

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: P881790

Luminaire Tested: **NAV-SB1B-835-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881790
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-SB1B-835-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3500K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3600 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

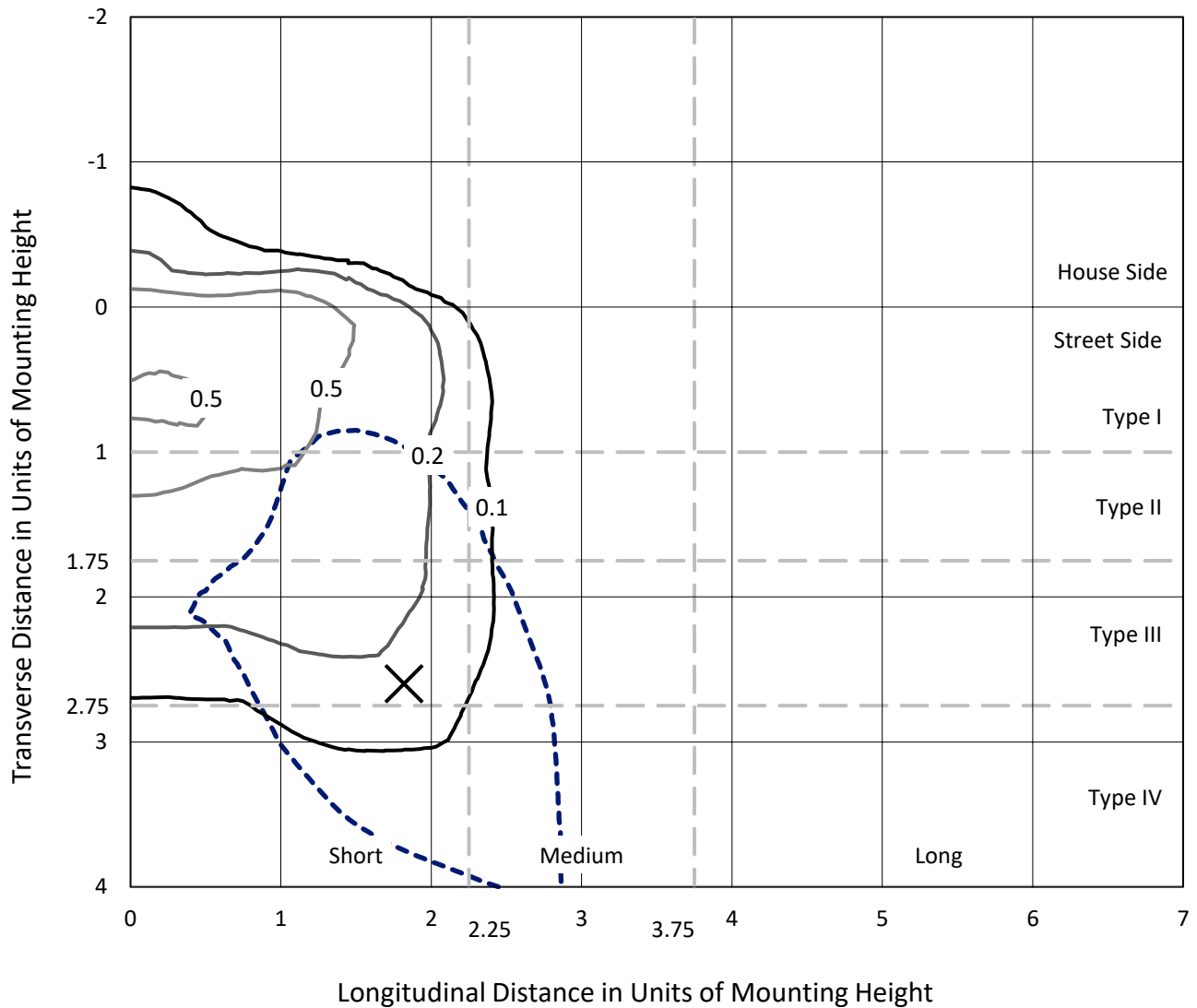
Input Watts (W): 39.8
Input Voltage (V): 120.0
Input Current (Ain): 0.33
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.305
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

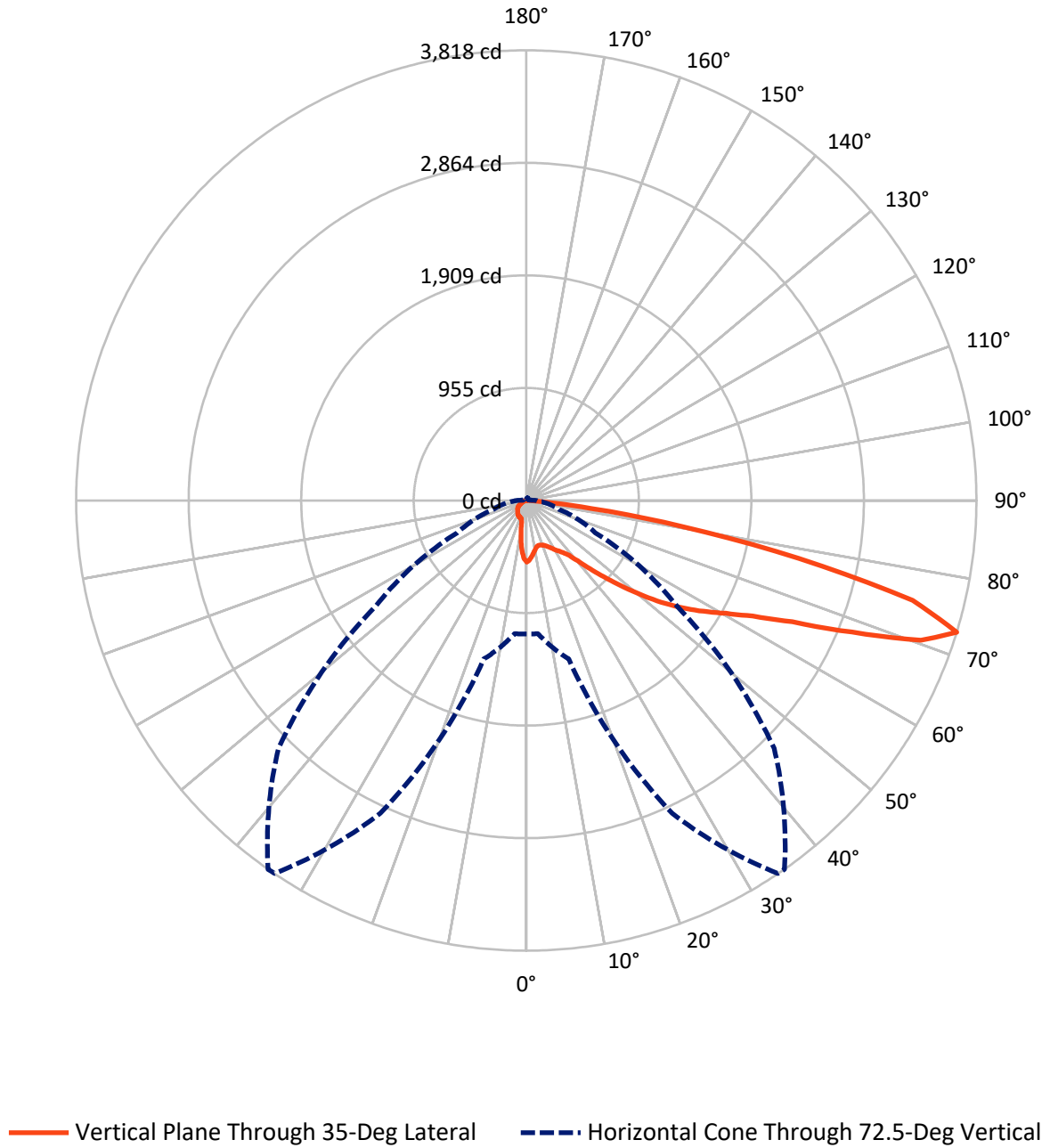
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 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	405.2	0.0	405.2
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	3194.8	0.0	3194.8
	% Fixture	88.7	0.0	88.7
Total	Lumens	3600.0	0.0	3600.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.9	1.2
10°-20°	100.3	2.8
20°-30°	162.9	4.5
30°-40°	271.9	7.6
40°-50°	514.4	14.3
50°-60°	817.3	22.7
60°-70°	1011.1	28.1
70°-80°	628.5	17.5
80°-90°	50.8	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°	3600.0	100.0
0°-180°	3600.0	100.0

Coefficient of Utilization



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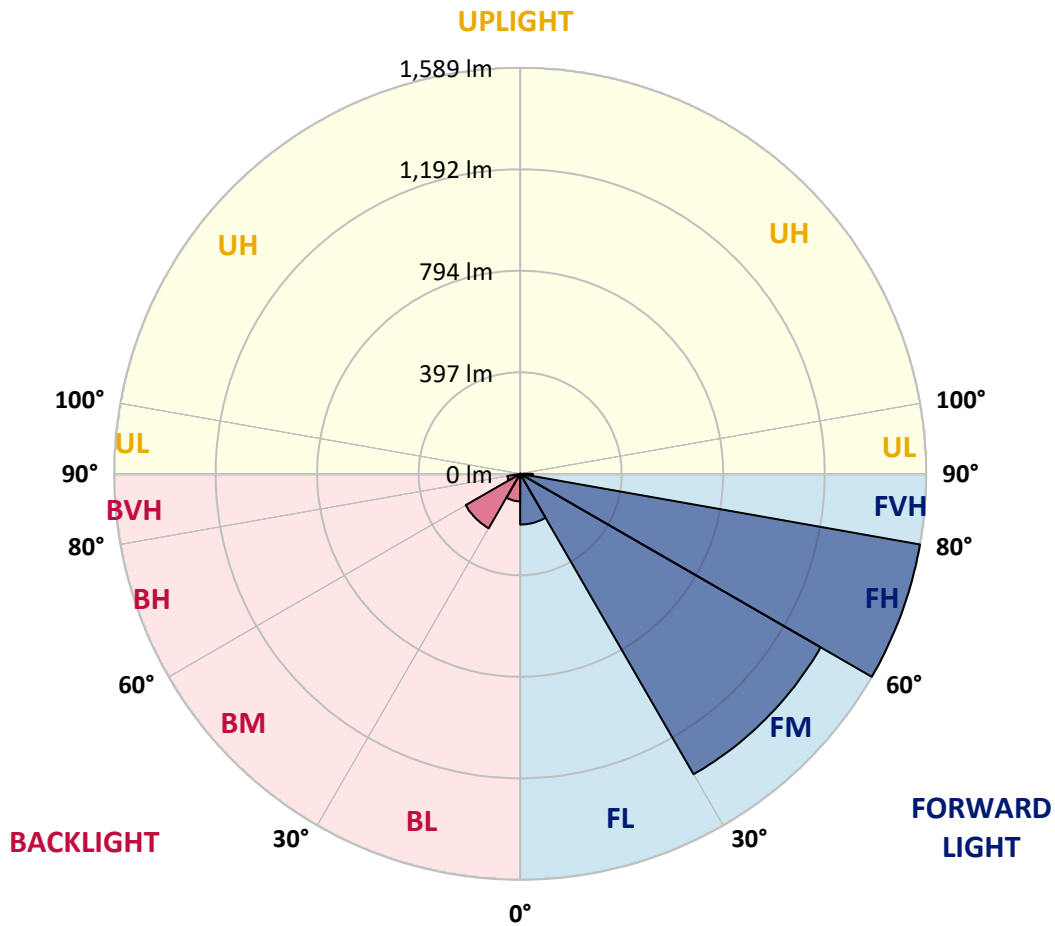
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	198.5	5.5			
FM (30°-60°)	1357.6	37.7			
FH (60°-80°)	1588.7	44.1			G1/1800
FVH (80°-90°)	50.1	1.4			G1/100
BL (0°-30°)	107.7	3.0	B0/110		
BM (30°-60°)	246.0	6.8	B1/1000		
BH (60°-80°)	50.8	1.4	B0/110		G0/110
BVH (80°-90°)	0.7	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8
2.5°	498.5	502.8	503.6	504.9	504.9	506.5	509.1	512.8	518.9	522.0	524.1
5°	459.5	462.7	466.6	469.8	475.9	476.7	486.9	497.0	510.9	521.5	528.9
7.5°	420.2	423.9	429.2	436.8	444.7	447.1	462.7	479.6	501.7	521.5	533.9
10°	392.5	392.8	397.5	405.2	417.8	420.7	439.7	463.7	491.4	518.3	538.6
12.5°	376.9	378.8	380.9	386.7	398.8	400.7	421.0	449.2	481.1	516.5	544.2
15°	376.9	378.3	379.6	382.5	392.2	393.8	411.8	440.0	475.9	517.3	553.2
17.5°	380.9	383.0	382.0	385.4	395.7	396.7	412.6	437.4	475.6	522.3	566.9
20°	390.4	392.0	389.9	392.0	402.3	404.4	420.7	442.4	480.1	531.0	584.0
22.5°	405.4	406.2	401.2	402.8	413.3	416.0	435.0	456.6	490.9	545.0	607.0
25°	424.4	426.0	418.4	420.2	430.2	433.4	455.3	478.0	508.0	564.2	636.2
27.5°	446.3	447.1	440.5	440.3	453.2	457.7	479.8	504.4	531.0	588.5	673.2
30°	471.4	473.8	467.4	466.4	482.7	486.4	508.3	536.8	564.8	624.9	725.7
32.5°	491.2	493.0	489.3	492.0	508.6	511.5	542.9	582.7	617.8	676.6	797.1
35°	519.7	520.7	512.3	517.0	536.0	543.4	590.1	647.1	684.5	741.5	890.5
37.5°	622.8	622.8	586.9	563.4	581.6	588.2	654.7	728.0	766.8	828.5	1008.2
40°	765.5	763.1	710.6	662.6	660.2	673.2	746.8	830.1	873.1	933.0	1140.6
42.5°	917.7	914.0	842.5	795.0	787.1	791.6	853.1	955.9	999.7	1060.4	1283.0
45°	1052.8	1051.7	986.3	922.4	908.2	922.4	985.8	1103.1	1134.5	1198.4	1425.2
47.5°	1165.9	1165.9	1118.2	1076.5	1069.1	1077.5	1165.4	1266.4	1263.5	1345.3	1563.7
50°	1296.2	1295.2	1249.8	1231.9	1239.5	1251.4	1372.2	1438.4	1397.0	1489.6	1687.4
52.5°	1387.5	1393.8	1378.3	1375.4	1414.4	1435.0	1582.2	1606.7	1516.5	1626.5	1780.0
55°	1459.8	1467.2	1485.1	1505.4	1580.6	1607.5	1785.5	1766.3	1616.5	1745.2	1833.3
57.5°	1562.1	1551.6	1579.3	1619.4	1741.0	1773.4	1982.6	1916.9	1696.9	1841.5	1839.1
60°	1686.4	1687.9	1692.7	1743.3	1901.1	1942.8	2176.7	2059.3	1748.6	1900.5	1774.7
62.5°	1835.7	1838.0	1847.8	1925.6	2116.1	2155.4	2383.5	2175.9	1772.4	1883.9	1608.5
65°	1825.4	1835.4	1944.3	2210.5	2442.9	2481.7	2624.9	2257.7	1736.5	1732.0	1309.7
67.5°	1662.9	1679.2	1861.5	2550.8	2935.6	2978.9	2916.6	2273.8	1581.6	1346.9	854.4
70°	1449.7	1455.5	1674.8	2856.8	3506.2	3550.0	3177.8	2096.8	1200.2	751.3	382.7
72.5°	1132.2	1133.5	1390.7	2927.7	3815.9	3818.2	2972.8	1556.6	645.5	288.6	132.9
75°	808.8	800.8	931.4	2374.3	3357.2	3384.1	2228.7	730.1	246.6	136.4	66.2
77.5°	433.7	442.4	527.0	1408.1	2319.2	2365.1	1216.0	210.5	125.6	92.9	43.8
80°	134.0	141.4	216.0	644.7	1313.6	1341.3	450.8	93.6	87.6	66.2	28.8
82.5°	42.2	43.8	100.8	270.9	545.2	557.9	130.6	53.0	59.9	43.8	16.9
85°	12.1	12.4	44.8	101.0	134.8	137.4	36.7	20.6	34.3	27.2	8.7
87.5°	1.3	4.2	16.9	16.9	11.9	11.6	4.0	4.5	9.8	3.4	1.6
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°	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8	521.8
2.5°	522.8	523.1	519.7	513.8	507.5	502.2	495.6	490.4	486.7	485.6	487.5
5°	526.5	524.7	514.9	497.2	476.1	457.9	437.6	421.5	411.0	406.5	408.1
7.5°	532.0	526.8	505.4	470.6	430.2	394.4	358.0	329.7	311.8	302.8	304.1
10°	536.8	526.2	489.6	432.1	370.3	316.0	266.9	232.9	213.9	205.0	205.2
12.5°	541.3	526.0	469.0	386.4	302.8	236.3	190.7	173.8	168.6	166.7	166.2
15°	549.7	526.8	443.2	334.2	235.6	178.6	162.0	161.7	162.8	162.2	162.0
17.5°	561.3	527.6	413.9	278.8	181.7	157.5	156.7	159.1	160.6	159.9	159.6
20°	576.4	530.7	382.7	224.0	156.2	152.2	154.0	156.2	157.5	156.2	155.9
22.5°	597.5	536.3	348.7	179.9	148.0	149.0	150.6	153.0	154.3	152.5	152.2
25°	623.3	545.0	315.2	156.4	144.0	145.3	147.7	150.4	151.9	150.1	149.8
27.5°	656.8	559.0	284.4	151.1	140.1	140.9	144.3	148.2	150.4	148.0	148.0
30°	705.4	581.9	257.7	153.5	137.7	135.8	140.6	146.1	148.5	146.4	146.1
32.5°	769.7	614.3	241.4	157.2	136.6	130.0	134.5	141.7	145.6	144.3	144.3
35°	854.1	663.7	235.0	161.4	135.8	124.0	127.1	134.8	141.7	143.0	143.0
37.5°	956.5	732.3	236.9	163.3	133.5	119.0	120.5	127.1	136.1	140.3	141.4
40°	1072.8	812.2	247.4	161.4	130.8	114.7	115.0	120.0	127.9	134.3	136.4
42.5°	1192.8	905.6	266.9	154.6	128.5	111.1	110.3	113.7	119.0	123.4	125.3
45°	1307.0	1001.6	286.2	145.1	125.6	107.4	105.5	106.8	107.9	109.7	110.8
47.5°	1406.7	1069.1	280.7	136.4	121.6	103.1	100.0	99.4	96.3	96.0	95.8
50°	1475.6	1083.9	249.3	127.7	115.8	98.4	93.4	90.2	84.7	82.0	82.3
52.5°	1497.5	1025.6	203.6	119.0	106.3	92.1	84.9	79.9	73.1	70.7	70.4
55°	1468.5	911.4	162.8	108.4	93.1	83.6	75.7	69.1	63.6	60.7	60.7
57.5°	1397.5	766.0	128.7	96.0	79.1	74.1	66.2	59.6	54.9	52.0	51.4
60°	1279.9	608.3	101.8	81.2	67.5	63.8	55.7	51.4	47.2	43.8	43.0
62.5°	1101.3	434.2	79.9	64.4	56.4	52.2	47.5	44.3	39.3	34.6	33.8
65°	859.4	265.6	61.7	47.2	45.4	43.3	40.4	37.5	31.4	26.6	25.9
67.5°	542.1	125.8	44.1	35.6	35.9	34.8	33.5	31.1	26.6	22.4	21.9
70°	238.7	60.9	29.0	27.2	26.6	26.6	27.7	26.9	22.7	18.7	17.9
72.5°	81.2	32.7	21.6	20.6	19.3	19.0	23.2	22.4	18.2	14.5	13.7
75°	42.5	21.9	15.8	14.8	11.6	14.0	18.5	17.4	12.9	9.5	8.7
77.5°	27.7	15.6	10.8	9.5	6.6	9.2	13.7	12.1	7.6	4.7	4.2
80°	17.4	10.3	6.3	4.5	3.2	5.0	7.4	5.3	2.9	1.1	0.8
82.5°	9.2	5.3	2.4	1.6	1.3	1.6	1.8	1.3	0.5	0.0	0.0
85°	3.7	1.8	0.8	0.5	0.3	0.0	0.5	0.3	0.0	0.0	0.0
87.5°	1.3	0.3	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)