

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: P882968

Luminaire Tested: **NAV-SB3A-830-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882968
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-SB3A-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 350mA 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: 9233 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

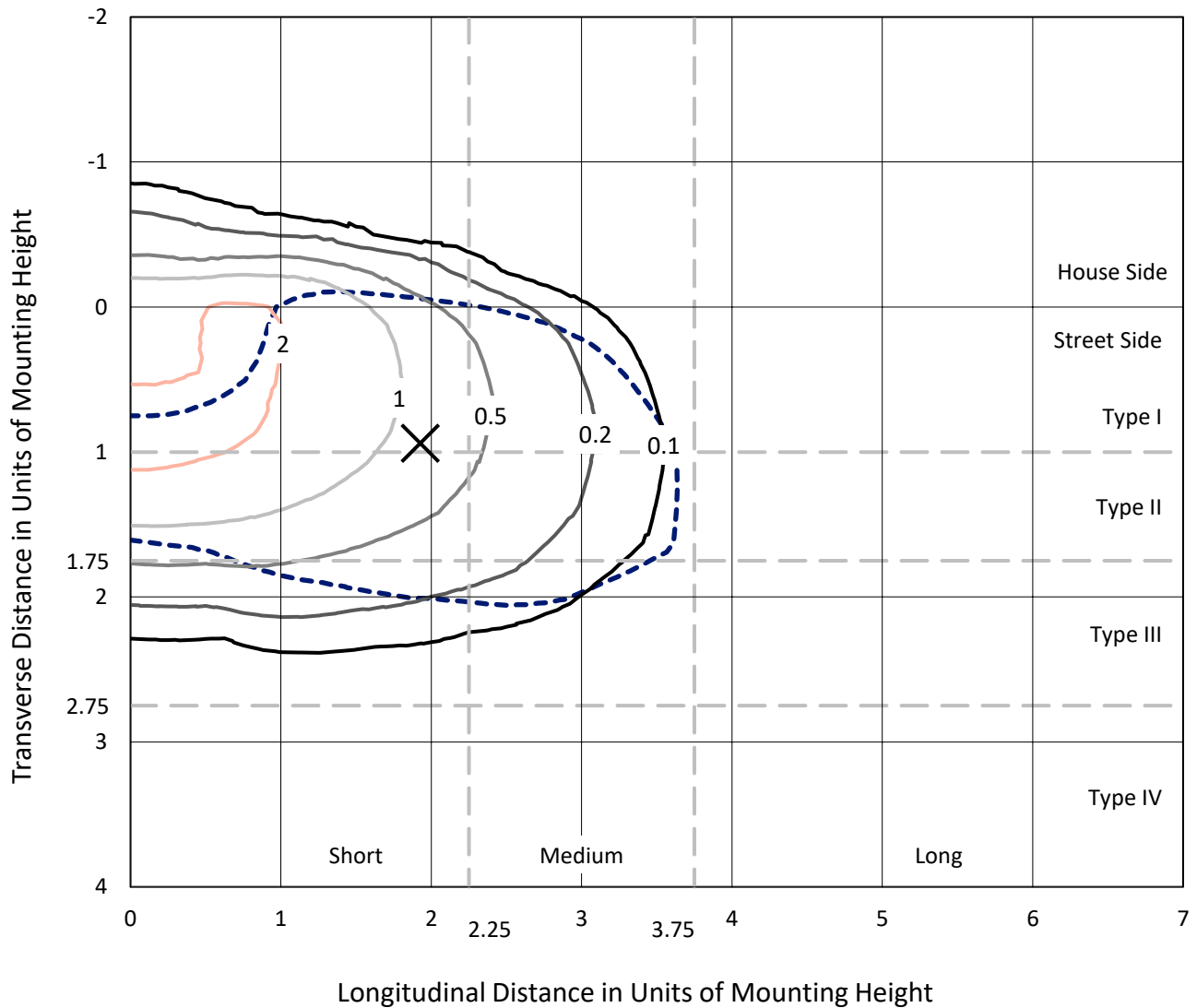
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

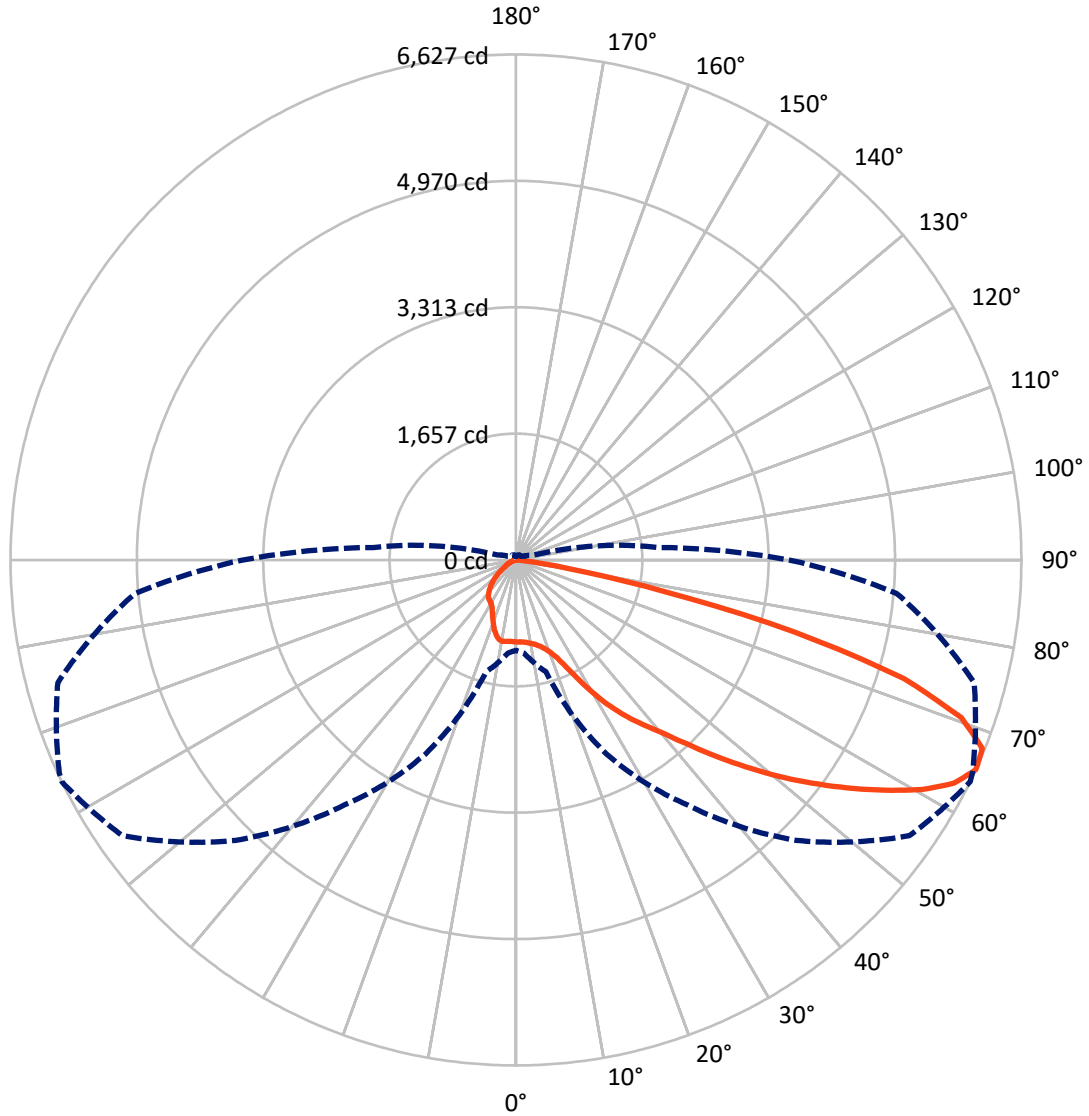
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 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
House Side	Lumens	1234.7	0.0	1234.7
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	7998.3	0.0	7998.3
	% Fixture	86.6	0.0	86.6
Total	Lumens	9233.0	0.0	9233.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	1.1
10°-20°	268.7	2.9
20°-30°	509.2	5.5
30°-40°	1030.4	11.2
40°-50°	1755.3	19.0
50°-60°	2387.1	25.9
60°-70°	2241.6	24.3
70°-80°	898.1	9.7
80°-90°	43.5	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°	9233.0	100.0
0°-180°	9233.0	100.0

Coefficient of Utilization



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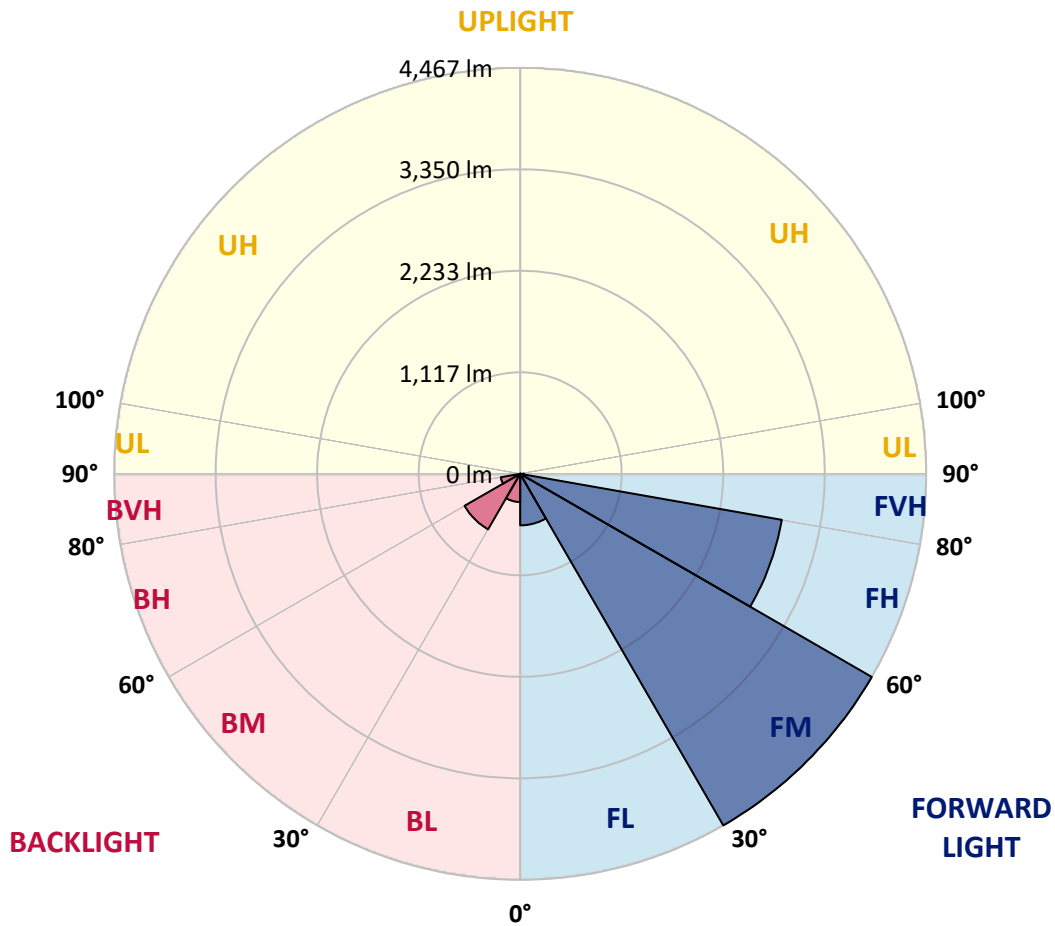
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	567.0	6.1			
FM (30°-60°)	4466.9	48.4			
FH (60°-80°)	2923.0	31.7			G2/5000
FVH (80°-90°)	41.4	0.4			G1/100
BL (0°-30°)	310.0	3.4	B1/500		
BM (30°-60°)	705.9	7.6	B1/1000		
BH (60°-80°)	216.7	2.3	B1/500		G1/500
BVH (80°-90°)	2.1	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9
2.5°	1070.2	1077.6	1075.8	1073.9	1073.3	1074.5	1075.1	1074.5	1074.5	1074.5	1075.1
5°	1049.8	1055.9	1055.9	1060.3	1066.5	1073.9	1079.5	1080.7	1081.9	1083.8	1083.2
7.5°	1010.8	1015.7	1019.4	1033.7	1049.1	1068.9	1085.7	1094.3	1095.6	1102.4	1104.8
10°	984.1	990.3	996.5	1011.4	1033.7	1063.4	1091.8	1112.9	1116.0	1132.1	1139.5
12.5°	982.9	989.1	997.1	1013.2	1039.2	1070.8	1105.5	1135.8	1141.4	1164.9	1180.4
15°	995.9	1003.3	1010.8	1030.6	1058.4	1096.8	1133.9	1171.7	1177.3	1210.7	1227.4
17.5°	1022.5	1032.4	1038.0	1057.8	1087.5	1130.2	1179.1	1222.4	1227.4	1266.4	1287.4
20°	1075.1	1086.9	1088.7	1104.8	1133.9	1179.7	1237.9	1291.8	1298.0	1342.5	1366.0
22.5°	1184.1	1200.8	1185.9	1194.0	1220.0	1265.8	1328.9	1397.0	1405.7	1456.4	1477.5
25°	1375.9	1399.5	1361.1	1347.5	1358.6	1406.3	1485.5	1571.5	1581.4	1622.3	1632.8
27.5°	1752.9	1722.6	1664.4	1607.4	1574.0	1601.2	1690.4	1796.8	1809.2	1848.8	1836.5
30°	2167.0	2140.4	2061.8	1935.5	1856.3	1851.9	1934.2	2053.1	2067.3	2105.1	2067.3
32.5°	2581.7	2556.3	2470.9	2315.5	2178.1	2110.0	2167.0	2298.8	2306.2	2330.4	2274.7
35°	2989.6	2963.6	2878.2	2719.1	2550.1	2395.4	2384.2	2532.8	2535.3	2560.6	2477.7
37.5°	3399.9	3378.3	3287.3	3131.3	2964.8	2751.3	2647.9	2754.4	2757.5	2782.2	2696.2
40°	3692.7	3702.0	3639.5	3518.8	3375.8	3142.5	2943.8	2990.2	2971.6	3013.1	2961.7
42.5°	3944.0	3962.6	3908.1	3847.4	3764.5	3559.0	3310.2	3302.1	3272.4	3294.7	3241.5
45°	4161.3	4176.7	4127.8	4113.6	4111.7	3967.5	3710.7	3662.4	3620.9	3616.6	3552.8
47.5°	4241.1	4270.8	4291.9	4339.5	4432.4	4371.7	4124.7	4049.8	4003.4	3969.4	3868.5
50°	4271.4	4303.0	4374.8	4513.4	4733.2	4759.2	4537.0	4452.8	4395.8	4334.0	4185.4
52.5°	4230.6	4286.9	4383.5	4616.8	4935.6	5069.9	4932.5	4858.8	4793.8	4692.9	4472.6
55°	3989.8	4046.1	4243.6	4615.6	5036.5	5287.8	5306.3	5273.5	5200.5	5041.4	4704.7
57.5°	3482.3	3565.8	3878.4	4458.4	5034.6	5475.3	5672.8	5696.3	5614.6	5386.8	4887.3
60°	2779.1	2892.4	3273.7	4109.9	4879.3	5576.8	5994.0	6111.6	6024.9	5727.2	5035.2
62.5°	1939.2	2070.4	2431.3	3564.0	4524.0	5503.8	6228.6	6445.8	6380.2	6031.8	5092.2
65°	1182.8	1224.9	1515.8	2804.5	3919.9	5198.0	6301.0	6626.6	6604.9	6218.1	5008.0
67.5°	787.9	823.2	906.8	1923.1	3042.8	4587.1	6127.7	6595.0	6601.2	6187.7	4699.8
70°	474.7	505.1	559.5	1118.5	1972.0	3630.8	5591.1	6192.7	6228.6	5782.3	4115.5
72.5°	195.6	216.0	265.5	506.9	1021.3	2304.4	4452.2	5316.9	5400.4	4861.9	3158.5
75°	110.8	121.3	156.0	254.4	443.2	1073.9	2696.8	3774.4	3897.6	3351.0	1900.2
77.5°	73.7	78.6	100.9	164.6	249.4	366.4	1152.5	1966.4	2201.6	1830.3	822.6
80°	49.5	53.8	69.3	110.2	162.2	157.2	367.0	728.5	896.3	628.9	200.5
82.5°	33.4	34.0	49.5	72.4	102.7	76.1	108.3	226.5	284.7	182.0	76.1
85°	19.2	18.6	36.5	42.1	45.8	31.6	32.8	68.1	89.1	76.8	43.3
87.5°	2.5	3.7	14.2	11.1	6.2	6.8	6.8	11.8	17.3	18.6	9.3
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°	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9	1073.9
2.5°	1075.1	1074.5	1072.7	1070.8	1066.5	1064.0	1065.2	1064.0	1063.4	1064.0	1066.5
5°	1083.2	1081.3	1076.4	1070.2	1061.5	1051.0	1044.2	1034.3	1025.0	1019.4	1020.7
7.5°	1104.8	1103.0	1096.2	1078.8	1051.0	1007.0	966.8	931.5	904.9	889.4	890.1
10°	1139.5	1136.4	1125.9	1087.5	1014.5	918.5	838.7	772.5	729.1	708.7	706.9
12.5°	1180.4	1176.6	1158.1	1079.5	945.2	795.4	685.2	611.5	571.3	553.3	551.5
15°	1228.6	1223.7	1187.2	1041.1	844.3	659.2	558.3	503.2	477.2	461.1	461.7
17.5°	1288.7	1280.0	1208.8	983.5	734.7	555.2	480.3	438.8	415.9	400.5	399.2
20°	1366.7	1352.4	1226.2	914.8	633.8	489.6	427.7	393.0	375.7	362.1	359.6
22.5°	1475.6	1455.2	1247.2	840.5	562.6	444.4	388.7	363.3	349.1	333.6	331.1
25°	1610.5	1586.4	1273.2	771.8	513.7	405.4	360.2	339.2	322.5	304.5	302.7
27.5°	1799.3	1756.0	1304.1	715.5	471.6	372.0	334.2	310.7	291.5	276.7	273.6
30°	2009.8	1938.6	1331.4	681.5	433.3	341.0	300.2	276.7	258.7	248.2	246.3
32.5°	2209.1	2112.5	1349.3	666.6	398.6	305.8	263.1	237.7	224.1	221.0	222.8
35°	2397.2	2269.7	1347.5	652.4	367.7	270.5	226.5	200.5	190.0	191.9	191.9
37.5°	2613.9	2437.5	1334.5	630.1	342.3	238.3	195.0	172.1	162.8	163.4	165.9
40°	2865.8	2631.2	1326.4	588.0	314.4	208.6	169.0	150.4	143.6	141.1	140.5
42.5°	3134.4	2818.7	1327.7	540.4	279.8	182.0	151.0	135.6	129.4	127.5	126.9
45°	3404.3	2997.6	1329.5	490.8	243.3	161.5	138.0	125.0	121.3	118.8	118.8
47.5°	3658.0	3149.9	1294.9	437.6	207.4	146.1	127.5	118.8	115.7	112.7	112.7
50°	3894.5	3251.4	1211.3	375.7	178.9	133.7	119.5	113.3	110.2	107.1	107.1
52.5°	4078.3	3267.5	1073.3	312.0	159.1	124.4	114.5	108.9	105.2	102.1	101.5
55°	4160.0	3166.6	877.1	252.5	143.6	116.4	109.6	104.0	99.7	96.6	95.9
57.5°	4139.0	2954.3	683.9	203.0	128.7	108.3	103.4	99.7	94.7	89.7	89.1
60°	4035.6	2670.2	515.6	169.0	115.1	99.7	96.6	93.5	86.7	79.2	78.0
62.5°	3856.7	2313.0	367.7	139.9	100.3	89.7	88.5	86.0	76.1	62.5	61.3
65°	3583.2	1879.2	247.6	116.4	86.0	78.6	79.2	74.9	61.9	46.4	45.2
67.5°	3183.3	1374.1	158.5	95.3	71.8	65.6	66.2	63.8	52.6	39.6	37.8
70°	2673.9	909.9	103.4	72.4	57.6	50.8	54.5	55.1	44.6	32.2	30.9
72.5°	1960.2	537.3	72.4	53.8	42.1	35.3	44.6	45.8	35.9	24.1	22.9
75°	1117.2	255.0	54.5	39.0	26.0	24.8	34.7	34.7	24.8	16.1	14.9
77.5°	469.2	106.5	38.4	25.4	14.9	14.2	23.5	21.7	12.4	7.4	7.4
80°	135.6	47.7	20.4	12.4	6.2	5.6	9.3	6.8	3.1	1.2	1.2
82.5°	53.2	21.0	8.0	5.0	2.5	2.5	1.2	0.0	0.0	0.0	0.0
85°	31.6	8.7	3.7	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.0	1.9	1.2	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)