

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: P961026

Luminaire Tested: **NAV-SB1D-830-U-SL4-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961026
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-830-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6544.6 lumens
Efficiency: N/A
Efficacy: 82.2 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

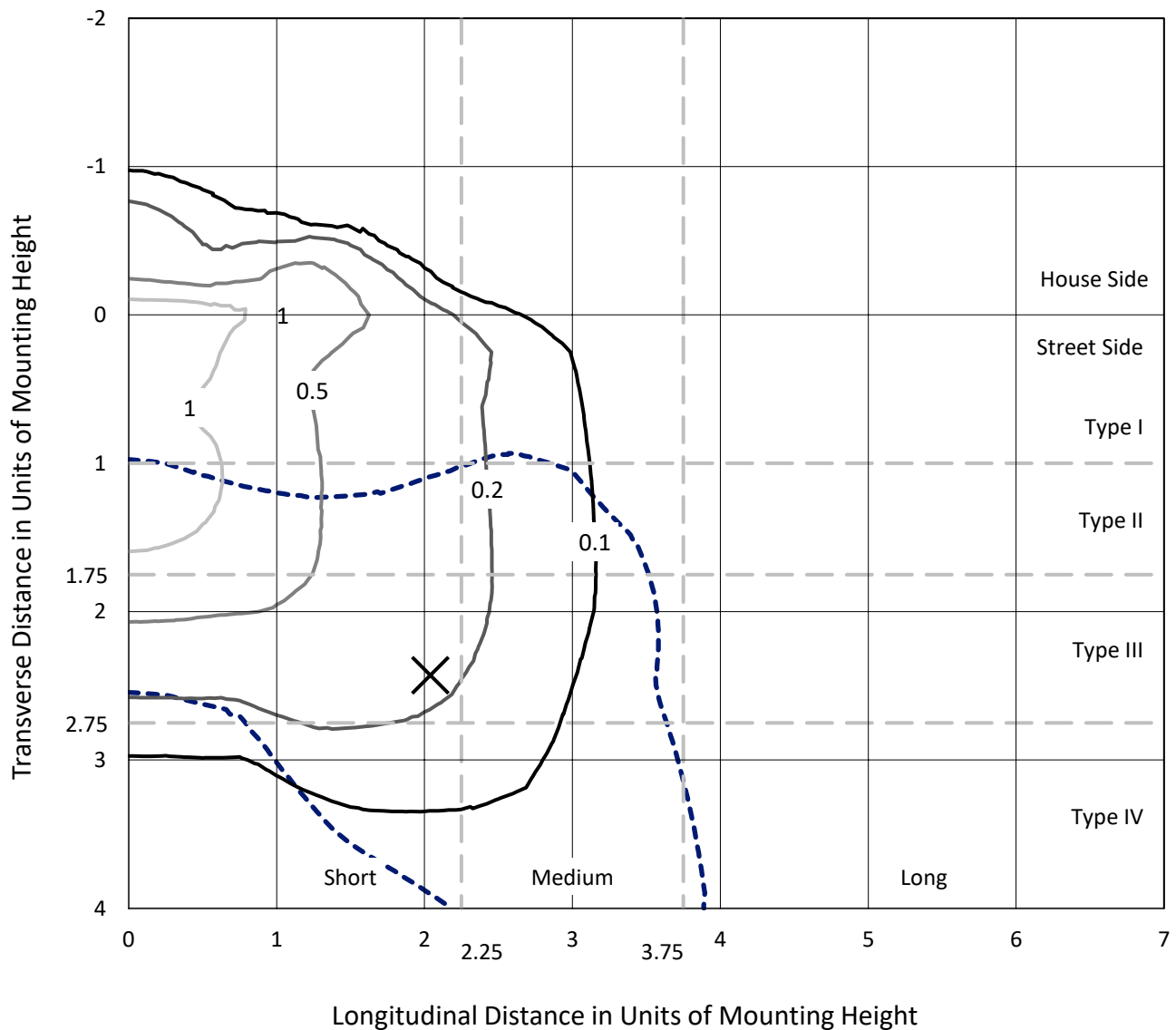
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

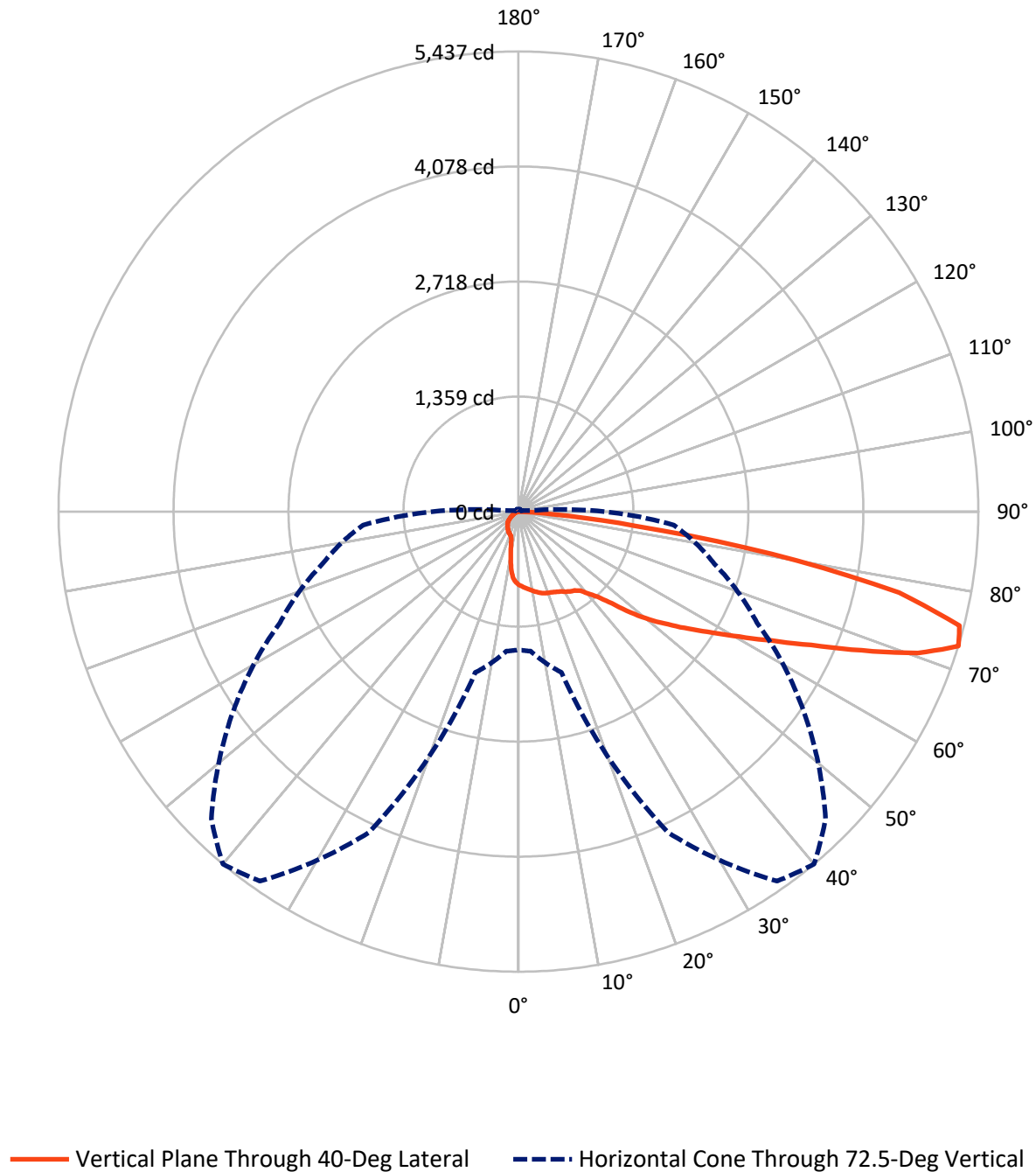
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 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	845.2	0.0	845.2
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	5699.5	0.0	5699.5
	% Fixture	87.1	0.0	87.1
Total	Lumens	6544.6	0.0	6544.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	1.2
10°-20°	214.9	3.3
20°-30°	347.8	5.3
30°-40°	513.4	7.8
40°-50°	864.1	13.2
50°-60°	1341.7	20.5
60°-70°	1678.8	25.7
70°-80°	1374.5	21.0
80°-90°	130.3	2.0
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°	6544.6	100.0
0°-180°	6544.6	100.0

Coefficient of Utilization



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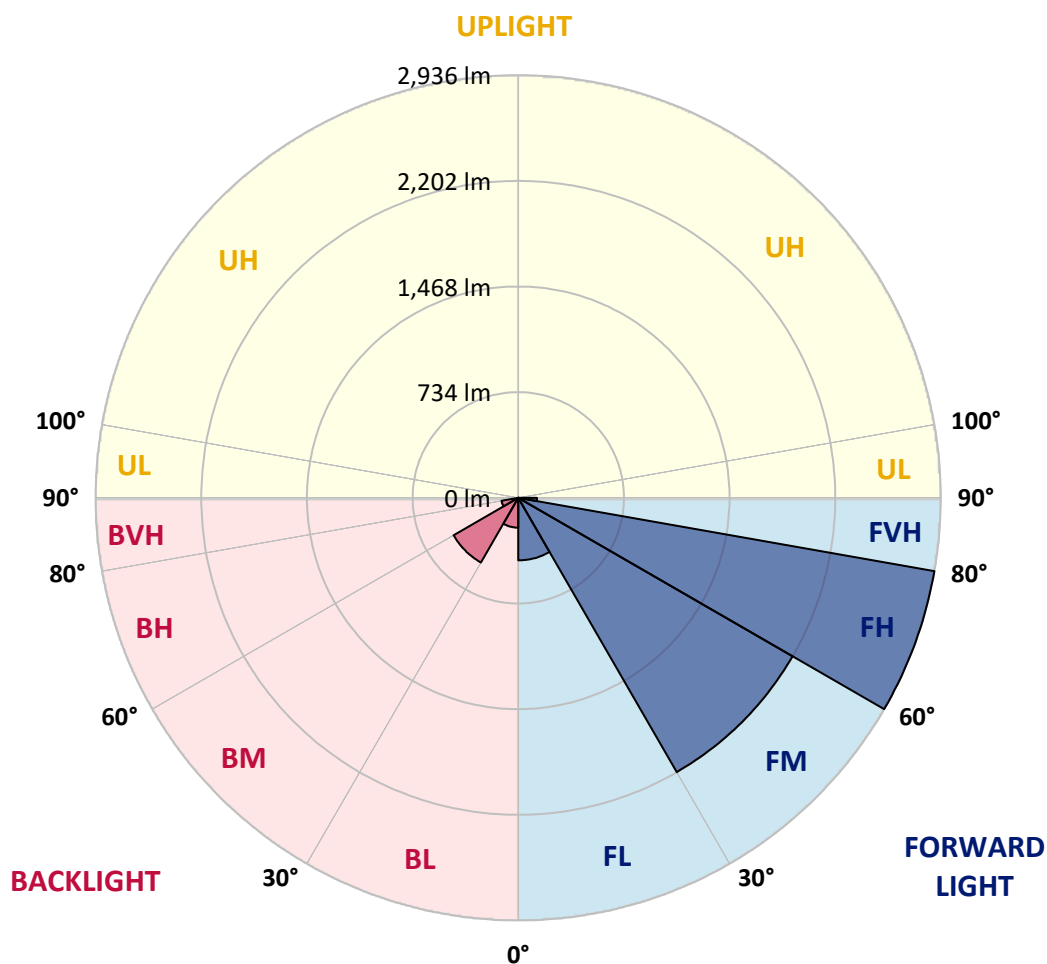
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	434.4	6.6			
FM	(30°-60°)	2200.2	33.6			
FH	(60°-80°)	2935.6	44.9			G2/5000
FVH	(80°-90°)	129.3	2.0			G2/225
BL	(0°-30°)	207.4	3.2	B1/500		
BM	(30°-60°)	519.0	7.9	B1/1000		
BH	(60°-80°)	117.7	1.8	B1/500		G1/500
BVH	(80°-90°)	1.0	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°	40°	45°	55°	65°	75°	85°
0°	866.5	866.5	866.5	866.5	866.5	866.5	866.5	866.5	866.5	866.5	866.5
2.5°	892.7	896.2	894.2	890.2	889.2	887.2	884.8	883.9	880.4	877.4	873.9
5°	917.8	921.3	918.8	913.4	910.9	908.5	905.0	902.1	895.1	888.8	880.9
7.5°	945.5	948.4	945.5	937.6	933.6	930.6	925.7	921.3	913.4	904.0	894.2
10°	976.0	978.5	974.1	963.7	957.2	952.8	948.4	943.4	936.0	925.7	913.9
12.5°	1004.6	1007.6	1000.6	988.3	980.9	976.5	971.6	967.6	960.2	950.4	938.1
15°	1030.7	1035.1	1023.4	1010.0	1001.6	998.1	993.2	990.8	985.8	979.0	967.6
17.5°	1050.4	1053.4	1041.1	1025.3	1015.9	1013.4	1010.0	1011.5	1010.4	1007.1	999.7
20°	1067.2	1069.2	1052.9	1033.7	1023.4	1023.8	1022.8	1027.8	1029.7	1029.7	1029.2
22.5°	1087.9	1088.3	1067.6	1043.6	1031.1	1034.6	1036.2	1041.5	1045.5	1049.4	1058.3
25°	1115.0	1114.0	1089.4	1056.4	1045.5	1050.4	1053.9	1055.9	1060.3	1066.7	1086.9
27.5°	1155.4	1152.4	1120.9	1077.1	1064.3	1068.7	1075.0	1074.1	1072.1	1077.1	1111.1
30°	1206.6	1202.7	1160.8	1106.1	1094.3	1098.2	1100.2	1091.3	1077.1	1081.5	1132.2
32.5°	1288.0	1281.1	1222.9	1138.7	1120.4	1124.8	1122.4	1104.1	1082.9	1087.4	1153.4
35°	1429.5	1412.8	1330.4	1206.6	1149.9	1145.0	1139.2	1121.5	1095.3	1090.8	1171.2
37.5°	1730.2	1700.6	1560.2	1339.3	1217.0	1185.0	1166.8	1149.0	1108.5	1090.8	1191.4
40°	2069.3	2039.2	1877.1	1561.1	1328.4	1274.2	1230.8	1181.5	1122.4	1097.3	1222.9
42.5°	2423.2	2390.2	2223.5	1836.2	1487.7	1376.3	1295.4	1207.7	1145.0	1116.9	1264.8
45°	2818.5	2777.1	2559.2	2123.0	1718.8	1545.8	1399.4	1261.4	1184.5	1152.0	1322.0
47.5°	3235.5	3181.8	2894.0	2401.6	1967.8	1780.4	1589.7	1357.5	1242.7	1204.2	1399.4
50°	3605.2	3552.0	3239.5	2692.9	2200.4	2003.8	1806.6	1490.6	1329.9	1278.2	1503.5
52.5°	3870.9	3830.5	3554.0	2993.5	2442.5	2213.3	2003.3	1645.4	1440.3	1372.8	1626.2
55°	4048.9	4012.0	3776.8	3278.5	2723.9	2443.9	2197.0	1813.4	1573.4	1486.1	1761.7
57.5°	4156.8	4135.7	3937.9	3532.8	3002.9	2696.3	2418.8	1998.3	1730.2	1619.7	1913.1
60°	4195.3	4178.0	4038.0	3775.3	3340.1	2999.5	2679.6	2206.8	1920.4	1771.6	2068.3
62.5°	4092.7	4096.2	4110.0	4062.7	3695.4	3354.3	2992.1	2457.2	2131.4	1943.6	2214.2
65°	3610.2	3638.7	3901.0	4381.2	4166.2	3799.0	3389.9	2762.9	2373.0	2139.3	2330.0
67.5°	2989.1	3030.5	3356.8	4567.4	4668.0	4376.1	3943.9	3152.3	2660.8	2338.4	2373.9
70°	2288.1	2332.5	2727.8	4528.4	5137.7	5007.1	4629.1	3647.7	2959.1	2476.5	2262.1
72.5°	1633.0	1655.7	1967.3	4182.0	5330.5	5436.9	5133.8	4116.9	3111.4	2400.0	1845.0
75°	1147.5	1143.6	1350.1	3367.6	5030.3	5384.7	4956.9	3863.0	2815.6	1906.6	1137.6
77.5°	499.8	500.8	674.3	2045.2	4014.8	4599.0	4120.4	2419.7	1962.9	1010.4	480.1
80°	129.7	133.6	247.4	814.4	2417.3	3035.4	2512.9	1063.7	907.0	246.5	91.6
82.5°	45.8	48.8	113.9	255.8	891.7	1392.1	1118.9	340.1	236.6	70.5	24.6
85°	13.3	15.8	61.1	78.4	184.4	393.4	271.6	66.0	58.1	36.5	6.5
87.5°	0.0	1.9	12.3	10.9	10.9	7.4	13.8	7.4	9.3	4.4	1.9
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°	866.5	866.5	866.5	866.5	866.5	866.5	866.5	866.5	866.5	866.5	866.5
2.5°	871.0	867.6	860.2	852.3	844.9	837.9	836.0	828.6	825.1	825.6	825.1
5°	875.5	869.0	854.7	837.5	819.7	799.5	782.8	759.1	738.9	736.5	734.9
7.5°	887.2	876.9	853.7	820.2	775.8	720.2	668.4	617.2	588.0	572.3	571.3
10°	905.5	891.7	856.2	792.1	698.0	598.4	520.1	455.5	422.4	407.1	404.2
12.5°	927.2	911.9	860.2	744.4	597.5	466.8	382.0	342.6	335.7	334.7	334.3
15°	957.8	941.0	864.6	679.8	488.5	355.4	316.4	316.9	322.4	325.3	324.8
17.5°	991.8	975.0	858.2	600.9	381.0	303.6	302.7	307.1	315.0	318.0	317.4
20°	1026.2	1010.4	835.5	508.2	308.1	289.4	293.3	298.2	306.1	310.1	310.1
22.5°	1061.8	1048.0	799.5	409.6	278.0	279.0	283.9	288.8	297.8	302.2	302.2
25°	1099.7	1087.9	751.7	328.3	265.2	268.1	274.6	280.4	289.9	295.3	295.3
27.5°	1138.2	1129.2	697.5	274.1	253.4	256.8	264.2	272.1	281.5	287.8	288.3
30°	1180.1	1175.2	654.2	253.9	242.0	245.0	253.4	262.2	272.5	280.4	281.5
32.5°	1222.9	1222.0	632.9	268.7	231.6	233.6	241.1	249.9	262.7	272.5	273.6
35°	1265.4	1267.3	620.6	310.6	228.3	222.8	227.8	235.6	250.9	263.2	265.2
37.5°	1319.6	1324.5	620.1	355.9	236.6	212.0	215.5	220.8	234.1	248.5	250.9
40°	1400.4	1426.5	651.7	394.8	251.4	202.1	203.1	204.1	210.9	222.8	226.7
42.5°	1507.9	1584.2	765.5	421.5	257.3	193.2	189.7	184.4	183.4	189.7	193.2
45°	1641.4	1775.0	965.7	436.2	251.4	183.4	174.0	159.7	154.3	158.8	158.8
47.5°	1798.7	1984.0	1202.7	439.7	241.5	171.1	154.3	135.5	131.1	132.6	132.1
50°	1952.0	2140.8	1411.2	411.1	225.3	155.3	132.6	116.8	113.9	114.4	114.4
52.5°	2087.5	2194.5	1470.4	343.6	203.6	136.0	113.9	103.0	101.1	101.1	100.6
55°	2177.2	2136.3	1311.2	262.7	176.5	116.3	97.6	92.1	91.2	90.7	89.7
57.5°	2196.0	1947.1	990.3	189.7	138.1	98.1	86.7	83.8	81.8	79.8	78.8
60°	2128.9	1631.6	630.5	132.6	103.5	83.8	76.9	74.9	70.9	67.0	65.6
62.5°	1984.0	1232.4	349.0	92.1	83.3	71.4	68.1	65.6	58.1	51.8	49.8
65°	1789.3	819.3	154.3	72.0	68.1	60.2	58.1	54.7	45.8	38.4	37.0
67.5°	1593.7	471.7	69.5	57.7	54.7	49.3	47.8	45.3	38.9	32.1	31.1
70°	1370.3	239.0	47.8	45.8	42.4	37.4	38.9	38.4	32.1	26.1	25.1
72.5°	1020.4	118.8	36.0	34.5	30.5	26.6	32.1	31.6	25.1	19.7	18.8
75°	577.7	58.6	26.1	24.2	18.2	19.7	25.6	24.2	17.2	12.8	11.8
77.5°	229.2	30.0	17.2	14.8	10.9	13.3	18.8	16.3	8.9	5.4	4.9
80°	52.8	14.8	8.9	6.5	4.9	7.9	9.8	5.9	2.5	0.5	0.0
82.5°	14.8	6.5	3.0	2.5	2.5	3.0	2.5	1.0	0.0	0.0	0.0
85°	4.9	3.0	1.0	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
87.5°	1.9	1.0	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)