

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: P882063

Luminaire Tested: **NAV-SB1D-735-U-SL4-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882063
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-735-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7109 lumens
Efficiency: N/A
Efficacy: 89.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

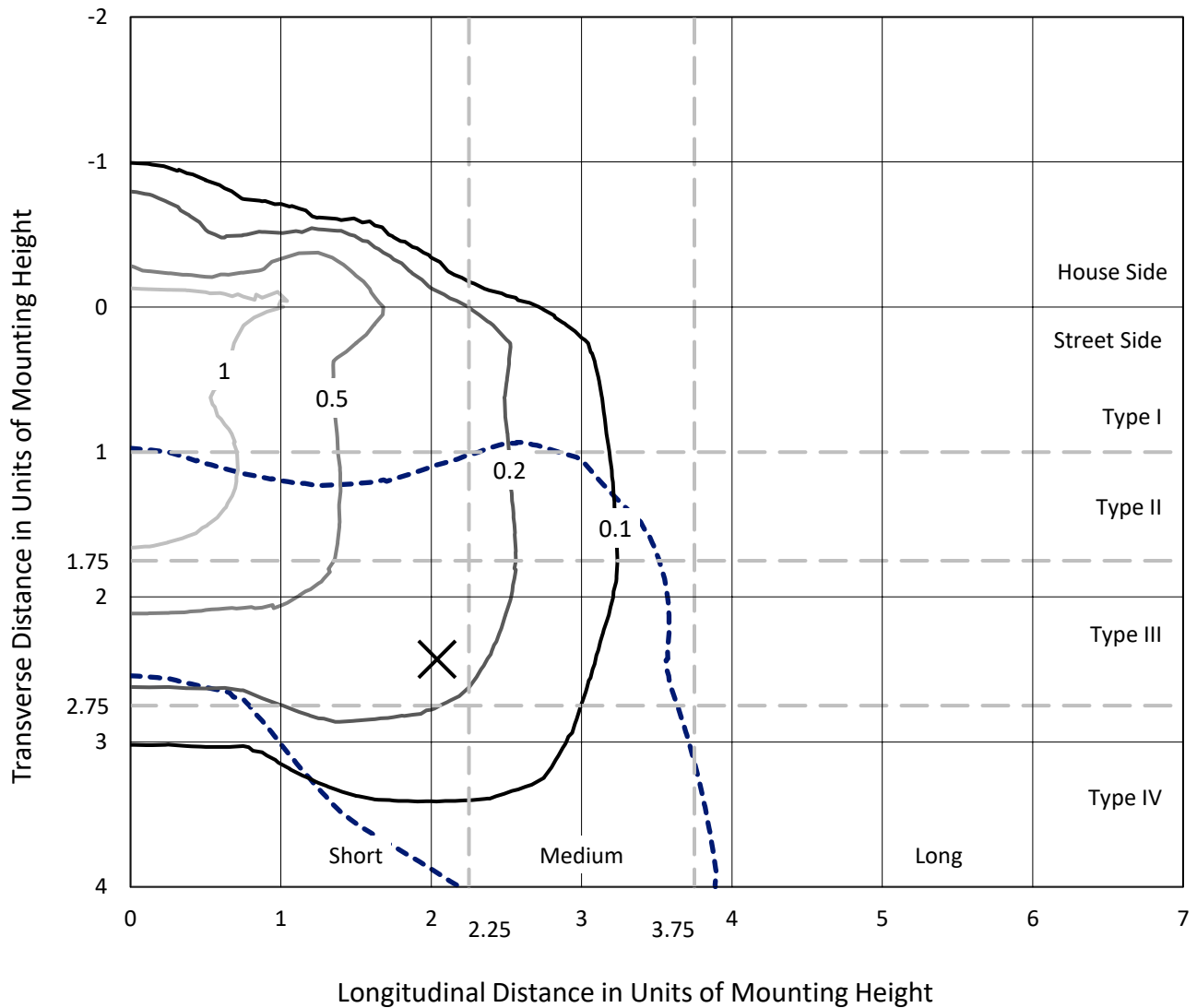
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

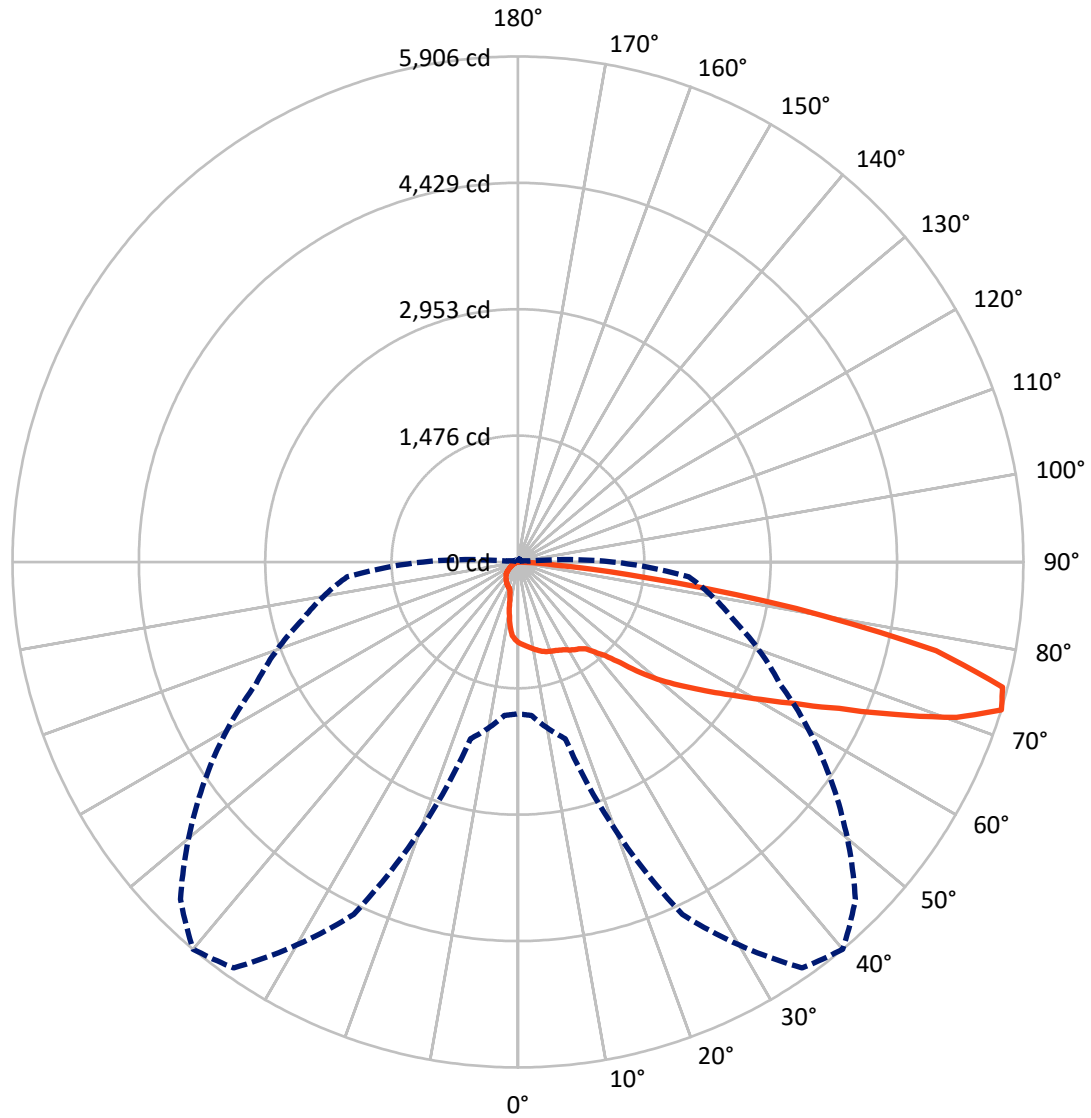
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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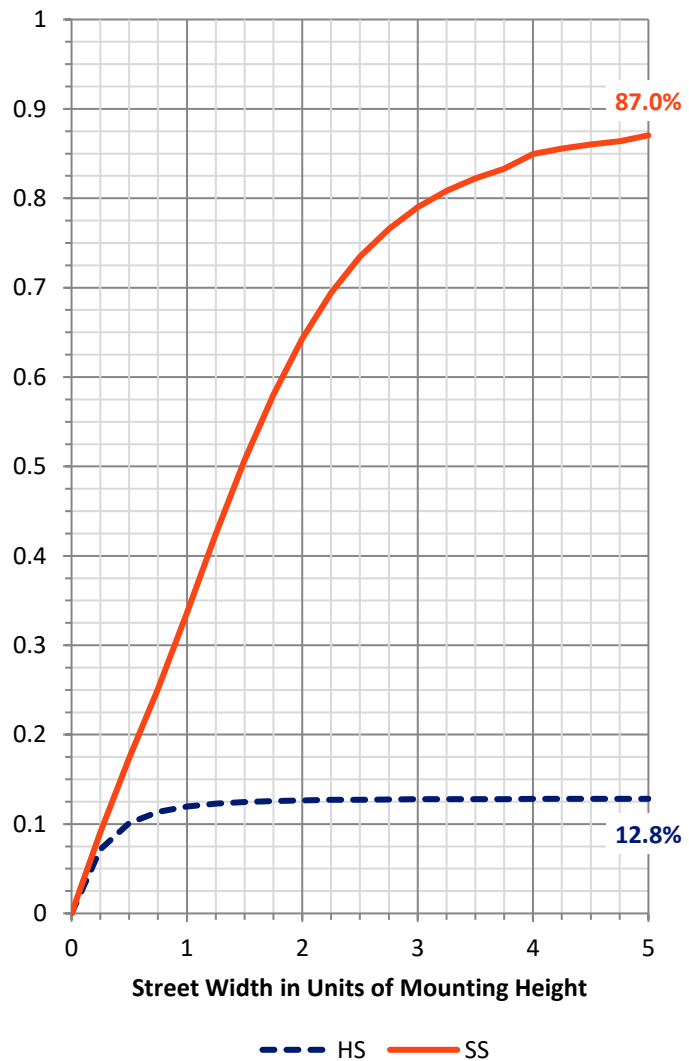
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	918.0	0.0	918.0
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	6190.9	0.0	6190.9
	% Fixture	87.1	0.0	87.1
Total	Lumens	7109.0	0.0	7109.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.0	1.2
10°-20°	233.4	3.3
20°-30°	377.7	5.3
30°-40°	557.7	7.8
40°-50°	938.6	13.2
50°-60°	1457.4	20.5
60°-70°	1823.6	25.7
70°-80°	1493.0	21.0
80°-90°	141.6	2.0
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°	7109.0	100.0
0°-180°	7109.0	100.0

Coefficient of Utilization



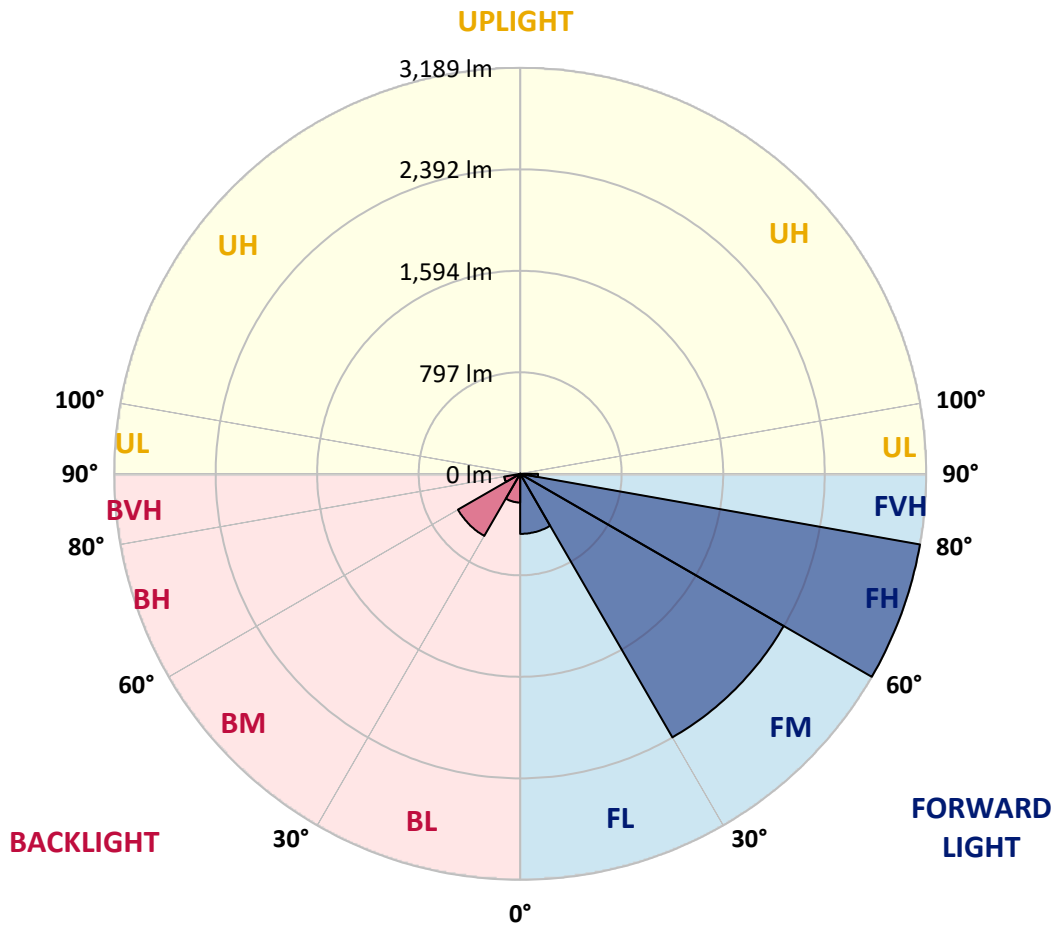
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	471.8	6.6			
FM (30°-60°)	2389.9	33.6			
FH (60°-80°)	3188.7	44.9			G2/5000
FVH (80°-90°)	140.5	2.0			G2/225
BL (0°-30°)	225.3	3.2	B1/500		
BM (30°-60°)	563.7	7.9	B1/1000		
BH (60°-80°)	127.9	1.8	B1/500		G1/500
BVH (80°-90°)	1.1	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°	35°	40°	45°	55°	65°	75°	85°
0°	941.3	941.3	941.3	941.3	941.3	941.3	941.3	941.3	941.3	941.3	941.3
2.5°	969.7	973.4	971.3	967.0	965.9	963.8	961.1	960.0	956.3	953.1	949.3
5°	997.0	1000.7	998.0	992.2	989.5	986.8	983.1	979.8	972.3	965.4	956.8
7.5°	1027.0	1030.2	1027.0	1018.4	1014.1	1010.9	1005.5	1000.7	992.2	982.0	971.3
10°	1060.2	1062.8	1058.0	1046.8	1039.8	1035.0	1030.2	1024.8	1016.8	1005.5	992.7
12.5°	1091.2	1094.4	1086.9	1073.5	1065.5	1060.7	1055.3	1051.1	1043.0	1032.3	1018.9
15°	1119.6	1124.4	1111.6	1097.1	1088.0	1084.2	1078.9	1076.2	1070.9	1063.4	1051.1
17.5°	1141.0	1144.2	1130.8	1113.7	1103.5	1100.8	1097.1	1098.7	1097.6	1093.9	1085.9
20°	1159.2	1161.4	1143.7	1122.8	1111.6	1112.1	1111.0	1116.4	1118.5	1118.5	1118.0
22.5°	1181.7	1182.2	1159.7	1133.5	1120.1	1123.9	1125.5	1131.4	1135.7	1139.9	1149.6
25°	1211.1	1210.1	1183.3	1147.4	1135.7	1141.0	1144.8	1146.9	1151.7	1158.7	1180.6
27.5°	1255.1	1251.8	1217.6	1169.9	1156.0	1160.8	1167.8	1166.7	1164.6	1169.9	1206.9
30°	1310.7	1306.5	1260.9	1201.5	1188.7	1192.9	1195.1	1185.4	1169.9	1174.7	1229.9
32.5°	1399.1	1391.6	1328.4	1236.8	1217.0	1221.9	1219.2	1199.4	1176.3	1181.2	1252.9
35°	1552.8	1534.5	1445.1	1310.7	1249.2	1243.8	1237.4	1218.1	1189.7	1184.9	1272.2
37.5°	1879.4	1847.2	1694.6	1454.8	1322.0	1287.2	1267.4	1248.1	1204.2	1184.9	1294.1
40°	2247.7	2215.1	2038.9	1695.7	1443.0	1384.1	1337.0	1283.4	1219.2	1191.9	1328.4
42.5°	2632.2	2596.3	2415.3	1994.5	1615.9	1494.9	1407.1	1311.8	1243.8	1213.3	1373.9
45°	3061.6	3016.6	2780.0	2306.1	1867.1	1679.1	1520.1	1370.2	1286.6	1251.3	1436.0
47.5°	3514.6	3456.2	3143.5	2608.6	2137.4	1934.0	1726.8	1474.6	1349.8	1308.1	1520.1
50°	3916.1	3858.3	3518.9	2925.1	2390.2	2176.5	1962.4	1619.1	1444.6	1388.4	1633.1
52.5°	4204.7	4160.8	3860.5	3251.7	2653.1	2404.1	2176.0	1787.3	1564.5	1491.2	1766.4
55°	4398.0	4357.9	4102.5	3561.2	2958.8	2654.7	2386.4	1969.9	1709.1	1614.3	1913.6
57.5°	4515.3	4492.3	4277.6	3837.4	3261.9	2928.8	2627.4	2170.6	1879.4	1759.4	2078.0
60°	4557.1	4538.3	4386.3	4100.9	3628.1	3258.1	2910.6	2397.1	2086.0	1924.3	2246.7
62.5°	4445.7	4449.4	4464.4	4413.0	4014.1	3643.6	3250.1	2669.1	2315.2	2111.2	2405.2
65°	3921.5	3952.6	4237.4	4758.9	4525.5	4126.6	3682.2	3001.1	2577.6	2323.8	2531.0
67.5°	3246.9	3291.8	3646.3	4961.3	5070.5	4753.6	4284.0	3424.1	2890.3	2540.1	2578.6
70°	2485.5	2533.7	2963.1	4919.0	5580.8	5438.9	5028.2	3962.2	3214.2	2690.0	2457.1
72.5°	1773.9	1798.5	2136.9	4542.6	5790.2	5905.8	5576.5	4471.9	3379.6	2607.0	2004.1
75°	1246.5	1242.2	1466.5	3658.1	5464.1	5849.1	5384.3	4196.2	3058.4	2071.1	1235.8
77.5°	542.9	544.0	732.5	2221.5	4361.1	4995.6	4475.7	2628.4	2132.1	1097.6	521.5
80°	140.8	145.1	268.8	884.5	2625.8	3297.2	2729.6	1155.5	985.2	267.7	99.6
82.5°	49.8	53.0	123.7	277.9	968.6	1512.1	1215.4	369.4	257.0	76.6	26.8
85°	14.5	17.1	66.4	85.1	200.3	427.3	295.0	71.7	63.2	39.6	7.0
87.5°	0.0	2.1	13.4	11.8	11.8	8.0	15.0	8.0	10.2	4.8	2.1
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°	941.3	941.3	941.3	941.3	941.3	941.3	941.3	941.3	941.3	941.3	941.3
2.5°	946.1	942.4	934.3	925.8	917.7	910.2	908.1	900.1	896.3	896.8	896.3
5°	950.9	944.0	928.4	909.7	890.4	868.5	850.3	824.6	802.6	799.9	798.3
7.5°	963.8	952.5	927.4	891.0	842.8	782.3	726.0	670.4	638.8	621.6	620.6
10°	983.6	968.6	930.0	860.4	758.2	650.0	564.9	494.7	458.9	442.3	439.1
12.5°	1007.1	990.5	934.3	808.5	648.9	507.1	415.0	372.1	364.6	363.6	363.0
15°	1040.3	1022.1	939.1	738.4	530.6	386.0	343.7	344.3	350.2	353.4	352.8
17.5°	1077.3	1059.1	932.2	652.7	413.9	329.8	328.8	333.6	342.1	345.4	344.8
20°	1114.8	1097.6	907.6	552.0	334.6	314.3	318.6	323.9	332.5	336.8	336.8
22.5°	1153.3	1138.3	868.5	444.9	302.0	303.1	308.4	313.8	323.4	328.2	328.2
25°	1194.5	1181.7	816.5	356.6	288.1	291.3	298.2	304.7	314.8	320.7	320.7
27.5°	1236.3	1226.7	757.6	297.7	275.2	279.0	287.0	295.6	305.7	312.7	313.2
30°	1281.8	1276.5	710.5	275.7	262.9	266.1	275.2	284.8	296.1	304.7	305.7
32.5°	1328.4	1327.3	687.5	291.8	251.7	253.8	261.8	271.5	285.4	296.1	297.2
35°	1374.5	1376.6	674.1	337.3	247.9	242.0	247.4	255.9	272.5	285.9	288.1
37.5°	1433.4	1438.7	673.6	386.6	257.0	230.2	234.0	239.9	254.3	269.9	272.5
40°	1521.2	1549.5	707.8	428.9	273.1	219.5	220.6	221.7	229.2	242.0	246.3
42.5°	1637.9	1720.9	831.5	457.8	279.5	209.9	206.1	200.3	199.2	206.1	209.9
45°	1783.0	1928.1	1048.9	473.9	273.1	199.2	189.0	173.5	167.6	172.4	172.4
47.5°	1953.8	2155.1	1306.5	477.6	262.4	185.8	167.6	147.2	142.4	144.0	143.5
50°	2120.3	2325.4	1532.9	446.6	244.7	168.7	144.0	126.9	123.7	124.2	124.2
52.5°	2267.6	2383.7	1597.2	373.2	221.1	147.8	123.7	111.9	109.8	109.8	109.2
55°	2365.0	2320.6	1424.2	285.4	191.7	126.4	106.0	100.1	99.1	98.5	97.4
57.5°	2385.3	2115.0	1075.7	206.1	149.9	106.6	94.2	91.0	88.9	86.7	85.7
60°	2312.5	1772.3	684.8	144.0	112.4	91.0	83.5	81.4	77.1	72.8	71.2
62.5°	2155.1	1338.6	379.1	100.1	90.5	77.6	73.9	71.2	63.2	56.2	54.1
65°	1943.6	889.9	167.6	78.2	73.9	65.3	63.2	59.4	49.8	41.8	40.2
67.5°	1731.1	512.4	75.5	62.6	59.4	53.5	51.9	49.3	42.3	34.8	33.7
70°	1488.5	259.7	51.9	49.8	46.0	40.7	42.3	41.8	34.8	28.4	27.3
72.5°	1108.3	129.0	39.1	37.5	33.2	28.9	34.8	34.3	27.3	21.4	20.3
75°	627.5	63.7	28.4	26.2	19.8	21.4	27.8	26.2	18.7	13.9	12.9
77.5°	249.0	32.7	18.7	16.1	11.8	14.5	20.3	17.7	9.6	5.9	5.4
80°	57.3	16.1	9.6	7.0	5.4	8.6	10.7	6.4	2.7	0.5	0.0
82.5°	16.1	7.0	3.2	2.7	2.7	3.2	2.7	1.1	0.0	0.0	0.0
85°	5.4	3.2	1.1	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
87.5°	2.1	1.1	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)