

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: P882217

Luminaire Tested: **NAV-SB2A-727-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882217
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-727-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8209 lumens
Efficiency: N/A
Efficacy: 143.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

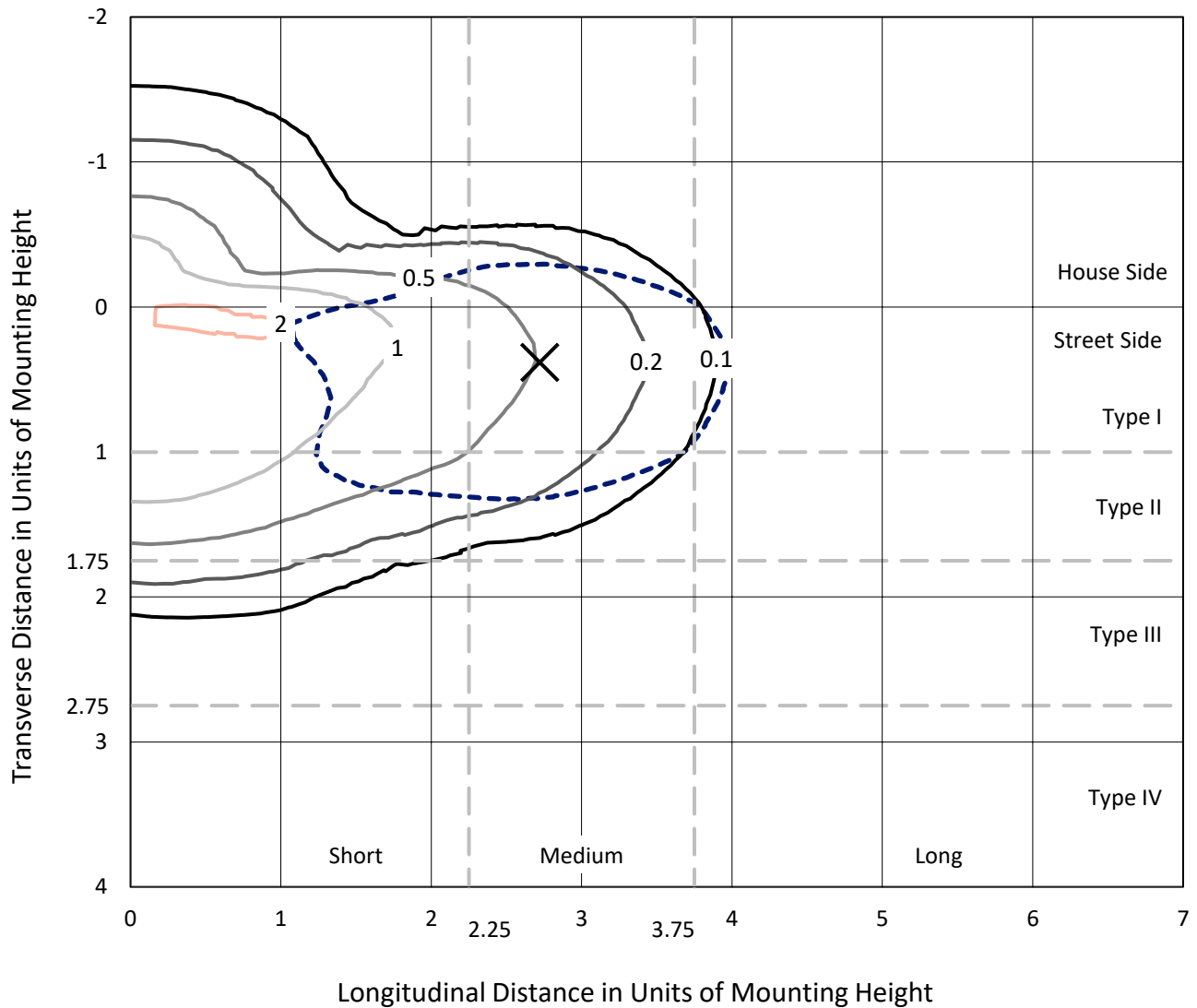
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

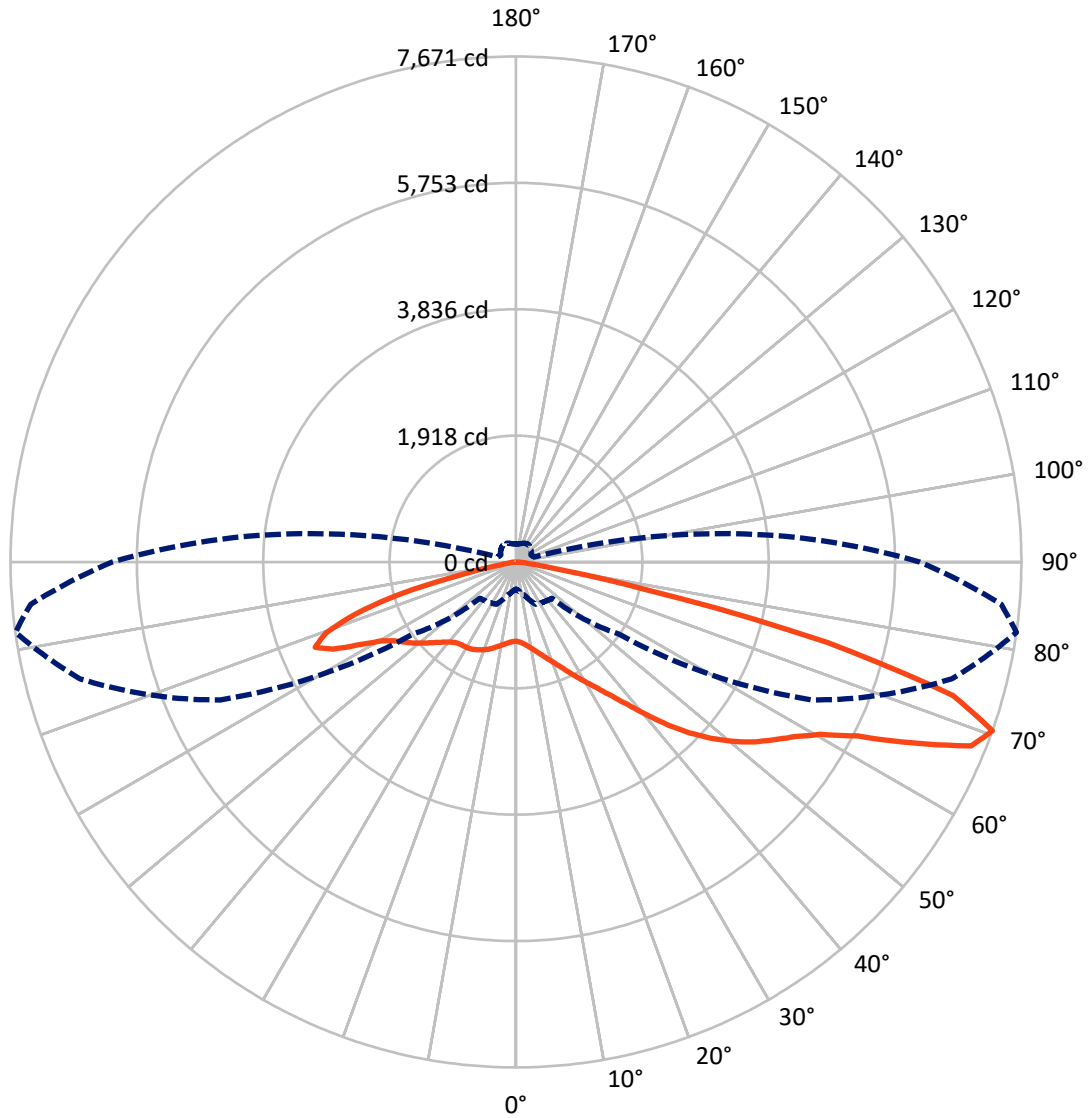
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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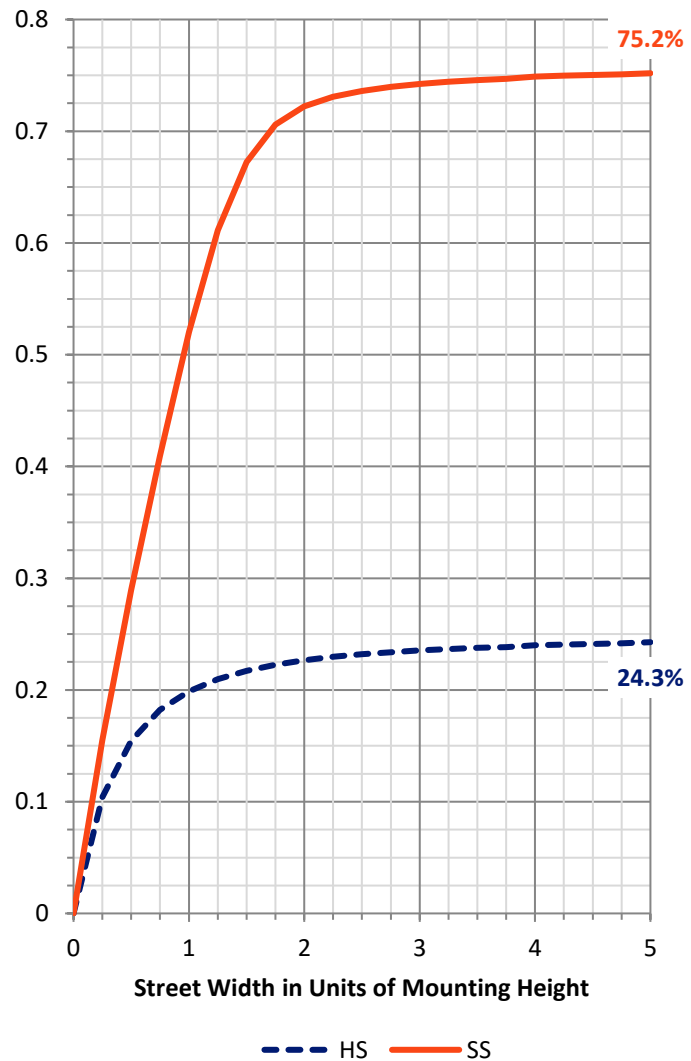
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2023.7	0.0	2023.7
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	6185.3	0.0	6185.3
	% Fixture	75.3	0.0	75.3
Total	Lumens	8209.0	0.0	8209.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.6	1.4
10°-20°	326.5	4.0
20°-30°	546.2	6.7
30°-40°	853.3	10.4
40°-50°	1358.9	16.6
50°-60°	1891.1	23.0
60°-70°	1978.2	24.1
70°-80°	1033.9	12.6
80°-90°	107.4	1.3
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°	8209.0	100.0
0°-180°	8209.0	100.0

Coefficient of Utilization

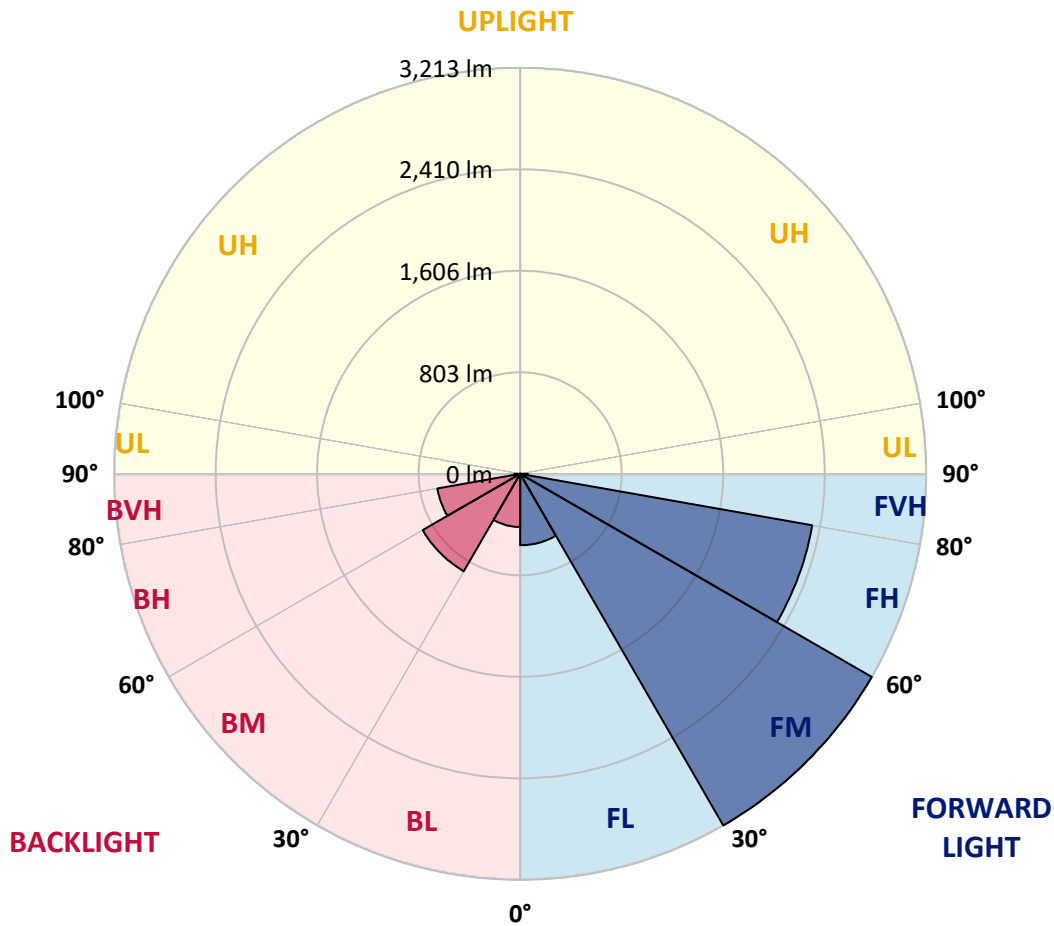


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	565.3	6.9			
FM (30°-60°)	3212.9	39.1			
FH (60°-80°)	2347.0	28.6			G2/5000
FVH (80°-90°)	60.1	0.7			G1/100
BL (0°-30°)	421.0	5.1	B1/500		
BM (30°-60°)	890.4	10.8	B1/1000		
BH (60°-80°)	665.1	8.1	B2/1000		G2/1000
BVH (80°-90°)	47.3	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5
2.5°	1232.3	1239.3	1237.1	1234.9	1234.9	1231.9	1231.4	1227.1	1223.6	1217.9	1216.6
5°	1248.0	1255.4	1254.5	1256.2	1261.9	1263.2	1264.5	1261.9	1254.9	1248.0	1244.9
7.5°	1234.0	1242.3	1244.9	1255.4	1272.8	1288.5	1300.2	1305.0	1298.5	1288.5	1283.7
10°	1187.0	1196.1	1205.3	1230.1	1261.0	1298.1	1329.4	1348.2	1346.9	1337.3	1329.0
12.5°	1091.6	1101.2	1120.8	1169.1	1225.8	1291.1	1349.5	1388.7	1402.2	1395.2	1380.8
15°	1015.4	1023.6	1038.5	1088.1	1161.7	1261.0	1356.9	1433.1	1467.5	1463.6	1446.2
17.5°	1013.2	1016.7	1025.8	1049.3	1106.0	1214.0	1349.0	1476.7	1542.4	1542.0	1520.2
20°	1051.5	1052.8	1058.1	1062.8	1095.1	1178.3	1329.0	1512.8	1626.5	1626.5	1603.0
22.5°	1104.7	1103.8	1109.0	1104.7	1120.3	1175.2	1316.4	1544.6	1720.2	1727.1	1697.5
25°	1184.4	1180.0	1178.7	1168.7	1171.7	1203.5	1330.3	1580.8	1831.2	1845.6	1808.6
27.5°	1290.7	1283.7	1278.9	1255.8	1248.0	1261.9	1373.0	1624.3	1954.9	1979.8	1932.7
30°	1429.2	1416.5	1409.6	1369.5	1341.2	1343.4	1437.5	1682.3	2084.3	2124.4	2064.7
32.5°	1618.2	1598.6	1579.9	1514.1	1462.3	1445.3	1520.7	1762.4	2224.6	2288.6	2211.9
35°	1829.9	1814.2	1794.2	1692.7	1613.0	1573.8	1633.0	1874.4	2388.8	2490.3	2390.5
37.5°	2033.8	2020.3	2029.9	1893.1	1790.3	1733.2	1780.3	2024.6	2591.3	2741.2	2614.4
40°	2244.6	2234.2	2235.5	2104.8	1985.0	1921.0	1958.9	2213.2	2823.5	3039.6	2883.6
42.5°	2473.7	2465.9	2439.8	2323.9	2189.3	2129.6	2164.5	2431.0	3072.7	3379.3	3179.0
45°	2730.3	2725.5	2701.1	2568.3	2414.1	2347.0	2394.0	2671.5	3323.1	3699.1	3475.6
47.5°	2952.0	2955.9	2952.9	2840.9	2681.1	2582.6	2638.8	2922.4	3556.2	3999.6	3760.0
50°	3058.7	3079.2	3109.3	3074.4	2975.1	2874.9	2885.8	3164.6	3778.3	4281.4	4032.7
52.5°	3003.0	3041.7	3123.6	3179.4	3217.7	3196.8	3167.6	3405.0	3987.4	4535.8	4290.6
55°	2795.2	2849.6	2985.6	3120.1	3315.7	3467.8	3506.1	3671.6	4191.3	4759.7	4534.5
57.5°	2416.7	2505.1	2627.1	2899.3	3228.6	3598.9	3900.7	4041.4	4407.3	4998.9	4789.8
60°	1767.6	1886.1	2037.7	2442.8	2923.7	3528.7	4236.6	4609.4	4714.4	5308.6	5122.1
62.5°	1131.2	1204.4	1343.8	1725.4	2278.1	3169.4	4339.4	5319.5	5235.0	5816.5	5620.4
65°	774.5	821.5	949.2	1163.5	1472.7	2359.2	4064.1	5851.7	6061.7	6621.4	6472.5
67.5°	562.8	598.5	707.4	895.1	959.6	1396.1	3153.7	5827.4	6865.4	7450.8	7219.1
70°	410.3	435.6	527.1	707.4	738.3	776.7	1910.5	4953.6	6847.9	7671.2	7393.7
72.5°	304.0	321.5	382.9	548.8	597.6	524.5	945.7	3600.2	5884.4	6938.6	6716.0
75°	220.0	233.0	278.3	419.9	478.3	399.4	471.7	2103.9	4104.6	4880.8	4920.0
77.5°	168.1	178.2	207.8	307.5	382.9	299.7	292.7	967.9	1946.2	1955.8	2065.6
80°	135.0	141.6	157.7	216.5	293.6	224.3	190.8	390.7	615.1	520.5	546.2
82.5°	99.3	110.2	133.3	152.0	210.0	154.6	116.3	197.3	233.9	201.2	203.0
85°	56.6	64.0	80.6	108.9	134.2	94.5	66.6	87.6	108.9	89.3	79.7
87.5°	20.0	26.1	28.3	42.7	58.4	39.2	25.7	25.3	35.7	26.6	22.2
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°	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5	1203.5
2.5°	1212.3	1210.1	1201.4	1189.6	1177.4	1165.6	1161.7	1153.4	1147.8	1144.7	1148.2
5°	1236.6	1229.7	1209.2	1183.1	1155.6	1126.0	1105.1	1085.9	1072.0	1058.9	1064.2
7.5°	1271.5	1259.3	1224.0	1178.3	1129.5	1080.3	1043.7	1015.8	997.1	984.9	987.5
10°	1312.0	1293.3	1239.3	1170.9	1095.5	1024.9	981.8	957.9	946.1	939.6	941.3
12.5°	1358.6	1332.0	1254.9	1153.9	1043.7	963.1	933.5	926.5	926.9	927.4	928.2
15°	1416.1	1379.1	1267.6	1116.9	976.2	915.6	910.4	921.7	933.5	939.1	938.7
17.5°	1481.0	1428.7	1269.8	1055.9	910.0	885.1	901.7	926.1	943.9	951.8	953.5
20°	1550.7	1479.3	1254.1	969.6	855.5	860.3	889.9	921.3	940.9	950.9	953.5
22.5°	1630.4	1533.3	1216.6	879.0	811.1	833.3	868.1	898.6	919.1	929.1	931.7
25°	1721.5	1593.8	1157.8	802.8	772.7	802.8	837.6	862.9	879.5	888.6	891.2
27.5°	1822.5	1657.0	1079.4	742.2	739.2	771.4	800.2	819.8	828.5	835.5	838.1
30°	1924.0	1714.5	984.4	696.5	710.0	740.5	761.0	769.7	772.3	773.6	776.7
32.5°	2033.8	1764.1	884.7	658.6	682.1	710.5	722.6	726.6	714.4	706.1	708.7
35°	2166.6	1817.3	787.1	628.6	654.7	679.1	683.0	679.5	665.1	648.2	649.0
37.5°	2330.9	1883.5	709.1	607.2	629.0	645.1	640.3	639.4	640.8	620.7	622.0
40°	2532.1	1969.7	652.1	590.7	608.1	611.6	598.1	605.5	612.0	581.5	582.4
42.5°	2755.6	2073.9	615.9	579.3	590.7	582.4	561.5	569.8	568.9	528.8	528.4
45°	2983.4	2187.1	603.3	571.1	574.5	558.0	534.9	537.1	518.8	482.6	483.9
47.5°	3209.9	2308.6	611.1	564.1	554.5	535.8	517.9	508.3	481.3	454.3	454.3
50°	3432.0	2436.3	639.9	550.2	527.1	516.2	503.1	486.1	457.4	434.3	432.5
52.5°	3638.1	2564.8	672.1	527.1	492.7	499.2	490.9	471.3	443.0	419.5	419.9
55°	3833.2	2693.3	684.8	495.3	460.4	484.4	479.6	443.4	409.5	390.3	388.5
57.5°	4045.8	2847.9	670.8	454.8	434.3	467.4	449.1	409.0	389.4	375.0	373.7
60°	4340.2	3090.5	640.8	404.7	409.5	442.1	410.8	394.2	372.9	356.8	355.9
62.5°	4829.4	3543.1	592.4	355.0	380.3	404.7	392.5	375.9	354.1	338.5	338.5
65°	5552.5	4172.1	501.4	316.2	347.6	368.1	372.9	356.3	333.7	317.1	318.0
67.5°	6162.3	4566.8	379.4	284.0	314.1	338.5	352.0	335.8	311.9	295.8	296.2
70°	6128.8	4280.1	289.7	252.2	284.4	309.3	326.7	314.1	288.4	273.1	274.4
72.5°	5443.6	3580.6	234.3	220.0	254.4	278.8	299.7	290.1	264.0	249.2	249.2
75°	3999.2	2541.7	187.3	187.3	216.9	247.0	270.1	264.0	240.0	229.6	226.5
77.5°	1685.7	1066.3	146.8	155.5	180.3	212.1	240.9	243.1	222.2	235.2	213.4
80°	448.2	294.0	111.9	122.4	141.6	175.1	209.5	208.6	186.0	173.8	161.6
82.5°	170.8	115.9	79.7	86.2	102.4	134.2	166.0	171.2	148.5	128.5	128.5
85°	65.8	49.7	49.2	51.8	59.7	88.9	125.5	129.8	111.9	95.0	98.0
87.5°	17.0	14.8	18.3	17.4	27.4	47.5	71.9	74.5	68.4	39.6	56.6
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)