

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: P883966

Luminaire Tested: **NAV-SB4C-760-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883966
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-SB4C-760-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 615mA 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: 23894 lumens
Efficiency: N/A
Efficacy: 119.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

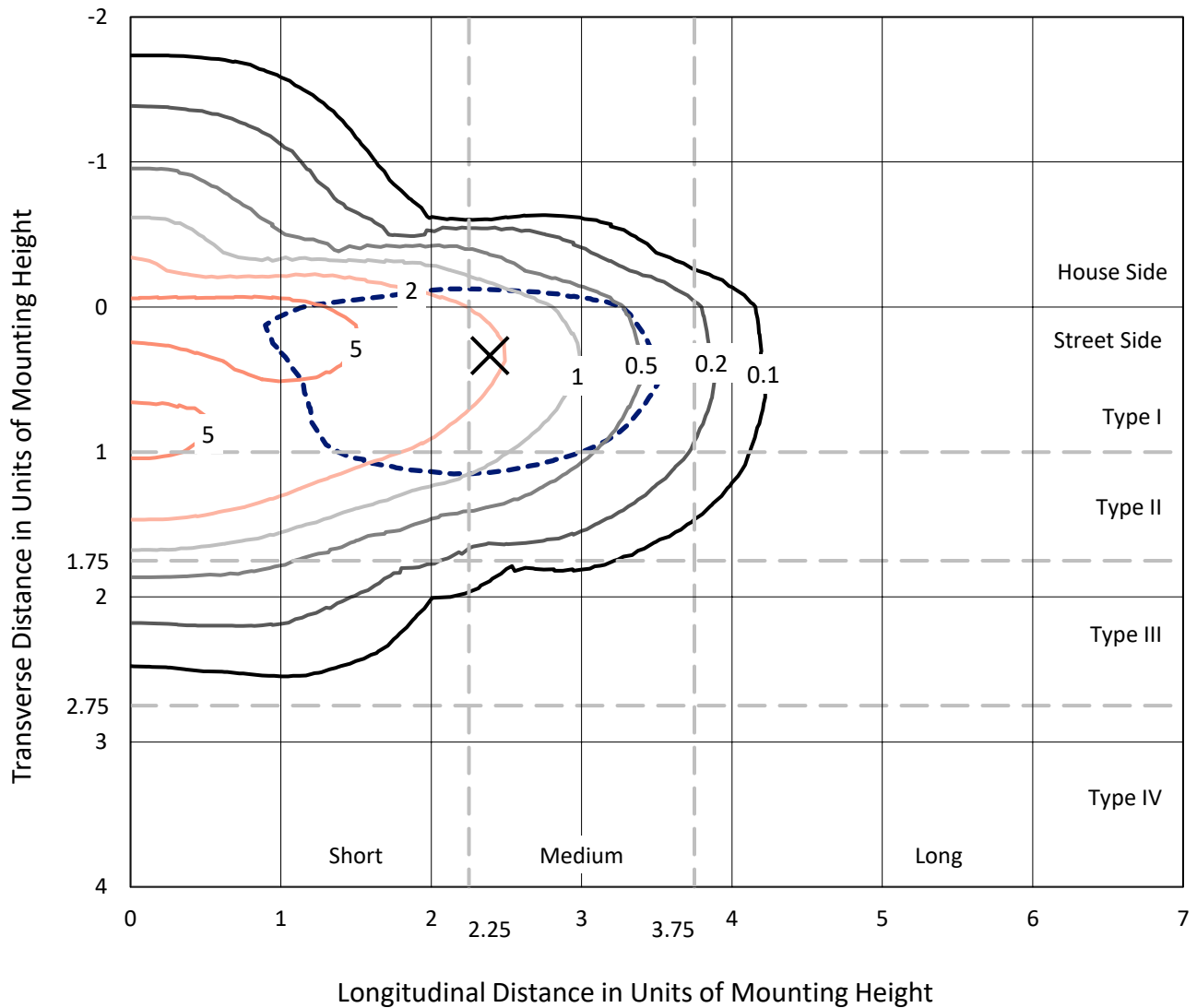
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

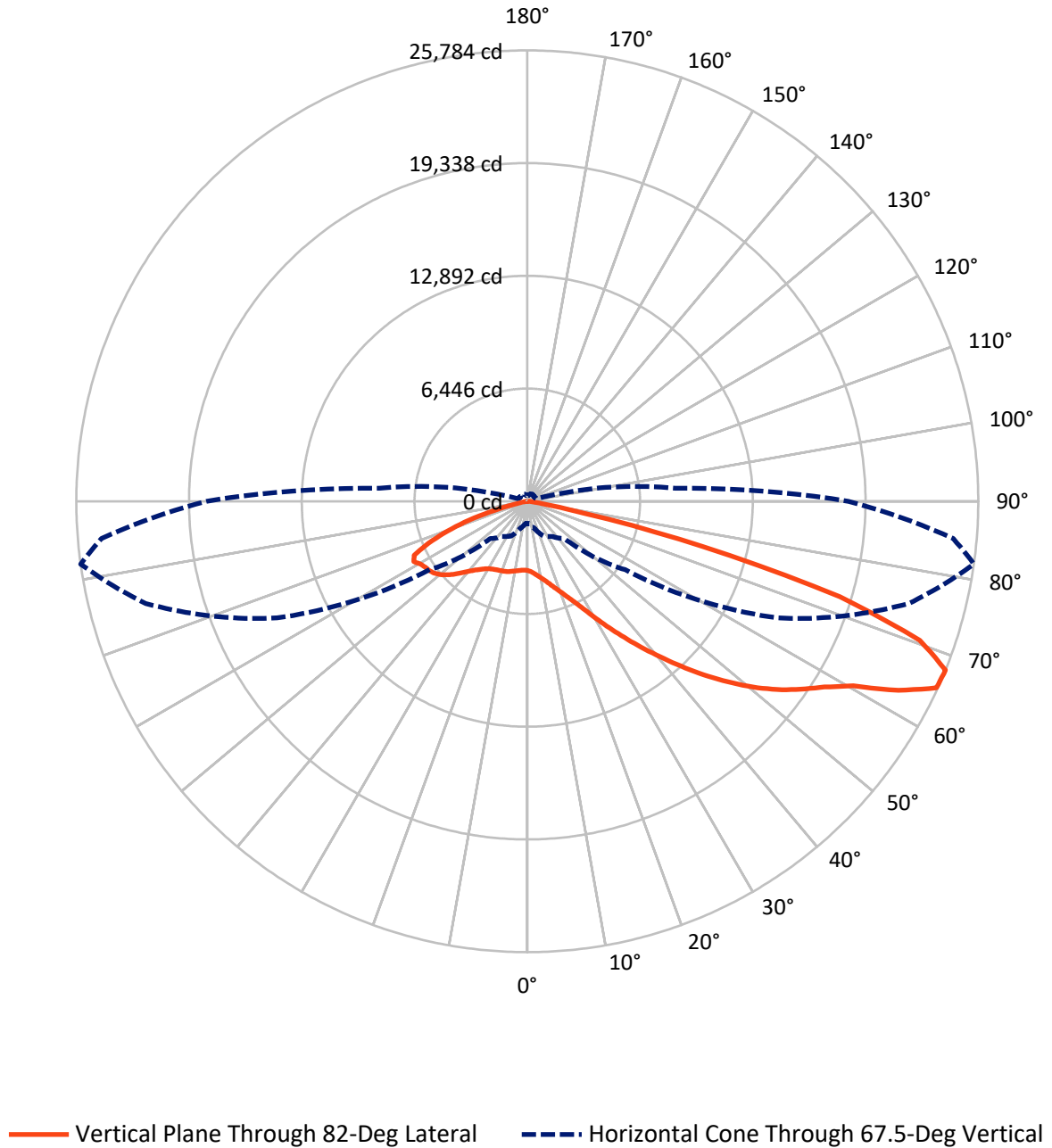
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.4 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	4328.2	0.0	4328.2
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	19565.8	0.0	19565.8
	% Fixture	81.9	0.0	81.9
Total	Lumens	23894.0	0.0	23894.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	352.7	1.5
10°-20°	916.4	3.8
20°-30°	1467.8	6.1
30°-40°	2595.6	10.9
40°-50°	4547.7	19.0
50°-60°	6065.4	25.4
60°-70°	5646.6	23.6
70°-80°	2167.2	9.1
80°-90°	134.6	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°	23894.0	100.0
0°-180°	23894.0	100.0

Coefficient of Utilization



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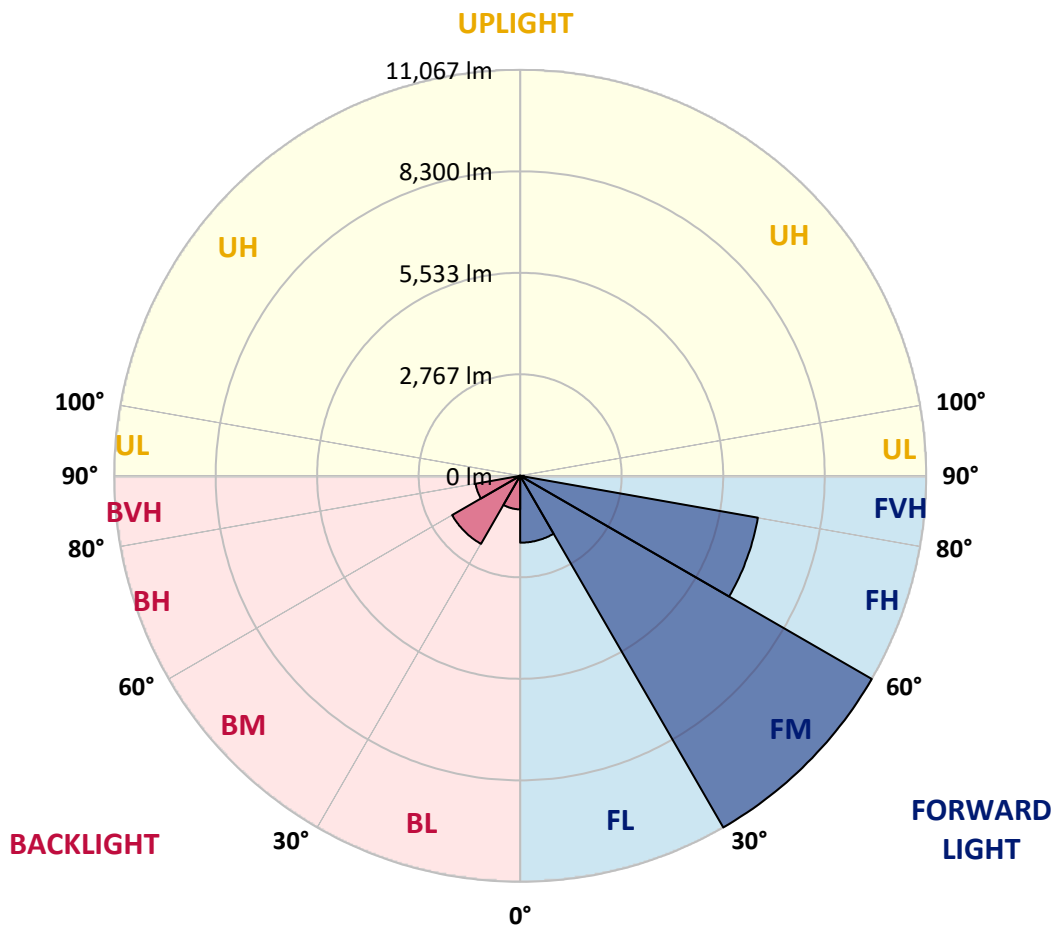
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1822.8	7.6			
FM (30°-60°)	11066.7	46.3			
FH (60°-80°)	6578.4	27.5			G3/7500
FVH (80°-90°)	97.9	0.4			G1/100
BL (0°-30°)	914.1	3.8	B2/1000		
BM (30°-60°)	2142.0	9.0	B2/2500		
BH (60°-80°)	1235.4	5.2	B3/2500		G3/2500
BVH (80°-90°)	36.7	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-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4
2.5°	4183.8	4207.9	4194.1	4187.2	4175.2	4158.0	4144.2	4101.2	4056.5	4027.2	4016.9
5°	4268.1	4292.2	4290.4	4297.3	4305.9	4311.1	4307.6	4259.5	4195.8	4145.9	4116.7
7.5°	4195.8	4223.4	4245.7	4280.1	4340.3	4404.0	4435.0	4424.6	4359.3	4290.4	4254.3
10°	3991.1	4020.4	4073.7	4154.5	4281.8	4419.5	4534.7	4588.1	4546.8	4471.1	4421.2
12.5°	3616.1	3645.3	3750.3	3925.7	4139.1	4378.2	4598.4	4741.2	4751.5	4675.8	4617.3
15°	3194.6	3223.9	3335.7	3555.9	3881.0	4264.6	4632.8	4902.9	4994.1	4928.7	4858.1
17.5°	2933.1	2958.9	3043.2	3220.4	3559.3	4037.6	4620.7	5074.9	5283.1	5231.5	5147.2
20°	2854.0	2876.4	2915.9	3039.8	3321.9	3801.9	4541.6	5236.6	5594.4	5565.2	5470.6
22.5°	2938.3	2958.9	2971.0	3026.0	3203.2	3647.1	4441.8	5401.8	5955.7	5959.1	5843.9
25°	3132.7	3153.3	3139.6	3174.0	3251.4	3598.9	4404.0	5596.2	6409.9	6447.7	6317.0
27.5°	3452.7	3454.4	3421.7	3420.0	3432.0	3671.1	4443.6	5804.3	6982.7	7053.3	6891.6
30°	4094.3	4068.5	3942.9	3807.0	3745.1	3887.9	4553.7	6050.3	7658.8	7784.4	7581.4
32.5°	5083.5	5045.7	4815.1	4490.0	4163.1	4237.1	4751.5	6330.7	8395.1	8622.2	8374.5
35°	6157.0	6146.7	5905.8	5422.4	4851.3	4734.3	5073.2	6698.9	9198.5	9559.7	9265.6
37.5°	7154.8	7149.6	7012.0	6442.6	5747.5	5427.6	5589.3	7180.6	10058.6	10581.6	10234.1
40°	8066.5	8082.0	7944.4	7435.2	6735.0	6317.0	6291.2	7775.8	11015.1	11694.6	11281.8
42.5°	8854.4	8871.6	8732.3	8355.5	7710.4	7301.0	7153.0	8505.2	11949.3	12890.3	12401.7
45°	9389.4	9496.1	9475.5	9174.4	8711.6	8286.7	8188.7	9420.4	13014.1	14158.1	13585.3
47.5°	9540.8	9638.9	9793.7	9835.0	9552.9	9134.8	9251.8	10523.1	14091.0	15427.7	14775.7
50°	9167.5	9258.7	9580.4	10008.7	10204.9	10075.8	10285.7	11705.0	15193.8	16693.9	15943.8
52.5°	8431.2	8524.1	8930.1	9607.9	10407.9	10813.9	11323.1	12869.6	16262.1	17892.9	17050.0
55°	7366.4	7464.4	7985.7	8752.9	10020.8	11118.3	12188.4	14032.5	17240.9	18971.5	18047.7
57.5°	5917.9	5990.1	6532.0	7605.5	9047.1	10815.6	12826.6	15302.1	18163.0	20031.3	19036.9
60°	3856.9	3920.6	4550.2	5747.5	7433.4	9804.0	12953.9	16717.9	19387.9	21409.2	20370.2
62.5°	2565.0	2608.0	2981.3	3860.4	5234.9	7861.8	12209.0	17848.2	21183.9	23807.3	22656.4
65°	1759.9	1802.9	2176.2	2788.6	3382.1	5200.5	10067.2	17698.5	22811.3	25711.7	24351.0
67.5°	1255.8	1292.0	1608.5	2186.5	2448.0	3020.9	6824.5	15785.5	22577.3	25784.0	24442.1
70°	899.7	920.4	1181.9	1703.1	1945.7	1814.9	3795.0	12073.1	19768.1	23809.1	22580.8
72.5°	629.6	636.5	820.6	1297.1	1567.2	1324.6	1806.3	8049.3	14951.2	18687.7	17505.8
75°	426.6	435.2	552.2	951.3	1257.5	1011.5	956.5	4316.3	8777.0	10344.2	9272.5
77.5°	261.5	264.9	356.1	650.3	941.0	770.7	615.9	1828.7	3395.9	3334.0	2841.9
80°	147.9	147.9	227.1	404.3	641.7	497.2	431.8	777.6	1075.2	944.4	832.6
82.5°	82.6	84.3	165.1	251.2	424.9	294.2	237.4	359.5	464.5	411.2	357.8
85°	34.4	37.8	101.5	118.7	203.0	146.2	96.3	151.4	172.0	153.1	111.8
87.5°	3.4	5.2	31.0	22.4	24.1	29.2	13.8	29.2	24.1	24.1	17.2
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°	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4	3958.4
2.5°	3984.2	3958.4	3893.1	3817.4	3717.6	3669.4	3604.0	3559.3	3521.5	3524.9	3490.5
5°	4061.6	3996.3	3850.0	3667.7	3440.6	3278.9	3106.9	2988.2	2891.8	2871.2	2824.7
7.5°	4168.3	4065.1	3808.8	3480.2	3096.6	2805.8	2546.1	2379.2	2260.5	2222.6	2184.8
10°	4305.9	4156.3	3755.4	3244.5	2692.3	2322.4	2043.7	1913.0	1832.1	1804.6	1784.0
12.5°	4465.9	4261.2	3684.9	2957.2	2276.0	1919.9	1742.7	1677.3	1651.5	1642.9	1637.7
15°	4667.2	4391.9	3578.2	2616.6	1923.3	1673.9	1598.2	1589.6	1593.0	1589.6	1587.8
17.5°	4906.3	4534.7	3404.5	2265.6	1685.9	1548.3	1520.8	1527.6	1536.2	1534.5	1531.1
20°	5167.8	4675.8	3182.6	1954.3	1524.2	1458.8	1443.3	1450.2	1457.1	1453.7	1451.9
22.5°	5465.4	4827.2	2936.6	1711.7	1415.8	1376.2	1359.0	1360.8	1360.8	1353.9	1350.4
25°	5821.5	4994.1	2678.5	1539.7	1333.2	1302.3	1281.6	1274.7	1264.4	1243.8	1240.3
27.5°	6246.4	5171.2	2430.8	1419.3	1267.9	1238.6	1214.5	1197.3	1171.5	1137.1	1133.7
30°	6724.7	5386.3	2220.9	1343.6	1216.3	1187.0	1159.5	1133.7	1095.8	1052.8	1049.4
32.5°	7287.2	5616.8	2067.8	1293.7	1169.8	1138.8	1106.2	1075.2	1033.9	990.9	992.6
35°	7958.1	5895.5	1978.4	1259.3	1133.7	1092.4	1056.3	1021.9	990.9	953.1	949.6
37.5°	8685.8	6191.4	1950.8	1242.1	1109.6	1045.9	1004.7	980.6	977.1	954.8	953.1
40°	9482.3	6542.3	1971.5	1231.7	1083.8	1001.2	956.5	951.3	959.9	920.4	922.1
42.5°	10325.3	6958.6	2005.9	1219.7	1047.7	956.5	913.5	913.5	906.6	851.6	851.6
45°	11237.0	7438.6	2040.3	1190.5	1004.7	911.8	879.1	867.0	837.8	784.5	782.7
47.5°	12155.7	7927.2	2066.1	1137.1	953.1	873.9	844.7	817.1	774.1	726.0	724.2
50°	13027.9	8365.9	2038.6	1058.0	894.6	837.8	806.8	769.0	722.5	689.8	684.7
52.5°	13807.2	8746.0	1921.6	965.1	832.6	799.9	772.4	732.9	695.0	660.6	657.2
55°	14485.0	9054.0	1715.1	877.4	777.6	767.3	739.7	689.8	638.2	609.0	605.5
57.5°	15135.3	9287.9	1457.1	805.1	727.7	731.1	689.8	645.1	596.9	566.0	562.5
60°	16000.6	9601.0	1195.6	738.0	674.4	684.7	640.0	607.3	547.1	507.5	502.3
62.5°	17383.7	10087.9	949.6	655.4	612.4	615.9	596.9	557.4	485.1	438.7	435.2
65°	18481.3	9909.0	748.3	566.0	541.9	547.1	547.1	504.1	426.6	373.3	368.1
67.5°	18357.4	8484.6	596.9	478.2	474.8	478.2	490.3	454.2	378.5	335.5	328.6
70°	16910.6	6748.8	478.2	397.4	412.9	404.3	438.7	414.6	340.6	297.6	292.5
72.5°	13798.6	4861.6	364.7	328.6	316.5	330.3	395.7	373.3	283.9	235.7	230.5
75°	8063.1	2594.2	271.8	259.8	228.8	275.2	350.9	318.3	216.8	173.8	168.6
77.5°	2625.2	904.9	199.6	191.0	170.3	221.9	299.3	268.4	177.2	137.6	132.5
80°	703.6	273.5	135.9	125.6	110.1	165.1	237.4	213.3	127.3	89.5	87.7
82.5°	282.1	115.3	79.1	70.5	60.2	113.5	187.5	172.0	94.6	56.8	56.8
85°	91.2	37.8	29.2	22.4	27.5	70.5	111.8	117.0	67.1	29.2	22.4
87.5°	12.0	5.2	5.2	6.9	5.2	12.0	34.4	32.7	18.9	3.4	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)