

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: P881711

Luminaire Tested: **NAV-SB1B-727-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881711  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-727-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

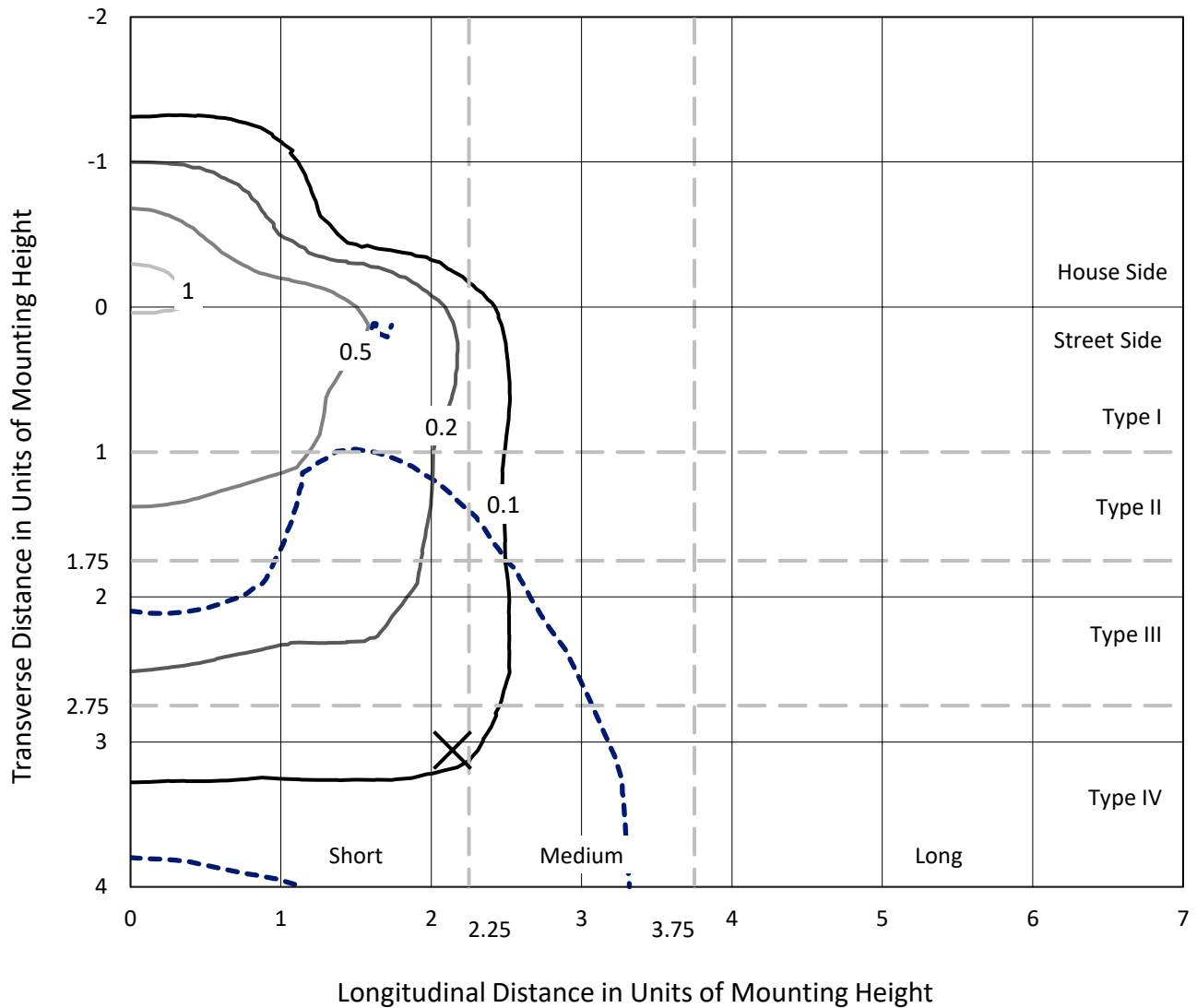
Lumens per Lamp: N/A  
Luminaire Lumens: 5048 lumens  
Efficiency: N/A  
Efficacy: 126.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 0.33  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.305  
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

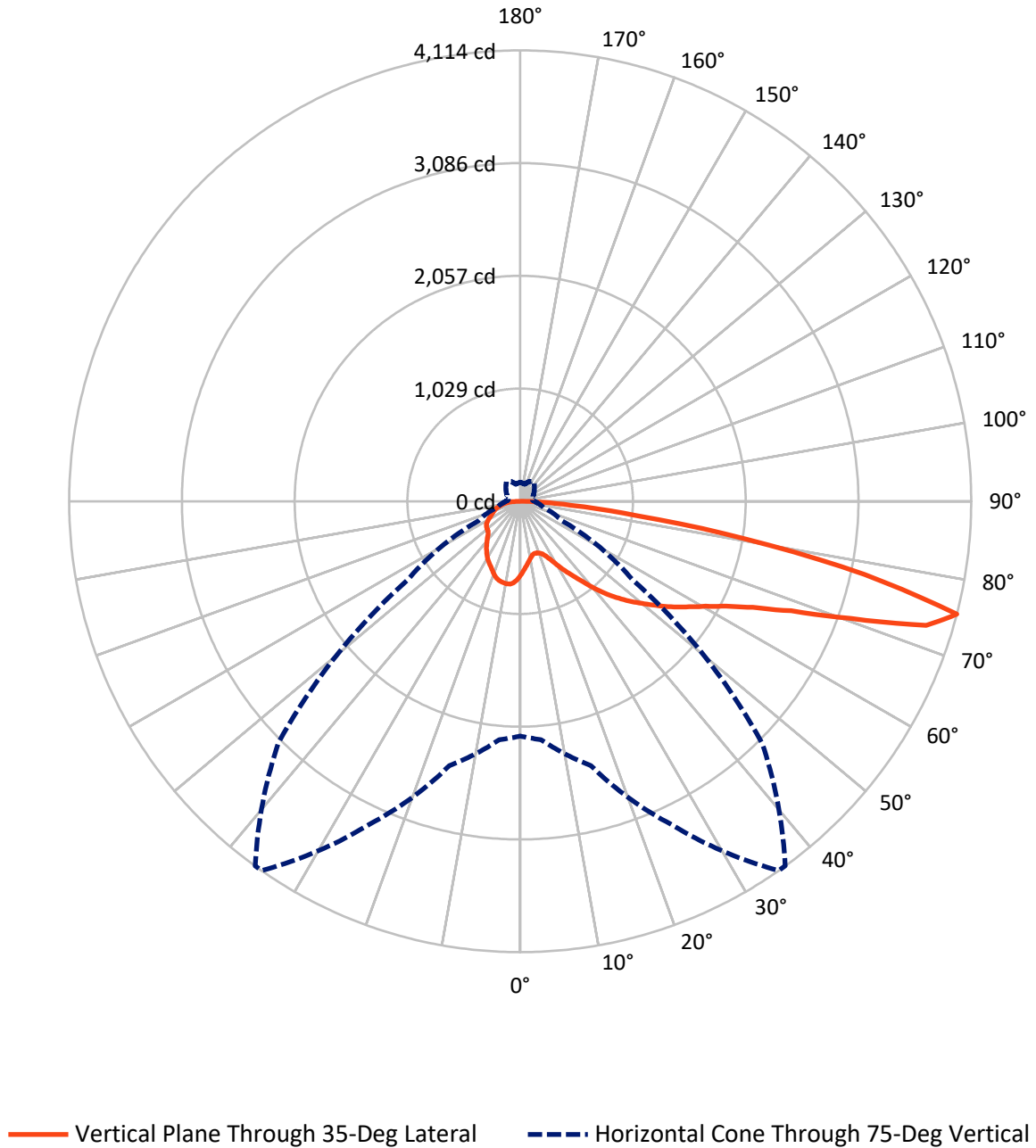
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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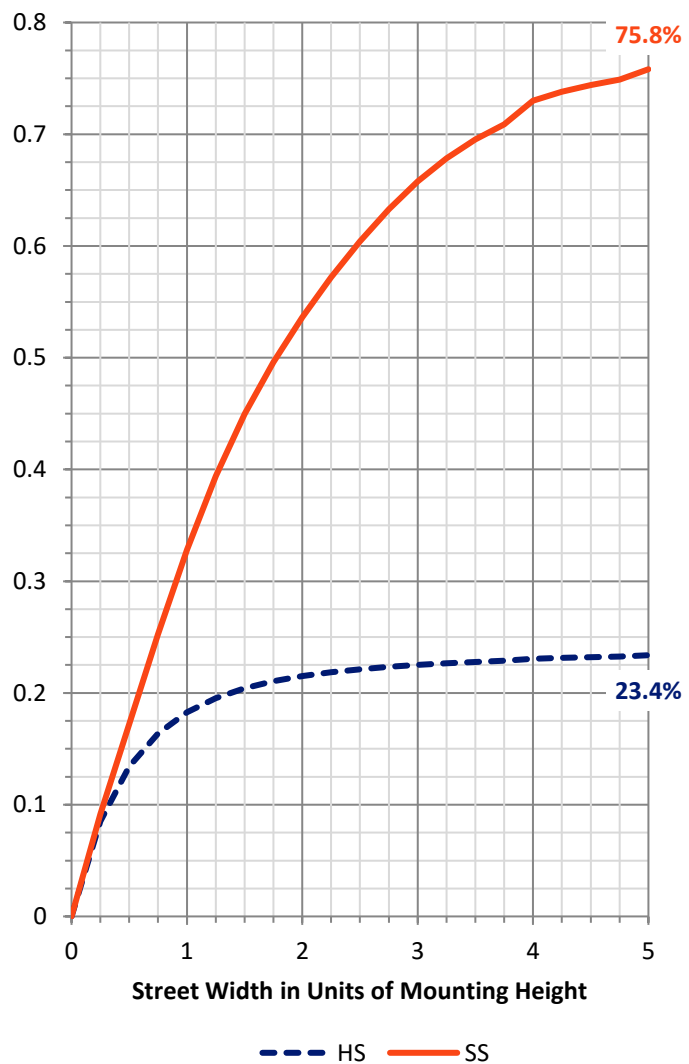
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1201.3	0.0	1201.3
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	3846.7	0.0	3846.7
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	5048.0	0.0	5048.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.7	1.3
10°-20°	183.7	3.6
20°-30°	308.5	6.1
30°-40°	479.4	9.5
40°-50°	711.6	14.1
50°-60°	982.4	19.5
60°-70°	1191.9	23.6
70°-80°	985.0	19.5
80°-90°	141.7	2.8
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°	5048.0	100.0
0°-180°	5048.0	100.0

**Coefficient of Utilization**



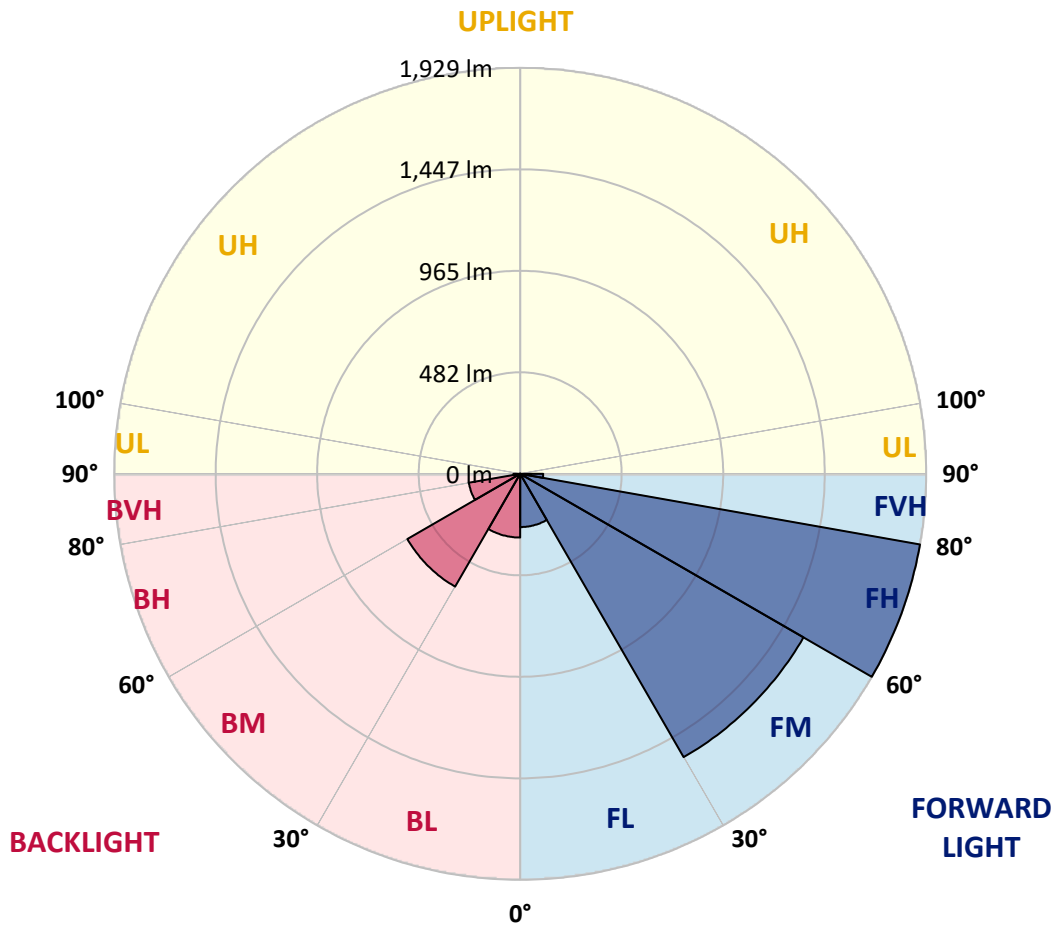
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	253.2	5.0			
FM (30°-60°)	1554.5	30.8			
FH (60°-80°)	1929.3	38.2			G2/5000
FVH (80°-90°)	109.8	2.2			G2/225
BL (0°-30°)	302.7	6.0	B1/500		
BM (30°-60°)	619.0	12.3	B1/1000		
BH (60°-80°)	247.7	4.9	B1/500		G1/500
BVH (80°-90°)	31.9	0.6			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 IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	672.7	672.7	672.7	672.7	672.7	672.7	672.7	672.7	672.7	672.7	672.7
2.5°	620.3	624.1	625.7	624.9	629.0	628.5	634.2	641.3	651.1	660.7	674.6
5°	572.5	576.6	580.2	583.4	591.4	593.8	602.8	616.5	634.5	652.8	675.7
7.5°	528.0	531.6	537.1	543.1	556.4	558.9	573.9	595.2	620.3	647.0	678.7
10°	491.8	495.3	501.0	507.9	524.5	527.5	546.6	575.0	607.7	641.6	682.0
12.5°	476.2	477.3	480.6	487.4	501.8	503.8	524.8	557.2	595.5	637.5	686.9
15°	475.4	477.6	477.8	481.4	493.4	494.2	513.6	545.8	587.8	636.7	694.2
17.5°	483.6	485.2	482.7	484.9	495.0	496.4	511.7	540.3	585.4	640.2	706.8
20°	505.4	506.8	499.4	496.4	503.8	504.9	519.9	543.9	587.8	647.6	724.0
22.5°	551.8	552.6	534.6	522.3	522.9	523.4	536.5	558.3	597.4	660.9	745.8
25°	624.1	623.6	594.9	571.2	557.5	554.5	563.3	581.8	613.5	678.7	773.9
27.5°	708.7	704.6	676.0	640.5	610.7	606.4	604.5	612.4	636.4	702.2	808.3
30°	804.2	800.4	769.6	723.2	682.0	674.9	656.9	652.8	670.5	734.1	856.1
32.5°	909.0	906.5	869.7	813.5	758.4	750.2	719.9	709.0	722.9	782.4	922.6
35°	996.9	994.7	964.1	906.3	838.9	828.8	797.9	785.7	792.8	844.3	1009.7
37.5°	1076.3	1075.2	1049.0	1003.4	933.8	921.6	886.9	882.8	881.4	925.9	1115.3
40°	1150.0	1147.2	1120.0	1095.9	1044.4	1033.2	1002.6	999.1	988.7	1026.3	1234.8
42.5°	1231.6	1224.5	1184.9	1173.7	1159.8	1150.5	1132.2	1132.8	1109.9	1139.6	1361.5
45°	1298.1	1294.1	1253.4	1246.8	1261.9	1258.0	1273.9	1278.0	1233.5	1258.3	1493.0
47.5°	1369.6	1365.8	1331.4	1326.8	1367.5	1368.6	1424.5	1425.9	1354.1	1381.7	1624.8
50°	1457.8	1452.3	1418.2	1424.0	1469.5	1473.6	1576.0	1566.7	1465.2	1506.9	1755.5
52.5°	1515.9	1519.2	1511.8	1521.1	1583.3	1587.1	1725.0	1701.2	1575.1	1630.5	1883.8
55°	1558.8	1565.3	1588.2	1609.5	1703.4	1707.2	1865.5	1829.2	1666.3	1745.1	2004.4
57.5°	1613.9	1604.6	1647.5	1688.9	1817.5	1827.6	2002.2	1952.5	1747.1	1843.9	2087.1
60°	1693.0	1686.5	1719.8	1781.2	1945.2	1961.3	2146.8	2063.6	1806.3	1922.3	2103.2
62.5°	1853.5	1837.1	1842.3	1896.6	2106.2	2127.5	2310.0	2160.5	1835.7	1952.8	2016.9
65°	2093.4	2065.3	2039.1	2076.7	2333.0	2354.0	2494.2	2236.6	1824.8	1893.6	1788.0
67.5°	2395.5	2367.6	2335.4	2370.9	2667.0	2683.6	2721.6	2279.5	1738.9	1665.5	1383.3
70°	2644.6	2634.2	2672.7	2818.7	3200.5	3201.0	3013.0	2244.0	1503.4	1180.8	800.4
72.5°	2611.6	2605.3	2808.1	3259.4	3872.9	3858.4	3288.9	1975.5	1012.7	532.7	299.9
75°	2142.5	2183.1	2497.2	3251.5	4114.4	4112.5	3120.0	1255.9	418.9	220.8	155.0
77.5°	1148.9	1213.3	1621.3	2400.6	3211.9	3260.2	2193.5	439.4	179.8	141.4	107.2
80°	374.7	430.9	646.2	1222.3	2087.1	2078.1	940.1	172.5	123.1	100.2	74.2
82.5°	159.1	165.6	288.7	577.2	1071.1	1054.5	299.4	99.1	86.5	68.5	45.8
85°	62.2	69.6	127.4	266.9	463.9	453.8	108.1	49.1	55.4	44.8	27.3
87.5°	20.5	24.8	45.6	91.4	144.4	139.2	26.5	16.9	24.0	20.5	9.8
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°	672.7	672.7	672.7	672.7	672.7	672.7	672.7	672.7	672.7	672.7	672.7
2.5°	678.4	682.8	688.0	695.6	702.2	707.6	713.3	716.9	718.3	722.3	722.1
5°	683.3	692.9	705.7	718.3	730.5	737.9	744.5	747.7	750.7	752.9	753.5
7.5°	691.5	703.8	724.0	740.4	750.7	756.7	761.1	760.0	761.1	761.6	762.5
10°	698.6	715.8	739.8	755.4	763.3	763.6	762.5	758.6	756.7	757.0	757.5
12.5°	707.1	726.2	752.1	765.2	767.4	761.4	756.7	750.2	747.7	746.6	746.1
15°	718.5	740.4	765.5	770.4	764.9	757.3	749.4	738.7	733.3	728.9	730.3
17.5°	732.4	756.5	775.8	772.3	760.6	748.0	735.2	719.1	707.9	703.2	703.5
20°	751.8	773.4	783.7	768.2	750.5	731.4	709.5	689.9	679.5	674.9	674.3
22.5°	775.3	796.0	791.4	761.1	736.0	705.4	678.1	663.7	658.5	655.2	655.8
25°	803.4	821.1	796.8	750.7	712.2	671.0	650.0	645.4	642.9	640.5	640.5
27.5°	840.0	849.5	800.9	735.4	675.1	634.5	626.8	627.7	626.8	622.7	623.6
30°	888.3	886.4	804.8	710.6	632.6	601.5	602.0	605.5	606.1	603.4	604.7
32.5°	951.8	932.5	806.7	678.4	591.9	572.5	573.1	576.9	579.6	575.0	577.2
35°	1028.8	986.2	803.7	638.0	560.5	545.0	540.9	542.0	542.8	538.4	541.4
37.5°	1118.6	1046.5	790.3	593.3	534.6	518.0	509.2	501.8	497.5	493.4	496.1
40°	1217.1	1112.3	765.7	549.6	505.7	489.3	476.2	462.3	447.5	442.1	444.5
42.5°	1320.3	1180.0	736.0	507.9	472.4	459.0	445.1	424.9	402.8	391.6	393.0
45°	1427.2	1249.3	706.8	466.6	438.3	432.5	416.4	392.1	368.1	353.9	352.9
47.5°	1532.0	1314.8	663.9	425.2	406.3	412.6	400.1	377.7	350.9	328.6	326.1
50°	1632.2	1376.2	593.8	383.1	380.4	406.6	394.6	362.4	331.8	303.2	300.7
52.5°	1731.5	1425.9	504.0	344.9	366.5	405.0	387.5	352.0	314.6	284.6	281.4
55°	1815.8	1451.5	417.5	312.2	346.3	391.1	379.0	339.8	290.4	258.4	255.7
57.5°	1863.9	1430.8	345.5	280.0	318.5	368.1	364.6	313.6	261.4	236.9	233.6
60°	1843.1	1346.7	286.5	251.9	292.0	343.3	339.5	287.6	239.3	216.1	212.9
62.5°	1728.8	1186.5	239.9	227.3	268.0	317.9	314.4	267.7	222.4	200.0	196.5
65°	1498.5	965.2	203.6	206.9	243.7	287.4	292.5	251.1	209.0	187.2	183.7
67.5°	1142.9	699.2	175.2	189.1	220.0	257.3	272.3	239.1	197.8	177.1	173.8
70°	651.4	397.1	151.2	171.9	198.9	229.5	256.8	229.5	185.8	168.6	166.5
72.5°	247.0	182.3	130.7	154.7	178.7	206.0	239.6	214.5	171.9	159.1	156.9
75°	131.8	111.1	110.0	134.5	155.5	183.1	218.0	199.8	161.6	168.1	173.6
77.5°	89.8	78.6	92.0	115.2	130.2	157.7	195.1	177.4	140.0	139.4	128.5
80°	62.2	55.7	74.8	92.8	100.7	132.6	170.3	152.3	114.1	106.4	101.8
82.5°	37.4	36.3	55.9	69.3	71.2	102.3	141.1	127.7	93.3	81.3	81.9
85°	20.5	21.6	35.7	40.7	41.5	71.5	110.5	98.8	71.8	60.3	60.9
87.5°	5.7	7.4	13.1	16.1	19.9	37.1	65.8	58.7	36.0	25.1	25.1
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)