

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: P882278

Luminaire Tested: **NAV-SB2A-827-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882278
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-SB2A-827-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5826 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

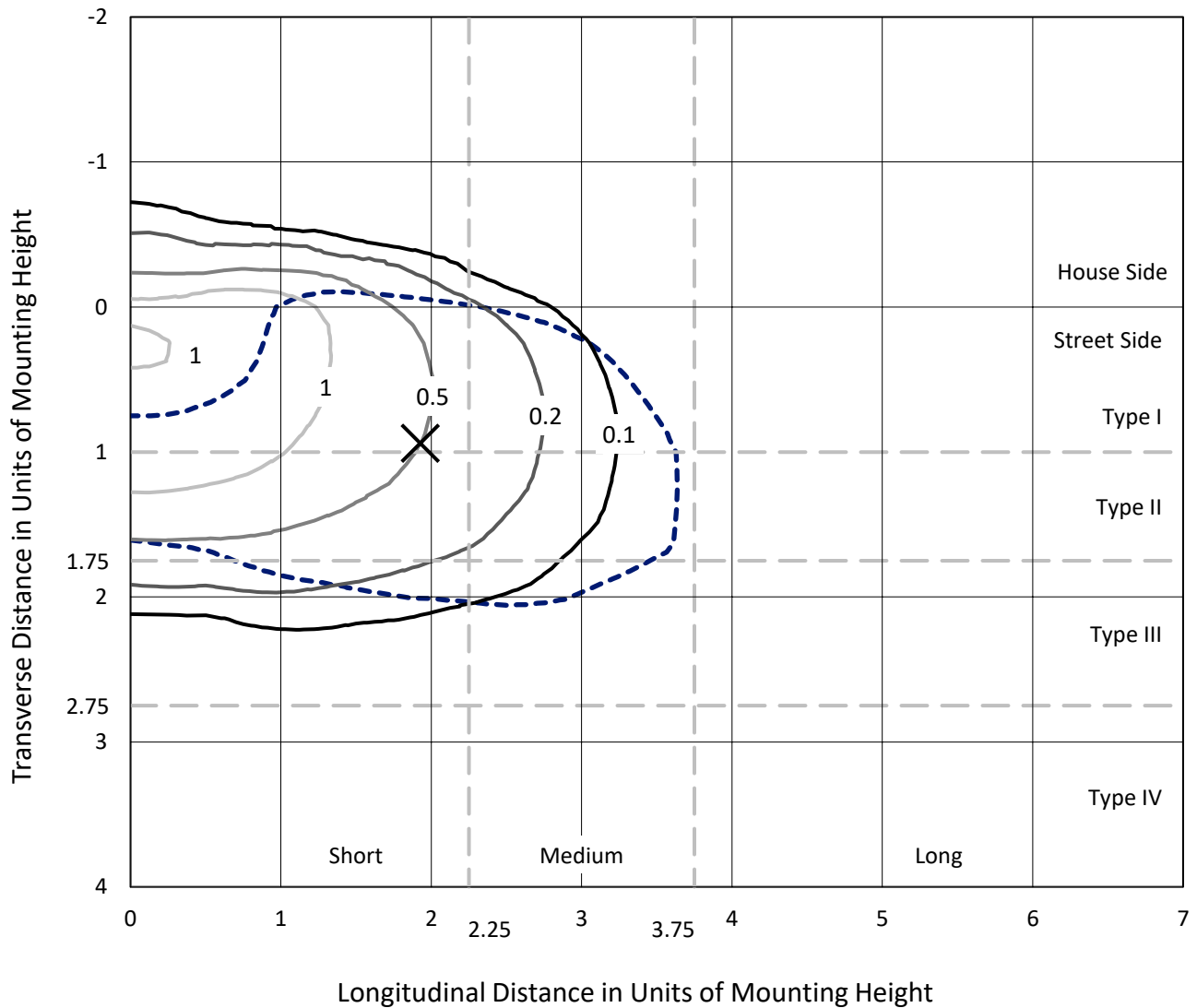
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

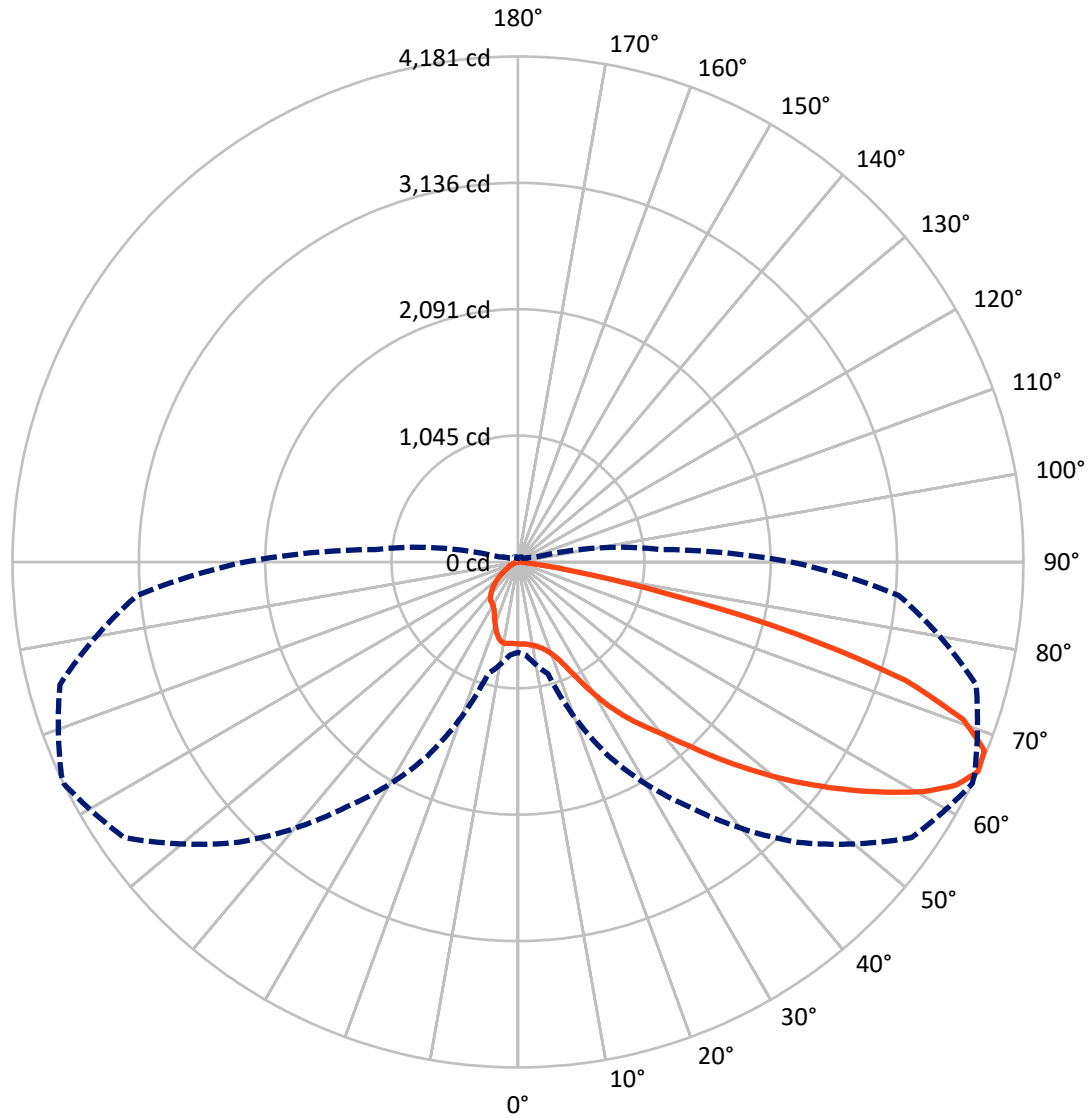
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 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
House Side	Lumens	779.1	0.0	779.1
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	5046.9	0.0	5046.9
	% Fixture	86.6	0.0	86.6
Total	Lumens	5826.0	0.0	5826.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.5	1.1
10°-20°	169.6	2.9
20°-30°	321.3	5.5
30°-40°	650.2	11.2
40°-50°	1107.6	19.0
50°-60°	1506.2	25.9
60°-70°	1414.4	24.3
70°-80°	566.7	9.7
80°-90°	27.5	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°	5826.0	100.0
0°-180°	5826.0	100.0

Coefficient of Utilization



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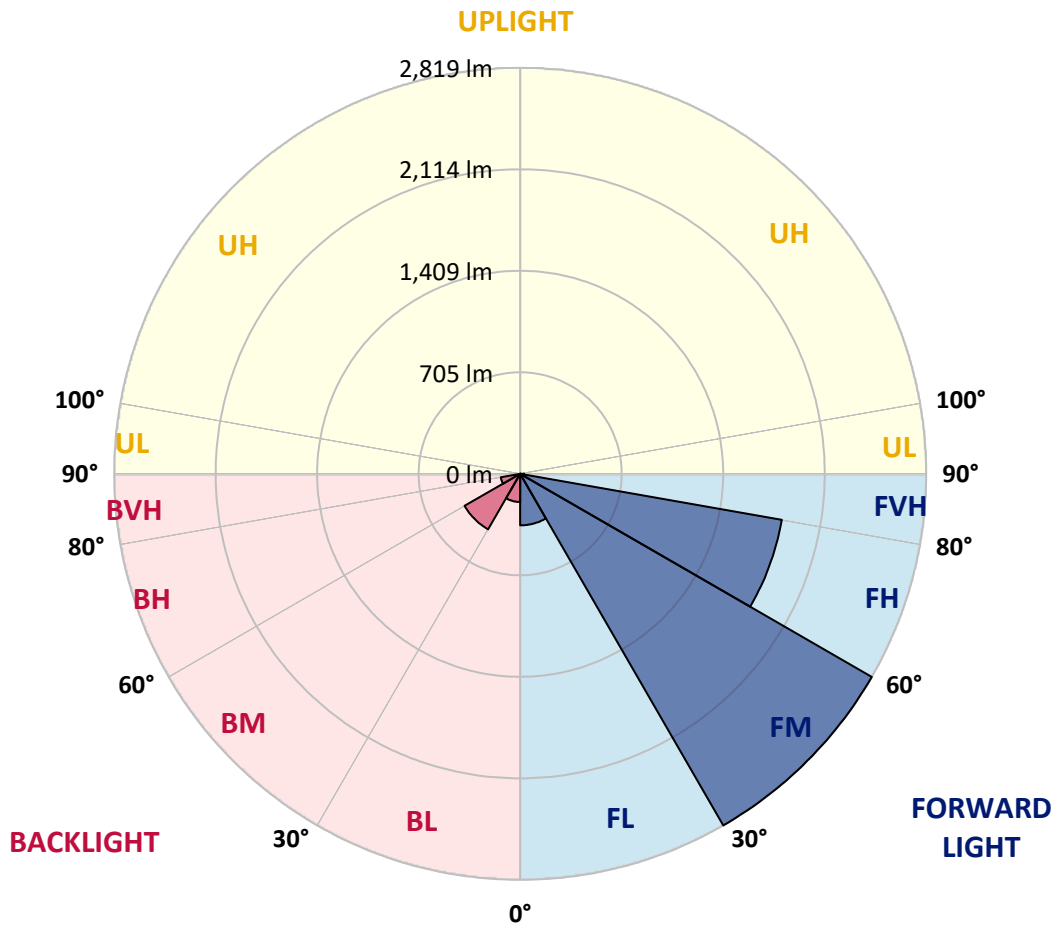
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	357.8	6.1			
FM (30°-60°)	2818.6	48.4			
FH (60°-80°)	1844.4	31.7			G2/5000
FVH (80°-90°)	26.1	0.4			G1/100
BL (0°-30°)	195.6	3.4	B1/500		
BM (30°-60°)	445.4	7.6	B1/1000		
BH (60°-80°)	136.7	2.3	B1/500		G1/500
BVH (80°-90°)	1.3	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6
2.5°	675.3	680.0	678.8	677.6	677.2	678.0	678.4	678.0	678.0	678.0	678.4
5°	662.4	666.3	666.3	669.0	672.9	677.6	681.1	681.9	682.7	683.9	683.5
7.5°	637.8	640.9	643.3	652.2	662.0	674.5	685.0	690.5	691.3	695.6	697.2
10°	621.0	624.9	628.8	638.2	652.2	671.0	689.0	702.2	704.2	714.3	719.0
12.5°	620.2	624.1	629.2	639.3	655.8	675.7	697.5	716.7	720.2	735.0	744.8
15°	628.4	633.1	637.8	650.3	667.9	692.1	715.5	739.3	742.8	763.9	774.5
17.5°	645.2	651.5	655.0	667.5	686.2	713.2	744.0	771.4	774.5	799.1	812.4
20°	678.4	685.8	687.0	697.2	715.5	744.4	781.1	815.1	819.0	847.1	862.0
22.5°	747.1	757.7	748.3	753.4	769.8	798.7	838.5	881.5	887.0	919.0	932.3
25°	868.2	883.1	858.8	850.3	857.3	887.4	937.3	991.6	997.9	1023.7	1030.3
27.5°	1106.1	1086.9	1050.2	1014.3	993.2	1010.4	1066.6	1133.8	1141.6	1166.6	1158.8
30°	1367.4	1350.6	1301.0	1221.3	1171.3	1168.6	1220.5	1295.5	1304.5	1328.3	1304.5
32.5°	1629.0	1613.0	1559.1	1461.1	1374.4	1331.4	1367.4	1450.5	1455.2	1470.5	1435.3
35°	1886.4	1870.0	1816.1	1715.7	1609.1	1511.5	1504.4	1598.2	1599.7	1615.8	1563.4
37.5°	2145.4	2131.7	2074.3	1975.9	1870.8	1736.0	1670.8	1738.0	1740.0	1755.6	1701.3
40°	2330.1	2335.9	2296.5	2220.3	2130.1	1982.9	1857.5	1886.8	1875.1	1901.3	1868.8
42.5°	2488.7	2500.4	2466.0	2427.7	2375.4	2245.7	2088.7	2083.6	2064.9	2079.0	2045.4
45°	2625.7	2635.5	2604.7	2595.7	2594.5	2503.5	2341.4	2311.0	2284.8	2282.1	2241.8
47.5°	2676.1	2694.9	2708.2	2738.2	2796.8	2758.5	2602.7	2555.4	2526.2	2504.7	2441.0
50°	2695.3	2715.2	2760.5	2848.0	2986.6	3003.0	2862.8	2809.7	2773.8	2734.7	2641.0
52.5°	2669.5	2705.0	2766.0	2913.2	3114.3	3199.1	3112.4	3065.9	3024.9	2961.2	2822.2
55°	2517.6	2553.1	2677.7	2912.4	3178.0	3336.6	3348.3	3327.6	3281.5	3181.1	2968.7
57.5°	2197.3	2250.0	2447.3	2813.2	3176.8	3454.9	3579.5	3594.3	3542.8	3399.1	3083.9
60°	1753.6	1825.1	2065.7	2593.3	3078.8	3519.0	3782.2	3856.4	3801.7	3613.9	3177.2
62.5°	1223.6	1306.4	1534.1	2248.9	2854.6	3472.9	3930.2	4067.3	4025.9	3806.0	3213.1
65°	746.4	772.9	956.5	1769.6	2473.4	3279.9	3975.9	4181.4	4167.7	3923.6	3160.0
67.5°	497.2	519.4	572.2	1213.5	1920.0	2894.5	3866.6	4161.4	4165.3	3904.4	2965.5
70°	299.6	318.7	353.1	705.7	1244.3	2291.0	3527.9	3907.6	3930.2	3648.6	2596.8
72.5°	123.4	136.3	167.6	319.9	644.4	1454.1	2809.3	3354.9	3407.6	3067.9	1993.0
75°	69.9	76.6	98.4	160.5	279.6	677.6	1701.7	2381.6	2459.4	2114.5	1199.0
77.5°	46.5	49.6	63.7	103.9	157.4	231.2	727.2	1240.8	1389.2	1154.9	519.1
80°	31.2	34.0	43.7	69.5	102.3	99.2	231.6	459.7	565.5	396.8	126.5
82.5°	21.1	21.5	31.2	45.7	64.8	48.0	68.3	142.9	179.7	114.8	48.0
85°	12.1	11.7	23.0	26.6	28.9	19.9	20.7	43.0	56.2	48.4	27.3
87.5°	1.6	2.3	9.0	7.0	3.9	4.3	4.3	7.4	10.9	11.7	5.9
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°	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6	677.6
2.5°	678.4	678.0	676.8	675.7	672.9	671.4	672.2	671.4	671.0	671.4	672.9
5°	683.5	682.3	679.2	675.3	669.8	663.2	658.9	652.6	646.8	643.3	644.0
7.5°	697.2	696.0	691.7	680.7	663.2	635.4	610.1	587.8	571.0	561.2	561.6
10°	719.0	717.1	710.4	686.2	640.1	579.6	529.2	487.4	460.1	447.2	446.0
12.5°	744.8	742.5	730.7	681.1	596.4	501.9	432.4	385.9	360.5	349.2	348.0
15°	775.3	772.1	749.1	656.9	532.7	415.9	352.3	317.5	301.1	291.0	291.4
17.5°	813.1	807.7	762.8	620.6	463.6	350.3	303.1	276.9	262.5	252.7	251.9
20°	862.4	853.4	773.7	577.2	399.9	308.9	269.9	248.0	237.1	228.5	226.9
22.5°	931.1	918.2	787.0	530.4	355.0	280.4	245.3	229.3	220.3	210.5	209.0
25°	1016.2	1001.0	803.4	487.0	324.2	255.8	227.3	214.0	203.5	192.2	191.0
27.5°	1135.4	1108.0	822.9	451.5	297.6	234.7	210.9	196.1	184.0	174.6	172.6
30°	1268.2	1223.2	840.1	430.0	273.4	215.2	189.4	174.6	163.3	156.6	155.4
32.5°	1393.9	1333.0	851.4	420.6	251.5	192.9	166.0	150.0	141.4	139.4	140.6
35°	1512.6	1432.2	850.3	411.7	232.0	170.7	142.9	126.5	119.9	121.1	121.1
37.5°	1649.3	1538.0	842.1	397.6	216.0	150.4	123.0	108.6	102.7	103.1	104.7
40°	1808.3	1660.3	837.0	371.0	198.4	131.6	106.6	94.9	90.6	89.0	88.7
42.5°	1977.8	1778.6	837.8	341.0	176.5	114.8	95.3	85.5	81.6	80.5	80.1
45°	2148.1	1891.5	838.9	309.7	153.5	101.9	87.1	78.9	76.6	75.0	75.0
47.5°	2308.2	1987.6	817.1	276.1	130.8	92.2	80.5	75.0	73.0	71.1	71.1
50°	2457.4	2051.6	764.3	237.1	112.9	84.4	75.4	71.5	69.5	67.6	67.6
52.5°	2573.4	2061.8	677.2	196.8	100.4	78.5	72.3	68.7	66.4	64.4	64.1
55°	2625.0	1998.1	553.4	159.3	90.6	73.4	69.1	65.6	62.9	60.9	60.5
57.5°	2611.7	1864.2	431.6	128.1	81.2	68.3	65.2	62.9	59.8	56.6	56.2
60°	2546.5	1684.9	325.3	106.6	72.6	62.9	60.9	59.0	54.7	50.0	49.2
62.5°	2433.6	1459.5	232.0	88.3	63.3	56.6	55.9	54.3	48.0	39.4	38.7
65°	2261.0	1185.7	156.2	73.4	54.3	49.6	50.0	47.3	39.1	29.3	28.5
67.5°	2008.7	867.0	100.0	60.1	45.3	41.4	41.8	40.2	33.2	25.0	23.8
70°	1687.2	574.1	65.2	45.7	36.3	32.0	34.4	34.8	28.1	20.3	19.5
72.5°	1236.9	339.0	45.7	34.0	26.6	22.3	28.1	28.9	22.7	15.2	14.5
75°	705.0	160.9	34.4	24.6	16.4	15.6	21.9	21.9	15.6	10.2	9.4
77.5°	296.0	67.2	24.2	16.0	9.4	9.0	14.8	13.7	7.8	4.7	4.7
80°	85.5	30.1	12.9	7.8	3.9	3.5	5.9	4.3	2.0	0.8	0.8
82.5°	33.6	13.3	5.1	3.1	1.6	1.6	0.8	0.0	0.0	0.0	0.0
85°	19.9	5.5	2.3	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.1	1.2	0.8	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)