

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: P882300

Luminaire Tested: **NAV-SB2A-835-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882300
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-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 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: 5840 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

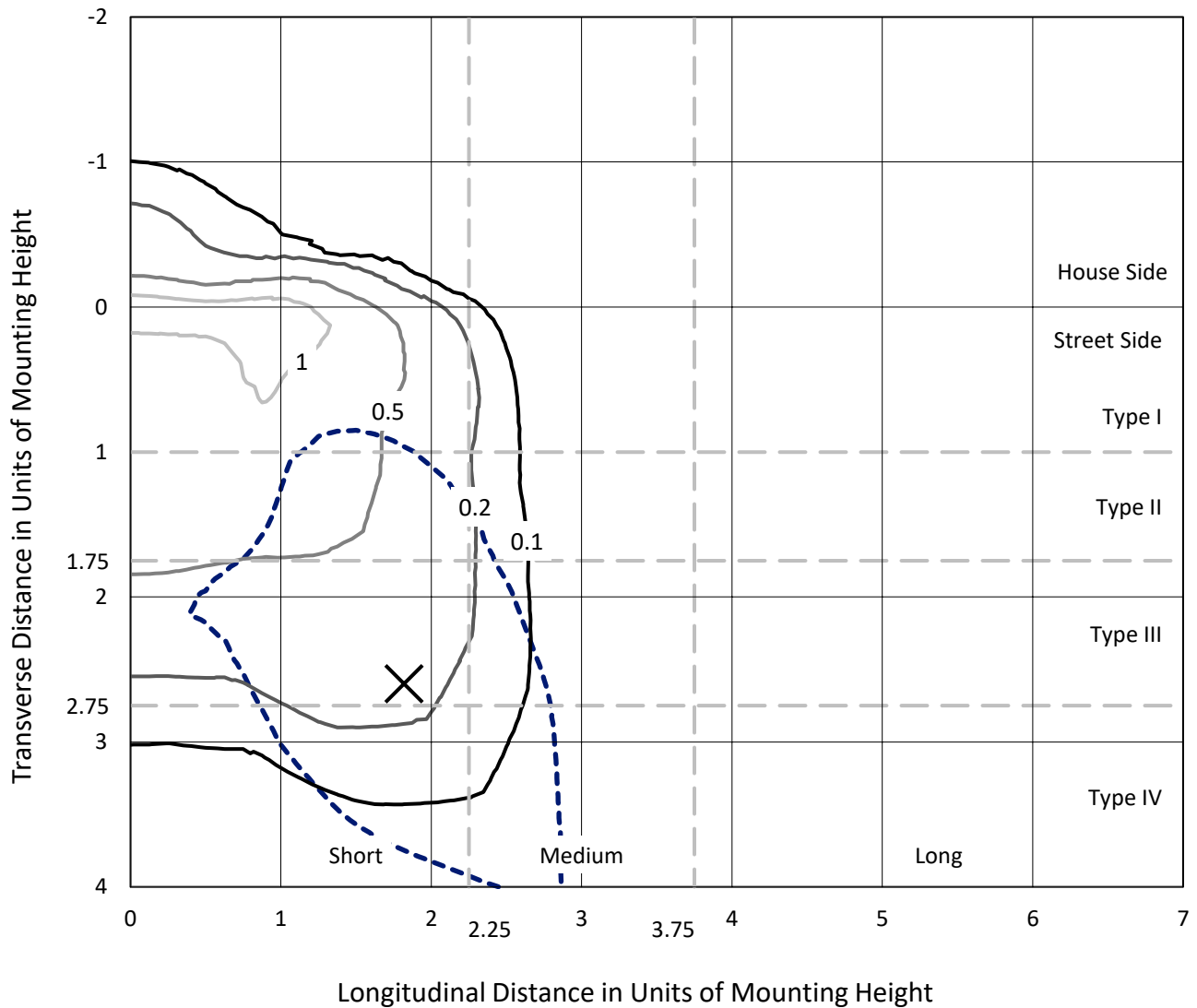
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

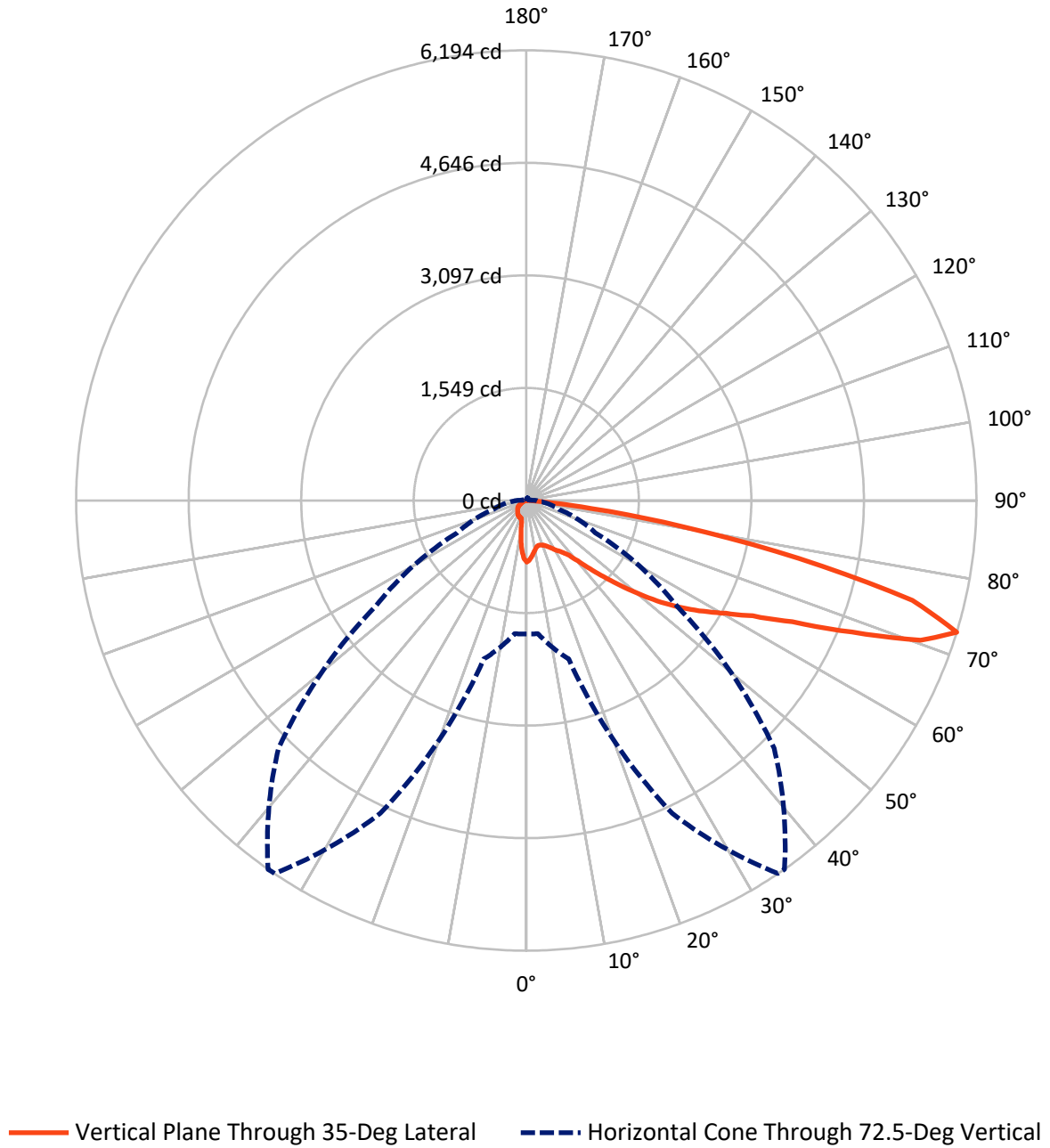
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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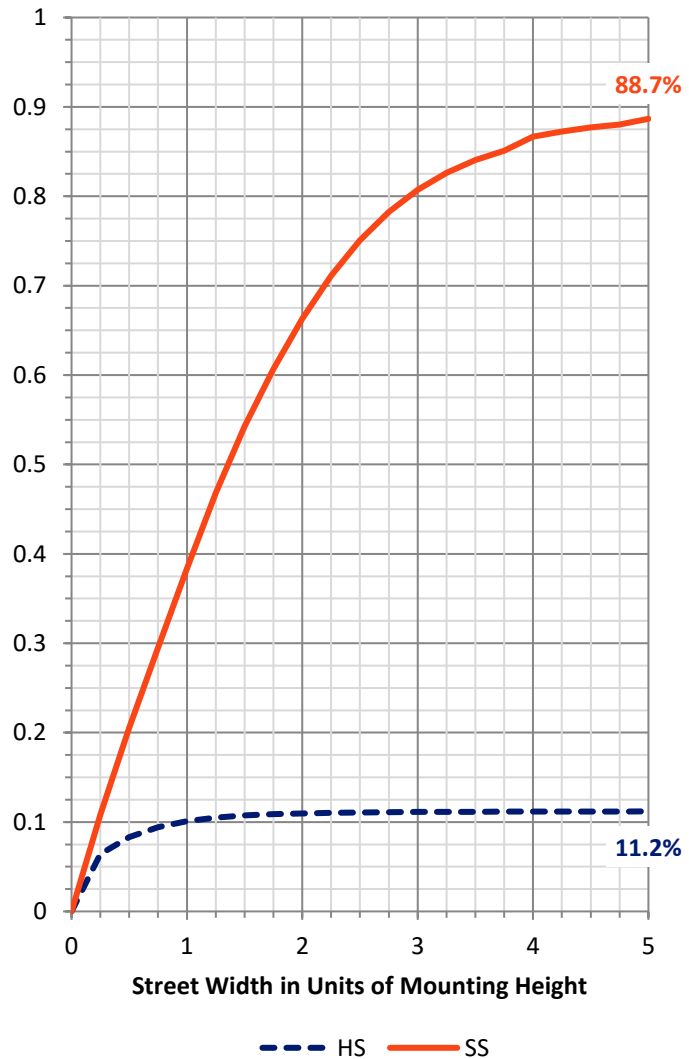
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	657.3	0.0	657.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	5182.7	0.0	5182.7
	% Fixture	88.7	0.0	88.7
Total	Lumens	5840.0	0.0	5840.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	1.2
10°-20°	162.7	2.8
20°-30°	264.3	4.5
30°-40°	441.0	7.6
40°-50°	834.4	14.3
50°-60°	1325.9	22.7
60°-70°	1640.2	28.1
70°-80°	1019.6	17.5
80°-90°	82.4	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°	5840.0	100.0
0°-180°	5840.0	100.0

Coefficient of Utilization



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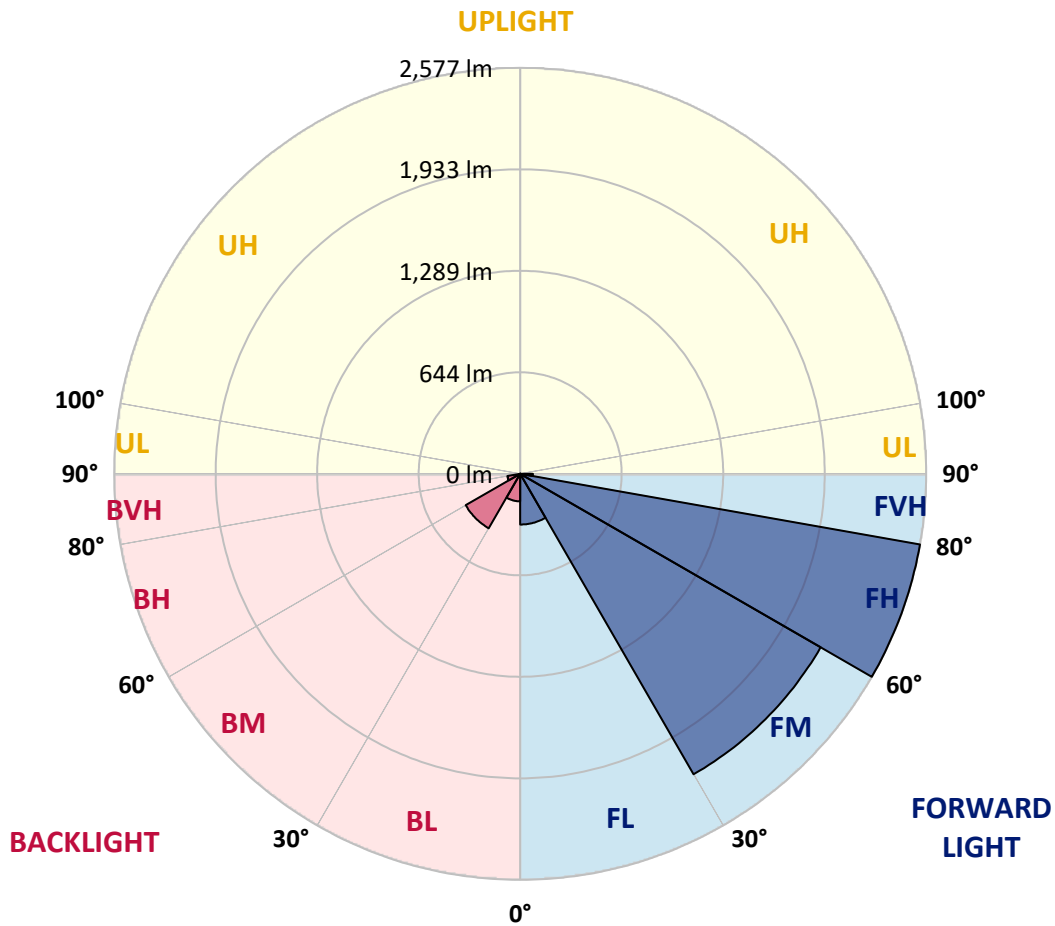
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	321.9	5.5			
FM (30°-60°)	2202.3	37.7			
FH (60°-80°)	2577.3	44.1			G2/5000
FVH (80°-90°)	81.3	1.4			G1/100
BL (0°-30°)	174.6	3.0	B1/500		
BM (30°-60°)	399.0	6.8	B1/1000		
BH (60°-80°)	82.5	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°	846.4	846.4	846.4	846.4	846.4	846.4	846.4	846.4	846.4	846.4	846.4
2.5°	808.8	815.6	816.9	819.0	819.0	821.6	825.9	831.9	841.7	846.8	850.3
5°	745.4	750.6	757.0	762.1	772.0	773.2	789.9	806.2	828.9	846.0	858.0
7.5°	681.7	687.7	696.2	708.6	721.5	725.3	750.6	777.9	813.9	846.0	866.1
10°	636.7	637.2	644.9	657.3	677.8	682.5	713.3	752.3	797.2	840.8	873.8
12.5°	611.5	614.5	617.9	627.3	647.0	650.0	682.9	728.7	780.5	837.9	882.8
15°	611.5	613.6	615.8	620.5	636.3	638.9	668.0	713.8	772.0	839.1	897.3
17.5°	617.9	621.3	619.6	625.2	641.9	643.6	669.3	709.5	771.5	847.3	919.6
20°	633.3	635.9	632.5	635.9	652.6	656.0	682.5	717.6	778.8	861.4	947.4
22.5°	657.7	659.0	650.9	653.4	670.5	674.8	705.6	740.7	796.3	884.1	984.6
25°	688.5	691.1	678.7	681.7	697.9	703.1	738.6	775.4	824.2	915.3	1032.1
27.5°	724.0	725.3	714.6	714.2	735.2	742.4	778.4	818.2	861.4	954.7	1092.0
30°	764.7	768.5	758.3	756.6	783.1	789.1	824.6	870.8	916.2	1013.7	1177.2
32.5°	796.8	799.8	793.8	798.1	825.0	829.7	880.6	945.3	1002.2	1097.6	1293.2
35°	843.0	844.7	831.0	838.7	869.5	881.5	957.2	1049.7	1110.4	1202.9	1444.6
37.5°	1010.3	1010.3	952.1	914.0	943.5	954.2	1062.1	1181.0	1243.9	1344.1	1635.5
40°	1241.8	1238.0	1152.8	1074.9	1071.1	1092.0	1211.4	1346.6	1416.4	1513.5	1850.3
42.5°	1488.7	1482.7	1366.8	1289.7	1276.9	1284.2	1383.9	1550.8	1621.8	1720.2	2081.4
45°	1707.8	1706.1	1600.0	1496.4	1473.3	1496.4	1599.1	1789.5	1840.5	1944.0	2312.0
47.5°	1891.4	1891.4	1813.9	1746.3	1734.3	1748.0	1890.5	2054.4	2049.7	2182.4	2536.7
50°	2102.8	2101.1	2027.5	1998.4	2010.8	2030.0	2226.0	2333.4	2266.2	2416.4	2737.4
52.5°	2250.8	2261.1	2235.8	2231.1	2294.5	2327.8	2566.6	2606.4	2460.1	2638.5	2887.6
55°	2368.1	2380.1	2409.1	2442.1	2564.1	2607.7	2896.5	2865.3	2622.3	2831.1	2974.0
57.5°	2534.1	2517.0	2561.9	2627.0	2824.2	2876.9	3216.2	3109.6	2752.8	2987.3	2983.4
60°	2735.6	2738.2	2745.9	2828.1	3084.0	3151.6	3531.1	3340.7	2836.6	3083.1	2879.0
62.5°	2977.8	2981.7	2997.5	3123.8	3432.7	3496.5	3866.6	3529.9	2875.1	3056.2	2609.4
65°	2961.2	2977.4	3154.1	3585.9	3962.9	4025.8	4258.2	3662.5	2817.0	2809.7	2124.6
67.5°	2697.6	2724.1	3019.8	4137.9	4762.2	4832.4	4731.4	3688.6	2565.8	2184.9	1386.0
70°	2351.8	2361.2	2716.8	4634.3	5687.8	5758.9	5155.1	3401.5	1947.0	1218.7	620.9
72.5°	1836.6	1838.7	2256.0	4749.4	6190.2	6194.0	4822.6	2525.1	1047.1	468.1	215.7
75°	1312.0	1299.1	1511.0	3851.6	5446.0	5489.7	3615.4	1184.5	400.1	221.2	107.4
77.5°	703.5	717.6	855.0	2284.2	3762.2	3836.7	1972.7	341.5	203.7	150.6	71.0
80°	217.4	229.4	350.5	1045.8	2131.0	2175.9	731.3	151.9	142.1	107.4	46.6
82.5°	68.5	71.0	163.5	439.5	884.5	905.0	211.8	86.0	97.1	71.0	27.4
85°	19.7	20.1	72.7	163.9	218.7	222.9	59.5	33.4	55.6	44.1	14.1
87.5°	2.1	6.8	27.4	27.4	19.3	18.8	6.4	7.3	15.8	5.6	2.6
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°	846.4	846.4	846.4	846.4	846.4	846.4	846.4	846.4	846.4	846.4	846.4
2.5°	848.1	848.6	843.0	833.6	823.3	814.7	804.0	795.5	789.5	787.8	790.8
5°	854.1	851.1	835.3	806.6	772.4	742.9	709.9	683.8	666.7	659.4	662.0
7.5°	863.1	854.5	819.9	763.4	697.9	639.7	580.7	534.9	505.8	491.2	493.4
10°	870.8	853.7	794.2	700.9	600.8	512.6	433.0	377.8	347.0	332.5	332.9
12.5°	878.1	853.3	760.8	626.9	491.2	383.4	309.4	282.0	273.4	270.4	269.6
15°	891.8	854.5	718.9	542.2	382.1	289.7	262.7	262.3	264.0	263.2	262.7
17.5°	910.6	855.8	671.4	452.3	294.8	255.5	254.2	258.0	260.6	259.3	258.9
20°	935.0	861.0	620.9	363.3	253.3	246.9	249.9	253.3	255.5	253.3	252.9
22.5°	969.2	869.9	565.7	291.8	240.1	241.8	244.3	248.2	250.3	247.3	246.9
25°	1011.2	884.1	511.4	253.8	233.6	235.8	239.6	243.9	246.5	243.5	243.1
27.5°	1065.5	906.7	461.3	245.2	227.2	228.5	234.1	240.5	243.9	240.1	240.1
30°	1144.2	944.0	418.1	249.0	223.4	220.4	228.1	237.1	240.9	237.5	237.1
32.5°	1248.6	996.6	391.5	255.0	221.7	211.0	218.2	229.8	236.2	234.1	234.1
35°	1385.6	1076.6	381.3	261.9	220.4	201.1	206.3	218.7	229.8	231.9	231.9
37.5°	1551.6	1187.9	384.3	264.9	216.5	193.0	195.6	206.3	220.8	227.6	229.4
40°	1740.3	1317.5	401.4	261.9	212.2	186.1	186.6	194.7	207.5	217.8	221.2
42.5°	1935.0	1469.0	433.0	250.8	208.4	180.2	178.9	184.4	193.0	200.3	203.3
45°	2120.3	1624.8	464.3	235.4	203.7	174.2	171.2	173.3	175.0	178.0	179.7
47.5°	2282.1	1734.3	455.3	221.2	197.3	167.3	162.2	161.3	156.2	155.8	155.3
50°	2393.7	1758.3	404.4	207.1	187.9	159.6	151.5	146.3	137.4	133.1	133.5
52.5°	2429.3	1663.7	330.3	193.0	172.4	149.3	137.8	129.7	118.5	114.7	114.3
55°	2382.2	1478.4	264.0	175.9	151.1	135.6	122.8	112.1	103.1	98.4	98.4
57.5°	2267.1	1242.7	208.8	155.8	128.4	120.2	107.4	96.7	89.0	84.3	83.4
60°	2076.2	986.8	165.2	131.8	109.5	103.6	90.3	83.4	76.6	71.0	69.7
62.5°	1786.5	704.3	129.7	104.4	91.6	84.7	77.0	71.9	63.8	56.1	54.8
65°	1394.1	430.9	100.1	76.6	73.6	70.2	65.5	60.8	50.9	43.2	41.9
67.5°	879.4	204.1	71.5	57.8	58.2	56.5	54.3	50.5	43.2	36.4	35.5
70°	387.3	98.8	47.1	44.1	43.2	43.2	44.9	43.6	36.8	30.4	29.1
72.5°	131.8	53.1	35.1	33.4	31.2	30.8	37.7	36.4	29.5	23.5	22.3
75°	68.9	35.5	25.7	24.0	18.8	22.7	30.0	28.2	21.0	15.4	14.1
77.5°	44.9	25.2	17.5	15.4	10.7	15.0	22.3	19.7	12.4	7.7	6.8
80°	28.2	16.7	10.3	7.3	5.1	8.1	12.0	8.6	4.7	1.7	1.3
82.5°	15.0	8.6	3.9	2.6	2.1	2.6	3.0	2.1	0.9	0.0	0.0
85°	6.0	3.0	1.3	0.9	0.4	0.0	0.9	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)