

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: P882246

Luminaire Tested: **NAV-SB2A-740-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882246  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-740-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

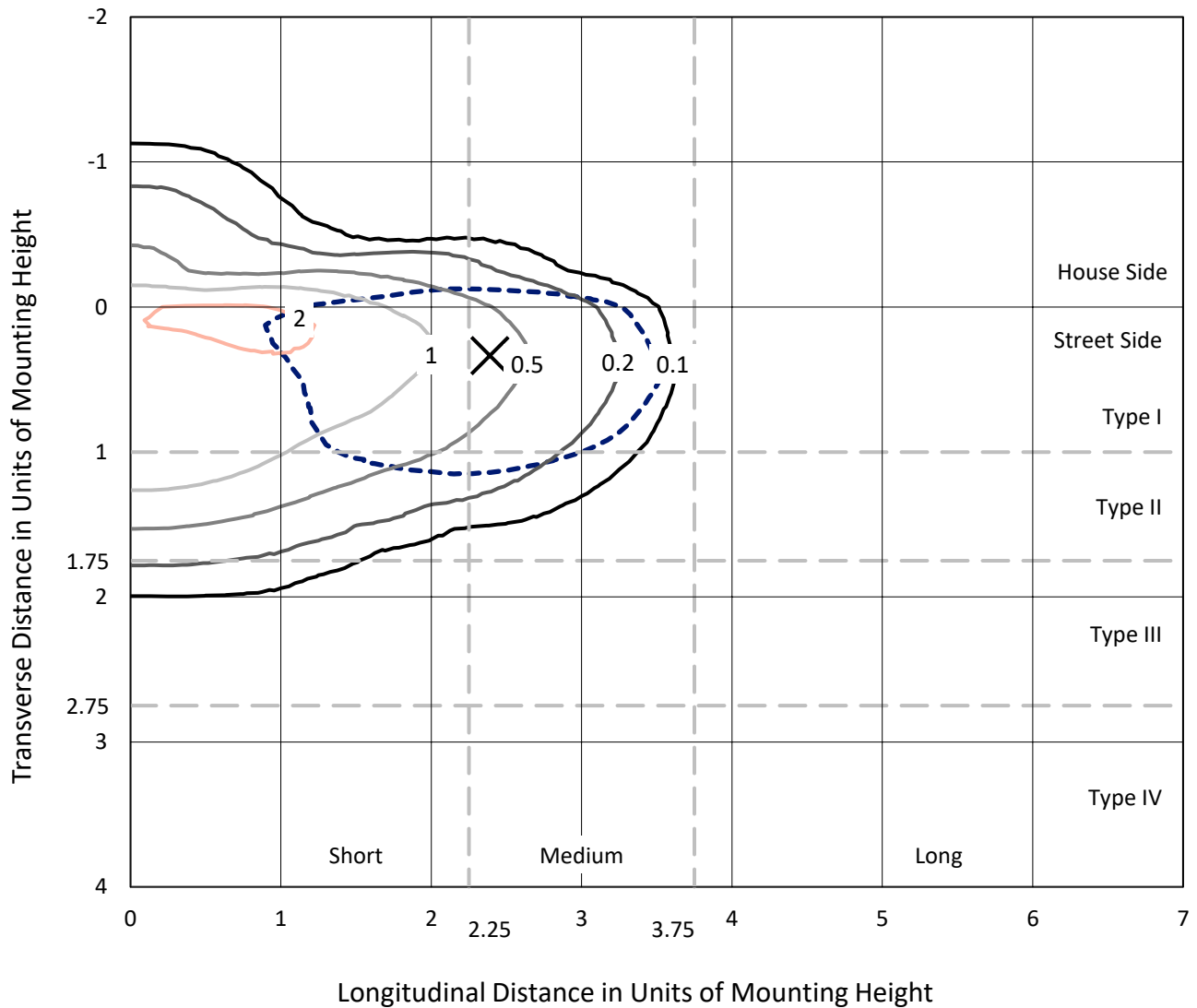
Lumens per Lamp: N/A  
Luminaire Lumens: 7198 lumens  
Efficiency: N/A  
Efficacy: 125.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
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

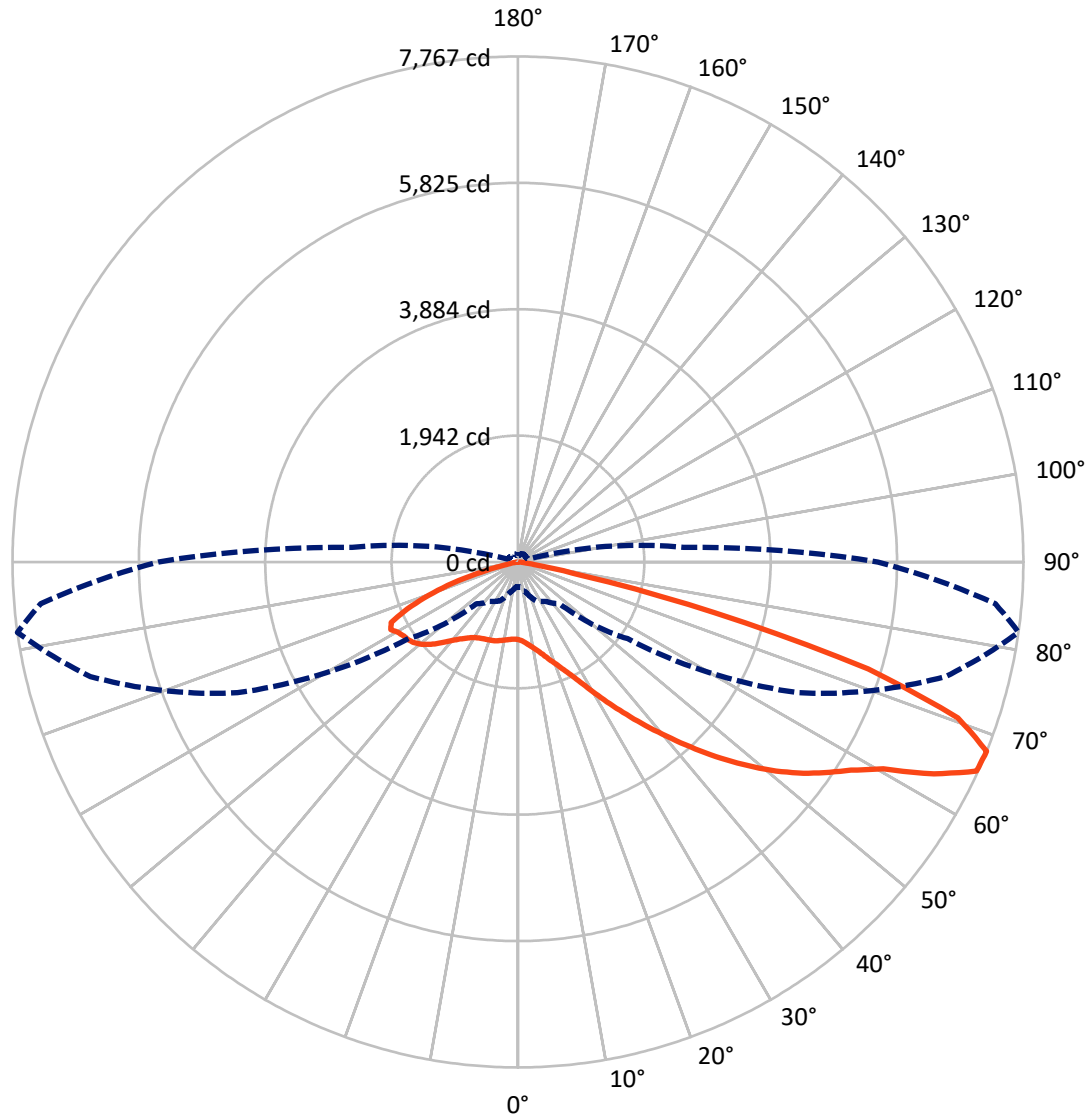
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1303.9	0.0	1303.9
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	5894.1	0.0	5894.1
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	7198.0	0.0	7198.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.2	1.5
10°-20°	276.1	3.8
20°-30°	442.2	6.1
30°-40°	781.9	10.9
40°-50°	1370.0	19.0
50°-60°	1827.2	25.4
60°-70°	1701.0	23.6
70°-80°	652.8	9.1
80°-90°	40.5	0.6
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°	7198.0	100.0
0°-180°	7198.0	100.0

**Coefficient of Utilization**



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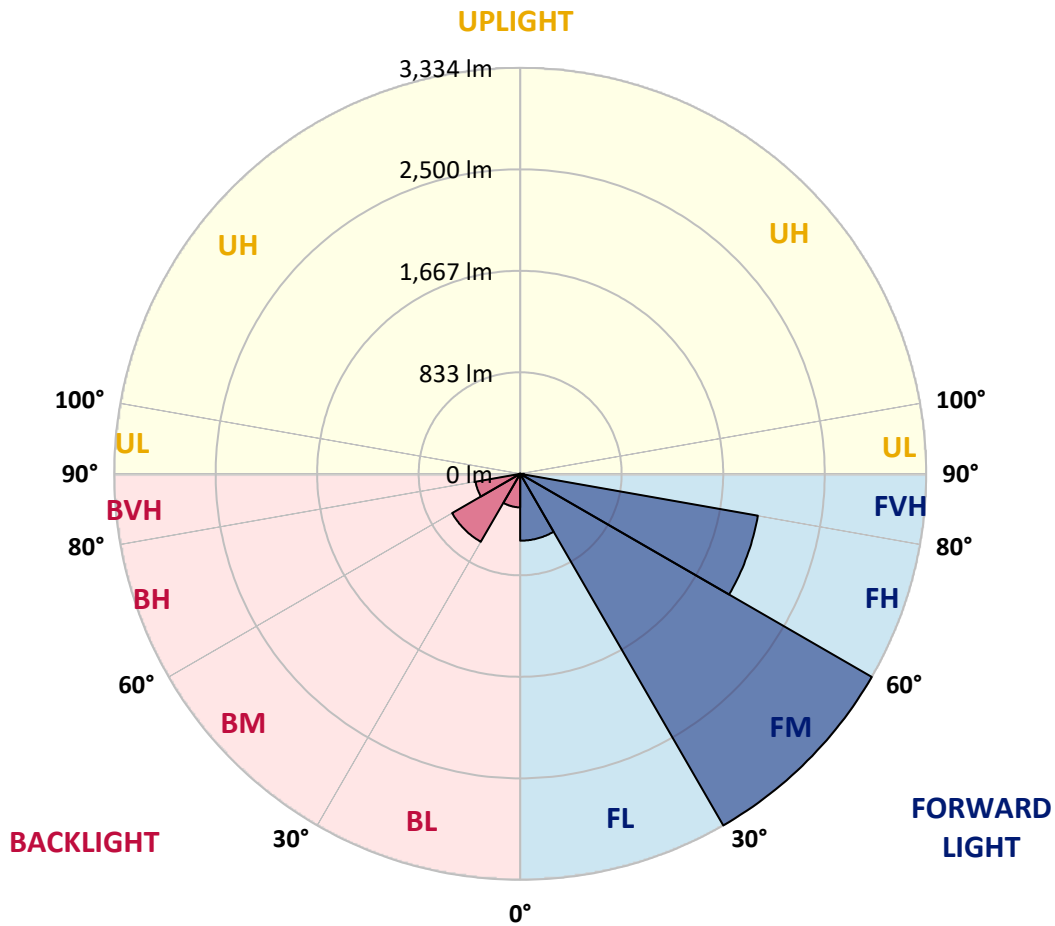
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	549.1	7.6			
FM (30°-60°)	3333.8	46.3			
FH (60°-80°)	1981.7	27.5			G2/5000
FVH (80°-90°)	29.5	0.4			G1/100
BL (0°-30°)	275.4	3.8	B1/500		
BM (30°-60°)	645.3	9.0	B1/1000		
BH (60°-80°)	372.1	5.2	B1/500		G1/500
BVH (80°-90°)	11.1	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1260.4	1267.6	1263.5	1261.4	1257.8	1252.6	1248.4	1235.5	1222.0	1213.2	1210.1
5°	1285.7	1293.0	1292.5	1294.6	1297.1	1298.7	1297.7	1283.2	1264.0	1249.0	1240.1
7.5°	1264.0	1272.3	1279.0	1289.4	1307.5	1326.7	1336.0	1332.9	1313.2	1292.5	1281.6
10°	1202.3	1211.1	1227.2	1251.5	1289.9	1331.4	1366.1	1382.1	1369.7	1346.9	1331.9
12.5°	1089.3	1098.1	1129.8	1182.6	1246.9	1318.9	1385.2	1428.3	1431.4	1408.6	1391.0
15°	962.4	971.2	1004.9	1071.2	1169.1	1284.7	1395.6	1477.0	1504.4	1484.8	1463.5
17.5°	883.6	891.4	916.8	970.1	1072.2	1216.3	1392.0	1528.8	1591.5	1576.0	1550.6
20°	859.8	866.5	878.4	915.7	1000.7	1145.3	1368.1	1577.5	1685.3	1676.5	1648.0
22.5°	885.2	891.4	895.0	911.6	965.0	1098.7	1338.1	1627.3	1794.1	1795.2	1760.5
25°	943.7	949.9	945.8	956.1	979.5	1084.2	1326.7	1685.8	1931.0	1942.4	1903.0
27.5°	1040.1	1040.6	1030.8	1030.3	1033.9	1105.9	1338.6	1748.5	2103.5	2124.8	2076.1
30°	1233.4	1225.6	1187.8	1146.9	1128.2	1171.2	1371.8	1822.6	2307.2	2345.0	2283.9
32.5°	1531.4	1520.0	1450.5	1352.6	1254.1	1276.4	1431.4	1907.1	2529.0	2597.4	2522.8
35°	1854.8	1851.7	1779.1	1633.5	1461.4	1426.2	1528.3	2018.0	2771.0	2879.8	2791.2
37.5°	2155.4	2153.8	2112.3	1940.8	1731.4	1635.0	1683.8	2163.1	3030.1	3187.7	3083.0
40°	2430.0	2434.7	2393.2	2239.8	2028.9	1903.0	1895.2	2342.4	3318.3	3523.0	3398.6
42.5°	2667.4	2672.6	2630.6	2517.1	2322.7	2199.4	2154.8	2562.2	3599.7	3883.2	3736.0
45°	2828.5	2860.7	2854.5	2763.8	2624.4	2496.4	2466.8	2837.9	3920.5	4265.1	4092.5
47.5°	2874.1	2903.7	2950.3	2962.8	2877.8	2751.8	2787.1	3170.1	4244.9	4647.6	4451.1
50°	2761.7	2789.2	2886.1	3015.1	3074.2	3035.3	3098.5	3526.1	4577.1	5029.0	4803.0
52.5°	2539.9	2567.9	2690.2	2894.4	3135.3	3257.6	3411.0	3876.9	4898.9	5390.2	5136.3
55°	2219.1	2248.6	2405.7	2636.8	3018.7	3349.4	3671.7	4227.3	5193.8	5715.1	5436.8
57.5°	1782.7	1804.5	1967.7	2291.1	2725.4	3258.2	3864.0	4609.7	5471.6	6034.4	5734.8
60°	1161.9	1181.1	1370.7	1731.4	2239.3	2953.4	3902.3	5036.2	5840.5	6449.5	6136.5
62.5°	772.7	785.6	898.1	1162.9	1577.0	2368.3	3677.9	5376.7	6381.6	7171.9	6825.2
65°	530.2	543.1	655.6	840.1	1018.9	1566.6	3032.7	5331.6	6871.8	7745.6	7335.7
67.5°	378.3	389.2	484.6	658.7	737.5	910.0	2055.8	4755.3	6801.4	7767.3	7363.1
70°	271.0	277.3	356.0	513.1	586.1	546.7	1143.2	3637.0	5955.1	7172.4	6802.4
72.5°	189.7	191.7	247.2	390.8	472.1	399.0	544.1	2424.8	4504.0	5629.6	5273.6
75°	128.5	131.1	166.4	286.6	378.8	304.7	288.1	1300.3	2644.0	3116.2	2793.3
77.5°	78.8	79.8	107.3	195.9	283.5	232.2	185.5	550.9	1023.0	1004.3	856.1
80°	44.6	44.6	68.4	121.8	193.3	149.8	130.1	234.2	323.9	284.5	250.8
82.5°	24.9	25.4	49.8	75.7	128.0	88.6	71.5	108.3	139.9	123.9	107.8
85°	10.4	11.4	30.6	35.8	61.2	44.1	29.0	45.6	51.8	46.1	33.7
87.5°	1.0	1.6	9.3	6.7	7.3	8.8	4.1	8.8	7.3	7.3	5.2
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°	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5	1192.5
2.5°	1200.2	1192.5	1172.8	1150.0	1119.9	1105.4	1085.7	1072.2	1060.8	1061.9	1051.5
5°	1223.6	1203.9	1159.8	1104.9	1036.5	987.8	935.9	900.2	871.2	864.9	850.9
7.5°	1255.7	1224.6	1147.4	1048.4	932.8	845.2	767.0	716.7	681.0	669.6	658.2
10°	1297.1	1252.1	1131.3	977.4	811.0	699.6	615.7	576.3	551.9	543.6	537.4
12.5°	1345.3	1283.7	1110.1	890.9	685.6	578.4	525.0	505.3	497.5	494.9	493.4
15°	1406.0	1323.1	1077.9	788.2	579.4	504.2	481.4	478.9	479.9	478.9	478.3
17.5°	1478.0	1366.1	1025.6	682.5	507.9	466.4	458.1	460.2	462.8	462.3	461.2
20°	1556.8	1408.6	958.7	588.7	459.2	439.5	434.8	436.9	438.9	437.9	437.4
22.5°	1646.4	1454.2	884.6	515.6	426.5	414.6	409.4	409.9	409.9	407.9	406.8
25°	1753.7	1504.4	806.9	463.8	401.6	392.3	386.1	384.0	380.9	374.7	373.6
27.5°	1881.7	1557.8	732.3	427.5	381.9	373.1	365.9	360.7	352.9	342.6	341.5
30°	2025.8	1622.6	669.0	404.7	366.4	357.6	349.3	341.5	330.1	317.2	316.1
32.5°	2195.3	1692.0	622.9	389.7	352.4	343.1	333.2	323.9	311.5	298.5	299.0
35°	2397.4	1776.0	596.0	379.4	341.5	329.1	318.2	307.8	298.5	287.1	286.1
37.5°	2616.6	1865.1	587.7	374.2	334.3	315.1	302.7	295.4	294.4	287.6	287.1
40°	2856.5	1970.9	593.9	371.1	326.5	301.6	288.1	286.6	289.2	277.3	277.8
42.5°	3110.5	2096.3	604.3	367.4	315.6	288.1	275.2	275.2	273.1	256.5	256.5
45°	3385.1	2240.9	614.6	358.6	302.7	274.7	264.8	261.2	252.4	236.3	235.8
47.5°	3661.9	2388.0	622.4	342.6	287.1	263.3	254.5	246.2	233.2	218.7	218.2
50°	3924.6	2520.2	614.1	318.7	269.5	252.4	243.1	231.7	217.7	207.8	206.3
52.5°	4159.4	2634.7	578.9	290.7	250.8	241.0	232.7	220.8	209.4	199.0	198.0
55°	4363.6	2727.5	516.7	264.3	234.2	231.1	222.8	207.8	192.3	183.5	182.4
57.5°	4559.5	2798.0	438.9	242.5	219.2	220.3	207.8	194.3	179.8	170.5	169.5
60°	4820.1	2892.3	360.2	222.3	203.1	206.3	192.8	182.9	164.8	152.9	151.3
62.5°	5236.8	3038.9	286.1	197.4	184.5	185.5	179.8	167.9	146.1	132.2	131.1
65°	5567.4	2985.0	225.4	170.5	163.2	164.8	164.8	151.8	128.5	112.5	110.9
67.5°	5530.1	2555.9	179.8	144.1	143.0	144.1	147.7	136.8	114.0	101.1	99.0
70°	5094.3	2033.0	144.1	119.7	124.4	121.8	132.2	124.9	102.6	89.7	88.1
72.5°	4156.8	1464.5	109.9	99.0	95.4	99.5	119.2	112.5	85.5	71.0	69.4
75°	2429.0	781.5	81.9	78.3	68.9	82.9	105.7	95.9	65.3	52.3	50.8
77.5°	790.8	272.6	60.1	57.5	51.3	66.9	90.2	80.8	53.4	41.5	39.9
80°	212.0	82.4	40.9	37.8	33.2	49.8	71.5	64.3	38.3	26.9	26.4
82.5°	85.0	34.7	23.8	21.2	18.1	34.2	56.5	51.8	28.5	17.1	17.1
85°	27.5	11.4	8.8	6.7	8.3	21.2	33.7	35.2	20.2	8.8	6.7
87.5°	3.6	1.6	1.6	2.1	1.6	3.6	10.4	9.8	5.7	1.0	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)