

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: P960921

Luminaire Tested: **NAV-SB1D-740-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960921
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-740-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV WIDE OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8503.4 lumens
Efficiency: N/A
Efficacy: 106.8 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

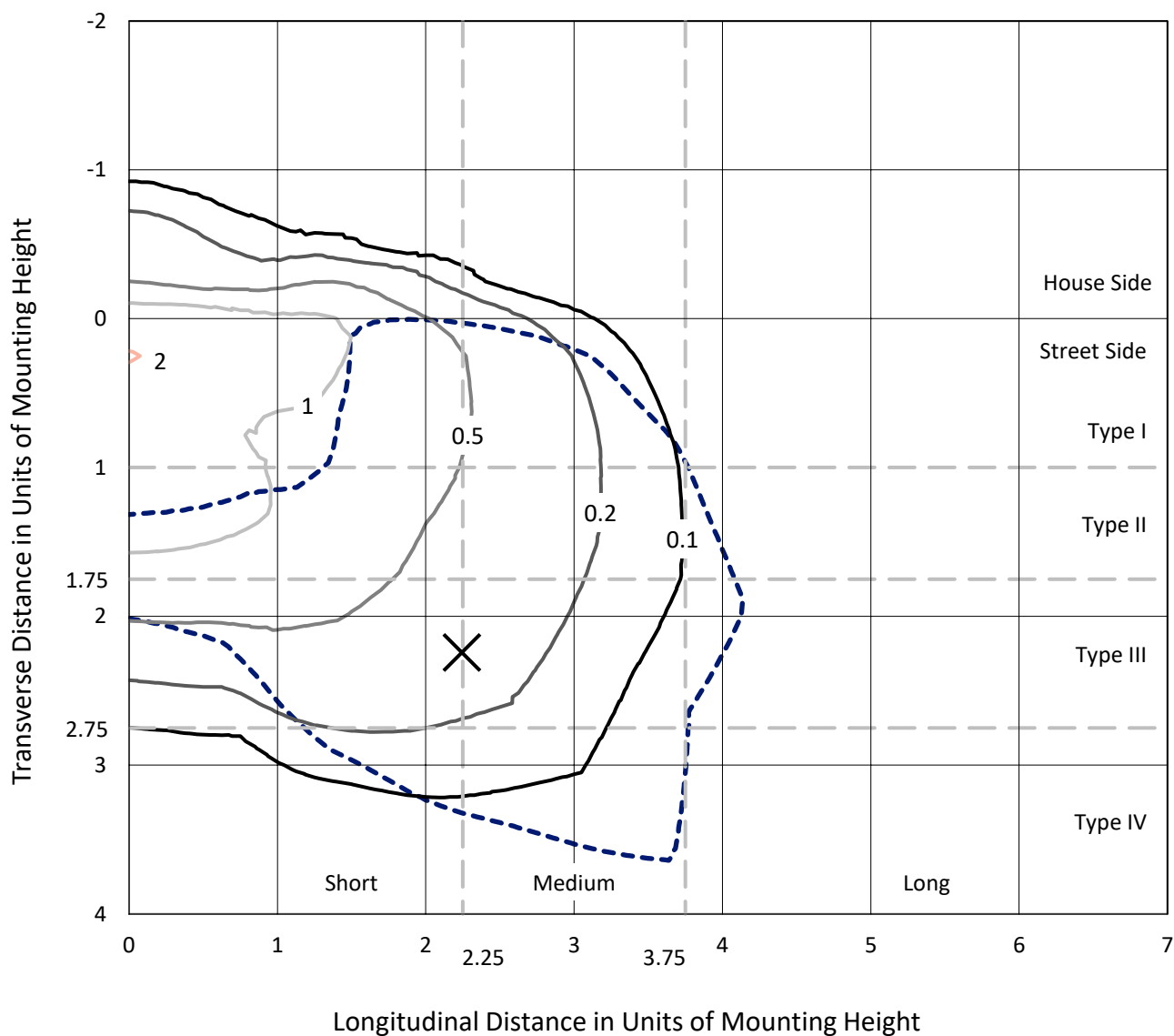
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

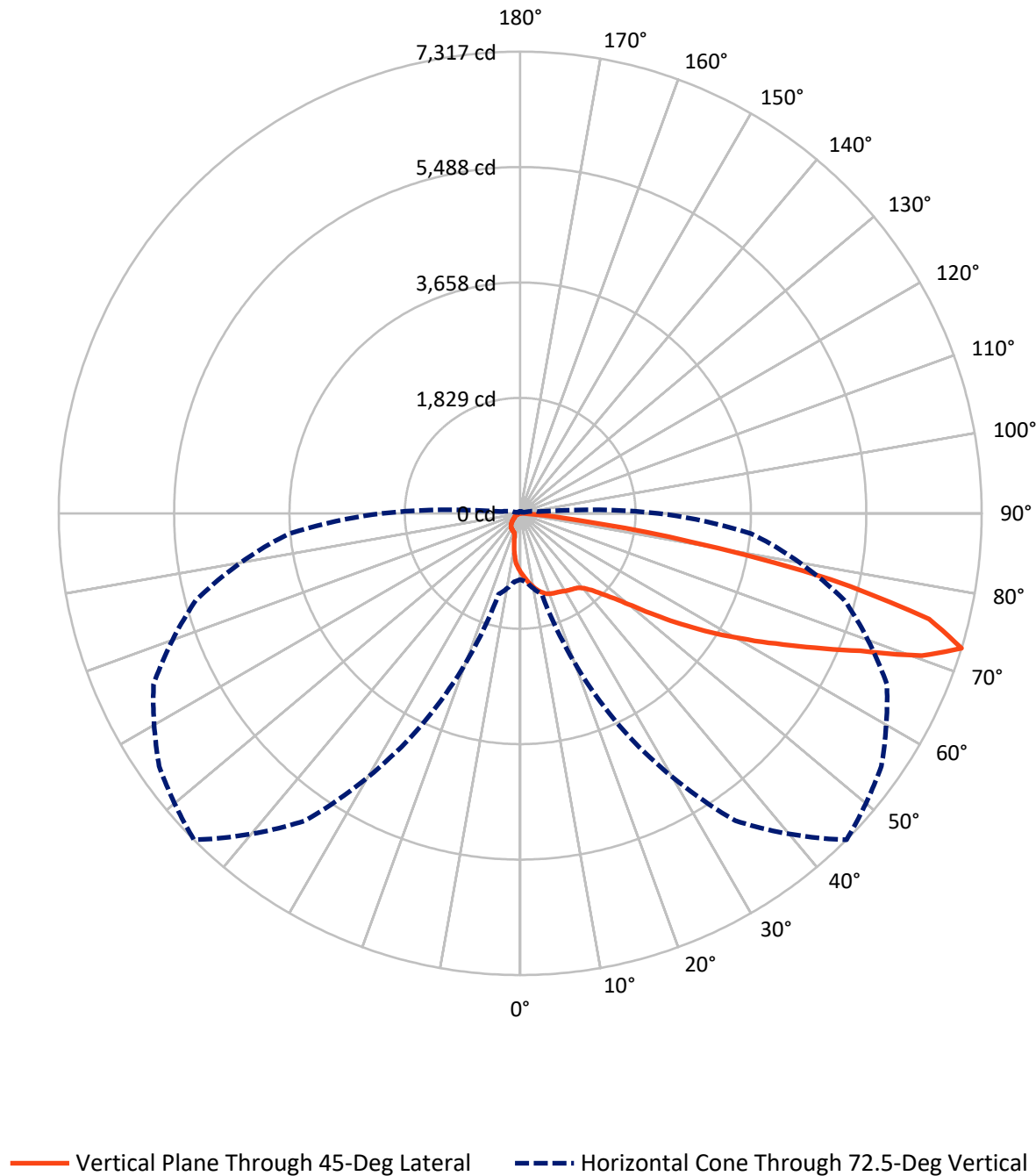
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 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	893.5	0.0	893.5
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	7609.9	0.0	7609.9
	% Fixture	89.5	0.0	89.5
Total	Lumens	8503.4	0.0	8503.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	1.0
10°-20°	256.5	3.0
20°-30°	421.2	5.0
30°-40°	597.4	7.0
40°-50°	987.5	11.6
50°-60°	1773.9	20.9
60°-70°	2463.2	29.0
70°-80°	1786.7	21.0
80°-90°	129.2	1.5
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°	8503.4	100.0
0°-180°	8503.4	100.0

Coefficient of Utilization



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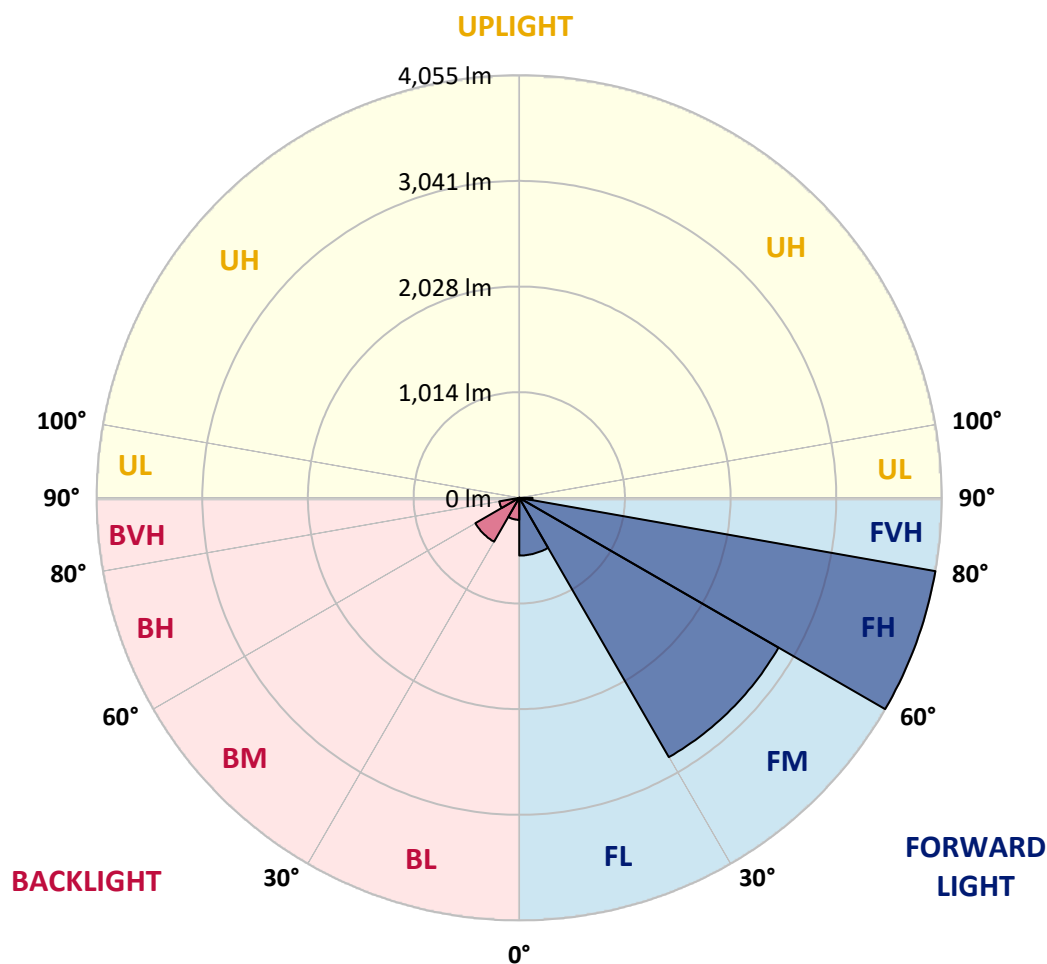
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	553.9	6.5			
FM	(30°-60°)	2872.9	33.8			
FH	(60°-80°)	4055.0	47.7			G2/5000
FVH	(80°-90°)	128.1	1.5			G2/225
BL	(0°-30°)	211.6	2.5	B1/500		
BM	(30°-60°)	485.9	5.7	B1/1000		
BH	(60°-80°)	194.8	2.3	B1/500		G1/500
BVH	(80°-90°)	1.1	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	931.5	931.5	931.5	931.5	931.5	931.5	931.5	931.5	931.5	931.5	931.5
2.5°	1017.5	1019.2	1018.0	1011.1	999.5	993.1	989.6	978.0	970.5	957.1	943.2
5°	1110.9	1117.9	1113.8	1099.9	1077.8	1062.2	1057.5	1033.7	1012.3	987.3	958.3
7.5°	1210.1	1213.6	1206.1	1188.1	1158.6	1131.8	1127.7	1094.7	1060.5	1022.1	982.7
10°	1296.1	1300.1	1288.5	1262.4	1228.8	1195.7	1189.8	1153.3	1112.6	1065.7	1015.2
12.5°	1368.1	1372.1	1357.0	1325.6	1288.5	1254.3	1248.4	1210.1	1165.4	1113.3	1050.5
15°	1422.6	1430.2	1409.8	1376.2	1336.1	1301.9	1299.0	1261.3	1217.7	1159.7	1093.0
17.5°	1454.5	1462.1	1442.9	1402.3	1368.1	1339.1	1335.6	1304.2	1263.5	1207.9	1134.2
20°	1459.7	1466.7	1446.4	1411.0	1382.5	1359.4	1357.6	1335.0	1305.3	1251.9	1178.9
22.5°	1444.1	1452.7	1434.2	1405.8	1386.0	1373.8	1371.6	1358.7	1341.9	1296.6	1220.6
25°	1427.8	1434.8	1420.9	1395.9	1385.5	1384.3	1386.0	1383.7	1380.3	1341.9	1269.4
27.5°	1426.7	1434.2	1418.5	1394.7	1389.0	1401.1	1402.8	1413.9	1416.8	1383.1	1316.4
30°	1436.5	1441.8	1426.7	1401.7	1398.8	1426.7	1427.2	1447.0	1451.6	1418.0	1362.8
32.5°	1458.0	1463.8	1448.7	1412.1	1408.0	1447.0	1448.7	1474.9	1482.4	1455.1	1411.5
35°	1508.5	1515.5	1498.0	1441.1	1426.7	1466.2	1471.4	1502.1	1517.2	1494.6	1462.1
37.5°	1634.5	1614.2	1590.3	1499.8	1469.0	1496.3	1505.0	1541.0	1567.7	1541.6	1522.4
40°	1947.3	1883.4	1809.1	1599.6	1543.3	1560.8	1567.7	1603.7	1640.2	1614.7	1605.5
42.5°	2416.8	2341.4	2221.8	1829.4	1655.4	1664.1	1669.3	1700.6	1752.2	1731.9	1734.3
45°	2835.4	2808.1	2686.1	2221.8	1864.9	1821.9	1828.3	1844.6	1920.5	1913.1	1928.1
47.5°	3156.9	3141.2	3047.2	2672.3	2218.9	2015.2	2033.2	2040.8	2150.4	2177.1	2217.8
50°	3404.1	3398.3	3314.1	3072.7	2681.5	2300.2	2306.6	2290.4	2454.6	2520.8	2598.0
52.5°	3637.4	3657.2	3595.1	3444.7	3175.4	2673.4	2672.3	2595.6	2817.3	2917.1	3049.0
55°	3848.2	3855.1	3861.5	3824.4	3672.3	3098.3	3087.2	2961.8	3238.2	3341.4	3484.2
57.5°	4046.1	4049.0	4105.8	4181.9	4189.5	3554.5	3534.1	3383.8	3697.8	3771.5	3859.2
60°	4179.0	4192.4	4312.5	4523.7	4616.1	4025.2	4014.1	3860.9	4165.6	4199.8	4183.6
62.5°	3987.5	4068.7	4371.7	4790.7	5018.8	4547.0	4541.8	4397.8	4657.8	4629.9	4490.6
65°	3227.7	3365.3	3898.1	4971.2	5414.2	5129.7	5137.3	4984.1	5163.3	5072.8	4740.2
67.5°	2257.8	2402.9	3033.3	4985.8	5855.8	5814.0	5857.6	5617.2	5700.2	5497.1	4799.5
70°	1561.3	1636.2	2046.5	4673.5	6200.0	6756.6	6755.5	6395.0	6234.3	5690.4	4497.6
72.5°	1050.0	1088.9	1329.1	3707.7	5946.9	7316.8	7283.0	6989.4	6414.1	5321.8	3674.6
75°	442.9	471.3	615.2	2083.7	4704.9	6694.0	6602.8	6176.8	5699.1	4190.6	2292.6
77.5°	140.4	152.6	242.6	745.8	2591.5	5031.6	4935.3	3857.5	3819.7	2102.3	838.1
80°	66.7	77.8	136.4	299.5	1019.8	2736.6	2723.3	1750.0	1643.2	567.6	168.3
82.5°	29.0	34.2	75.4	160.2	456.2	976.2	996.0	595.5	492.8	215.4	51.7
85°	9.3	12.2	34.8	73.7	192.7	242.6	239.7	141.7	198.5	117.3	18.0
87.5°	0.0	0.0	11.6	16.8	19.8	13.9	15.7	12.2	55.1	32.5	6.4
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°	931.5	931.5	931.5	931.5	931.5	931.5	931.5	931.5	931.5	931.5	931.5
2.5°	936.2	926.9	910.7	895.5	882.2	868.9	860.8	849.1	848.0	848.0	850.9
5°	942.6	927.5	898.5	867.8	832.3	798.7	765.0	732.5	722.0	714.5	718.0
7.5°	961.1	937.4	891.5	832.9	765.6	691.9	640.2	584.5	563.0	551.3	553.1
10°	987.9	955.4	885.7	783.0	673.8	573.5	499.7	439.4	416.2	406.3	406.3
12.5°	1017.5	977.4	875.2	720.9	573.5	453.3	381.3	353.5	350.0	350.0	350.0
15°	1052.9	1004.1	857.3	647.7	468.4	358.6	333.1	334.4	337.8	340.1	340.1
17.5°	1089.5	1032.6	828.8	565.9	375.6	322.7	323.3	325.0	327.9	330.3	330.3
20°	1128.9	1061.0	791.1	478.9	322.2	312.2	314.0	315.7	318.1	319.2	319.8
22.5°	1171.3	1087.7	746.4	393.5	304.1	303.6	304.1	305.9	308.7	308.7	310.0
25°	1216.6	1117.2	695.4	331.4	294.9	294.9	296.0	297.1	299.5	299.5	300.1
27.5°	1263.0	1144.6	641.3	298.9	286.7	286.2	286.2	287.9	289.0	289.7	290.2
30°	1314.0	1176.5	587.4	291.9	280.3	277.5	275.7	276.9	278.0	278.6	279.7
32.5°	1366.3	1207.2	539.3	294.9	274.0	268.8	262.9	261.8	261.8	264.0	265.8
35°	1424.3	1241.0	502.0	304.7	270.5	255.9	246.7	241.5	242.0	245.5	247.2
37.5°	1493.9	1281.6	474.8	313.4	268.1	241.5	226.3	220.0	215.9	220.0	218.8
40°	1585.2	1341.3	455.0	320.4	265.3	224.6	204.3	193.8	186.3	188.6	187.5
42.5°	1719.2	1435.4	447.5	320.9	258.9	204.9	181.6	167.7	156.7	157.3	155.0
45°	1907.2	1583.9	486.4	313.4	245.0	183.4	157.8	139.3	132.3	130.6	128.2
47.5°	2164.9	1800.4	576.4	297.8	224.6	162.6	134.7	119.0	113.8	110.9	109.2
50°	2510.3	2078.5	676.2	280.3	204.3	142.8	115.5	105.7	102.2	99.2	98.7
52.5°	2910.8	2360.6	758.0	262.9	184.0	125.4	103.3	97.5	94.6	92.2	91.7
55°	3278.2	2555.0	753.4	244.4	164.3	111.4	94.6	91.1	87.6	85.3	84.2
57.5°	3506.8	2582.3	621.0	224.1	141.7	100.4	86.5	84.2	80.1	77.2	76.6
60°	3611.9	2426.7	435.3	197.3	119.0	90.0	77.8	76.6	71.3	67.3	66.2
62.5°	3631.1	2137.6	290.2	164.3	99.2	80.1	69.1	67.3	60.4	53.4	49.9
65°	3553.3	1724.5	200.8	128.2	84.8	69.7	59.2	55.8	48.2	41.2	38.8
67.5°	3307.2	1210.7	139.9	92.2	72.0	55.1	47.0	45.8	40.1	34.2	32.5
70°	2856.3	690.1	93.5	69.1	56.9	37.7	37.1	38.3	32.5	27.9	25.5
72.5°	2189.9	315.7	58.0	50.5	38.8	25.5	29.6	30.1	24.9	20.9	18.6
75°	1289.1	135.2	36.6	32.5	19.8	16.8	21.5	22.0	16.8	13.3	11.6
77.5°	438.8	51.0	23.3	19.2	9.8	9.3	13.9	13.9	9.3	5.2	4.1
80°	99.8	19.2	11.6	7.6	4.6	4.1	4.6	4.1	2.4	0.6	0.0
82.5°	28.4	7.6	4.6	2.9	1.7	1.7	0.6	0.0	0.0	0.0	0.0
85°	8.1	3.5	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.5	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)