

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: P881610

Luminaire Tested: **NAV-SB1A-830-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881610
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-SB1A-830-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 350mA 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: 2974 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

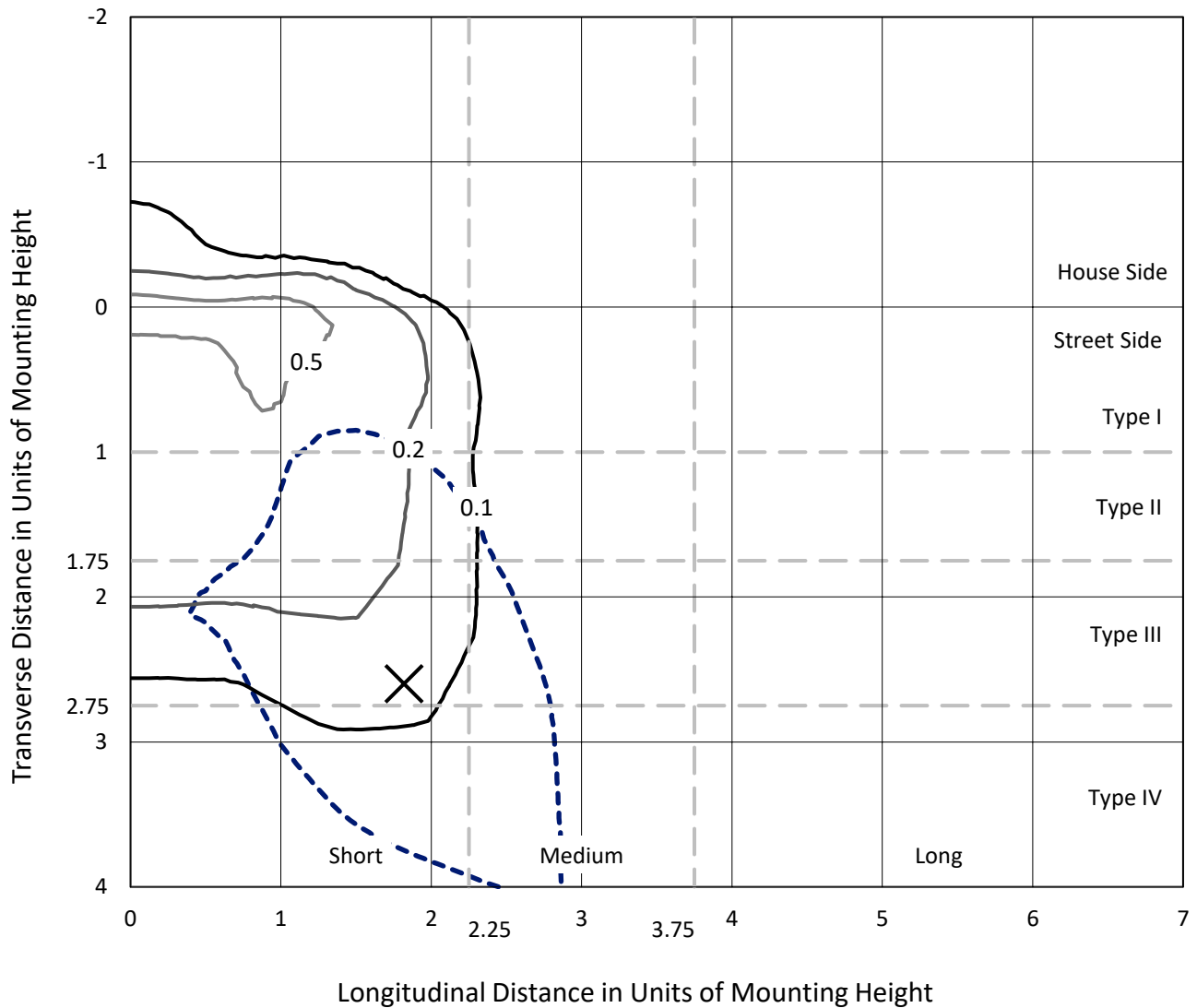
Input Watts (W): 30.9
Input Voltage (V): 120.0
Input Current (Ain): 0.263
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 6.356
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

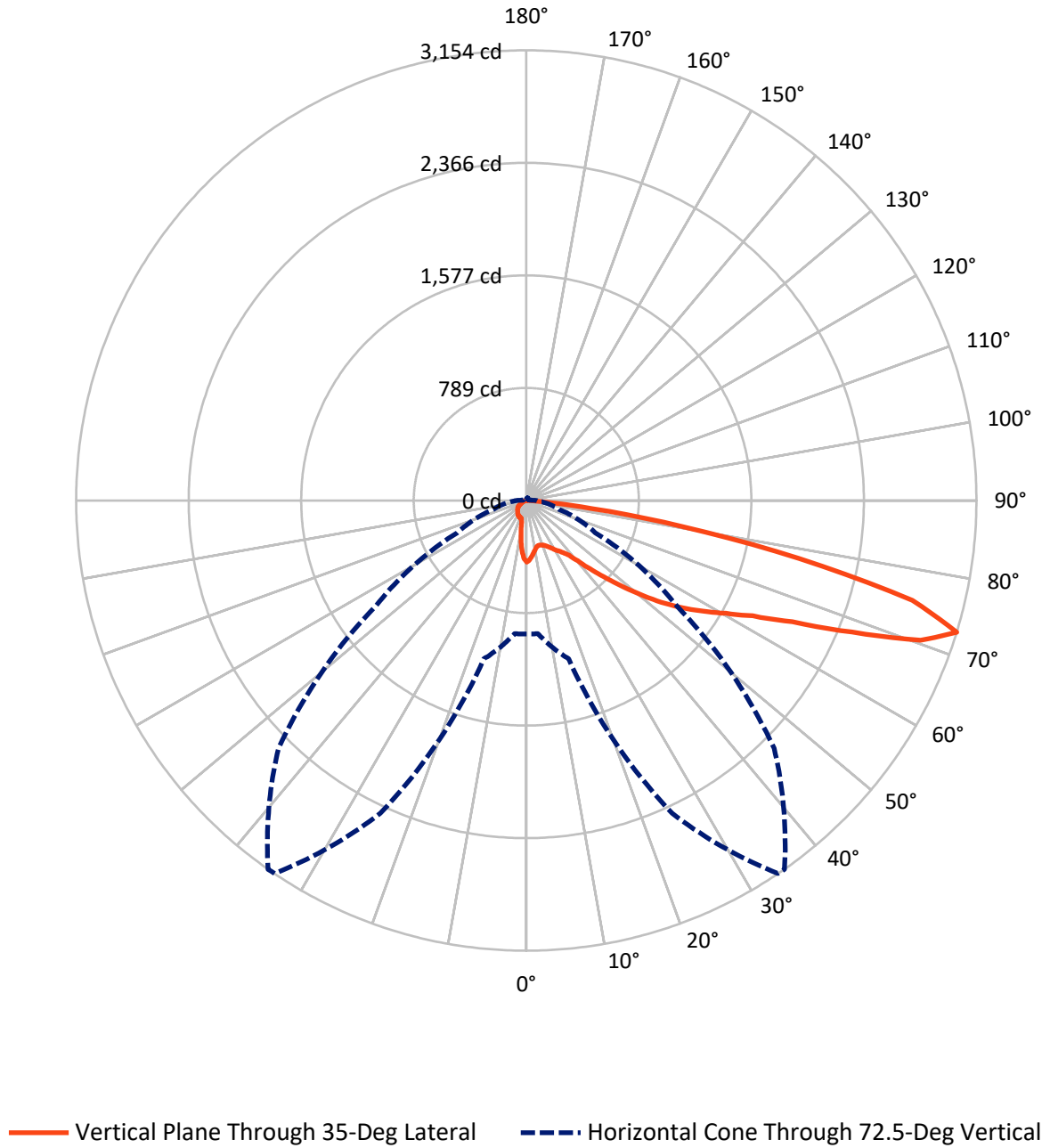
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 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	334.7	0.0	334.7
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	2639.3	0.0	2639.3
	% Fixture	88.7	0.0	88.7
Total	Lumens	2974.0	0.0	2974.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	1.2
10°-20°	82.9	2.8
20°-30°	134.6	4.5
30°-40°	224.6	7.6
40°-50°	424.9	14.3
50°-60°	675.2	22.7
60°-70°	835.3	28.1
70°-80°	519.2	17.5
80°-90°	42.0	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°	2974.0	100.0
0°-180°	2974.0	100.0

Coefficient of Utilization



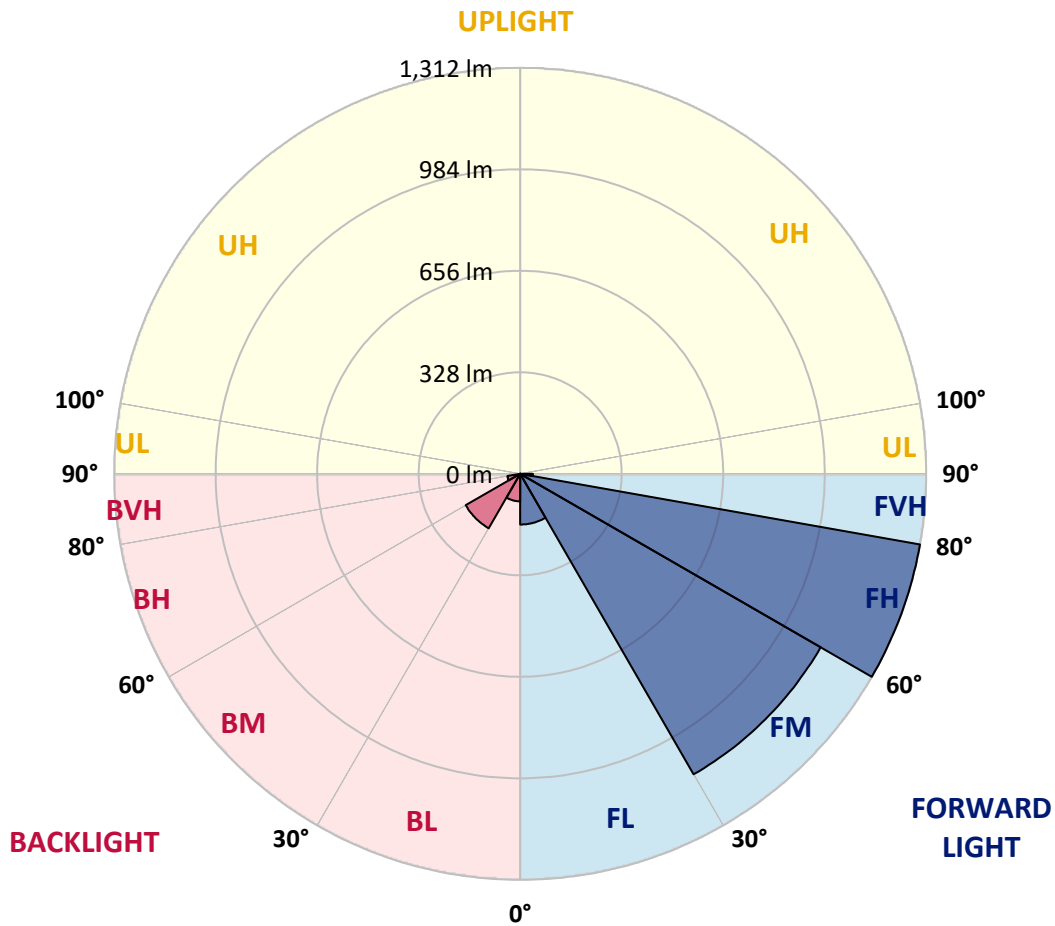
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	163.9	5.5			
FM (30°-60°)	1121.5	37.7			
FH (60°-80°)	1312.5	44.1			G1/1800
FVH (80°-90°)	41.4	1.4			G1/100
BL (0°-30°)	88.9	3.0	B0/110		
BM (30°-60°)	203.2	6.8	B0/220		
BH (60°-80°)	42.0	1.4	B0/110		G0/110
BVH (80°-90°)	0.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0
2.5°	411.9	415.3	416.0	417.1	417.1	418.4	420.6	423.6	428.6	431.3	433.0
5°	379.6	382.2	385.5	388.1	393.1	393.8	402.3	410.5	422.1	430.8	436.9
7.5°	347.1	350.2	354.5	360.9	367.4	369.4	382.2	396.2	414.5	430.8	441.1
10°	324.3	324.5	328.4	334.7	345.2	347.6	363.3	383.1	406.0	428.2	445.0
12.5°	311.4	312.9	314.7	319.5	329.5	331.0	347.8	371.1	397.5	426.7	449.6
15°	311.4	312.5	313.6	316.0	324.0	325.3	340.2	363.5	393.1	427.3	457.0
17.5°	314.7	316.4	315.5	318.4	326.9	327.7	340.8	361.3	392.9	431.5	468.3
20°	322.5	323.8	322.1	323.8	332.3	334.1	347.6	365.4	396.6	438.7	482.5
22.5°	334.9	335.6	331.4	332.8	341.5	343.6	359.3	377.2	405.5	450.2	501.4
25°	350.6	351.9	345.6	347.1	355.4	358.0	376.1	394.9	419.7	466.1	525.6
27.5°	368.7	369.4	363.9	363.7	374.4	378.1	396.4	416.7	438.7	486.2	556.1
30°	389.4	391.4	386.1	385.3	398.8	401.8	419.9	443.5	466.6	516.2	599.5
32.5°	405.8	407.3	404.2	406.4	420.1	422.5	448.5	481.4	510.4	558.9	658.5
35°	429.3	430.2	423.2	427.1	442.8	448.9	487.5	534.5	565.5	612.6	735.7
37.5°	514.5	514.5	484.9	465.5	480.5	485.9	540.9	601.4	633.5	684.5	832.9
40°	632.4	630.4	587.1	547.4	545.4	556.1	616.9	685.8	721.3	770.8	942.3
42.5°	758.1	755.1	696.0	656.8	650.3	654.0	704.7	789.7	825.9	876.0	1059.9
45°	869.7	868.8	814.8	762.0	750.3	762.0	814.3	911.3	937.2	990.0	1177.4
47.5°	963.2	963.2	923.7	889.3	883.2	890.2	962.7	1046.2	1043.8	1111.4	1291.8
50°	1070.8	1070.0	1032.5	1017.7	1024.0	1033.8	1133.6	1188.3	1154.1	1230.6	1394.0
52.5°	1146.2	1151.5	1138.6	1136.2	1168.5	1185.4	1307.0	1327.3	1252.8	1343.7	1470.5
55°	1205.9	1212.0	1226.9	1243.6	1305.7	1328.0	1475.1	1459.1	1335.4	1441.7	1514.5
57.5°	1290.5	1281.8	1304.6	1337.8	1438.2	1465.0	1637.8	1583.6	1401.8	1521.3	1519.3
60°	1393.1	1394.4	1398.3	1440.2	1570.5	1604.9	1798.2	1701.2	1444.5	1570.1	1466.1
62.5°	1516.5	1518.4	1526.5	1590.8	1748.1	1780.6	1969.1	1797.6	1464.2	1556.3	1328.8
65°	1508.0	1516.2	1606.2	1826.1	2018.1	2050.1	2168.5	1865.1	1434.5	1430.8	1081.9
67.5°	1373.7	1387.2	1537.8	2107.2	2425.2	2460.9	2409.5	1878.4	1306.6	1112.7	705.8
70°	1197.7	1202.4	1383.5	2360.0	2896.5	2932.7	2625.2	1732.2	991.5	620.6	316.2
72.5°	935.3	936.4	1148.8	2418.6	3152.3	3154.3	2455.9	1285.9	533.2	238.4	109.8
75°	668.1	661.6	769.5	1961.4	2773.4	2795.6	1841.1	603.2	203.7	112.7	54.7
77.5°	358.2	365.4	435.4	1163.2	1915.9	1953.8	1004.6	173.9	103.7	76.7	36.2
80°	110.7	116.8	178.5	532.6	1085.2	1108.1	372.4	77.4	72.3	54.7	23.8
82.5°	34.9	36.2	83.2	223.8	450.4	460.9	107.9	43.8	49.5	36.2	13.9
85°	10.0	10.2	37.0	83.5	111.4	113.5	30.3	17.0	28.3	22.4	7.2
87.5°	1.1	3.5	13.9	13.9	9.8	9.6	3.3	3.7	8.1	2.8	1.3
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°	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0	431.0
2.5°	431.9	432.1	429.3	424.5	419.3	414.9	409.5	405.1	402.0	401.2	402.7
5°	435.0	433.4	425.4	410.8	393.3	378.3	361.5	348.2	339.5	335.8	337.1
7.5°	439.5	435.2	417.5	388.8	355.4	325.8	295.7	272.4	257.6	250.2	251.3
10°	443.5	434.7	404.4	356.9	306.0	261.1	220.5	192.4	176.7	169.3	169.5
12.5°	447.2	434.5	387.4	319.2	250.2	195.3	157.6	143.6	139.2	137.7	137.3
15°	454.1	435.2	366.1	276.1	194.6	147.5	133.8	133.6	134.5	134.0	133.8
17.5°	463.7	435.8	341.9	230.3	150.1	130.1	129.4	131.4	132.7	132.1	131.8
20°	476.1	438.4	316.2	185.0	129.0	125.7	127.3	129.0	130.1	129.0	128.8
22.5°	493.6	443.0	288.1	148.6	122.2	123.1	124.4	126.4	127.5	126.0	125.7
25°	514.9	450.2	260.4	129.2	119.0	120.1	122.0	124.2	125.5	124.0	123.8
27.5°	542.6	461.8	234.9	124.9	115.7	116.4	119.2	122.5	124.2	122.2	122.2
30°	582.7	480.7	212.9	126.8	113.8	112.2	116.1	120.7	122.7	120.9	120.7
32.5°	635.9	507.5	199.4	129.9	112.9	107.4	111.1	117.0	120.3	119.2	119.2
35°	705.6	548.3	194.2	133.4	112.2	102.4	105.0	111.4	117.0	118.1	118.1
37.5°	790.2	604.9	195.7	134.9	110.3	98.3	99.6	105.0	112.4	115.9	116.8
40°	886.3	671.0	204.4	133.4	108.1	94.8	95.0	99.2	105.7	110.9	112.7
42.5°	985.4	748.1	220.5	127.7	106.1	91.7	91.1	93.9	98.3	102.0	103.5
45°	1079.8	827.4	236.4	119.9	103.7	88.7	87.2	88.3	89.1	90.7	91.5
47.5°	1162.1	883.2	231.9	112.7	100.5	85.2	82.6	82.2	79.5	79.3	79.1
50°	1219.0	895.4	205.9	105.5	95.7	81.3	77.1	74.5	70.0	67.8	68.0
52.5°	1237.1	847.2	168.2	98.3	87.8	76.1	70.2	66.0	60.4	58.4	58.2
55°	1213.1	752.9	134.5	89.6	76.9	69.1	62.5	57.1	52.5	50.1	50.1
57.5°	1154.5	632.8	106.3	79.3	65.4	61.2	54.7	49.2	45.3	42.9	42.5
60°	1057.3	502.5	84.1	67.1	55.8	52.7	46.0	42.5	39.0	36.2	35.5
62.5°	909.8	358.7	66.0	53.2	46.6	43.1	39.2	36.6	32.5	28.5	27.9
65°	710.0	219.4	51.0	39.0	37.5	35.7	33.3	30.9	25.9	22.0	21.4
67.5°	447.8	103.9	36.4	29.4	29.6	28.8	27.7	25.7	22.0	18.5	18.1
70°	197.2	50.3	24.0	22.4	22.0	22.0	22.9	22.2	18.7	15.5	14.8
72.5°	67.1	27.0	17.9	17.0	15.9	15.7	19.2	18.5	15.0	12.0	11.3
75°	35.1	18.1	13.1	12.2	9.6	11.5	15.3	14.4	10.7	7.8	7.2
77.5°	22.9	12.9	8.9	7.8	5.4	7.6	11.3	10.0	6.3	3.9	3.5
80°	14.4	8.5	5.2	3.7	2.6	4.1	6.1	4.4	2.4	0.9	0.7
82.5°	7.6	4.4	2.0	1.3	1.1	1.3	1.5	1.1	0.4	0.0	0.0
85°	3.1	1.5	0.7	0.4	0.2	0.0	0.4	0.2	0.0	0.0	0.0
87.5°	1.1	0.2	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)