

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: P882273

Luminaire Tested: **NAV-SB2A-827-U-SL4-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882273  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2A-827-U-SL4-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

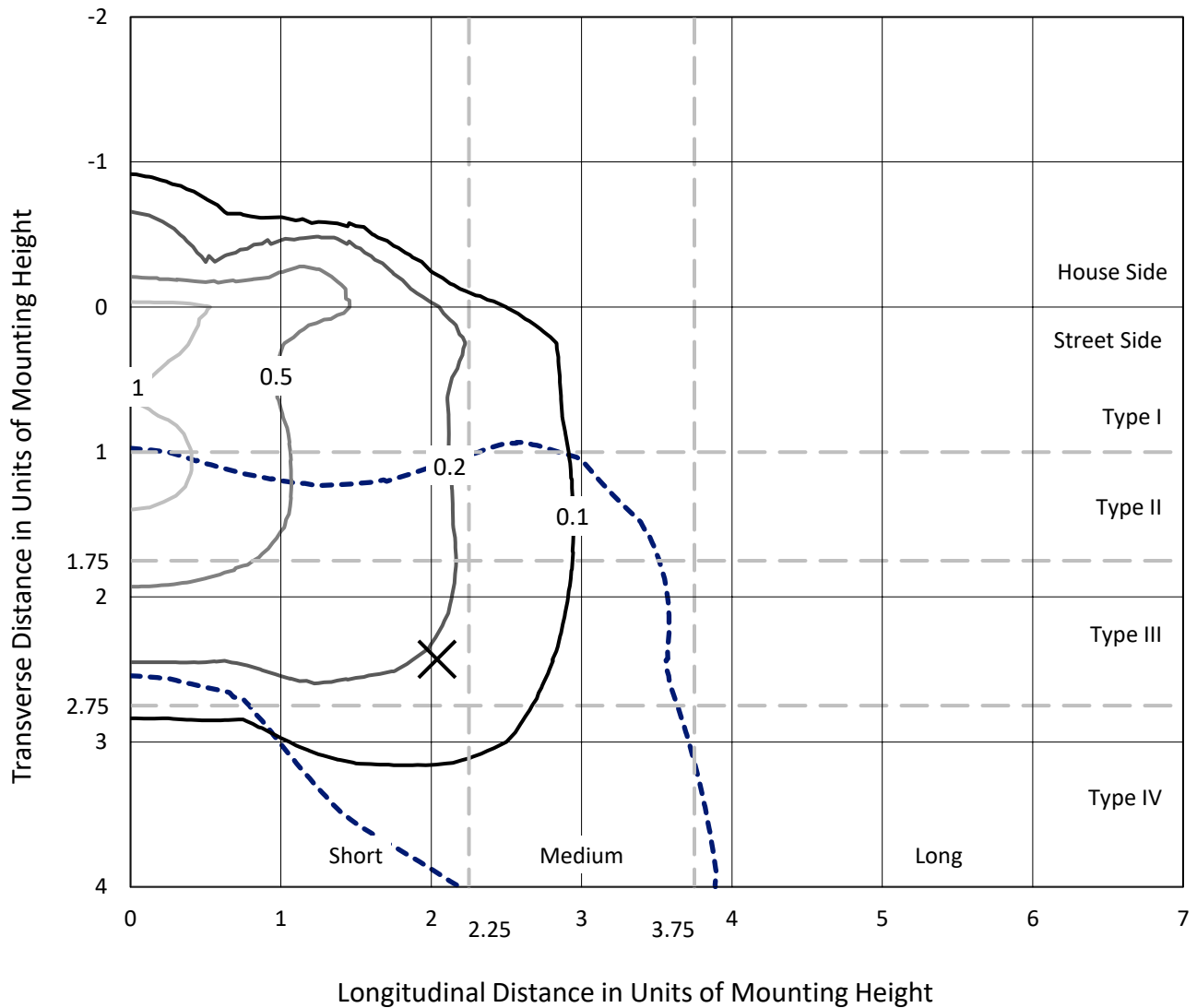
Lumens per Lamp: N/A  
Luminaire Lumens: 5185 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 57.3  
Input Voltage (V): 120.0  
Input Current (Ain): 0.484  
Voltage Rise (V): NR  
Power Factor: 0.994  
Total Harmonic Distortion (THDi): 9.038  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P882273  
 CATALOG NUMBER: NAV-SB2A-827-U-SL4-HSS

### Iso-Footcandle Lines of Horizontal Illumination

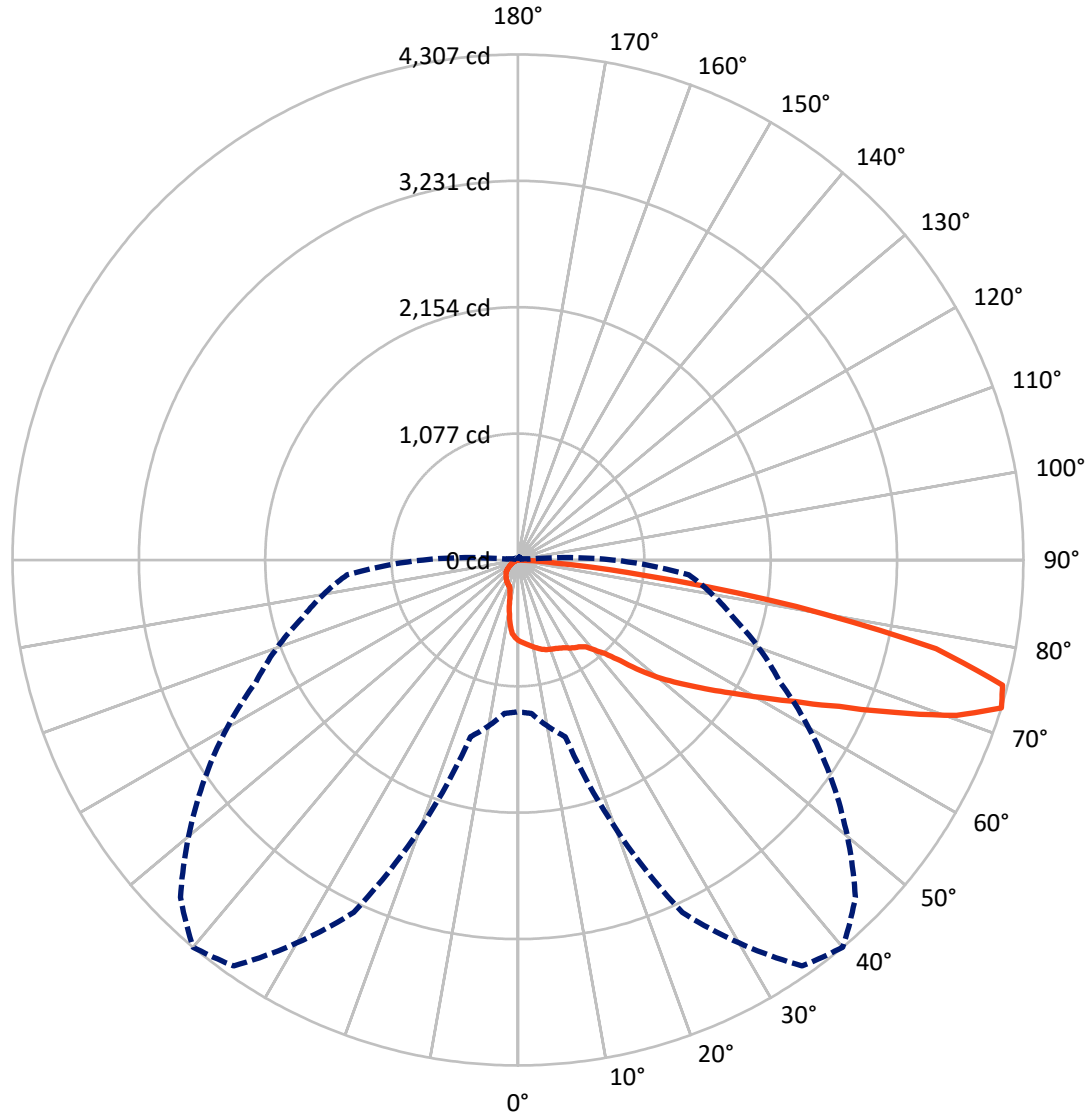
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc  
 Type IV - Short - N/A

REPORT NUMBER: P882273  
CATALOG NUMBER: NAV-SB2A-827-U-SL4-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P882273

CATALOG NUMBER: NAV-SB2A-827-U-SL4-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	669.6	0.0	669.6
	% Fixture	12.9	0.0	12.9
<b>Street Side</b>	Lumens	4515.4	0.0	4515.4
	% Fixture	87.1	0.0	87.1
<b>Total</b>	Lumens	5185.0	0.0	5185.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.7	1.2
10°-20°	170.3	3.3
20°-30°	275.5	5.3
30°-40°	406.8	7.8
40°-50°	684.6	13.2
50°-60°	1063.0	20.5
60°-70°	1330.1	25.7
70°-80°	1088.9	21.0
80°-90°	103.3	2.0
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°	5185.0	100.0
0°-180°	5185.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P882273

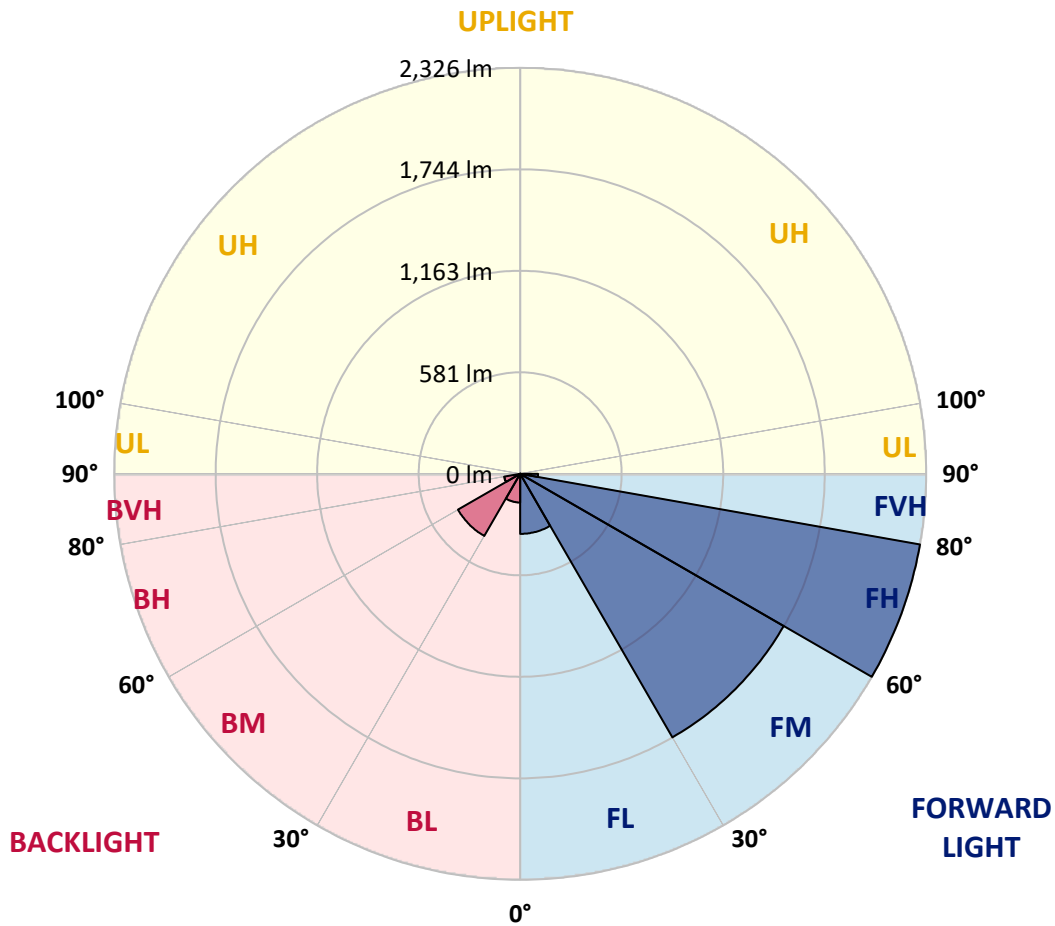
CATALOG NUMBER: NAV-SB2A-827-U-SL4-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	344.1	6.6			
FM (30°-60°)	1743.1	33.6			
FH (60°-80°)	2325.7	44.9			G2/5000
FVH (80°-90°)	102.5	2.0			G2/225
BL (0°-30°)	164.3	3.2	B1/500		
BM (30°-60°)	411.2	7.9	B1/1000		
BH (60°-80°)	93.3	1.8	B0/110		G0/110
BVH (80°-90°)	0.8	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-G2**

Type IV Short



REPORT NUMBER: P882273  
 CATALOG NUMBER: NAV-SB2A-827-U-SL4-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	686.5	686.5	686.5	686.5	686.5	686.5	686.5	686.5	686.5	686.5	686.5
2.5°	707.2	710.0	708.4	705.3	704.5	702.9	701.0	700.2	697.5	695.1	692.4
5°	727.2	729.9	727.9	723.6	721.7	719.7	717.0	714.7	709.2	704.1	697.9
7.5°	749.0	751.4	749.0	742.8	739.6	737.3	733.4	729.9	723.6	716.2	708.4
10°	773.2	775.2	771.7	763.5	758.4	754.9	751.4	747.5	741.6	733.4	724.0
12.5°	795.9	798.2	792.8	783.0	777.1	773.6	769.7	766.6	760.7	752.9	743.2
15°	816.6	820.1	810.7	800.2	793.5	790.8	786.9	784.9	781.0	775.6	766.6
17.5°	832.2	834.5	824.8	812.3	804.9	802.9	800.2	801.3	800.6	797.8	792.0
20°	845.5	847.0	834.2	818.9	810.7	811.1	810.3	814.2	815.8	815.8	815.4
22.5°	861.9	862.3	845.9	826.7	817.0	819.7	820.9	825.2	828.3	831.4	838.4
25°	883.4	882.6	863.1	836.9	828.3	832.2	834.9	836.5	840.0	845.1	861.1
27.5°	915.4	913.0	888.0	853.3	843.1	846.6	851.7	850.9	849.4	853.3	880.2
30°	956.0	952.9	919.7	876.3	867.0	870.1	871.6	864.6	853.3	856.8	897.0
32.5°	1020.4	1015.0	968.9	902.1	887.7	891.2	889.2	874.8	858.0	861.5	913.8
35°	1132.5	1119.2	1054.0	956.0	911.1	907.2	902.5	888.4	867.7	864.2	927.9
37.5°	1370.7	1347.3	1236.0	1061.0	964.2	938.8	924.4	910.3	878.3	864.2	943.9
40°	1639.4	1615.6	1487.1	1236.8	1052.5	1009.5	975.1	936.1	889.2	869.3	968.9
42.5°	1919.8	1893.6	1761.6	1454.7	1178.6	1090.3	1026.3	956.8	907.2	884.9	1002.1
45°	2233.0	2200.2	2027.6	1682.0	1361.7	1224.7	1108.7	999.3	938.4	912.6	1047.4
47.5°	2563.4	2520.8	2292.7	1902.6	1559.0	1410.6	1259.4	1075.5	984.5	954.0	1108.7
50°	2856.3	2814.1	2566.5	2133.4	1743.3	1587.5	1431.3	1180.9	1053.6	1012.6	1191.1
52.5°	3066.8	3034.7	2815.7	2371.6	1935.0	1753.4	1587.1	1303.6	1141.1	1087.6	1288.3
55°	3207.7	3178.5	2992.2	2597.4	2158.0	1936.2	1740.6	1436.7	1246.5	1177.4	1395.7
57.5°	3293.3	3276.5	3119.9	2798.9	2379.1	2136.2	1916.3	1583.2	1370.7	1283.3	1515.6
60°	3323.7	3310.1	3199.1	2991.0	2646.2	2376.3	2122.9	1748.4	1521.5	1403.5	1638.6
62.5°	3242.5	3245.2	3256.2	3218.7	2927.7	2657.5	2370.5	1946.7	1688.6	1539.8	1754.2
65°	2860.2	2882.8	3090.6	3471.0	3300.7	3009.7	2685.6	2188.9	1880.0	1694.9	1846.0
67.5°	2368.1	2400.9	2659.4	3618.6	3698.2	3467.0	3124.6	2497.4	2108.0	1852.6	1880.7
70°	1812.8	1847.9	2161.1	3587.7	4070.4	3966.9	3667.4	2889.9	2344.3	1962.0	1792.1
72.5°	1293.8	1311.8	1558.6	3313.2	4223.1	4307.4	4067.3	3261.6	2465.0	1901.4	1461.7
75°	909.1	906.0	1069.6	2668.0	3985.3	4266.1	3927.1	3060.5	2230.7	1510.5	901.3
77.5°	396.0	396.8	534.2	1620.3	3180.8	3643.6	3264.4	1917.1	1555.1	800.6	380.4
80°	102.7	105.8	196.0	645.1	1915.1	2404.8	1990.9	842.7	718.6	195.3	72.6
82.5°	36.3	38.7	90.2	202.7	706.5	1102.8	886.5	269.5	187.5	55.8	19.5
85°	10.5	12.5	48.4	62.1	146.1	311.6	215.2	52.3	46.1	28.9	5.1
87.5°	0.0	1.6	9.8	8.6	8.6	5.9	10.9	5.9	7.4	3.5	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P882273  
 CATALOG NUMBER: NAV-SB2A-827-U-SL4-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	686.5	686.5	686.5	686.5	686.5	686.5	686.5	686.5	686.5	686.5	686.5
2.5°	690.1	687.3	681.5	675.2	669.4	663.9	662.3	656.5	653.7	654.1	653.7
5°	693.6	688.5	677.2	663.5	649.4	633.4	620.1	601.4	585.4	583.4	582.3
7.5°	702.9	694.7	676.4	649.8	614.7	570.6	529.5	488.9	465.9	453.4	452.6
10°	717.4	706.5	678.3	627.6	553.0	474.1	412.0	360.8	334.7	322.6	320.2
12.5°	734.6	722.5	681.5	589.7	473.3	369.8	302.7	271.4	265.9	265.2	264.8
15°	758.8	745.5	685.0	538.5	387.0	281.6	250.7	251.1	255.4	257.7	257.4
17.5°	785.7	772.5	679.9	476.0	301.9	240.6	239.8	243.3	249.5	251.9	251.5
20°	813.1	800.6	661.9	402.6	244.1	229.2	232.4	236.3	242.5	245.6	245.6
22.5°	841.2	830.2	633.4	324.5	220.3	221.0	224.9	228.8	235.9	239.4	239.4
25°	871.3	861.9	595.5	260.1	210.1	212.4	217.5	222.2	229.6	233.9	233.9
27.5°	901.7	894.7	552.6	217.1	200.7	203.5	209.3	215.6	223.0	228.1	228.5
30°	934.9	931.0	518.2	201.1	191.7	194.1	200.7	207.8	216.0	222.2	223.0
32.5°	968.9	968.1	501.4	212.8	183.5	185.1	191.0	198.0	208.1	216.0	216.7
35°	1002.5	1004.0	491.7	246.0	180.8	176.5	180.4	186.7	198.8	208.5	210.1
37.5°	1045.4	1049.3	491.3	282.0	187.5	167.9	170.7	175.0	185.5	196.8	198.8
40°	1109.5	1130.2	516.3	312.8	199.2	160.1	160.9	161.7	167.1	176.5	179.6
42.5°	1194.6	1255.1	606.5	333.9	203.9	153.1	150.4	146.1	145.3	150.4	153.1
45°	1300.4	1406.3	765.0	345.6	199.2	145.3	137.9	126.5	122.2	125.7	125.7
47.5°	1425.0	1571.8	952.9	348.3	191.4	135.5	122.2	107.4	103.9	105.1	104.7
50°	1546.5	1696.0	1118.1	325.7	178.5	123.0	105.1	92.6	90.2	90.6	90.6
52.5°	1653.9	1738.6	1164.9	272.2	161.3	107.8	90.2	81.6	80.1	80.1	79.7
55°	1724.9	1692.5	1038.8	208.1	139.8	92.2	77.3	73.0	72.2	71.9	71.1
57.5°	1739.8	1542.6	784.6	150.4	109.3	77.7	68.7	66.4	64.8	63.3	62.5
60°	1686.7	1292.6	499.5	105.1	82.0	66.4	60.9	59.4	56.2	53.1	51.9
62.5°	1571.8	976.3	276.5	73.0	66.0	56.6	53.9	51.9	46.1	41.0	39.4
65°	1417.6	649.0	122.2	57.0	53.9	47.6	46.1	43.3	36.3	30.5	29.3
67.5°	1262.6	373.7	55.1	45.7	43.3	39.1	37.9	35.9	30.9	25.4	24.6
70°	1085.6	189.4	37.9	36.3	33.6	29.7	30.9	30.5	25.4	20.7	19.9
72.5°	808.4	94.1	28.5	27.3	24.2	21.1	25.4	25.0	19.9	15.6	14.8
75°	457.7	46.5	20.7	19.1	14.4	15.6	20.3	19.1	13.7	10.2	9.4
77.5°	181.6	23.8	13.7	11.7	8.6	10.5	14.8	12.9	7.0	4.3	3.9
80°	41.8	11.7	7.0	5.1	3.9	6.2	7.8	4.7	2.0	0.4	0.0
82.5°	11.7	5.1	2.3	2.0	2.0	2.3	2.0	0.8	0.0	0.0	0.0
85°	3.9	2.3	0.8	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
87.5°	1.6	0.8	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)