

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: P881770

Luminaire Tested: **NAV-SB1B-827-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881770
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-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 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: 3467 lumens
Efficiency: N/A
Efficacy: 87.1 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

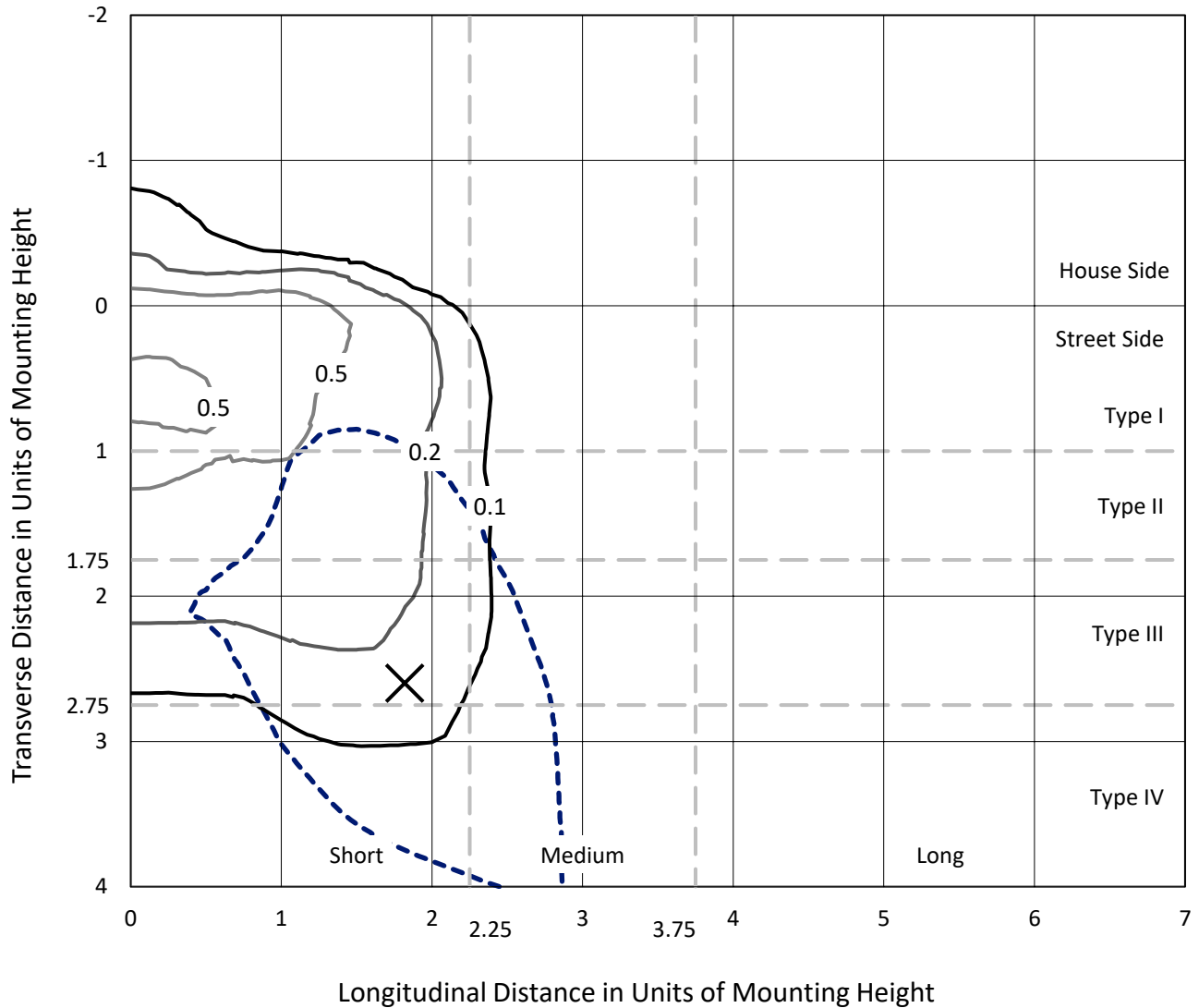
Input Watts (W): 39.8
Input Voltage (V): 120.0
Input Current (Ain): 0.33
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.305
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

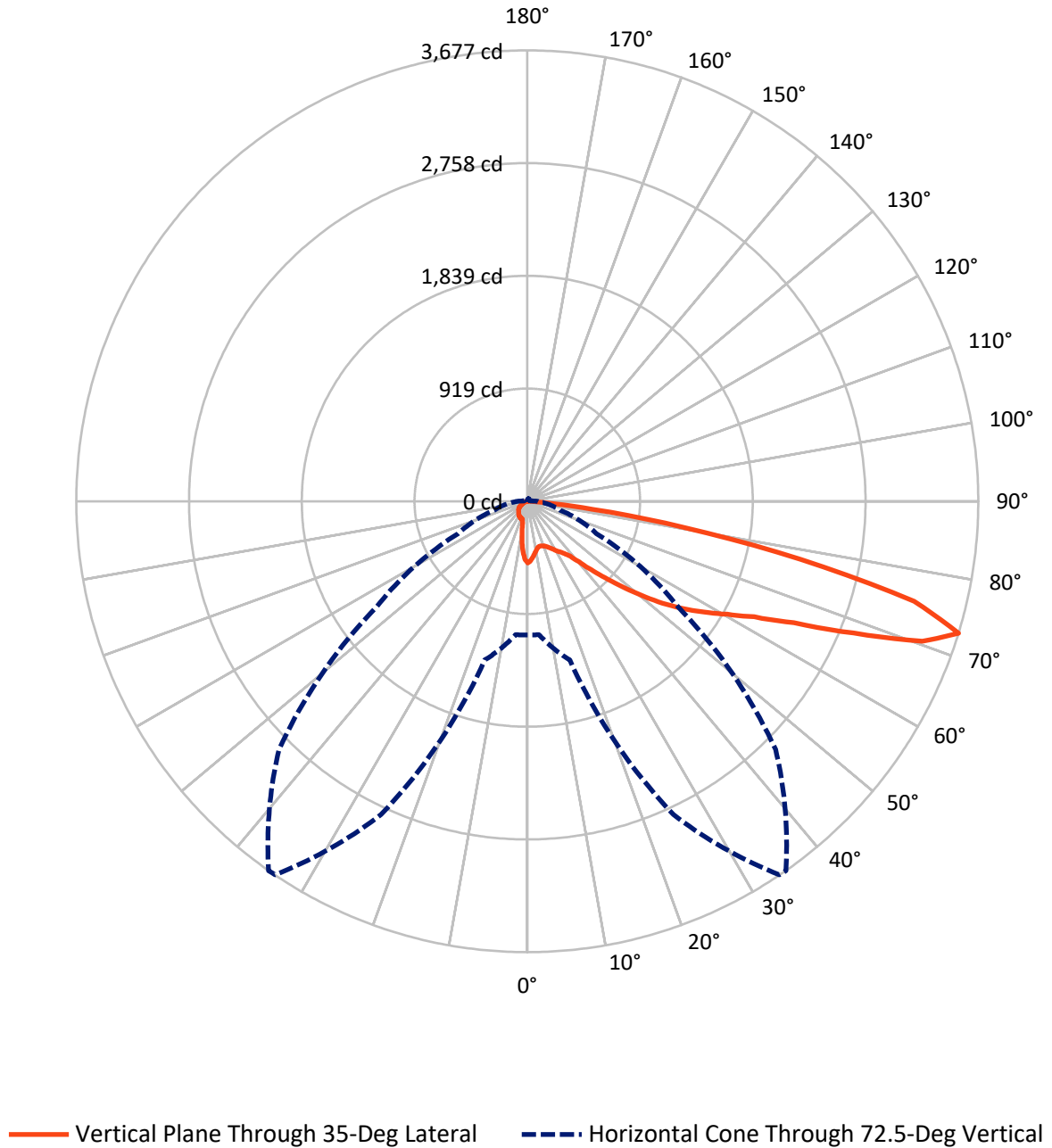
✕ Max cd
 - - - 1/2 Max cd



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	390.2	0.0	390.2
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	3076.8	0.0	3076.8
	% Fixture	88.7	0.0	88.7
Total	Lumens	3467.0	0.0	3467.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	1.2
10°-20°	96.6	2.8
20°-30°	156.9	4.5
30°-40°	261.8	7.6
40°-50°	495.4	14.3
50°-60°	787.1	22.7
60°-70°	973.7	28.1
70°-80°	605.3	17.5
80°-90°	48.9	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°	3467.0	100.0
0°-180°	3467.0	100.0

Coefficient of Utilization



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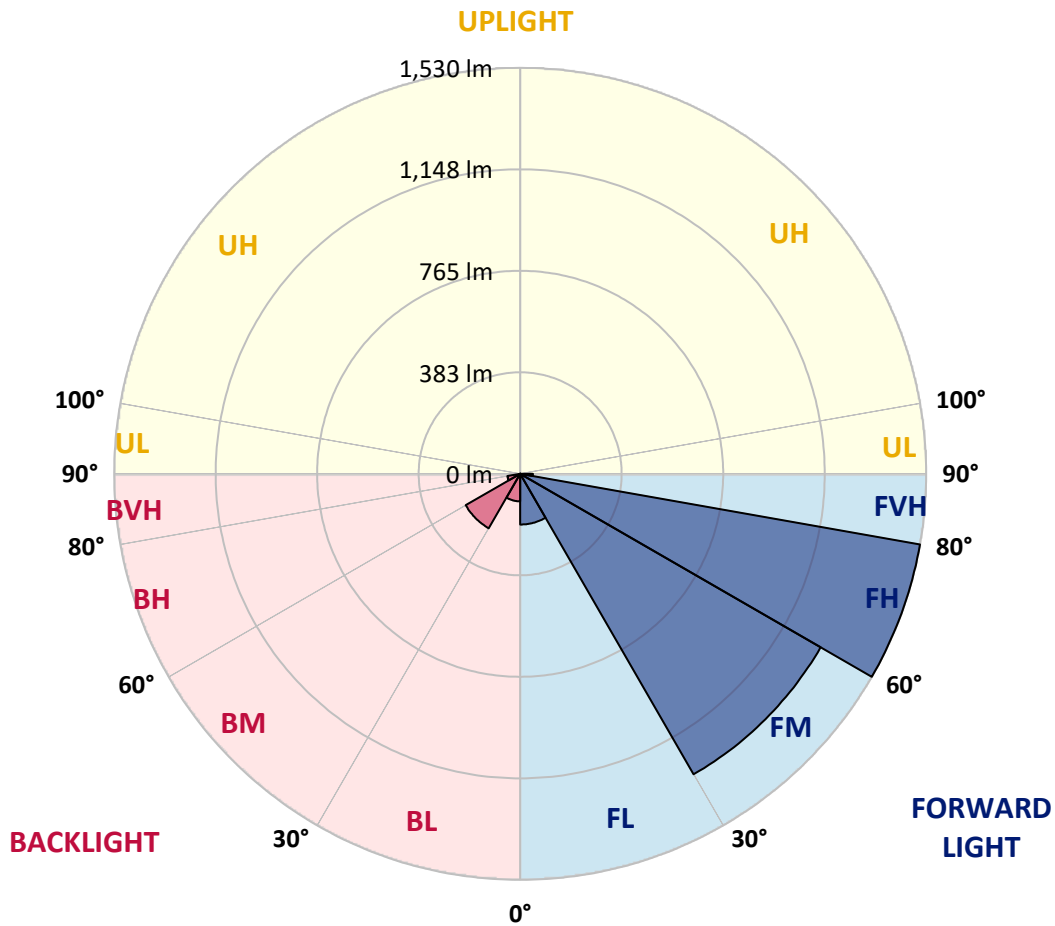
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	191.1	5.5			
FM (30°-60°)	1307.4	37.7			
FH (60°-80°)	1530.0	44.1			G1/1800
FVH (80°-90°)	48.3	1.4			G1/100
BL (0°-30°)	103.7	3.0	B0/110		
BM (30°-60°)	236.9	6.8	B1/1000		
BH (60°-80°)	49.0	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°	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5
2.5°	480.1	484.2	485.0	486.2	486.2	487.8	490.3	493.8	499.7	502.7	504.8
5°	442.5	445.6	449.4	452.4	458.3	459.0	469.0	478.6	492.1	502.2	509.3
7.5°	404.7	408.2	413.3	420.7	428.3	430.6	445.6	461.8	483.2	502.2	514.2
10°	378.0	378.3	382.8	390.2	402.4	405.2	423.5	446.6	473.3	499.2	518.7
12.5°	363.0	364.8	366.8	372.4	384.1	385.9	405.4	432.6	463.4	497.4	524.1
15°	363.0	364.3	365.6	368.4	377.8	379.3	396.6	423.7	458.3	498.2	532.7
17.5°	366.8	368.9	367.8	371.1	381.1	382.1	397.3	421.2	458.0	503.0	545.9
20°	376.0	377.5	375.5	377.5	387.4	389.4	405.2	426.0	462.3	511.4	562.4
22.5°	390.5	391.2	386.4	387.9	398.1	400.6	418.9	439.7	472.8	524.8	584.5
25°	408.7	410.3	402.9	404.7	414.3	417.4	438.5	460.3	489.3	543.4	612.7
27.5°	429.8	430.6	424.2	424.0	436.4	440.8	462.1	485.7	511.4	566.8	648.3
30°	454.0	456.2	450.2	449.1	464.9	468.4	489.5	517.0	543.9	601.8	698.9
32.5°	473.0	474.8	471.2	473.8	489.8	492.6	522.8	561.2	595.0	651.6	767.7
35°	500.5	501.5	493.3	497.9	516.2	523.3	568.3	623.2	659.2	714.1	857.6
37.5°	599.8	599.8	565.2	542.6	560.2	566.5	630.5	701.1	738.5	797.9	970.9
40°	737.2	734.9	684.4	638.1	635.9	648.3	719.2	799.5	840.9	898.5	1098.5
42.5°	883.8	880.2	811.4	765.7	758.0	762.4	821.6	920.6	962.8	1021.2	1235.6
45°	1013.9	1012.8	949.8	888.4	874.6	888.4	949.3	1062.4	1092.6	1154.1	1372.6
47.5°	1122.8	1122.8	1076.9	1036.7	1029.6	1037.7	1122.3	1219.6	1216.8	1295.6	1505.9
50°	1248.3	1247.3	1203.6	1186.4	1193.7	1205.1	1321.5	1385.3	1345.4	1434.5	1625.1
52.5°	1336.2	1342.3	1327.3	1324.5	1362.1	1382.0	1523.7	1547.3	1460.5	1566.4	1714.2
55°	1405.8	1413.0	1430.2	1449.8	1522.2	1548.1	1719.6	1701.0	1556.7	1680.7	1765.6
57.5°	1504.4	1494.2	1520.9	1559.5	1676.6	1707.9	1909.3	1846.1	1634.2	1773.4	1771.1
60°	1624.1	1625.6	1630.2	1678.9	1830.8	1871.0	2096.3	1983.3	1684.0	1830.3	1709.2
62.5°	1767.8	1770.1	1779.5	1854.5	2037.9	2075.7	2295.5	2095.5	1706.9	1814.3	1549.1
65°	1757.9	1767.6	1872.5	2128.8	2352.6	2390.0	2527.9	2174.3	1672.3	1668.0	1261.3
67.5°	1601.4	1617.2	1792.7	2456.5	2827.2	2868.8	2808.9	2189.8	1523.2	1297.1	822.8
70°	1396.2	1401.8	1612.9	2751.2	3376.7	3418.8	3060.4	2019.3	1155.9	723.5	368.6
72.5°	1090.3	1091.6	1339.3	2819.6	3674.9	3677.2	2863.0	1499.1	621.6	277.9	128.0
75°	778.9	771.3	897.0	2286.6	3233.1	3259.0	2146.4	703.2	237.5	131.3	63.8
77.5°	417.6	426.0	507.6	1356.0	2233.5	2277.7	1171.1	202.7	120.9	89.4	42.2
80°	129.1	136.2	208.1	620.9	1265.1	1291.8	434.1	90.2	84.3	63.8	27.7
82.5°	40.6	42.2	97.0	260.9	525.1	537.3	125.7	51.1	57.7	42.2	16.3
85°	11.7	11.9	43.2	97.3	129.8	132.4	35.3	19.8	33.0	26.2	8.4
87.5°	1.3	4.1	16.3	16.3	11.4	11.2	3.8	4.3	9.4	3.3	1.5
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°	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5
2.5°	503.5	503.8	500.5	494.9	488.8	483.7	477.3	472.3	468.7	467.7	469.5
5°	507.1	505.3	495.9	478.9	458.5	441.0	421.4	406.0	395.8	391.5	393.0
7.5°	512.4	507.3	486.7	453.2	414.3	379.8	344.7	317.5	300.3	291.6	292.9
10°	517.0	506.8	471.5	416.1	356.7	304.3	257.1	224.3	206.0	197.4	197.6
12.5°	521.3	506.5	451.7	372.2	291.6	227.6	183.7	167.4	162.3	160.6	160.0
15°	529.4	507.3	426.8	321.9	226.9	172.0	156.0	155.7	156.7	156.2	156.0
17.5°	540.6	508.1	398.6	268.5	175.0	151.7	150.9	153.2	154.7	153.9	153.7
20°	555.1	511.1	368.6	215.7	150.4	146.6	148.4	150.4	151.7	150.4	150.1
22.5°	575.4	516.5	335.8	173.3	142.5	143.5	145.1	147.3	148.6	146.8	146.6
25°	600.3	524.8	303.6	150.6	138.7	140.0	142.3	144.8	146.3	144.5	144.3
27.5°	632.6	538.3	273.9	145.6	134.9	135.7	139.0	142.8	144.8	142.5	142.5
30°	679.3	560.4	248.2	147.8	132.6	130.8	135.4	140.7	143.0	141.0	140.7
32.5°	741.3	591.7	232.4	151.4	131.6	125.2	129.6	136.4	140.2	139.0	139.0
35°	822.6	639.2	226.3	155.5	130.8	119.4	122.4	129.8	136.4	137.7	137.7
37.5°	921.1	705.2	228.1	157.2	128.5	114.6	116.1	122.4	131.1	135.1	136.2
40°	1033.2	782.2	238.3	155.5	126.0	110.5	110.8	115.6	123.2	129.3	131.3
42.5°	1148.8	872.1	257.1	148.9	123.7	106.9	106.2	109.5	114.6	118.9	120.7
45°	1258.8	964.6	275.6	139.7	120.9	103.4	101.6	102.9	103.9	105.7	106.7
47.5°	1354.8	1029.6	270.3	131.3	117.1	99.3	96.3	95.8	92.7	92.5	92.2
50°	1421.1	1043.8	240.1	123.0	111.5	94.8	89.9	86.9	81.5	79.0	79.3
52.5°	1442.2	987.7	196.1	114.6	102.4	88.7	81.8	77.0	70.4	68.1	67.8
55°	1414.2	877.7	156.7	104.4	89.7	80.5	72.9	66.6	61.2	58.4	58.4
57.5°	1345.9	737.7	124.0	92.5	76.2	71.4	63.8	57.4	52.8	50.0	49.5
60°	1232.6	585.8	98.1	78.2	65.0	61.5	53.6	49.5	45.5	42.2	41.4
62.5°	1060.6	418.1	77.0	62.0	54.4	50.3	45.7	42.7	37.9	33.3	32.5
65°	827.7	255.8	59.4	45.5	43.7	41.7	38.9	36.1	30.2	25.7	24.9
67.5°	522.0	121.2	42.4	34.3	34.5	33.5	32.3	30.0	25.7	21.6	21.1
70°	229.9	58.7	27.9	26.2	25.7	25.7	26.7	25.9	21.8	18.0	17.3
72.5°	78.2	31.5	20.8	19.8	18.5	18.3	22.4	21.6	17.5	14.0	13.2
75°	40.9	21.1	15.2	14.2	11.2	13.5	17.8	16.8	12.4	9.1	8.4
77.5°	26.7	15.0	10.4	9.1	6.4	8.9	13.2	11.7	7.4	4.6	4.1
80°	16.8	9.9	6.1	4.3	3.0	4.8	7.1	5.1	2.8	1.0	0.8
82.5°	8.9	5.1	2.3	1.5	1.3	1.5	1.8	1.3	0.5	0.0	0.0
85°	3.6	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)