

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: P882280

Luminaire Tested: **NAV-SB2A-827-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882280
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-SB2A-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5624 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

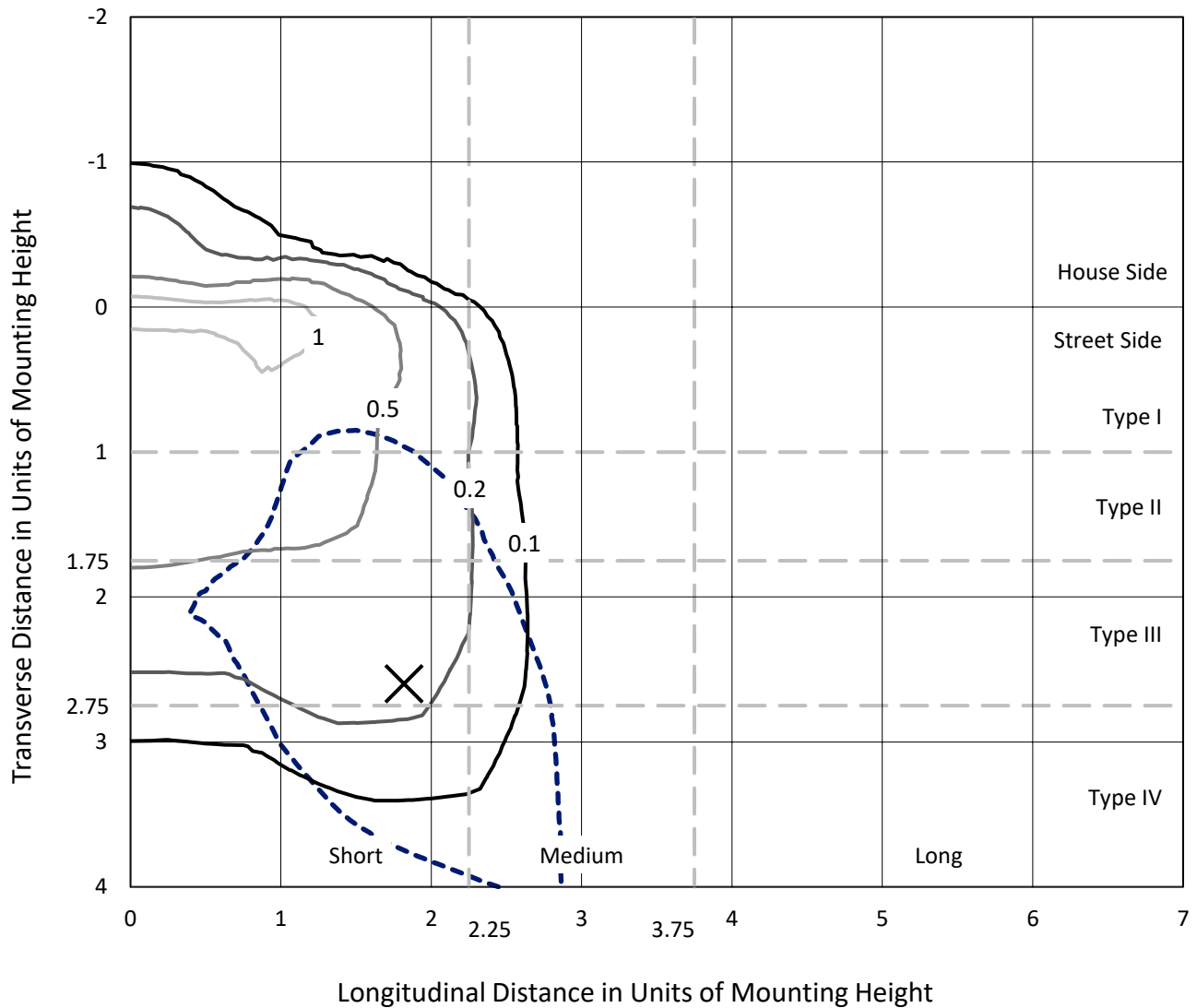
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

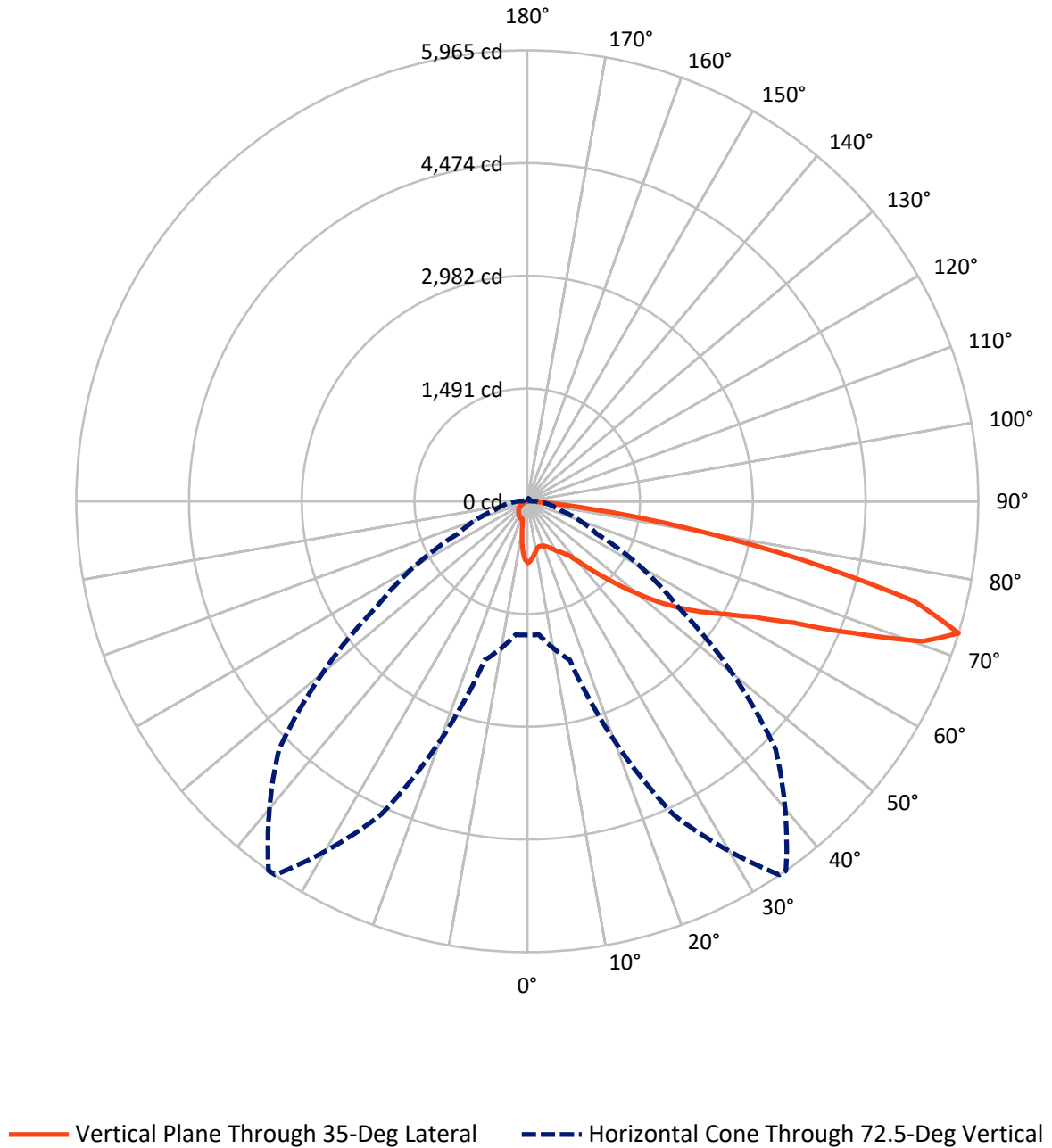
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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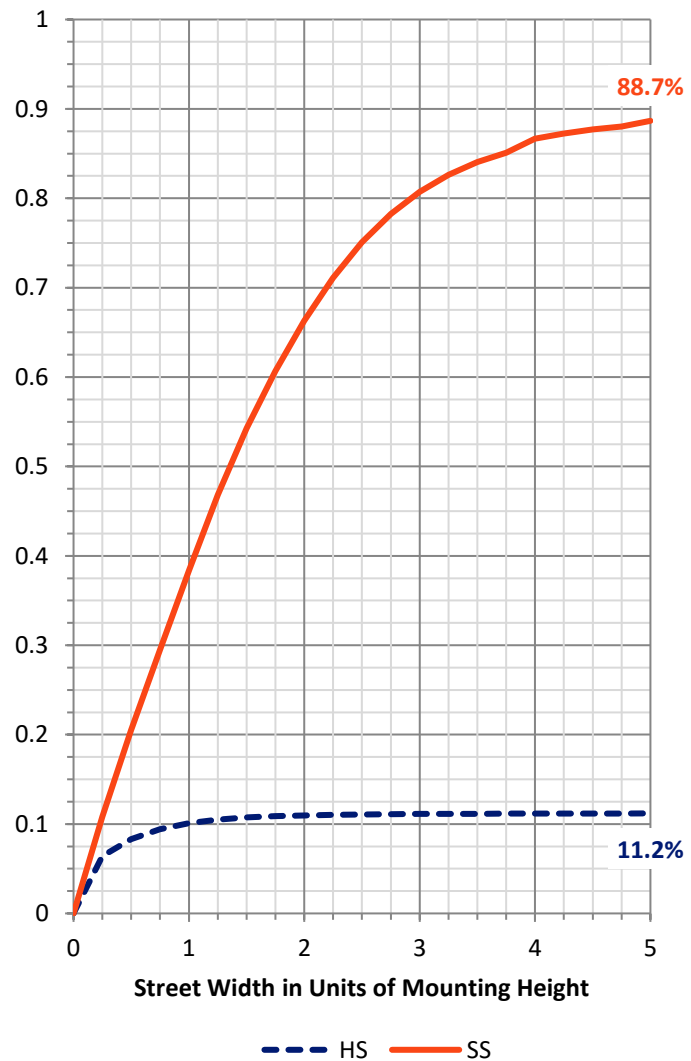
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	633.0	0.0	633.0
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	4991.0	0.0	4991.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	5624.0	0.0	5624.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.0	1.2
10°-20°	156.7	2.8
20°-30°	254.5	4.5
30°-40°	424.7	7.6
40°-50°	803.5	14.3
50°-60°	1276.8	22.7
60°-70°	1579.5	28.1
70°-80°	981.8	17.5
80°-90°	79.3	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°	5624.0	100.0
0°-180°	5624.0	100.0

Coefficient of Utilization



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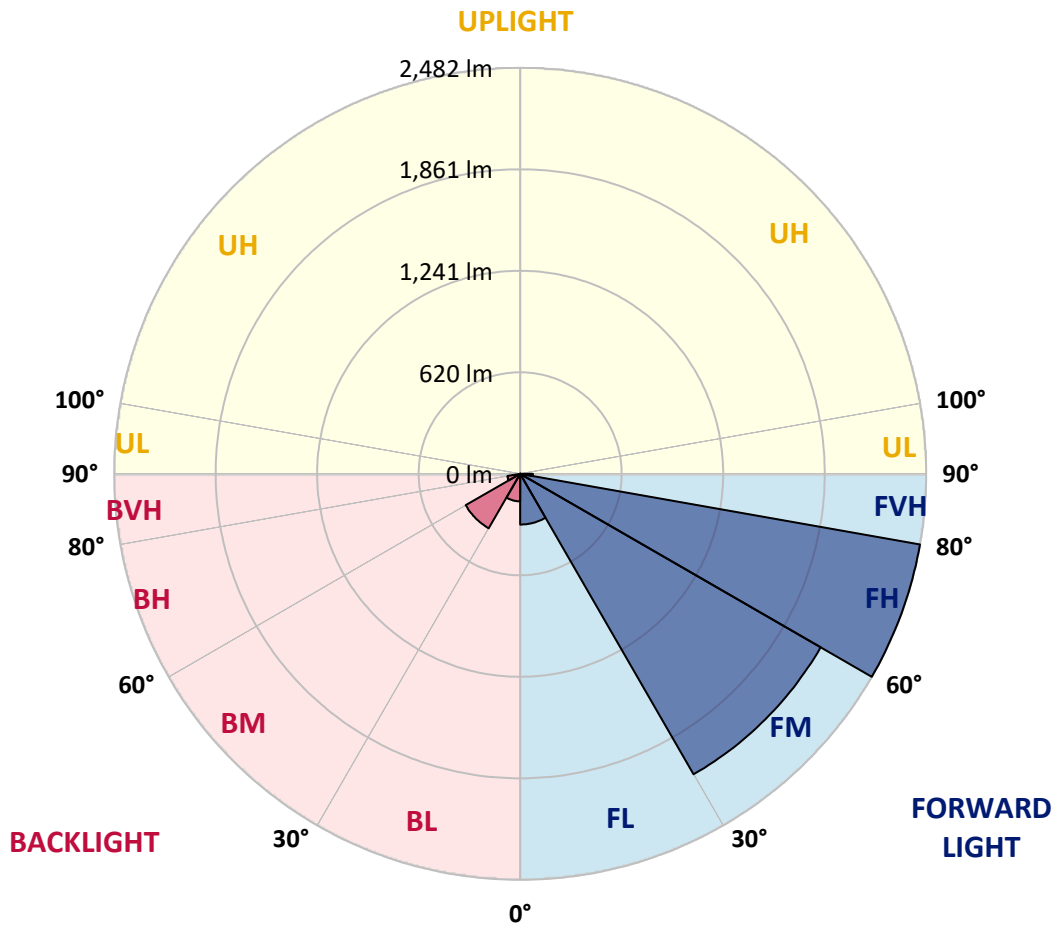
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	310.0	5.5			
FM (30°-60°)	2120.8	37.7			
FH (60°-80°)	2481.9	44.1			G2/5000
FVH (80°-90°)	78.3	1.4			G1/100
BL (0°-30°)	168.2	3.0	B1/500		
BM (30°-60°)	384.3	6.8	B1/1000		
BH (60°-80°)	79.4	1.4	B0/110		G0/110
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°	34°	35°	45°	55°	65°	75°	85°
0°	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1
2.5°	778.8	785.4	786.7	788.7	788.7	791.2	795.3	801.1	810.6	815.5	818.8
5°	717.9	722.8	729.0	733.9	743.4	744.6	760.7	776.4	798.2	814.7	826.2
7.5°	656.5	662.2	670.5	682.4	694.8	698.5	722.8	749.2	783.8	814.7	834.1
10°	613.2	613.6	621.0	633.0	652.7	657.3	686.9	724.4	767.7	809.7	841.5
12.5°	588.9	591.8	595.1	604.1	623.1	626.0	657.7	701.8	751.6	806.9	850.1
15°	588.9	590.9	593.0	597.5	612.8	615.2	643.3	687.4	743.4	808.1	864.1
17.5°	595.1	598.3	596.7	602.1	618.1	619.8	644.5	683.2	743.0	815.9	885.6
20°	609.9	612.4	609.1	612.4	628.4	631.7	657.3	691.1	750.0	829.5	912.4
22.5°	633.4	634.6	626.8	629.3	645.7	649.9	679.5	713.3	766.9	851.4	948.2
25°	663.0	665.5	653.6	656.5	672.1	677.1	711.3	746.7	793.7	881.5	994.0
27.5°	697.2	698.5	688.2	687.8	708.0	715.0	749.6	787.9	829.5	919.4	1051.6
30°	736.4	740.1	730.2	728.6	754.1	759.9	794.1	838.6	882.3	976.2	1133.6
32.5°	767.3	770.2	764.4	768.5	794.5	799.0	848.1	910.3	965.1	1057.0	1245.3
35°	811.8	813.5	800.3	807.7	837.4	848.9	921.8	1010.8	1069.4	1158.4	1391.2
37.5°	972.9	972.9	916.9	880.2	908.6	919.0	1022.8	1137.4	1197.9	1294.4	1575.0
40°	1195.9	1192.2	1110.2	1035.2	1031.5	1051.6	1166.6	1296.8	1364.0	1457.5	1781.9
42.5°	1433.6	1427.9	1316.2	1242.0	1229.7	1236.7	1332.7	1493.4	1561.8	1656.6	2004.4
45°	1644.6	1643.0	1540.8	1441.1	1418.8	1441.1	1540.0	1723.3	1772.4	1872.1	2226.5
47.5°	1821.4	1821.4	1746.8	1681.7	1670.2	1683.4	1820.6	1978.4	1973.9	2101.6	2442.8
50°	2025.0	2023.3	1952.5	1924.4	1936.4	1954.9	2143.7	2247.1	2182.4	2327.0	2636.1
52.5°	2167.6	2177.5	2153.1	2148.6	2209.6	2241.7	2471.7	2510.0	2369.1	2540.9	2780.8
55°	2280.5	2292.0	2320.0	2351.8	2469.2	2511.3	2789.4	2759.3	2525.3	2726.4	2864.0
57.5°	2440.4	2423.9	2467.2	2529.8	2719.8	2770.5	3097.2	2994.6	2650.9	2876.8	2873.1
60°	2634.5	2636.9	2644.4	2723.5	2969.9	3035.0	3400.5	3217.2	2731.7	2969.1	2772.5
62.5°	2867.7	2871.4	2886.7	3008.2	3305.8	3367.2	3723.6	3399.3	2768.8	2943.1	2512.9
65°	2851.6	2867.3	3037.5	3453.3	3816.3	3876.9	4100.7	3527.0	2712.8	2705.8	2046.0
67.5°	2597.8	2623.3	2908.1	3984.9	4586.1	4653.7	4556.4	3552.2	2470.9	2104.1	1334.7
70°	2264.8	2273.9	2616.3	4462.9	5477.4	5545.9	4964.4	3275.7	1875.0	1173.6	597.9
72.5°	1768.7	1770.7	2172.5	4573.7	5961.2	5964.9	4644.2	2431.7	1008.4	450.8	207.7
75°	1263.5	1251.1	1455.1	3709.2	5244.6	5286.7	3481.7	1140.7	385.3	213.0	103.4
77.5°	677.5	691.1	823.3	2199.7	3623.1	3694.8	1899.7	328.8	196.2	145.1	68.4
80°	209.3	220.9	337.5	1007.1	2052.2	2095.5	704.3	146.3	136.8	103.4	44.9
82.5°	65.9	68.4	157.4	423.2	851.8	871.6	204.0	82.8	93.5	68.4	26.4
85°	19.0	19.4	70.1	157.8	210.6	214.7	57.3	32.1	53.6	42.4	13.6
87.5°	2.1	6.6	26.4	26.4	18.5	18.1	6.2	7.0	15.2	5.4	2.5
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°	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1	815.1
2.5°	816.8	817.2	811.8	802.7	792.9	784.6	774.3	766.1	760.3	758.7	761.5
5°	822.5	819.6	804.4	776.8	743.8	715.4	683.7	658.5	642.0	635.0	637.5
7.5°	831.2	822.9	789.6	735.2	672.1	616.1	559.2	515.1	487.1	473.1	475.1
10°	838.6	822.1	764.8	675.0	578.6	493.7	417.0	363.9	334.2	320.2	320.6
12.5°	845.6	821.7	732.7	603.7	473.1	369.2	297.9	271.6	263.3	260.4	259.6
15°	858.8	822.9	692.3	522.1	368.0	279.0	253.0	252.6	254.3	253.4	253.0
17.5°	876.9	824.2	646.6	435.6	283.9	246.0	244.8	248.5	251.0	249.7	249.3
20°	900.4	829.1	597.9	349.9	244.0	237.8	240.7	244.0	246.0	244.0	243.5
22.5°	933.4	837.8	544.8	281.0	231.2	232.8	235.3	239.0	241.1	238.2	237.8
25°	973.8	851.4	492.4	244.4	225.0	227.1	230.8	234.9	237.4	234.5	234.1
27.5°	1026.1	873.2	444.2	236.1	218.8	220.1	225.4	231.6	234.9	231.2	231.2
30°	1101.9	909.1	402.6	239.8	215.1	212.2	219.6	228.3	232.0	228.7	228.3
32.5°	1202.5	959.7	377.1	245.6	213.5	203.2	210.2	221.3	227.5	225.4	225.4
35°	1334.3	1036.8	367.2	252.2	212.2	193.7	198.6	210.6	221.3	223.4	223.4
37.5°	1494.2	1144.0	370.1	255.1	208.5	185.9	188.3	198.6	212.6	219.2	220.9
40°	1676.0	1268.8	386.5	252.2	204.4	179.3	179.7	187.5	199.9	209.8	213.0
42.5°	1863.5	1414.7	417.0	241.5	200.7	173.5	172.3	177.6	185.9	192.9	195.7
45°	2041.9	1564.7	447.1	226.6	196.2	167.7	164.8	166.9	168.5	171.4	173.1
47.5°	2197.7	1670.2	438.5	213.0	190.0	161.1	156.2	155.4	150.4	150.0	149.6
50°	2305.2	1693.3	389.4	199.4	180.9	153.7	145.9	140.9	132.3	128.2	128.6
52.5°	2339.4	1602.2	318.1	185.9	166.1	143.8	132.7	124.9	114.1	110.4	110.0
55°	2294.1	1423.8	254.3	169.4	145.5	130.6	118.3	108.0	99.3	94.8	94.8
57.5°	2183.2	1196.7	201.1	150.0	123.6	115.8	103.4	93.1	85.7	81.2	80.4
60°	1999.4	950.3	159.1	126.9	105.5	99.7	87.0	80.4	73.8	68.4	67.2
62.5°	1720.5	678.3	124.9	100.5	88.2	81.6	74.2	69.2	61.4	54.0	52.7
65°	1342.6	415.0	96.4	73.8	70.9	67.6	63.0	58.5	49.0	41.6	40.4
67.5°	846.8	196.6	68.8	55.6	56.0	54.4	52.3	48.6	41.6	35.0	34.2
70°	372.9	95.2	45.3	42.4	41.6	41.6	43.3	42.0	35.4	29.3	28.0
72.5°	126.9	51.1	33.8	32.1	30.1	29.7	36.3	35.0	28.4	22.7	21.4
75°	66.3	34.2	24.7	23.1	18.1	21.8	28.8	27.2	20.2	14.8	13.6
77.5°	43.3	24.3	16.9	14.8	10.3	14.4	21.4	19.0	12.0	7.4	6.6
80°	27.2	16.1	9.9	7.0	4.9	7.8	11.5	8.2	4.5	1.6	1.2
82.5°	14.4	8.2	3.7	2.5	2.1	2.5	2.9	2.1	0.8	0.0	0.0
85°	5.8	2.9	1.2	0.8	0.4	0.0	0.8	0.4	0.0	0.0	0.0
87.5°	2.1	0.4	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)