	1171.0	1088.6	1086.3
42.5°	6687.2	4624.0	1615.4	1281.5	1301.8	1318.7	1291.6	1155.2	1081.8	1026.5	1024.3
45°	7249.0	4906.0	1566.9	1242.0	1282.6	1302.9	1172.1	1112.2	1053.6	987.1	982.6
47.5°	7885.2	5261.3	1555.6	1204.8	1239.7	1252.1	1121.4	1094.2	1027.7	955.5	949.9
50°	8577.8	5682.1	1586.1	1160.8	1177.7	1134.9	1104.3	1079.5	1010.8	939.7	931.8
52.5°	9294.2	6145.7	1647.0	1101.0	1115.6	1068.3	1097.6	1076.1	1000.6	904.7	897.9
55°	9998.1	6612.8	1705.6	1031.0	1052.5	1008.5	1078.4	1062.6	954.4	846.0	840.4
57.5°	10713.3	7077.5	1763.2	969.0	991.6	951.0	1048.0	1026.5	902.4	791.9	789.7
60°	11456.6	7528.7	1790.3	909.2	925.1	897.9	1001.7	964.5	843.8	736.7	733.3
62.5°	12152.7	7904.4	1746.3	849.4	859.6	848.3	940.8	891.1	785.2	674.6	673.4
65°	12850.9	8127.7	1610.9	790.8	793.0	787.4	855.1	812.2	716.4	620.4	613.7
67.5°	13483.8	8253.0	1395.4	727.6	722.0	719.8	775.0	726.5	649.7	566.3	559.5
70°	13618.0	7934.8	1066.0	653.1	653.1	647.5	687.0	637.3	576.5	508.8	506.5
72.5°	12438.1	6674.8	757.0	568.6	577.6	566.3	599.0	557.3	501.9	456.8	443.3
75°	10029.6	4894.7	550.5	481.6	497.4	478.3	508.8	479.4	432.0	430.9	388.1
77.5°	6891.4	3026.6	399.3	397.1	408.4	383.6	418.5	402.7	359.9	340.7	319.3
80°	2940.8	1207.0	291.0	306.9	306.9	284.2	324.9	329.4	292.1	283.1	283.1
82.5°	585.5	343.0	204.2	210.9	198.5	191.8	230.1	254.9	352.0	391.4	392.6
85°	176.0	126.4	123.0	115.1	101.5	102.7	135.4	256.0	315.9	180.5	155.7
87.5°	48.5	31.6	32.7	25.9	21.4	28.2	46.2	194.0	106.1	45.1	38.3
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)