

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: P882118

Luminaire Tested: **NAV-SB1D-830-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882118
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-SB1D-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA 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: 6989 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

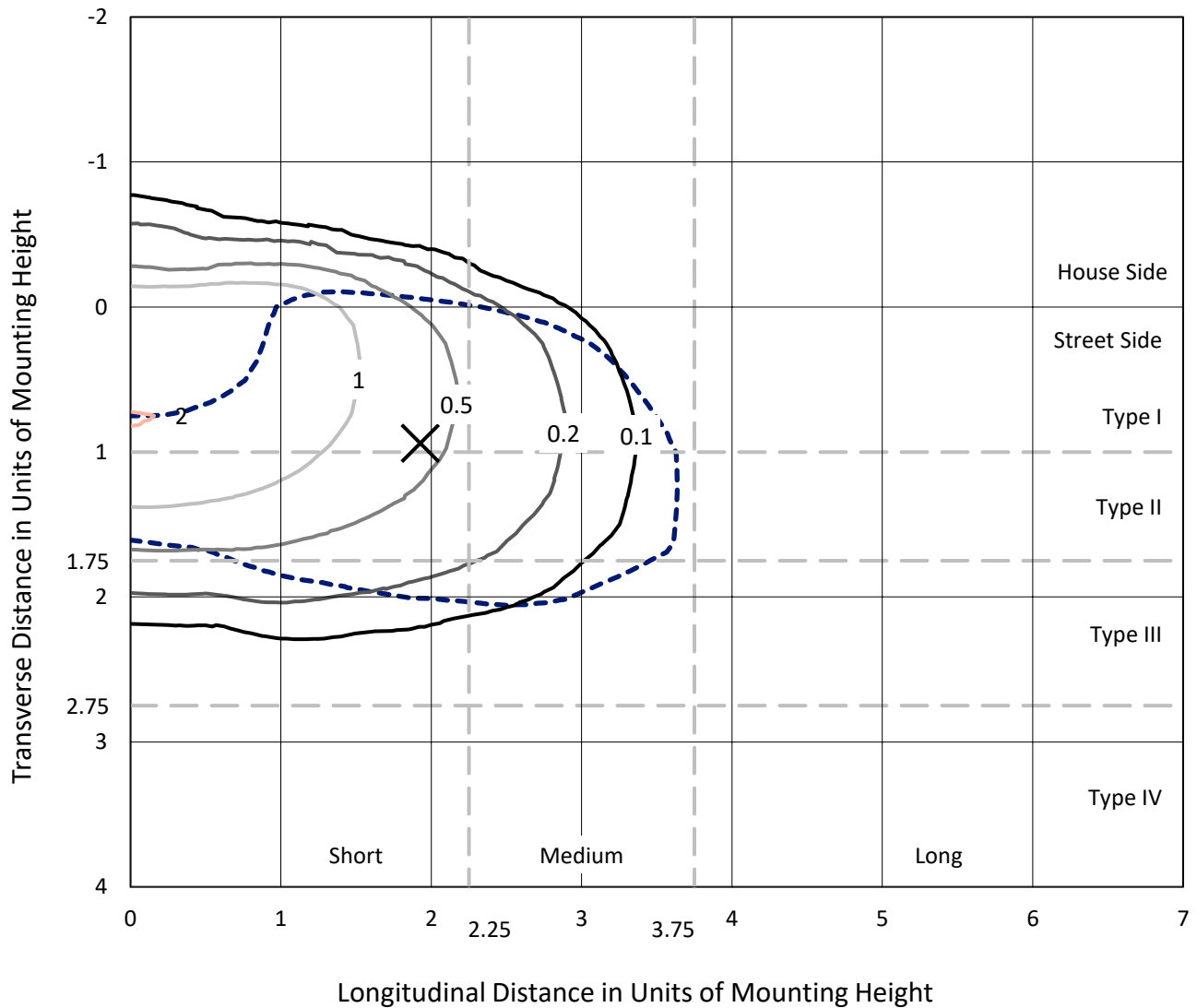
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

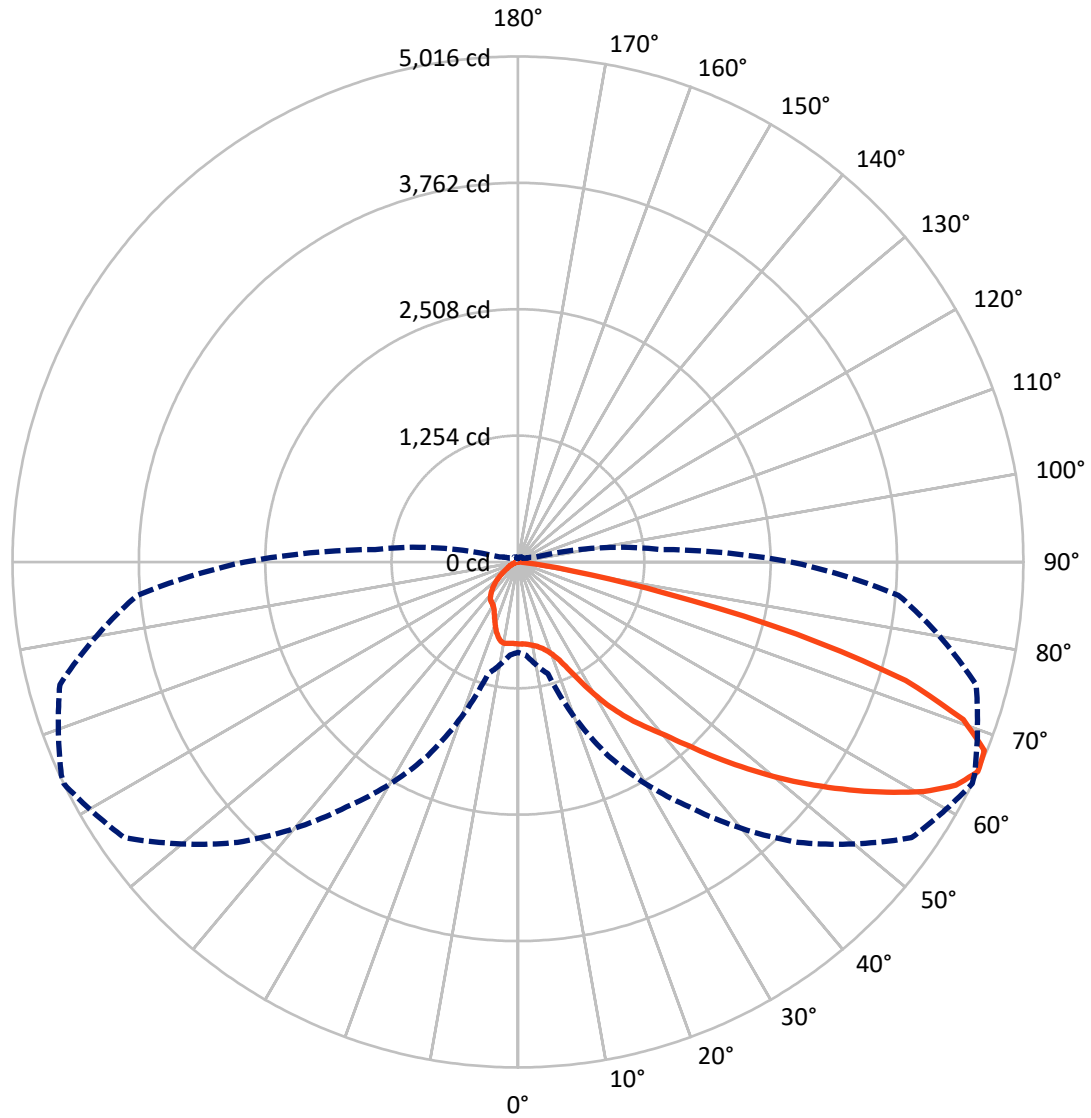
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 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	934.6	0.0	934.6
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	6054.4	0.0	6054.4
	% Fixture	86.6	0.0	86.6
Total	Lumens	6989.0	0.0	6989.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.0	1.1
10°-20°	203.4	2.9
20°-30°	385.5	5.5
30°-40°	780.0	11.2
40°-50°	1328.7	19.0
50°-60°	1806.9	25.9
60°-70°	1696.8	24.3
70°-80°	679.8	9.7
80°-90°	32.9	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°	6989.0	100.0
0°-180°	6989.0	100.0

Coefficient of Utilization



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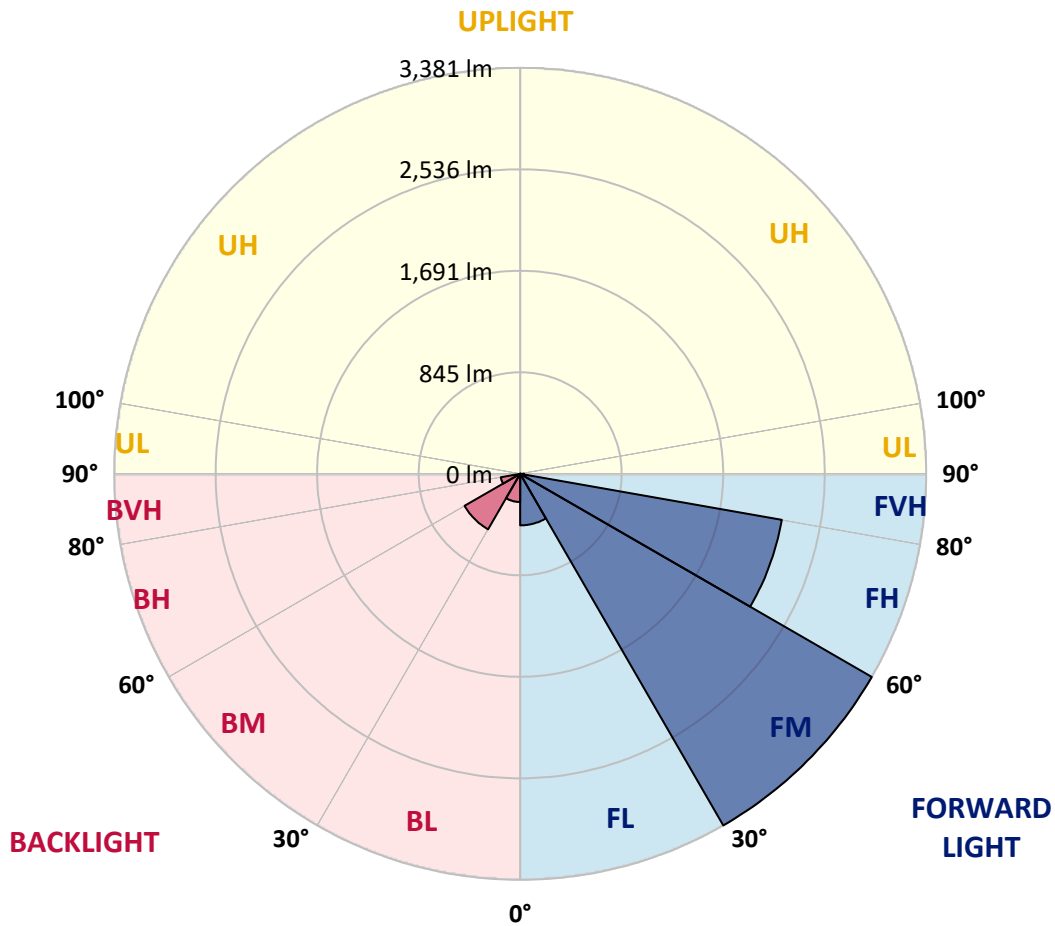
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	429.2	6.1			
FM (30°-60°)	3381.3	48.4			
FH (60°-80°)	2212.6	31.7			G2/5000
FVH (80°-90°)	31.3	0.4			G1/100
BL (0°-30°)	234.7	3.4	B1/500		
BM (30°-60°)	534.3	7.6	B1/1000		
BH (60°-80°)	164.0	2.3	B1/500		G1/500
BVH (80°-90°)	1.6	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-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9
2.5°	810.1	815.7	814.3	812.9	812.4	813.4	813.8	813.4	813.4	813.4	813.8
5°	794.6	799.3	799.3	802.6	807.3	812.9	817.1	818.0	819.0	820.4	819.9
7.5°	765.1	768.9	771.7	782.4	794.2	809.1	821.8	828.4	829.3	834.4	836.3
10°	745.0	749.6	754.3	765.6	782.4	804.9	826.5	842.4	844.8	856.9	862.6
12.5°	744.0	748.7	754.8	767.0	786.7	810.6	836.8	859.7	864.0	881.8	893.5
15°	753.9	759.5	765.1	780.1	801.2	830.2	858.3	886.9	891.1	916.4	929.1
17.5°	774.0	781.5	785.7	800.7	823.2	855.5	892.5	925.3	929.1	958.6	974.5
20°	813.8	822.7	824.1	836.3	858.3	893.0	937.1	977.8	982.5	1016.2	1034.0
22.5°	896.3	908.9	897.7	903.8	923.5	958.1	1005.9	1057.5	1064.0	1102.4	1118.4
25°	1041.5	1059.3	1030.3	1020.0	1028.4	1064.5	1124.5	1189.6	1197.1	1228.0	1236.0
27.5°	1326.9	1303.9	1259.9	1216.8	1191.5	1212.1	1279.5	1360.1	1369.5	1399.5	1390.1
30°	1640.3	1620.2	1560.7	1465.1	1405.1	1401.8	1464.1	1554.1	1564.9	1593.5	1564.9
32.5°	1954.2	1935.0	1870.4	1752.8	1648.7	1597.2	1640.3	1740.1	1745.7	1764.0	1721.8
35°	2263.0	2243.3	2178.6	2058.2	1930.3	1813.2	1804.8	1917.2	1919.1	1938.3	1875.5
37.5°	2573.6	2557.2	2488.3	2370.3	2244.2	2082.6	2004.4	2084.9	2087.3	2106.0	2040.9
40°	2795.2	2802.3	2754.9	2663.6	2555.3	2378.7	2228.3	2263.5	2249.4	2280.8	2241.9
42.5°	2985.5	2999.5	2958.3	2912.4	2849.6	2694.0	2505.7	2499.6	2477.1	2494.0	2453.7
45°	3149.9	3161.6	3124.6	3113.8	3112.4	3003.3	2808.8	2772.3	2740.9	2737.6	2689.3
47.5°	3210.3	3232.8	3248.8	3284.8	3355.1	3309.2	3122.3	3065.6	3030.4	3004.7	2928.3
50°	3233.3	3257.2	3311.5	3416.5	3582.8	3602.5	3434.3	3370.6	3327.5	3280.6	3168.2
52.5°	3202.4	3245.0	3318.1	3494.7	3736.0	3837.7	3733.7	3677.9	3628.7	3552.4	3385.6
55°	3020.1	3062.8	3212.2	3493.8	3812.4	4002.6	4016.7	3991.8	3936.6	3816.1	3561.3
57.5°	2635.9	2699.2	2935.8	3374.8	3811.0	4144.6	4294.0	4311.8	4250.0	4077.6	3699.5
60°	2103.7	2189.4	2478.0	3111.0	3693.4	4221.4	4537.2	4626.2	4560.6	4335.3	3811.5
62.5°	1467.9	1567.2	1840.4	2697.8	3424.5	4166.1	4714.8	4879.2	4829.6	4565.8	3854.6
65°	895.4	927.2	1147.4	2122.9	2967.2	3934.7	4769.6	5016.0	4999.6	4706.8	3790.8
67.5°	596.4	623.1	686.4	1455.7	2303.3	3472.2	4638.4	4992.1	4996.8	4683.9	3557.5
70°	359.4	382.3	423.5	846.6	1492.7	2748.4	4232.2	4687.6	4714.8	4377.0	3115.2
72.5°	148.1	163.5	201.0	383.7	773.1	1744.3	3370.1	4024.6	4087.9	3680.3	2390.9
75°	83.9	91.8	118.1	192.6	335.5	812.9	2041.4	2857.1	2950.3	2536.6	1438.4
77.5°	55.8	59.5	76.4	124.6	188.8	277.4	872.4	1488.5	1666.5	1385.4	622.7
80°	37.5	40.8	52.5	83.4	122.8	119.0	277.8	551.5	678.4	476.0	151.8
82.5°	25.3	25.8	37.5	54.8	77.8	57.6	82.0	171.5	215.5	137.7	57.6
85°	14.5	14.1	27.6	31.9	34.7	23.9	24.8	51.5	67.5	58.1	32.8
87.5°	1.9	2.8	10.8	8.4	4.7	5.2	5.2	8.9	13.1	14.1	7.0
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°	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9	812.9
2.5°	813.8	813.4	812.0	810.6	807.3	805.4	806.3	805.4	804.9	805.4	807.3
5°	819.9	818.5	814.8	810.1	803.5	795.6	790.4	782.9	775.9	771.7	772.6
7.5°	836.3	834.9	829.8	816.6	795.6	762.3	731.8	705.1	685.0	673.3	673.7
10°	862.6	860.2	852.2	823.2	767.9	695.3	634.9	584.7	551.9	536.5	535.1
12.5°	893.5	890.7	876.6	817.1	715.4	602.1	518.7	462.9	432.4	418.9	417.5
15°	930.0	926.3	898.6	788.1	639.1	499.0	422.6	380.9	361.2	349.1	349.5
17.5°	975.5	968.9	915.0	744.5	556.1	420.3	363.6	332.2	314.8	303.1	302.2
20°	1034.5	1023.7	928.2	692.5	479.8	370.6	323.8	297.5	284.4	274.1	272.2
22.5°	1117.0	1101.5	944.1	636.3	425.9	336.4	294.2	275.0	264.2	252.5	250.7
25°	1219.1	1200.8	963.8	584.3	388.9	306.9	272.7	256.8	244.1	230.5	229.1
27.5°	1362.0	1329.2	987.2	541.6	357.0	281.6	253.0	235.2	220.7	209.4	207.1
30°	1521.3	1467.4	1007.8	515.8	328.0	258.2	227.2	209.4	195.8	187.9	186.5
32.5°	1672.2	1599.1	1021.4	504.6	301.7	231.5	199.1	179.9	169.6	167.3	168.7
35°	1814.6	1718.1	1020.0	493.8	278.3	204.7	171.5	151.8	143.8	145.2	145.2
37.5°	1978.6	1845.1	1010.1	477.0	259.1	180.4	147.6	130.3	123.2	123.7	125.6
40°	2169.3	1991.7	1004.1	445.1	238.0	157.9	127.9	113.9	108.7	106.8	106.4
42.5°	2372.6	2133.7	1005.0	409.0	211.8	137.7	114.3	102.6	97.9	96.5	96.0
45°	2576.9	2269.1	1006.4	371.5	184.1	122.3	104.5	94.6	91.8	90.0	90.0
47.5°	2769.0	2384.3	980.2	331.2	157.0	110.6	96.5	90.0	87.6	85.3	85.3
50°	2948.0	2461.2	916.9	284.4	135.4	101.2	90.4	85.7	83.4	81.1	81.1
52.5°	3087.1	2473.4	812.4	236.1	120.4	94.2	86.7	82.5	79.6	77.3	76.8
55°	3149.0	2397.0	663.9	191.2	108.7	88.1	82.9	78.7	75.4	73.1	72.6
57.5°	3133.0	2236.3	517.7	153.7	97.5	82.0	78.2	75.4	71.7	67.9	67.5
60°	3054.8	2021.2	390.3	127.9	87.1	75.4	73.1	70.7	65.6	60.0	59.0
62.5°	2919.4	1750.9	278.3	105.9	75.9	67.9	67.0	65.1	57.6	47.3	46.4
65°	2712.3	1422.4	187.4	88.1	65.1	59.5	60.0	56.7	46.9	35.1	34.2
67.5°	2409.6	1040.1	119.9	72.2	54.3	49.7	50.1	48.3	39.8	30.0	28.6
70°	2024.0	688.7	78.2	54.8	43.6	38.4	41.2	41.7	33.7	24.4	23.4
72.5°	1483.8	406.7	54.8	40.8	31.9	26.7	33.7	34.7	27.2	18.3	17.3
75°	845.7	193.0	41.2	29.5	19.7	18.7	26.2	26.2	18.7	12.2	11.2
77.5°	355.1	80.6	29.0	19.2	11.2	10.8	17.8	16.4	9.4	5.6	5.6
80°	102.6	36.1	15.5	9.4	4.7	4.2	7.0	5.2	2.3	0.9	0.9
82.5°	40.3	15.9	6.1	3.7	1.9	1.9	0.9	0.0	0.0	0.0	0.0
85°	23.9	6.6	2.8	1.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.1	1.4	0.9	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)