

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: P882920

Luminaire Tested: **NAV-SB3A-735-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882920
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-SB3A-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 3500K, 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: 10187 lumens
Efficiency: N/A
Efficacy: 120.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

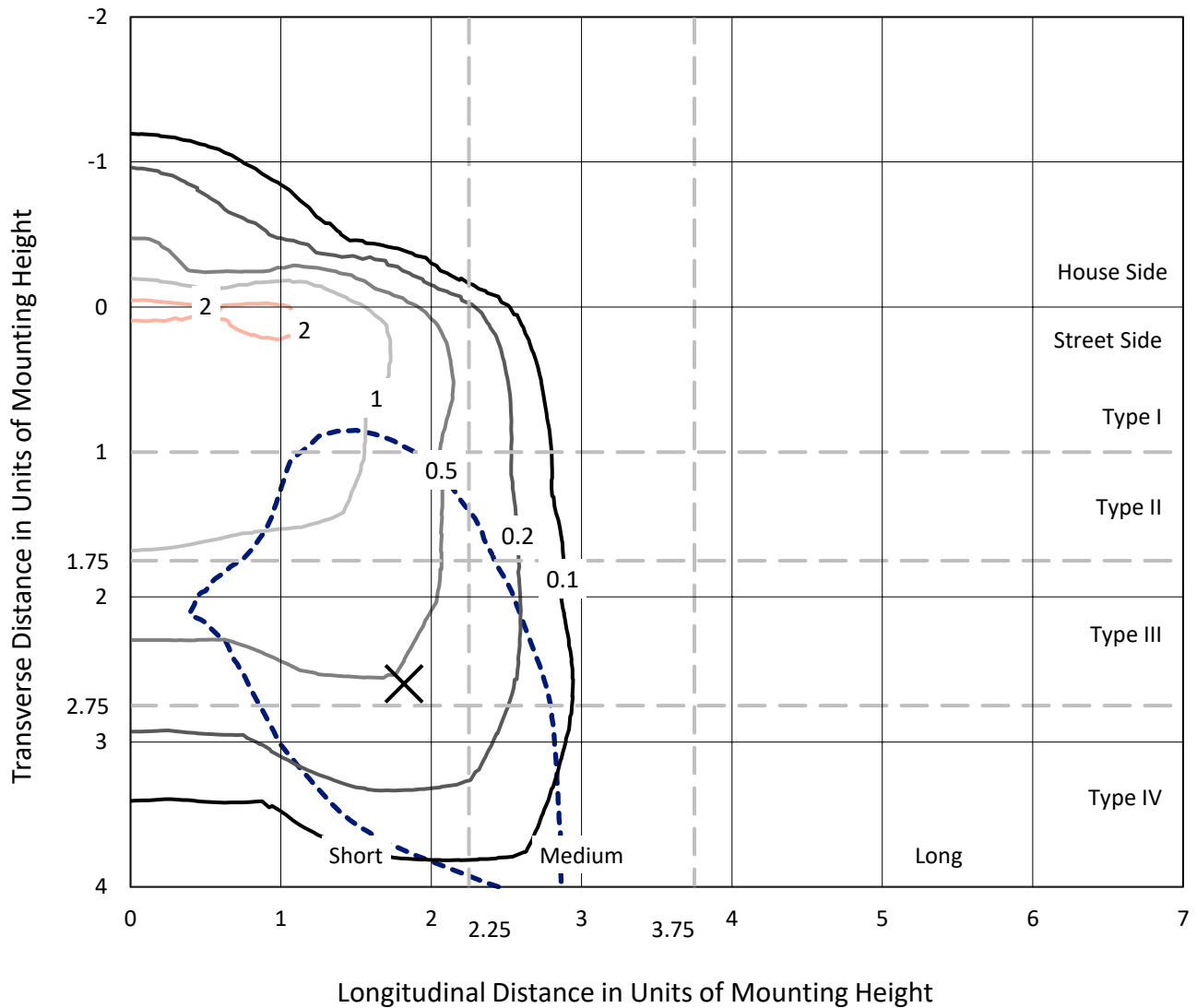
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

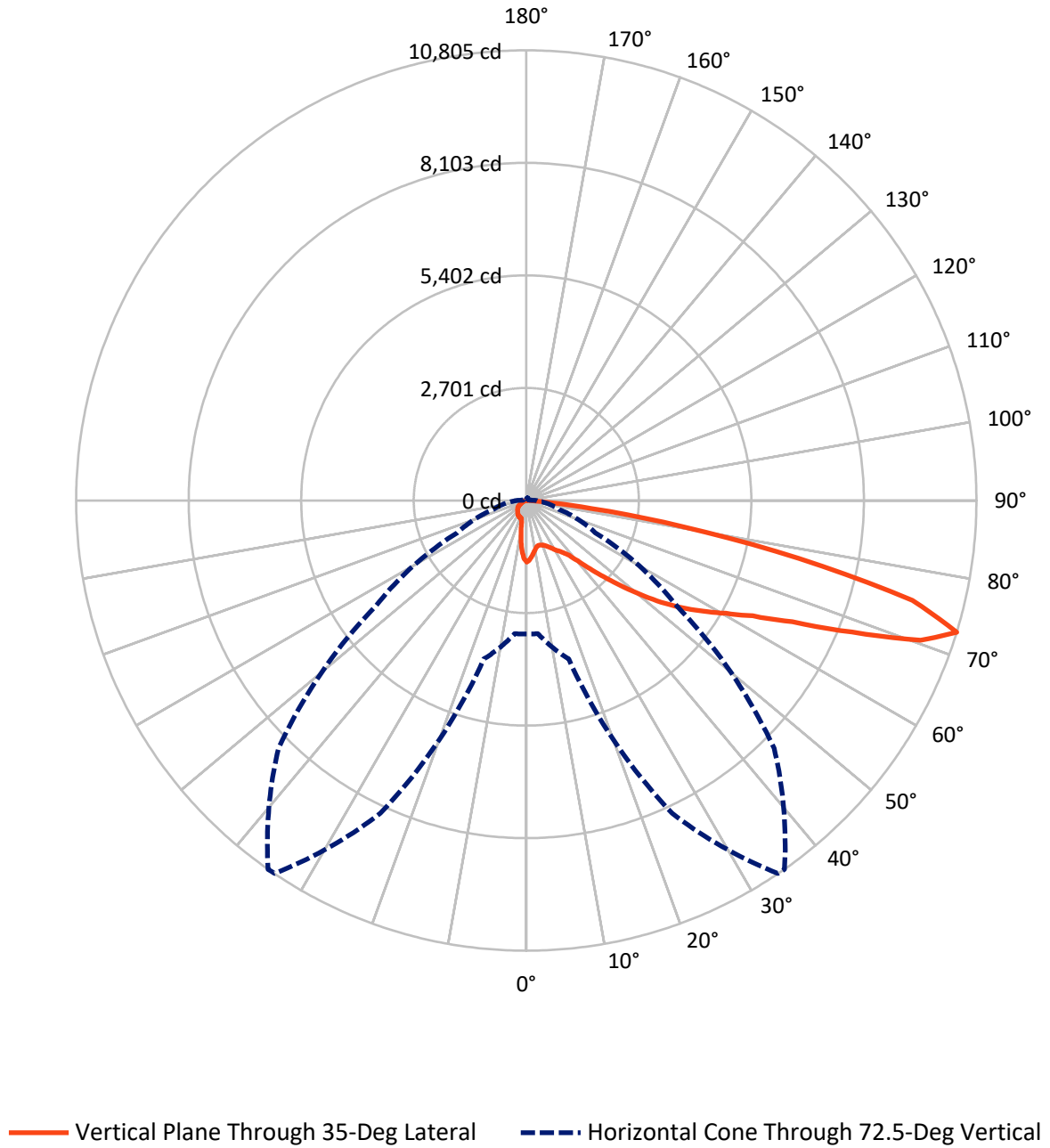
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.4 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	1146.5	0.0	1146.5
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	9040.5	0.0	9040.5
	% Fixture	88.7	0.0	88.7
Total	Lumens	10187.0	0.0	10187.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.3	1.2
10°-20°	283.8	2.8
20°-30°	461.1	4.5
30°-40°	769.3	7.6
40°-50°	1455.5	14.3
50°-60°	2312.8	22.7
60°-70°	2861.1	28.1
70°-80°	1778.5	17.5
80°-90°	143.7	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°	10187.0	100.0
0°-180°	10187.0	100.0

Coefficient of Utilization



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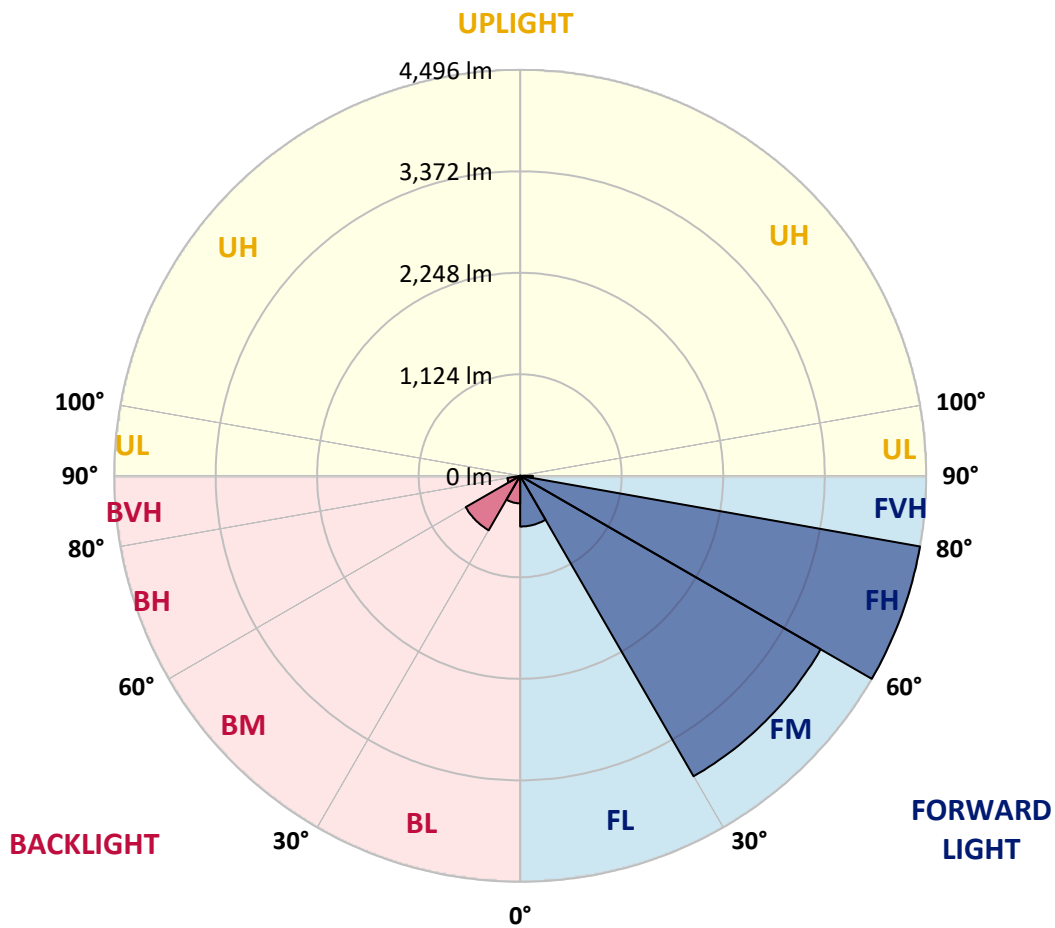
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	561.6	5.5			
FM (30°-60°)	3841.5	37.7			
FH (60°-80°)	4495.7	44.1			G2/5000
FVH (80°-90°)	141.8	1.4			G2/225
BL (0°-30°)	304.6	3.0	B1/500		
BM (30°-60°)	696.0	6.8	B1/1000		
BH (60°-80°)	143.9	1.4	B1/500		G1/500
BVH (80°-90°)	2.0	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°	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4
2.5°	1410.8	1422.7	1424.9	1428.7	1428.7	1433.1	1440.6	1451.1	1468.2	1477.2	1483.2
5°	1300.3	1309.2	1320.4	1329.4	1346.6	1348.8	1377.9	1406.3	1445.8	1475.7	1496.6
7.5°	1189.1	1199.5	1214.4	1236.1	1258.5	1265.2	1309.2	1357.0	1419.7	1475.7	1510.8
10°	1110.7	1111.4	1124.9	1146.5	1182.3	1190.6	1244.3	1312.2	1390.6	1466.7	1524.2
12.5°	1066.6	1071.9	1077.8	1094.3	1128.6	1133.8	1191.3	1271.2	1361.5	1461.5	1539.9
15°	1066.6	1070.4	1074.1	1082.3	1109.9	1114.4	1165.2	1245.0	1346.6	1463.7	1565.3
17.5°	1077.8	1083.8	1080.8	1090.5	1119.6	1122.6	1167.4	1237.6	1345.8	1477.9	1604.1
20°	1104.7	1109.2	1103.2	1109.2	1138.3	1144.3	1190.6	1251.8	1358.5	1502.6	1652.6
22.5°	1147.3	1149.5	1135.3	1139.8	1169.7	1177.1	1230.9	1292.1	1389.1	1542.1	1717.5
25°	1201.0	1205.5	1183.8	1189.1	1217.4	1226.4	1288.3	1352.5	1437.6	1596.6	1800.4
27.5°	1263.0	1265.2	1246.5	1245.8	1282.4	1295.1	1357.8	1427.2	1502.6	1665.3	1904.9
30°	1333.9	1340.6	1322.7	1319.7	1366.0	1376.4	1438.4	1519.0	1598.1	1768.3	2053.4
32.5°	1389.9	1395.1	1384.6	1392.1	1439.1	1447.3	1536.2	1648.9	1748.1	1914.6	2255.7
35°	1470.5	1473.5	1449.6	1463.0	1516.7	1537.6	1669.8	1831.0	1937.0	2098.2	2519.9
37.5°	1762.3	1762.3	1660.8	1594.4	1645.9	1664.5	1852.6	2060.1	2169.9	2344.5	2852.9
40°	2166.1	2159.4	2010.9	1875.0	1868.3	1904.9	2113.1	2349.0	2470.7	2640.1	3227.6
42.5°	2596.8	2586.4	2384.1	2249.7	2227.3	2240.0	2414.0	2705.1	2829.0	3000.6	3630.6
45°	2979.0	2976.0	2790.9	2610.3	2570.0	2610.3	2789.4	3121.6	3210.4	3391.0	4033.0
47.5°	3299.2	3299.2	3164.1	3046.2	3025.3	3049.2	3297.7	3583.6	3575.4	3806.8	4424.8
50°	3668.0	3665.0	3536.6	3485.8	3507.5	3541.1	3882.9	4070.3	3953.1	4215.1	4774.9
52.5°	3926.2	3944.1	3900.1	3891.9	4002.4	4060.6	4477.1	4546.5	4291.2	4602.5	5036.9
55°	4130.7	4151.6	4202.4	4259.9	4472.6	4548.7	5052.6	4998.1	4574.1	4938.4	5187.7
57.5°	4420.4	4390.5	4468.9	4582.3	4926.4	5018.2	5610.2	5424.3	4801.8	5210.8	5204.1
60°	4771.9	4776.4	4789.8	4933.2	5379.5	5497.5	6159.5	5827.4	4948.1	5378.0	5022.0
62.5°	5194.4	5201.1	5228.7	5448.9	5987.9	6099.1	6744.7	6157.3	5015.3	5331.0	4551.7
65°	5165.3	5193.7	5501.9	6255.1	6912.7	7022.4	7427.7	6388.7	4913.7	4901.1	3706.0
67.5°	4705.5	4751.8	5267.6	7218.0	8307.0	8429.4	8253.3	6434.2	4475.6	3811.3	2417.7
70°	4102.4	4118.8	4739.1	8083.8	9921.5	10045.5	8992.2	5933.4	3396.3	2125.8	1083.1
72.5°	3203.7	3207.4	3935.2	8284.6	10797.9	10804.6	8412.3	4404.7	1826.5	816.6	376.2
75°	2288.6	2266.2	2635.6	6718.6	9499.8	9575.9	6306.6	2066.1	697.9	385.9	187.4
77.5°	1227.1	1251.8	1491.4	3984.4	6562.6	6692.5	3441.0	595.7	355.3	262.7	123.9
80°	379.2	400.1	611.3	1824.3	3717.2	3795.6	1275.6	265.0	247.8	187.4	81.4
82.5°	119.4	123.9	285.1	766.6	1542.9	1578.7	369.5	150.0	169.4	123.9	47.8
85°	34.3	35.1	126.9	285.9	381.4	388.9	103.8	58.2	97.0	76.9	24.6
87.5°	3.7	11.9	47.8	47.8	33.6	32.8	11.2	12.7	27.6	9.7	4.5
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°	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4	1476.4
2.5°	1479.4	1480.2	1470.5	1454.0	1436.1	1421.2	1402.5	1387.6	1377.2	1374.2	1379.4
5°	1489.9	1484.6	1457.0	1407.0	1347.3	1295.8	1238.3	1192.8	1162.9	1150.2	1154.7
7.5°	1505.5	1490.6	1430.2	1331.6	1217.4	1115.9	1012.9	933.0	882.3	856.9	860.6
10°	1519.0	1489.1	1385.4	1222.7	1048.0	894.2	755.4	659.1	605.4	580.0	580.7
12.5°	1531.7	1488.4	1327.2	1093.5	856.9	668.8	539.7	491.9	477.0	471.7	470.3
15°	1555.6	1490.6	1254.0	945.7	666.6	505.3	458.3	457.6	460.5	459.1	458.3
17.5°	1588.4	1492.9	1171.1	789.0	514.3	445.6	443.4	450.1	454.6	452.3	451.6
20°	1630.9	1501.8	1083.1	633.7	441.9	430.7	435.9	441.9	445.6	441.9	441.1
22.5°	1690.7	1517.5	986.8	509.1	418.7	421.7	426.2	432.9	436.7	431.4	430.7
25°	1763.8	1542.1	892.0	442.6	407.6	411.3	418.0	425.5	429.9	424.7	424.0
27.5°	1858.6	1581.7	804.7	427.7	396.4	398.6	408.3	419.5	425.5	418.7	418.7
30°	1996.0	1646.6	729.3	434.4	389.6	384.4	397.8	413.5	420.2	414.3	413.5
32.5°	2178.1	1738.4	683.0	444.9	386.7	368.0	380.7	400.8	412.0	408.3	408.3
35°	2416.9	1878.0	665.1	456.8	384.4	350.8	359.8	381.4	400.8	404.6	404.6
37.5°	2706.6	2072.1	670.3	462.0	377.7	336.6	341.1	359.8	385.2	397.1	400.1
40°	3035.7	2298.3	700.2	456.8	370.2	324.7	325.4	339.6	362.0	379.9	385.9
42.5°	3375.4	2562.5	755.4	437.4	363.5	314.2	312.0	321.7	336.6	349.3	354.6
45°	3698.6	2834.2	809.9	410.5	355.3	303.8	298.6	302.3	305.3	310.5	313.5
47.5°	3980.7	3025.3	794.2	385.9	344.1	291.9	282.9	281.4	272.4	271.7	271.0
50°	4175.5	3067.1	705.4	361.3	327.7	278.4	264.2	255.3	239.6	232.1	232.9
52.5°	4237.5	2902.1	576.2	336.6	300.8	260.5	240.4	226.2	206.8	200.0	199.3
55°	4155.4	2578.9	460.5	306.8	263.5	236.6	214.2	195.6	179.9	171.7	171.7
57.5°	3954.6	2167.6	364.3	271.7	223.9	209.7	187.4	168.7	155.3	147.0	145.6
60°	3621.7	1721.3	288.1	229.9	191.1	180.6	157.5	145.6	133.6	123.9	121.7
62.5°	3116.3	1228.6	226.2	182.1	159.7	147.8	134.4	125.4	111.2	97.8	95.5
65°	2431.9	751.7	174.7	133.6	128.4	122.4	114.2	106.0	88.8	75.4	73.2
67.5°	1533.9	356.0	124.7	100.8	101.5	98.5	94.8	88.1	75.4	63.4	62.0
70°	675.5	172.4	82.1	76.9	75.4	75.4	78.4	76.1	64.2	53.0	50.8
72.5°	229.9	92.6	61.2	58.2	54.5	53.7	65.7	63.4	51.5	41.1	38.8
75°	120.2	62.0	44.8	41.8	32.8	39.6	52.3	49.3	36.6	26.9	24.6
77.5°	78.4	44.0	30.6	26.9	18.7	26.1	38.8	34.3	21.6	13.4	11.9
80°	49.3	29.1	17.9	12.7	9.0	14.2	20.9	14.9	8.2	3.0	2.2
82.5°	26.1	14.9	6.7	4.5	3.7	4.5	5.2	3.7	1.5	0.0	0.0
85°	10.5	5.2	2.2	1.5	0.7	0.0	1.5	0.7	0.0	0.0	0.0
87.5°	3.7	0.7	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)