

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: P962059

Luminaire Tested: **NAV-SB2B-827-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962059
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-SB2B-827-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 450mA 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: 7671.1 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 73.9
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

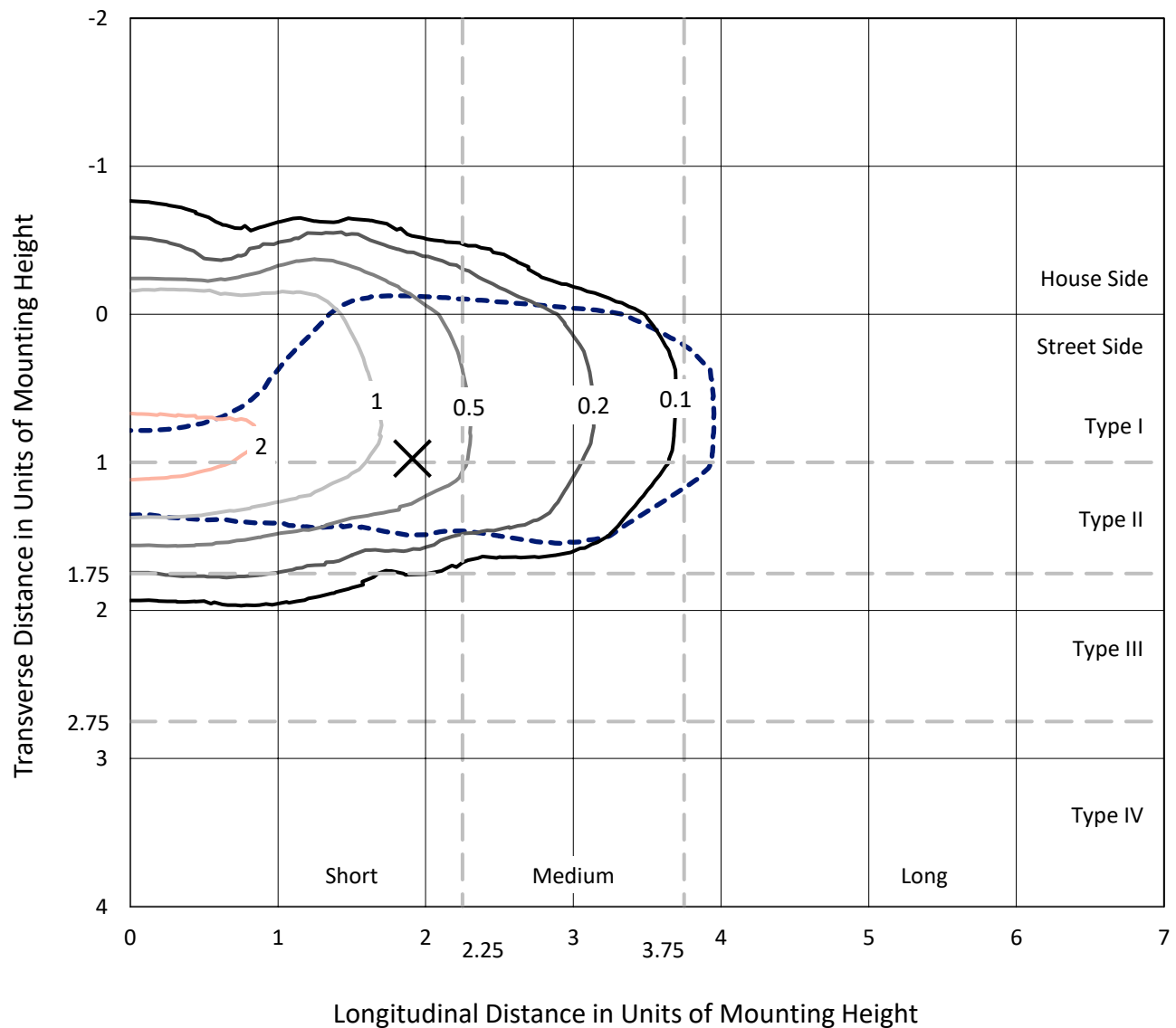


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

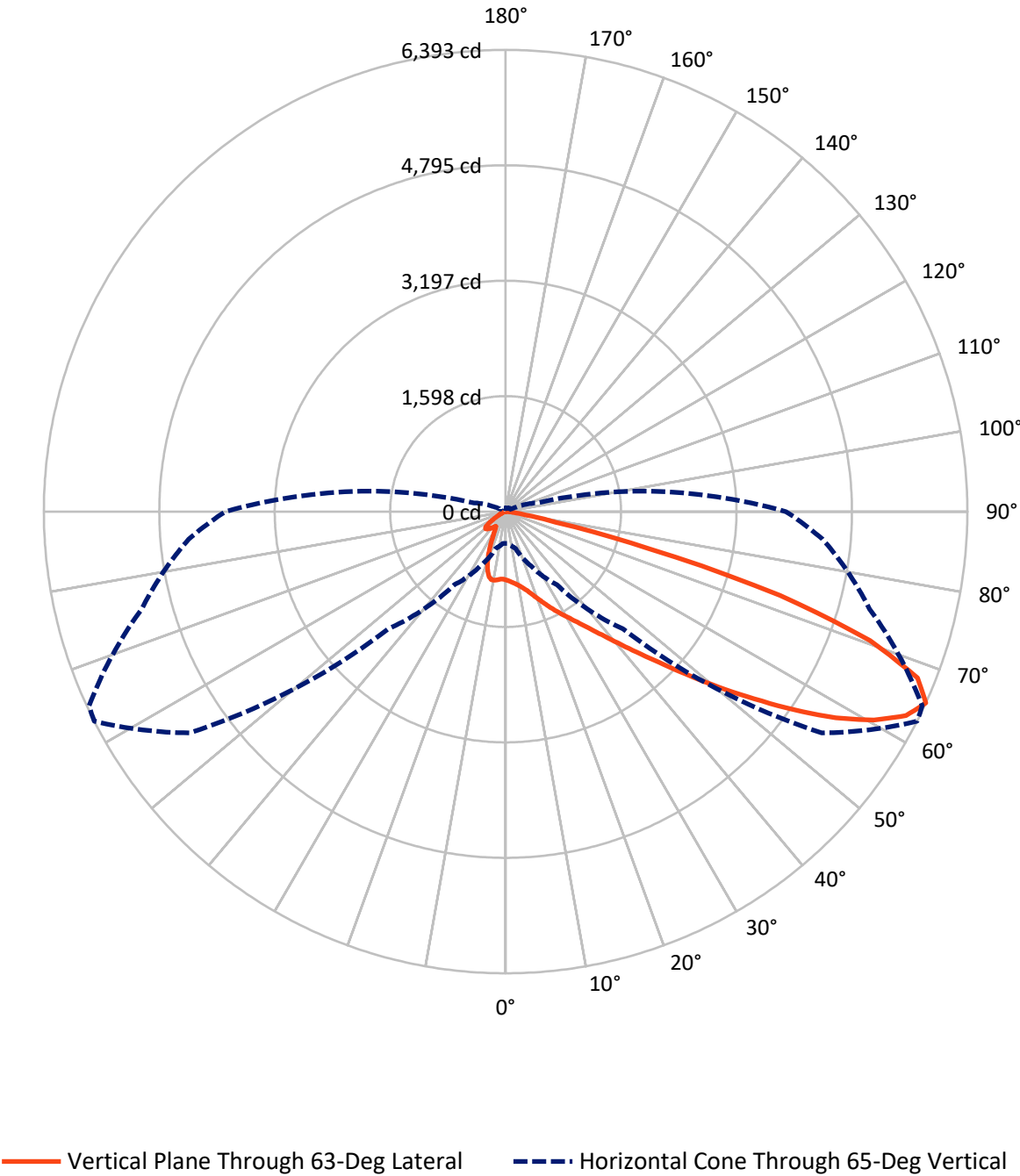


Based on 25 foot mounting height. Maximum calculated value = 2.6 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1127.6	0.0	1127.6
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	6543.5	0.0	6543.5
	% Fixture	85.3	0.0	85.3
Total	Lumens	7671.1	0.0	7671.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	1.2
10°-20°	247.5	3.2
20°-30°	431.0	5.6
30°-40°	776.8	10.1
40°-50°	1540.6	20.1
50°-60°	2098.5	27.4
60°-70°	1675.0	21.8
70°-80°	758.0	9.9
80°-90°	54.5	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°	7671.1	100.0
0°-180°	7671.1	100.0

Coefficient of Utilization



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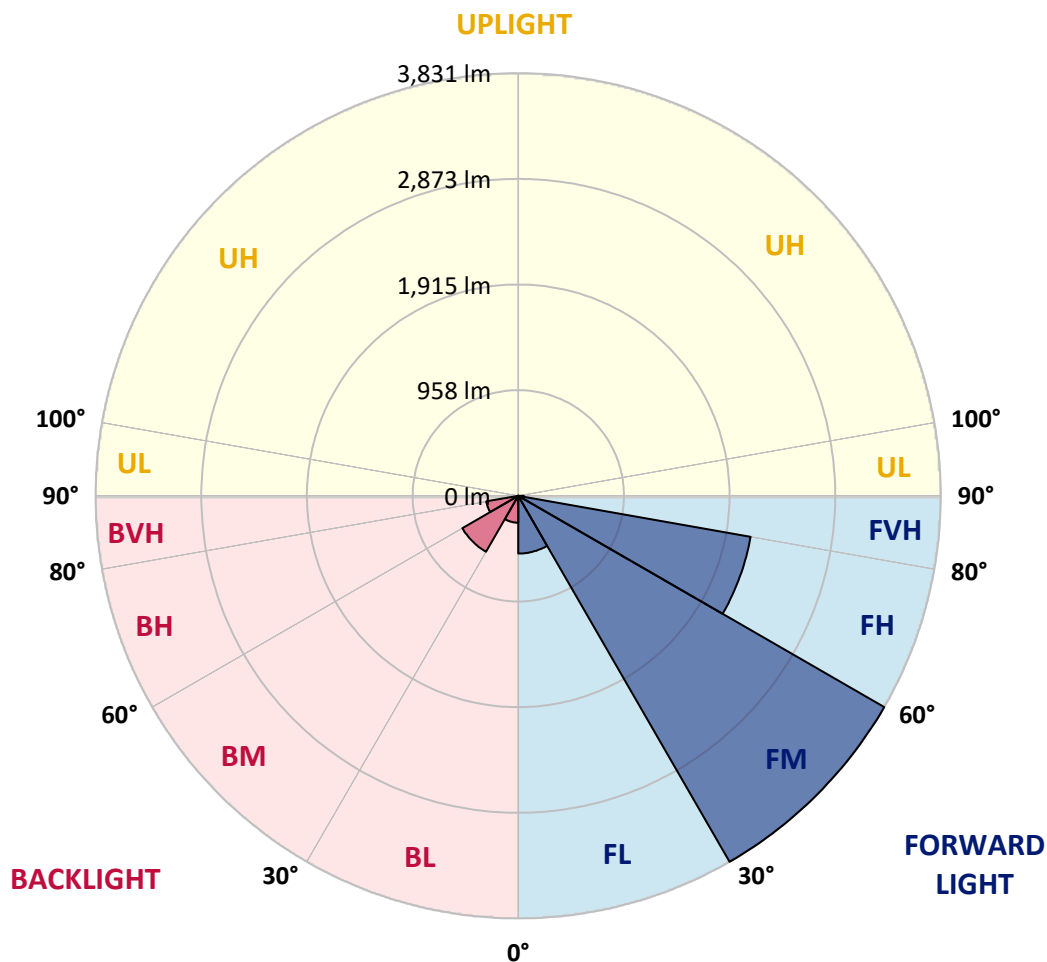
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	523.6	6.8			
FM	(30°-60°)	3830.8	49.9			
FH	(60°-80°)	2138.7	27.9			G2/5000
FVH	(80°-90°)	50.4	0.7			G1/100
BL	(0°-30°)	244.0	3.2	B1/500		
BM	(30°-60°)	585.2	7.6	B1/1000		
BH	(60°-80°)	294.4	3.8	B1/500		G1/500
BVH	(80°-90°)	4.0	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°	946.8	946.8	946.8	946.8	946.8	946.8	946.8	946.8	946.8	946.8	946.8
2.5°	968.9	966.3	970.0	968.4	967.3	965.2	964.2	963.1	961.0	959.4	953.0
5°	971.6	970.0	973.6	976.8	980.0	983.2	984.7	986.9	984.7	980.5	974.2
7.5°	949.4	948.3	956.2	965.8	980.0	992.1	1005.3	1012.7	1013.2	1011.7	1004.8
10°	947.8	945.2	953.0	964.7	983.2	1004.8	1028.1	1043.9	1046.0	1052.9	1045.4
12.5°	972.6	970.0	981.0	993.7	1012.7	1035.5	1063.9	1086.1	1089.3	1098.7	1093.5
15°	1014.3	1010.6	1023.3	1039.7	1063.9	1089.8	1119.8	1139.9	1142.6	1154.1	1144.6
17.5°	1062.8	1059.1	1073.9	1091.3	1117.8	1153.1	1188.0	1210.1	1213.3	1220.7	1203.2
20°	1125.1	1120.4	1132.0	1147.8	1175.8	1218.0	1259.7	1291.4	1290.9	1290.9	1262.4
22.5°	1197.4	1190.0	1200.1	1212.8	1239.1	1290.3	1345.7	1383.2	1383.2	1368.4	1321.4
25°	1275.0	1267.6	1278.7	1290.3	1313.5	1371.6	1436.5	1483.0	1485.0	1459.7	1384.8
27.5°	1372.1	1362.6	1371.0	1384.8	1398.5	1457.7	1534.6	1588.4	1589.6	1550.5	1444.9
30°	1558.9	1532.1	1505.6	1490.9	1497.2	1555.7	1638.1	1697.7	1703.0	1649.2	1510.3
32.5°	1900.9	1895.6	1802.8	1681.4	1618.1	1661.3	1753.7	1825.4	1828.6	1759.5	1595.3
35°	2432.3	2426.0	2276.6	2045.5	1839.2	1802.8	1894.0	1979.0	1976.9	1898.8	1705.6
37.5°	3066.7	3060.9	2864.1	2554.8	2220.8	2016.5	2075.0	2164.3	2177.4	2075.0	1848.2
40°	3608.6	3587.0	3462.4	3164.3	2727.3	2371.1	2332.6	2391.7	2405.5	2284.0	2029.2
42.5°	4019.2	4000.8	3937.4	3751.2	3340.6	2895.7	2636.0	2658.7	2674.0	2528.4	2237.1
45°	4231.9	4227.7	4253.0	4235.6	3965.4	3539.5	3069.9	2975.4	2981.2	2799.1	2473.0
47.5°	4262.0	4259.9	4375.4	4539.1	4502.6	4265.7	3626.6	3370.1	3349.5	3104.6	2729.5
50°	4084.7	4080.4	4302.1	4608.7	4861.5	4875.7	4258.9	3815.0	3769.6	3420.8	2997.0
52.5°	3518.4	3517.4	3881.5	4391.8	4987.6	5409.8	4883.7	4303.7	4227.7	3755.4	3279.9
55°	2707.3	2726.8	3144.3	3747.5	4757.5	5666.8	5444.7	4846.2	4729.6	4092.1	3540.6
57.5°	1917.8	1946.3	2358.9	2896.2	4044.0	5514.8	5824.0	5389.8	5264.2	4427.7	3805.0
60°	1030.1	1055.4	1468.7	2109.9	3008.6	4948.1	6024.1	5861.6	5742.9	4746.5	4043.5
62.5°	613.8	622.2	793.1	1362.1	2034.9	3780.2	5939.2	6220.9	6123.3	5014.0	4250.9
65°	440.6	442.3	528.3	831.7	1235.4	2296.7	5343.3	6393.0	6362.9	5215.6	4404.5
67.5°	370.9	369.9	405.8	552.6	841.7	1150.5	4095.2	6149.7	6277.4	5343.3	4491.5
70°	318.3	319.8	362.0	404.8	632.7	651.2	2036.0	5354.4	5626.7	5377.2	4486.3
72.5°	237.0	242.2	281.3	368.9	477.6	448.0	702.9	3970.1	4462.5	5066.3	4253.5
75°	167.3	169.9	197.9	310.3	356.2	326.2	358.9	2052.4	2683.6	3884.1	3481.5
77.5°	128.7	133.6	149.9	216.9	351.0	229.1	219.6	710.3	1091.3	2346.3	2386.9
80°	69.7	78.1	108.1	156.7	246.4	162.1	108.8	282.9	369.9	1097.2	920.3
82.5°	35.9	40.1	75.4	113.0	140.4	141.4	53.8	117.7	152.5	338.8	126.2
85°	14.2	17.4	50.6	62.3	72.3	69.7	24.3	47.5	54.8	93.9	38.5
87.5°	3.2	5.2	18.4	14.2	13.7	14.8	5.8	11.1	10.6	11.1	6.9
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°	946.8	946.8	946.8	946.8	946.8	946.8	946.8	946.8	946.8	946.8	946.8
2.5°	952.5	950.5	944.6	938.3	930.9	926.7	924.0	923.5	919.8	917.2	919.8
5°	968.4	966.3	955.2	942.0	927.7	916.7	906.1	896.7	882.9	880.3	879.2
7.5°	1000.1	994.2	976.3	958.4	931.4	899.2	860.2	815.4	775.2	763.1	757.3
10°	1039.1	1031.1	1008.5	976.8	917.2	829.6	735.1	647.5	577.9	558.3	550.9
12.5°	1083.4	1076.6	1046.5	987.9	857.6	698.7	554.1	445.4	377.8	361.0	356.2
15°	1136.2	1126.2	1084.4	971.1	751.0	530.9	380.5	316.1	291.8	288.6	285.5
17.5°	1192.2	1175.8	1118.3	910.3	607.4	377.3	294.0	275.5	265.0	261.8	260.1
20°	1243.3	1222.2	1138.4	818.6	453.9	294.0	263.3	251.2	241.7	238.0	235.9
22.5°	1294.6	1264.4	1138.4	693.4	340.4	260.7	241.7	230.6	219.6	214.7	212.2
25°	1347.9	1307.7	1118.3	554.1	273.9	239.0	221.1	209.0	199.5	193.7	191.6
27.5°	1399.5	1344.2	1072.4	422.2	243.8	220.1	202.1	190.5	181.5	177.3	177.3
30°	1448.6	1380.1	1008.0	320.3	224.3	201.6	184.7	174.7	165.7	161.4	162.1
32.5°	1515.2	1425.4	939.4	262.8	207.4	184.2	168.9	159.4	151.5	148.3	148.3
35°	1607.5	1492.4	880.3	258.1	193.1	169.9	154.7	145.7	137.8	135.1	135.1
37.5°	1738.4	1600.6	849.1	289.8	181.5	157.2	143.0	133.6	126.2	124.0	123.5
40°	1899.8	1747.3	866.0	321.4	173.6	146.2	132.4	123.0	116.6	114.0	113.5
42.5°	2091.4	1928.3	959.4	345.6	168.3	136.6	122.4	111.9	107.6	106.6	106.6
45°	2311.5	2127.3	1102.5	371.6	159.9	127.7	112.4	104.4	101.4	100.8	100.2
47.5°	2561.7	2345.8	1268.1	403.7	151.5	119.3	104.4	99.2	96.6	95.5	95.5
50°	2809.6	2565.9	1438.6	421.7	144.6	111.3	98.2	93.9	91.8	91.3	91.3
52.5°	3069.4	2792.2	1576.3	404.8	138.8	105.1	92.9	89.7	87.6	87.1	87.1
55°	3316.8	2975.4	1600.1	343.6	127.2	98.7	87.1	85.5	82.8	82.8	82.3
57.5°	3530.0	3067.2	1432.2	252.3	115.6	89.2	81.3	79.6	77.6	77.1	76.6
60°	3725.8	3040.8	1105.6	169.9	102.9	79.6	73.9	72.9	70.7	68.1	67.5
62.5°	3836.2	2924.7	756.2	110.8	90.2	69.7	65.4	64.9	60.2	54.8	53.8
65°	3877.8	2686.2	471.8	80.8	75.4	59.7	56.5	55.5	48.6	42.7	42.2
67.5°	3841.4	2293.5	238.0	63.9	59.7	49.6	46.4	46.4	41.7	36.4	35.9
70°	3695.7	1719.3	100.2	51.1	45.9	38.0	38.0	40.1	35.4	29.5	29.0
72.5°	3379.6	1156.8	53.3	39.1	34.3	27.0	31.2	32.7	28.0	22.1	22.1
75°	2686.7	705.6	36.9	29.0	21.6	19.0	23.8	24.8	19.0	14.8	14.2
77.5°	1837.6	405.3	24.8	18.4	13.7	11.1	16.4	15.3	10.0	6.9	7.4
80°	806.9	168.9	14.2	8.4	5.2	4.2	5.8	4.2	3.2	2.2	2.2
82.5°	94.5	39.6	5.2	3.2	2.2	1.0	0.5	0.0	0.0	0.0	0.0
85°	19.5	4.7	2.7	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.7	1.0	0.5	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)