

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: P881936

Luminaire Tested: **NAV-SB1C-827-U-T2-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881936  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1C-827-U-T2-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 2700K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

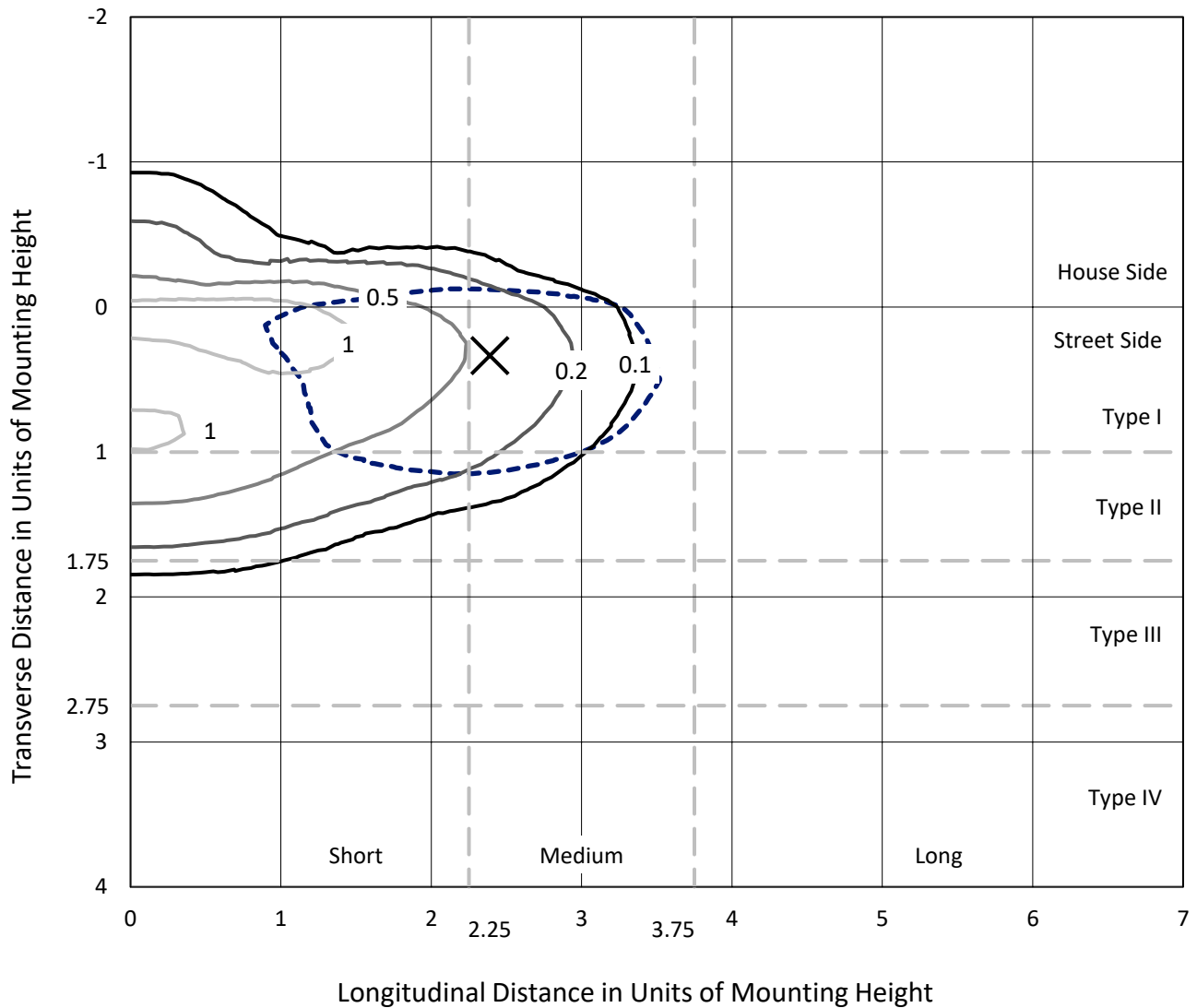
Lumens per Lamp: N/A  
Luminaire Lumens: 4447 lumens  
Efficiency: N/A  
Efficacy: 81.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 54.4  
Input Voltage (V): 120.0  
Input Current (Ain): 0.437  
Voltage Rise (V): NR  
Power Factor: 0.993  
Total Harmonic Distortion (THDi): 9.314  
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

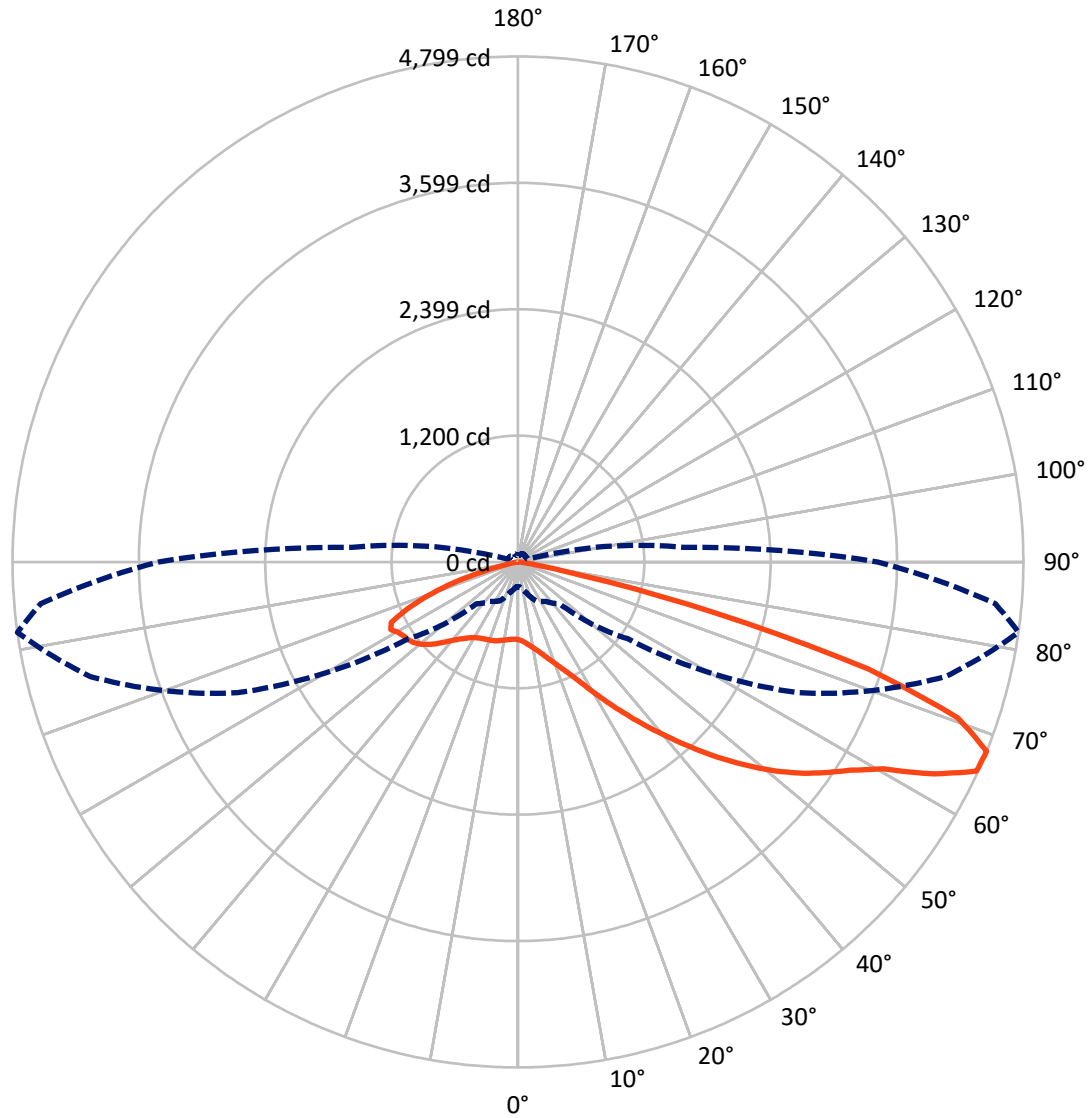
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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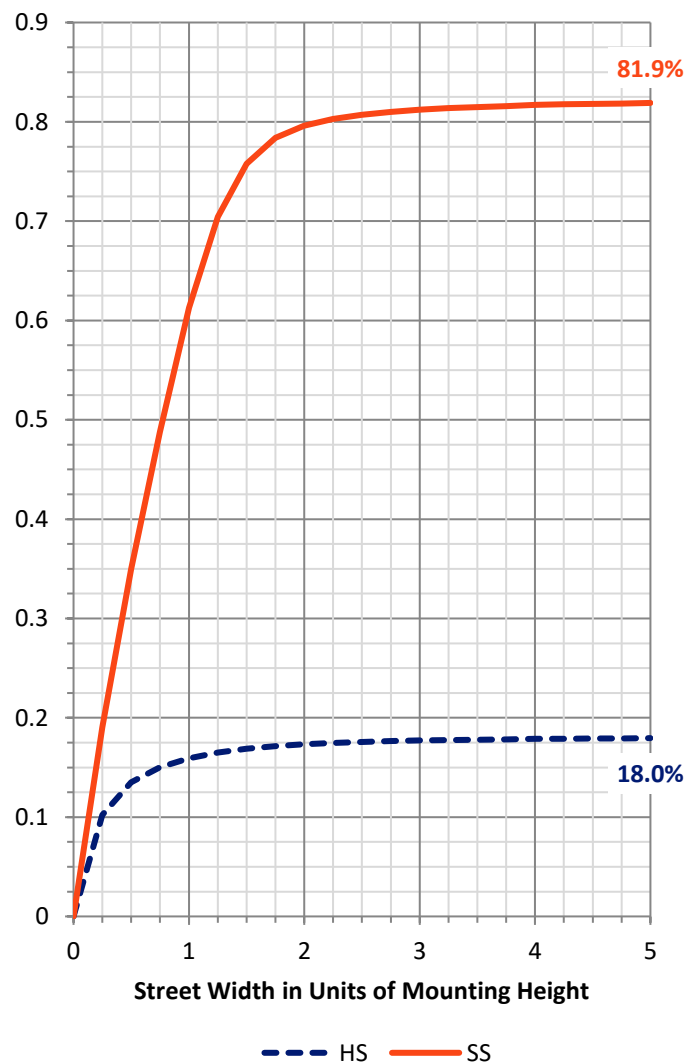
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	805.5	0.0	805.5
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	3641.5	0.0	3641.5
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	4447.0	0.0	4447.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.6	1.5
10°-20°	170.6	3.8
20°-30°	273.2	6.1
30°-40°	483.1	10.9
40°-50°	846.4	19.0
50°-60°	1128.9	25.4
60°-70°	1050.9	23.6
70°-80°	403.3	9.1
80°-90°	25.0	0.6
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°	4447.0	100.0
0°-180°	4447.0	100.0

**Coefficient of Utilization**



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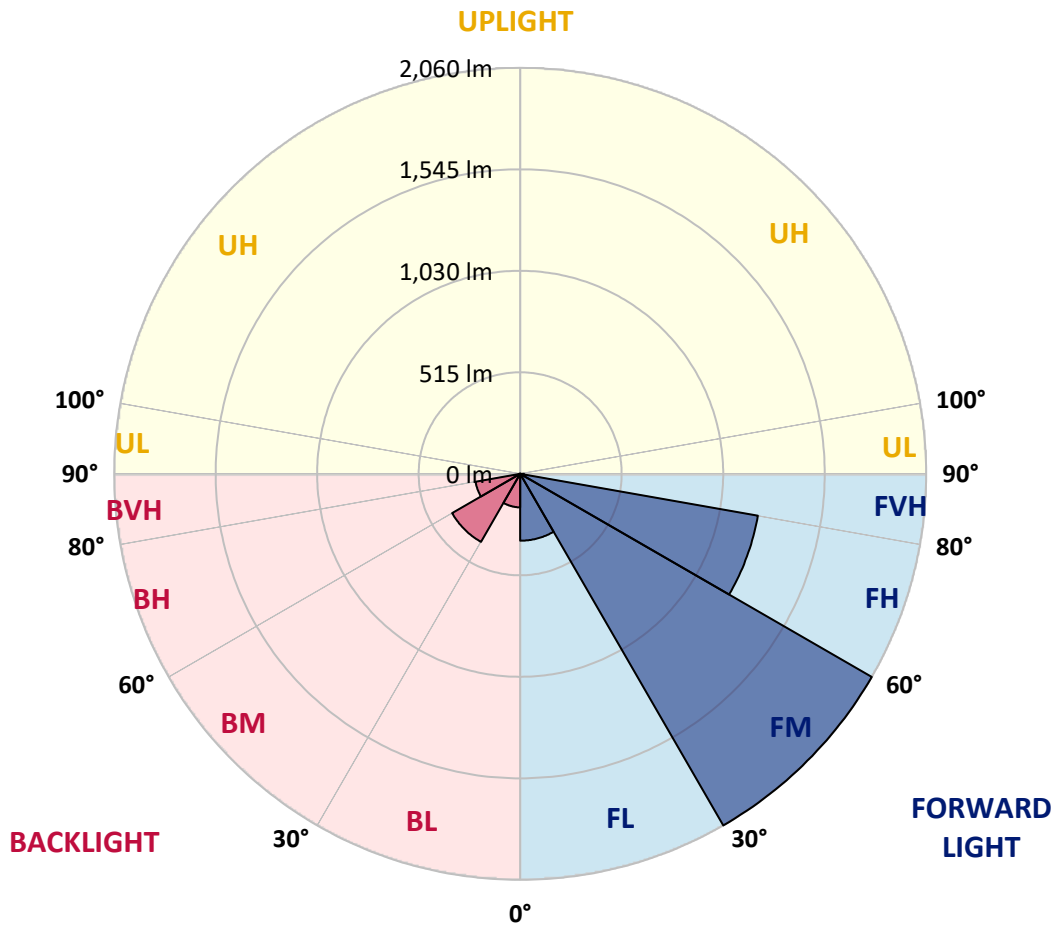
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	339.3	7.6			
FM (30°-60°)	2059.7	46.3			
FH (60°-80°)	1224.3	27.5			G1/1800
FVH (80°-90°)	18.2	0.4			G1/100
BL (0°-30°)	170.1	3.8	B1/500		
BM (30°-60°)	398.7	9.0	B1/1000		
BH (60°-80°)	229.9	5.2	B1/500		G1/500
BVH (80°-90°)	6.8	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7
2.5°	778.7	783.1	780.6	779.3	777.1	773.9	771.3	763.3	755.0	749.5	747.6
5°	794.3	798.8	798.5	799.8	801.4	802.4	801.7	792.7	780.9	771.6	766.2
7.5°	780.9	786.0	790.2	796.6	807.8	819.6	825.4	823.5	811.3	798.5	791.8
10°	742.8	748.2	758.2	773.2	796.9	822.5	844.0	853.9	846.2	832.1	822.8
12.5°	673.0	678.4	698.0	730.6	770.3	814.8	855.8	882.4	884.3	870.2	859.3
15°	594.6	600.0	620.8	661.8	722.3	793.7	862.2	912.5	929.5	917.3	904.2
17.5°	545.9	550.7	566.4	599.4	662.4	751.4	860.0	944.5	983.3	973.6	958.0
20°	531.2	535.3	542.7	565.7	618.3	707.6	845.3	974.6	1041.2	1035.8	1018.1
22.5°	546.9	550.7	552.9	563.2	596.2	678.8	826.7	1005.3	1108.4	1109.1	1087.6
25°	583.0	586.9	584.3	590.7	605.1	669.8	819.6	1041.5	1193.0	1200.0	1175.7
27.5°	642.6	642.9	636.8	636.5	638.7	683.2	827.0	1080.3	1299.6	1312.7	1282.6
30°	762.0	757.2	733.8	708.5	697.0	723.6	847.5	1126.0	1425.4	1448.8	1411.0
32.5°	946.1	939.1	896.2	835.7	774.8	788.6	884.3	1178.2	1562.4	1604.7	1558.6
35°	1145.9	1144.0	1099.2	1009.2	902.9	881.1	944.2	1246.8	1712.0	1779.2	1724.5
37.5°	1331.6	1330.6	1305.0	1199.0	1069.7	1010.1	1040.2	1336.4	1872.0	1969.4	1904.7
40°	1501.3	1504.2	1478.6	1383.8	1253.5	1175.7	1170.9	1447.2	2050.1	2176.5	2099.7
42.5°	1647.9	1651.1	1625.2	1555.1	1435.0	1358.8	1331.3	1582.9	2223.9	2399.1	2308.1
45°	1747.5	1767.4	1763.5	1707.5	1621.4	1542.3	1524.0	1753.3	2422.1	2635.0	2528.4
47.5°	1775.7	1793.9	1822.7	1830.4	1777.9	1700.1	1721.9	1958.5	2622.5	2871.3	2750.0
50°	1706.2	1723.2	1783.0	1862.8	1899.3	1875.3	1914.3	2178.5	2827.8	3107.0	2967.4
52.5°	1569.2	1586.5	1662.0	1788.2	1937.0	2012.6	2107.4	2395.2	3026.6	3330.1	3173.2
55°	1371.0	1389.2	1486.2	1629.0	1865.0	2069.3	2268.4	2611.6	3208.8	3530.9	3358.9
57.5°	1101.4	1114.8	1215.7	1415.5	1683.8	2012.9	2387.2	2847.9	3380.4	3728.1	3543.0
60°	717.8	729.7	846.9	1069.7	1383.5	1824.7	2410.9	3111.4	3608.3	3984.5	3791.2
62.5°	477.4	485.4	554.9	718.5	974.3	1463.2	2272.3	3321.8	3942.6	4430.9	4216.7
65°	327.5	335.5	405.0	519.0	629.5	967.9	1873.7	3293.9	4245.5	4785.3	4532.0
67.5°	233.7	240.4	299.4	406.9	455.6	562.2	1270.1	2937.9	4201.9	4798.7	4549.0
70°	167.5	171.3	220.0	317.0	362.1	337.8	706.3	2247.0	3679.1	4431.2	4202.6
72.5°	117.2	118.5	152.7	241.4	291.7	246.5	336.2	1498.1	2782.6	3478.0	3258.1
75°	79.4	81.0	102.8	177.1	234.0	188.3	178.0	803.3	1633.5	1925.2	1725.7
77.5°	48.7	49.3	66.3	121.0	175.1	143.4	114.6	340.3	632.0	620.5	528.9
80°	27.5	27.5	42.3	75.2	119.4	92.5	80.4	144.7	200.1	175.8	155.0
82.5°	15.4	15.7	30.7	46.7	79.1	54.7	44.2	66.9	86.4	76.5	66.6
85°	6.4	7.0	18.9	22.1	37.8	27.2	17.9	28.2	32.0	28.5	20.8
87.5°	0.6	1.0	5.8	4.2	4.5	5.4	2.6	5.4	4.5	4.5	3.2
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°	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7
2.5°	741.5	736.7	724.6	710.5	691.9	682.9	670.8	662.4	655.4	656.0	649.6
5°	755.9	743.8	716.5	682.6	640.3	610.2	578.2	556.1	538.2	534.4	525.7
7.5°	775.8	756.6	708.9	647.7	576.3	522.2	473.9	442.8	420.7	413.7	406.6
10°	801.4	773.5	698.9	603.8	501.1	432.2	380.4	356.0	341.0	335.9	332.0
12.5°	831.2	793.1	685.8	550.4	423.6	357.3	324.3	312.2	307.4	305.8	304.8
15°	868.6	817.4	666.0	487.0	358.0	311.5	297.4	295.8	296.5	295.8	295.5
17.5°	913.1	844.0	633.6	421.7	313.8	288.2	283.0	284.3	285.9	285.6	285.0
20°	961.8	870.2	592.3	363.7	283.7	271.5	268.6	269.9	271.2	270.5	270.2
22.5°	1017.2	898.4	546.5	318.6	263.5	256.1	252.9	253.3	253.3	252.0	251.3
25°	1083.5	929.5	498.5	286.6	248.1	242.4	238.5	237.2	235.3	231.5	230.8
27.5°	1162.5	962.4	452.4	264.1	236.0	230.5	226.0	222.8	218.0	211.6	211.0
30°	1251.6	1002.5	413.3	250.1	226.4	220.9	215.8	211.0	204.0	195.9	195.3
32.5°	1356.3	1045.4	384.8	240.8	217.7	212.0	205.9	200.1	192.4	184.4	184.7
35°	1481.1	1097.2	368.2	234.4	211.0	203.3	196.6	190.2	184.4	177.4	176.7
37.5°	1616.6	1152.3	363.1	231.2	206.5	194.7	187.0	182.5	181.9	177.7	177.4
40°	1764.8	1217.6	366.9	229.2	201.7	186.3	178.0	177.1	178.7	171.3	171.6
42.5°	1921.7	1295.1	373.3	227.0	195.0	178.0	170.0	170.0	168.7	158.5	158.5
45°	2091.4	1384.4	379.7	221.6	187.0	169.7	163.6	161.4	155.9	146.0	145.7
47.5°	2262.3	1475.4	384.5	211.6	177.4	162.6	157.2	152.1	144.1	135.1	134.8
50°	2424.7	1557.0	379.4	196.9	166.5	155.9	150.2	143.1	134.5	128.4	127.4
52.5°	2569.7	1627.8	357.6	179.6	155.0	148.9	143.8	136.4	129.3	122.9	122.3
55°	2695.9	1685.1	319.2	163.3	144.7	142.8	137.7	128.4	118.8	113.3	112.7
57.5°	2816.9	1728.6	271.2	149.8	135.4	136.1	128.4	120.1	111.1	105.3	104.7
60°	2977.9	1786.9	222.5	137.4	125.5	127.4	119.1	113.0	101.8	94.5	93.5
62.5°	3235.3	1877.5	176.7	122.0	114.0	114.6	111.1	103.7	90.3	81.6	81.0
65°	3439.6	1844.2	139.3	105.3	100.9	101.8	101.8	93.8	79.4	69.5	68.5
67.5°	3416.6	1579.1	111.1	89.0	88.4	89.0	91.2	84.5	70.4	62.4	61.2
70°	3147.3	1256.0	89.0	74.0	76.8	75.2	81.6	77.2	63.4	55.4	54.4
72.5°	2568.1	904.8	67.9	61.2	58.9	61.5	73.6	69.5	52.8	43.9	42.9
75°	1500.6	482.8	50.6	48.3	42.6	51.2	65.3	59.2	40.3	32.3	31.4
77.5°	488.6	168.4	37.1	35.5	31.7	41.3	55.7	49.9	33.0	25.6	24.7
80°	131.0	50.9	25.3	23.4	20.5	30.7	44.2	39.7	23.7	16.6	16.3
82.5°	52.5	21.5	14.7	13.1	11.2	21.1	34.9	32.0	17.6	10.6	10.6
85°	17.0	7.0	5.4	4.2	5.1	13.1	20.8	21.8	12.5	5.4	4.2
87.5°	2.2	1.0	1.0	1.3	1.0	2.2	6.4	6.1	3.5	0.6	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)