

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: P882449

Luminaire Tested: **NAV-SB2B-827-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882449
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-827-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9331 lumens
Efficiency: N/A
Efficacy: 126.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

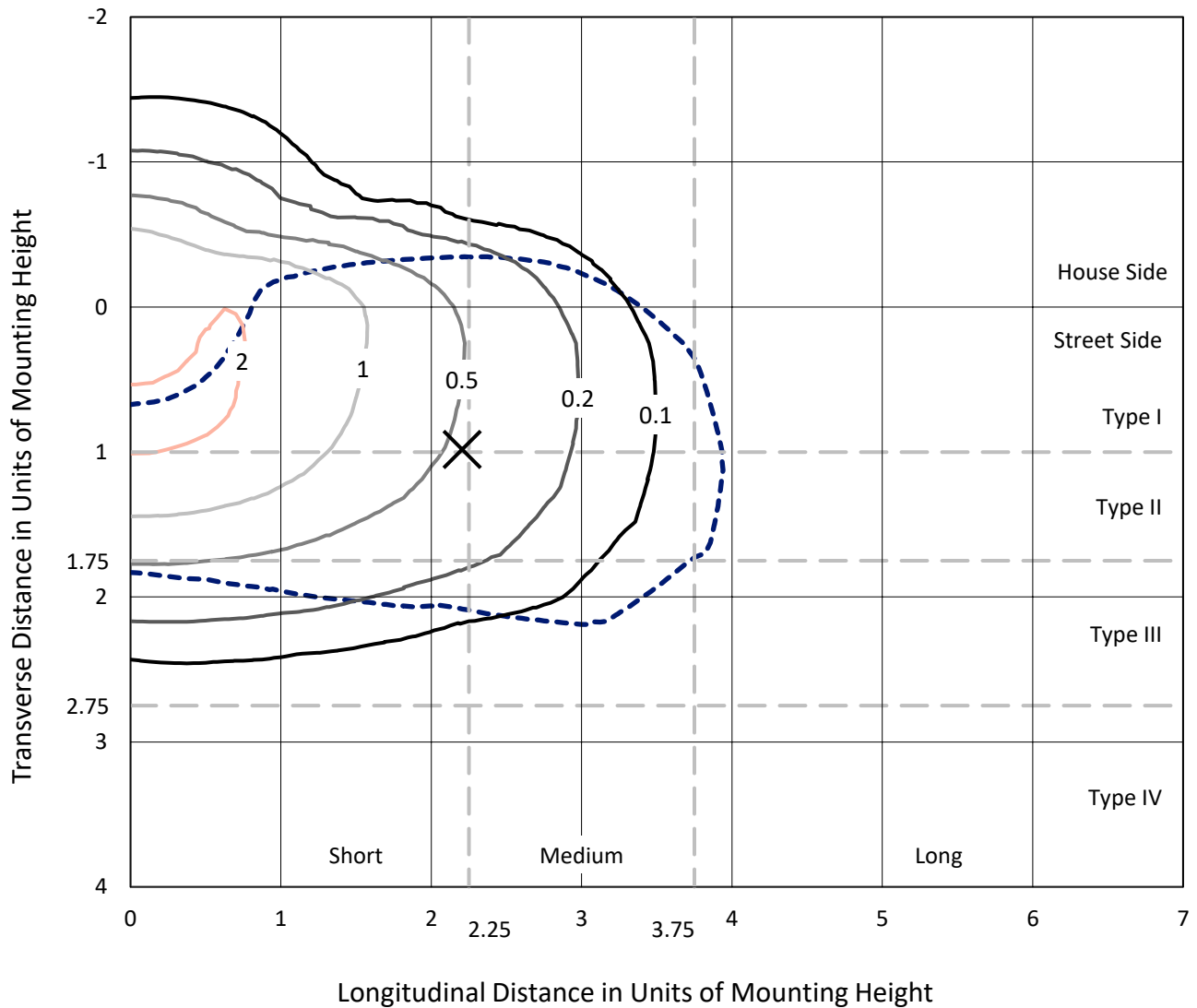
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

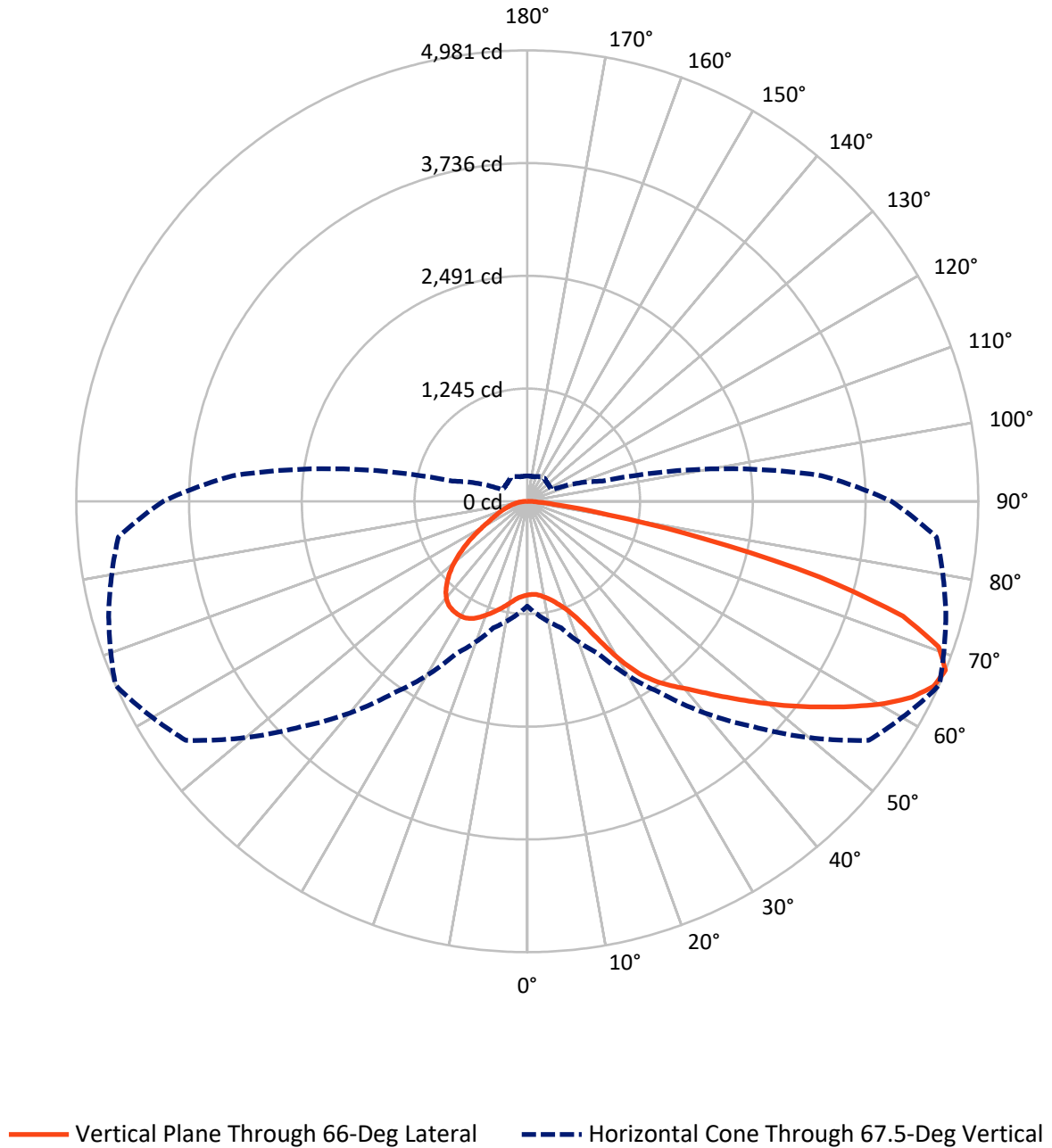
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2320.1	0.0	2320.1
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	7010.9	0.0	7010.9
	% Fixture	75.1	0.0	75.1
Total	Lumens	9331.0	0.0	9331.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.6	1.1
10°-20°	339.0	3.6
20°-30°	653.4	7.0
30°-40°	1145.7	12.3
40°-50°	1703.2	18.3
50°-60°	2159.0	23.1
60°-70°	2112.6	22.6
70°-80°	1007.7	10.8
80°-90°	107.7	1.2
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°	9331.0	100.0
0°-180°	9331.0	100.0

Coefficient of Utilization



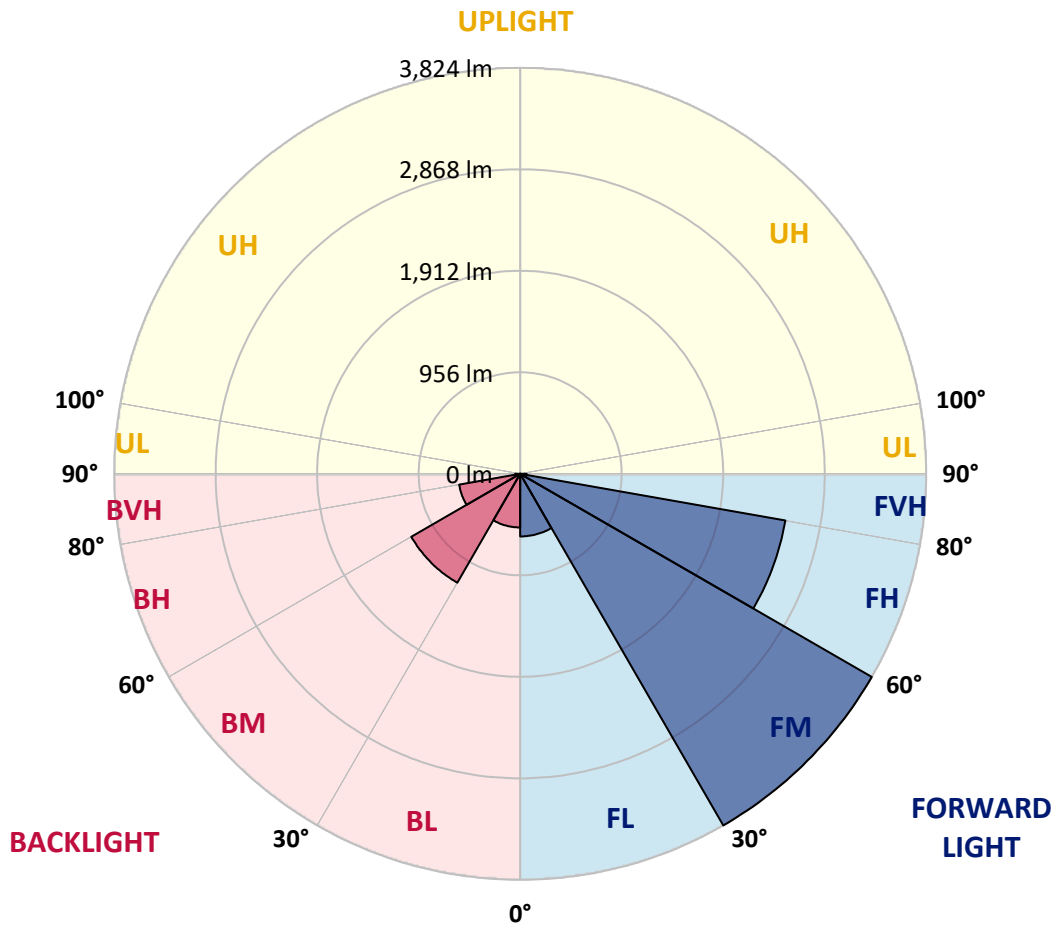
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	589.6	6.3			
FM (30°-60°)	3823.8	41.0			
FH (60°-80°)	2536.4	27.2			G2/5000
FVH (80°-90°)	61.1	0.7			G1/100
BL (0°-30°)	505.4	5.4	B2/1000		
BM (30°-60°)	1184.2	12.7	B2/2500		
BH (60°-80°)	583.9	6.3	B2/1000		G2/1000
BVH (80°-90°)	46.6	0.5			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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9
2.5°	1024.1	1030.0	1028.6	1026.1	1025.6	1026.6	1028.1	1029.5	1029.0	1031.5	1035.4
5°	1021.2	1027.1	1026.6	1026.6	1028.6	1032.5	1034.9	1037.4	1034.9	1037.9	1043.3
7.5°	1023.2	1027.6	1029.5	1031.5	1036.4	1043.8	1049.6	1055.0	1052.1	1055.5	1062.4
10°	1048.2	1051.6	1053.6	1053.6	1057.0	1065.3	1071.2	1081.0	1078.6	1084.0	1092.8
12.5°	1093.8	1097.2	1097.2	1095.2	1097.7	1103.1	1105.0	1115.8	1111.4	1120.2	1129.1
15°	1149.7	1156.5	1151.1	1147.7	1148.7	1154.1	1153.6	1161.9	1157.5	1164.8	1172.7
17.5°	1211.4	1220.2	1211.4	1210.9	1209.0	1214.9	1215.3	1222.7	1214.9	1220.2	1225.6
20°	1284.5	1296.7	1289.4	1291.8	1287.4	1289.9	1292.3	1303.1	1290.8	1294.8	1293.3
22.5°	1387.4	1402.1	1394.3	1403.6	1400.7	1398.7	1398.2	1417.3	1398.2	1399.7	1385.5
25°	1537.4	1555.1	1541.4	1554.1	1554.1	1560.5	1567.8	1592.4	1560.5	1551.2	1514.4
27.5°	1759.0	1776.7	1749.7	1757.6	1755.1	1770.8	1763.0	1823.8	1789.4	1774.2	1700.2
30°	2025.7	2057.1	2006.1	2004.2	2001.7	2026.7	2038.0	2078.2	2043.4	2028.2	1939.0
32.5°	2314.0	2346.9	2286.1	2268.4	2259.1	2274.3	2265.0	2297.3	2273.3	2249.8	2139.5
35°	2618.9	2651.3	2593.5	2559.1	2521.9	2490.0	2456.7	2465.0	2442.5	2406.7	2292.4
37.5°	2907.2	2966.5	2905.3	2868.5	2799.9	2737.6	2644.4	2605.7	2584.6	2551.8	2436.6
40°	3200.9	3234.7	3188.1	3156.8	3082.2	2984.7	2835.6	2753.8	2725.3	2693.5	2595.9
42.5°	3417.1	3449.4	3424.4	3402.9	3344.5	3231.3	3038.6	2936.1	2895.0	2859.2	2776.3
45°	3588.7	3612.7	3597.0	3604.9	3579.9	3470.0	3248.9	3131.8	3089.1	3045.5	2980.3
47.5°	3657.8	3683.3	3708.3	3754.9	3797.5	3716.6	3474.9	3343.5	3298.4	3253.8	3189.6
50°	3650.0	3675.9	3748.5	3847.5	3979.9	3952.9	3713.2	3569.1	3527.4	3476.4	3417.1
52.5°	3587.2	3616.6	3709.8	3874.5	4085.3	4129.9	3955.9	3801.9	3762.7	3701.9	3642.6
55°	3422.5	3440.1	3579.9	3813.2	4110.3	4253.5	4193.7	4050.0	4010.8	3926.0	3861.3
57.5°	3117.1	3142.5	3346.0	3648.0	4047.6	4337.3	4402.5	4310.8	4273.1	4151.0	4083.3
60°	2718.5	2759.2	2992.0	3370.5	3887.7	4336.8	4592.2	4567.2	4535.9	4372.6	4302.0
62.5°	2267.4	2314.5	2538.5	2978.3	3608.3	4213.8	4710.9	4782.0	4765.8	4577.0	4486.8
65°	1741.4	1773.7	1996.8	2470.9	3173.4	3949.5	4724.6	4928.5	4931.5	4732.4	4583.4
67.5°	1159.5	1252.6	1446.3	1854.1	2591.0	3517.6	4604.0	4952.6	4981.0	4785.9	4534.9
70°	565.8	688.3	878.0	1205.1	1854.1	2855.3	4288.8	4755.5	4818.7	4630.0	4245.6
72.5°	234.8	274.5	378.0	594.7	1064.3	1926.7	3655.4	4221.1	4338.3	4102.5	3569.6
75°	158.4	171.6	216.2	304.9	484.9	950.1	2636.1	3147.4	3336.2	3098.4	2532.7
77.5°	122.1	130.4	157.4	213.3	288.3	359.4	1411.0	1896.8	1994.4	1846.3	1317.8
80°	96.1	102.5	117.7	155.4	204.4	192.2	480.9	859.4	915.8	768.2	423.6
82.5°	83.3	85.8	84.3	105.4	135.8	112.3	157.9	317.2	350.0	254.0	138.3
85°	60.3	67.2	70.1	65.2	72.1	56.9	64.7	112.3	123.5	110.3	78.0
87.5°	24.5	36.3	44.6	42.2	26.5	16.2	20.1	32.8	37.7	41.2	25.5
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°	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9	1034.9
2.5°	1035.9	1039.3	1041.8	1044.7	1046.7	1049.6	1055.5	1059.0	1059.4	1061.9	1061.4
5°	1045.2	1050.1	1055.5	1063.4	1072.2	1079.5	1090.8	1098.7	1101.6	1104.1	1103.6
7.5°	1065.3	1072.2	1082.0	1095.7	1108.5	1118.3	1132.0	1141.3	1150.6	1154.1	1154.6
10°	1095.2	1105.0	1119.3	1137.9	1151.6	1164.4	1178.6	1186.4	1195.7	1199.7	1201.6
12.5°	1132.5	1142.8	1161.4	1187.4	1200.1	1209.0	1213.9	1211.9	1213.9	1217.3	1218.3
15°	1175.1	1186.4	1207.5	1235.4	1244.3	1236.4	1225.6	1215.8	1214.4	1215.3	1218.8
17.5°	1225.6	1234.0	1258.5	1282.0	1275.6	1243.3	1219.8	1204.1	1196.2	1193.8	1197.2
20°	1296.2	1296.2	1316.3	1331.0	1288.4	1233.5	1196.7	1171.2	1155.0	1148.2	1146.7
22.5°	1382.0	1374.2	1386.9	1376.6	1285.9	1206.0	1155.0	1110.9	1086.4	1076.6	1075.1
25°	1490.9	1481.6	1478.1	1414.4	1268.3	1162.4	1079.5	1026.1	1004.5	999.1	1000.1
27.5°	1655.1	1631.6	1587.0	1435.0	1235.9	1093.8	991.3	941.8	929.5	930.0	931.5
30°	1873.8	1826.7	1717.4	1438.4	1183.0	996.7	901.1	865.8	859.9	862.4	870.7
32.5°	2076.2	2031.6	1850.7	1422.7	1101.6	901.6	820.2	796.7	787.8	790.8	794.7
35°	2235.1	2222.8	1974.3	1400.7	1001.6	812.4	747.6	727.5	710.4	706.5	709.4
37.5°	2385.1	2380.2	2066.9	1369.8	902.6	749.1	689.3	662.8	637.8	624.1	624.6
40°	2549.8	2544.9	2127.7	1322.2	814.8	694.2	636.8	602.0	571.1	546.1	548.6
42.5°	2735.1	2706.2	2156.6	1254.1	740.3	647.6	594.2	547.1	506.4	483.4	484.9
45°	2937.6	2872.4	2156.1	1167.3	677.5	605.0	548.6	481.9	444.2	422.6	421.6
47.5°	3152.3	3031.3	2129.7	1071.2	616.7	557.9	478.0	427.0	402.0	388.8	385.8
50°	3373.9	3179.8	2084.6	960.9	554.5	504.5	433.9	399.1	379.9	367.7	363.3
52.5°	3582.3	3314.6	2030.2	835.9	491.2	452.5	414.3	387.3	367.2	353.5	347.6
55°	3776.0	3430.8	1953.2	707.9	439.8	417.7	405.0	382.4	359.4	343.2	336.8
57.5°	3948.0	3506.3	1820.3	587.8	403.0	393.7	395.1	374.1	347.6	333.9	325.0
60°	4091.2	3561.7	1623.7	476.5	373.1	370.1	379.9	358.4	327.5	311.8	304.9
62.5°	4177.0	3560.7	1382.5	390.2	347.6	348.6	359.8	338.8	307.4	292.7	288.3
65°	4169.6	3473.5	1117.8	333.9	323.1	324.1	338.8	317.2	290.7	281.9	281.4
67.5°	4022.1	3260.7	857.5	297.1	296.1	300.5	317.7	302.5	280.4	279.4	280.9
70°	3622.5	2819.0	617.7	267.7	268.2	274.5	297.1	293.2	275.0	277.0	276.5
72.5°	2904.8	2149.3	414.8	236.8	237.3	247.6	277.5	285.8	269.6	295.6	299.5
75°	1934.6	1340.4	266.7	203.9	204.4	217.7	260.3	271.6	254.9	294.6	297.1
77.5°	929.5	602.5	193.2	171.6	171.6	183.8	225.0	243.2	217.2	228.9	209.8
80°	321.1	226.5	152.0	138.3	135.3	143.6	189.7	210.8	187.3	172.6	161.8
82.5°	126.5	117.7	122.1	107.4	97.6	103.0	147.6	174.0	137.8	124.5	124.0
85°	72.6	76.5	86.3	71.1	56.4	63.2	108.3	125.0	103.9	91.7	93.6
87.5°	19.6	27.0	39.7	36.8	25.5	27.0	51.5	69.1	59.8	46.1	47.6
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)