

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: P881788

Luminaire Tested: **NAV-SB1B-835-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881788  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-835-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3500K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

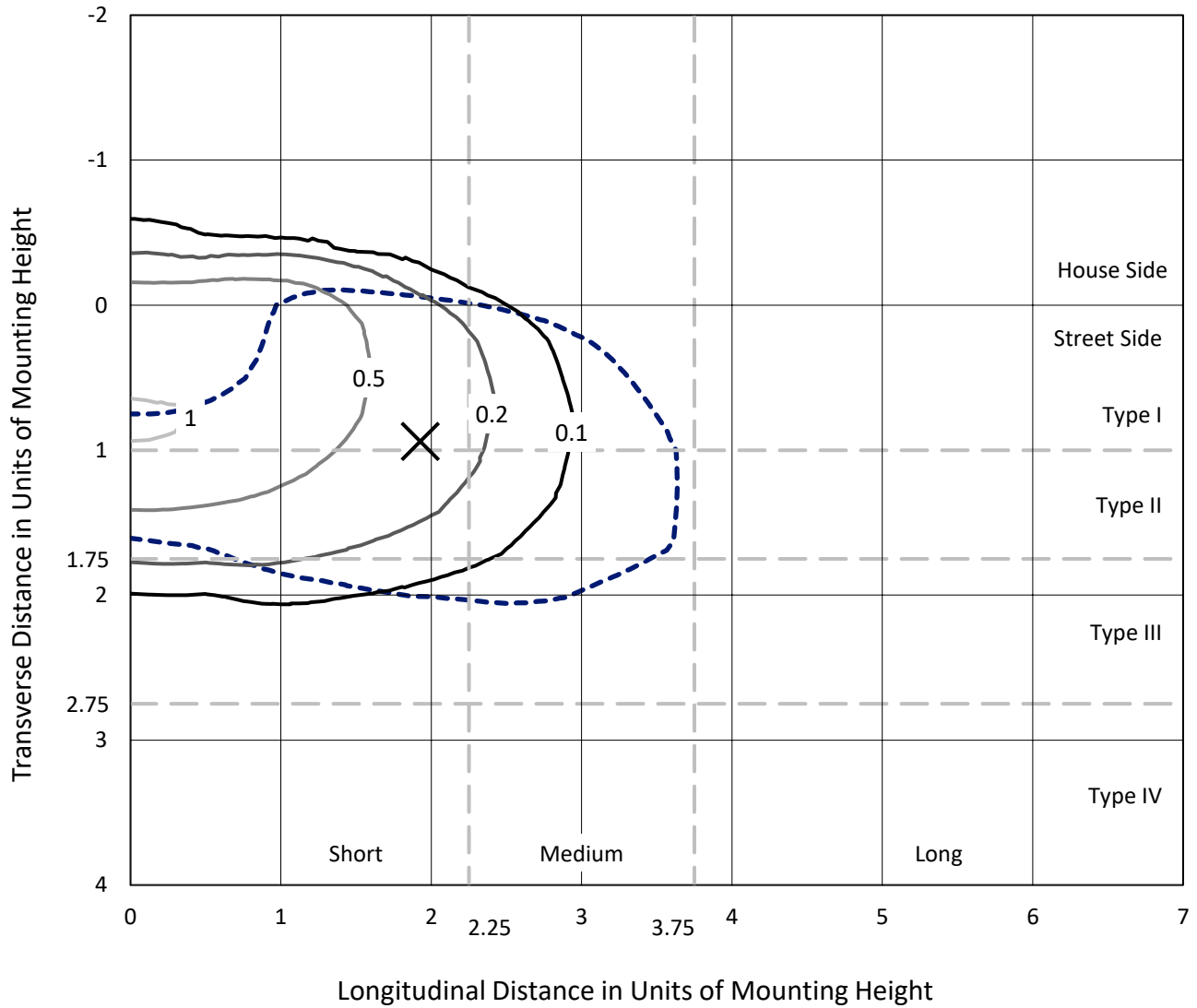
Lumens per Lamp: N/A  
Luminaire Lumens: 3728.9 lumens  
Efficiency: N/A  
Efficacy: 93.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 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

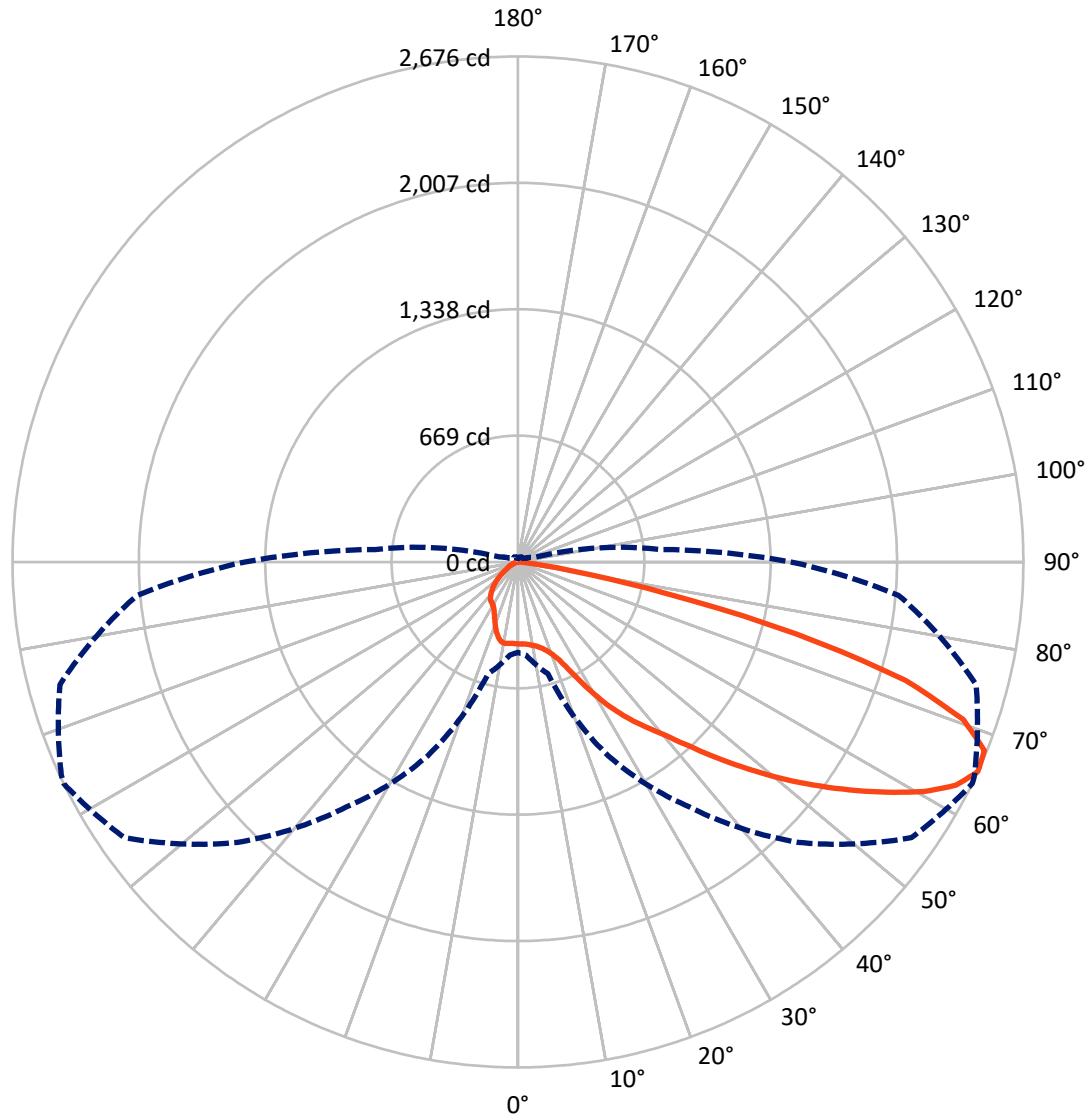
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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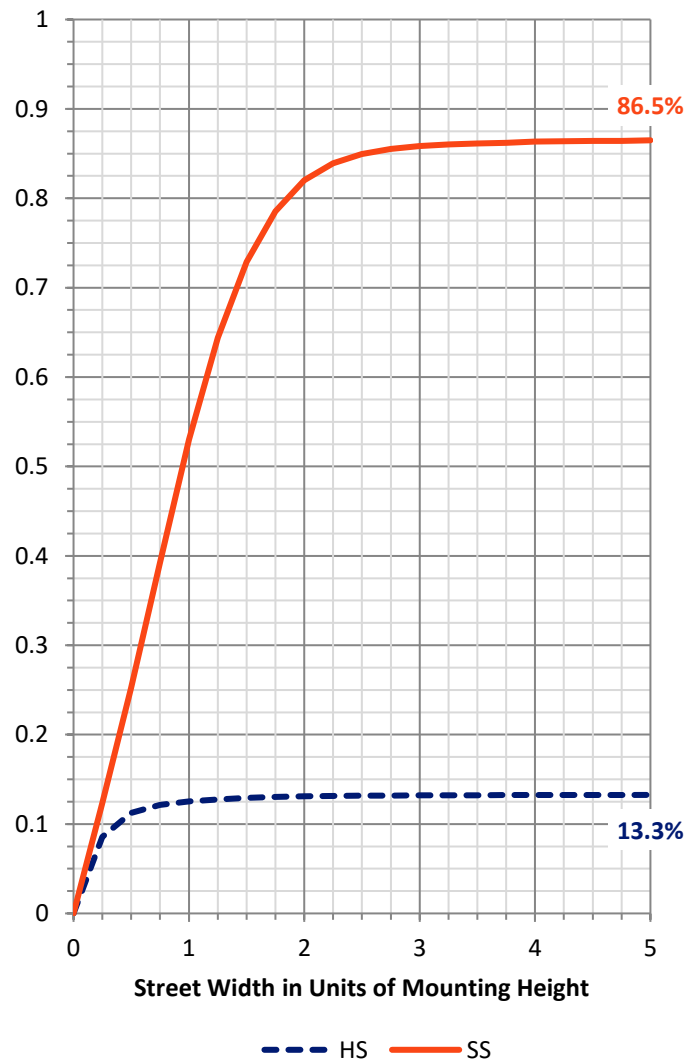
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	498.6	0.0	498.6
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	3230.3	0.0	3230.3
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	3728.9	0.0	3728.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.0	1.1
10°-20°	108.5	2.9
20°-30°	205.7	5.5
30°-40°	416.2	11.2
40°-50°	708.9	19.0
50°-60°	964.1	25.9
60°-70°	905.3	24.3
70°-80°	362.7	9.7
80°-90°	17.6	0.5
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°	3728.9	100.0
0°-180°	3728.9	100.0

**Coefficient of Utilization**



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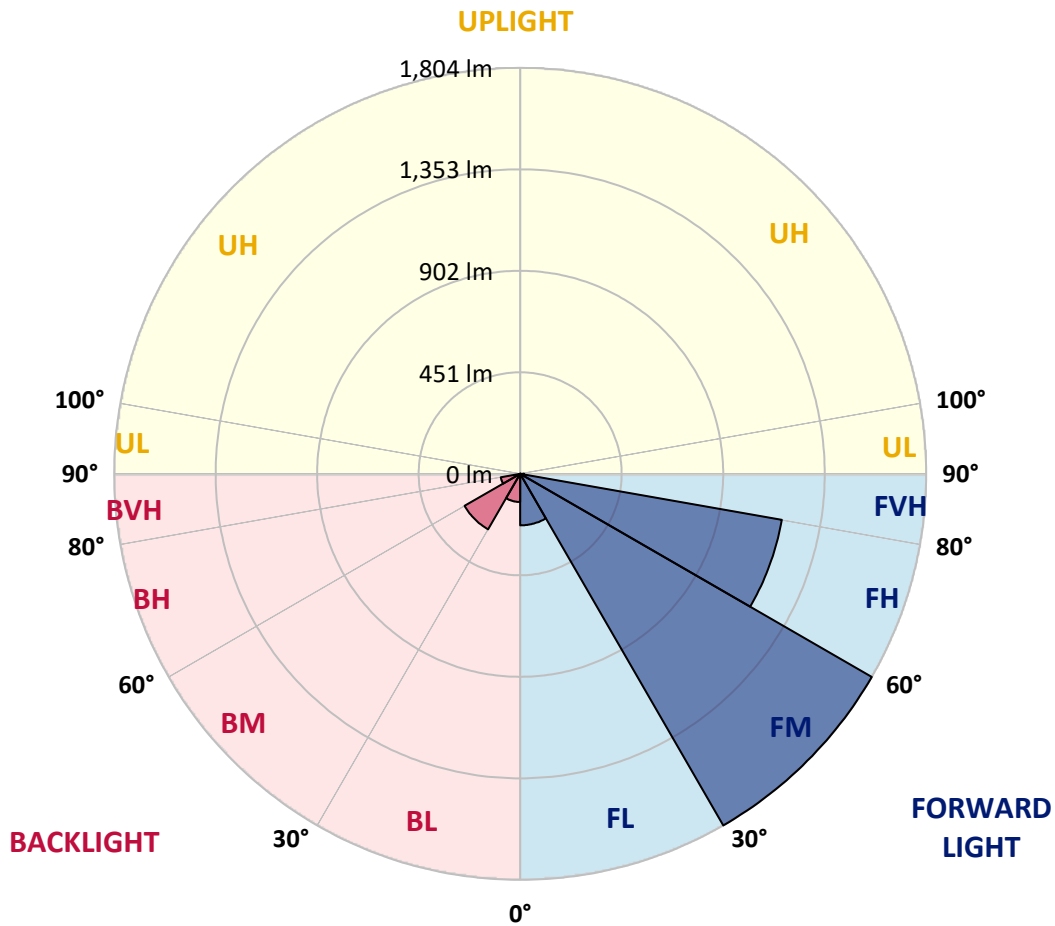
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	229.0	6.1			
FM (30°-60°)	1804.1	48.4			
FH (60°-80°)	1180.5	31.7			G1/1800
FVH (80°-90°)	16.7	0.4			G1/100
BL (0°-30°)	125.2	3.4	B1/500		
BM (30°-60°)	285.1	7.6	B1/1000		
BH (60°-80°)	87.5	2.3	B0/110		G0/110
BVH (80°-90°)	0.9	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-G1**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7
2.5°	432.2	435.2	434.5	433.7	433.5	434.0	434.2	434.0	434.0	434.0	434.2
5°	424.0	426.5	426.5	428.2	430.7	433.7	436.0	436.5	437.0	437.7	437.5
7.5°	408.2	410.2	411.7	417.5	423.7	431.7	438.5	442.0	442.5	445.2	446.2
10°	397.5	400.0	402.5	408.5	417.5	429.5	441.0	449.5	450.7	457.2	460.2
12.5°	397.0	399.5	402.7	409.2	419.7	432.5	446.5	458.7	461.0	470.5	476.7
15°	402.2	405.2	408.2	416.2	427.5	443.0	458.0	473.2	475.5	489.0	495.7
17.5°	413.0	417.0	419.2	427.2	439.2	456.5	476.2	493.7	495.7	511.5	520.0
20°	434.2	439.0	439.7	446.2	458.0	476.5	500.0	521.7	524.2	542.2	551.7
22.5°	478.2	485.0	479.0	482.2	492.7	511.2	536.7	564.2	567.7	588.2	596.7
25°	555.7	565.2	549.7	544.2	548.7	568.0	600.0	634.7	638.7	655.2	659.5
27.5°	708.0	695.7	672.2	649.2	635.7	646.7	682.7	725.7	730.7	746.7	741.7
30°	875.2	864.4	832.7	781.7	749.7	748.0	781.2	829.2	834.9	850.2	834.9
32.5°	1042.7	1032.4	997.9	935.2	879.7	852.2	875.2	928.4	931.4	941.2	918.7
35°	1207.4	1196.9	1162.4	1098.2	1029.9	967.4	962.9	1022.9	1023.9	1034.2	1000.7
37.5°	1373.2	1364.4	1327.7	1264.7	1197.4	1111.2	1069.4	1112.4	1113.7	1123.7	1088.9
40°	1491.4	1495.2	1469.9	1421.2	1363.4	1269.2	1188.9	1207.7	1200.2	1216.9	1196.2
42.5°	1592.9	1600.4	1578.4	1553.9	1520.4	1437.4	1336.9	1333.7	1321.7	1330.7	1309.2
45°	1680.6	1686.9	1667.1	1661.4	1660.6	1602.4	1498.7	1479.2	1462.4	1460.7	1434.9
47.5°	1712.9	1724.9	1733.4	1752.6	1790.1	1765.6	1665.9	1635.6	1616.9	1603.1	1562.4
50°	1725.1	1737.9	1766.9	1822.9	1911.6	1922.1	1832.4	1798.4	1775.4	1750.4	1690.4
52.5°	1708.6	1731.4	1770.4	1864.6	1993.4	2047.6	1992.1	1962.4	1936.1	1895.4	1806.4
55°	1611.4	1634.1	1713.9	1864.1	2034.1	2135.6	2143.1	2129.9	2100.4	2036.1	1900.1
57.5°	1406.4	1440.2	1566.4	1800.6	2033.4	2211.4	2291.1	2300.6	2267.6	2175.6	1973.9
60°	1122.4	1168.2	1322.2	1659.9	1970.6	2252.4	2420.8	2468.3	2433.3	2313.1	2033.6
62.5°	783.2	836.2	981.9	1439.4	1827.1	2222.9	2515.6	2603.3	2576.8	2436.1	2056.6
65°	477.7	494.7	612.2	1132.7	1583.1	2099.4	2544.8	2676.3	2667.6	2511.3	2022.6
67.5°	318.2	332.5	366.2	776.7	1228.9	1852.6	2474.8	2663.6	2666.1	2499.1	1898.1
70°	191.7	204.0	226.0	451.7	796.4	1466.4	2258.1	2501.1	2515.6	2335.3	1662.1
72.5°	79.0	87.2	107.2	204.7	412.5	930.7	1798.1	2147.4	2181.1	1963.6	1275.7
75°	44.7	49.0	63.0	102.7	179.0	433.7	1089.2	1524.4	1574.1	1353.4	767.4
77.5°	29.7	31.7	40.7	66.5	100.7	148.0	465.5	794.2	889.2	739.2	332.2
80°	20.0	21.7	28.0	44.5	65.5	63.5	148.2	294.2	362.0	254.0	81.0
82.5°	13.5	13.7	20.0	29.2	41.5	30.7	43.7	91.5	115.0	73.5	30.7
85°	7.7	7.5	14.7	17.0	18.5	12.7	13.2	27.5	36.0	31.0	17.5
87.5°	1.0	1.5	5.7	4.5	2.5	2.7	2.7	4.7	7.0	7.5	3.7
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°	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7
2.5°	434.2	434.0	433.2	432.5	430.7	429.7	430.2	429.7	429.5	429.7	430.7
5°	437.5	436.7	434.7	432.2	428.7	424.5	421.7	417.7	414.0	411.7	412.2
7.5°	446.2	445.5	442.7	435.7	424.5	406.7	390.5	376.2	365.5	359.2	359.5
10°	460.2	459.0	454.7	439.2	409.7	371.0	338.7	312.0	294.5	286.2	285.5
12.5°	476.7	475.2	467.7	436.0	381.7	321.2	276.7	247.0	230.7	223.5	222.7
15°	496.2	494.2	479.5	420.5	341.0	266.2	225.5	203.2	192.7	186.2	186.5
17.5°	520.5	517.0	488.2	397.2	296.7	224.2	194.0	177.2	168.0	161.7	161.2
20°	552.0	546.2	495.2	369.5	256.0	197.7	172.7	158.7	151.7	146.2	145.2
22.5°	596.0	587.7	503.7	339.5	227.2	179.5	157.0	146.7	141.0	134.7	133.7
25°	650.5	640.7	514.2	311.7	207.5	163.7	145.5	137.0	130.2	123.0	122.2
27.5°	726.7	709.2	526.7	289.0	190.5	150.2	135.0	125.5	117.7	111.7	110.5
30°	811.7	782.9	537.7	275.2	175.0	137.7	121.2	111.7	104.5	100.2	99.5
32.5°	892.2	853.2	545.0	269.2	161.0	123.5	106.2	96.0	90.5	89.2	90.0
35°	968.2	916.7	544.2	263.5	148.5	109.2	91.5	81.0	76.7	77.5	77.5
37.5°	1055.7	984.4	539.0	254.5	138.2	96.2	78.7	69.5	65.7	66.0	67.0
40°	1157.4	1062.7	535.7	237.5	127.0	84.2	68.2	60.7	58.0	57.0	56.7
42.5°	1265.9	1138.4	536.2	218.2	113.0	73.5	61.0	54.7	52.2	51.5	51.2
45°	1374.9	1210.7	537.0	198.2	98.2	65.2	55.7	50.5	49.0	48.0	48.0
47.5°	1477.4	1272.2	523.0	176.7	83.7	59.0	51.5	48.0	46.7	45.5	45.5
50°	1572.9	1313.2	489.2	151.7	72.2	54.0	48.2	45.7	44.5	43.2	43.2
52.5°	1647.1	1319.7	433.5	126.0	64.2	50.2	46.2	44.0	42.5	41.2	41.0
55°	1680.1	1278.9	354.2	102.0	58.0	47.0	44.2	42.0	40.2	39.0	38.7
57.5°	1671.6	1193.2	276.2	82.0	52.0	43.7	41.7	40.2	38.2	36.2	36.0
60°	1629.9	1078.4	208.2	68.2	46.5	40.2	39.0	37.7	35.0	32.0	31.5
62.5°	1557.6	934.2	148.5	56.5	40.5	36.2	35.7	34.7	30.7	25.2	24.7
65°	1447.2	758.9	100.0	47.0	34.7	31.7	32.0	30.2	25.0	18.7	18.2
67.5°	1285.7	555.0	64.0	38.5	29.0	26.5	26.7	25.7	21.2	16.0	15.2
70°	1079.9	367.5	41.7	29.2	23.2	20.5	22.0	22.2	18.0	13.0	12.5
72.5°	791.7	217.0	29.2	21.7	17.0	14.2	18.0	18.5	14.5	9.7	9.2
75°	451.2	103.0	22.0	15.7	10.5	10.0	14.0	14.0	10.0	6.5	6.0
77.5°	189.5	43.0	15.5	10.2	6.0	5.7	9.5	8.7	5.0	3.0	3.0
80°	54.7	19.2	8.2	5.0	2.5	2.2	3.7	2.7	1.2	0.5	0.5
82.5°	21.5	8.5	3.2	2.0	1.0	1.0	0.5	0.0	0.0	0.0	0.0
85°	12.7	3.5	1.5	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.2	0.7	0.5	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)