

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: P882080

Luminaire Tested: **NAV-SB1D-740-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882080
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-SB1D-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8314 lumens
Efficiency: N/A
Efficacy: 104.4 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

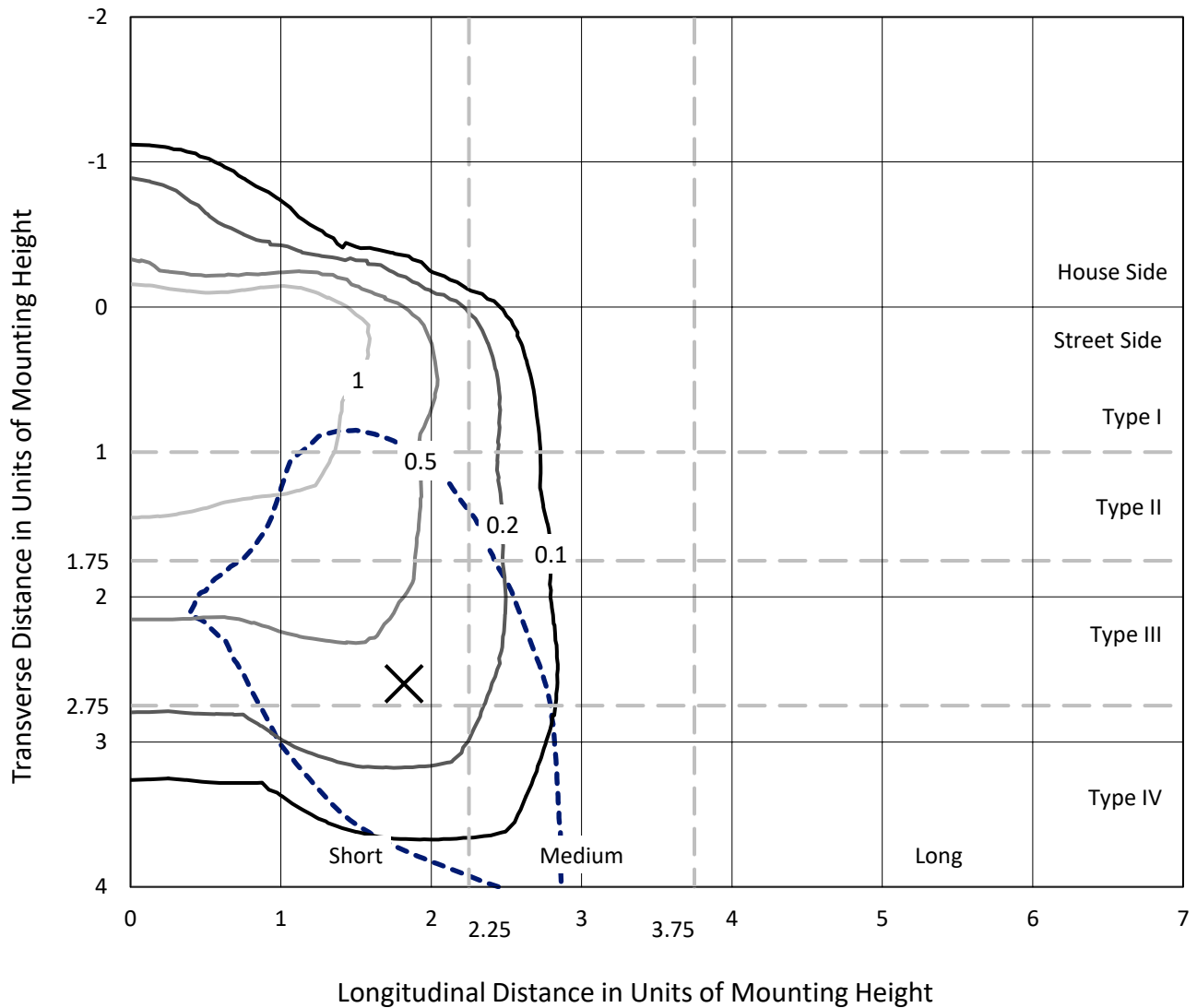
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

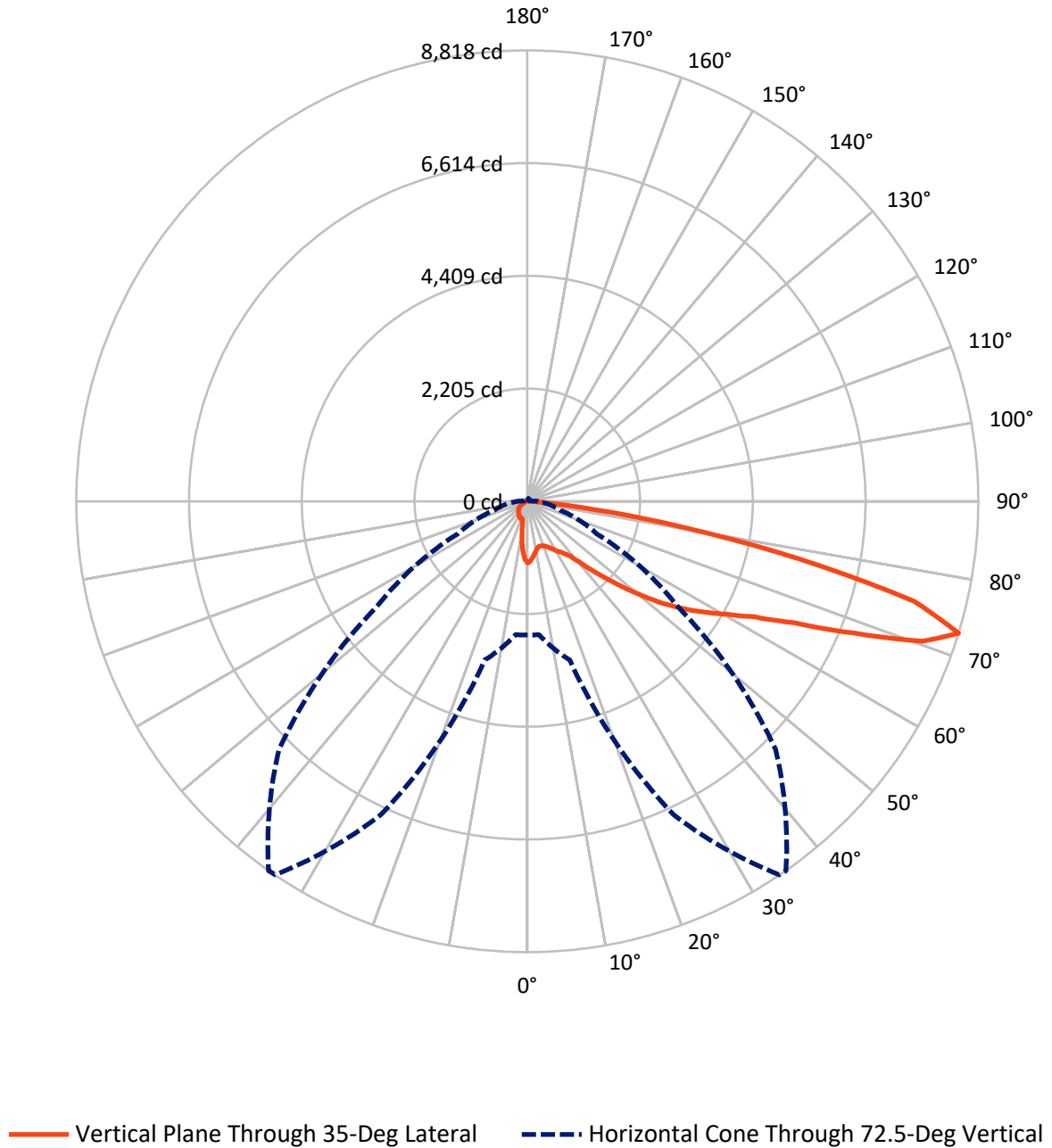
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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	935.7	0.0	935.7
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	7378.3	0.0	7378.3
	% Fixture	88.7	0.0	88.7
Total	Lumens	8314.0	0.0	8314.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	1.2
10°-20°	231.6	2.8
20°-30°	376.3	4.5
30°-40°	627.8	7.6
40°-50°	1187.9	14.3
50°-60°	1887.5	22.7
60°-70°	2335.0	28.1
70°-80°	1451.5	17.5
80°-90°	117.3	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°	8314.0	100.0
0°-180°	8314.0	100.0

Coefficient of Utilization



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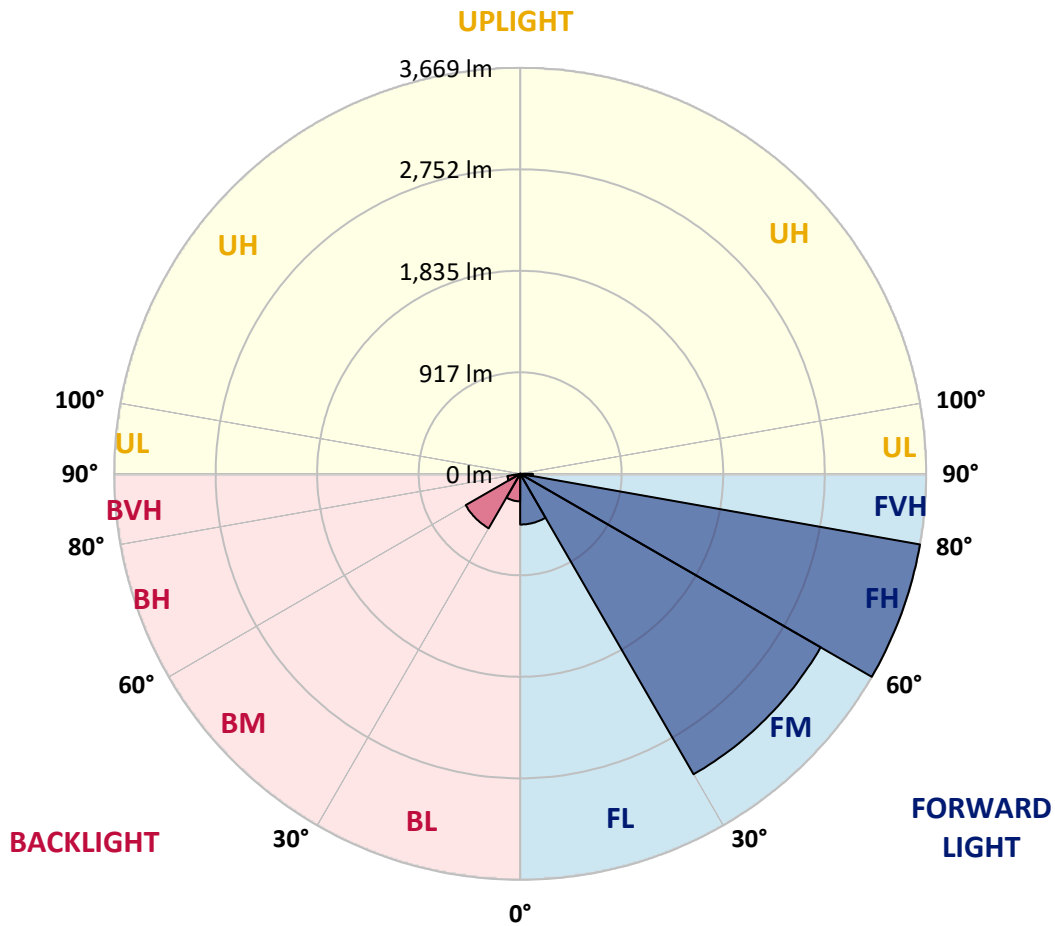
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	458.3	5.5			
FM (30°-60°)	3135.2	37.7			
FH (60°-80°)	3669.1	44.1			G2/5000
FVH (80°-90°)	115.7	1.4			G2/225
BL (0°-30°)	248.6	3.0	B1/500		
BM (30°-60°)	568.1	6.8	B1/1000		
BH (60°-80°)	117.4	1.4	B1/500		G1/500
BVH (80°-90°)	1.6	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°	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0
2.5°	1151.4	1161.1	1162.9	1166.0	1166.0	1169.6	1175.7	1184.3	1198.3	1205.6	1210.5
5°	1061.2	1068.5	1077.7	1085.0	1099.0	1100.8	1124.6	1147.7	1180.0	1204.4	1221.4
7.5°	970.4	979.0	991.2	1008.8	1027.1	1032.6	1068.5	1107.5	1158.7	1204.4	1233.0
10°	906.5	907.1	918.0	935.7	965.0	971.7	1015.5	1071.0	1134.9	1197.1	1244.0
12.5°	870.5	874.8	879.7	893.1	921.1	925.4	972.3	1037.5	1111.2	1192.8	1256.8
15°	870.5	873.6	876.6	883.3	905.9	909.5	950.9	1016.1	1099.0	1194.6	1277.5
17.5°	879.7	884.5	882.1	890.0	913.8	916.2	952.8	1010.0	1098.4	1206.2	1309.1
20°	901.6	905.3	900.4	905.3	929.0	933.9	971.7	1021.6	1108.7	1226.3	1348.7
22.5°	936.3	938.2	926.6	930.2	954.6	960.7	1004.6	1054.5	1133.7	1258.6	1401.7
25°	980.2	983.8	966.2	970.4	993.6	1000.9	1051.5	1103.9	1173.3	1303.1	1469.4
27.5°	1030.7	1032.6	1017.3	1016.7	1046.6	1056.9	1108.1	1164.8	1226.3	1359.1	1554.7
30°	1088.6	1094.1	1079.5	1077.0	1114.8	1123.3	1173.9	1239.7	1304.3	1443.2	1675.9
32.5°	1134.3	1138.6	1130.0	1136.1	1174.5	1181.2	1253.7	1345.7	1426.7	1562.6	1841.0
35°	1200.1	1202.5	1183.0	1194.0	1237.9	1254.9	1362.8	1494.3	1580.8	1712.4	2056.6
37.5°	1438.3	1438.3	1355.4	1301.2	1343.3	1358.5	1512.0	1681.4	1770.9	1913.5	2328.3
40°	1767.9	1762.4	1641.2	1530.3	1524.8	1554.7	1724.6	1917.1	2016.4	2154.7	2634.1
42.5°	2119.4	2110.8	1945.8	1836.1	1817.8	1828.2	1970.1	2207.7	2308.8	2448.9	2963.1
45°	2431.3	2428.8	2277.8	2130.3	2097.4	2130.3	2276.5	2547.6	2620.1	2767.5	3291.5
47.5°	2692.6	2692.6	2582.4	2486.1	2469.0	2488.5	2691.4	2924.7	2918.0	3106.9	3611.3
50°	2993.6	2991.1	2886.3	2844.9	2862.6	2890.0	3169.0	3321.9	3226.3	3440.1	3897.0
52.5°	3204.3	3219.0	3183.0	3176.3	3266.5	3314.0	3653.9	3710.6	3502.2	3756.3	4110.8
55°	3371.3	3388.3	3429.7	3476.6	3650.3	3712.4	4123.6	4079.1	3733.1	4030.4	4233.9
57.5°	3607.6	3583.3	3647.2	3739.8	4020.7	4095.6	4578.7	4427.0	3918.9	4252.8	4247.3
60°	3894.6	3898.2	3909.2	4026.1	4390.4	4486.7	5027.0	4755.9	4038.3	4389.2	4098.6
62.5°	4239.4	4244.8	4267.4	4447.1	4886.9	4977.7	5504.6	5025.2	4093.1	4350.8	3714.8
65°	4215.6	4238.7	4490.3	5105.0	5641.7	5731.3	6062.0	5214.1	4010.3	3999.9	3024.6
67.5°	3840.3	3878.1	4299.1	5890.9	6779.7	6879.6	6735.8	5251.2	3652.7	3110.5	1973.2
70°	3348.1	3361.5	3867.7	6597.5	8097.4	8198.5	7338.9	4842.4	2771.8	1735.0	883.9
72.5°	2614.6	2617.7	3211.6	6761.4	8812.5	8818.0	6865.6	3594.8	1490.7	666.5	307.0
75°	1867.8	1849.5	2151.0	5483.3	7753.2	7815.3	5147.0	1686.2	569.6	315.0	152.9
77.5°	1001.5	1021.6	1217.2	3251.9	5356.0	5462.0	2808.4	486.1	290.0	214.4	101.1
80°	309.5	326.5	498.9	1488.9	3033.8	3097.7	1041.1	216.3	202.3	152.9	66.4
82.5°	97.5	101.1	232.7	625.6	1259.2	1288.4	301.5	122.4	138.3	101.1	39.0
85°	28.0	28.6	103.6	233.3	311.3	317.4	84.7	47.5	79.2	62.7	20.1
87.5°	3.0	9.7	39.0	39.0	27.4	26.8	9.1	10.4	22.5	7.9	3.7
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°	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0	1205.0
2.5°	1207.4	1208.0	1200.1	1186.7	1172.1	1159.9	1144.7	1132.5	1124.0	1121.5	1125.8
5°	1215.9	1211.7	1189.1	1148.3	1099.6	1057.6	1010.6	973.5	949.1	938.8	942.4
7.5°	1228.7	1216.6	1167.2	1086.8	993.6	910.7	826.7	761.5	720.1	699.3	702.4
10°	1239.7	1215.3	1130.7	997.9	855.3	729.8	616.5	537.9	494.1	473.3	473.9
12.5°	1250.1	1214.7	1083.1	892.5	699.3	545.8	440.4	401.5	389.3	385.0	383.8
15°	1269.6	1216.6	1023.4	771.8	544.0	412.4	374.0	373.4	375.9	374.7	374.0
17.5°	1296.4	1218.4	955.8	643.9	419.7	363.7	361.9	367.3	371.0	369.2	368.6
20°	1331.1	1225.7	883.9	517.2	360.6	351.5	355.8	360.6	363.7	360.6	360.0
22.5°	1379.8	1238.5	805.3	415.5	341.8	344.2	347.8	353.3	356.4	352.1	351.5
25°	1439.5	1258.6	728.0	361.2	332.6	335.7	341.1	347.2	350.9	346.6	346.0
27.5°	1516.9	1290.9	656.7	349.1	323.5	325.3	333.2	342.4	347.2	341.8	341.8
30°	1629.0	1343.9	595.2	354.5	318.0	313.7	324.7	337.5	343.0	338.1	337.5
32.5°	1777.6	1418.8	557.4	363.1	315.6	300.3	310.7	327.1	336.3	333.2	333.2
35°	1972.6	1532.7	542.8	372.8	313.7	286.3	293.6	311.3	327.1	330.2	330.2
37.5°	2208.9	1691.1	547.1	377.1	308.3	274.7	278.4	293.6	314.3	324.1	326.5
40°	2477.6	1875.7	571.4	372.8	302.2	265.0	265.6	277.2	295.5	310.1	315.0
42.5°	2754.8	2091.3	616.5	357.0	296.7	256.5	254.6	262.6	274.7	285.1	289.4
45°	3018.5	2313.1	661.0	335.1	290.0	247.9	243.7	246.7	249.2	253.4	255.9
47.5°	3248.8	2469.0	648.2	315.0	280.8	238.2	230.9	229.7	222.4	221.7	221.1
50°	3407.8	2503.2	575.7	294.8	267.4	227.2	215.7	208.3	195.5	189.5	190.1
52.5°	3458.4	2368.5	470.3	274.7	245.5	212.6	196.2	184.6	168.7	163.3	162.7
55°	3391.4	2104.8	375.9	250.4	215.0	193.1	174.8	159.6	146.8	140.1	140.1
57.5°	3227.5	1769.1	297.3	221.7	182.8	171.2	152.9	137.7	126.7	120.0	118.8
60°	2955.8	1404.8	235.1	187.6	156.0	147.4	128.5	118.8	109.0	101.1	99.3
62.5°	2543.4	1002.7	184.6	148.6	130.4	120.6	109.7	102.3	90.8	79.8	78.0
65°	1984.7	613.5	142.6	109.0	104.8	99.9	93.2	86.5	72.5	61.5	59.7
67.5°	1251.9	290.6	101.7	82.2	82.8	80.4	77.4	71.9	61.5	51.8	50.6
70°	551.3	140.7	67.0	62.7	61.5	61.5	64.0	62.1	52.4	43.3	41.4
72.5°	187.6	75.5	50.0	47.5	44.5	43.9	53.6	51.8	42.0	33.5	31.7
75°	98.1	50.6	36.6	34.1	26.8	32.3	42.6	40.2	29.9	21.9	20.1
77.5°	64.0	35.9	25.0	21.9	15.2	21.3	31.7	28.0	17.7	11.0	9.7
80°	40.2	23.8	14.6	10.4	7.3	11.6	17.1	12.2	6.7	2.4	1.8
82.5°	21.3	12.2	5.5	3.7	3.0	3.7	4.3	3.0	1.2	0.0	0.0
85°	8.5	4.3	1.8	1.2	0.6	0.0	1.2	0.6	0.0	0.0	0.0
87.5°	3.0	0.6	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)