

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: P961345

Luminaire Tested: **NAV-SB2A-727-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961345
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-727-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8686.9 lumens
Efficiency: N/A
Efficacy: 151.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

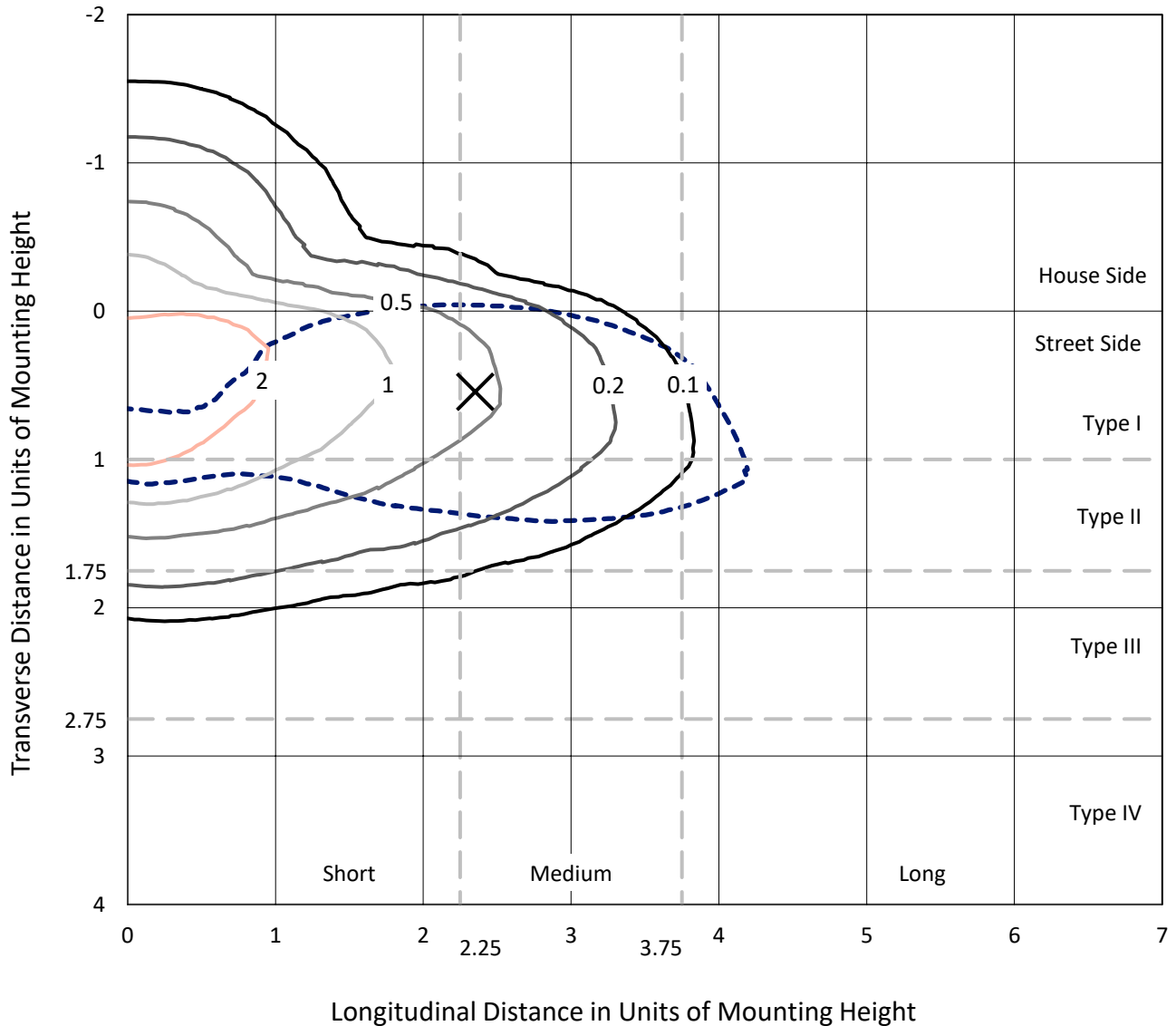
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

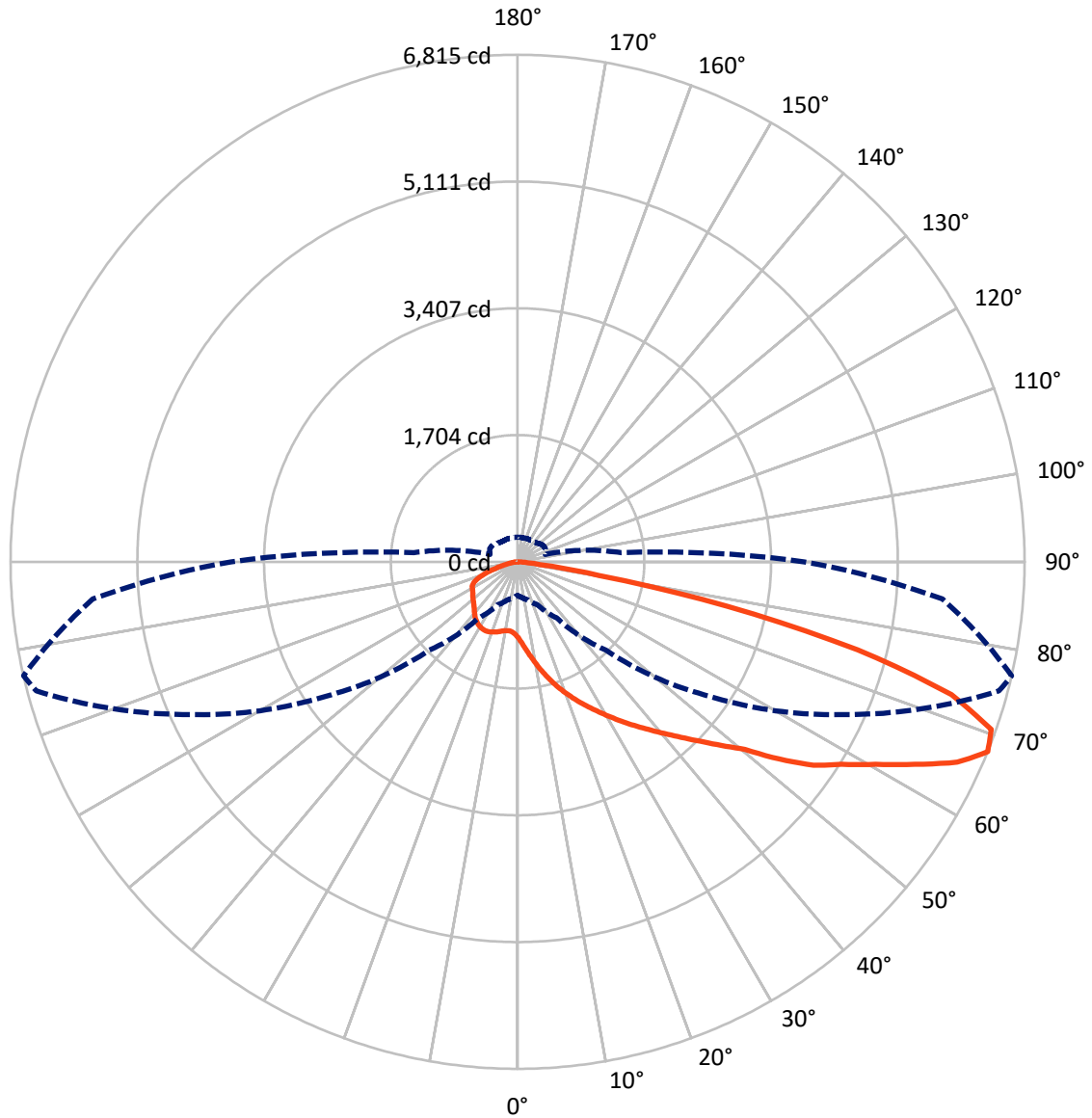
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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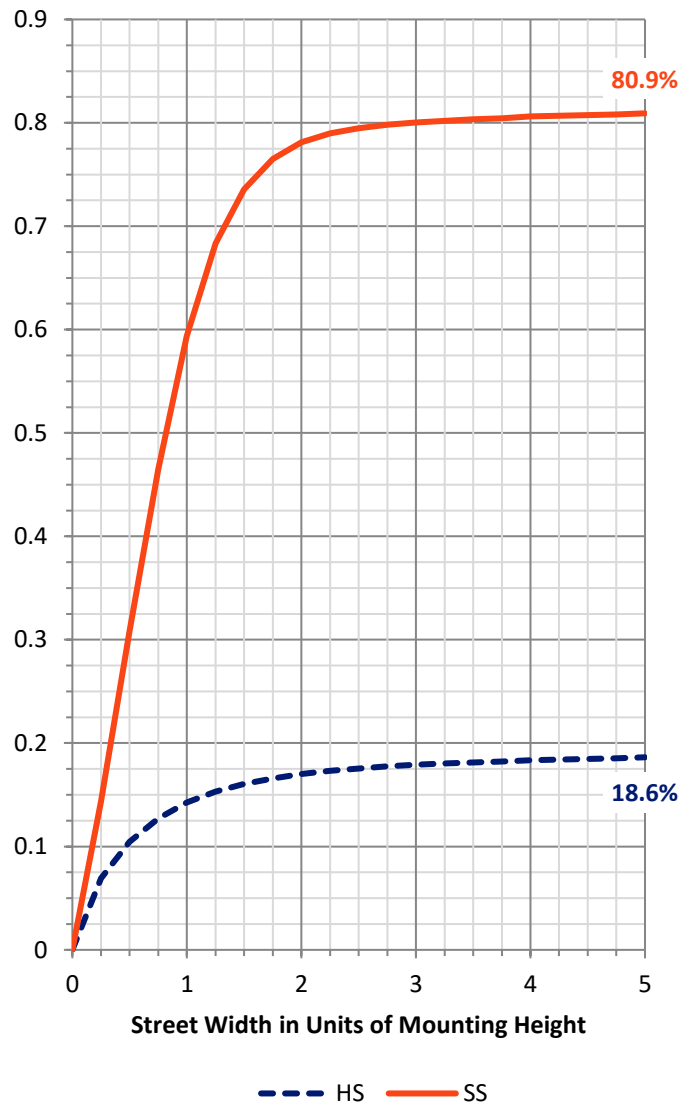
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1643.2	0.0	1643.2
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	7043.7	0.0	7043.7
	% Fixture	81.1	0.0	81.1
Total	Lumens	8686.9	0.0	8686.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	1.3
10°-20°	392.5	4.5
20°-30°	741.1	8.5
30°-40°	1193.8	13.7
40°-50°	1632.9	18.8
50°-60°	1842.0	21.2
60°-70°	1719.2	19.8
70°-80°	942.4	10.8
80°-90°	113.7	1.3
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°	8686.9	100.0
0°-180°	8686.9	100.0

Coefficient of Utilization

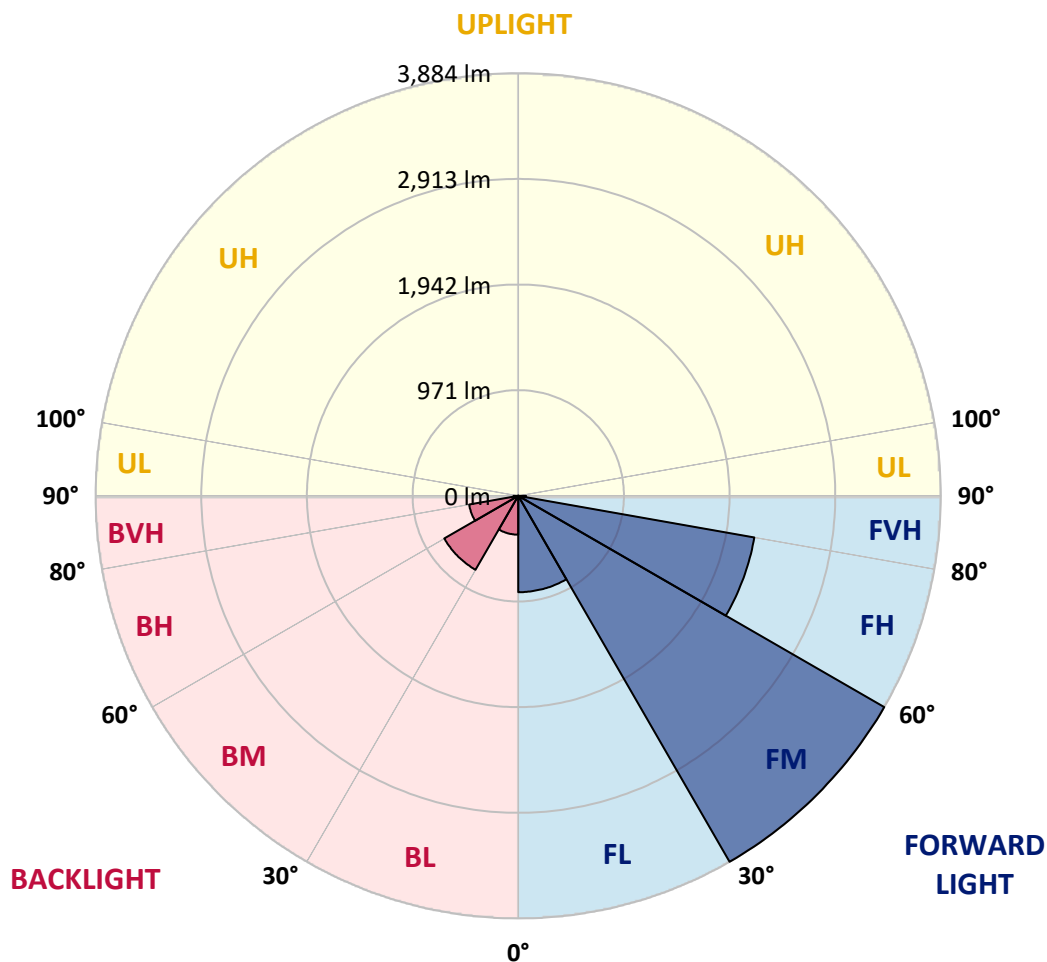


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	885.5	10.2			
FM (30°-60°)	3883.8	44.7			
FH (60°-80°)	2203.3	25.4			G2/5000
FVH (80°-90°)	71.1	0.8			G1/100
BL (0°-30°)	357.3	4.1	B1/500		
BM (30°-60°)	784.9	9.0	B1/1000		
BH (60°-80°)	458.4	5.3	B1/500		G1/500
BVH (80°-90°)	42.6	0.5			G1/100
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3
2.5°	1276.2	1285.1	1274.0	1274.0	1236.3	1216.6	1178.9	1150.2	1098.6	1089.7	1055.5
5°	1508.5	1519.7	1504.0	1497.2	1452.8	1412.0	1348.8	1286.5	1194.5	1185.1	1104.8
7.5°	1688.3	1702.6	1688.7	1681.5	1642.0	1596.3	1522.3	1435.4	1305.7	1287.4	1171.3
10°	1834.9	1837.1	1832.7	1835.4	1804.4	1766.8	1690.9	1589.6	1427.7	1402.6	1251.5
12.5°	1917.9	1928.1	1937.1	1953.2	1947.9	1924.5	1856.4	1735.3	1556.9	1524.6	1339.0
15°	1956.8	1974.8	1995.0	2032.2	2062.2	2068.0	2016.1	1891.8	1688.3	1649.2	1427.3
17.5°	1970.8	1987.8	2019.7	2073.5	2138.0	2181.5	2158.2	2043.8	1818.4	1773.5	1520.1
20°	2041.2	2046.1	2065.4	2116.5	2186.4	2258.7	2276.1	2190.0	1947.0	1896.4	1616.1
22.5°	2191.9	2182.0	2187.4	2210.7	2260.8	2330.8	2370.7	2319.2	2079.3	2021.0	1713.0
25°	2440.7	2412.0	2383.3	2356.4	2382.0	2421.5	2466.8	2448.3	2217.9	2143.9	1810.7
27.5°	2755.0	2720.0	2656.8	2568.5	2537.6	2551.4	2571.6	2568.0	2346.1	2271.2	1911.6
30°	3064.4	3023.6	2948.3	2820.5	2738.9	2702.1	2686.9	2676.6	2485.5	2405.8	2013.4
32.5°	3311.6	3279.3	3205.3	3062.2	2943.8	2881.1	2830.3	2793.6	2631.3	2551.4	2121.0
35°	3527.6	3497.6	3412.8	3256.8	3128.1	3061.3	2994.9	2916.4	2782.9	2702.1	2236.7
37.5°	3725.0	3694.9	3578.8	3416.4	3286.9	3240.6	3181.5	3048.4	2934.9	2858.6	2359.1
40°	3849.6	3842.9	3734.4	3550.5	3416.0	3393.2	3373.4	3201.2	3103.5	3032.6	2493.6
42.5°	3881.5	3896.2	3810.1	3659.0	3530.8	3512.4	3558.6	3374.3	3292.7	3225.0	2646.0
45°	3804.8	3847.3	3790.9	3688.2	3612.4	3602.6	3722.7	3563.5	3502.1	3440.2	2829.9
47.5°	3610.6	3682.8	3659.5	3645.1	3634.3	3677.0	3867.1	3764.4	3739.3	3685.5	3039.7
50°	3218.7	3355.4	3396.2	3486.8	3590.9	3734.8	3998.5	3983.7	4016.5	3962.1	3295.4
52.5°	2541.2	2729.5	2966.2	3193.2	3457.2	3715.5	4142.8	4298.4	4436.6	4407.0	3701.7
55°	2097.7	2182.4	2364.5	2780.6	3198.1	3634.3	4207.9	4552.7	4853.6	4827.1	4009.7
57.5°	1756.8	1832.7	1944.7	2292.3	2806.1	3450.0	4248.2	4707.9	5139.2	5136.6	4313.7
60°	1391.4	1471.7	1586.5	1832.7	2348.4	3131.7	4239.3	4884.5	5503.8	5526.2	4684.6
62.5°	978.9	1067.2	1194.5	1424.1	1880.7	2719.1	4056.3	5012.4	5932.9	5993.9	5130.7
65°	643.5	701.7	797.8	995.9	1401.3	2188.7	3707.0	5029.0	6392.1	6495.2	5549.6
67.5°	451.1	473.6	530.0	637.7	923.7	1678.4	3150.5	4857.2	6698.4	6814.5	5731.2
70°	352.0	363.3	392.0	435.0	580.3	1128.6	2414.3	4410.6	6632.9	6753.9	5541.5
72.5°	304.0	314.8	325.5	331.0	389.2	696.8	1635.4	3687.7	6016.3	6098.4	4818.2
75°	275.7	278.5	287.4	285.7	296.8	452.0	943.9	2686.9	4746.9	4718.6	3556.9
77.5°	231.9	235.4	250.2	247.9	263.6	308.9	490.2	1734.0	3077.5	2885.6	1979.8
80°	196.4	198.2	214.3	211.7	229.1	223.8	250.2	883.9	1305.3	1105.8	570.8
82.5°	68.2	84.3	163.7	168.6	174.9	135.4	144.4	360.5	398.6	305.3	119.7
85°	33.2	35.5	83.4	118.4	118.0	68.2	70.4	128.7	125.6	98.6	39.9
87.5°	5.3	6.8	9.8	46.2	36.8	17.9	24.2	25.1	26.0	22.4	8.9
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°	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3	1019.3
2.5°	1030.4	1008.0	960.9	917.5	883.3	850.6	832.3	816.5	807.6	805.8	805.8
5°	1058.2	1012.1	926.4	854.2	807.2	772.1	753.8	742.1	736.3	732.7	732.3
7.5°	1098.2	1030.4	908.5	826.5	777.1	751.9	742.6	740.8	740.4	740.8	742.1
10°	1153.3	1060.5	906.7	819.7	778.5	764.5	764.1	764.5	766.3	766.8	767.2
12.5°	1213.0	1091.4	913.9	825.5	795.5	787.8	786.5	786.1	787.4	788.3	788.7
15°	1278.0	1132.2	926.0	838.0	814.4	806.3	804.9	802.2	801.8	801.3	800.8
17.5°	1344.8	1172.6	939.4	851.6	826.5	815.2	810.3	804.0	799.1	797.8	799.1
20°	1412.4	1212.5	948.8	858.2	827.3	811.6	801.8	791.0	782.5	777.6	779.3
22.5°	1484.7	1254.2	954.7	856.5	819.3	797.8	779.8	767.2	754.2	745.7	746.2
25°	1555.1	1290.6	954.2	847.1	803.6	776.2	753.4	737.2	719.2	710.3	710.3
27.5°	1622.8	1323.3	943.0	830.5	781.2	750.6	723.2	704.0	686.5	678.0	677.5
30°	1692.8	1350.6	925.5	806.3	754.7	721.1	691.0	674.4	658.8	650.7	650.2
32.5°	1762.3	1375.8	900.9	776.2	724.2	691.9	662.4	647.1	637.7	637.7	638.1
35°	1835.8	1393.2	868.2	741.2	691.9	660.9	637.7	628.6	627.8	622.4	621.0
37.5°	1913.4	1404.5	828.2	705.3	660.1	630.9	623.7	612.9	604.0	592.3	590.6
40°	1995.0	1415.6	780.2	668.1	626.5	610.3	607.1	592.8	567.2	538.5	534.5
42.5°	2094.1	1423.2	730.4	630.9	591.0	585.6	590.1	565.5	524.6	503.1	503.6
45°	2208.9	1435.8	684.7	594.2	554.7	554.7	573.5	541.2	507.6	494.2	496.4
47.5°	2357.7	1464.9	642.2	553.8	521.0	530.0	536.8	512.1	493.2	476.6	476.2
50°	2573.0	1534.9	598.2	513.0	495.5	513.4	504.0	489.6	467.7	454.3	452.8
52.5°	2840.3	1576.1	559.1	476.2	473.6	491.5	478.0	464.5	447.9	430.0	426.4
55°	3022.3	1583.8	526.4	449.4	458.7	456.9	452.0	439.9	430.9	407.1	407.6
57.5°	3225.9	1599.0	499.5	433.2	449.4	429.6	427.8	417.5	405.8	389.7	384.3
60°	3469.3	1622.8	476.2	426.9	441.3	411.6	402.7	398.6	386.9	378.9	381.2
62.5°	3734.8	1644.3	452.4	427.8	431.8	394.1	380.7	379.4	372.2	369.5	369.5
65°	3916.0	1585.6	422.8	426.9	417.1	376.2	359.2	358.7	352.9	352.0	351.6
67.5°	3852.8	1399.5	382.9	414.3	401.8	358.2	339.5	337.6	330.0	330.5	330.5
70°	3536.1	1134.1	327.8	383.3	382.9	342.1	318.8	313.0	302.7	304.4	306.3
72.5°	2942.5	840.3	253.8	331.8	352.9	327.4	295.1	285.7	272.6	274.4	274.0
75°	2125.0	571.2	184.7	252.5	307.2	309.9	271.7	255.6	239.8	242.6	243.4
77.5°	1087.4	323.8	135.9	173.9	241.3	281.6	250.6	229.1	225.5	250.6	247.0
80°	354.6	162.4	94.2	122.0	158.3	230.5	219.8	195.1	194.1	200.0	171.8
82.5°	105.8	68.6	60.6	80.3	87.4	176.7	189.7	147.5	126.9	133.7	138.1
85°	36.3	33.2	34.5	39.9	41.7	103.6	132.7	97.8	92.4	101.8	100.4
87.5°	8.5	11.7	9.8	8.9	8.9	25.1	51.6	40.8	56.5	37.6	36.3
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)