

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: P966171

Luminaire Tested: **NAV-SB4B-740-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966171
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-SB4B-740-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23918.4 lumens
Efficiency: N/A
Efficacy: 162.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

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



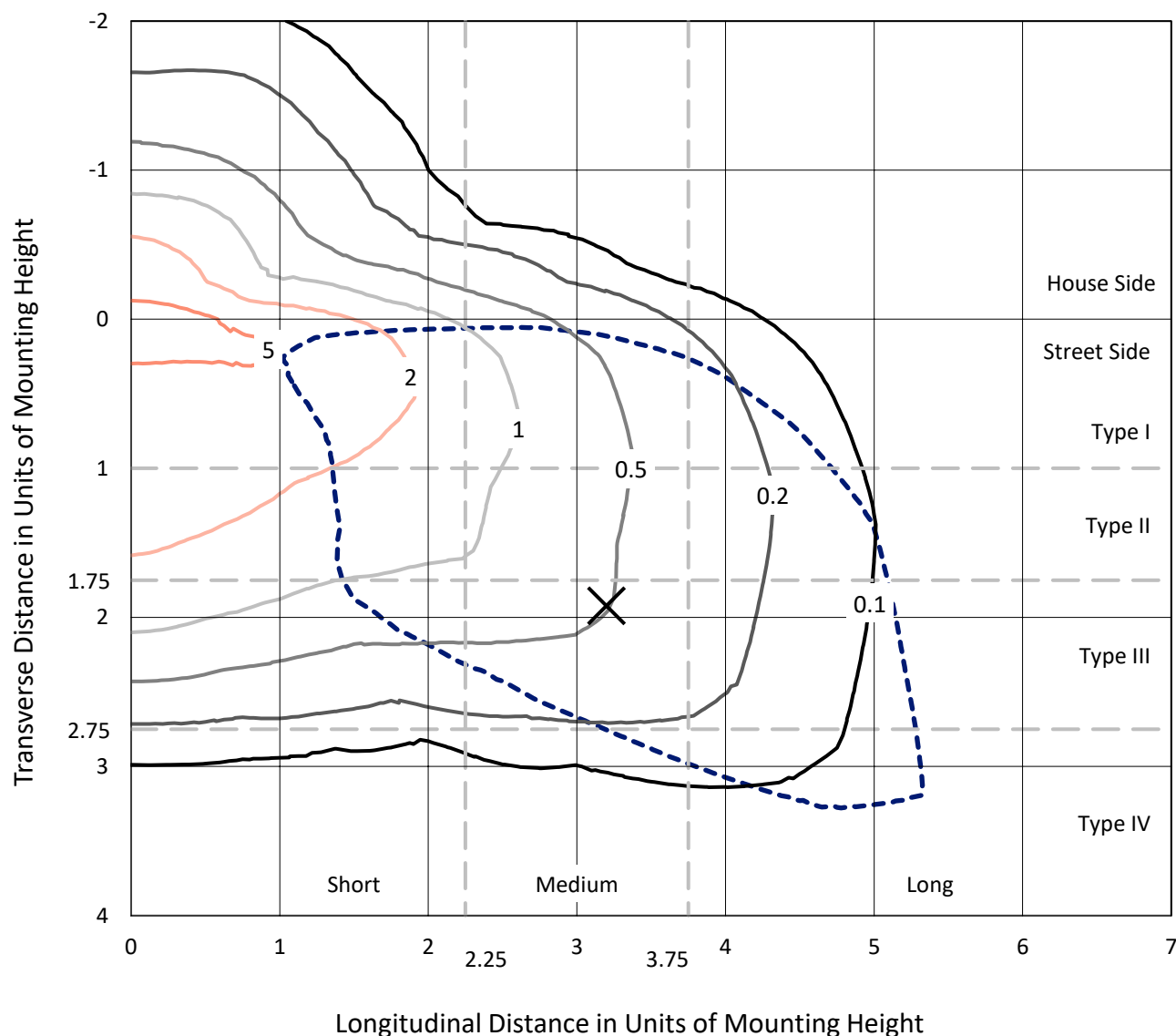
REPORT NUMBER: P966171

CATALOG NUMBER: NAV-SB4B-740-U-SL3

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

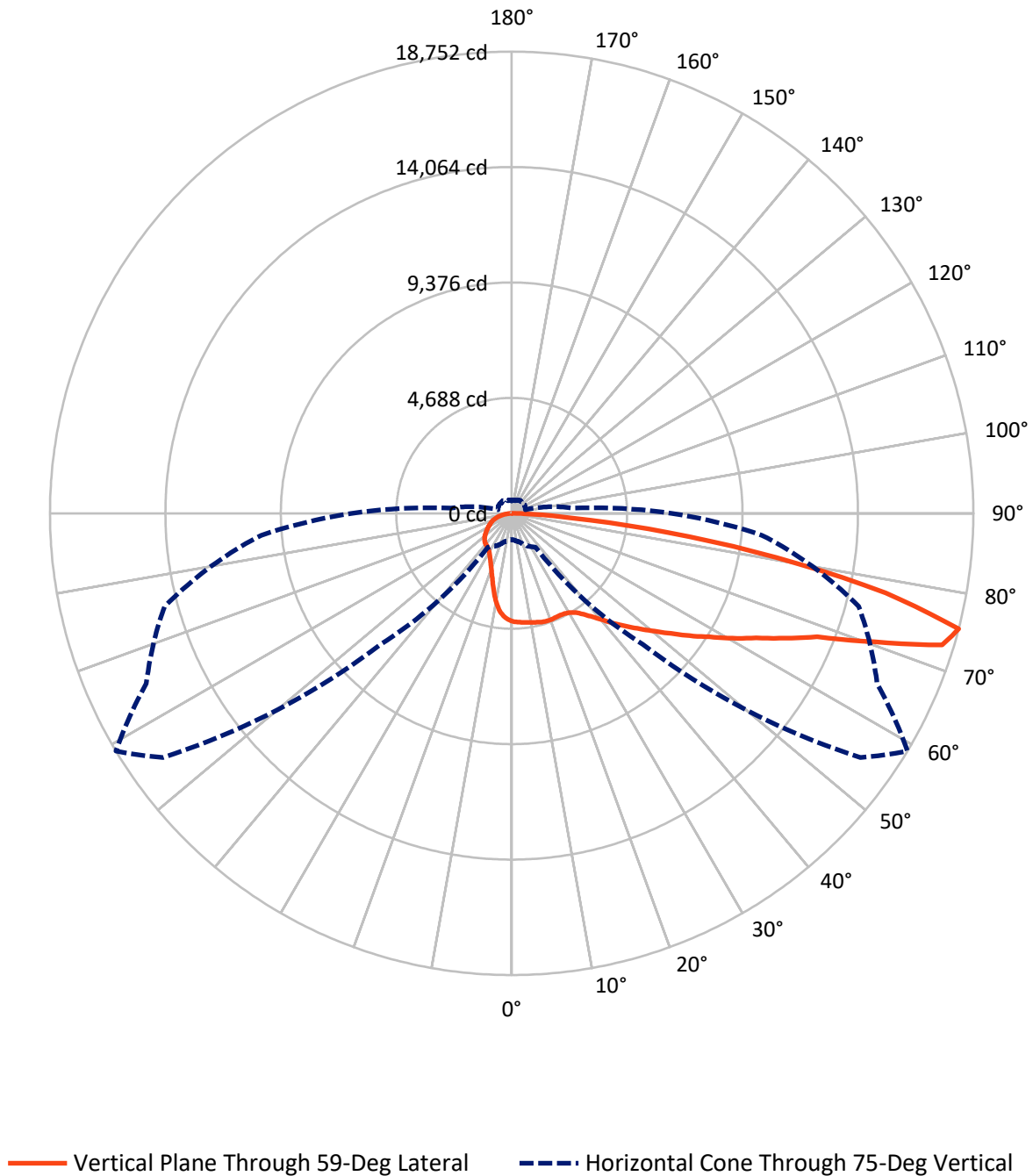
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc
 Type IV - Medium - N/A

REPORT NUMBER: P966171
CATALOG NUMBER: NAV-SB4B-740-U-SL3

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4486.1	0.0	4486.1
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	19432.3	0.0	19432.3
	% Fixture	81.2	0.0	81.2
Total	Lumens	23918.4	0.0	23918.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	393.6	1.6
10°-20°	1006.2	4.2
20°-30°	1528.3	6.4
30°-40°	2271.8	9.5
40°-50°	3378.6	14.1
50°-60°	4586.0	19.2
60°-70°	5598.8	23.4
70°-80°	4393.9	18.4
80°-90°	761.1	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°	23918.4	100.0
0°-180°	23918.4	100.0

Coefficient of Utilization



REPORT NUMBER: P966171

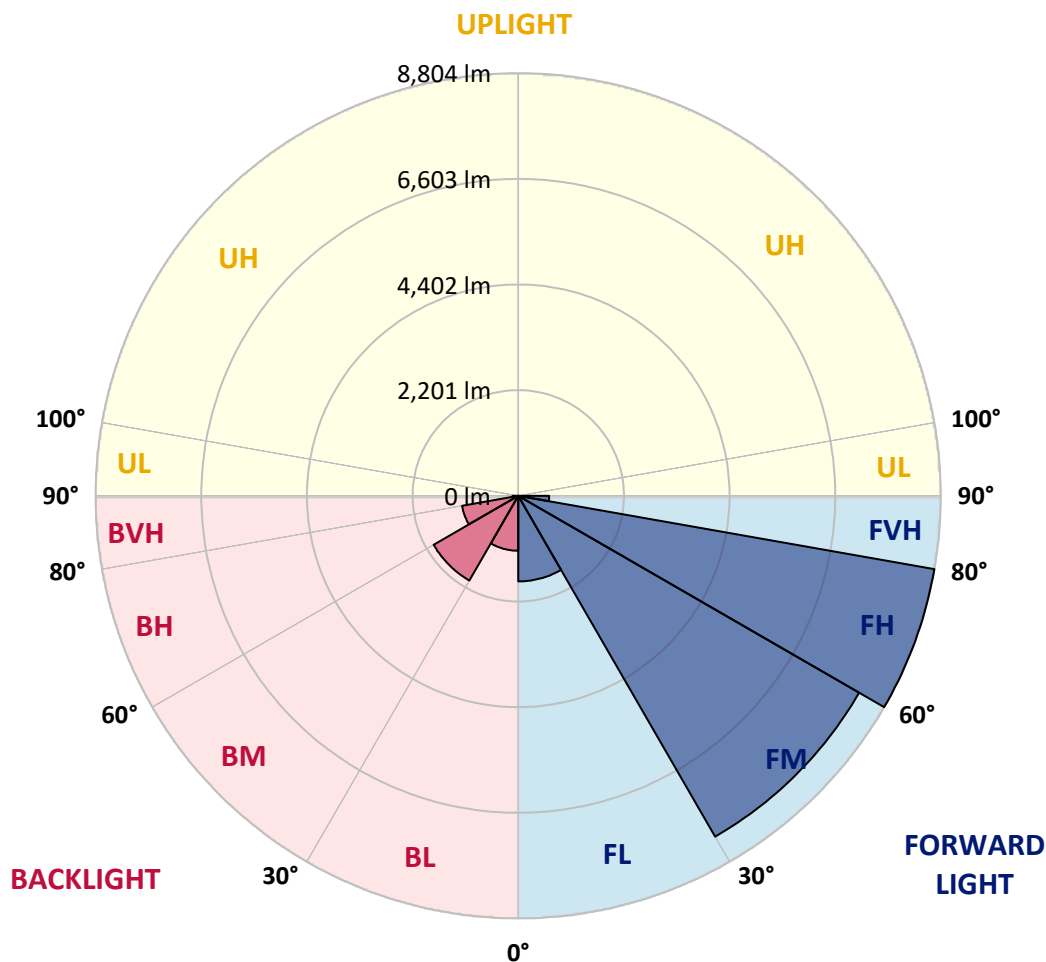
CATALOG NUMBER: NAV-SB4B-740-U-SL3

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1783.4	7.5			
FM	(30°-60°)	8200.2	34.3			
FH	(60°-80°)	8804.1	36.8			G4/12000
FVH	(80°-90°)	644.6	2.7			G4/750
BL	(0°-30°)	1144.8	4.8	B3/2500		
BM	(30°-60°)	2036.2	8.5	B2/2500		
BH	(60°-80°)	1188.5	5.0	B3/2500		G3/2500
BVH	(80°-90°)	116.5	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-G4

Type IV Medium



REPORT NUMBER: P966171

CATALOG NUMBER: NAV-SB4B-740-U-SL3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2
2.5°	4427.5	4412.0	4427.5	4421.0	4418.5	4413.3	4414.6	4423.6	4418.5	4424.9	4403.0
5°	4397.9	4388.8	4404.3	4400.4	4417.1	4419.8	4436.5	4446.8	4453.2	4454.5	4437.7
7.5°	4349.0	4340.0	4361.9	4379.8	4415.9	4426.2	4460.9	4477.6	4486.6	4502.1	4477.6
10°	4170.1	4166.3	4220.3	4288.5	4373.5	4426.2	4478.9	4507.2	4521.4	4562.6	4534.3
12.5°	3853.6	3858.7	3929.5	4060.7	4230.6	4400.4	4499.5	4540.8	4562.6	4614.0	4601.2
15°	3551.2	3550.0	3627.2	3767.4	4005.5	4287.3	4509.8	4580.6	4617.9	4693.8	4683.5
17.5°	3376.2	3371.1	3425.1	3531.9	3753.2	4113.5	4484.1	4602.5	4682.2	4777.4	4768.4
20°	3344.1	3333.8	3362.1	3414.9	3571.8	3923.1	4417.1	4602.5	4733.8	4857.3	4852.0
22.5°	3461.2	3444.4	3432.8	3426.5	3496.0	3766.2	4341.3	4587.0	4809.6	4971.8	4962.7
25°	3696.7	3670.9	3611.7	3553.8	3533.3	3695.3	4274.4	4583.2	4922.9	5126.1	5092.7
27.5°	4077.4	4045.4	3925.6	3786.8	3661.9	3731.4	4244.7	4606.3	5047.6	5289.5	5222.7
30°	4549.7	4515.0	4364.4	4150.8	3927.0	3865.2	4282.0	4674.5	5207.2	5507.0	5375.7
32.5°	4973.0	4934.5	4805.7	4588.3	4285.9	4096.8	4400.4	4804.5	5458.1	5809.4	5606.0
35°	5348.8	5303.8	5187.9	4987.1	4726.0	4422.4	4614.0	5034.8	5814.5	6300.9	5918.8
37.5°	5716.7	5663.9	5537.9	5325.6	5142.8	4855.9	4908.7	5330.7	6288.1	6897.9	6333.1
40°	6128.5	6052.5	5899.5	5689.7	5512.1	5364.2	5296.0	5693.6	6769.2	7564.4	6850.3
42.5°	6527.3	6455.2	6272.6	6093.7	5871.1	5828.7	5745.0	6118.2	7295.5	8296.6	7375.3
45°	6957.1	6870.9	6649.6	6423.2	6282.8	6137.5	6179.9	6542.8	7811.4	9042.9	7926.0
47.5°	7359.8	7263.4	7002.1	6749.9	6672.7	6397.4	6578.9	7009.9	8348.0	9799.4	8471.5
50°	7577.3	7482.1	7264.6	7036.8	6976.4	6717.7	7011.1	7523.2	8910.3	10553.4	8995.2
52.5°	7758.7	7655.7	7371.4	7245.3	7227.3	7066.5	7543.8	8110.0	9472.5	11219.9	9500.8
55°	7951.7	7837.2	7474.3	7361.1	7443.4	7457.6	8175.6	8775.2	10067.0	11869.7	9978.3
57.5°	8174.3	8028.9	7573.4	7458.9	7654.5	7915.7	8901.3	9464.8	10651.2	12471.8	10402.8
60°	8384.0	8237.3	7763.9	7614.6	7882.2	8447.1	9733.8	10299.9	11312.5	13008.4	10804.3
62.5°	8425.2	8304.2	7915.7	7914.4	8191.0	9067.3	10719.3	11142.7	11890.2	13538.5	11164.5
65°	7712.4	7636.5	7406.1	7902.9	8633.7	9960.2	11816.9	12220.9	12624.9	14001.7	11481.1
67.5°	5869.9	5880.1	5863.4	6822.0	8276.0	11243.0	13406.0	13375.1	13532.0	14521.5	11845.2
70°	2684.1	2744.5	3138.2	4709.3	6630.3	11391.0	16033.4	15633.2	14670.7	15194.5	12160.5
72.5°	1450.1	1496.4	1657.2	2281.2	3986.1	10127.5	17996.8	18281.2	16185.2	15647.3	11814.4
75°	1064.1	1089.8	1201.8	1450.1	1673.9	7527.1	17293.0	18752.2	16374.4	14591.0	10202.1
77.5°	796.4	808.0	899.4	1149.0	856.9	3968.1	13817.7	15530.3	14017.1	11988.0	7536.1
80°	577.7	590.6	658.8	862.1	600.9	1451.4	9488.0	10900.8	9599.9	7641.6	3755.8
82.5°	398.8	404.1	433.6	586.7	419.4	563.5	5383.5	6392.2	5359.0	2681.4	1013.9
85°	240.6	247.0	259.9	342.2	238.0	267.6	2323.8	2403.5	1601.9	640.7	315.2
87.5°	99.1	105.5	115.8	144.1	93.9	74.6	383.5	481.2	299.8	187.9	97.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P966171

CATALOG NUMBER: NAV-SB4B-740-U-SL3

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2	4390.2
2.5°	4396.6	4387.6	4363.1	4329.7	4298.8	4260.2	4243.5	4229.4	4216.4	4192.0	4180.5
5°	4423.6	4399.2	4333.6	4248.6	4152.2	4046.6	3943.7	3873.0	3812.5	3767.4	3730.1
7.5°	4464.8	4418.5	4298.8	4125.1	3903.8	3677.4	3472.8	3327.4	3218.0	3178.1	3108.6
10°	4507.2	4451.9	4243.5	3937.2	3555.1	3206.4	2934.9	2785.6	2698.2	2669.8	2626.2
12.5°	4557.5	4476.4	4157.3	3676.1	3165.2	2783.1	2546.3	2458.9	2413.8	2398.4	2402.2
15°	4630.7	4497.0	4027.3	3349.2	2793.4	2474.2	2321.2	2260.7	2237.6	2236.2	2241.4
17.5°	4686.1	4500.8	3825.3	2999.3	2507.8	2287.7	2161.6	2138.5	2153.9	2177.1	2186.1
20°	4747.9	4466.1	3560.2	2680.2	2307.1	2124.3	2071.5	2087.0	2124.3	2157.7	2169.3
22.5°	4791.6	4403.0	3239.8	2431.8	2133.3	2030.4	2027.9	2059.9	2080.5	2097.3	2106.3
25°	4830.2	4296.3	2900.1	2223.4	1990.5	1973.7	2002.0	1991.8	1977.6	1991.8	2000.8
27.5°	4858.5	4127.7	2596.5	2040.7	1890.1	1935.2	1918.5	1895.3	1894.0	1901.7	1914.6
30°	4849.5	3902.5	2346.9	1866.9	1819.4	1863.1	1823.3	1819.4	1815.5	1819.4	1833.5
32.5°	4849.5	3646.4	2155.2	1747.3	1774.4	1757.6	1753.8	1744.8	1729.3	1728.0	1744.8
35°	4876.5	3390.4	1990.5	1682.9	1737.1	1697.1	1699.8	1677.8	1645.6	1630.3	1645.6
37.5°	4931.9	3184.6	1827.1	1652.1	1671.4	1670.1	1659.8	1622.5	1565.9	1517.0	1533.7
40°	5065.7	3124.1	1715.1	1637.9	1640.5	1656.0	1628.9	1556.9	1428.2	1348.5	1358.7
42.5°	5275.4	3225.7	1690.7	1603.2	1619.9	1635.4	1582.6	1415.3	1324.0	1276.4	1276.4
45°	5541.8	3403.3	1743.4	1553.0	1571.0	1598.1	1441.0	1361.3	1320.1	1321.4	1327.9
47.5°	5878.9	3589.9	1841.2	1509.3	1500.3	1515.7	1347.2	1298.3	1241.7	1255.8	1291.8
50°	6268.7	3779.0	1933.9	1450.1	1421.8	1371.7	1286.7	1240.4	1168.3	1134.9	1143.9
52.5°	6690.8	3961.7	1971.2	1378.0	1336.9	1279.0	1245.5	1188.9	1101.4	1046.1	1044.8
55°	7091.0	4127.7	1930.1	1291.8	1251.9	1206.9	1201.8	1167.1	1073.1	995.9	995.9
57.5°	7469.2	4266.7	1827.1	1204.4	1165.7	1138.7	1173.4	1156.7	1038.3	939.3	934.1
60°	7789.6	4361.9	1677.8	1115.5	1088.6	1074.4	1127.1	1122.0	989.4	878.8	874.9
62.5°	8044.3	4399.2	1513.1	1030.6	1024.2	998.5	1062.8	1062.8	927.7	819.6	815.8
65°	8243.8	4363.1	1345.8	947.0	959.9	921.3	984.3	976.6	862.1	766.9	761.7
67.5°	8420.1	4244.7	1160.6	864.7	894.2	845.3	902.0	884.0	790.1	714.1	709.0
70°	8498.6	3969.4	949.6	782.3	818.4	770.7	819.6	786.2	709.0	657.5	647.2
72.5°	7868.1	3299.1	747.5	696.1	726.9	688.4	730.8	692.3	621.5	598.3	579.0
75°	6509.4	2475.6	575.1	602.2	625.4	595.7	624.0	595.7	531.4	548.2	500.5
77.5°	4727.3	1671.4	440.0	503.1	513.4	497.9	522.4	490.3	432.3	428.4	409.2
80°	2350.7	979.2	344.8	397.6	393.7	383.5	411.7	396.3	347.4	368.0	364.2
82.5°	680.7	419.4	250.9	279.2	271.5	274.1	294.7	302.4	452.9	449.1	459.3
85°	213.6	164.7	150.6	155.7	148.0	151.8	173.7	344.8	319.1	186.5	202.0
87.5°	55.4	56.6	37.3	39.9	41.2	48.9	55.4	209.7	100.3	65.6	69.5
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)