

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: P882390

Luminaire Tested: **NAV-SB2B-727-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882390
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7875 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

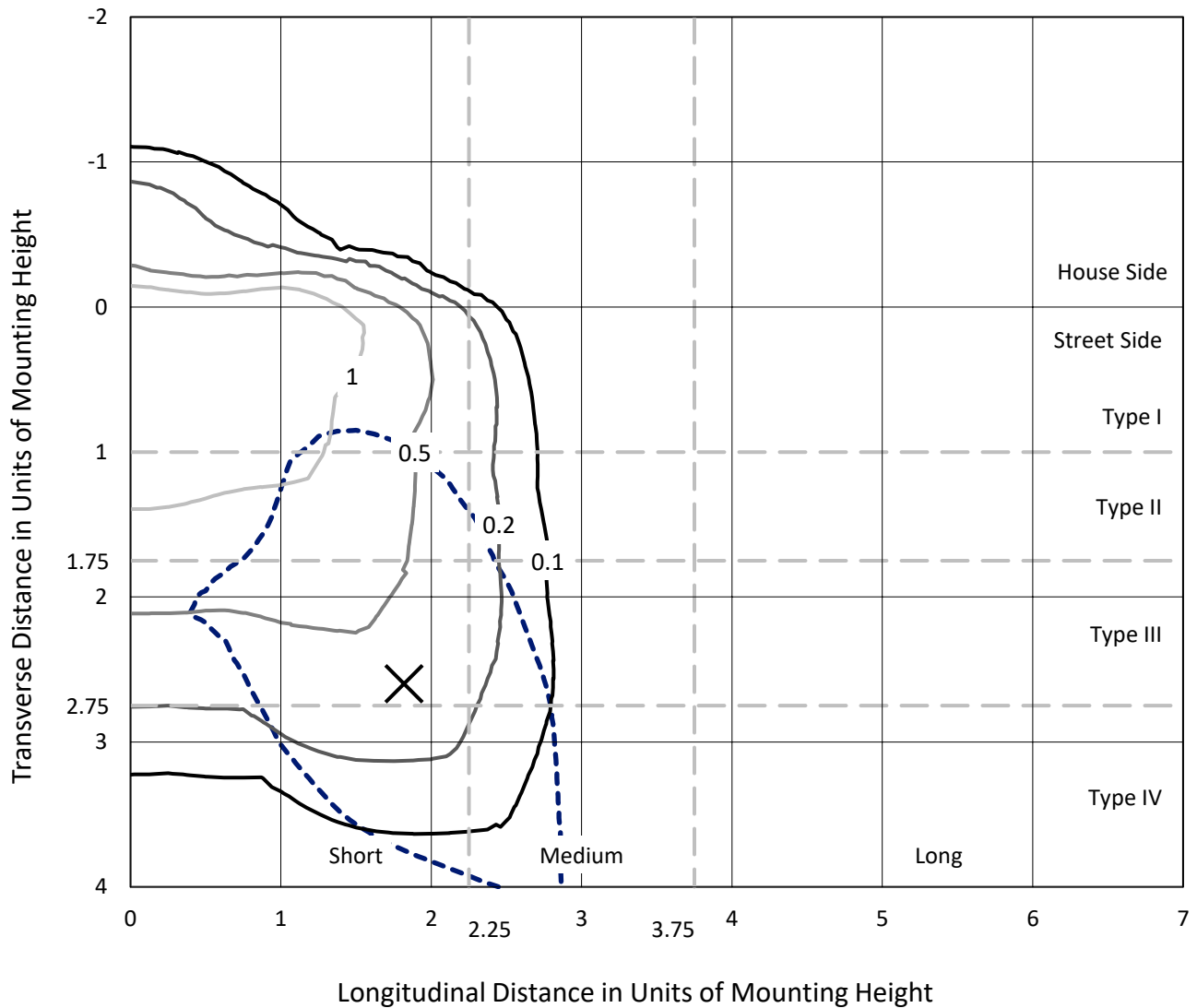
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

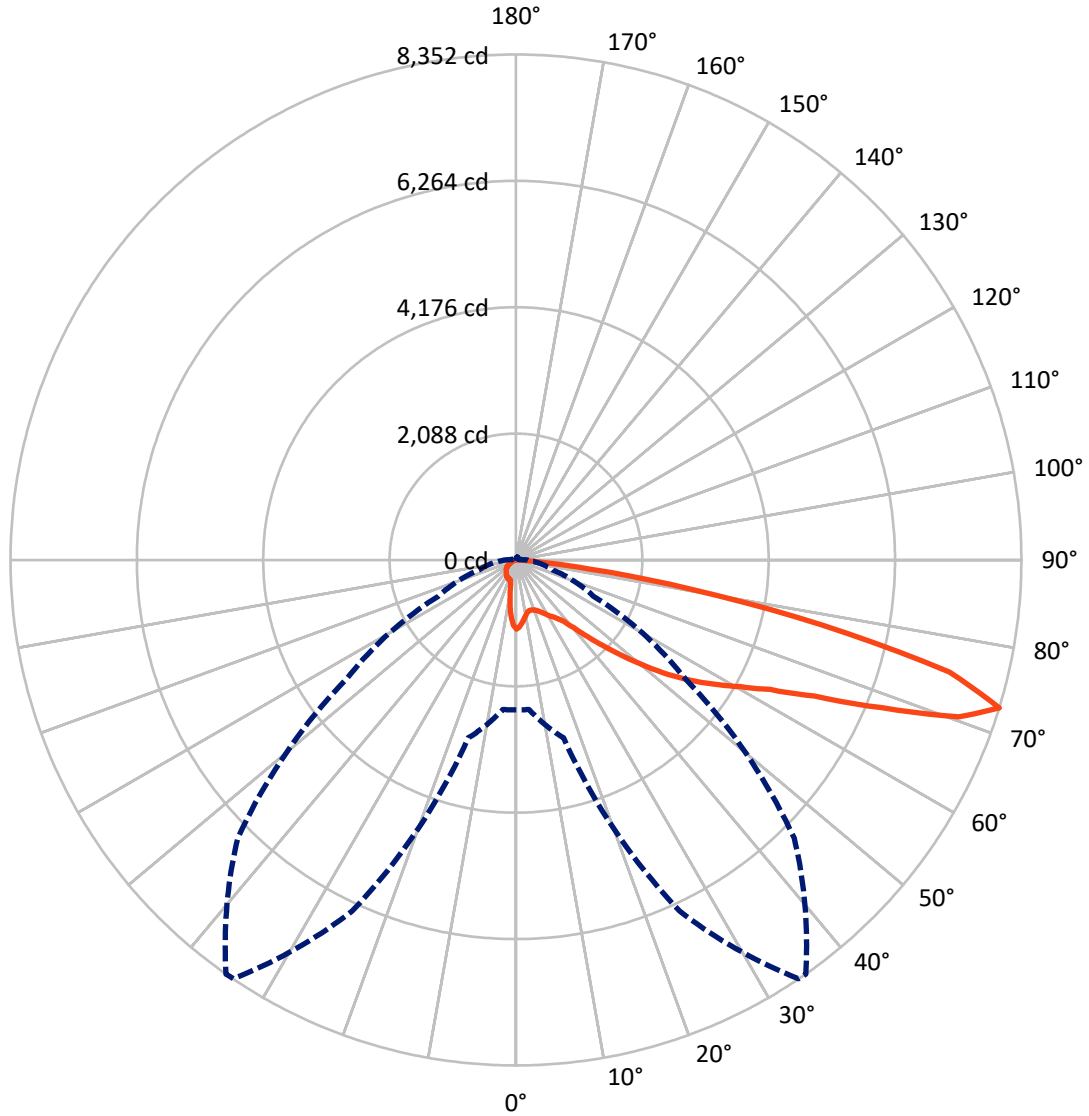
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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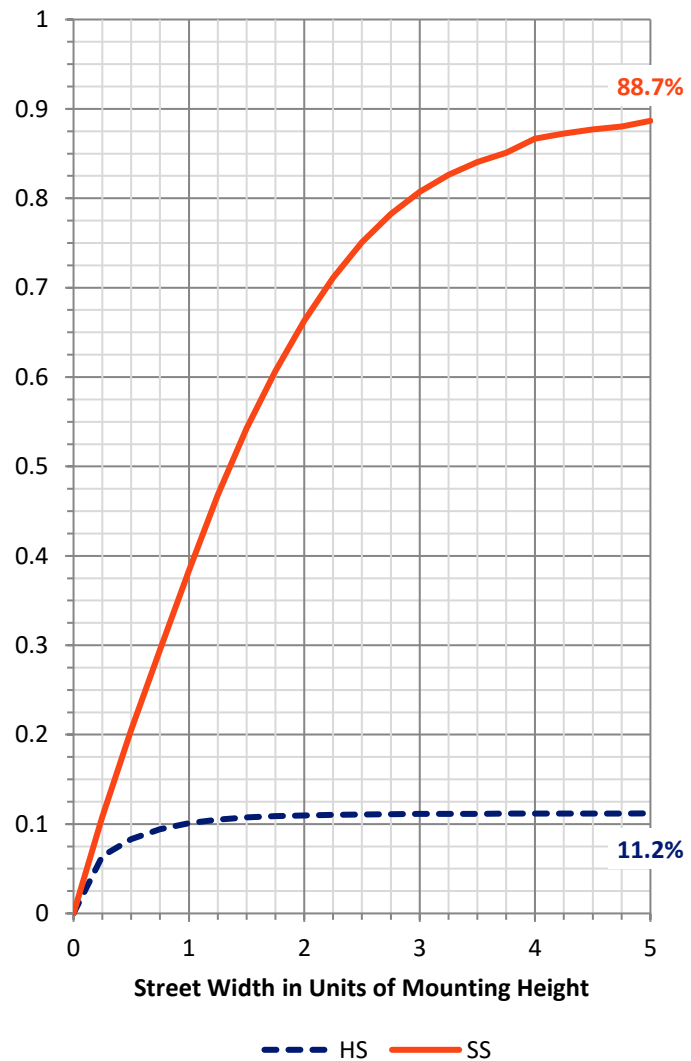
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	886.3	0.0	886.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	6988.7	0.0	6988.7
	% Fixture	88.7	0.0	88.7
Total	Lumens	7875.0	0.0	7875.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.8	1.2
10°-20°	219.4	2.8
20°-30°	356.4	4.5
30°-40°	594.7	7.6
40°-50°	1125.2	14.3
50°-60°	1787.9	22.7
60°-70°	2211.7	28.1
70°-80°	1374.8	17.5
80°-90°	111.1	1.4
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°	7875.0	100.0
0°-180°	7875.0	100.0

Coefficient of Utilization



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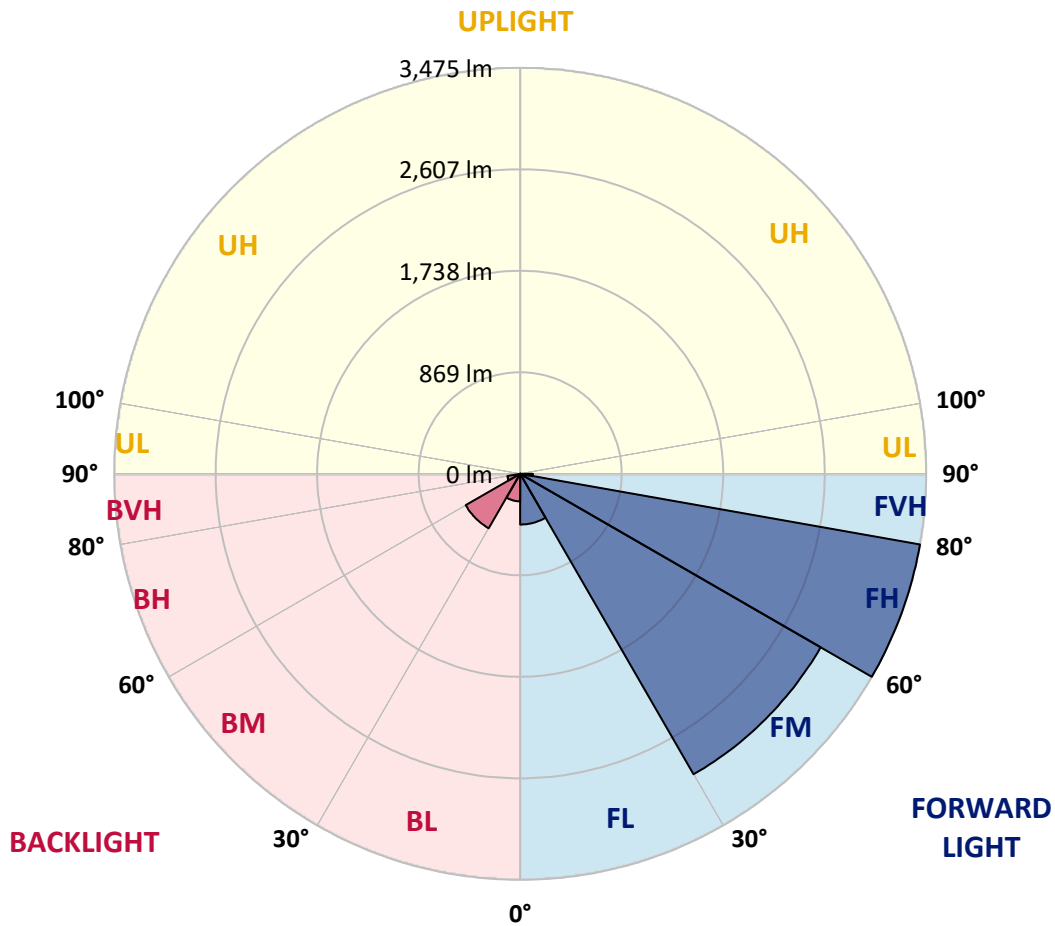
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	434.1	5.5			
FM (30°-60°)	2969.7	37.7			
FH (60°-80°)	3475.3	44.1			G2/5000
FVH (80°-90°)	109.6	1.4			G2/225
BL (0°-30°)	235.5	3.0	B1/500		
BM (30°-60°)	538.1	6.8	B1/1000		
BH (60°-80°)	111.2	1.4	B1/500		G1/500
BVH (80°-90°)	1.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4
2.5°	1090.6	1099.8	1101.5	1104.4	1104.4	1107.9	1113.7	1121.7	1135.0	1141.9	1146.5
5°	1005.2	1012.1	1020.8	1027.7	1040.9	1042.7	1065.2	1087.1	1117.7	1140.8	1156.9
7.5°	919.2	927.3	938.8	955.6	972.9	978.1	1012.1	1049.0	1097.5	1140.8	1167.9
10°	858.6	859.2	869.6	886.3	914.0	920.4	961.9	1014.4	1075.0	1133.9	1178.3
12.5°	824.6	828.6	833.2	845.9	872.5	876.5	920.9	982.7	1052.5	1129.8	1190.4
15°	824.6	827.5	830.3	836.7	858.0	861.5	900.7	962.5	1040.9	1131.5	1210.0
17.5°	833.2	837.8	835.5	843.0	865.5	867.8	902.5	956.7	1040.4	1142.5	1240.0
20°	854.0	857.5	852.8	857.5	880.0	884.6	920.4	967.7	1050.2	1161.5	1277.5
22.5°	886.9	888.6	877.7	881.1	904.2	910.0	951.5	998.8	1073.8	1192.1	1327.7
25°	928.4	931.9	915.2	919.2	941.1	948.0	995.9	1045.6	1111.3	1234.3	1391.8
27.5°	976.3	978.1	963.6	963.1	991.3	1001.1	1049.6	1103.3	1161.5	1287.3	1472.6
30°	1031.1	1036.3	1022.5	1020.2	1056.0	1064.0	1111.9	1174.2	1235.4	1367.0	1587.4
32.5°	1074.4	1078.5	1070.4	1076.1	1112.5	1118.8	1187.5	1274.6	1351.4	1480.1	1743.8
35°	1136.7	1139.0	1120.6	1131.0	1172.5	1188.7	1290.8	1415.4	1497.4	1622.0	1948.0
37.5°	1362.4	1362.4	1283.9	1232.5	1272.3	1286.8	1432.2	1592.6	1677.4	1812.4	2205.4
40°	1674.5	1669.3	1554.5	1449.5	1444.3	1472.6	1633.6	1815.9	1909.9	2040.9	2495.0
42.5°	2007.5	1999.4	1843.0	1739.1	1721.8	1731.6	1866.1	2091.1	2186.9	2319.6	2806.6
45°	2302.9	2300.6	2157.5	2017.8	1986.7	2017.8	2156.3	2413.1	2481.8	2621.4	3117.7
47.5°	2550.4	2550.4	2446.0	2354.8	2338.7	2357.1	2549.3	2770.3	2763.9	2942.8	3420.6
50°	2835.5	2833.2	2733.9	2694.7	2711.4	2737.4	3001.7	3146.5	3055.9	3258.4	3691.2
52.5°	3035.1	3049.0	3014.9	3008.6	3094.0	3139.0	3461.0	3514.6	3317.3	3557.9	3893.8
55°	3193.2	3209.4	3248.6	3293.1	3457.5	3516.4	3905.9	3863.7	3536.0	3817.6	4010.3
57.5°	3417.1	3394.0	3454.6	3542.3	3808.4	3879.3	4336.9	4193.2	3712.0	4028.2	4023.0
60°	3688.9	3692.4	3702.8	3813.5	4158.6	4249.8	4761.6	4504.8	3825.1	4157.5	3882.2
62.5°	4015.5	4020.7	4042.0	4212.3	4628.9	4714.9	5214.0	4759.9	3877.0	4121.1	3518.7
65°	3993.0	4014.9	4253.2	4835.5	5343.8	5428.6	5742.0	4938.7	3798.5	3788.7	2864.9
67.5°	3637.6	3673.3	4072.1	5579.8	6421.7	6516.3	6380.1	4973.9	3459.8	2946.3	1869.0
70°	3171.3	3184.0	3663.5	6249.2	7669.8	7765.6	6951.4	4586.8	2625.5	1643.4	837.3
72.5°	2476.6	2479.5	3042.1	6404.4	8347.2	8352.4	6503.0	3405.0	1412.0	631.3	290.8
75°	1769.2	1751.8	2037.5	5193.8	7343.8	7402.6	4875.3	1597.2	539.5	298.3	144.8
77.5°	948.6	967.7	1152.9	3080.1	5073.2	5173.6	2660.1	460.5	274.7	203.1	95.8
80°	293.1	309.3	472.6	1410.2	2873.6	2934.2	986.1	204.8	191.6	144.8	62.9
82.5°	92.3	95.8	220.4	592.6	1192.7	1220.4	285.6	116.0	131.0	95.8	36.9
85°	26.5	27.1	98.1	221.0	294.9	300.6	80.2	45.0	75.0	59.4	19.0
87.5°	2.9	9.2	36.9	36.9	26.0	25.4	8.7	9.8	21.3	7.5	3.5
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°	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4	1141.4
2.5°	1143.7	1144.2	1136.7	1124.0	1110.2	1098.7	1084.2	1072.7	1064.6	1062.3	1066.3
5°	1151.7	1147.7	1126.3	1087.7	1041.5	1001.7	957.3	922.1	899.0	889.2	892.7
7.5°	1163.9	1152.3	1105.6	1029.4	941.1	862.6	783.0	721.3	682.0	662.4	665.3
10°	1174.2	1151.2	1071.0	945.2	810.1	691.3	583.9	509.5	468.0	448.3	448.9
12.5°	1184.1	1150.6	1025.9	845.3	662.4	517.0	417.2	380.3	368.7	364.7	363.5
15°	1202.5	1152.3	969.4	731.1	515.3	390.6	354.3	353.7	356.0	354.9	354.3
17.5°	1227.9	1154.0	905.3	609.9	397.6	344.5	342.8	347.9	351.4	349.7	349.1
20°	1260.8	1161.0	837.3	489.9	341.6	332.9	337.0	341.6	344.5	341.6	341.0
22.5°	1307.0	1173.1	762.8	393.5	323.7	326.0	329.5	334.7	337.6	333.5	332.9
25°	1363.5	1192.1	689.5	342.2	315.1	317.9	323.1	328.9	332.4	328.3	327.7
27.5°	1436.8	1222.7	622.0	330.6	306.4	308.1	315.6	324.3	328.9	323.7	323.7
30°	1543.0	1272.9	563.8	335.8	301.2	297.2	307.6	319.7	324.9	320.2	319.7
32.5°	1683.8	1343.9	528.0	343.9	298.9	284.5	294.3	309.9	318.5	315.6	315.6
35°	1868.4	1451.8	514.1	353.1	297.2	271.2	278.1	294.9	309.9	312.7	312.7
37.5°	2092.3	1601.8	518.2	357.2	292.0	260.2	263.7	278.1	297.7	307.0	309.3
40°	2346.8	1776.7	541.2	353.1	286.2	251.0	251.6	262.5	279.9	293.7	298.3
42.5°	2609.3	1980.9	583.9	338.1	281.0	242.9	241.2	248.7	260.2	270.0	274.1
45°	2859.1	2191.0	626.1	317.4	274.7	234.8	230.8	233.7	236.0	240.0	242.3
47.5°	3077.3	2338.7	614.0	298.3	266.0	225.6	218.7	217.5	210.6	210.0	209.5
50°	3227.9	2371.0	545.3	279.3	253.3	215.2	204.3	197.3	185.2	179.5	180.0
52.5°	3275.8	2243.5	445.5	260.2	232.5	201.4	185.8	174.8	159.8	154.6	154.1
55°	3212.3	1993.6	356.0	237.2	203.7	182.9	165.6	151.2	139.1	132.7	132.7
57.5°	3057.1	1675.7	281.6	210.0	173.1	162.1	144.8	130.4	120.0	113.7	112.5
60°	2799.7	1330.6	222.7	177.7	147.7	139.6	121.8	112.5	103.3	95.8	94.1
62.5°	2409.1	949.8	174.8	140.8	123.5	114.3	103.9	96.9	86.0	75.6	73.9
65°	1879.9	581.1	135.0	103.3	99.2	94.6	88.3	81.9	68.7	58.3	56.5
67.5°	1185.8	275.2	96.4	77.9	78.5	76.2	73.3	68.1	58.3	49.0	47.9
70°	522.2	133.3	63.5	59.4	58.3	58.3	60.6	58.9	49.6	41.0	39.2
72.5°	177.7	71.6	47.3	45.0	42.1	41.5	50.8	49.0	39.8	31.7	30.0
75°	92.9	47.9	34.6	32.3	25.4	30.6	40.4	38.1	28.3	20.8	19.0
77.5°	60.6	34.0	23.7	20.8	14.4	20.2	30.0	26.5	16.7	10.4	9.2
80°	38.1	22.5	13.8	9.8	6.9	11.0	16.2	11.5	6.3	2.3	1.7
82.5°	20.2	11.5	5.2	3.5	2.9	3.5	4.0	2.9	1.2	0.0	0.0
85°	8.1	4.0	1.7	1.2	0.6	0.0	1.2	0.6	0.0	0.0	0.0
87.5°	2.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)