

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: P881738

Luminaire Tested: **NAV-SB1B-740-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881738  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-740-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

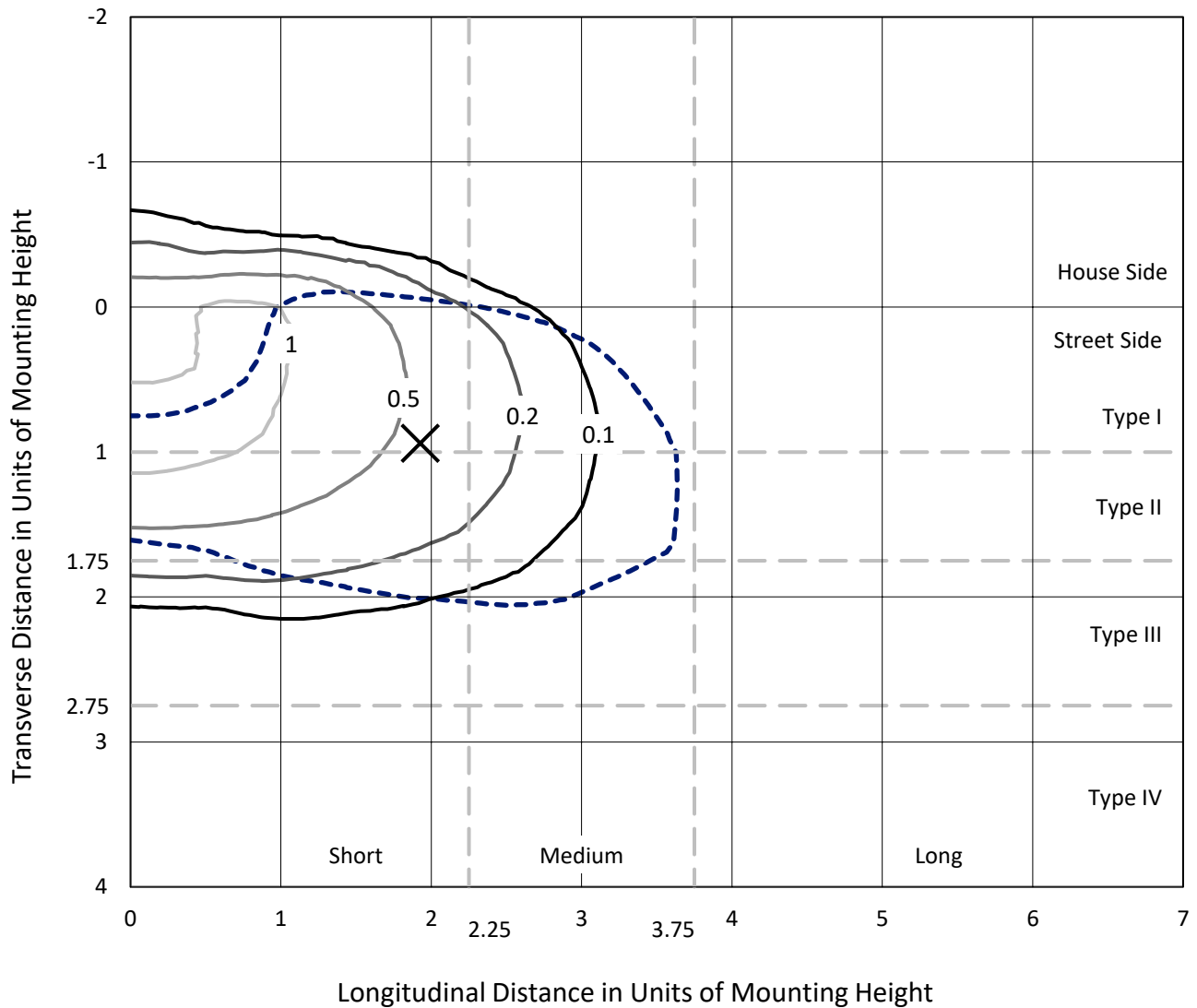
Lumens per Lamp: N/A  
Luminaire Lumens: 4765 lumens  
Efficiency: N/A  
Efficacy: 119.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 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

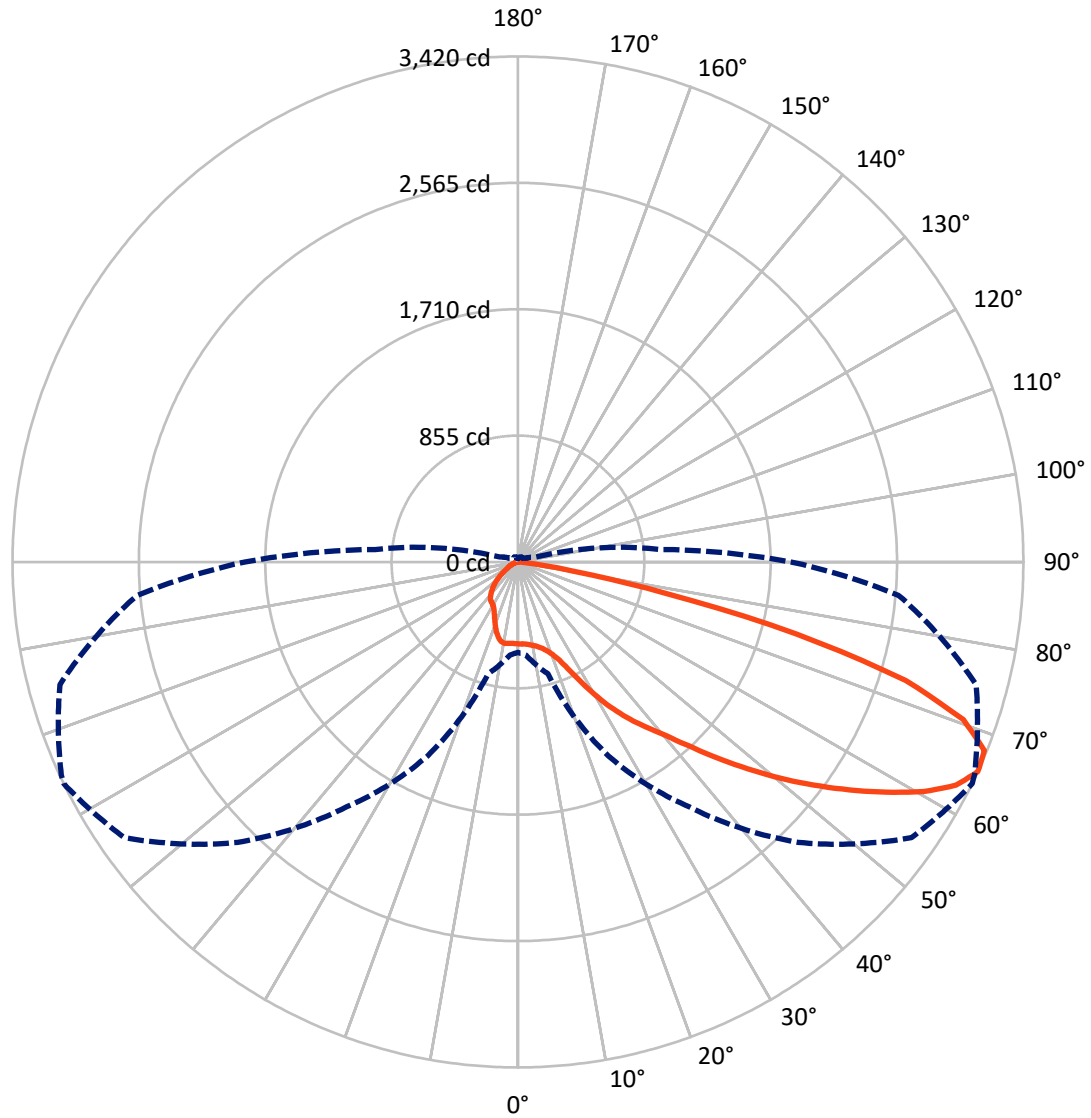
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	637.2	0.0	637.2
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	4127.8	0.0	4127.8
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	4765.0	0.0	4765.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.1	1.1
10°-20°	138.7	2.9
20°-30°	262.8	5.5
30°-40°	531.8	11.2
40°-50°	905.9	19.0
50°-60°	1231.9	25.9
60°-70°	1156.9	24.3
70°-80°	463.5	9.7
80°-90°	22.5	0.5
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°	4765.0	100.0
0°-180°	4765.0	100.0

**Coefficient of Utilization**



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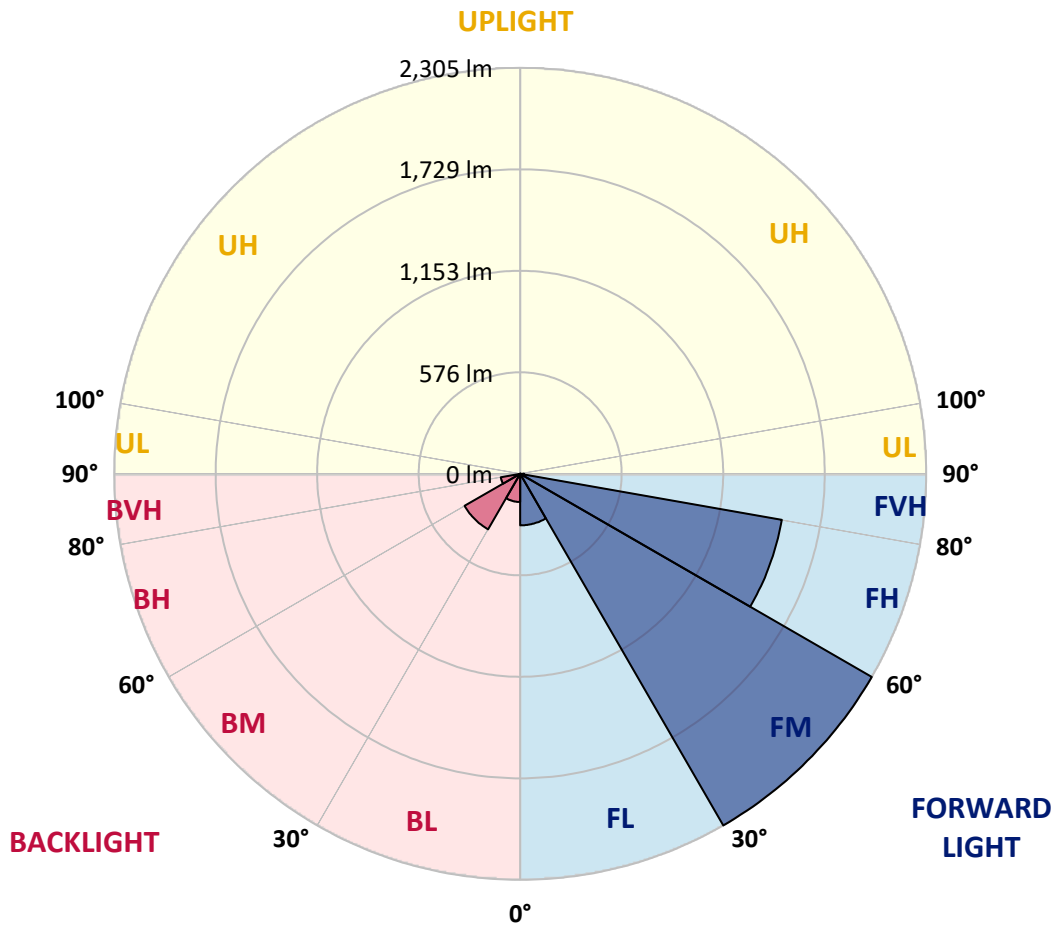
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	292.6	6.1			
FM (30°-60°)	2305.3	48.4			
FH (60°-80°)	1508.5	31.7			G1/1800
FVH (80°-90°)	21.4	0.4			G1/100
BL (0°-30°)	160.0	3.4	B1/500		
BM (30°-60°)	364.3	7.6	B1/1000		
BH (60°-80°)	111.8	2.3	B1/500		G1/500
BVH (80°-90°)	1.1	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 III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	554.2	554.2	554.2	554.2	554.2	554.2	554.2	554.2	554.2	554.2	554.2
2.5°	552.3	556.1	555.2	554.2	553.9	554.5	554.9	554.5	554.5	554.5	554.9
5°	541.8	545.0	545.0	547.2	550.4	554.2	557.1	557.7	558.4	559.3	559.0
7.5°	521.6	524.2	526.1	533.5	541.4	551.7	560.3	564.8	565.4	568.9	570.2
10°	507.9	511.1	514.3	522.0	533.5	548.8	563.5	574.3	575.9	584.2	588.1
12.5°	507.3	510.5	514.6	522.9	536.3	552.6	570.5	586.2	589.0	601.2	609.2
15°	514.0	517.8	521.6	531.9	546.2	566.0	585.2	604.7	607.6	624.8	633.4
17.5°	527.7	532.8	535.7	545.9	561.2	583.3	608.5	630.9	633.4	653.6	664.4
20°	554.9	560.9	561.9	570.2	585.2	608.8	638.9	666.7	669.9	692.9	705.0
22.5°	611.1	619.7	612.0	616.2	629.6	653.2	685.8	721.0	725.4	751.6	762.5
25°	710.1	722.2	702.4	695.4	701.2	725.8	766.6	811.0	816.2	837.2	842.7
27.5°	904.6	889.0	859.0	829.6	812.3	826.4	872.4	927.3	933.7	954.2	947.8
30°	1118.3	1104.6	1064.0	998.9	958.0	955.7	998.2	1059.6	1066.9	1086.4	1066.9
32.5°	1332.4	1319.3	1275.2	1195.0	1124.1	1089.0	1118.3	1186.4	1190.2	1202.7	1173.9
35°	1542.9	1529.5	1485.4	1403.3	1316.1	1236.2	1230.5	1307.1	1308.4	1321.5	1278.7
37.5°	1754.7	1743.5	1696.5	1616.0	1530.1	1419.9	1366.5	1421.5	1423.1	1435.9	1391.5
40°	1905.7	1910.5	1878.3	1816.0	1742.2	1621.8	1519.2	1543.2	1533.6	1555.0	1528.5
42.5°	2035.4	2045.0	2016.9	1985.6	1942.8	1836.7	1708.3	1704.2	1688.9	1700.4	1672.9
45°	2147.6	2155.5	2130.3	2123.0	2122.0	2047.6	1915.0	1890.1	1868.7	1866.5	1833.6
47.5°	2188.8	2204.1	2215.0	2239.6	2287.5	2256.2	2128.7	2090.1	2066.1	2048.5	1996.5
50°	2204.4	2220.7	2257.8	2329.3	2442.7	2456.1	2341.5	2298.0	2268.6	2236.7	2160.0
52.5°	2183.3	2212.4	2262.2	2382.7	2547.2	2616.5	2545.6	2507.6	2474.0	2422.0	2308.2
55°	2059.1	2088.1	2190.0	2382.0	2599.2	2728.9	2738.5	2721.6	2683.9	2601.8	2428.0
57.5°	1797.1	1840.3	2001.6	2300.9	2598.3	2825.7	2927.6	2939.8	2897.6	2780.0	2522.3
60°	1434.3	1492.7	1689.5	2121.0	2518.1	2878.1	3093.4	3154.1	3109.4	2955.7	2598.6
62.5°	1000.8	1068.5	1254.7	1839.3	2334.7	2840.4	3214.5	3326.6	3292.7	3112.9	2628.0
65°	610.4	632.2	782.3	1447.4	2023.0	2682.6	3251.8	3419.9	3408.7	3209.0	2584.5
67.5°	406.6	424.8	468.0	992.5	1570.3	2367.3	3162.4	3403.6	3406.8	3193.4	2425.5
70°	245.0	260.7	288.8	577.2	1017.7	1873.8	2885.5	3195.9	3214.5	2984.2	2123.9
72.5°	100.9	111.5	137.0	261.6	527.1	1189.3	2297.7	2743.9	2787.1	2509.2	1630.1
75°	57.2	62.6	80.5	131.3	228.7	554.2	1391.8	1947.9	2011.5	1729.4	980.7
77.5°	38.0	40.6	52.1	85.0	128.7	189.1	594.8	1014.8	1136.2	944.6	424.5
80°	25.6	27.8	35.8	56.9	83.7	81.1	189.4	376.0	462.5	324.5	103.5
82.5°	17.2	17.6	25.6	37.4	53.0	39.3	55.9	116.9	146.9	93.9	39.3
85°	9.9	9.6	18.8	21.7	23.6	16.3	16.9	35.1	46.0	39.6	22.4
87.5°	1.3	1.9	7.3	5.7	3.2	3.5	3.5	6.1	8.9	9.6	4.8
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°	554.2	554.2	554.2	554.2	554.2	554.2	554.2	554.2	554.2	554.2	554.2
2.5°	554.9	554.5	553.6	552.6	550.4	549.1	549.7	549.1	548.8	549.1	550.4
5°	559.0	558.1	555.5	552.3	547.8	542.4	538.9	533.8	529.0	526.1	526.7
7.5°	570.2	569.2	565.7	556.8	542.4	519.7	499.0	480.7	467.0	459.0	459.3
10°	588.1	586.5	581.1	561.2	523.6	474.0	432.8	398.7	376.3	365.8	364.8
12.5°	609.2	607.2	597.7	557.1	487.8	410.5	353.6	315.6	294.8	285.6	284.6
15°	634.1	631.5	612.7	537.3	435.7	340.2	288.1	259.7	246.3	238.0	238.3
17.5°	665.1	660.6	623.9	507.6	379.2	286.5	247.9	226.5	214.7	206.7	206.0
20°	705.3	698.0	632.8	472.1	327.1	252.7	220.7	202.8	193.9	186.9	185.6
22.5°	761.5	751.0	643.7	433.8	290.4	229.4	200.6	187.5	180.2	172.2	170.9
25°	831.2	818.7	657.1	398.3	265.1	209.2	185.9	175.1	166.4	157.2	156.2
27.5°	928.6	906.2	673.0	369.3	243.4	192.0	172.5	160.4	150.5	142.8	141.2
30°	1037.2	1000.5	687.1	351.7	223.6	176.0	154.9	142.8	133.5	128.1	127.1
32.5°	1140.1	1090.2	696.4	344.0	205.7	157.8	135.8	122.7	115.6	114.0	115.0
35°	1237.2	1171.4	695.4	336.7	189.7	139.6	116.9	103.5	98.1	99.0	99.0
37.5°	1349.0	1257.9	688.7	325.2	176.6	123.0	100.6	88.8	84.0	84.3	85.6
40°	1479.0	1357.9	684.5	303.5	162.3	107.6	87.2	77.6	74.1	72.8	72.5
42.5°	1617.6	1454.7	685.2	278.9	144.4	93.9	77.9	70.0	66.8	65.8	65.5
45°	1756.9	1547.0	686.1	253.3	125.5	83.4	71.2	64.5	62.6	61.3	61.3
47.5°	1887.9	1625.6	668.3	225.8	107.0	75.4	65.8	61.3	59.7	58.1	58.1
50°	2009.9	1678.0	625.1	193.9	92.3	69.0	61.7	58.5	56.9	55.3	55.3
52.5°	2104.8	1686.3	553.9	161.0	82.1	64.2	59.1	56.2	54.3	52.7	52.4
55°	2146.9	1634.2	452.6	130.3	74.1	60.1	56.5	53.7	51.4	49.8	49.5
57.5°	2136.1	1524.7	353.0	104.8	66.4	55.9	53.3	51.4	48.9	46.3	46.0
60°	2082.7	1378.0	266.1	87.2	59.4	51.4	49.8	48.2	44.7	40.9	40.2
62.5°	1990.4	1193.7	189.7	72.2	51.7	46.3	45.7	44.4	39.3	32.3	31.6
65°	1849.2	969.8	127.8	60.1	44.4	40.6	40.9	38.7	31.9	24.0	23.3
67.5°	1642.9	709.1	81.8	49.2	37.1	33.9	34.2	32.9	27.2	20.4	19.5
70°	1380.0	469.6	53.3	37.4	29.7	26.2	28.1	28.4	23.0	16.6	16.0
72.5°	1011.6	277.3	37.4	27.8	21.7	18.2	23.0	23.6	18.5	12.5	11.8
75°	576.6	131.6	28.1	20.1	13.4	12.8	17.9	17.9	12.8	8.3	7.7
77.5°	242.1	54.9	19.8	13.1	7.7	7.3	12.1	11.2	6.4	3.8	3.8
80°	70.0	24.6	10.5	6.4	3.2	2.9	4.8	3.5	1.6	0.6	0.6
82.5°	27.5	10.9	4.2	2.6	1.3	1.3	0.6	0.0	0.0	0.0	0.0
85°	16.3	4.5	1.9	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.2	1.0	0.6	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)