

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: P881600

Luminaire Tested: **NAV-SB1A-827-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881600  
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-827-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 2700K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

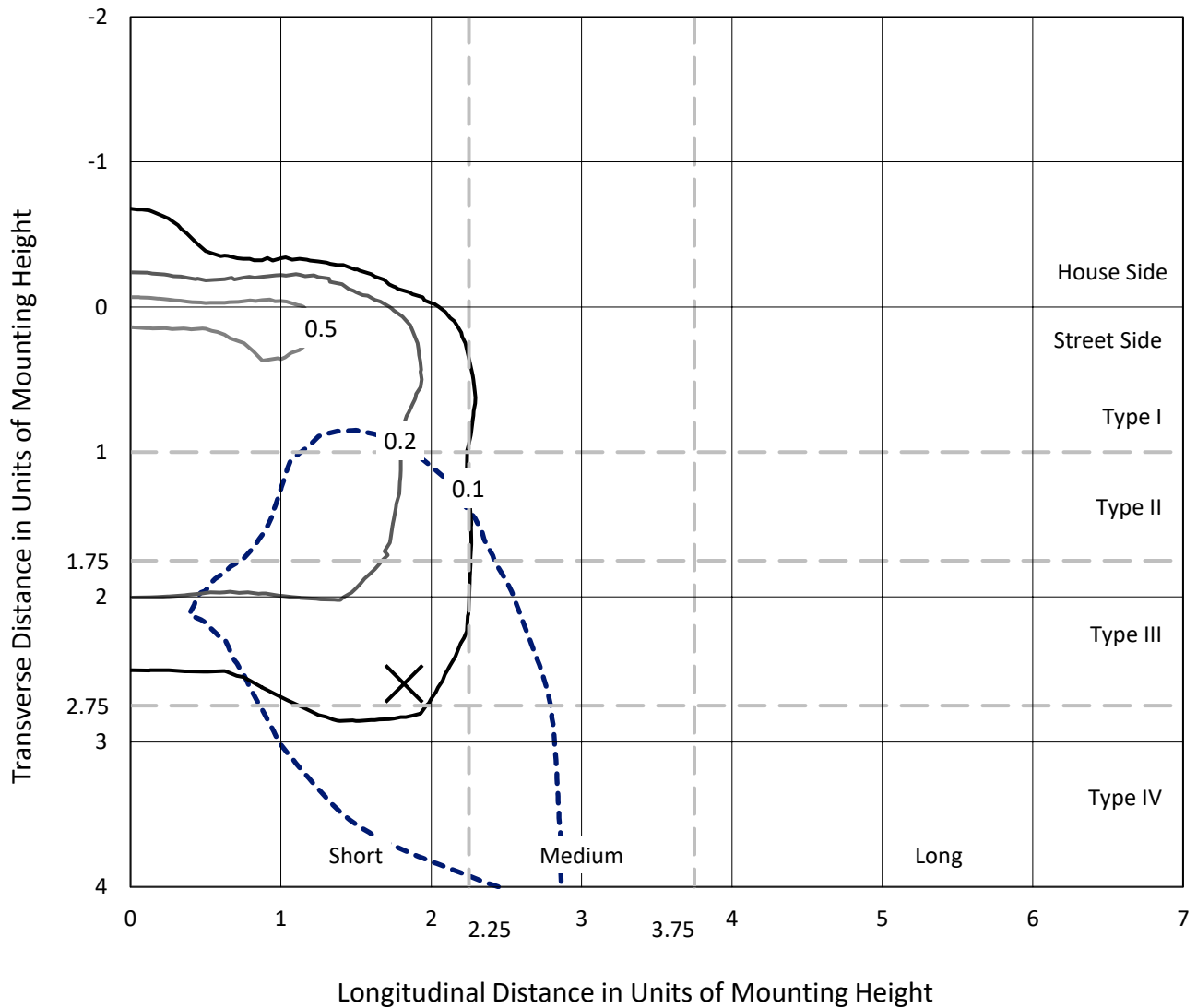
Lumens per Lamp: N/A  
Luminaire Lumens: 2762 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 30.9  
Input Voltage (V): 120.0  
Input Current (Ain): 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

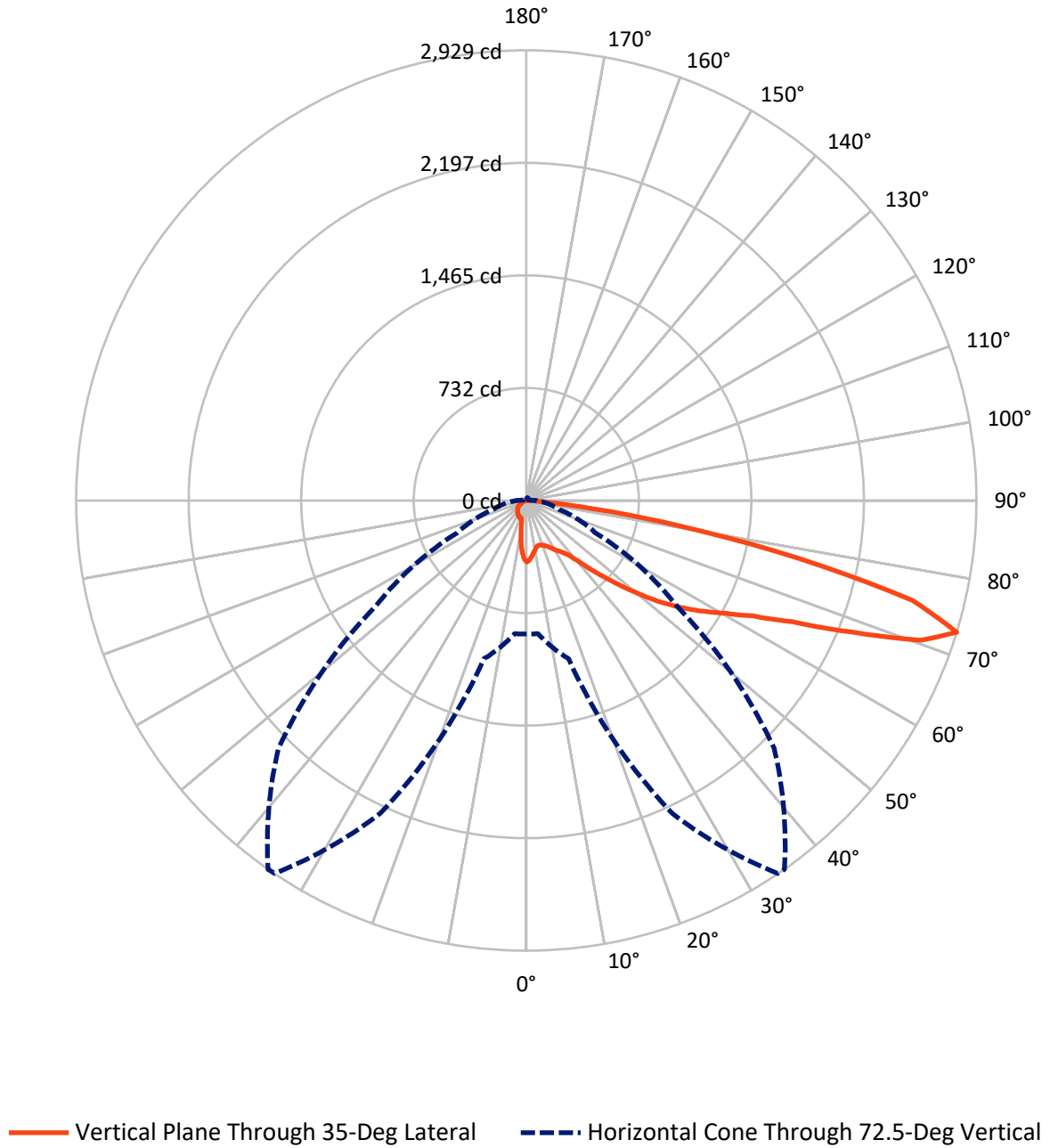
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	310.8	0.0	310.8
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	2451.1	0.0	2451.1
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	2762.0	0.0	2762.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	32.9	1.2
10°-20°	77.0	2.8
20°-30°	125.0	4.5
30°-40°	208.6	7.6
40°-50°	394.6	14.3
50°-60°	627.1	22.7
60°-70°	775.7	28.1
70°-80°	482.2	17.5
80°-90°	39.0	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°	2762.0	100.0
0°-180°	2762.0	100.0

**Coefficient of Utilization**



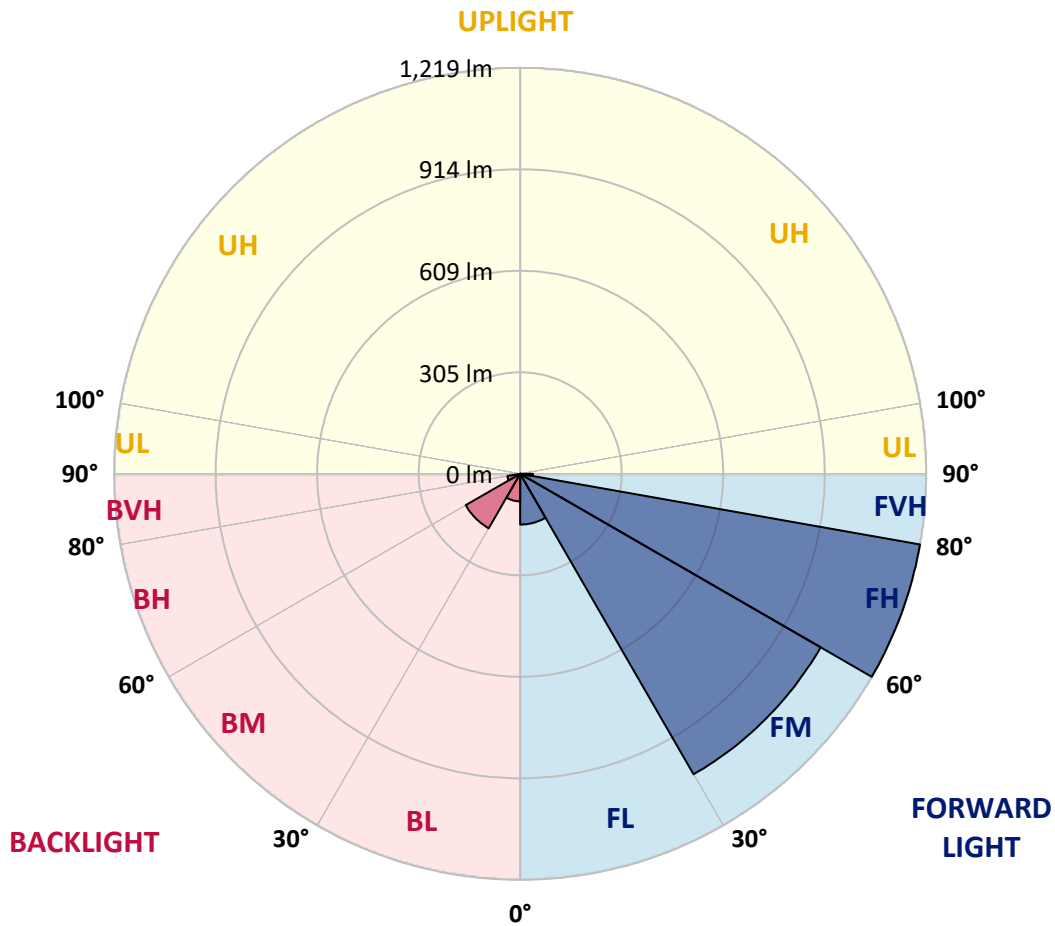
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	152.3	5.5			
FM (30°-60°)	1041.5	37.7			
FH (60°-80°)	1218.9	44.1			G1/1800
FVH (80°-90°)	38.4	1.4			G1/100
BL (0°-30°)	82.6	3.0	B0/110		
BM (30°-60°)	188.7	6.8	B0/220		
BH (60°-80°)	39.0	1.4	B0/110		G0/110
BVH (80°-90°)	0.5	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°	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3
2.5°	382.5	385.7	386.3	387.4	387.4	388.6	390.6	393.4	398.1	400.5	402.1
5°	352.5	355.0	358.0	360.4	365.1	365.7	373.6	381.3	392.0	400.1	405.8
7.5°	322.4	325.2	329.3	335.1	341.2	343.0	355.0	367.9	384.9	400.1	409.6
10°	301.1	301.3	305.0	310.9	320.6	322.8	337.4	355.8	377.0	397.7	413.3
12.5°	289.2	290.6	292.2	296.7	306.0	307.4	323.0	344.7	369.1	396.3	417.5
15°	289.2	290.2	291.2	293.5	300.9	302.2	315.9	337.6	365.1	396.9	424.4
17.5°	292.2	293.9	293.0	295.7	303.6	304.4	316.5	335.5	364.9	400.7	434.9
20°	299.5	300.7	299.1	300.7	308.6	310.2	322.8	339.4	368.3	407.4	448.1
22.5°	311.1	311.7	307.8	309.0	317.1	319.2	333.7	350.3	376.6	418.1	465.7
25°	325.6	326.8	321.0	322.4	330.1	332.5	349.3	366.7	389.8	432.9	488.1
27.5°	342.4	343.0	338.0	337.8	347.7	351.1	368.1	386.9	407.4	451.5	516.5
30°	361.7	363.5	358.6	357.8	370.4	373.2	390.0	411.8	433.3	479.4	556.7
32.5°	376.8	378.2	375.4	377.4	390.2	392.4	416.5	447.1	474.0	519.1	611.6
35°	398.7	399.5	393.0	396.7	411.2	416.9	452.7	496.4	525.2	568.9	683.2
37.5°	477.8	477.8	450.3	432.3	446.2	451.3	502.3	558.6	588.3	635.7	773.5
40°	587.3	585.5	545.2	508.4	506.6	516.5	572.9	636.9	669.9	715.8	875.1
42.5°	704.1	701.2	646.4	610.0	603.9	607.3	654.5	733.4	767.0	813.6	984.4
45°	807.7	806.9	756.7	707.7	696.8	707.7	756.3	846.4	870.4	919.4	1093.5
47.5°	894.5	894.5	857.9	825.9	820.2	826.7	894.1	971.6	969.4	1032.1	1199.7
50°	994.5	993.7	958.9	945.1	951.0	960.1	1052.8	1103.6	1071.8	1142.8	1294.6
52.5°	1064.5	1069.4	1057.4	1055.2	1085.2	1100.9	1213.9	1232.7	1163.5	1247.9	1365.7
55°	1120.0	1125.6	1139.4	1155.0	1212.7	1233.3	1369.9	1355.1	1240.2	1338.9	1406.5
57.5°	1198.5	1190.4	1211.6	1242.4	1335.7	1360.6	1521.1	1470.7	1301.9	1412.8	1411.0
60°	1293.8	1295.0	1298.7	1337.5	1458.5	1490.5	1670.0	1580.0	1341.6	1458.1	1361.6
62.5°	1408.4	1410.2	1417.7	1477.4	1623.5	1653.6	1828.7	1669.4	1359.8	1445.4	1234.1
65°	1400.5	1408.2	1491.7	1695.9	1874.2	1904.0	2013.9	1732.2	1332.3	1328.8	1004.8
67.5°	1275.8	1288.3	1428.2	1957.0	2252.3	2285.5	2237.7	1744.5	1213.5	1033.3	655.5
70°	1112.3	1116.7	1284.9	2191.8	2690.0	2723.6	2438.1	1608.7	920.8	576.4	293.7
72.5°	868.6	869.6	1066.9	2246.2	2927.6	2929.4	2280.8	1194.2	495.2	221.4	102.0
75°	620.5	614.4	714.6	1821.6	2575.7	2596.3	1709.9	560.2	189.2	104.6	50.8
77.5°	332.7	339.4	404.4	1080.3	1779.3	1814.5	933.0	161.5	96.3	71.2	33.6
80°	102.8	108.5	165.7	494.6	1007.8	1029.1	345.9	71.8	67.2	50.8	22.1
82.5°	32.4	33.6	77.3	207.8	418.3	428.0	100.2	40.7	45.9	33.6	13.0
85°	9.3	9.5	34.4	77.5	103.4	105.4	28.1	15.8	26.3	20.8	6.7
87.5°	1.0	3.2	13.0	13.0	9.1	8.9	3.0	3.4	7.5	2.6	1.2
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°	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3	400.3
2.5°	401.1	401.3	398.7	394.2	389.4	385.3	380.3	376.2	373.4	372.6	374.0
5°	403.9	402.5	395.0	381.5	365.3	351.3	335.7	323.4	315.3	311.9	313.1
7.5°	408.2	404.2	387.8	361.0	330.1	302.6	274.6	253.0	239.2	232.3	233.3
10°	411.8	403.7	375.6	331.5	284.1	242.5	204.8	178.7	164.1	157.2	157.5
12.5°	415.3	403.5	359.8	296.5	232.3	181.3	146.3	133.4	129.3	127.9	127.5
15°	421.8	404.2	340.0	256.4	180.7	137.0	124.3	124.1	124.9	124.5	124.3
17.5°	430.7	404.8	317.5	213.9	139.4	120.8	120.2	122.0	123.2	122.6	122.4
20°	442.2	407.2	293.7	171.8	119.8	116.8	118.2	119.8	120.8	119.8	119.6
22.5°	458.4	411.4	267.5	138.0	113.5	114.3	115.6	117.4	118.4	117.0	116.8
25°	478.2	418.1	241.8	120.0	110.5	111.5	113.3	115.4	116.6	115.2	115.0
27.5°	503.9	428.8	218.2	116.0	107.5	108.1	110.7	113.7	115.4	113.5	113.5
30°	541.2	446.4	197.7	117.8	105.6	104.2	107.9	112.1	113.9	112.3	112.1
32.5°	590.5	471.3	185.2	120.6	104.8	99.8	103.2	108.7	111.7	110.7	110.7
35°	655.3	509.2	180.3	123.9	104.2	95.1	97.5	103.4	108.7	109.7	109.7
37.5°	733.8	561.8	181.7	125.3	102.4	91.3	92.5	97.5	104.4	107.7	108.5
40°	823.1	623.1	189.8	123.9	100.4	88.0	88.2	92.1	98.2	103.0	104.6
42.5°	915.2	694.8	204.8	118.6	98.6	85.2	84.6	87.2	91.3	94.7	96.1
45°	1002.8	768.4	219.6	111.3	96.3	82.4	81.0	82.0	82.8	84.2	85.0
47.5°	1079.3	820.2	215.3	104.6	93.3	79.1	76.7	76.3	73.9	73.7	73.5
50°	1132.1	831.6	191.2	98.0	88.8	75.5	71.6	69.2	65.0	62.9	63.1
52.5°	1148.9	786.9	156.2	91.3	81.6	70.6	65.2	61.3	56.1	54.2	54.0
55°	1126.6	699.2	124.9	83.2	71.4	64.2	58.1	53.0	48.8	46.5	46.5
57.5°	1072.2	587.7	98.8	73.7	60.7	56.9	50.8	45.7	42.1	39.9	39.5
60°	981.9	466.7	78.1	62.3	51.8	49.0	42.7	39.5	36.2	33.6	33.0
62.5°	844.9	333.1	61.3	49.4	43.3	40.1	36.4	34.0	30.2	26.5	25.9
65°	659.4	203.8	47.4	36.2	34.8	33.2	31.0	28.7	24.1	20.4	19.8
67.5°	415.9	96.5	33.8	27.3	27.5	26.7	25.7	23.9	20.4	17.2	16.8
70°	183.2	46.7	22.3	20.8	20.4	20.4	21.2	20.6	17.4	14.4	13.8
72.5°	62.3	25.1	16.6	15.8	14.8	14.6	17.8	17.2	14.0	11.1	10.5
75°	32.6	16.8	12.1	11.3	8.9	10.7	14.2	13.4	9.9	7.3	6.7
77.5°	21.2	11.9	8.3	7.3	5.1	7.1	10.5	9.3	5.9	3.6	3.2
80°	13.4	7.9	4.9	3.4	2.4	3.8	5.7	4.0	2.2	0.8	0.6
82.5°	7.1	4.0	1.8	1.2	1.0	1.2	1.4	1.0	0.4	0.0	0.0
85°	2.8	1.4	0.6	0.4	0.2	0.0	0.4	0.2	0.0	0.0	0.0
87.5°	1.0	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)