

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: P884086

Luminaire Tested: **NAV-SB4D-727-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884086  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4D-727-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

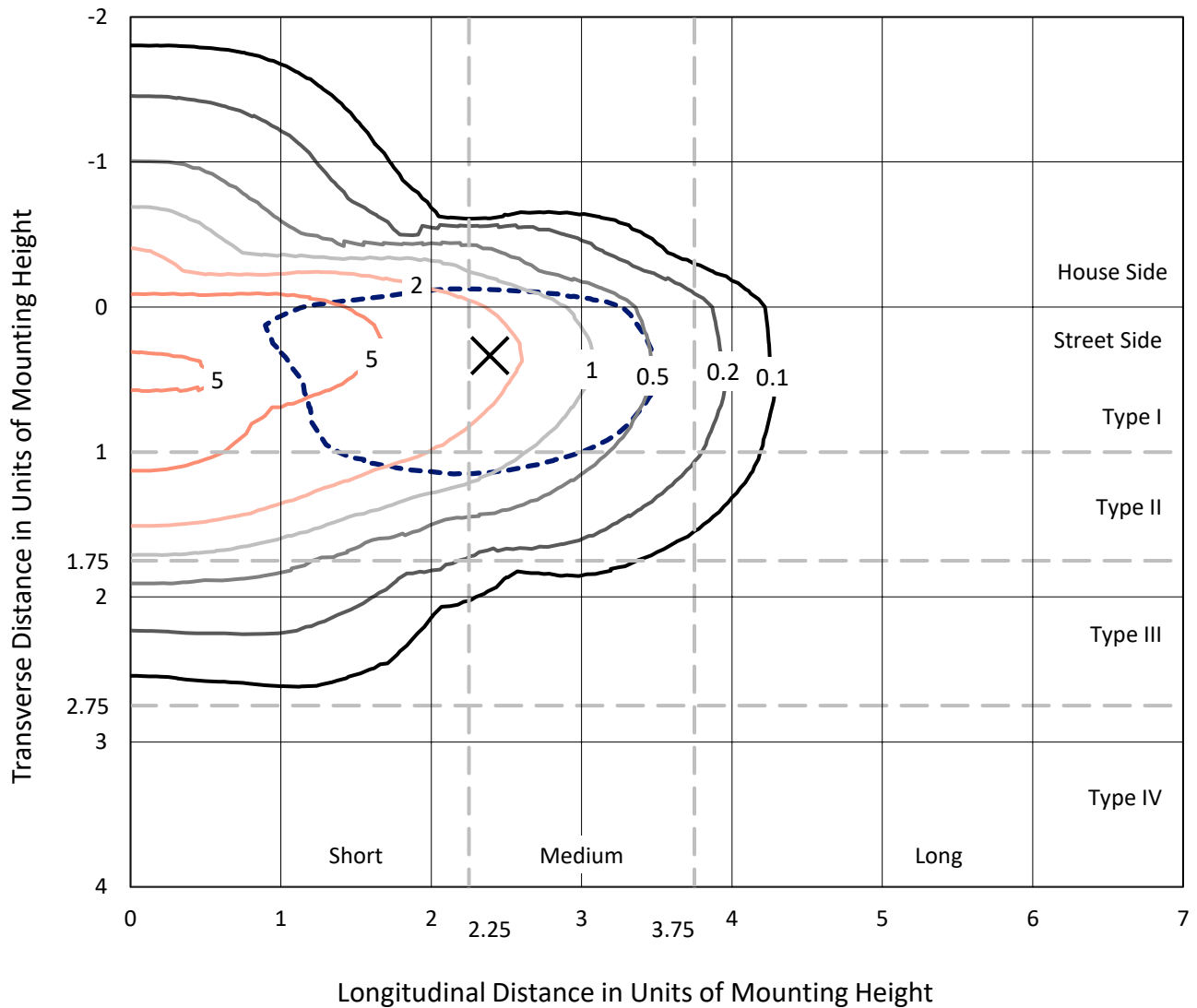
Lumens per Lamp: N/A  
Luminaire Lumens: 27291 lumens  
Efficiency: N/A  
Efficacy: 93.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 2.469  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P884086  
 CATALOG NUMBER: NAV-SB4D-727-U-T2-HSS

### Iso-Footcandle Lines of Horizontal Illumination

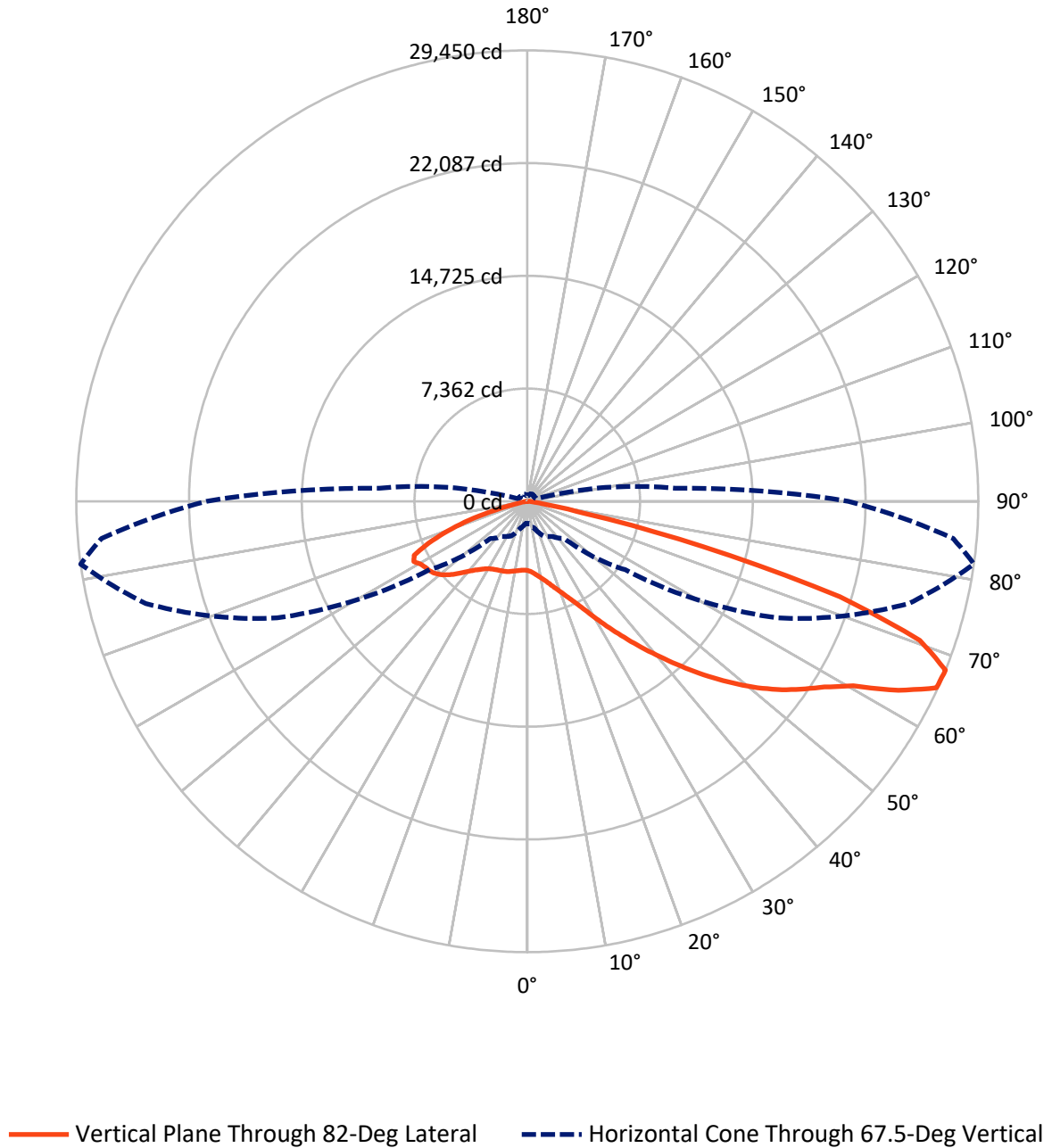
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 fc  
 Type II - Medium - N/A

REPORT NUMBER: P884086  
CATALOG NUMBER: NAV-SB4D-727-U-T2-HSS

### Luminous Intensity Polar Plot



REPORT NUMBER: P884086

CATALOG NUMBER: NAV-SB4D-727-U-T2-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4943.5	0.0	4943.5
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	22347.5	0.0	22347.5
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	27291.0	0.0	27291.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	402.8	1.5
10°-20°	1046.7	3.8
20°-30°	1676.5	6.1
30°-40°	2964.6	10.9
40°-50°	5194.3	19.0
50°-60°	6927.7	25.4
60°-70°	6449.3	23.6
70°-80°	2475.3	9.1
80°-90°	153.7	0.6
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°	27291.0	100.0
0°-180°	27291.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P884086

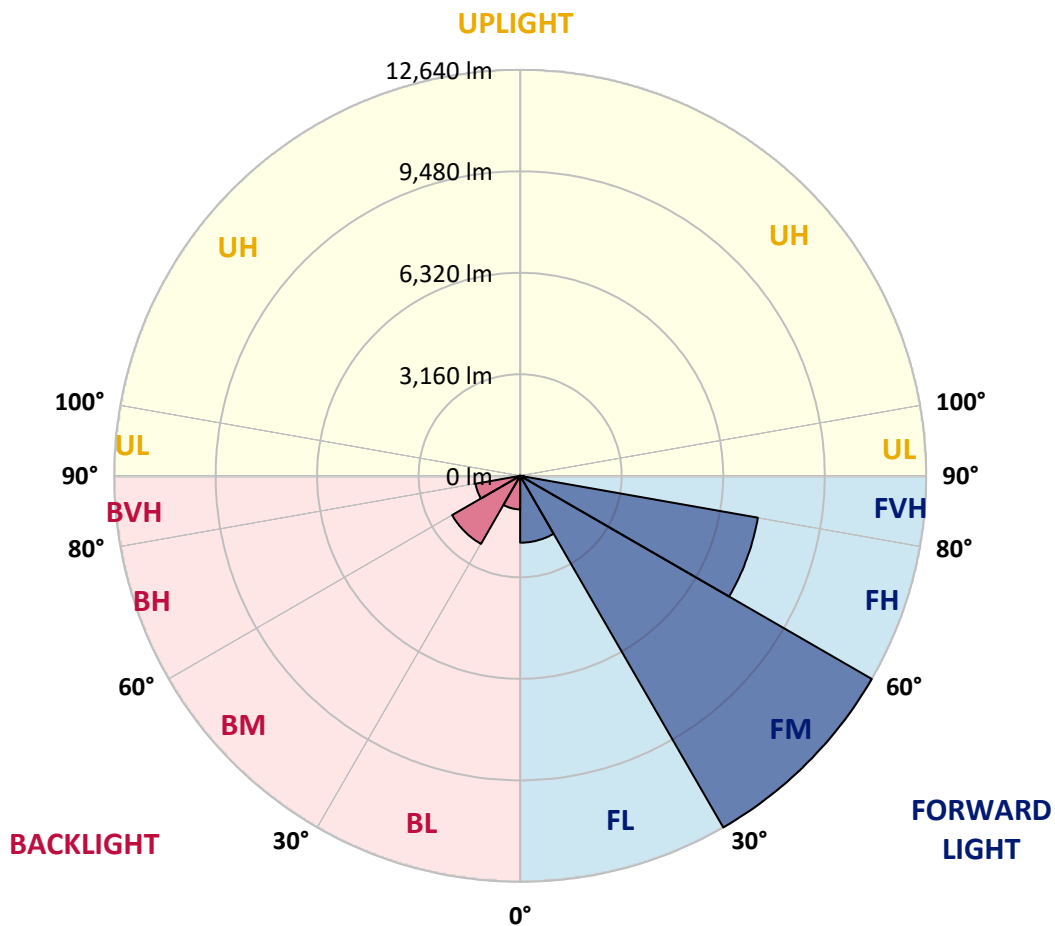
CATALOG NUMBER: NAV-SB4D-727-U-T2-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2082.0	7.6			
FM (30°-60°)	12640.1	46.3			
FH (60°-80°)	7513.6	27.5			G4/12000
FVH (80°-90°)	111.8	0.4			G2/225
BL (0°-30°)	1044.1	3.8	B3/2500		
BM (30°-60°)	2446.5	9.0	B2/2500		
BH (60°-80°)	1411.0	5.2	B3/2500		G3/2500
BVH (80°-90°)	42.0	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type II Medium



REPORT NUMBER: P884086  
 CATALOG NUMBER: NAV-SB4D-727-U-T2-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2
2.5°	4778.6	4806.1	4790.4	4782.5	4768.8	4749.1	4733.4	4684.3	4633.2	4599.8	4588.0
5°	4874.9	4902.4	4900.4	4908.3	4918.1	4924.0	4920.1	4865.0	4792.3	4735.4	4702.0
7.5°	4792.3	4823.8	4849.3	4888.6	4957.4	5030.1	5065.5	5053.7	4979.0	4900.4	4859.2
10°	4558.5	4591.9	4652.8	4745.2	4890.6	5047.8	5179.4	5240.3	5193.2	5106.7	5049.7
12.5°	4130.2	4163.6	4283.4	4483.9	4727.5	5000.6	5252.1	5415.2	5427.0	5340.6	5273.7
15°	3648.8	3682.2	3809.9	4061.4	4432.8	4870.9	5291.4	5599.9	5704.1	5629.4	5548.8
17.5°	3350.1	3379.6	3475.9	3678.3	4065.3	4611.6	5277.7	5796.4	6034.2	5975.2	5878.9
20°	3259.7	3285.3	3330.5	3471.9	3794.2	4342.4	5187.3	5981.1	6389.8	6356.4	6248.3
22.5°	3356.0	3379.6	3393.4	3456.2	3658.6	4165.6	5073.3	6169.7	6802.4	6806.4	6674.7
25°	3578.1	3601.6	3585.9	3625.2	3713.6	4110.5	5030.1	6391.8	7321.2	7364.4	7215.0
27.5°	3943.5	3945.5	3908.2	3906.2	3919.9	4193.1	5075.3	6629.5	7975.5	8056.0	7871.3
30°	4676.4	4646.9	4503.5	4348.3	4277.5	4440.6	5201.0	6910.5	8747.7	8891.1	8659.2
32.5°	5806.2	5763.0	5499.7	5128.3	4755.0	4839.5	5427.0	7230.8	9588.6	9848.0	9565.0
35°	7032.3	7020.5	6745.4	6193.3	5541.0	5407.4	5794.4	7651.3	10506.2	10918.9	10582.9
37.5°	8171.9	8166.1	8008.9	7358.5	6564.7	6199.2	6383.9	8201.4	11488.7	12086.0	11689.1
40°	9213.3	9231.0	9073.8	8492.2	7692.5	7215.0	7185.6	8881.3	12581.1	13357.3	12885.7
42.5°	10113.3	10132.9	9973.7	9543.4	8806.6	8339.0	8170.0	9714.4	13648.1	14722.9	14164.8
45°	10724.3	10846.2	10822.6	10478.7	9950.2	9464.8	9352.8	10759.7	14864.3	16171.0	15516.7
47.5°	10897.2	11009.2	11186.1	11233.2	10911.0	10433.5	10567.1	12019.2	16094.4	17621.1	16876.4
50°	10470.9	10575.0	10942.4	11431.7	11655.7	11508.3	11748.0	13369.1	17353.8	19067.2	18210.5
52.5°	9629.9	9736.0	10199.7	10973.9	11887.5	12351.3	12932.9	14699.3	18574.0	20436.7	19474.0
55°	8413.6	8525.6	9121.0	9997.3	11445.4	12699.0	13921.2	16027.5	19692.1	21668.7	20613.6
57.5°	6759.2	6841.7	7460.7	8686.7	10333.3	12353.2	14650.2	17477.6	20745.2	22879.1	21743.4
60°	4405.3	4478.0	5197.1	6564.7	8490.3	11197.9	14795.6	19094.7	22144.2	24453.0	23266.2
62.5°	2929.6	2978.8	3405.1	4409.2	5979.1	8979.5	13944.8	20385.7	24195.6	27192.0	25877.5
65°	2010.1	2059.2	2485.6	3185.1	3863.0	5939.8	11498.5	20214.7	26054.3	29367.1	27812.9
67.5°	1434.4	1475.6	1837.2	2497.4	2796.0	3450.3	7794.7	18029.8	25787.1	29449.7	27917.1
70°	1027.6	1051.2	1349.9	1945.2	2222.3	2073.0	4334.5	13789.5	22578.5	27194.0	25791.1
72.5°	719.1	727.0	937.2	1481.5	1790.0	1513.0	2063.1	9193.7	17076.8	21344.5	19994.6
75°	487.3	497.1	630.7	1086.6	1436.3	1155.4	1092.5	4929.9	10024.8	11814.8	10590.7
77.5°	298.7	302.6	406.7	742.7	1074.8	880.3	703.4	2088.7	3878.7	3807.9	3246.0
80°	169.0	169.0	259.4	461.7	732.9	567.9	493.2	888.1	1228.1	1078.7	951.0
82.5°	94.3	96.3	188.6	286.9	485.3	336.0	271.2	410.7	530.5	469.6	408.7
85°	39.3	43.2	115.9	135.6	231.9	167.0	110.0	172.9	196.5	174.9	127.7
87.5°	3.9	5.9	35.4	25.5	27.5	33.4	15.7	33.4	27.5	27.5	19.6
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: P884086

CATALOG NUMBER: NAV-SB4D-727-U-T2-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2	4521.2
2.5°	4550.7	4521.2	4446.5	4360.1	4246.1	4191.1	4116.4	4065.3	4022.1	4026.0	3986.7
5°	4639.1	4564.4	4397.4	4189.1	3929.8	3745.1	3548.6	3413.0	3303.0	3279.4	3226.3
7.5°	4760.9	4643.0	4350.3	3975.0	3536.8	3204.7	2908.0	2717.4	2581.9	2538.6	2495.4
10°	4918.1	4747.2	4289.3	3705.8	3075.0	2652.6	2334.3	2184.9	2092.6	2061.2	2037.6
12.5°	5100.8	4867.0	4208.8	3377.6	2599.5	2192.8	1990.4	1915.8	1886.3	1876.5	1870.6
15°	5330.7	5016.3	4087.0	2988.6	2196.7	1911.8	1825.4	1815.6	1819.5	1815.6	1813.6
17.5°	5603.8	5179.4	3888.5	2587.8	1925.6	1768.4	1737.0	1744.8	1754.6	1752.7	1748.7
20°	5902.5	5340.6	3635.0	2232.1	1740.9	1666.2	1648.5	1656.4	1664.3	1660.3	1658.4
22.5°	6242.4	5513.5	3354.1	1955.1	1617.1	1571.9	1552.3	1554.2	1554.2	1546.4	1542.4
25°	6649.2	5704.1	3059.3	1758.6	1522.8	1487.4	1463.8	1456.0	1444.2	1420.6	1416.7
27.5°	7134.5	5906.4	2776.4	1621.0	1448.1	1414.7	1387.2	1367.6	1338.1	1298.8	1294.9
30°	7680.7	6152.0	2536.7	1534.6	1389.2	1355.8	1324.3	1294.9	1251.6	1202.5	1198.6
32.5°	8323.2	6415.3	2361.8	1477.6	1336.1	1300.8	1263.4	1228.1	1180.9	1131.8	1133.7
35°	9089.5	6733.7	2259.6	1438.3	1294.9	1247.7	1206.4	1167.1	1131.8	1088.5	1084.6
37.5°	9920.7	7071.6	2228.2	1418.6	1267.3	1194.6	1147.5	1120.0	1116.1	1090.5	1088.5
40°	10830.4	7472.4	2251.8	1406.9	1237.9	1143.6	1092.5	1086.6	1096.4	1051.2	1053.2
42.5°	11793.2	7948.0	2291.1	1393.1	1196.6	1092.5	1043.4	1043.4	1035.5	972.6	972.6
45°	12834.6	8496.2	2330.4	1359.7	1147.5	1041.4	1004.1	990.3	956.9	896.0	894.0
47.5°	13883.9	9054.2	2359.8	1298.8	1088.5	998.2	964.8	933.3	884.2	829.2	827.2
50°	14880.1	9555.2	2328.4	1208.4	1021.7	956.9	921.5	878.3	825.3	787.9	782.0
52.5°	15770.1	9989.5	2194.8	1102.3	951.0	913.7	882.2	837.0	793.8	754.5	750.6
55°	16544.3	10341.2	1959.0	1002.1	888.1	876.3	844.9	787.9	729.0	695.6	691.6
57.5°	17287.0	10608.4	1664.3	919.6	831.1	835.1	787.9	736.8	681.8	646.4	642.5
60°	18275.4	10966.0	1365.6	842.9	770.2	782.0	730.9	693.6	624.8	579.6	573.7
62.5°	19855.1	11522.1	1084.6	748.6	699.5	703.4	681.8	636.6	554.1	501.0	497.1
65°	21108.7	11317.7	854.7	646.4	618.9	624.8	624.8	575.7	487.3	426.4	420.5
67.5°	20967.3	9690.8	681.8	546.2	542.3	546.2	560.0	518.7	432.3	383.2	375.3
70°	19314.8	7708.2	546.2	453.9	471.6	461.7	501.0	473.5	389.0	339.9	334.0
72.5°	15760.3	5552.8	416.6	375.3	361.5	377.3	451.9	426.4	324.2	269.2	263.3
75°	9209.4	2963.0	310.5	296.7	261.3	314.4	400.8	363.5	247.6	198.5	192.6
77.5°	2998.4	1033.5	227.9	218.1	194.5	253.5	341.9	306.5	202.4	157.2	151.3
80°	803.6	312.4	155.2	143.4	125.8	188.6	271.2	243.6	145.4	102.2	100.2
82.5°	322.2	131.6	90.4	80.6	68.8	129.7	214.2	196.5	108.1	64.8	64.8
85°	104.1	43.2	33.4	25.5	31.4	80.6	127.7	133.6	76.6	33.4	25.5
87.5°	13.8	5.9	5.9	7.9	5.9	13.8	39.3	37.3	21.6	3.9	0.0
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)