

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: P959748

Luminaire Tested: **NAV-SB1B-727-U-AFL-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P959748  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-727-U-AFL-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND AUTOMOTIVE  
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4566.4 lumens  
Efficiency: N/A  
Efficacy: 114.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

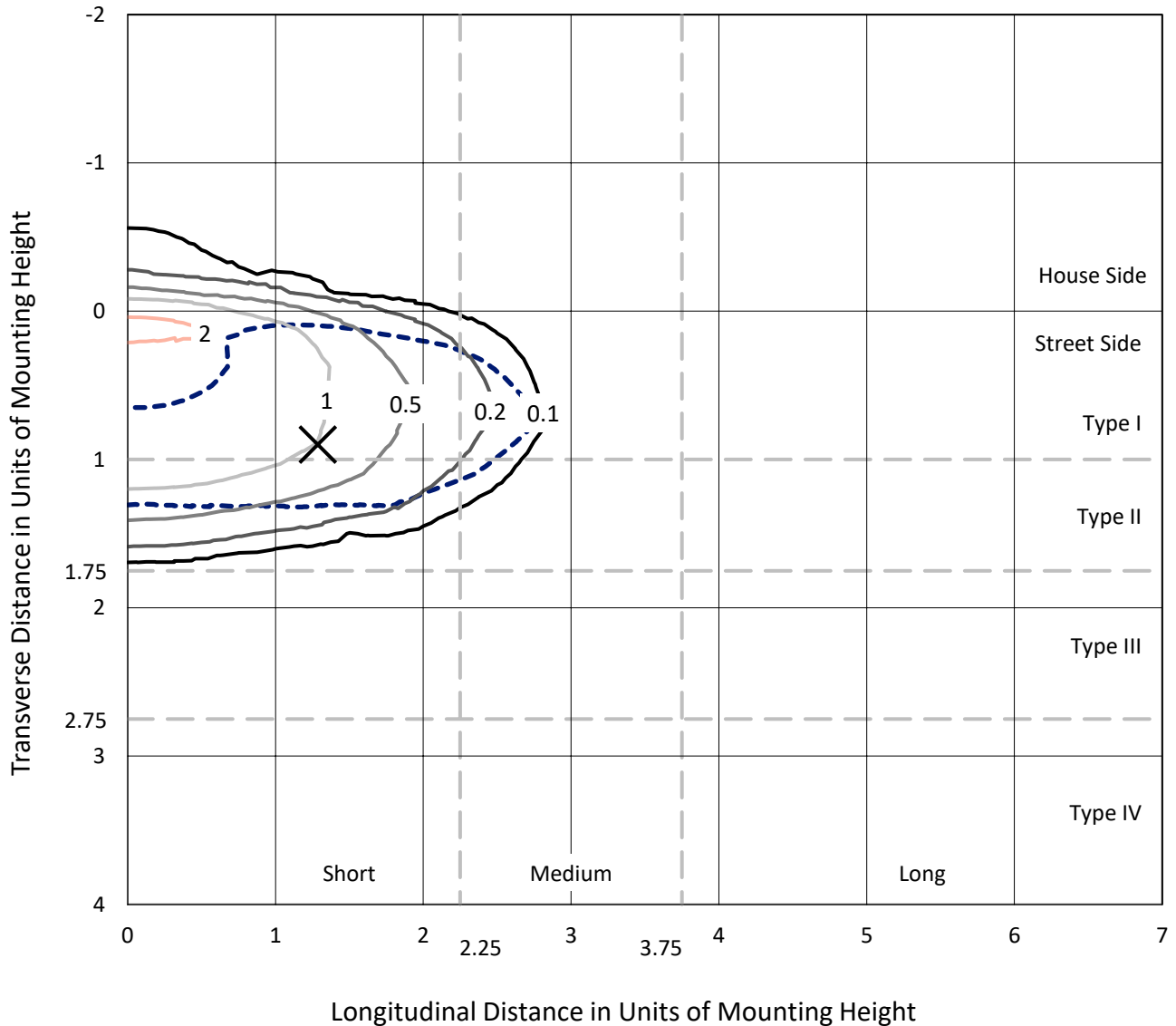
Input Watts (W): 39.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

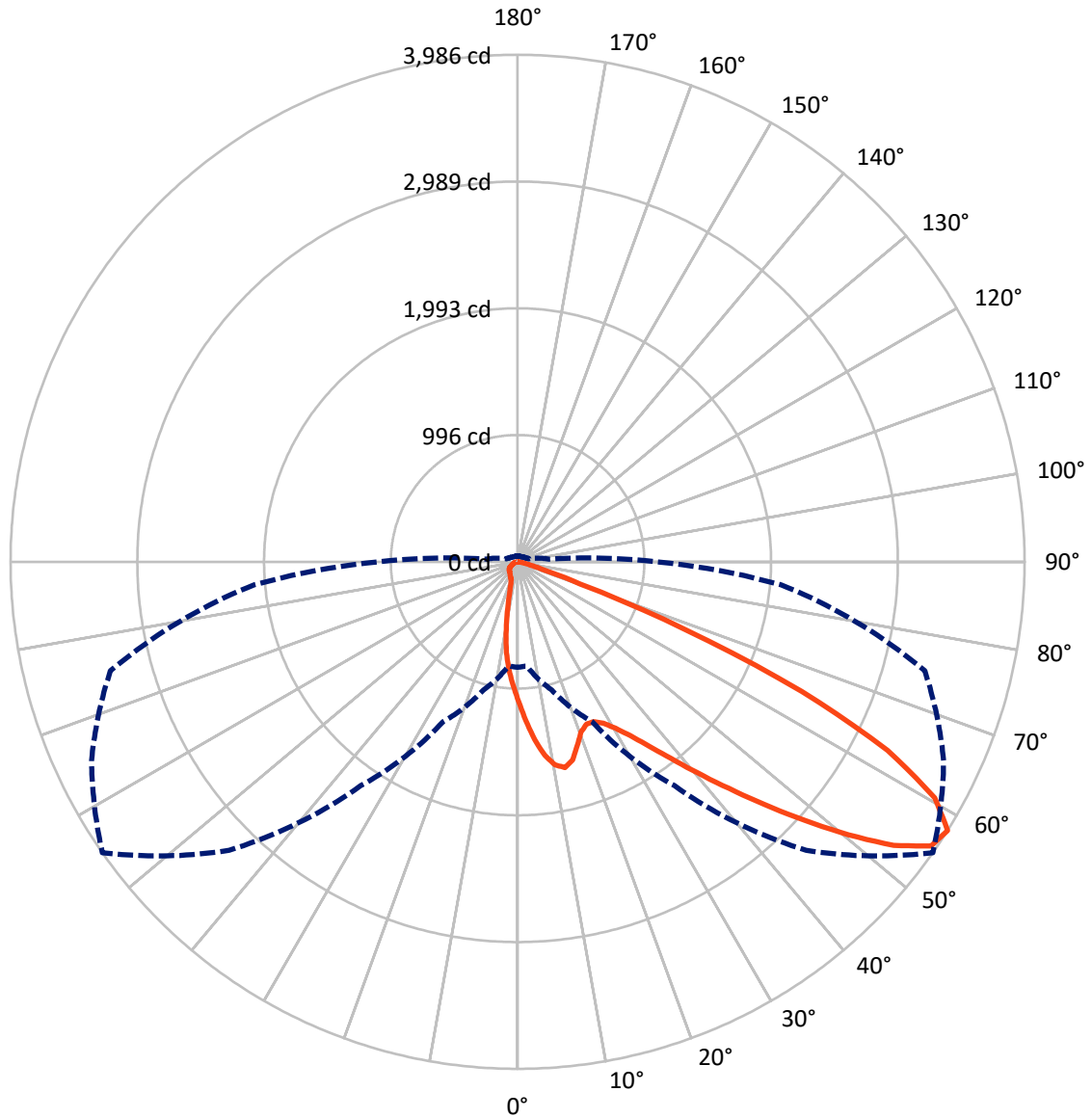
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	356.6	0.0	356.6
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	4209.8	0.0	4209.8
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	4566.4	0.0	4566.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	2.2
10°-20°	247.3	5.4
20°-30°	395.7	8.7
30°-40°	669.7	14.7
40°-50°	1099.6	24.1
50°-60°	1208.5	26.5
60°-70°	693.2	15.2
70°-80°	141.6	3.1
80°-90°	8.3	0.2
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°	4566.4	100.0
0°-180°	4566.4	100.0

**Coefficient of Utilization**

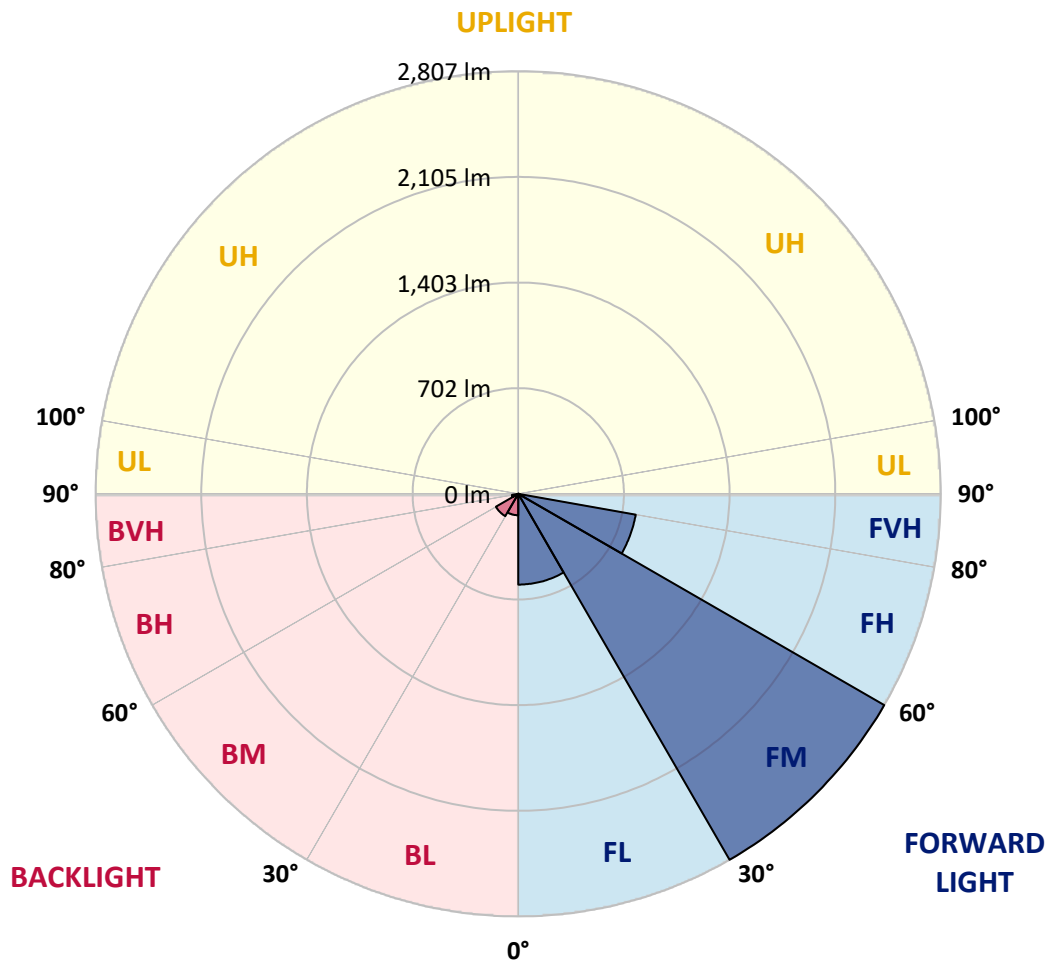


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	603.0	13.2			
FM (30°-60°)	2806.5	61.5			
FH (60°-80°)	792.4	17.4			G1/1800
FVH (80°-90°)	7.8	0.2			G0/10
BL (0°-30°)	142.4	3.1	B1/500		
BM (30°-60°)	171.3	3.8	B0/220		
BH (60°-80°)	42.4	0.9	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: B1-U0-G1**  
 Type II Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3
2.5°	1365.3	1348.2	1345.6	1342.2	1309.6	1285.1	1249.6	1210.7	1167.2	1122.6	1102.9
5°	1577.4	1563.8	1561.3	1545.6	1508.4	1466.7	1403.6	1324.0	1242.6	1146.9	1105.8
7.5°	1618.5	1615.9	1627.5	1626.9	1621.9	1589.0	1535.7	1440.8	1318.6	1176.7	1113.0
10°	1435.2	1441.7	1476.0	1506.1	1587.5	1634.8	1623.3	1545.0	1396.9	1210.7	1121.2
12.5°	1268.2	1260.6	1285.1	1319.2	1413.8	1554.5	1659.6	1632.0	1486.5	1249.4	1133.3
15°	1163.5	1160.4	1174.1	1189.9	1262.0	1403.9	1617.3	1702.6	1572.6	1295.0	1151.6
17.5°	1130.0	1127.4	1131.6	1135.6	1182.3	1292.1	1516.8	1746.0	1655.1	1347.1	1171.9
20°	1157.2	1153.8	1153.3	1150.3	1169.6	1244.6	1425.9	1749.2	1729.2	1394.3	1189.4
22.5°	1237.0	1233.0	1219.2	1206.8	1208.5	1251.0	1385.3	1718.1	1784.9	1438.6	1200.4
25°	1381.4	1374.9	1346.2	1304.5	1278.1	1296.1	1391.5	1677.3	1838.1	1473.2	1194.9
27.5°	1562.2	1553.7	1516.8	1454.9	1394.3	1372.4	1436.3	1649.1	1882.3	1499.7	1183.5
30°	1739.2	1728.3	1692.0	1643.8	1555.4	1486.1	1517.1	1661.5	1935.0	1527.2	1168.2
32.5°	1930.5	1920.0	1871.9	1812.2	1739.0	1645.7	1627.8	1722.1	1999.5	1565.8	1157.5
35°	2172.3	2156.0	2087.6	2006.2	1928.5	1834.1	1777.6	1826.6	2085.4	1624.6	1163.5
37.5°	2447.7	2425.8	2352.0	2239.6	2138.3	2032.7	1960.0	1970.2	2211.2	1703.6	1181.7
40°	2707.3	2687.3	2619.2	2513.3	2386.0	2258.0	2180.5	2157.9	2384.9	1799.5	1213.9
42.5°	2863.0	2845.0	2816.3	2771.5	2664.3	2533.6	2435.9	2387.1	2590.5	1914.4	1253.0
45°	2871.7	2856.0	2894.6	2946.7	2925.6	2838.5	2719.4	2630.1	2796.8	2022.2	1293.6
47.5°	2732.1	2721.4	2838.5	3020.5	3111.1	3147.7	3037.9	2852.9	2967.2	2099.7	1310.2
50°	2351.5	2347.5	2588.5	2922.5	3181.8	3418.6	3373.8	3060.1	3099.3	2139.7	1294.4
52.5°	2038.8	2024.5	2165.0	2608.7	3079.0	3561.1	3702.1	3263.4	3191.6	2147.3	1257.5
55°	1546.4	1533.7	1710.0	2083.9	2747.6	3510.3	3942.3	3473.2	3257.8	2127.8	1191.4
57.5°	829.5	821.6	1044.4	1387.0	2147.8	3206.3	3985.6	3695.0	3313.5	2076.3	1098.7
60°	323.0	321.5	404.9	672.9	1305.3	2608.5	3766.9	3828.3	3348.5	2013.0	1021.3
62.5°	195.4	199.7	213.2	302.2	576.7	1620.4	3262.6	3676.8	3371.8	1955.0	957.4
65°	161.6	162.0	163.6	207.6	276.2	678.0	2456.1	3178.4	3314.1	1851.7	866.6
67.5°	138.6	141.0	147.5	164.7	194.9	297.4	1414.1	2462.0	2963.0	1611.2	725.3
70°	109.3	112.6	120.7	135.4	150.4	186.1	522.6	1638.2	2263.5	1214.4	548.5
72.5°	92.0	91.8	96.0	110.1	119.4	130.9	201.0	917.9	1315.5	579.7	271.4
75°	71.2	74.0	79.4	92.0	97.7	94.9	109.0	335.4	471.4	175.7	92.4
77.5°	55.8	58.0	62.8	75.1	80.8	67.3	62.8	119.9	151.5	63.0	41.7
80°	25.0	27.1	42.8	55.5	65.9	46.4	34.0	61.4	67.3	28.7	21.1
82.5°	4.5	7.6	25.0	29.3	33.8	30.1	17.7	31.8	32.9	11.6	7.3
85°	0.3	0.5	8.7	10.7	13.5	9.8	5.3	12.7	11.0	3.9	2.8
87.5°	0.0	0.0	0.0	0.3	0.3	1.4	1.6	2.3	1.6	1.4	1.1
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3	1100.3
2.5°	1082.6	1042.6	1003.8	972.0	953.4	921.9	901.1	897.7	888.9	896.6
5°	1061.8	990.3	917.9	853.2	799.9	731.2	680.0	658.4	639.5	646.0
7.5°	1052.0	939.0	826.5	715.8	602.0	492.2	410.5	376.5	350.5	354.2
10°	1038.7	885.8	709.3	540.4	388.0	279.6	223.2	202.4	190.9	191.2
12.5°	1028.6	822.2	573.3	366.3	236.3	178.6	161.0	156.0	152.6	152.9
15°	1023.6	747.3	439.0	244.2	168.9	151.2	147.0	144.7	142.5	142.2
17.5°	1015.1	664.0	321.2	178.2	147.8	141.7	138.0	135.4	132.6	132.0
20°	1002.3	569.4	234.8	150.7	138.6	133.8	128.6	125.3	121.9	121.4
22.5°	979.0	469.3	180.5	139.4	131.8	126.4	120.2	116.3	113.0	112.3
25°	935.6	375.7	152.0	132.3	125.9	119.4	112.6	107.3	104.1	103.6
27.5°	880.8	295.1	138.0	125.9	118.3	112.3	104.8	99.6	96.9	96.2
30°	816.0	227.2	129.8	118.6	109.3	104.1	97.4	93.2	91.5	91.5
32.5°	746.2	181.6	126.4	111.2	101.4	95.7	90.4	88.7	88.1	87.8
35°	680.6	157.6	124.7	105.3	94.3	89.0	86.7	87.0	88.1	88.1
37.5°	622.3	150.1	123.9	101.1	88.1	83.3	84.8	87.3	86.2	86.2
40°	569.6	150.9	123.3	98.0	83.0	80.3	83.0	81.1	78.3	78.0
42.5°	529.3	158.0	122.2	95.4	79.9	78.0	76.9	73.8	73.5	74.0
45°	500.1	164.2	121.9	94.3	76.6	72.9	71.5	68.5	74.0	75.4
47.5°	465.5	164.2	121.9	90.4	70.9	69.6	67.3	64.0	69.6	70.9
50°	420.7	153.8	117.2	85.9	66.4	65.6	61.7	57.4	56.3	57.2
52.5°	364.1	134.9	105.1	79.6	61.9	60.3	55.5	52.4	51.6	51.6
55°	299.6	113.0	88.7	70.7	57.2	54.0	50.6	49.3	48.4	47.9
57.5°	243.5	92.7	71.2	62.8	52.7	48.7	47.6	45.9	44.5	43.7
60°	199.9	72.9	58.8	55.8	48.2	44.5	44.2	41.9	38.3	37.7
62.5°	154.3	53.5	49.5	48.4	43.7	40.6	40.0	35.5	29.8	28.7
65°	109.0	41.7	40.0	42.5	38.8	36.1	34.6	27.9	21.9	21.1
67.5°	76.6	35.0	31.6	37.2	33.8	30.1	29.3	23.7	18.3	17.7
70°	54.6	28.4	25.9	31.8	27.1	26.4	24.8	19.7	15.0	14.3
72.5°	38.5	21.7	20.0	27.6	18.6	22.9	20.3	15.2	11.3	10.7
75°	28.4	15.5	14.0	16.1	13.5	17.2	14.3	10.1	7.1	6.8
77.5°	20.8	9.8	8.4	7.9	7.9	10.7	7.9	4.2	3.1	2.8
80°	14.7	4.5	3.9	3.4	3.1	2.6	1.1	0.5	0.3	0.3
82.5°	8.7	1.9	1.9	1.4	0.8	0.0	0.0	0.0	0.0	0.0
85°	1.9	0.8	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.3	0.3	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

(END OF REPORT)