

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: P883570

Luminaire Tested: **NAV-SB4A-722-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883570
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-SB4A-722-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 350mA 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: 10968 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

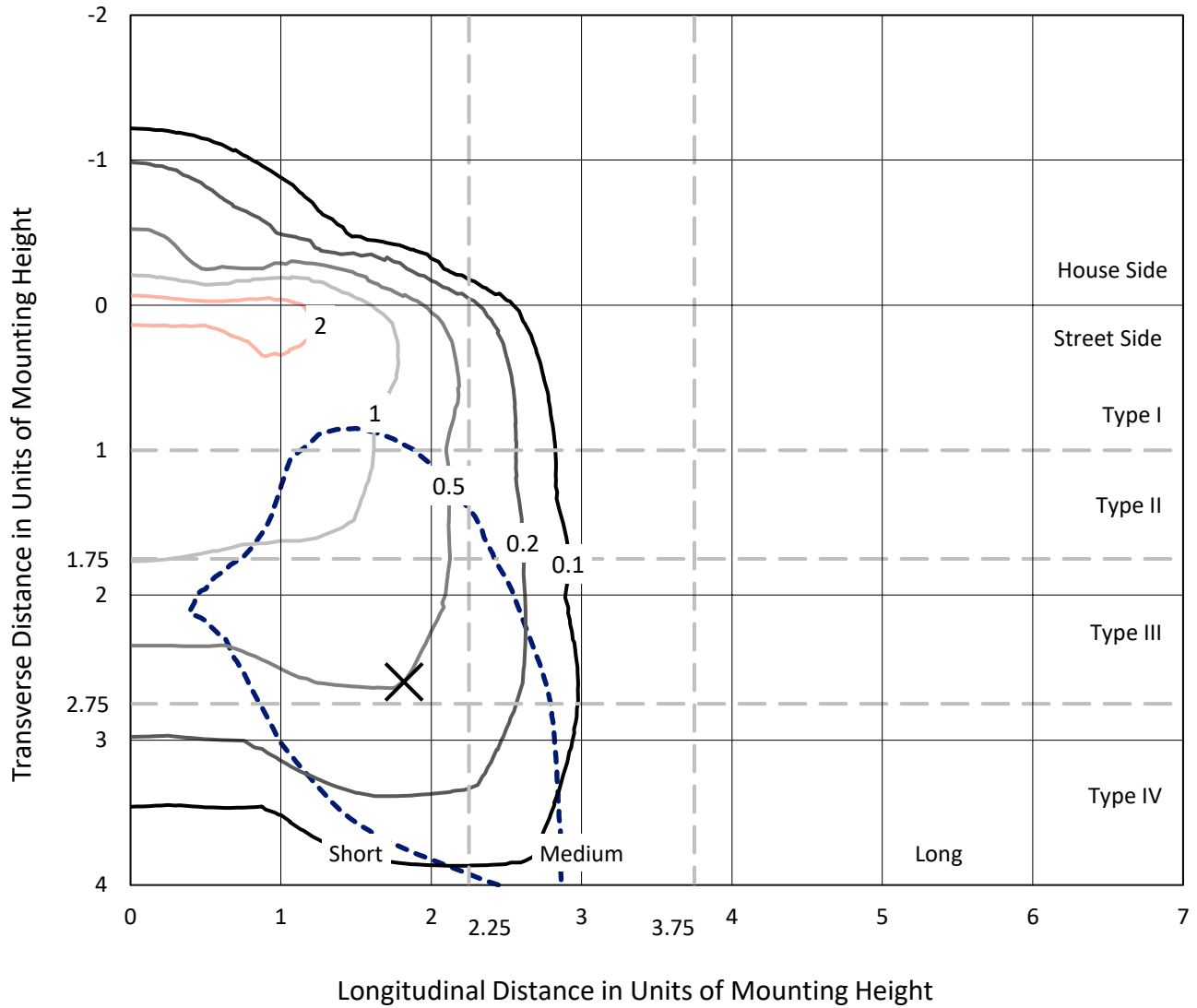
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

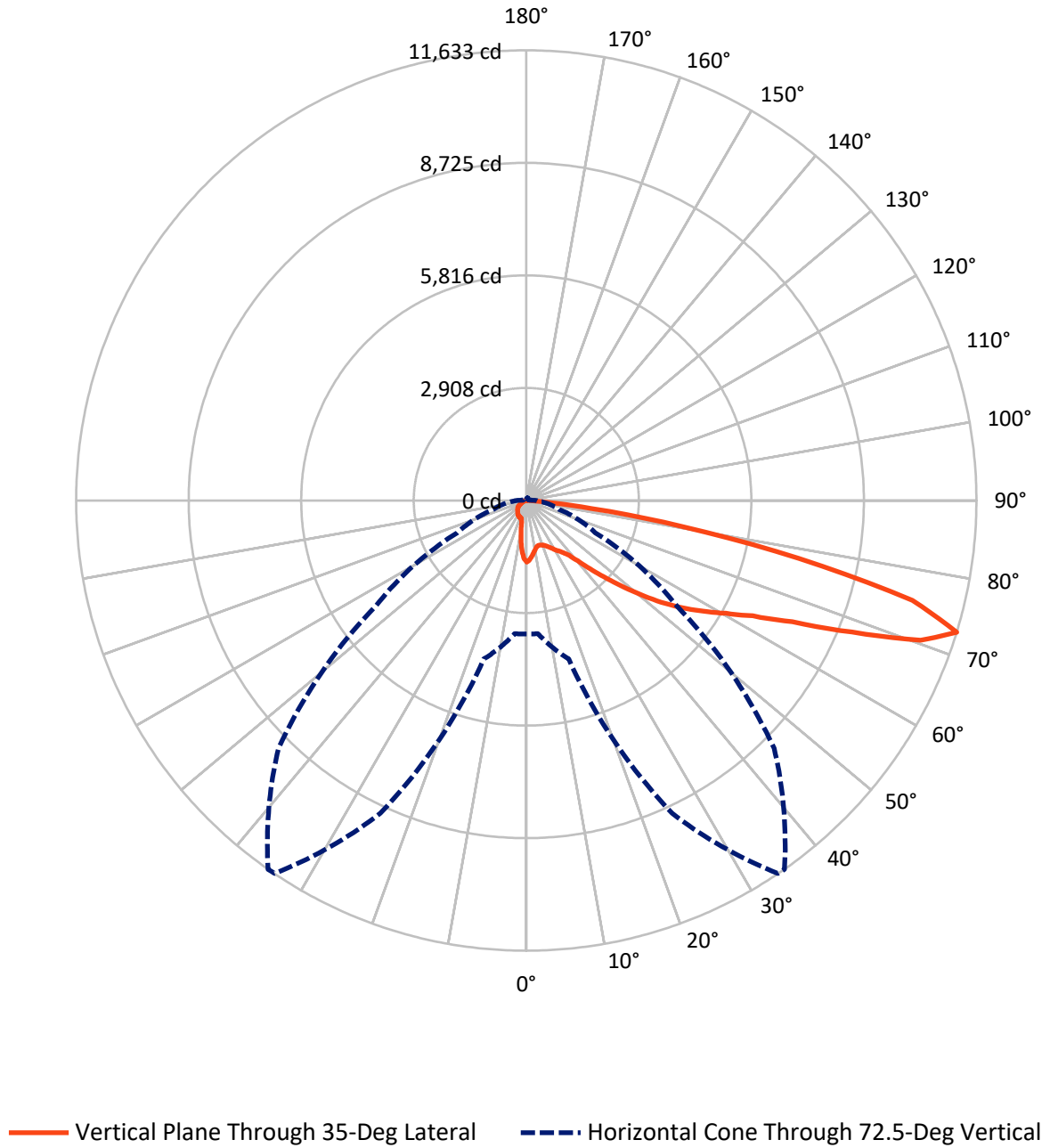
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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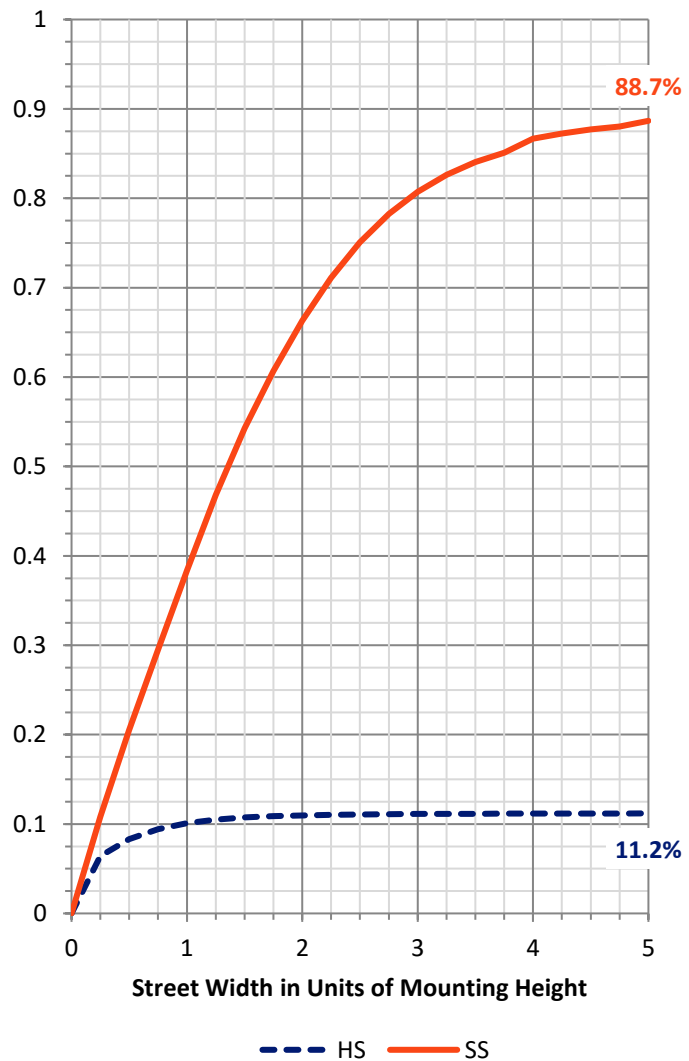
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1234.4	0.0	1234.4
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	9733.6	0.0	9733.6
	% Fixture	88.7	0.0	88.7
Total	Lumens	10968.0	0.0	10968.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.6	1.2
10°-20°	305.6	2.8
20°-30°	496.4	4.5
30°-40°	828.3	7.6
40°-50°	1567.1	14.3
50°-60°	2490.1	22.7
60°-70°	3080.4	28.1
70°-80°	1914.8	17.5
80°-90°	154.7	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°	10968.0	100.0
0°-180°	10968.0	100.0

Coefficient of Utilization



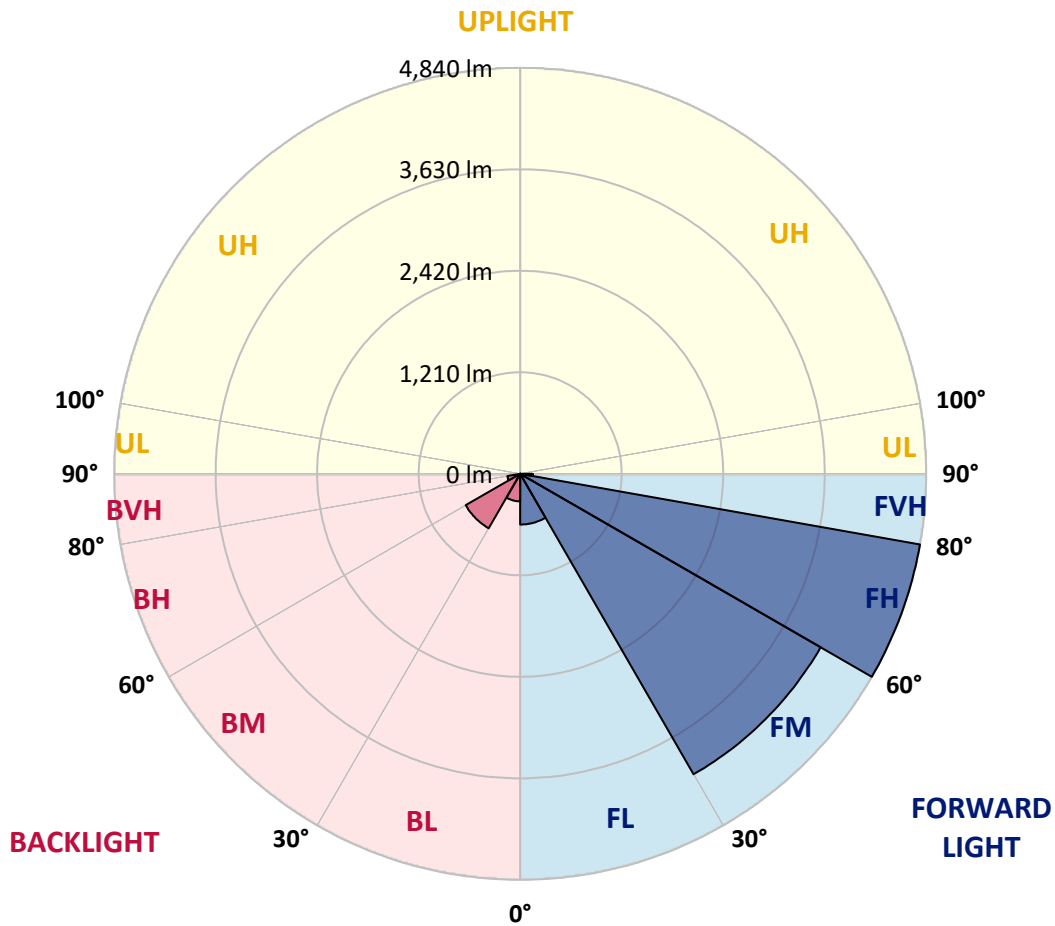
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	604.6	5.5			
FM (30°-60°)	4136.0	37.7			
FH (60°-80°)	4840.3	44.1			G2/5000
FVH (80°-90°)	152.6	1.4			G2/225
BL (0°-30°)	328.0	3.0	B1/500		
BM (30°-60°)	749.4	6.8	B1/1000		
BH (60°-80°)	154.9	1.4	B1/500		G1/500
BVH (80°-90°)	2.1	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°	34°	35°	45°	55°	65°	75°	85°
0°	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6
2.5°	1518.9	1531.8	1534.2	1538.2	1538.2	1543.0	1551.1	1562.3	1580.8	1590.4	1596.9
5°	1400.0	1409.6	1421.7	1431.3	1449.8	1452.2	1483.5	1514.1	1556.7	1588.8	1611.3
7.5°	1280.2	1291.5	1307.5	1330.9	1355.0	1362.2	1409.6	1461.0	1528.6	1588.8	1626.6
10°	1195.8	1196.6	1211.1	1234.4	1273.0	1281.8	1339.7	1412.8	1497.2	1579.2	1641.1
12.5°	1148.4	1154.0	1160.5	1178.2	1215.1	1220.8	1282.6	1368.6	1465.9	1573.6	1657.9
15°	1148.4	1152.4	1156.5	1165.3	1195.0	1199.9	1254.5	1340.5	1449.8	1576.0	1685.3
17.5°	1160.5	1166.9	1163.7	1174.1	1205.5	1208.7	1256.9	1332.5	1449.0	1591.2	1727.1
20°	1189.4	1194.2	1187.8	1194.2	1225.6	1232.0	1281.8	1347.7	1462.7	1617.8	1779.3
22.5°	1235.2	1237.6	1222.4	1227.2	1259.3	1267.4	1325.2	1391.1	1495.6	1660.4	1849.2
25°	1293.1	1297.9	1274.6	1280.2	1310.8	1320.4	1387.1	1456.2	1547.8	1719.0	1938.4
27.5°	1359.8	1362.2	1342.1	1341.3	1380.7	1394.3	1461.8	1536.6	1617.8	1793.0	2050.9
30°	1436.1	1443.4	1424.1	1420.9	1470.7	1481.9	1548.6	1635.4	1720.6	1903.9	2210.9
32.5°	1496.4	1502.0	1490.8	1498.8	1549.4	1558.3	1653.9	1775.3	1882.2	2061.4	2428.6
35°	1583.2	1586.4	1560.7	1575.2	1633.0	1655.5	1797.8	1971.4	2085.5	2259.1	2713.1
37.5°	1897.4	1897.4	1788.1	1716.6	1772.1	1792.2	1994.7	2218.1	2336.2	2524.3	3071.6
40°	2332.2	2325.0	2165.0	2018.8	2011.6	2050.9	2275.1	2529.1	2660.1	2842.5	3475.0
42.5°	2795.9	2784.7	2566.9	2422.2	2398.1	2411.8	2599.0	2912.4	3045.9	3230.7	3909.0
45°	3207.4	3204.2	3004.9	2810.4	2767.0	2810.4	3003.3	3360.9	3456.5	3651.0	4342.2
47.5°	3552.2	3552.2	3406.7	3279.7	3257.2	3282.9	3550.6	3858.4	3849.5	4098.6	4764.1
50°	3949.2	3945.9	3807.7	3753.1	3776.4	3812.5	4180.6	4382.3	4256.2	4538.2	5141.0
52.5°	4227.2	4246.5	4199.1	4190.3	4309.2	4371.9	4820.3	4895.1	4620.2	4955.3	5423.1
55°	4447.4	4469.9	4524.6	4586.5	4815.5	4897.5	5439.9	5381.3	4924.8	5317.0	5585.4
57.5°	4759.2	4727.1	4811.5	4933.6	5304.1	5403.0	6040.3	5840.2	5169.9	5610.3	5603.1
60°	5137.8	5142.6	5157.1	5311.4	5791.9	5918.9	6631.8	6274.1	5327.4	5790.3	5407.0
62.5°	5592.6	5599.9	5629.6	5866.7	6446.9	6566.7	7261.8	6629.4	5399.8	5739.7	4900.7
65°	5561.3	5591.8	5923.7	6734.6	7442.7	7560.8	7997.2	6878.5	5290.5	5276.8	3990.2
67.5°	5066.2	5116.1	5671.4	7771.4	8943.9	9075.7	8886.0	6927.5	4818.7	4103.5	2603.0
70°	4416.9	4434.6	5102.4	8703.6	10682.2	10815.6	9681.6	6388.3	3656.6	2288.8	1166.1
72.5°	3449.3	3453.3	4236.9	8919.8	11625.7	11632.9	9057.2	4742.4	1966.5	879.2	405.0
75°	2464.0	2439.9	2837.7	7233.7	10228.1	10310.1	6790.1	2224.5	751.4	415.5	201.7
77.5°	1321.2	1347.7	1605.7	4289.9	7065.7	7205.6	3704.9	641.3	382.5	282.9	133.4
80°	408.3	430.8	658.2	1964.1	4002.2	4086.6	1373.4	285.3	266.8	201.7	87.6
82.5°	128.6	133.4	307.0	825.4	1661.2	1699.7	397.8	161.5	182.4	133.4	51.4
85°	37.0	37.8	136.6	307.8	410.7	418.7	111.7	62.7	104.5	82.8	26.5
87.5°	4.0	12.9	51.4	51.4	36.2	35.4	12.1	13.7	29.7	10.4	4.8
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°	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6	1589.6
2.5°	1592.8	1593.6	1583.2	1565.5	1546.2	1530.2	1510.1	1494.0	1482.7	1479.5	1485.2
5°	1604.1	1598.5	1568.7	1514.9	1450.6	1395.1	1333.3	1284.2	1252.1	1238.4	1243.3
7.5°	1621.0	1604.9	1539.8	1433.7	1310.8	1201.5	1090.6	1004.6	949.9	922.6	926.6
10°	1635.4	1603.3	1491.6	1316.4	1128.3	962.8	813.3	709.6	651.8	624.4	625.2
12.5°	1649.1	1602.5	1428.9	1177.4	922.6	720.1	581.0	529.6	513.5	507.9	506.3
15°	1674.8	1604.9	1350.1	1018.2	717.7	544.1	493.4	492.6	495.9	494.2	493.4
17.5°	1710.2	1607.3	1260.9	849.5	553.7	479.8	477.4	484.6	489.4	487.0	486.2
20°	1756.0	1617.0	1166.1	682.3	475.8	463.7	469.3	475.8	479.8	475.8	475.0
22.5°	1820.3	1633.8	1062.4	548.1	450.9	454.1	458.9	466.1	470.1	464.5	463.7
25°	1899.0	1660.4	960.4	476.6	438.8	442.8	450.0	458.1	462.9	457.3	456.5
27.5°	2001.1	1702.9	866.3	460.5	426.7	429.2	439.6	451.7	458.1	450.9	450.9
30°	2149.0	1772.9	785.2	467.7	419.5	413.9	428.3	445.2	452.5	446.0	445.2
32.5°	2345.1	1871.7	735.3	479.0	416.3	396.2	409.9	431.6	443.6	439.6	439.6
35°	2602.2	2022.0	716.1	491.8	413.9	377.7	387.4	410.7	431.6	435.6	435.6
37.5°	2914.1	2230.9	721.7	497.5	406.6	362.4	367.3	387.4	414.7	427.5	430.8
40°	3268.5	2474.5	753.8	491.8	398.6	349.6	350.4	365.7	389.8	409.1	415.5
42.5°	3634.1	2758.9	813.3	470.9	391.4	338.3	335.9	346.4	362.4	376.1	381.7
45°	3982.1	3051.5	872.0	442.0	382.5	327.1	321.5	325.5	328.7	334.3	337.5
47.5°	4285.9	3257.2	855.1	415.5	370.5	314.2	304.6	303.0	293.3	292.5	291.7
50°	4495.6	3302.2	759.5	389.0	352.8	299.8	284.5	274.9	258.0	249.9	250.7
52.5°	4562.4	3124.6	620.4	362.4	323.9	280.5	258.8	243.5	222.6	215.4	214.6
55°	4474.0	2776.6	495.9	330.3	283.7	254.8	230.6	210.6	193.7	184.8	184.8
57.5°	4257.8	2333.8	392.2	292.5	241.1	225.8	201.7	181.6	167.2	158.3	156.7
60°	3899.3	1853.2	310.2	247.5	205.7	194.5	169.6	156.7	143.9	133.4	131.0
62.5°	3355.3	1322.8	243.5	196.1	172.0	159.1	144.7	135.0	119.7	105.3	102.9
65°	2618.3	809.3	188.1	143.9	138.2	131.8	123.0	114.1	95.6	81.2	78.8
67.5°	1651.5	383.3	134.2	108.5	109.3	106.1	102.1	94.8	81.2	68.3	66.7
70°	727.3	185.6	88.4	82.8	81.2	81.2	84.4	82.0	69.1	57.1	54.6
72.5°	247.5	99.7	65.9	62.7	58.7	57.9	70.7	68.3	55.5	44.2	41.8
75°	129.4	66.7	48.2	45.0	35.4	42.6	56.3	53.0	39.4	28.9	26.5
77.5°	84.4	47.4	32.9	28.9	20.1	28.1	41.8	37.0	23.3	14.5	12.9
80°	53.0	31.3	19.3	13.7	9.6	15.3	22.5	16.1	8.8	3.2	2.4
82.5°	28.1	16.1	7.2	4.8	4.0	4.8	5.6	4.0	1.6	0.0	0.0
85°	11.3	5.6	2.4	1.6	0.8	0.0	1.6	0.8	0.0	0.0	0.0
87.5°	4.0	0.8	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)