

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: P882418

Luminaire Tested: **NAV-SB2B-740-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882418  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2B-740-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

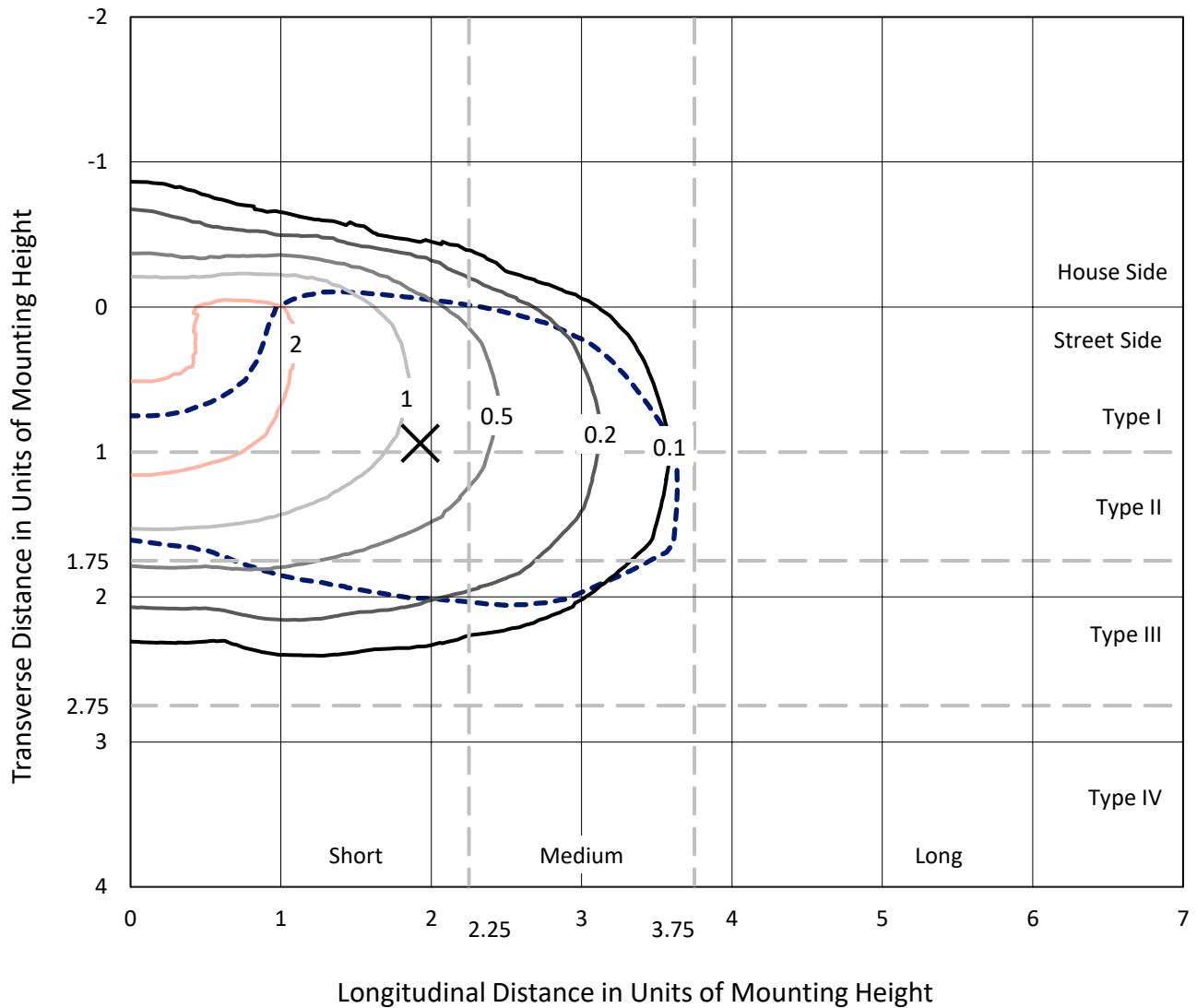
Lumens per Lamp: N/A  
Luminaire Lumens: 9704 lumens  
Efficiency: N/A  
Efficacy: 131.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 73.9  
Input Voltage (V): 120.0  
Input Current (Ain): 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

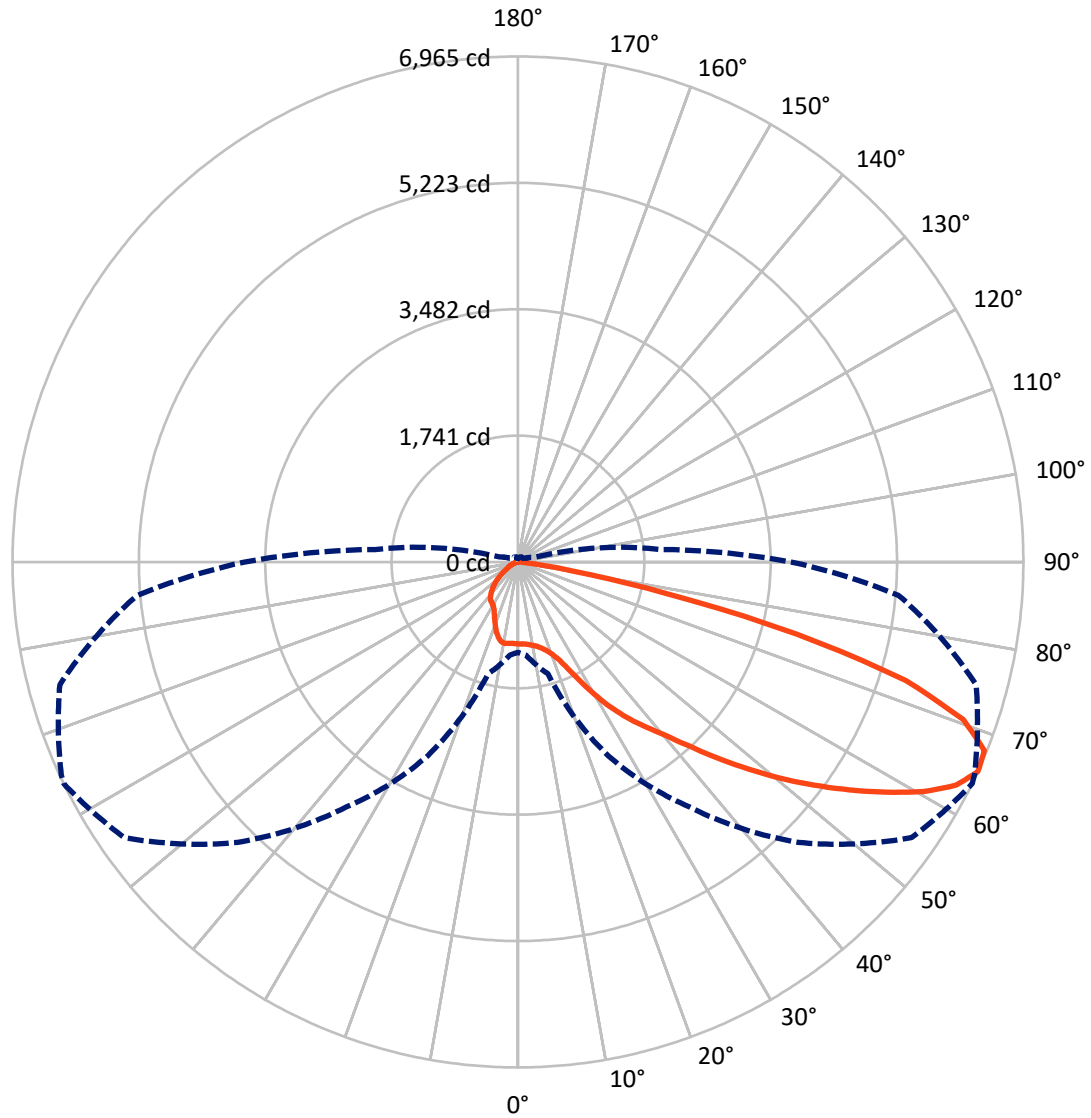
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1297.7	0.0	1297.7
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	8406.3	0.0	8406.3
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	9704.0	0.0	9704.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.1	1.1
10°-20°	282.4	2.9
20°-30°	535.2	5.5
30°-40°	1083.0	11.2
40°-50°	1844.9	19.0
50°-60°	2508.9	25.9
60°-70°	2355.9	24.3
70°-80°	943.9	9.7
80°-90°	45.7	0.5
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°	9704.0	100.0
0°-180°	9704.0	100.0

**Coefficient of Utilization**



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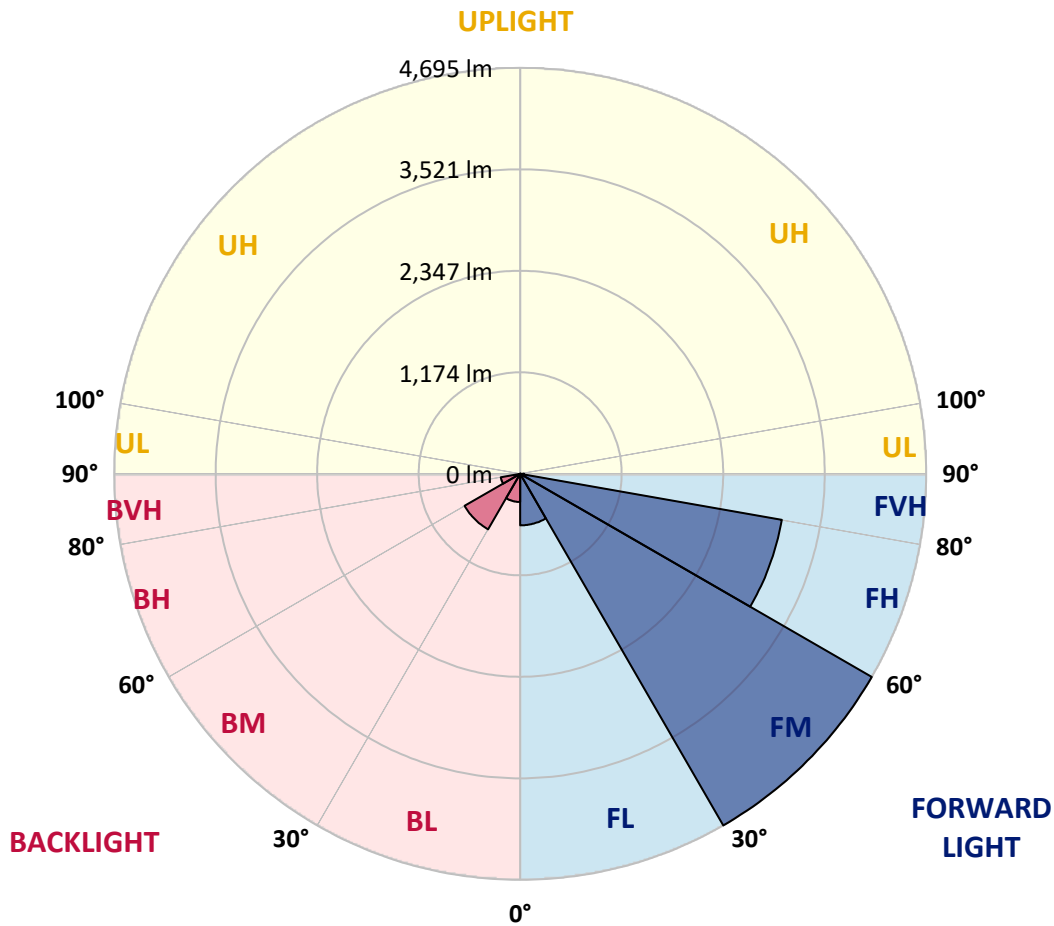
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	595.9	6.1			
FM (30°-60°)	4694.8	48.4			
FH (60°-80°)	3072.1	31.7			G2/5000
FVH (80°-90°)	43.5	0.4			G1/100
BL (0°-30°)	325.8	3.4	B1/500		
BM (30°-60°)	741.9	7.6	B1/1000		
BH (60°-80°)	227.8	2.3	B1/500		G1/500
BVH (80°-90°)	2.2	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 III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7
2.5°	1124.8	1132.6	1130.6	1128.7	1128.0	1129.3	1130.0	1129.3	1129.3	1129.3	1130.0
5°	1103.3	1109.8	1109.8	1114.4	1120.9	1128.7	1134.5	1135.8	1137.1	1139.1	1138.4
7.5°	1062.3	1067.5	1071.4	1086.4	1102.7	1123.5	1141.0	1150.1	1151.4	1158.6	1161.2
10°	1034.3	1040.9	1047.4	1063.0	1086.4	1117.6	1147.5	1169.7	1172.9	1189.8	1197.6
12.5°	1033.0	1039.6	1048.0	1064.9	1092.2	1125.4	1161.9	1193.7	1199.6	1224.3	1240.6
15°	1046.7	1054.5	1062.3	1083.1	1112.4	1152.7	1191.8	1231.5	1237.3	1272.4	1290.0
17.5°	1074.7	1085.1	1090.9	1111.8	1143.0	1187.9	1239.3	1284.8	1290.0	1331.0	1353.1
20°	1130.0	1142.3	1144.3	1161.2	1191.8	1239.9	1301.1	1357.7	1364.2	1411.0	1435.7
22.5°	1244.5	1262.0	1246.4	1254.9	1282.2	1330.3	1396.7	1468.3	1477.4	1530.7	1552.8
25°	1446.1	1470.9	1430.5	1416.2	1427.9	1478.0	1561.3	1651.7	1662.1	1705.0	1716.1
27.5°	1842.3	1810.4	1749.3	1689.4	1654.3	1682.9	1776.6	1888.5	1901.5	1943.1	1930.1
30°	2277.5	2249.5	2166.9	2034.2	1951.0	1946.4	2032.9	2157.8	2172.8	2212.5	2172.8
32.5°	2713.4	2686.7	2596.9	2433.6	2289.2	2217.7	2277.5	2416.1	2423.9	2449.3	2390.7
35°	3142.1	3114.8	3025.0	2857.8	2680.2	2517.6	2505.9	2662.0	2664.6	2691.3	2604.1
37.5°	3573.4	3550.6	3455.0	3291.0	3116.1	2891.6	2783.0	2894.9	2898.1	2924.1	2833.7
40°	3881.1	3890.8	3825.1	3698.3	3548.0	3302.8	3093.9	3142.7	3123.2	3166.8	3112.8
42.5°	4145.2	4164.7	4107.5	4043.7	3956.5	3740.6	3479.1	3470.6	3439.4	3462.8	3406.8
45°	4373.5	4389.8	4338.4	4323.4	4321.5	4169.9	3899.9	3849.2	3805.6	3801.1	3734.1
47.5°	4457.5	4488.7	4510.8	4560.9	4658.5	4594.7	4335.2	4256.4	4207.7	4171.9	4065.8
50°	4489.3	4522.5	4598.0	4743.7	4974.6	5002.0	4768.4	4679.9	4620.1	4555.0	4398.9
52.5°	4446.4	4505.6	4607.1	4852.3	5187.4	5328.5	5184.1	5106.7	5038.4	4932.3	4700.8
55°	4193.3	4252.5	4460.1	4851.0	5293.4	5557.5	5577.0	5542.5	5465.8	5298.6	4944.7
57.5°	3659.9	3747.7	4076.2	4685.8	5291.4	5754.6	5962.1	5986.9	5901.0	5661.6	5136.6
60°	2920.9	3039.9	3440.7	4319.5	5128.2	5861.3	6299.8	6423.4	6332.3	6019.4	5292.1
62.5°	2038.1	2176.0	2555.3	3745.8	4754.8	5784.5	6546.3	6774.7	6705.7	6339.5	5351.9
65°	1243.2	1287.4	1593.2	2947.6	4119.8	5463.2	6622.4	6964.6	6941.8	6535.3	5263.5
67.5°	828.1	865.2	953.0	2021.2	3198.0	4821.1	6440.3	6931.4	6937.9	6503.4	4939.5
70°	499.0	530.8	588.1	1175.5	2072.6	3816.0	5876.3	6508.6	6546.3	6077.3	4325.4
72.5°	205.6	227.0	279.1	532.8	1073.4	2421.9	4679.3	5588.1	5675.9	5109.9	3319.7
75°	116.4	127.5	163.9	267.4	465.8	1128.7	2834.4	3967.0	4096.4	3522.0	1997.1
77.5°	77.4	82.6	106.0	173.0	262.2	385.1	1211.3	2066.7	2313.9	1923.6	864.6
80°	52.0	56.6	72.9	115.8	170.4	165.2	385.8	765.7	942.0	660.9	210.8
82.5°	35.1	35.8	52.0	76.1	108.0	80.0	113.8	238.1	299.2	191.3	80.0
85°	20.2	19.5	38.4	44.2	48.1	33.2	34.5	71.6	93.7	80.7	45.5
87.5°	2.6	3.9	15.0	11.7	6.5	7.2	7.2	12.4	18.2	19.5	9.8
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°	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7	1128.7
2.5°	1130.0	1129.3	1127.4	1125.4	1120.9	1118.3	1119.6	1118.3	1117.6	1118.3	1120.9
5°	1138.4	1136.5	1131.3	1124.8	1115.7	1104.6	1097.5	1087.0	1077.3	1071.4	1072.7
7.5°	1161.2	1159.3	1152.1	1133.9	1104.6	1058.4	1016.1	979.1	951.1	934.8	935.5
10°	1197.6	1194.4	1183.3	1143.0	1066.2	965.4	881.5	811.9	766.3	744.9	742.9
12.5°	1240.6	1236.7	1217.1	1134.5	993.4	835.9	720.1	642.7	600.4	581.6	579.6
15°	1291.3	1286.1	1247.7	1094.2	887.3	692.8	586.8	528.9	501.6	484.6	485.3
17.5°	1354.4	1345.3	1270.5	1033.7	772.2	583.5	504.8	461.2	437.2	420.9	419.6
20°	1436.4	1421.4	1288.7	961.5	666.1	514.6	449.5	413.1	394.9	380.6	378.0
22.5°	1550.9	1529.4	1310.8	883.4	591.3	467.1	408.5	381.9	366.9	350.6	348.0
25°	1692.7	1667.3	1338.1	811.2	539.9	426.1	378.6	356.5	338.9	320.1	318.1
27.5°	1891.1	1845.6	1370.7	752.0	495.7	391.0	351.3	326.6	306.4	290.8	287.5
30°	2112.3	2037.5	1399.3	716.2	455.4	358.4	315.5	290.8	271.9	260.9	258.9
32.5°	2321.8	2220.3	1418.2	700.6	418.9	321.4	276.5	249.8	235.5	232.2	234.2
35°	2519.5	2385.5	1416.2	685.7	386.4	284.3	238.1	210.8	199.7	201.7	201.7
37.5°	2747.2	2561.8	1402.6	662.2	359.7	250.5	204.9	180.8	171.1	171.7	174.3
40°	3012.0	2765.4	1394.1	618.0	330.5	219.2	177.6	158.1	150.9	148.3	147.7
42.5°	3294.3	2962.5	1395.4	567.9	294.0	191.3	158.7	142.5	136.0	134.0	133.4
45°	3577.9	3150.5	1397.3	515.9	255.7	169.8	145.1	131.4	127.5	124.9	124.9
47.5°	3844.7	3310.6	1360.9	459.9	217.9	153.5	134.0	124.9	121.6	118.4	118.4
50°	4093.2	3417.3	1273.1	394.9	188.0	140.5	125.6	119.0	115.8	112.5	112.5
52.5°	4286.4	3434.2	1128.0	327.9	167.2	130.8	120.3	114.5	110.6	107.3	106.7
55°	4372.2	3328.1	921.8	265.4	150.9	122.3	115.1	109.3	104.7	101.5	100.8
57.5°	4350.1	3105.0	718.8	213.4	135.3	113.8	108.6	104.7	99.5	94.3	93.7
60°	4241.5	2806.4	541.9	177.6	121.0	104.7	101.5	98.2	91.1	83.3	82.0
62.5°	4053.5	2431.0	386.4	147.0	105.4	94.3	93.0	90.4	80.0	65.7	64.4
65°	3765.9	1975.0	260.2	122.3	90.4	82.6	83.3	78.7	65.1	48.8	47.5
67.5°	3345.7	1444.2	166.5	100.2	75.5	69.0	69.6	67.0	55.3	41.6	39.7
70°	2810.3	956.3	108.6	76.1	60.5	53.3	57.2	57.9	46.8	33.8	32.5
72.5°	2060.2	564.7	76.1	56.6	44.2	37.1	46.8	48.1	37.7	25.4	24.1
75°	1174.2	268.0	57.2	41.0	27.3	26.0	36.4	36.4	26.0	16.9	15.6
77.5°	493.1	111.9	40.3	26.7	15.6	15.0	24.7	22.8	13.0	7.8	7.8
80°	142.5	50.1	21.5	13.0	6.5	5.9	9.8	7.2	3.3	1.3	1.3
82.5°	55.9	22.1	8.5	5.2	2.6	2.6	1.3	0.0	0.0	0.0	0.0
85°	33.2	9.1	3.9	2.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.5	2.0	1.3	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)