

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: P965531

Luminaire Tested: **NAV-SB4A-722-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965531
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4A-722-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2200K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11633.7 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

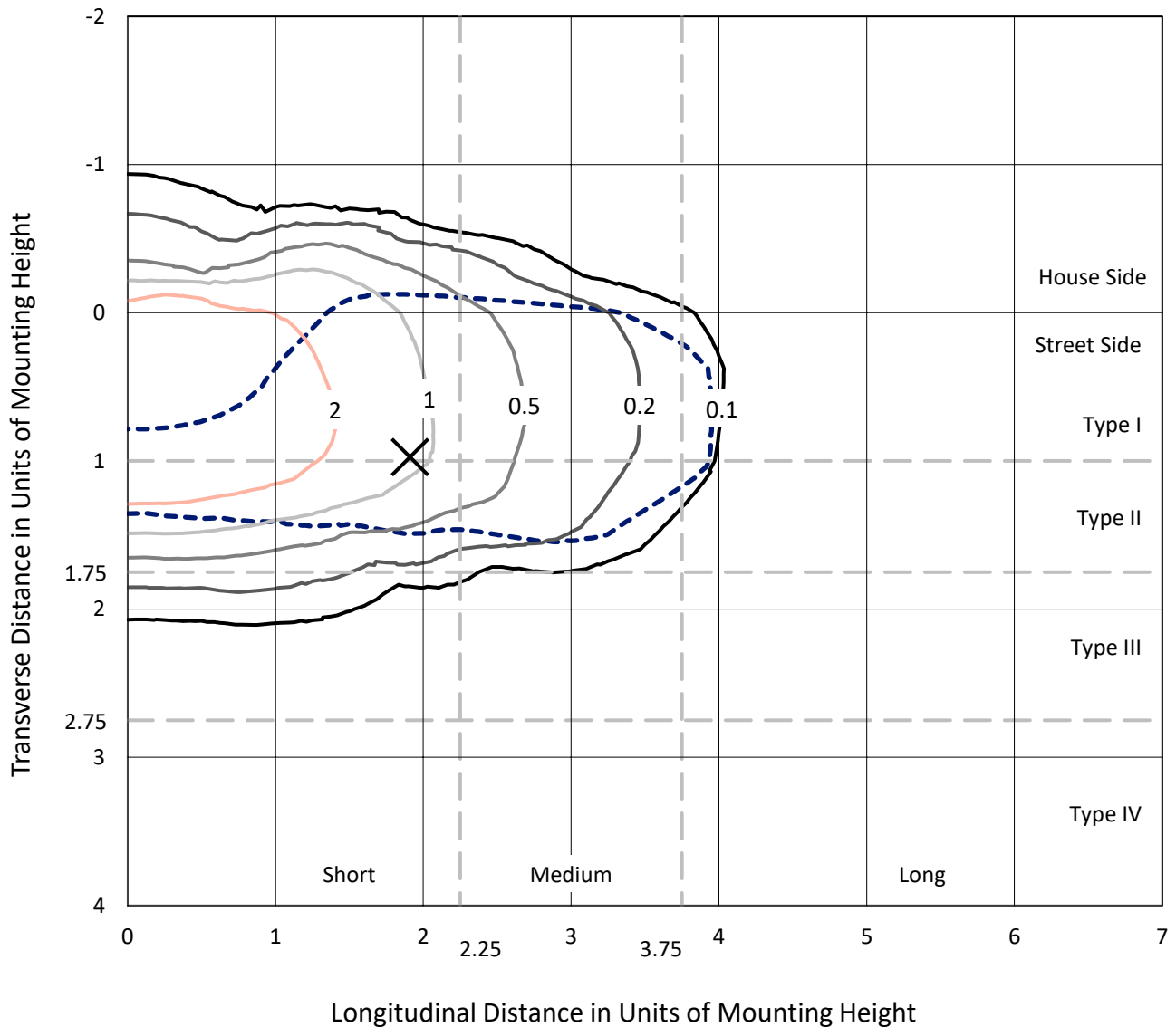
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

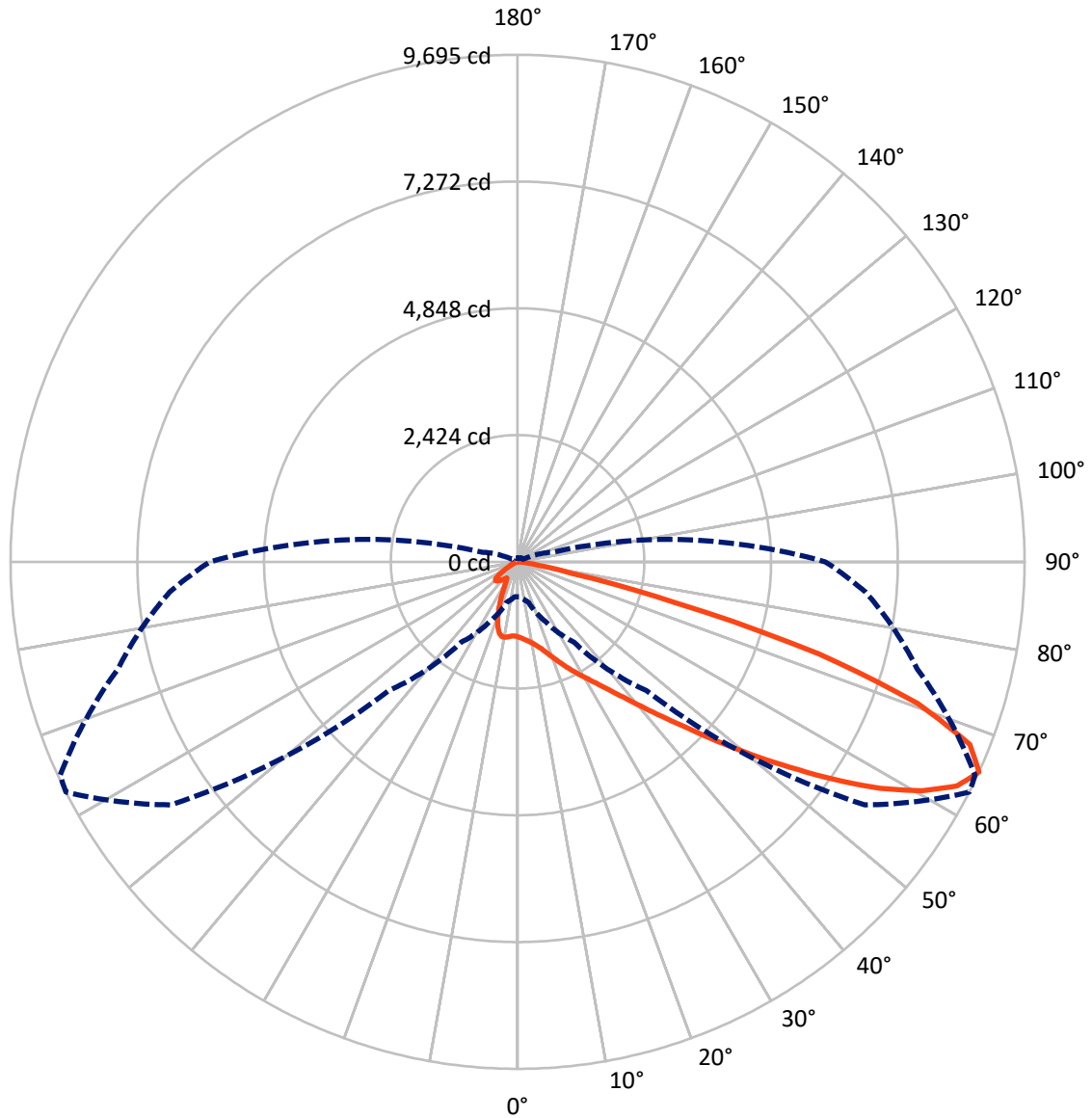
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1710.1	0.0	1710.1
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	9923.7	0.0	9923.7
	% Fixture	85.3	0.0	85.3
Total	Lumens	11633.7	0.0	11633.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.3	1.2
10°-20°	375.4	3.2
20°-30°	653.6	5.6
30°-40°	1178.0	10.1
40°-50°	2336.4	20.1
50°-60°	3182.6	27.4
60°-70°	2540.3	21.8
70°-80°	1149.6	9.9
80°-90°	82.6	0.7
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°	11633.7	100.0
0°-180°	11633.7	100.0

Coefficient of Utilization



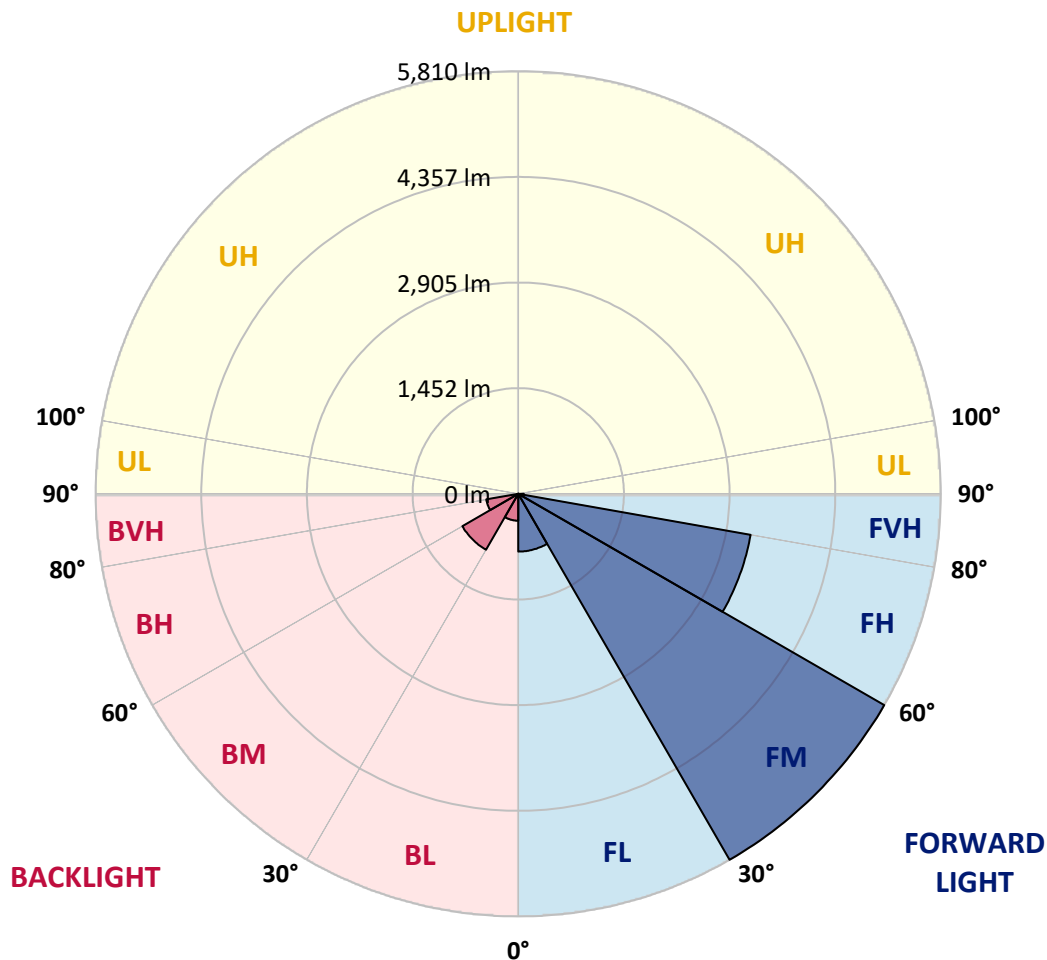
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	794.1	6.8			
FM (30°-60°)	5809.6	49.9			
FH (60°-80°)	3243.4	27.9			G2/5000
FVH (80°-90°)	76.5	0.7			G1/100
BL (0°-30°)	370.1	3.2	B1/500		
BM (30°-60°)	887.4	7.6	B1/1000		
BH (60°-80°)	446.4	3.8	B1/500		G1/500
BVH (80°-90°)	6.1	0.1			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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8
2.5°	1469.4	1465.4	1471.1	1468.6	1467.1	1463.8	1462.3	1460.6	1457.4	1455.0	1445.5
5°	1473.4	1471.1	1476.6	1481.4	1486.2	1491.1	1493.4	1496.6	1493.4	1487.1	1477.4
7.5°	1439.8	1438.2	1450.3	1464.6	1486.2	1504.7	1524.7	1535.9	1536.7	1534.2	1523.9
10°	1437.5	1433.5	1445.5	1463.1	1491.1	1523.9	1559.1	1583.1	1586.3	1596.7	1585.5
12.5°	1475.1	1471.1	1487.9	1507.1	1535.9	1570.3	1613.5	1647.1	1651.9	1666.3	1658.3
15°	1538.3	1532.7	1551.8	1576.7	1613.5	1652.7	1698.3	1728.8	1732.8	1750.4	1735.9
17.5°	1611.9	1606.3	1628.7	1655.2	1695.1	1748.8	1801.5	1835.2	1840.0	1851.3	1824.8
20°	1706.3	1699.1	1716.8	1740.8	1783.2	1847.2	1910.4	1958.5	1957.6	1957.6	1914.4
22.5°	1816.0	1804.8	1820.0	1839.2	1879.2	1956.8	2040.9	2097.7	2097.7	2075.3	2004.1
25°	1933.7	1922.4	1939.2	1956.8	1992.1	2080.1	2178.5	2249.0	2252.1	2213.8	2100.1
27.5°	2081.0	2066.5	2079.3	2100.1	2120.9	2210.5	2327.4	2409.1	2410.7	2351.5	2191.3
30°	2364.3	2323.4	2283.4	2260.9	2270.6	2359.4	2484.3	2574.7	2582.7	2501.1	2290.6
32.5°	2882.8	2874.8	2734.0	2549.9	2453.8	2519.4	2659.6	2768.4	2773.2	2668.4	2419.4
35°	3688.8	3679.2	3452.7	3102.2	2789.2	2734.0	2872.5	3001.3	2998.1	2879.6	2586.7
37.5°	4650.8	4642.0	4343.5	3874.5	3367.8	3058.1	3147.0	3282.3	3302.2	3147.0	2802.9
40°	5472.8	5440.0	5251.1	4798.8	4136.2	3596.0	3537.6	3627.2	3648.0	3463.9	3077.4
42.5°	6095.5	6067.5	5971.4	5688.9	5066.2	4391.5	3997.7	4032.1	4055.4	3834.4	3392.6
45°	6418.0	6411.6	6450.0	6423.6	6013.8	5367.9	4655.7	4512.4	4521.2	4245.0	3750.5
47.5°	6463.6	6460.4	6635.6	6883.8	6828.6	6469.2	5499.9	5111.1	5079.8	4708.4	4139.4
50°	6194.7	6188.3	6524.4	6989.5	7372.8	7394.5	6458.8	5785.7	5716.9	5187.8	4545.2
52.5°	5335.9	5334.3	5886.6	6660.4	7564.1	8204.4	7406.4	6526.8	6411.6	5695.3	4974.1
55°	4105.7	4135.4	4768.5	5683.3	7215.2	8594.1	8257.2	7349.6	7172.7	6205.9	5369.6
57.5°	2908.4	2951.7	3577.6	4392.3	6133.1	8363.6	8832.6	8174.0	7983.5	6714.9	5770.5
60°	1562.3	1600.7	2227.3	3199.7	4562.8	7504.0	9135.9	8889.5	8709.4	7198.4	6132.3
62.5°	930.8	943.6	1202.9	2065.7	3086.2	5732.9	9007.1	9434.5	9286.4	7604.1	6446.8
65°	668.3	670.7	801.1	1261.4	1873.6	3483.2	8103.5	9695.4	9649.8	7909.8	6679.7
67.5°	562.6	561.1	615.5	837.9	1276.5	1744.8	6210.7	9326.5	9520.1	8103.5	6811.7
70°	482.6	485.0	549.0	613.9	959.6	987.6	3087.7	8120.4	8533.3	8154.8	6803.7
72.5°	359.4	367.4	426.6	559.4	724.3	679.5	1066.1	6021.1	6767.8	7683.3	6450.8
75°	253.7	257.7	300.1	470.6	540.3	494.7	544.3	3112.5	4069.8	5890.6	5279.9
77.5°	195.3	202.4	227.3	328.9	532.3	347.4	332.9	1077.3	1655.2	3558.4	3620.0
80°	105.7	118.5	164.1	237.7	373.7	245.7	164.9	429.0	561.1	1663.9	1395.8
82.5°	54.4	60.8	114.5	171.3	212.9	214.5	81.6	178.5	231.3	513.8	191.3
85°	21.6	26.4	76.9	94.4	109.7	105.7	36.8	72.1	83.2	142.5	58.4
87.5°	4.8	8.0	28.0	21.6	20.8	22.4	8.8	16.8	16.0	16.8	10.5
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°	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8	1435.8
2.5°	1444.6	1441.5	1432.6	1423.0	1411.8	1405.4	1401.4	1400.6	1395.0	1391.0	1395.0
5°	1468.6	1465.4	1448.6	1428.6	1407.0	1390.2	1374.2	1359.8	1339.0	1335.0	1333.4
7.5°	1516.7	1507.9	1480.6	1453.4	1412.7	1363.8	1304.5	1236.6	1175.7	1157.3	1148.5
10°	1575.8	1563.8	1529.5	1481.4	1391.0	1258.2	1114.9	982.1	876.4	846.8	835.6
12.5°	1643.1	1632.7	1587.1	1498.2	1300.5	1059.6	840.4	675.5	573.1	547.5	540.3
15°	1723.1	1708.0	1644.7	1472.6	1138.9	805.1	577.1	479.4	442.6	437.8	433.0
17.5°	1808.0	1783.2	1696.0	1380.6	921.2	572.3	445.8	417.8	401.8	397.0	394.5
20°	1885.6	1853.6	1726.3	1241.4	688.3	445.8	399.3	381.0	366.5	361.0	357.7
22.5°	1963.3	1917.7	1726.3	1051.6	516.2	395.3	366.5	349.7	332.9	325.7	321.7
25°	2044.1	1983.3	1696.0	840.4	415.3	362.5	335.4	316.9	302.6	293.8	290.5
27.5°	2122.6	2038.5	1626.3	640.3	369.7	333.7	306.6	288.9	275.3	269.0	269.0
30°	2197.0	2092.9	1528.7	485.8	340.2	305.8	280.1	265.0	251.3	244.9	245.7
32.5°	2297.8	2161.7	1424.6	398.6	314.6	279.3	256.1	241.7	229.7	224.9	224.9
35°	2437.9	2263.4	1335.0	391.3	292.9	257.7	234.5	220.9	208.9	204.9	204.9
37.5°	2636.3	2427.4	1287.8	439.4	275.3	238.5	216.9	202.4	191.3	188.1	187.3
40°	2881.3	2649.9	1313.3	487.4	263.3	221.7	200.9	186.4	176.9	172.9	172.1
42.5°	3171.8	2924.4	1455.0	524.2	255.3	207.3	185.7	169.6	163.3	161.6	161.6
45°	3505.5	3226.2	1671.9	563.4	242.5	193.7	170.5	158.5	153.6	152.8	152.1
47.5°	3884.9	3557.6	1923.2	612.2	229.7	180.9	158.5	150.5	146.5	144.8	144.8
50°	4261.0	3891.3	2181.7	639.5	219.2	168.9	148.8	142.5	139.3	138.5	138.5
52.5°	4654.8	4234.7	2390.6	613.9	210.5	159.3	140.8	136.0	132.8	132.0	132.0
55°	5030.2	4512.4	2426.7	521.0	192.9	149.6	132.0	129.7	125.7	125.7	124.8
57.5°	5353.6	4651.7	2172.2	382.5	175.3	135.3	123.2	120.8	117.7	116.8	116.0
60°	5650.4	4611.6	1676.7	257.7	156.1	120.8	112.0	110.5	107.2	103.2	102.4
62.5°	5817.7	4435.5	1146.9	168.1	136.8	105.7	99.2	98.4	91.2	83.2	81.6
65°	5880.9	4073.8	715.6	122.5	114.5	90.4	85.6	84.0	73.6	64.8	64.1
67.5°	5825.7	3478.3	361.0	96.9	90.4	75.2	70.4	70.4	63.2	55.2	54.4
70°	5604.8	2607.5	152.1	77.6	69.6	57.6	57.6	60.8	53.6	44.8	44.0
72.5°	5125.4	1754.4	80.9	59.2	52.1	40.8	47.3	49.6	42.4	33.6	33.6
75°	4074.6	1070.1	56.1	44.0	32.8	28.8	36.0	37.6	28.8	22.4	21.6
77.5°	2786.8	614.7	37.6	28.0	20.8	16.8	24.8	23.2	15.2	10.5	11.2
80°	1223.7	256.1	21.6	12.8	8.0	6.4	8.8	6.4	4.8	3.2	3.2
82.5°	143.3	60.1	8.0	4.8	3.2	1.6	0.8	0.0	0.0	0.0	0.0
85°	29.6	7.2	4.0	1.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.6	1.6	0.8	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)