

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: P882448

Luminaire Tested: **NAV-SB2B-827-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882448
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-SB2B-827-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 450mA 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: 7313 lumens
Efficiency: N/A
Efficacy: 99.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

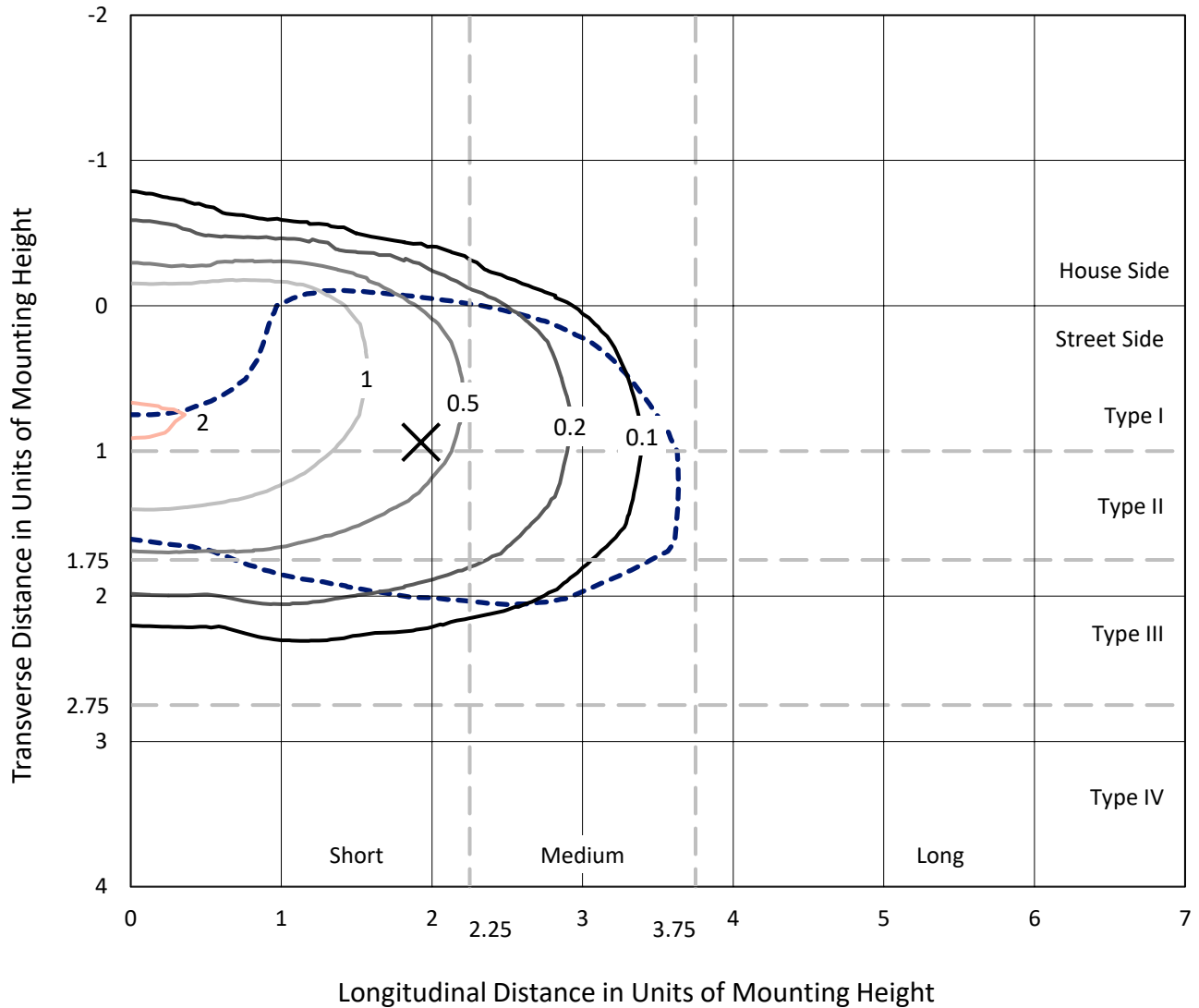
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

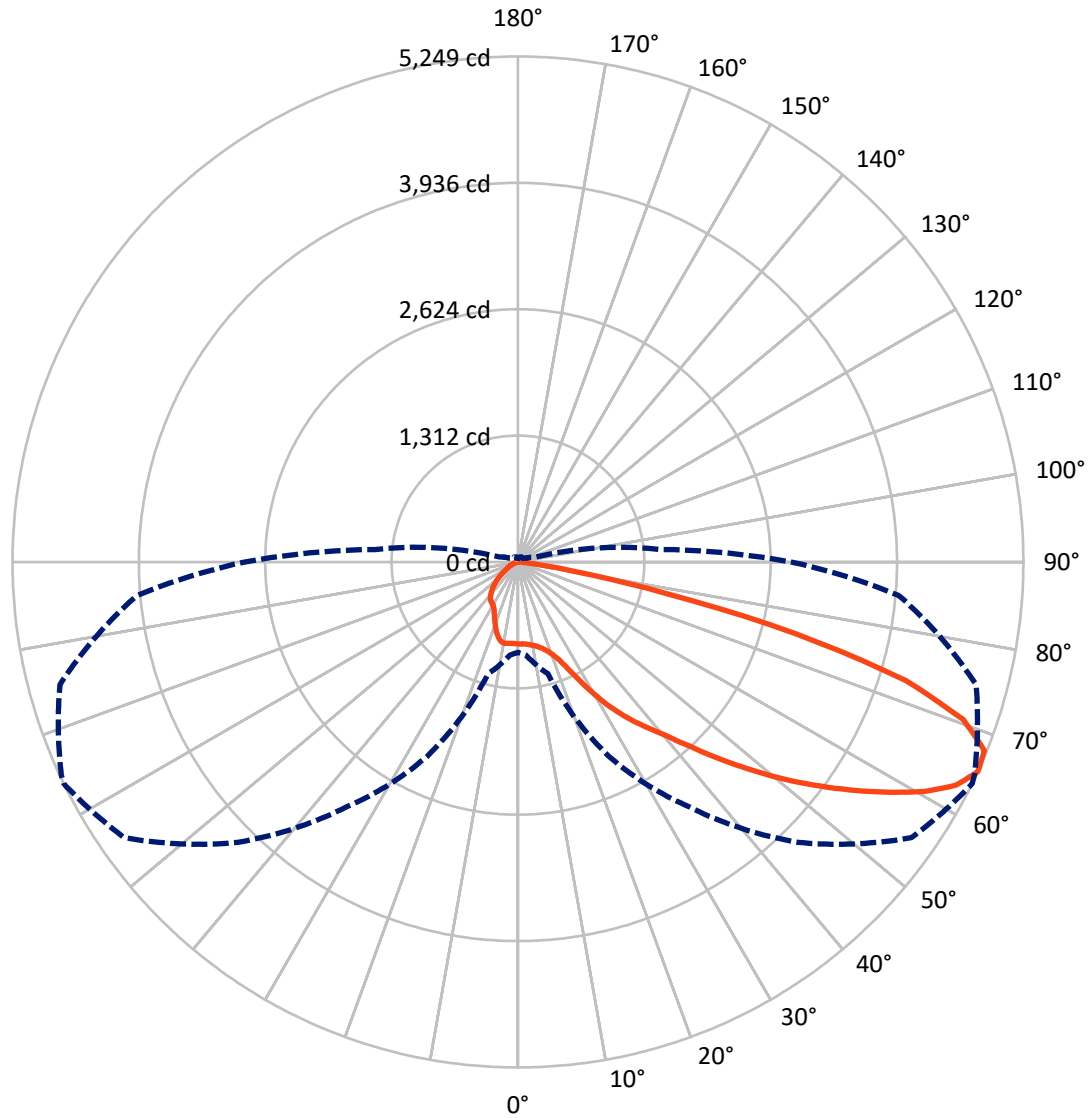
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 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	978.0	0.0	978.0
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	6335.0	0.0	6335.0
	% Fixture	86.6	0.0	86.6
Total	Lumens	7313.0	0.0	7313.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.5	1.1
10°-20°	212.8	2.9
20°-30°	403.3	5.5
30°-40°	816.1	11.2
40°-50°	1390.3	19.0
50°-60°	1890.7	25.9
60°-70°	1775.5	24.3
70°-80°	711.3	9.7
80°-90°	34.5	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°	7313.0	100.0
0°-180°	7313.0	100.0

Coefficient of Utilization



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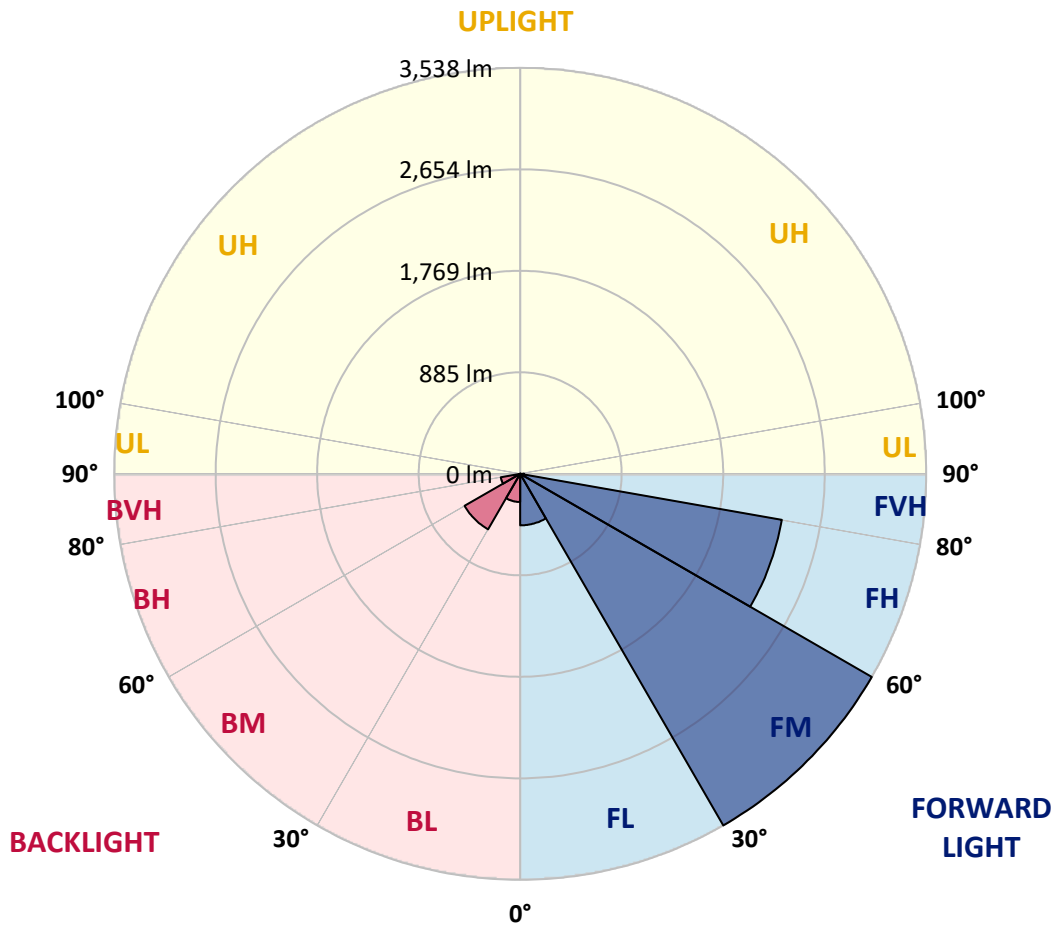
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	449.1	6.1			
FM (30°-60°)	3538.0	48.4			
FH (60°-80°)	2315.1	31.7			G2/5000
FVH (80°-90°)	32.8	0.4			G1/100
BL (0°-30°)	245.5	3.4	B1/500		
BM (30°-60°)	559.1	7.6	B1/1000		
BH (60°-80°)	171.7	2.3	B1/500		G1/500
BVH (80°-90°)	1.7	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°	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6
2.5°	847.6	853.5	852.0	850.6	850.1	851.1	851.6	851.1	851.1	851.1	851.6
5°	831.5	836.4	836.4	839.8	844.7	850.6	855.0	856.0	857.0	858.4	857.9
7.5°	800.6	804.5	807.4	818.7	831.0	846.7	859.9	866.8	867.7	873.1	875.1
10°	779.5	784.4	789.3	801.1	818.7	842.2	864.8	881.5	883.9	896.7	902.5
12.5°	778.5	783.4	789.8	802.5	823.1	848.1	875.6	899.6	904.0	922.6	934.9
15°	788.8	794.7	800.6	816.3	838.3	868.7	898.1	928.0	932.4	958.9	972.2
17.5°	809.9	817.7	822.1	837.8	861.4	895.2	933.9	968.2	972.2	1003.0	1019.7
20°	851.6	860.9	862.3	875.1	898.1	934.4	980.5	1023.1	1028.0	1063.3	1082.0
22.5°	937.8	951.1	939.3	945.7	966.3	1002.6	1052.6	1106.5	1113.4	1153.6	1170.2
25°	1089.8	1108.4	1078.1	1067.3	1076.1	1113.8	1176.6	1244.7	1252.6	1284.9	1293.3
27.5°	1388.4	1364.4	1318.3	1273.2	1246.7	1268.3	1338.9	1423.2	1433.0	1464.4	1454.6
30°	1716.4	1695.3	1633.0	1533.0	1470.2	1466.8	1532.0	1626.1	1637.4	1667.3	1637.4
32.5°	2044.8	2024.7	1957.1	1834.0	1725.2	1671.3	1716.4	1820.8	1826.7	1845.8	1801.7
35°	2367.9	2347.3	2279.6	2153.7	2019.8	1897.3	1888.4	2006.1	2008.1	2028.2	1962.5
37.5°	2692.9	2675.8	2603.7	2480.2	2348.3	2179.1	2097.3	2181.6	2184.0	2203.7	2135.5
40°	2924.8	2932.2	2882.6	2787.1	2673.8	2489.0	2331.6	2368.4	2353.7	2386.5	2345.8
42.5°	3123.9	3138.6	3095.4	3047.4	2981.7	2818.9	2621.8	2615.5	2591.9	2609.6	2567.4
45°	3295.9	3308.2	3269.5	3258.2	3256.7	3142.5	2939.0	2900.8	2867.9	2864.5	2814.0
47.5°	3359.2	3382.7	3399.4	3437.1	3510.7	3462.6	3267.0	3207.7	3170.9	3144.0	3064.0
50°	3383.2	3408.2	3465.1	3574.9	3748.9	3769.5	3593.5	3526.8	3481.7	3432.7	3315.0
52.5°	3350.8	3395.4	3471.9	3656.7	3909.2	4015.6	3906.8	3848.4	3797.0	3717.0	3542.5
55°	3160.1	3204.7	3361.1	3655.8	3989.1	4188.2	4202.9	4176.9	4119.1	3993.1	3726.4
57.5°	2758.1	2824.3	3071.9	3531.2	3987.7	4336.7	4493.1	4511.7	4447.0	4266.6	3871.0
60°	2201.2	2290.9	2592.9	3255.2	3864.6	4417.1	4747.5	4840.7	4772.1	4536.3	3988.2
62.5°	1535.9	1639.9	1925.7	2822.8	3583.2	4359.3	4933.4	5105.4	5053.5	4777.5	4033.3
65°	936.9	970.2	1200.6	2221.3	3104.7	4117.1	4990.7	5248.6	5231.4	4925.0	3966.6
67.5°	624.1	652.0	718.2	1523.2	2410.1	3633.2	4853.4	5223.6	5228.5	4901.0	3722.4
70°	376.0	400.0	443.2	885.9	1561.9	2875.8	4428.4	4904.9	4933.4	4579.9	3259.4
72.5°	154.9	171.1	210.3	401.5	808.9	1825.2	3526.3	4211.2	4277.4	3850.9	2501.7
75°	87.8	96.1	123.5	201.5	351.0	850.6	2136.0	2989.5	3087.1	2654.2	1505.1
77.5°	58.3	62.3	79.9	130.4	197.6	290.2	912.8	1557.5	1743.8	1449.7	651.5
80°	39.2	42.7	54.9	87.3	128.4	124.5	290.7	577.0	709.9	498.1	158.8
82.5°	26.5	27.0	39.2	57.4	81.4	60.3	85.8	179.4	225.5	144.1	60.3
85°	15.2	14.7	28.9	33.3	36.3	25.0	26.0	53.9	70.6	60.8	34.3
87.5°	2.0	2.9	11.3	8.8	4.9	5.4	5.4	9.3	13.7	14.7	7.4
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°	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6	850.6
2.5°	851.6	851.1	849.6	848.1	844.7	842.7	843.7	842.7	842.2	842.7	844.7
5°	857.9	856.5	852.5	847.6	840.8	832.4	827.0	819.2	811.8	807.4	808.4
7.5°	875.1	873.6	868.2	854.5	832.4	797.6	765.8	737.8	716.7	704.5	705.0
10°	902.5	900.1	891.8	861.4	803.5	727.5	664.3	611.8	577.5	561.3	559.9
12.5°	934.9	932.0	917.3	855.0	748.6	630.0	542.7	484.4	452.5	438.3	436.8
15°	973.1	969.2	940.3	824.6	668.7	522.1	442.2	398.6	378.0	365.2	365.7
17.5°	1020.7	1013.8	957.5	779.0	581.9	439.8	380.4	347.6	329.4	317.2	316.2
20°	1082.5	1071.2	971.2	724.6	502.0	387.8	338.8	311.3	297.6	286.8	284.8
22.5°	1168.7	1152.6	987.8	665.8	445.6	352.0	307.9	287.8	276.5	264.2	262.3
25°	1275.6	1256.5	1008.4	611.3	406.9	321.1	285.3	268.7	255.4	241.2	239.7
27.5°	1425.1	1390.8	1032.9	566.7	373.6	294.6	264.7	246.1	230.9	219.1	216.7
30°	1591.8	1535.5	1054.5	539.8	343.2	270.1	237.8	219.1	204.9	196.6	195.1
32.5°	1749.7	1673.2	1068.7	528.0	315.7	242.2	208.4	188.3	177.5	175.0	176.5
35°	1898.7	1797.7	1067.3	516.7	291.2	214.2	179.4	158.8	150.5	152.0	152.0
37.5°	2070.3	1930.6	1057.0	499.1	271.1	188.7	154.4	136.3	128.9	129.4	131.4
40°	2269.8	2084.0	1050.6	465.7	249.0	165.2	133.8	119.1	113.7	111.8	111.3
42.5°	2482.6	2232.6	1051.6	428.0	221.6	144.1	119.6	107.4	102.5	101.0	100.5
45°	2696.4	2374.3	1053.0	388.8	192.7	128.0	109.3	99.0	96.1	94.1	94.1
47.5°	2897.4	2494.9	1025.6	346.6	164.2	115.7	101.0	94.1	91.7	89.2	89.2
50°	3084.6	2575.3	959.4	297.6	141.7	105.9	94.6	89.7	87.3	84.8	84.8
52.5°	3230.2	2588.0	850.1	247.1	126.0	98.5	90.7	86.3	83.3	80.9	80.4
55°	3294.9	2508.1	694.7	200.0	113.7	92.2	86.8	82.4	78.9	76.5	76.0
57.5°	3278.3	2339.9	541.7	160.8	102.0	85.8	81.9	78.9	75.0	71.1	70.6
60°	3196.4	2114.9	408.4	133.8	91.2	78.9	76.5	74.0	68.6	62.8	61.8
62.5°	3054.7	1832.1	291.2	110.8	79.4	71.1	70.1	68.1	60.3	49.5	48.5
65°	2838.0	1488.4	196.1	92.2	68.1	62.3	62.8	59.3	49.0	36.8	35.8
67.5°	2521.3	1088.3	125.5	75.5	56.9	52.0	52.5	50.5	41.7	31.4	29.9
70°	2117.9	720.7	81.9	57.4	45.6	40.2	43.1	43.6	35.3	25.5	24.5
72.5°	1552.6	425.5	57.4	42.7	33.3	27.9	35.3	36.3	28.4	19.1	18.1
75°	884.9	202.0	43.1	30.9	20.6	19.6	27.5	27.5	19.6	12.7	11.8
77.5°	371.6	84.3	30.4	20.1	11.8	11.3	18.6	17.2	9.8	5.9	5.9
80°	107.4	37.7	16.2	9.8	4.9	4.4	7.4	5.4	2.5	1.0	1.0
82.5°	42.2	16.7	6.4	3.9	2.0	2.0	1.0	0.0	0.0	0.0	0.0
85°	25.0	6.9	2.9	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.4	1.5	1.0	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)