

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: P882220

Luminaire Tested: **NAV-SB2A-727-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882220
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-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 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: 6273 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

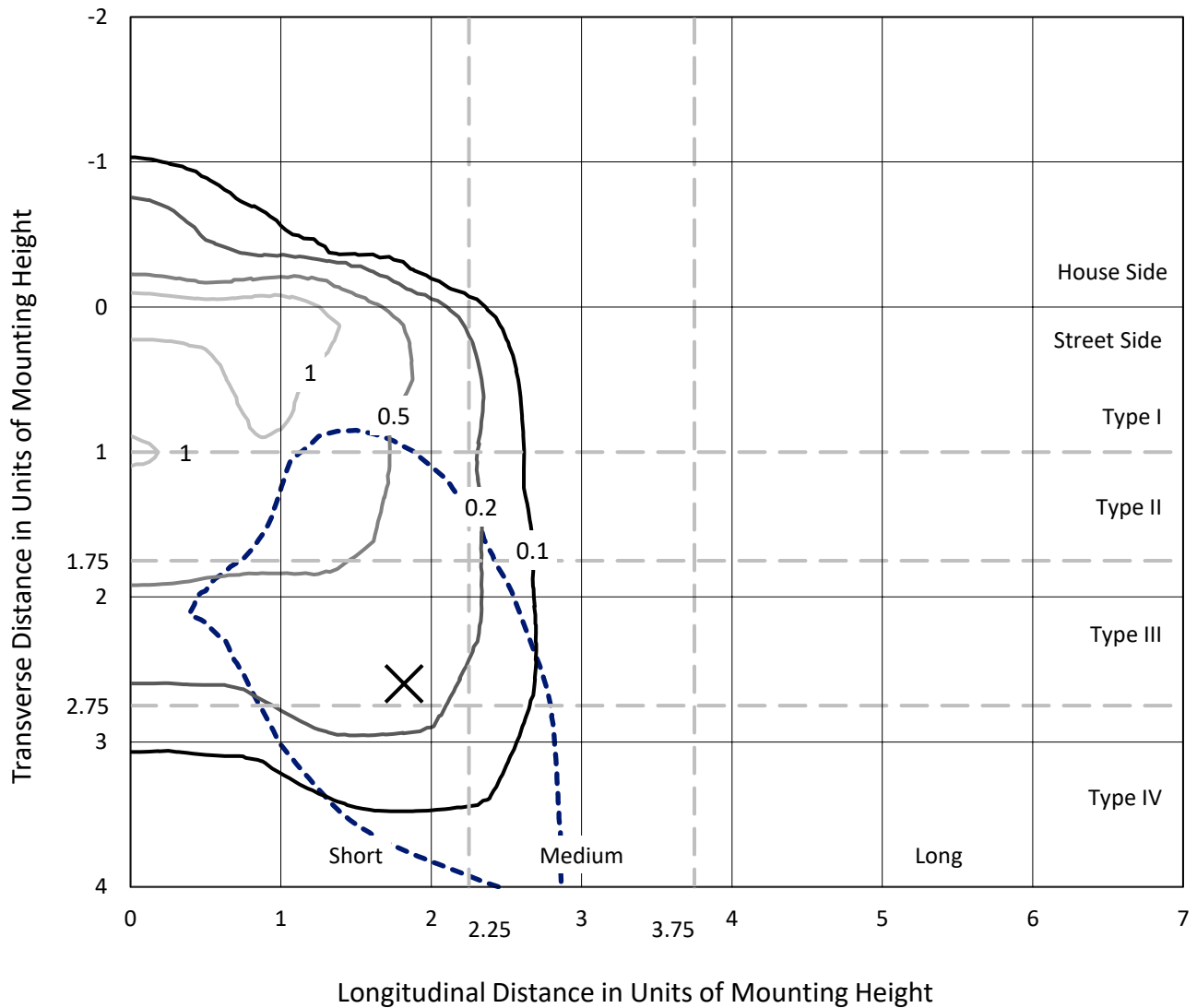
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

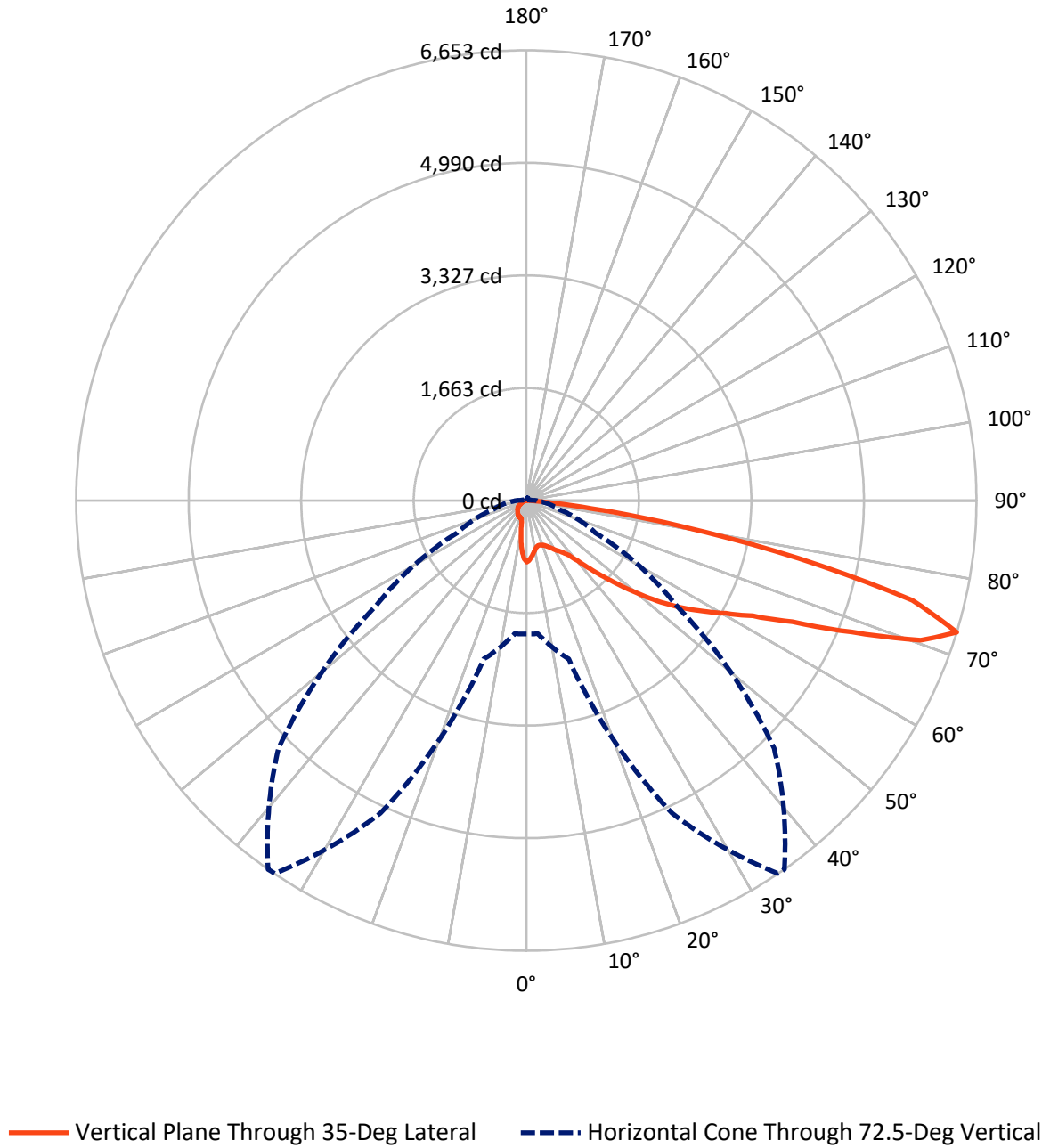
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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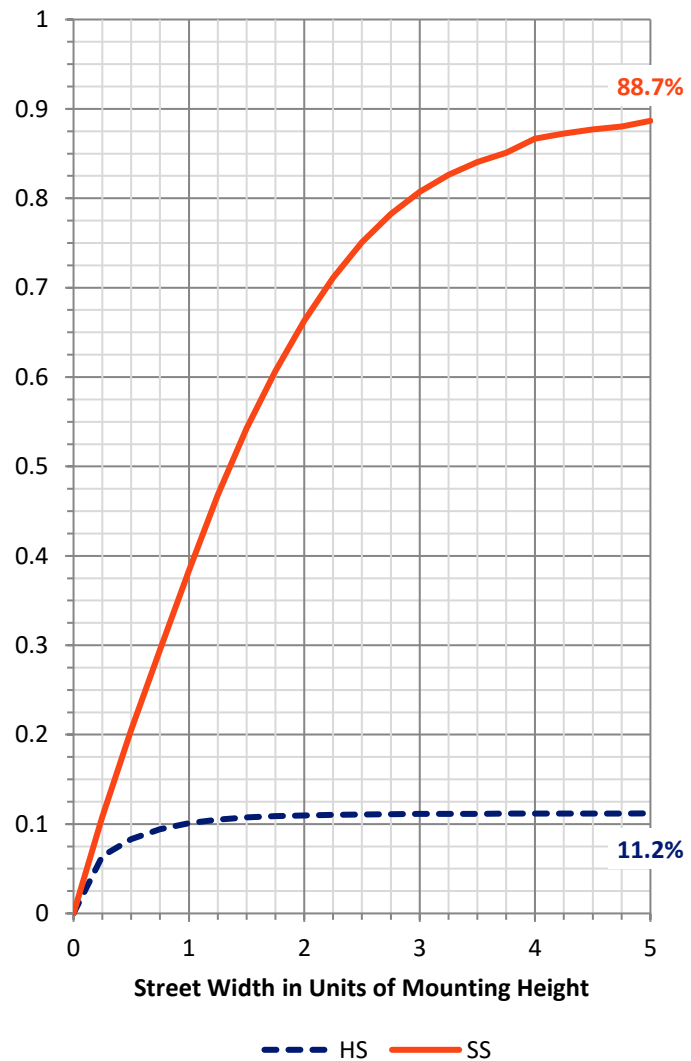
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	706.0	0.0	706.0
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	5567.0	0.0	5567.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	6273.0	0.0	6273.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.7	1.2
10°-20°	174.8	2.8
20°-30°	283.9	4.5
30°-40°	473.7	7.6
40°-50°	896.3	14.3
50°-60°	1424.2	22.7
60°-70°	1761.8	28.1
70°-80°	1095.1	17.5
80°-90°	88.5	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°	6273.0	100.0
0°-180°	6273.0	100.0

Coefficient of Utilization



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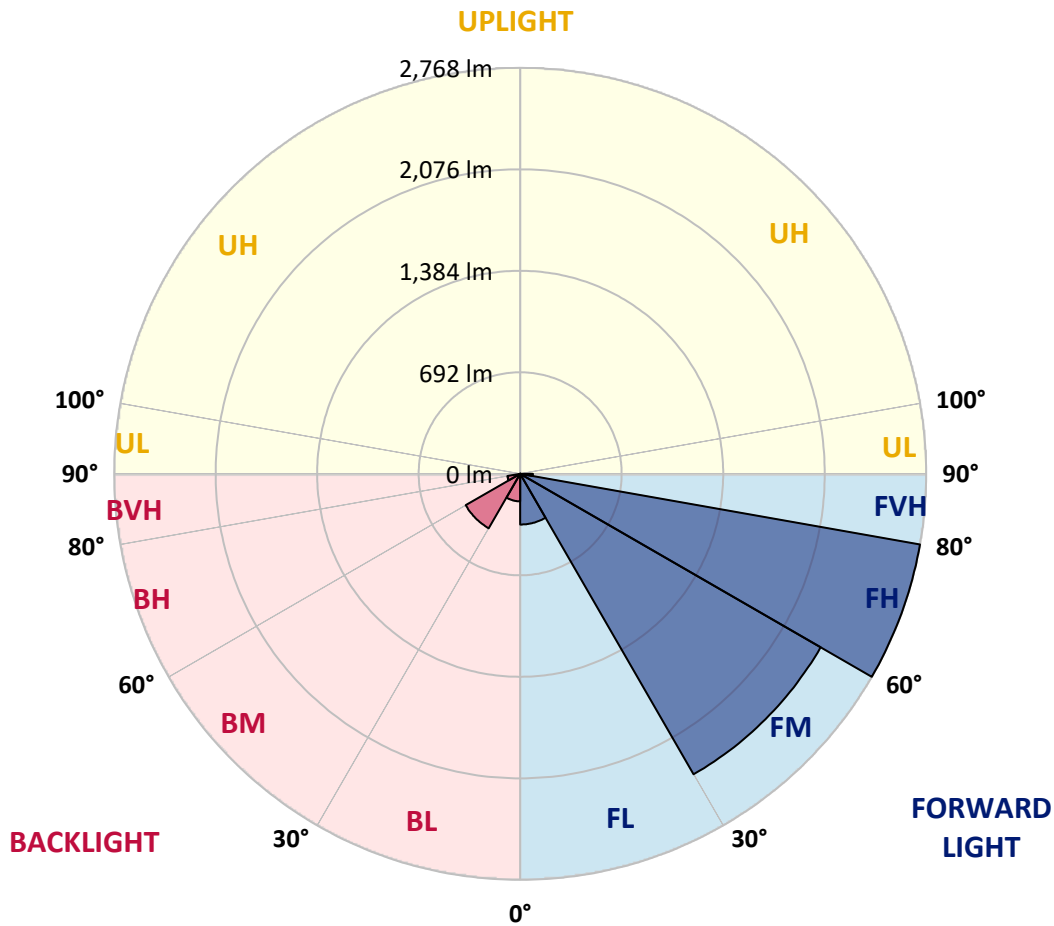
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	345.8	5.5			
FM (30°-60°)	2365.5	37.7			
FH (60°-80°)	2768.4	44.1			G2/5000
FVH (80°-90°)	87.3	1.4			G1/100
BL (0°-30°)	187.6	3.0	B1/500		
BM (30°-60°)	428.6	6.8	B1/1000		
BH (60°-80°)	88.6	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°	909.2	909.2	909.2	909.2	909.2	909.2	909.2	909.2	909.2	909.2	909.2
2.5°	868.7	876.1	877.5	879.8	879.8	882.5	887.1	893.5	904.1	909.6	913.3
5°	800.7	806.2	813.1	818.6	829.2	830.6	848.5	866.0	890.3	908.7	921.6
7.5°	732.2	738.6	747.8	761.2	775.0	779.1	806.2	835.6	874.2	908.7	930.3
10°	683.9	684.4	692.7	706.0	728.1	733.1	766.2	808.0	856.3	903.2	938.6
12.5°	656.8	660.0	663.7	673.8	695.0	698.2	733.6	782.8	838.4	900.0	948.2
15°	656.8	659.1	661.4	666.5	683.5	686.2	717.5	766.7	829.2	901.4	963.9
17.5°	663.7	667.4	665.6	671.5	689.5	691.3	718.9	762.1	828.7	910.1	987.8
20°	680.3	683.0	679.3	683.0	701.0	704.6	733.1	770.8	836.5	925.3	1017.6
22.5°	706.5	707.8	699.1	701.9	720.3	724.9	757.9	795.6	855.4	949.6	1057.6
25°	739.6	742.3	729.0	732.2	749.7	755.2	793.3	832.9	885.3	983.2	1108.7
27.5°	777.7	779.1	767.6	767.1	789.7	797.5	836.1	878.8	925.3	1025.5	1173.0
30°	821.4	825.5	814.5	812.6	841.1	847.6	885.7	935.4	984.1	1088.9	1264.5
32.5°	855.8	859.1	852.6	857.2	886.2	891.2	945.9	1015.3	1076.5	1179.0	1389.0
35°	905.5	907.3	892.6	900.9	934.0	946.9	1028.2	1127.5	1192.8	1292.0	1551.7
37.5°	1085.2	1085.2	1022.7	981.8	1013.5	1025.0	1140.8	1268.6	1336.2	1443.7	1756.7
40°	1333.9	1329.7	1238.3	1154.6	1150.5	1173.0	1301.2	1446.5	1521.4	1625.7	1987.5
42.5°	1599.1	1592.7	1468.1	1385.4	1371.6	1379.4	1486.5	1665.7	1742.0	1847.8	2235.7
45°	1834.4	1832.6	1718.6	1607.4	1582.5	1607.4	1717.7	1922.2	1976.9	2088.1	2483.4
47.5°	2031.6	2031.6	1948.4	1875.8	1862.9	1877.6	2030.7	2206.7	2201.7	2344.2	2724.7
50°	2258.7	2256.8	2177.8	2146.5	2159.8	2180.5	2391.0	2506.4	2434.3	2595.6	2940.3
52.5°	2417.7	2428.7	2401.6	2396.6	2464.6	2500.4	2756.9	2799.7	2642.5	2834.1	3101.7
55°	2543.6	2556.5	2587.8	2623.2	2754.2	2801.0	3111.3	3077.7	2816.7	3041.0	3194.5
57.5°	2722.0	2703.6	2751.9	2821.7	3033.6	3090.2	3454.7	3340.2	2956.9	3208.7	3204.6
60°	2938.5	2941.2	2949.5	3037.8	3312.6	3385.2	3792.9	3588.4	3047.0	3311.7	3092.5
62.5°	3198.6	3202.8	3219.8	3355.4	3687.2	3755.7	4153.3	3791.6	3088.3	3282.7	2802.9
65°	3180.7	3198.2	3388.0	3851.8	4256.7	4324.3	4573.9	3934.1	3025.8	3018.0	2282.1
67.5°	2897.6	2926.1	3243.7	4444.7	5115.3	5190.7	5082.2	3962.1	2756.0	2346.9	1488.8
70°	2526.2	2536.3	2918.3	4977.9	6109.5	6185.8	5537.3	3653.7	2091.4	1309.1	666.9
72.5°	1972.8	1975.1	2423.2	5101.5	6649.2	6653.3	5180.1	2712.3	1124.7	502.8	231.7
75°	1409.3	1395.5	1623.0	4137.2	5849.8	5896.7	3883.5	1272.3	429.8	237.6	115.4
77.5°	755.6	770.8	918.4	2453.6	4041.2	4121.1	2118.9	366.8	218.8	161.8	76.3
80°	233.5	246.4	376.4	1123.4	2289.0	2337.3	785.5	163.2	152.6	115.4	50.1
82.5°	73.5	76.3	175.6	472.1	950.1	972.1	227.5	92.4	104.3	76.3	29.4
85°	21.1	21.6	78.1	176.0	234.9	239.5	63.9	35.9	59.8	47.3	15.2
87.5°	2.3	7.4	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°	909.2	909.2	909.2	909.2	909.2	909.2	909.2	909.2	909.2	909.2	909.2
2.5°	911.0	911.5	905.5	895.4	884.3	875.2	863.7	854.5	848.0	846.2	849.4
5°	917.4	914.2	897.2	866.4	829.7	797.9	762.5	734.5	716.1	708.3	711.1
7.5°	927.1	917.9	880.7	820.0	749.7	687.2	623.7	574.6	543.3	527.7	530.0
10°	935.4	917.0	853.1	752.9	645.3	550.6	465.2	405.9	372.8	357.1	357.6
12.5°	943.2	916.5	817.2	673.4	527.7	411.8	332.3	302.9	293.7	290.5	289.6
15°	957.9	917.9	772.2	582.4	410.5	311.2	282.2	281.8	283.6	282.7	282.2
17.5°	978.1	919.3	721.2	485.8	316.7	274.4	273.0	277.2	279.9	278.5	278.1
20°	1004.3	924.8	666.9	390.2	272.1	265.2	268.4	272.1	274.4	272.1	271.6
22.5°	1041.1	934.4	607.6	313.5	257.9	259.7	262.5	266.6	268.9	265.7	265.2
25°	1086.1	949.6	549.3	272.6	251.0	253.3	257.4	262.0	264.8	261.5	261.1
27.5°	1144.5	974.0	495.5	263.4	244.1	245.4	251.4	258.3	262.0	257.9	257.9
30°	1229.1	1014.0	449.1	267.5	239.9	236.7	245.0	254.6	258.8	255.1	254.6
32.5°	1341.2	1070.5	420.6	273.9	238.1	226.6	234.4	246.8	253.7	251.4	251.4
35°	1488.3	1156.5	409.5	281.3	236.7	216.0	221.5	234.9	246.8	249.1	249.1
37.5°	1666.7	1276.0	412.8	284.5	232.6	207.3	210.1	221.5	237.2	244.5	246.4
40°	1869.4	1415.2	431.1	281.3	228.0	199.9	200.4	209.1	222.9	234.0	237.6
42.5°	2078.5	1577.9	465.2	269.3	223.8	193.5	192.1	198.1	207.3	215.1	218.3
45°	2277.5	1745.3	498.7	252.8	218.8	187.1	183.9	186.2	188.0	191.2	193.0
47.5°	2451.3	1862.9	489.1	237.6	211.9	179.7	174.2	173.3	167.8	167.3	166.8
50°	2571.2	1888.7	434.4	222.5	201.8	171.4	162.7	157.2	147.5	142.9	143.4
52.5°	2609.4	1787.1	354.8	207.3	185.2	160.4	148.0	139.3	127.3	123.2	122.7
55°	2558.8	1588.1	283.6	188.9	162.3	145.7	131.9	120.4	110.8	105.7	105.7
57.5°	2435.2	1334.8	224.3	167.3	137.9	129.2	115.4	103.9	95.6	90.5	89.6
60°	2230.2	1059.9	177.4	141.6	117.7	111.2	97.0	89.6	82.3	76.3	74.9
62.5°	1919.0	756.6	139.3	112.2	98.4	91.0	82.7	77.2	68.5	60.2	58.8
65°	1497.5	462.9	107.6	82.3	79.1	75.4	70.3	65.3	54.7	46.4	45.0
67.5°	944.6	219.2	76.8	62.1	62.5	60.7	58.4	54.2	46.4	39.1	38.2
70°	416.0	106.2	50.6	47.3	46.4	46.4	48.3	46.9	39.5	32.6	31.3
72.5°	141.6	57.0	37.7	35.9	33.6	33.1	40.4	39.1	31.7	25.3	23.9
75°	74.0	38.2	27.6	25.7	20.2	24.4	32.2	30.3	22.5	16.5	15.2
77.5°	48.3	27.1	18.8	16.5	11.5	16.1	23.9	21.1	13.3	8.3	7.4
80°	30.3	17.9	11.0	7.8	5.5	8.7	12.9	9.2	5.1	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)