

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: P963007

Luminaire Tested: **NAV-SB2D-740-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963007
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-SB2D-740-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21935 lumens
Efficiency: N/A
Efficacy: 148.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
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

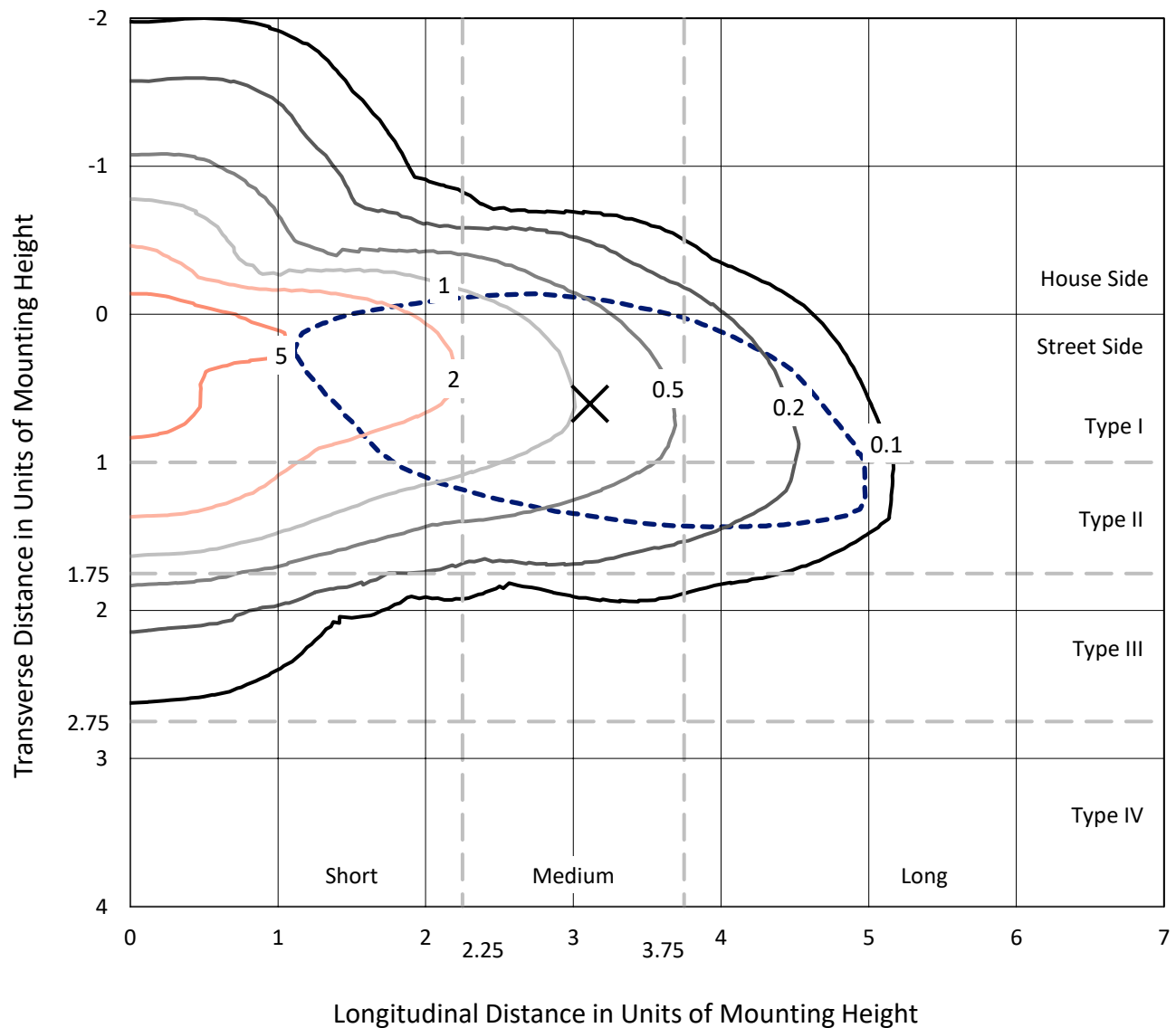


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Iso-Footcandle Lines of Horizontal Illumination

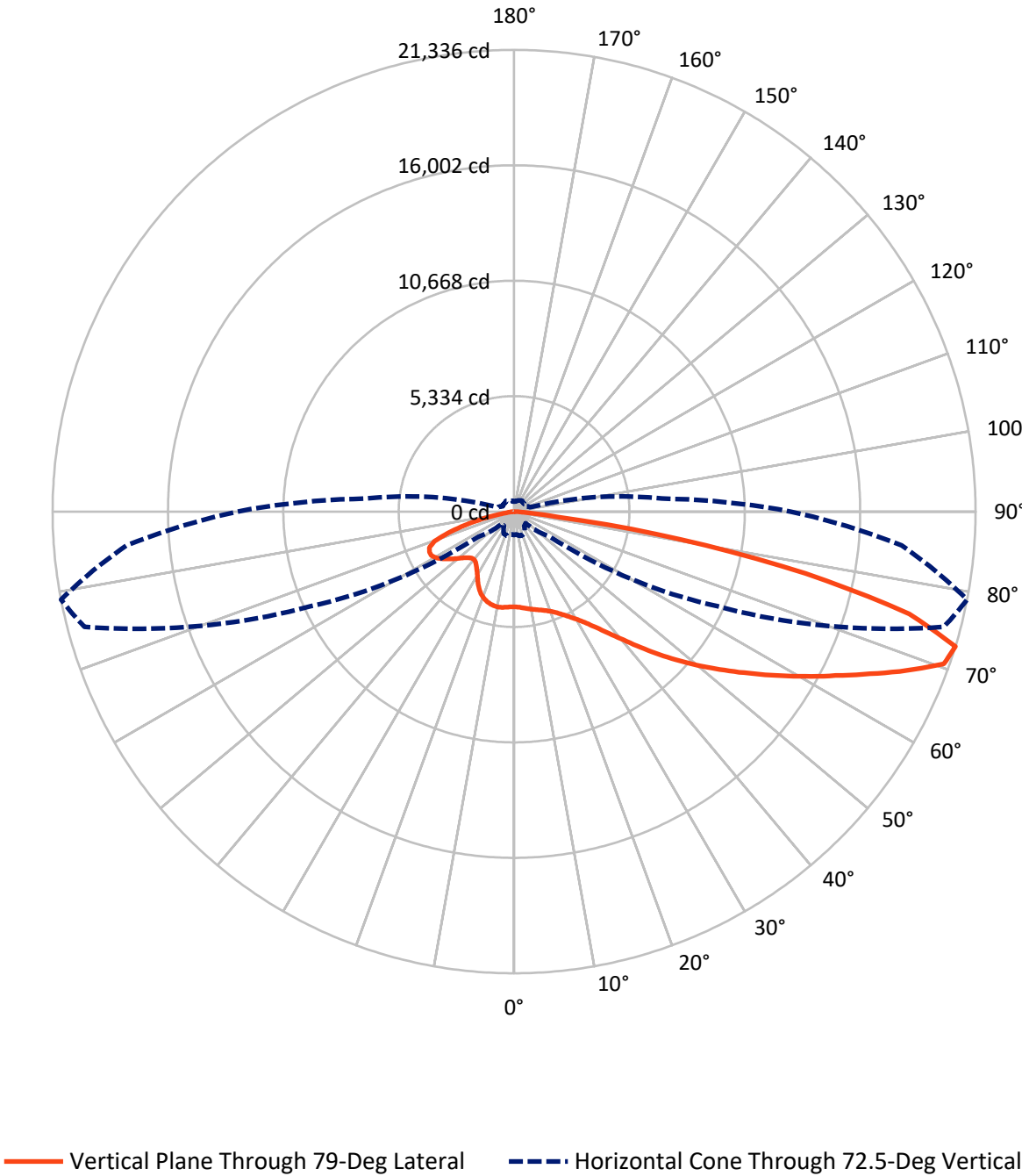
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 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	4826.9	0.0	4826.9
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	17108.1	0.0	17108.1
	% Fixture	78.0	0.0	78.0
Total	Lumens	21935.0	0.0	21935.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	399.7	1.8
10°-20°	1045.0	4.8
20°-30°	1686.2	7.7
30°-40°	2530.7	11.5
40°-50°	3590.0	16.4
50°-60°	4533.6	20.7
60°-70°	4604.5	21.0
70°-80°	3138.2	14.3
80°-90°	407.1	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°	21935.0	100.0
0°-180°	21935.0	100.0

Coefficient of Utilization



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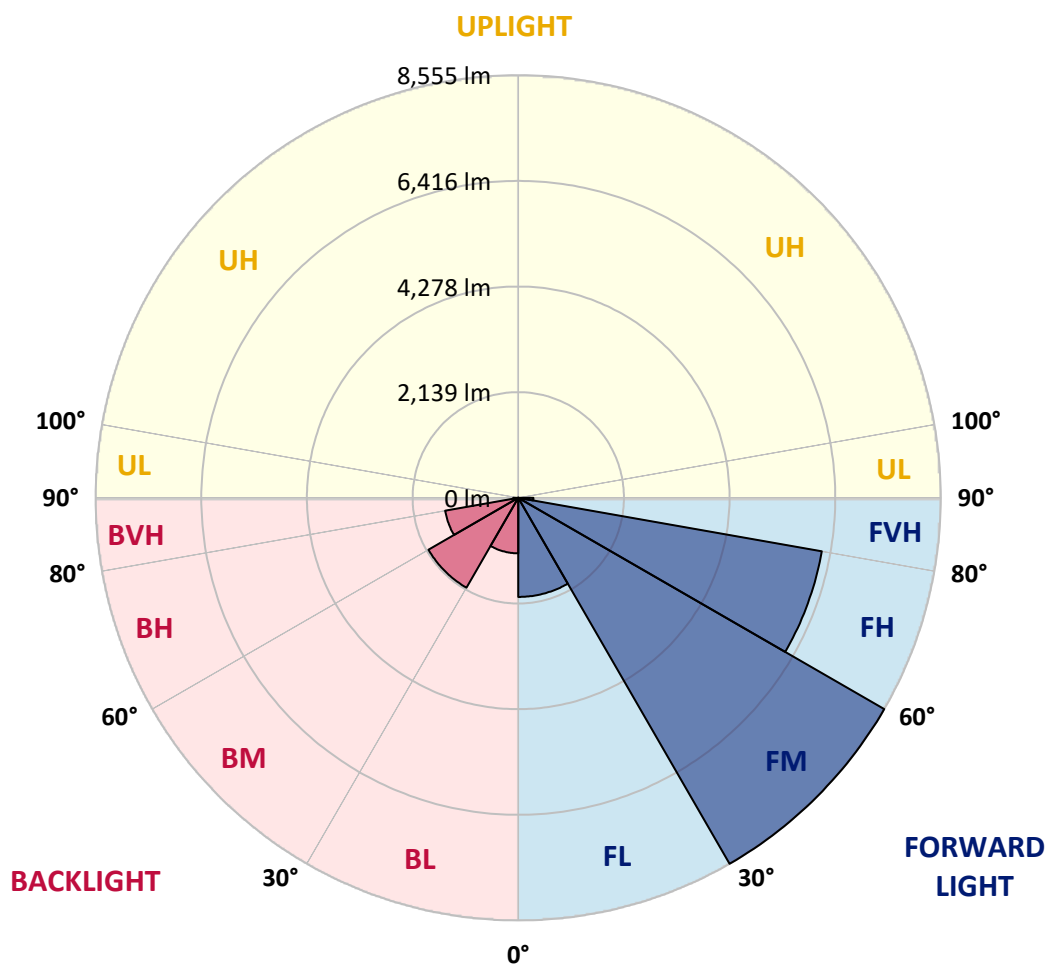
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2006.5	9.1			
FM	(30°-60°)	8555.1	39.0			
FH	(60°-80°)	6239.8	28.4			G3/7500
FVH	(80°-90°)	306.7	1.4			G3/500
BL	(0°-30°)	1124.3	5.1	B3/2500		
BM	(30°-60°)	2099.2	9.6	B2/2500		
BH	(60°-80°)	1502.9	6.9	B3/2500		G3/2500
BVH	(80°-90°)	100.4	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-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2
2.5°	4405.6	4384.6	4397.5	4392.8	4398.6	4405.6	4407.9	4411.4	4423.0	4421.8	4420.6
5°	4396.3	4375.4	4392.8	4387.0	4402.1	4418.4	4432.2	4445.0	4463.6	4471.7	4460.1
7.5°	4376.5	4362.6	4380.0	4397.5	4425.3	4449.6	4469.4	4498.4	4525.1	4529.7	4537.9
10°	4261.6	4251.3	4291.9	4337.1	4413.6	4479.9	4522.7	4556.4	4585.4	4590.1	4601.6
12.5°	4142.2	4129.4	4174.6	4236.1	4360.3	4479.9	4570.4	4614.4	4640.0	4655.0	4672.5
15°	4122.4	4112.0	4137.5	4190.9	4294.1	4448.5	4602.8	4684.0	4706.1	4723.5	4730.5
17.5°	4217.6	4197.9	4208.3	4226.9	4287.2	4419.5	4628.3	4763.0	4796.6	4815.1	4815.1
20°	4438.0	4410.2	4394.0	4356.9	4346.4	4424.1	4626.0	4858.1	4902.2	4925.3	4931.2
22.5°	4731.6	4713.1	4678.2	4584.2	4482.1	4481.0	4670.1	4979.9	5062.3	5084.3	5070.4
25°	5086.7	5058.8	5014.7	4887.1	4691.0	4593.5	4744.3	5135.4	5273.4	5279.3	5238.7
27.5°	5495.0	5453.3	5392.9	5224.7	4960.2	4769.9	4858.1	5314.0	5515.9	5513.6	5430.0
30°	5925.5	5883.7	5820.0	5615.8	5282.7	5007.7	5015.8	5506.7	5803.7	5790.9	5648.3
32.5°	6240.0	6208.6	6195.8	6038.1	5654.0	5288.5	5196.9	5720.1	6158.7	6147.1	5947.6
35°	6481.3	6440.7	6455.8	6375.7	6059.0	5603.0	5418.5	5974.2	6590.3	6589.2	6340.9
37.5°	6720.3	6684.3	6697.1	6643.7	6433.7	6002.1	5688.9	6285.2	7125.3	7150.8	6816.7
40°	6938.4	6900.2	6951.2	6901.3	6724.9	6426.7	5996.2	6636.8	7744.8	7793.6	7392.1
42.5°	7069.5	7039.4	7124.1	7125.3	6977.9	6785.3	6334.0	7024.3	8461.9	8570.9	8099.9
45°	7114.8	7104.4	7232.0	7258.6	7201.9	6993.0	6637.9	7446.6	9234.6	9429.6	8906.2
47.5°	7066.0	7046.4	7222.7	7321.4	7366.6	7090.4	6889.7	7903.8	10023.6	10309.0	9785.8
50°	6820.1	6781.8	7044.0	7251.7	7413.0	7154.3	7143.8	8431.8	10920.6	11232.7	10669.8
52.5°	6378.1	6349.1	6647.2	7008.0	7310.9	7185.6	7429.2	9008.4	11772.1	12175.9	11576.0
55°	5813.0	5774.6	6103.1	6574.1	7056.8	7175.1	7714.7	9653.4	12776.9	13186.5	12512.4
57.5°	4917.2	4840.7	5256.0	5813.0	6642.6	7162.4	8011.7	10295.1	13798.0	14288.8	13511.4
60°	3610.8	3497.1	4006.4	4666.6	5832.7	7038.3	8379.5	11014.4	15023.2	15465.3	14602.0
62.5°	2102.4	2036.3	2369.3	2985.4	4396.3	6307.2	8586.0	11851.0	16227.6	16691.7	15674.2
65°	1632.5	1614.0	1643.0	1690.5	2447.0	4722.3	7949.1	12666.7	17759.1	18084.1	16791.4
67.5°	1493.3	1479.4	1492.1	1402.8	1241.5	2630.4	6288.7	12873.3	19399.8	19597.1	17769.6
70°	1327.4	1311.1	1352.9	1276.3	976.9	1196.3	4063.3	12123.7	20705.1	21075.2	18513.3
72.5°	1081.4	1062.8	1160.3	1125.4	822.7	768.1	2040.9	10342.7	20568.2	21336.3	17980.8
75°	830.8	820.3	936.3	965.3	670.7	604.5	979.3	7688.0	18100.3	18874.1	15496.7
77.5°	645.1	637.0	696.2	801.8	540.7	468.7	602.2	4876.6	13640.2	13775.9	10679.2
80°	483.8	460.6	515.2	620.7	421.2	342.2	408.5	2843.9	8622.0	7815.6	4648.1
82.5°	302.8	291.2	336.5	414.2	297.0	235.5	265.7	1571.0	3455.3	2035.1	896.9
85°	172.9	168.2	183.4	236.7	161.2	135.7	152.0	693.8	631.2	434.0	270.4
87.5°	69.6	67.3	83.5	105.6	59.1	49.9	53.4	167.1	139.2	128.7	89.4
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°	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2	4403.2
2.5°	4416.0	4416.0	4399.8	4374.2	4345.2	4326.6	4296.5	4288.4	4257.0	4247.8	4262.9
5°	4469.4	4460.1	4410.2	4338.3	4239.6	4149.1	4049.4	3986.7	3898.5	3867.2	3890.4
7.5°	4536.6	4511.1	4425.3	4267.5	4060.9	3857.9	3646.7	3486.6	3333.5	3279.0	3285.9
10°	4598.2	4562.2	4416.0	4139.9	3782.5	3431.0	3094.5	2858.9	2680.3	2607.1	2623.4
12.5°	4659.6	4593.5	4354.5	3927.5	3386.8	2910.0	2551.4	2368.2	2257.9	2169.7	2198.7
15°	4717.7	4624.9	4259.4	3643.3	2952.9	2469.0	2204.6	2058.3	1970.2	1912.1	1922.6
17.5°	4785.0	4651.6	4116.6	3282.5	2539.8	2163.9	1948.1	1860.0	1842.5	1835.6	1840.2
20°	4879.0	4675.9	3928.7	2878.6	2235.8	1920.2	1808.8	1800.7	1799.6	1796.1	1807.7
22.5°	4979.9	4705.0	3680.4	2512.0	1977.1	1768.2	1748.5	1732.2	1721.9	1720.7	1733.5
25°	5099.4	4714.2	3369.5	2211.4	1756.6	1696.3	1673.1	1648.7	1641.7	1641.7	1648.7
27.5°	5215.4	4682.9	3007.5	1950.5	1632.5	1630.2	1600.0	1591.9	1590.7	1594.2	1603.5
30°	5331.4	4623.7	2647.8	1709.1	1560.6	1560.6	1550.1	1555.9	1560.6	1572.1	1580.3
32.5°	5488.1	4561.0	2347.2	1530.4	1497.9	1486.4	1496.7	1508.4	1513.0	1528.1	1540.9
35°	5717.9	4517.0	2108.2	1432.9	1432.9	1417.9	1423.6	1421.4	1410.9	1403.9	1420.1
37.5°	6021.9	4514.6	1911.0	1387.6	1378.4	1376.1	1377.3	1362.1	1321.5	1272.8	1274.0
40°	6387.3	4577.2	1759.0	1356.4	1349.4	1363.4	1356.4	1315.8	1204.4	1119.7	1117.4
42.5°	6878.1	4756.0	1661.5	1318.0	1339.0	1356.4	1328.5	1188.1	1112.7	1055.9	1053.5
45°	7456.0	5046.1	1611.6	1277.5	1319.3	1340.1	1205.5	1144.0	1083.7	1015.3	1010.6
47.5°	8110.3	5411.5	1600.0	1239.1	1275.1	1287.9	1153.3	1125.4	1057.0	982.8	976.9
50°	8822.7	5844.3	1631.4	1193.9	1211.3	1167.3	1135.9	1110.4	1039.6	966.5	958.4
52.5°	9559.5	6321.2	1694.0	1132.4	1147.5	1098.8	1128.9	1106.9	1029.2	930.5	923.6
55°	10283.5	6801.5	1754.3	1060.5	1082.5	1037.3	1109.3	1093.0	981.6	870.2	864.4
57.5°	11019.2	7279.6	1813.5	996.7	1019.9	978.2	1077.9	1055.9	928.2	814.5	812.2
60°	11783.7	7743.7	1841.3	935.2	951.4	923.6	1030.3	992.0	867.9	757.7	754.2
62.5°	12499.7	8130.1	1796.1	873.7	884.2	872.5	967.7	916.7	807.6	693.8	692.7
65°	13217.9	8359.8	1656.9	813.3	815.7	809.9	879.4	835.4	736.8	638.2	631.2
67.5°	13868.8	8488.5	1435.3	748.4	742.6	740.3	797.1	747.2	668.3	582.5	575.5
70°	14006.8	8161.4	1096.4	671.8	671.8	666.0	706.6	655.6	592.9	523.3	521.0
72.5°	12793.2	6865.3	778.6	584.8	594.1	582.5	616.1	573.2	516.3	470.0	456.0
75°	10316.0	5034.4	566.2	495.5	511.7	492.0	523.3	493.1	444.3	443.2	399.1
77.5°	7088.1	3113.0	410.7	408.5	420.0	394.5	430.5	414.2	370.1	350.4	328.3
80°	3024.9	1241.5	299.3	315.6	315.6	292.4	334.2	338.8	300.5	291.2	291.2
82.5°	602.2	352.7	210.0	217.0	204.2	197.2	236.7	262.2	362.0	402.6	403.7
85°	181.0	130.0	126.5	118.4	104.4	105.6	139.2	263.4	324.9	185.6	160.1
87.5°	49.9	32.5	33.6	26.6	22.0	29.0	47.6	199.6	109.1	46.4	39.5
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)