

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: P882110

Luminaire Tested: **NAV-SB1D-827-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882110
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6265 lumens
Efficiency: N/A
Efficacy: 78.7 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

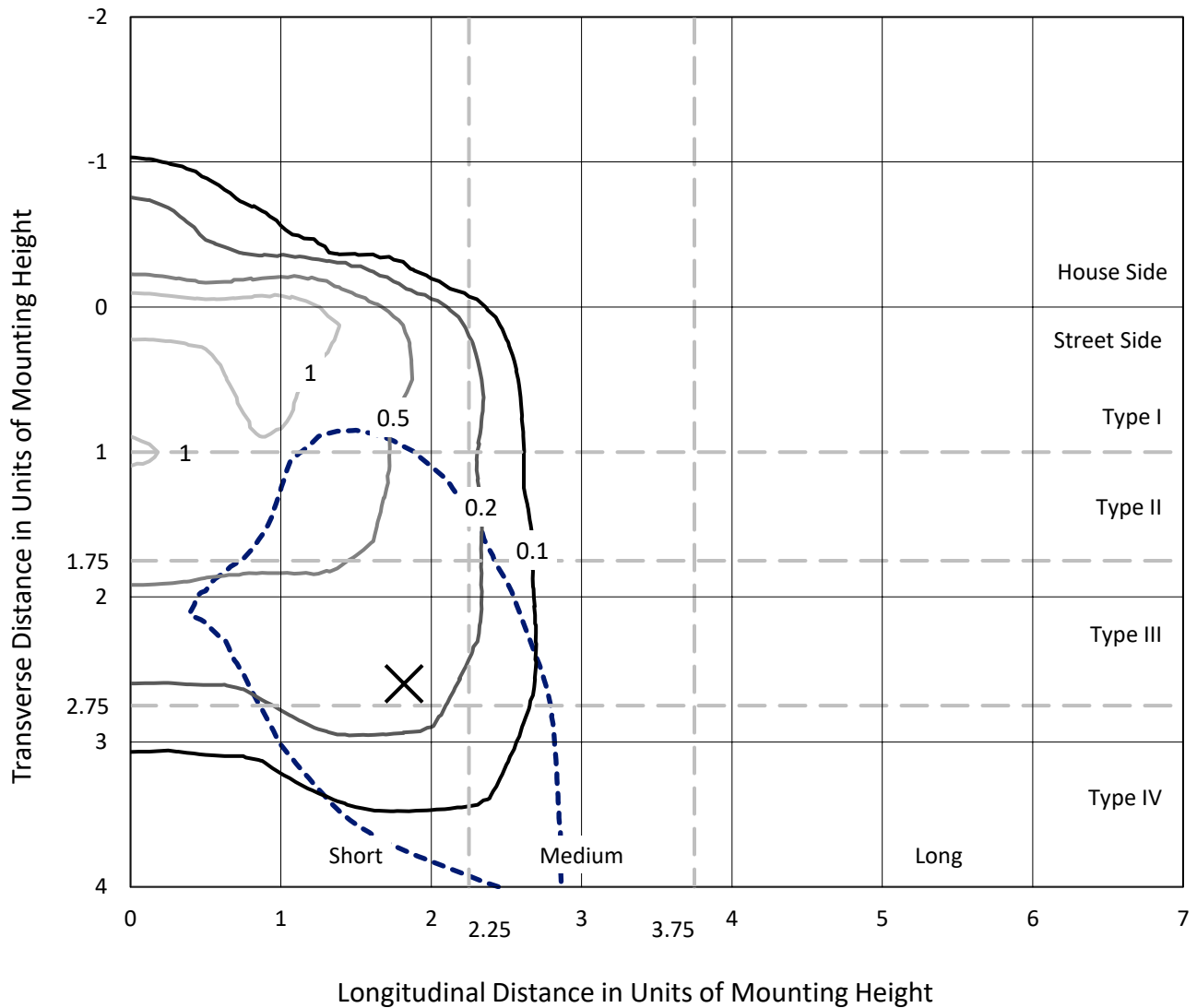
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

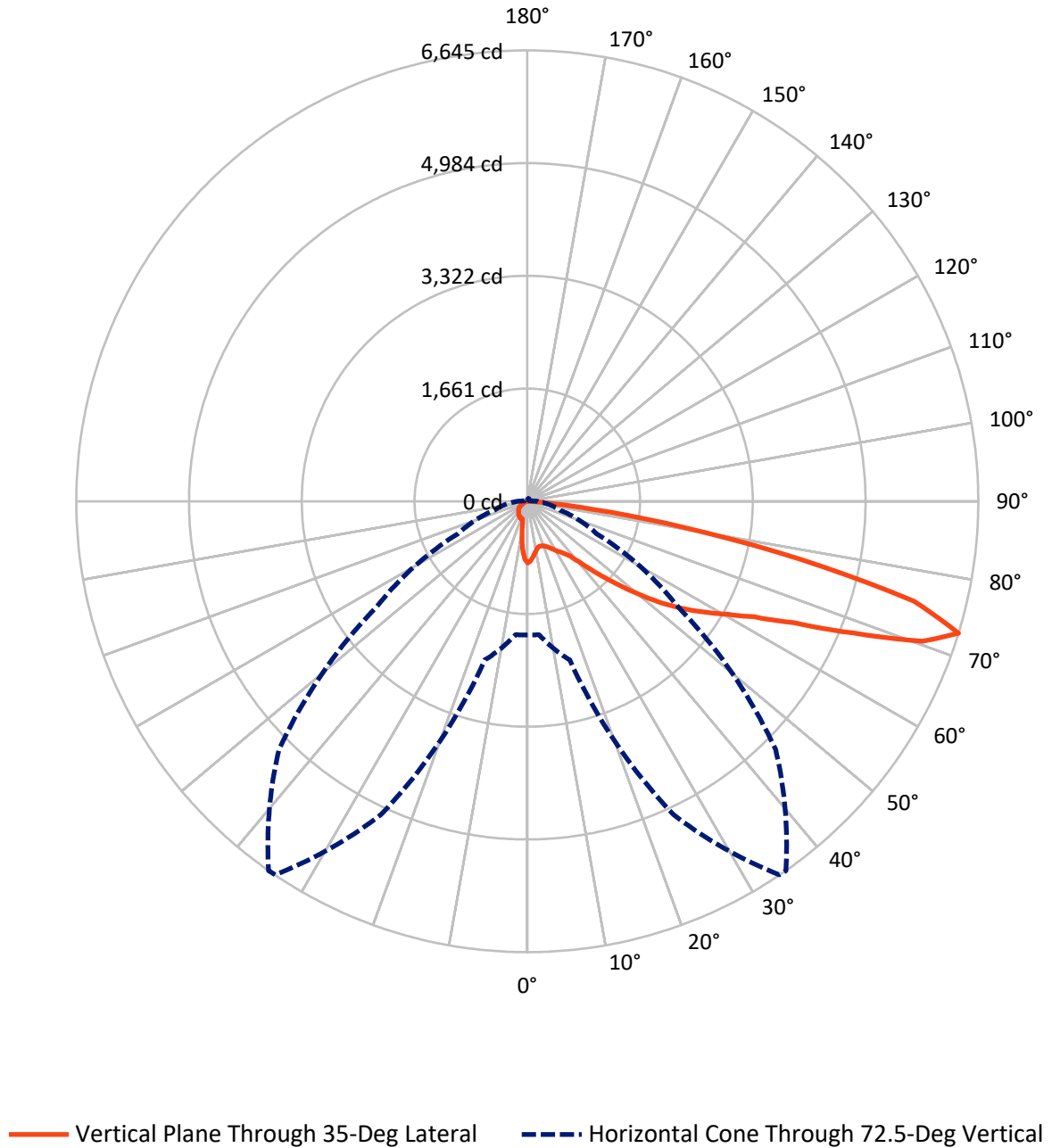
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 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	705.1	0.0	705.1
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	5559.9	0.0	5559.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	6265.0	0.0	6265.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	1.2
10°-20°	174.6	2.8
20°-30°	283.6	4.5
30°-40°	473.1	7.6
40°-50°	895.1	14.3
50°-60°	1422.4	22.7
60°-70°	1759.6	28.1
70°-80°	1093.7	17.5
80°-90°	88.4	1.4
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°	6265.0	100.0
0°-180°	6265.0	100.0

Coefficient of Utilization



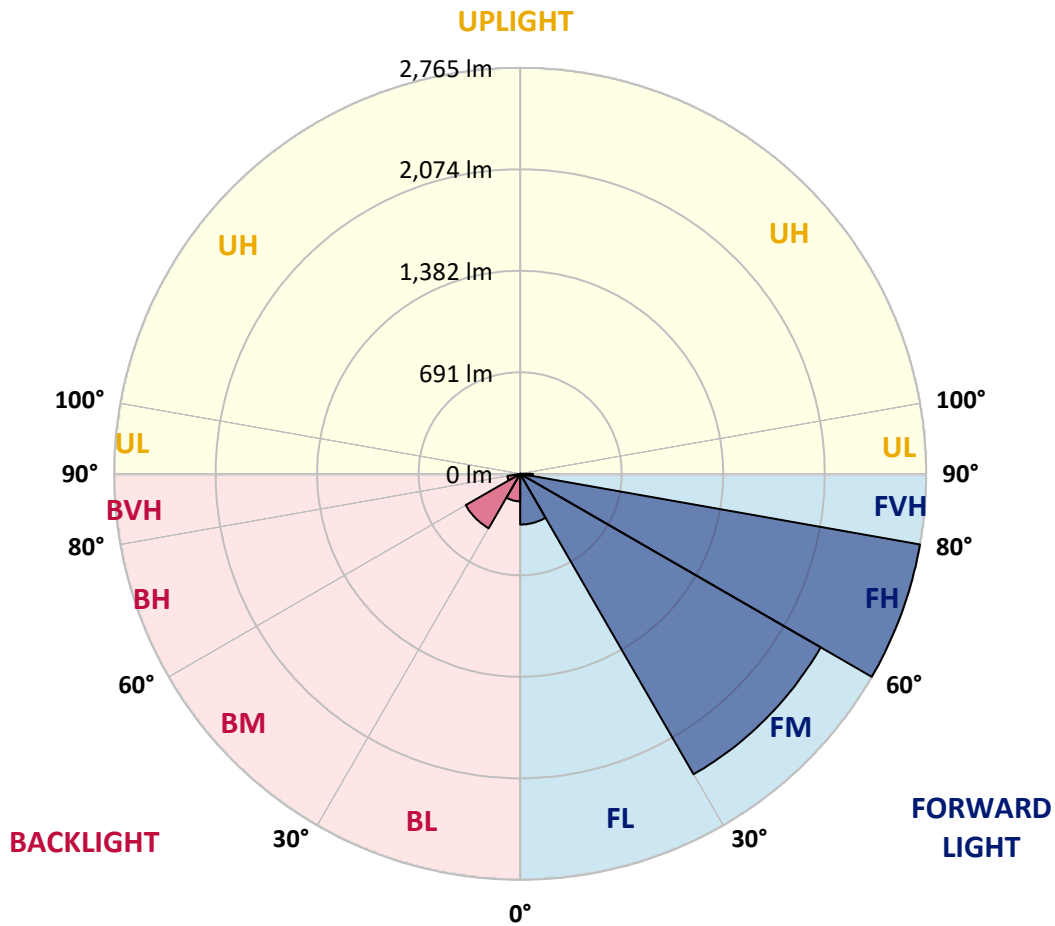
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	345.4	5.5			
FM (30°-60°)	2362.5	37.7			
FH (60°-80°)	2764.8	44.1			G2/5000
FVH (80°-90°)	87.2	1.4			G1/100
BL (0°-30°)	187.4	3.0	B1/500		
BM (30°-60°)	428.1	6.8	B1/1000		
BH (60°-80°)	88.5	1.4	B0/110		G0/110
BVH (80°-90°)	1.2	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°	34°	35°	45°	55°	65°	75°	85°
0°	908.0	908.0	908.0	908.0	908.0	908.0	908.0	908.0	908.0	908.0	908.0
2.5°	867.6	875.0	876.3	878.6	878.6	881.4	886.0	892.4	903.0	908.5	912.1
5°	799.7	805.2	812.1	817.6	828.1	829.5	847.4	864.9	889.2	907.5	920.4
7.5°	731.3	737.7	746.9	760.2	774.0	778.1	805.2	834.6	873.1	907.5	929.1
10°	683.1	683.5	691.8	705.1	727.1	732.2	765.2	807.0	855.2	902.0	937.4
12.5°	656.0	659.2	662.9	673.0	694.1	697.3	732.6	781.8	837.3	898.8	947.0
15°	656.0	658.3	660.6	665.6	682.6	685.4	716.6	765.7	828.1	900.2	962.6
17.5°	662.9	666.5	664.7	670.7	688.6	690.4	718.0	761.1	827.7	908.9	986.5
20°	679.4	682.2	678.5	682.2	700.1	703.7	732.2	769.8	835.5	924.1	1016.3
22.5°	705.6	706.9	698.2	701.0	719.3	723.9	757.0	794.6	854.3	948.4	1056.3
25°	738.6	741.4	728.1	731.3	748.7	754.2	792.3	831.8	884.1	981.9	1107.2
27.5°	776.7	778.1	766.6	766.2	788.7	796.5	835.0	877.7	924.1	1024.1	1171.5
30°	820.3	824.5	813.4	811.6	840.1	846.5	884.6	934.2	982.8	1087.5	1262.9
32.5°	854.8	858.0	851.5	856.1	885.1	890.1	944.7	1014.0	1075.1	1177.5	1387.3
35°	904.3	906.2	891.5	899.7	932.8	945.7	1026.9	1126.1	1191.2	1290.4	1549.8
37.5°	1083.8	1083.8	1021.4	980.5	1012.2	1023.7	1139.4	1267.0	1334.5	1441.9	1754.5
40°	1332.2	1328.0	1236.7	1153.1	1149.0	1171.5	1299.6	1444.6	1519.5	1623.7	1984.9
42.5°	1597.0	1590.6	1466.2	1383.6	1369.8	1377.6	1484.6	1663.6	1739.8	1845.4	2232.8
45°	1832.1	1830.2	1716.4	1605.3	1580.5	1605.3	1715.5	1919.8	1974.4	2085.5	2480.3
47.5°	2029.0	2029.0	1945.9	1873.4	1860.5	1875.2	2028.1	2203.9	2198.9	2341.2	2721.3
50°	2255.8	2254.0	2175.0	2143.8	2157.1	2177.8	2388.0	2503.2	2431.1	2592.3	2936.6
52.5°	2414.6	2425.6	2398.6	2393.5	2461.4	2497.3	2753.4	2796.1	2639.1	2830.5	3097.7
55°	2540.4	2553.3	2584.5	2619.8	2750.7	2797.5	3107.3	3073.8	2813.1	3037.1	3190.4
57.5°	2718.5	2700.2	2748.4	2818.1	3029.8	3086.2	3450.2	3335.9	2953.1	3204.7	3200.5
60°	2934.7	2937.5	2945.7	3033.9	3308.4	3380.9	3788.1	3583.8	3043.1	3307.5	3088.5
62.5°	3194.6	3198.7	3215.7	3351.1	3682.5	3750.9	4148.0	3786.7	3084.4	3278.6	2799.3
65°	3176.7	3194.1	3383.7	3846.9	4251.3	4318.8	4568.0	3929.0	3022.0	3014.1	2279.2
67.5°	2893.9	2922.3	3239.5	4439.1	5108.8	5184.1	5075.8	3957.0	2752.5	2343.9	1486.9
70°	2523.0	2533.1	2914.5	4971.6	6101.7	6177.9	5530.2	3649.0	2088.7	1307.4	666.1
72.5°	1970.3	1972.6	2420.1	5095.0	6640.7	6644.8	5173.5	2708.9	1123.3	502.2	231.4
75°	1407.5	1393.7	1620.9	4131.9	5842.4	5889.2	3878.5	1270.7	429.2	237.3	115.2
77.5°	754.7	769.8	917.2	2450.4	4036.0	4115.9	2116.2	366.3	218.5	161.6	76.2
80°	233.2	246.1	376.0	1121.9	2286.1	2334.3	784.5	163.0	152.4	115.2	50.0
82.5°	73.4	76.2	175.4	471.4	948.9	970.9	227.2	92.3	104.2	76.2	29.4
85°	21.1	21.6	78.0	175.8	234.6	239.2	63.8	35.8	59.7	47.3	15.1
87.5°	2.3	7.3	29.4	29.4	20.7	20.2	6.9	7.8	17.0	6.0	2.8
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°	908.0	908.0	908.0	908.0	908.0	908.0	908.0	908.0	908.0	908.0	908.0
2.5°	909.8	910.3	904.3	894.2	883.2	874.0	862.6	853.4	847.0	845.1	848.3
5°	916.3	913.1	896.1	865.3	828.6	796.9	761.6	733.6	715.2	707.4	710.2
7.5°	925.9	916.7	879.5	819.0	748.7	686.3	622.9	573.8	542.6	527.0	529.3
10°	934.2	915.8	852.0	751.9	644.5	549.9	464.6	405.3	372.3	356.7	357.1
12.5°	942.0	915.4	816.2	672.5	527.0	411.3	331.9	302.5	293.3	290.1	289.2
15°	956.7	916.7	771.2	581.6	409.9	310.8	281.9	281.4	283.2	282.3	281.9
17.5°	976.9	918.1	720.3	485.2	316.3	274.1	272.7	276.8	279.6	278.2	277.7
20°	1003.0	923.6	666.1	389.7	271.8	264.9	268.1	271.8	274.1	271.8	271.3
22.5°	1039.8	933.3	606.9	313.1	257.5	259.4	262.1	266.3	268.5	265.3	264.9
25°	1084.7	948.4	548.6	272.2	250.6	252.9	257.1	261.7	264.4	261.2	260.7
27.5°	1143.0	972.7	494.9	263.0	243.8	245.1	251.1	258.0	261.7	257.5	257.5
30°	1227.5	1012.7	448.5	267.2	239.6	236.4	244.7	254.3	258.4	254.8	254.3
32.5°	1339.5	1069.1	420.0	273.6	237.8	226.3	234.1	246.5	253.4	251.1	251.1
35°	1486.4	1155.0	409.0	280.9	236.4	215.8	221.3	234.6	246.5	248.8	248.8
37.5°	1664.5	1274.3	412.2	284.2	232.3	207.0	209.8	221.3	236.9	244.2	246.1
40°	1867.0	1413.4	430.6	280.9	227.7	199.7	200.1	208.9	222.6	233.7	237.3
42.5°	2075.8	1575.9	464.6	269.0	223.6	193.3	191.9	197.9	207.0	214.8	218.1
45°	2274.6	1743.0	498.1	252.5	218.5	186.8	183.6	185.9	187.8	191.0	192.8
47.5°	2448.1	1860.5	488.4	237.3	211.6	179.5	174.0	173.1	167.6	167.1	166.6
50°	2567.9	1886.3	433.8	222.2	201.5	171.2	162.5	157.0	147.4	142.8	143.2
52.5°	2606.0	1784.8	354.4	207.0	185.0	160.2	147.8	139.1	127.2	123.0	122.6
55°	2555.6	1586.0	283.2	188.7	162.0	145.5	131.7	120.3	110.6	105.6	105.6
57.5°	2432.1	1333.1	224.0	167.1	137.7	129.0	115.2	103.7	95.5	90.4	89.5
60°	2227.3	1058.6	177.2	141.4	117.5	111.1	96.9	89.5	82.2	76.2	74.8
62.5°	1916.5	755.6	139.1	112.0	98.2	90.9	82.6	77.1	68.4	60.1	58.8
65°	1495.6	462.3	107.4	82.2	79.0	75.3	70.2	65.2	54.6	46.4	45.0
67.5°	943.4	219.0	76.7	62.0	62.4	60.6	58.3	54.2	46.4	39.0	38.1
70°	415.4	106.0	50.5	47.3	46.4	46.4	48.2	46.8	39.5	32.6	31.2
72.5°	141.4	56.9	37.6	35.8	33.5	33.1	40.4	39.0	31.7	25.2	23.9
75°	73.9	38.1	27.5	25.7	20.2	24.3	32.1	30.3	22.5	16.5	15.1
77.5°	48.2	27.1	18.8	16.5	11.5	16.1	23.9	21.1	13.3	8.3	7.3
80°	30.3	17.9	11.0	7.8	5.5	8.7	12.9	9.2	5.0	1.8	1.4
82.5°	16.1	9.2	4.1	2.8	2.3	2.8	3.2	2.3	0.9	0.0	0.0
85°	6.4	3.2	1.4	0.9	0.5	0.0	0.9	0.5	0.0	0.0	0.0
87.5°	2.3	0.5	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)