

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: P960871

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960871
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
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: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7283.7 lumens
Efficiency: N/A
Efficacy: 91.5 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): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

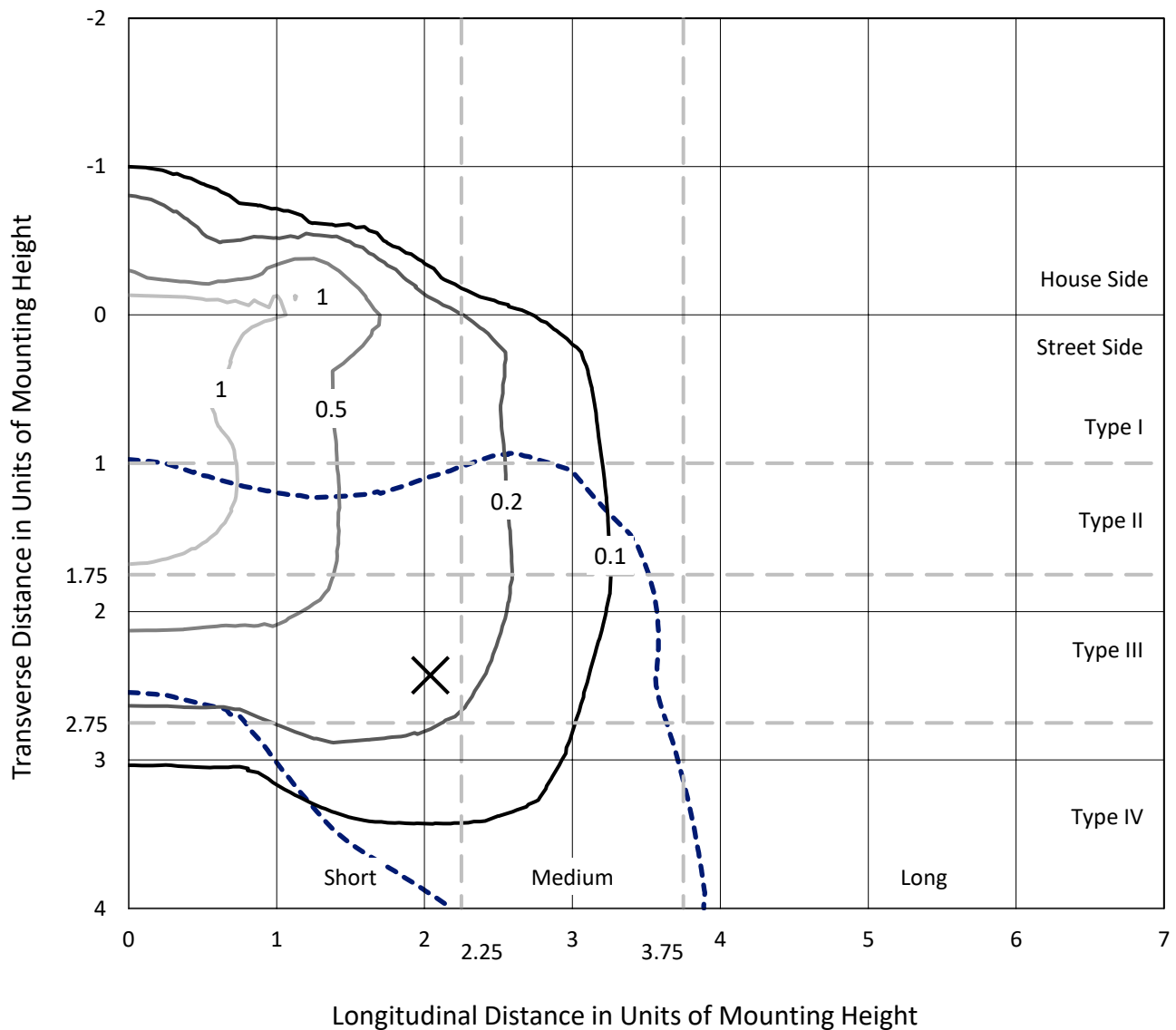


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Iso-Footcandle Lines of Horizontal Illumination

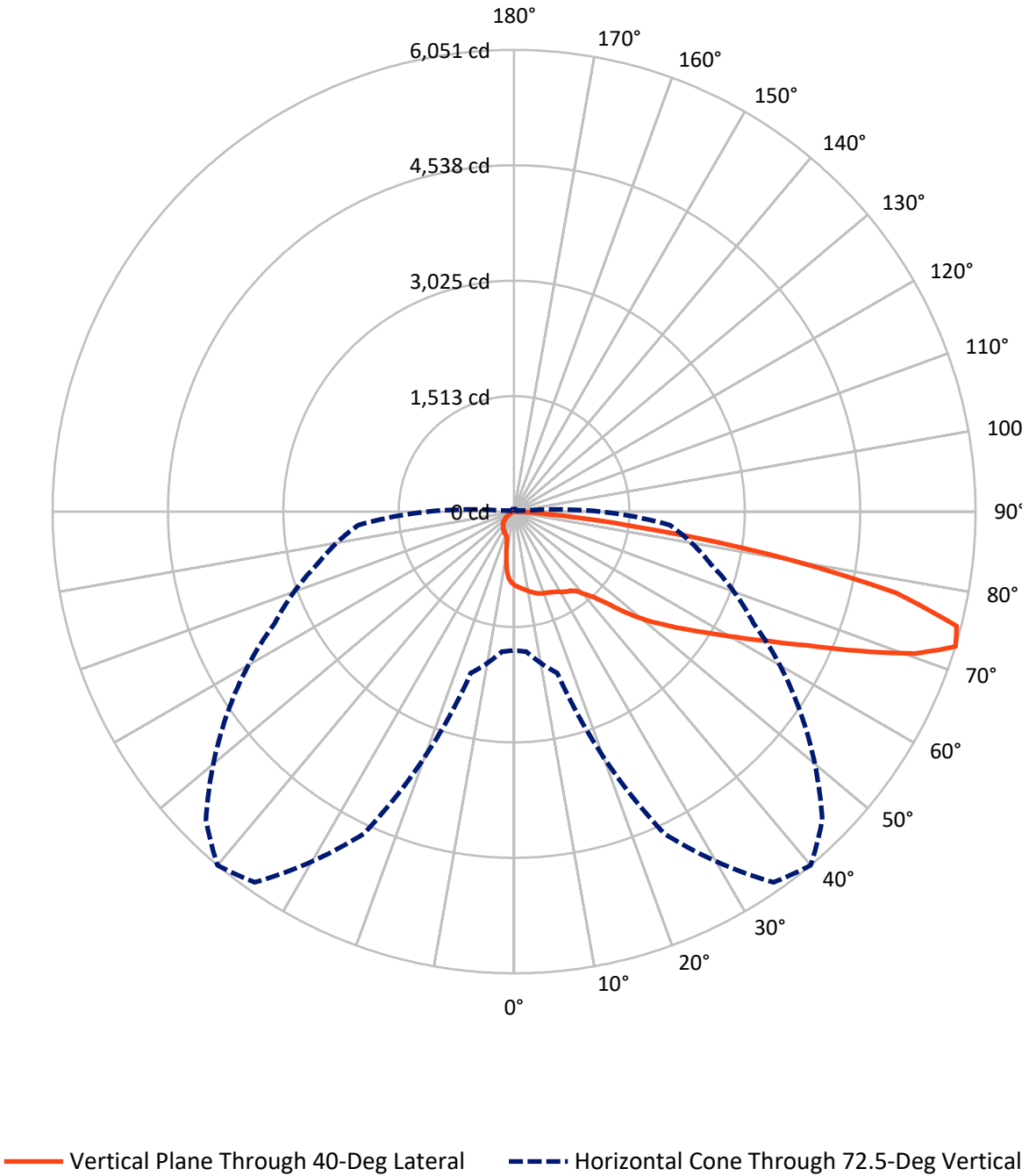
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 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	940.6	0.0	940.6
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	6343.0	0.0	6343.0
	% Fixture	87.1	0.0	87.1
Total	Lumens	7283.7	0.0	7283.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.1	1.2
10°-20°	239.2	3.3
20°-30°	387.0	5.3
30°-40°	571.4	7.8
40°-50°	961.7	13.2
50°-60°	1493.2	20.5
60°-70°	1868.4	25.7
70°-80°	1529.7	21.0
80°-90°	145.1	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°	7283.7	100.0
0°-180°	7283.7	100.0

Coefficient of Utilization



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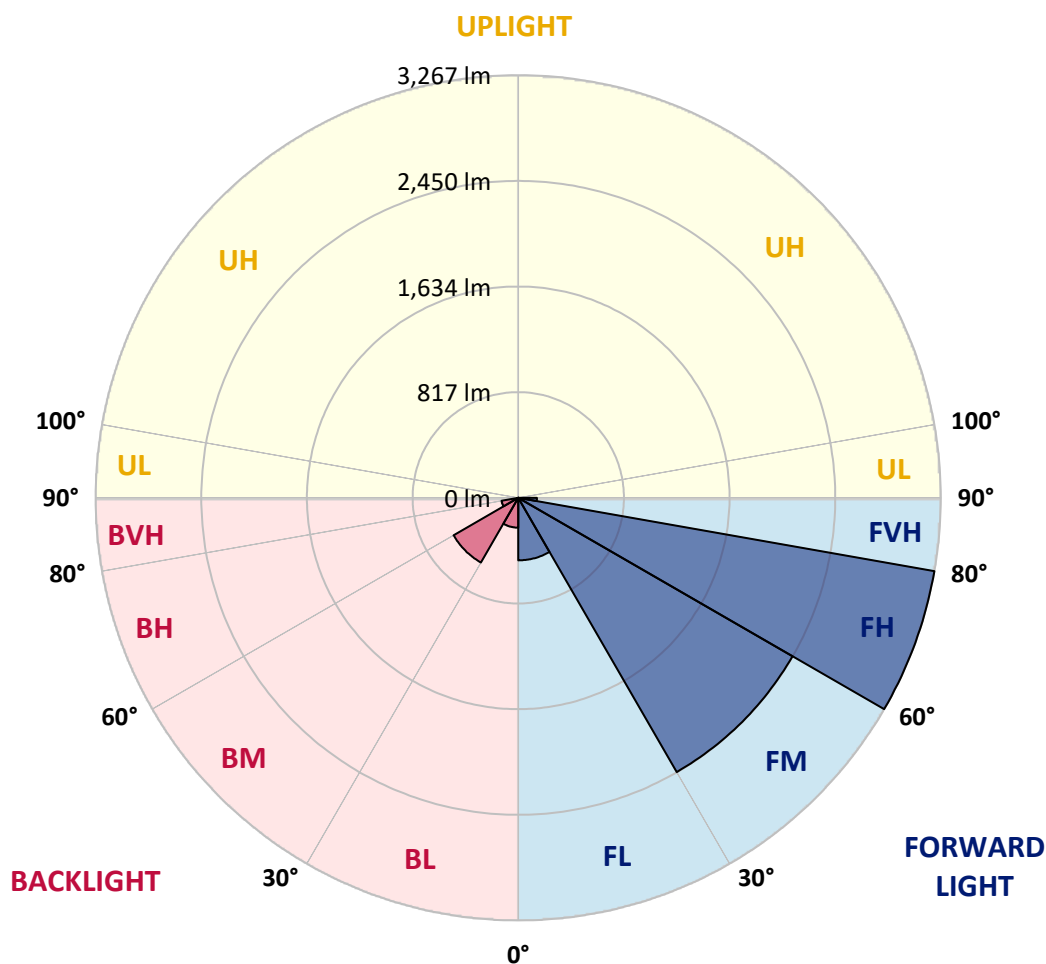
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	483.4	6.6			
FM	(30°-60°)	2448.6	33.6			
FH	(60°-80°)	3267.0	44.9			G2/5000
FVH	(80°-90°)	143.9	2.0			G2/225
BL	(0°-30°)	230.9	3.2	B1/500		
BM	(30°-60°)	577.6	7.9	B1/1000		
BH	(60°-80°)	131.0	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°	964.4	964.4	964.4	964.4	964.4	964.4	964.4	964.4	964.4	964.4	964.4
2.5°	993.5	997.3	995.2	990.8	989.6	987.5	984.7	983.6	979.8	976.5	972.6
5°	1021.5	1025.3	1022.5	1016.5	1013.8	1011.1	1007.2	1003.9	996.2	989.1	980.3
7.5°	1052.2	1055.4	1052.2	1043.4	1039.0	1035.8	1030.2	1025.3	1016.5	1006.1	995.2
10°	1086.2	1089.0	1084.0	1072.5	1065.4	1060.5	1055.4	1050.0	1041.8	1030.2	1017.1
12.5°	1118.0	1121.4	1113.7	1099.9	1091.7	1086.7	1081.3	1076.9	1068.7	1057.7	1044.0
15°	1147.1	1152.0	1138.9	1124.0	1114.7	1110.9	1105.4	1102.7	1097.2	1089.5	1076.9
17.5°	1169.0	1172.3	1158.7	1141.0	1130.7	1127.9	1124.0	1125.7	1124.6	1120.7	1112.5
20°	1187.7	1189.9	1171.8	1150.4	1138.9	1139.4	1138.4	1143.8	1145.9	1145.9	1145.4
22.5°	1210.7	1211.2	1188.3	1161.3	1147.7	1151.5	1153.1	1159.2	1163.6	1168.0	1177.8
25°	1240.9	1239.8	1212.4	1175.6	1163.6	1169.0	1172.9	1175.1	1180.0	1187.2	1209.6
27.5°	1285.9	1282.6	1247.5	1198.6	1184.4	1189.3	1196.5	1195.4	1193.2	1198.6	1236.6
30°	1343.0	1338.5	1291.9	1231.0	1217.9	1222.2	1224.5	1214.5	1198.6	1203.6	1260.1
32.5°	1433.5	1425.8	1361.0	1267.2	1246.9	1251.8	1249.2	1228.9	1205.2	1210.2	1283.7
35°	1590.9	1572.2	1480.6	1343.0	1279.8	1274.4	1267.8	1248.0	1218.9	1214.0	1303.4
37.5°	1925.6	1892.7	1736.2	1490.6	1354.4	1318.8	1298.5	1278.8	1233.8	1214.0	1325.9
40°	2303.0	2269.5	2089.1	1737.4	1478.5	1418.1	1369.8	1315.0	1249.2	1221.2	1361.0
42.5°	2696.9	2660.1	2474.7	2043.4	1655.7	1531.7	1441.7	1344.1	1274.4	1243.1	1407.6
45°	3136.8	3090.8	2848.3	2362.7	1913.0	1720.4	1557.4	1403.8	1318.3	1282.1	1471.3
47.5°	3600.9	3541.2	3220.8	2672.7	2189.9	1981.5	1769.2	1510.8	1383.0	1340.2	1557.4
50°	4012.4	3953.1	3605.3	2996.9	2448.9	2230.0	2010.5	1659.0	1480.1	1422.5	1673.2
52.5°	4308.1	4263.1	3955.3	3331.6	2718.2	2463.2	2229.5	1831.2	1603.0	1527.8	1809.7
55°	4506.1	4464.9	4203.2	3648.7	3031.4	2719.9	2445.0	2018.2	1751.1	1653.9	1960.6
57.5°	4626.2	4602.7	4382.7	3931.7	3342.0	3000.8	2692.0	2223.9	1925.6	1802.7	2129.0
60°	4669.0	4649.8	4494.0	4201.6	3717.3	3338.1	2982.1	2456.0	2137.3	1971.6	2301.8
62.5°	4554.9	4558.8	4574.1	4521.5	4112.7	3733.2	3329.9	2734.7	2372.1	2163.1	2464.2
65°	4017.8	4049.7	4341.5	4875.8	4636.7	4227.9	3772.6	3074.8	2640.9	2380.9	2593.1
67.5°	3326.6	3372.7	3735.9	5083.2	5195.1	4870.4	4389.3	3508.2	2961.2	2602.5	2642.0
70°	2546.5	2595.9	3035.8	5039.8	5718.0	5572.5	5151.8	4059.5	3293.1	2756.1	2517.5
72.5°	1817.4	1842.7	2189.4	4654.2	5932.4	6050.9	5713.6	4581.8	3462.7	2671.0	2053.4
75°	1277.1	1272.7	1502.5	3747.9	5598.3	5992.8	5516.5	4299.3	3133.5	2122.0	1266.2
77.5°	556.3	557.4	750.5	2276.1	4468.3	5118.3	4585.6	2693.0	2184.5	1124.6	534.3
80°	144.3	148.6	275.4	906.3	2690.2	3378.2	2796.7	1183.9	1009.4	274.3	102.0
82.5°	51.0	54.3	126.7	284.7	992.4	1549.2	1245.3	378.5	263.3	78.4	27.5
85°	14.9	17.5	68.1	87.2	205.2	437.8	302.3	73.5	64.8	40.6	7.2
87.5°	0.0	2.2	13.7	12.1	12.1	8.2	15.4	8.2	10.5	4.9	2.2
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°	964.4	964.4	964.4	964.4	964.4	964.4	964.4	964.4	964.4	964.4	964.4
2.5°	969.3	965.6	957.2	948.5	940.2	932.6	930.4	922.2	918.3	918.9	918.3
5°	974.3	967.2	951.2	932.0	912.2	889.8	871.1	844.8	822.4	819.6	817.9
7.5°	987.5	975.9	950.2	912.9	863.5	801.4	743.8	686.9	654.5	636.9	635.8
10°	1007.8	992.4	952.9	881.6	776.8	665.9	578.7	506.9	470.2	453.2	449.9
12.5°	1031.9	1014.9	957.2	828.4	664.9	519.5	425.2	381.3	373.6	372.5	372.0
15°	1065.9	1047.2	962.3	756.4	543.7	395.5	352.2	352.7	358.7	362.0	361.5
17.5°	1103.7	1085.1	955.1	668.7	424.0	337.9	336.8	341.7	350.5	353.8	353.3
20°	1142.2	1124.6	929.9	565.6	342.9	322.1	326.4	331.9	340.7	345.0	345.0
22.5°	1181.6	1166.2	889.8	455.9	309.4	310.5	316.0	321.4	331.4	336.3	336.3
25°	1223.8	1210.7	836.6	365.3	295.1	298.5	305.6	312.1	322.6	328.6	328.6
27.5°	1266.7	1256.9	776.2	305.0	282.0	285.8	294.1	302.8	313.2	320.4	320.9
30°	1313.3	1307.8	728.0	282.5	269.4	272.6	282.0	291.8	303.4	312.1	313.2
32.5°	1361.0	1360.0	704.4	299.0	257.8	260.0	268.2	278.1	292.4	303.4	304.4
35°	1408.2	1410.4	690.6	345.6	254.0	247.9	253.5	262.2	279.2	292.9	295.1
37.5°	1468.5	1474.1	690.1	396.1	263.3	235.9	239.7	245.8	260.6	276.4	279.2
40°	1558.5	1587.6	725.2	439.4	279.8	224.9	226.0	227.1	234.8	247.9	252.4
42.5°	1678.1	1763.2	852.0	469.0	286.4	215.0	211.3	205.2	204.1	211.3	215.0
45°	1826.8	1975.5	1074.7	485.5	279.8	204.1	193.6	177.7	171.7	176.6	176.6
47.5°	2001.8	2208.1	1338.5	489.3	268.9	190.3	171.7	150.9	146.0	147.6	147.0
50°	2172.4	2382.5	1570.6	457.6	250.7	172.8	147.6	130.0	126.7	127.3	127.3
52.5°	2323.3	2442.3	1636.4	382.3	226.5	151.4	126.7	114.7	112.4	112.4	111.9
55°	2423.1	2377.6	1459.2	292.4	196.4	129.5	108.6	102.6	101.5	101.0	99.8
57.5°	2443.9	2167.0	1102.1	211.3	153.6	109.2	96.6	93.3	91.0	88.9	87.7
60°	2369.4	1815.8	701.6	147.6	115.2	93.3	85.6	83.4	79.0	74.6	73.0
62.5°	2208.1	1371.4	388.4	102.6	92.7	79.5	75.7	73.0	64.8	57.6	55.5
65°	1991.4	911.7	171.7	80.1	75.7	66.9	64.8	60.9	51.0	42.7	41.1
67.5°	1773.6	525.0	77.4	64.2	60.9	54.8	53.2	50.4	43.4	35.7	34.5
70°	1525.1	266.1	53.2	51.0	47.2	41.7	43.4	42.7	35.7	29.1	28.0
72.5°	1135.6	132.2	40.1	38.4	34.0	29.6	35.7	35.2	28.0	21.9	20.8
75°	643.0	65.3	29.1	26.9	20.3	21.9	28.5	26.9	19.2	14.2	13.1
77.5°	255.1	33.4	19.2	16.5	12.1	14.9	20.8	18.1	9.8	6.0	5.5
80°	58.7	16.5	9.8	7.2	5.5	8.8	11.0	6.6	2.8	0.5	0.0
82.5°	16.5	7.2	3.3	2.8	2.8	3.3	2.8	1.1	0.0	0.0	0.0
85°	5.5	3.3	1.1	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
87.5°	2.2	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)