

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: P882640

Luminaire Tested: **NAV-SB2C-835-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882640
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-SB2C-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 615mA 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: 9751 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

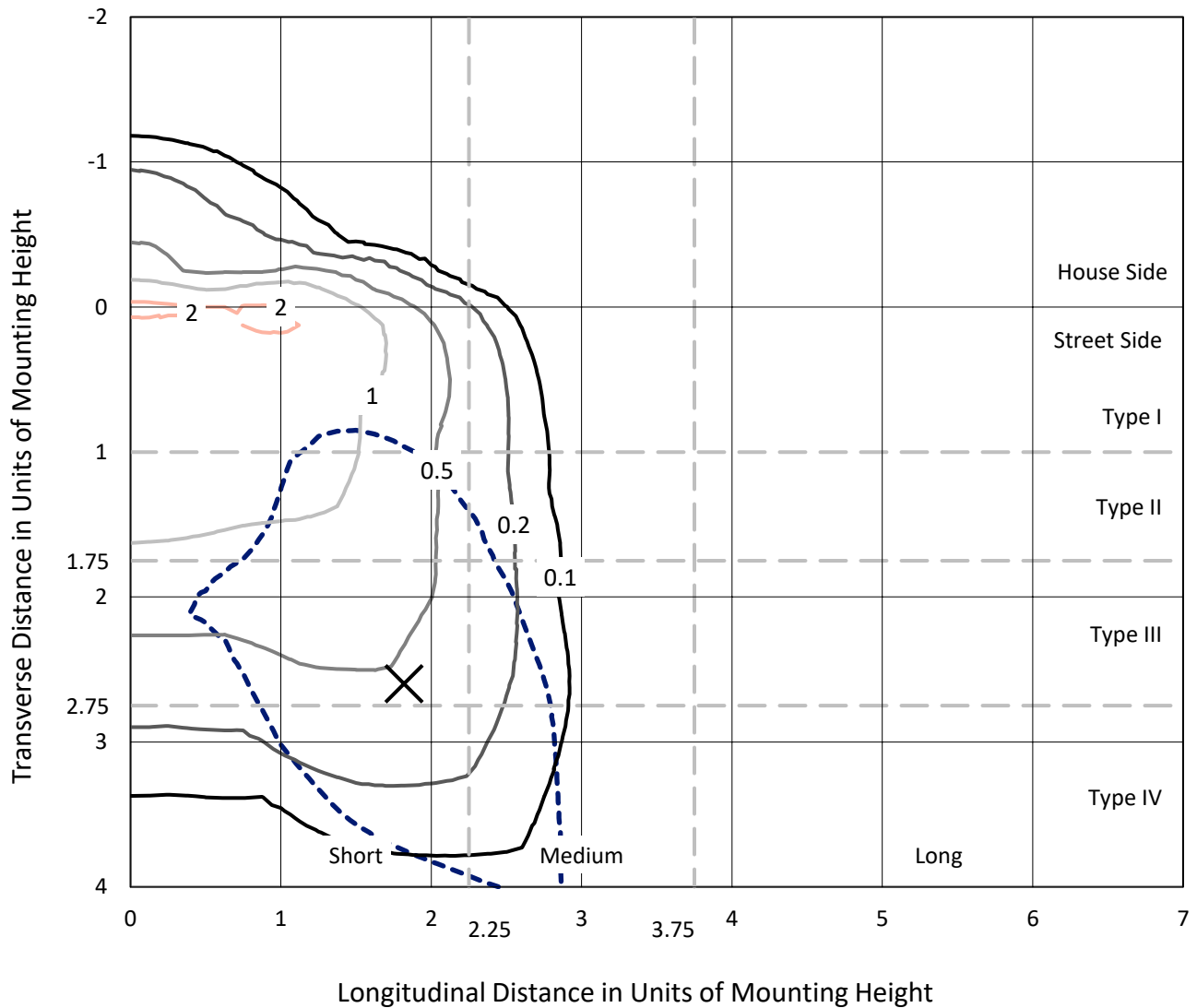
Input Watts (W): 100.9
Input Voltage (V): 120.0
Input Current (Ain): 0.857
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

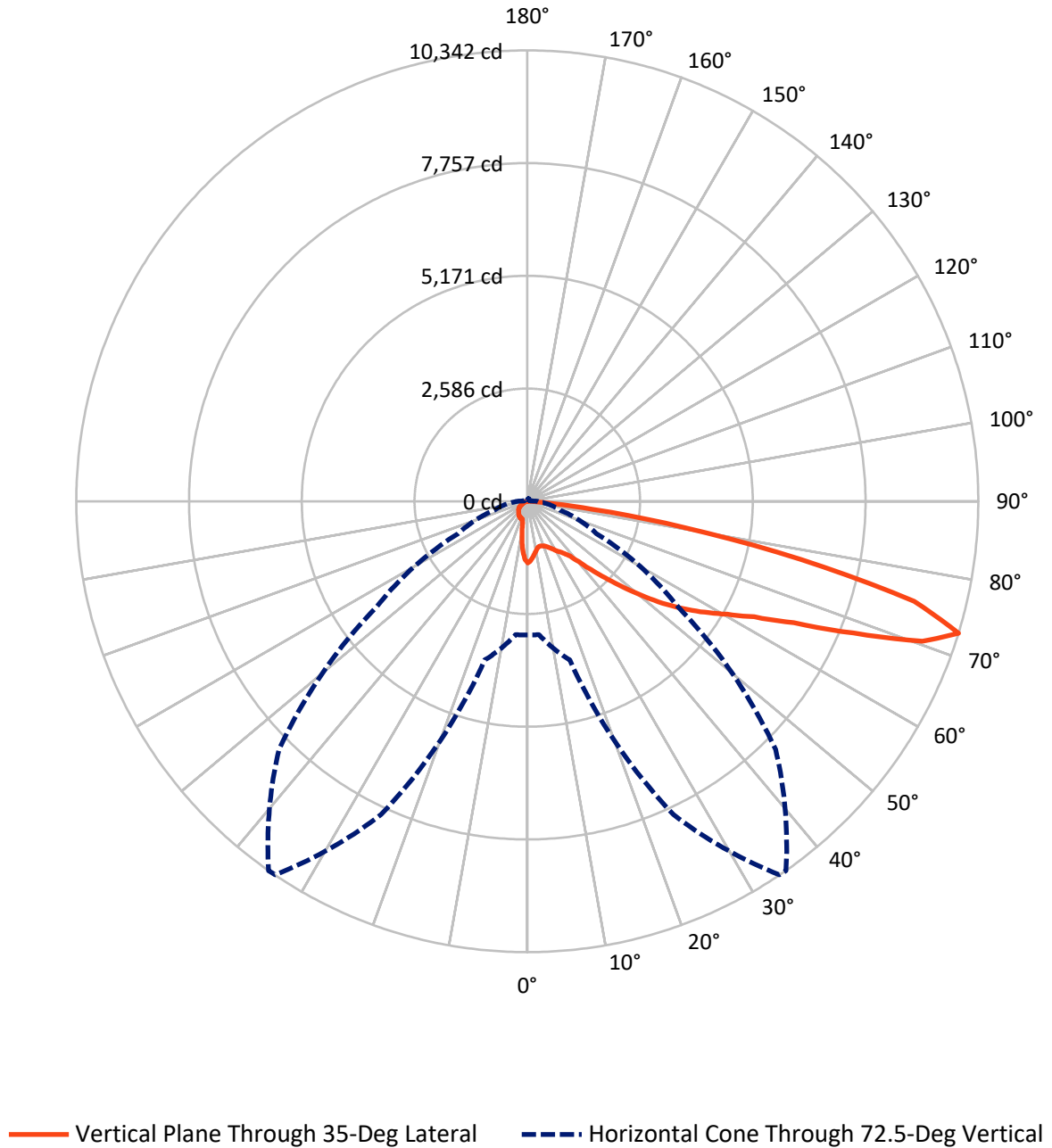
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 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	1097.4	0.0	1097.4
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	8653.6	0.0	8653.6
	% Fixture	88.7	0.0	88.7
Total	Lumens	9751.0	0.0	9751.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.1	1.2
10°-20°	271.7	2.8
20°-30°	441.3	4.5
30°-40°	736.4	7.6
40°-50°	1393.2	14.3
50°-60°	2213.8	22.7
60°-70°	2738.6	28.1
70°-80°	1702.3	17.5
80°-90°	137.6	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°	9751.0	100.0
0°-180°	9751.0	100.0

Coefficient of Utilization



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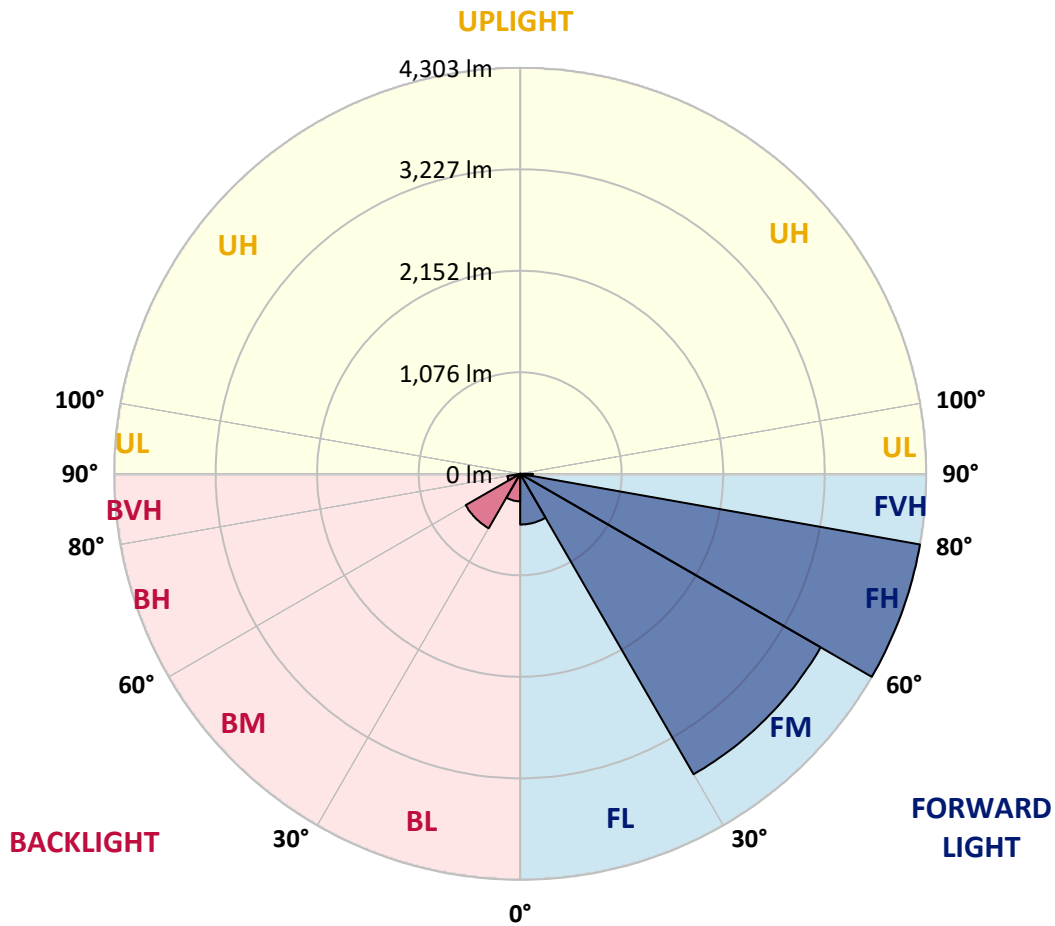
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	537.5	5.5			
FM (30°-60°)	3677.1	37.7			
FH (60°-80°)	4303.2	44.1			G2/5000
FVH (80°-90°)	135.7	1.4			G2/225
BL (0°-30°)	291.6	3.0	B1/500		
BM (30°-60°)	666.2	6.8	B1/1000		
BH (60°-80°)	137.7	1.4	B1/500		G1/500
BVH (80°-90°)	1.9	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°	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2
2.5°	1350.4	1361.8	1363.9	1367.5	1367.5	1371.8	1379.0	1389.0	1405.4	1414.0	1419.7
5°	1244.6	1253.2	1263.9	1272.5	1288.9	1291.1	1318.9	1346.1	1384.0	1412.5	1432.5
7.5°	1138.2	1148.2	1162.5	1183.2	1204.6	1211.0	1253.2	1298.9	1358.9	1412.5	1446.1
10°	1063.2	1063.9	1076.7	1097.4	1131.7	1139.6	1191.0	1256.1	1331.1	1404.0	1459.0
12.5°	1021.0	1026.0	1031.7	1047.4	1080.3	1085.3	1140.3	1216.8	1303.2	1399.0	1474.0
15°	1021.0	1024.6	1028.1	1036.0	1062.4	1066.7	1115.3	1191.8	1288.9	1401.1	1498.3
17.5°	1031.7	1037.4	1034.6	1043.9	1071.7	1074.6	1117.5	1184.6	1288.2	1414.7	1535.4
20°	1057.4	1061.7	1056.0	1061.7	1089.6	1095.3	1139.6	1198.2	1300.4	1438.3	1581.9
22.5°	1098.2	1100.3	1086.7	1091.0	1119.6	1126.7	1178.2	1236.8	1329.7	1476.1	1644.0
25°	1149.6	1153.9	1133.2	1138.2	1165.3	1173.9	1233.2	1294.6	1376.1	1528.3	1723.3
27.5°	1208.9	1211.0	1193.2	1192.5	1227.5	1239.6	1299.6	1366.1	1438.3	1594.0	1823.4
30°	1276.8	1283.2	1266.1	1263.2	1307.5	1317.5	1376.8	1454.0	1529.7	1692.6	1965.5
32.5°	1330.4	1335.4	1325.4	1332.5	1377.5	1385.4	1470.4	1578.3	1673.3	1832.6	2159.2
35°	1407.5	1410.4	1387.5	1400.4	1451.8	1471.8	1598.3	1752.6	1854.1	2008.4	2412.1
37.5°	1686.9	1686.9	1589.7	1526.1	1575.4	1593.3	1773.3	1972.0	2077.0	2244.2	2730.8
40°	2073.4	2067.0	1924.8	1794.8	1788.4	1823.4	2022.7	2248.5	2364.9	2527.1	3089.4
42.5°	2485.7	2475.7	2282.1	2153.5	2132.0	2144.2	2310.6	2589.3	2707.9	2872.2	3475.2
45°	2851.5	2848.6	2671.5	2498.5	2460.0	2498.5	2670.0	2988.0	3073.0	3245.9	3860.4
47.5°	3158.0	3158.0	3028.7	2915.8	2895.8	2918.7	3156.6	3430.2	3422.4	3643.9	4235.5
50°	3511.0	3508.1	3385.2	3336.6	3357.4	3389.5	3716.7	3896.1	3783.9	4034.7	4570.5
52.5°	3758.2	3775.3	3733.2	3725.3	3831.1	3886.8	4285.5	4351.9	4107.6	4405.5	4821.3
55°	3953.9	3974.0	4022.5	4077.6	4281.2	4354.1	4836.3	4784.2	4378.4	4727.0	4965.7
57.5°	4231.2	4202.6	4277.6	4386.2	4715.6	4803.5	5370.1	5192.1	4596.3	4987.8	4981.4
60°	4567.7	4572.0	4584.8	4722.0	5149.3	5262.2	5895.9	5578.0	4736.3	5147.8	4807.0
62.5°	4972.1	4978.5	5005.0	5215.7	5731.6	5838.0	6456.1	5893.8	4800.6	5102.8	4356.9
65°	4944.2	4971.4	5266.5	5987.4	6616.8	6721.9	7109.8	6115.3	4703.4	4691.3	3547.4
67.5°	4504.1	4548.4	5042.1	6909.0	7951.5	8068.7	7900.0	6158.8	4284.0	3648.1	2314.2
70°	3926.8	3942.5	4536.3	7737.8	9496.9	9615.5	8607.4	5679.4	3250.9	2034.8	1036.7
72.5°	3066.6	3070.1	3766.8	7930.0	10335.7	10342.1	8052.2	4216.2	1748.3	781.6	360.1
75°	2190.6	2169.2	2522.8	6431.1	9093.2	9166.1	6036.7	1977.7	668.0	369.4	179.3
77.5°	1174.6	1198.2	1427.5	3813.9	6281.7	6406.1	3293.8	570.2	340.1	251.5	118.6
80°	363.0	383.0	585.2	1746.2	3558.1	3633.1	1221.1	253.6	237.2	179.3	77.9
82.5°	114.3	118.6	272.9	733.8	1476.8	1511.1	353.7	143.6	162.2	118.6	45.7
85°	32.9	33.6	121.5	273.6	365.1	372.2	99.3	55.7	92.9	73.6	23.6
87.5°	3.6	11.4	45.7	45.7	32.2	31.4	10.7	12.1	26.4	9.3	4.3
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°	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2	1413.2
2.5°	1416.1	1416.8	1407.5	1391.8	1374.7	1360.4	1342.5	1328.2	1318.2	1315.4	1320.4
5°	1426.1	1421.1	1394.7	1346.8	1289.6	1240.3	1185.3	1141.7	1113.2	1101.0	1105.3
7.5°	1441.1	1426.8	1368.9	1274.6	1165.3	1068.2	969.6	893.1	844.5	820.2	823.8
10°	1454.0	1425.4	1326.1	1170.3	1003.1	856.0	723.1	630.9	579.4	555.2	555.9
12.5°	1466.1	1424.7	1270.4	1046.7	820.2	640.2	516.6	470.8	456.6	451.6	450.1
15°	1489.0	1426.8	1200.3	905.2	638.0	483.7	438.7	438.0	440.8	439.4	438.7
17.5°	1520.4	1429.0	1121.0	755.2	492.3	426.5	424.4	430.8	435.1	433.0	432.3
20°	1561.1	1437.5	1036.7	606.6	423.0	412.3	417.3	423.0	426.5	423.0	422.3
22.5°	1618.3	1452.5	944.5	487.3	400.8	403.7	408.0	414.4	418.0	413.0	412.3
25°	1688.3	1476.1	853.8	423.7	390.1	393.7	400.1	407.3	411.5	406.5	405.8
27.5°	1779.1	1514.0	770.2	409.4	379.4	381.5	390.8	401.5	407.3	400.8	400.8
30°	1910.5	1576.1	698.0	415.8	373.0	368.0	380.8	395.8	402.3	396.5	395.8
32.5°	2084.9	1664.0	653.8	425.8	370.1	352.2	364.4	383.7	394.4	390.8	390.8
35°	2313.5	1797.6	636.6	437.3	368.0	335.8	344.4	365.1	383.7	387.2	387.2
37.5°	2590.7	1983.4	641.6	442.3	361.5	322.2	326.5	344.4	368.7	380.1	383.0
40°	2905.8	2199.9	670.2	437.3	354.4	310.8	311.5	325.1	346.5	363.7	369.4
42.5°	3230.9	2452.8	723.1	418.7	348.0	300.8	298.7	307.9	322.2	334.4	339.4
45°	3540.3	2712.9	775.2	393.0	340.1	290.8	285.8	289.4	292.2	297.2	300.1
47.5°	3810.3	2895.8	760.2	369.4	329.4	279.4	270.8	269.4	260.8	260.1	259.4
50°	3996.8	2935.8	675.2	345.8	313.7	266.5	252.9	244.4	229.3	222.2	222.9
52.5°	4056.1	2777.9	551.6	322.2	287.9	249.4	230.1	216.5	197.9	191.5	190.8
55°	3977.5	2468.5	440.8	293.7	252.2	226.5	205.1	187.2	172.2	164.3	164.3
57.5°	3785.3	2074.9	348.7	260.1	214.3	200.8	179.3	161.5	148.6	140.8	139.3
60°	3466.7	1647.6	275.8	220.1	182.9	172.9	150.8	139.3	127.9	118.6	116.5
62.5°	2983.0	1176.0	216.5	174.3	152.9	141.5	128.6	120.0	106.5	93.6	91.5
65°	2327.8	719.5	167.2	127.9	122.9	117.2	109.3	101.5	85.0	72.2	70.0
67.5°	1468.3	340.8	119.3	96.5	97.2	94.3	90.7	84.3	72.2	60.7	59.3
70°	646.6	165.0	78.6	73.6	72.2	72.2	75.0	72.9	61.4	50.7	48.6
72.5°	220.1	88.6	58.6	55.7	52.2	51.4	62.9	60.7	49.3	39.3	37.2
75°	115.0	59.3	42.9	40.0	31.4	37.9	50.0	47.2	35.0	25.7	23.6
77.5°	75.0	42.2	29.3	25.7	17.9	25.0	37.2	32.9	20.7	12.9	11.4
80°	47.2	27.9	17.1	12.1	8.6	13.6	20.0	14.3	7.9	2.9	2.1
82.5°	25.0	14.3	6.4	4.3	3.6	4.3	5.0	3.6	1.4	0.0	0.0
85°	10.0	5.0	2.1	1.4	0.7	0.0	1.4	0.7	0.0	0.0	0.0
87.5°	3.6	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)