

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: P882458

Luminaire Tested: **NAV-SB2B-830-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882458
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-830-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 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: 7876 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

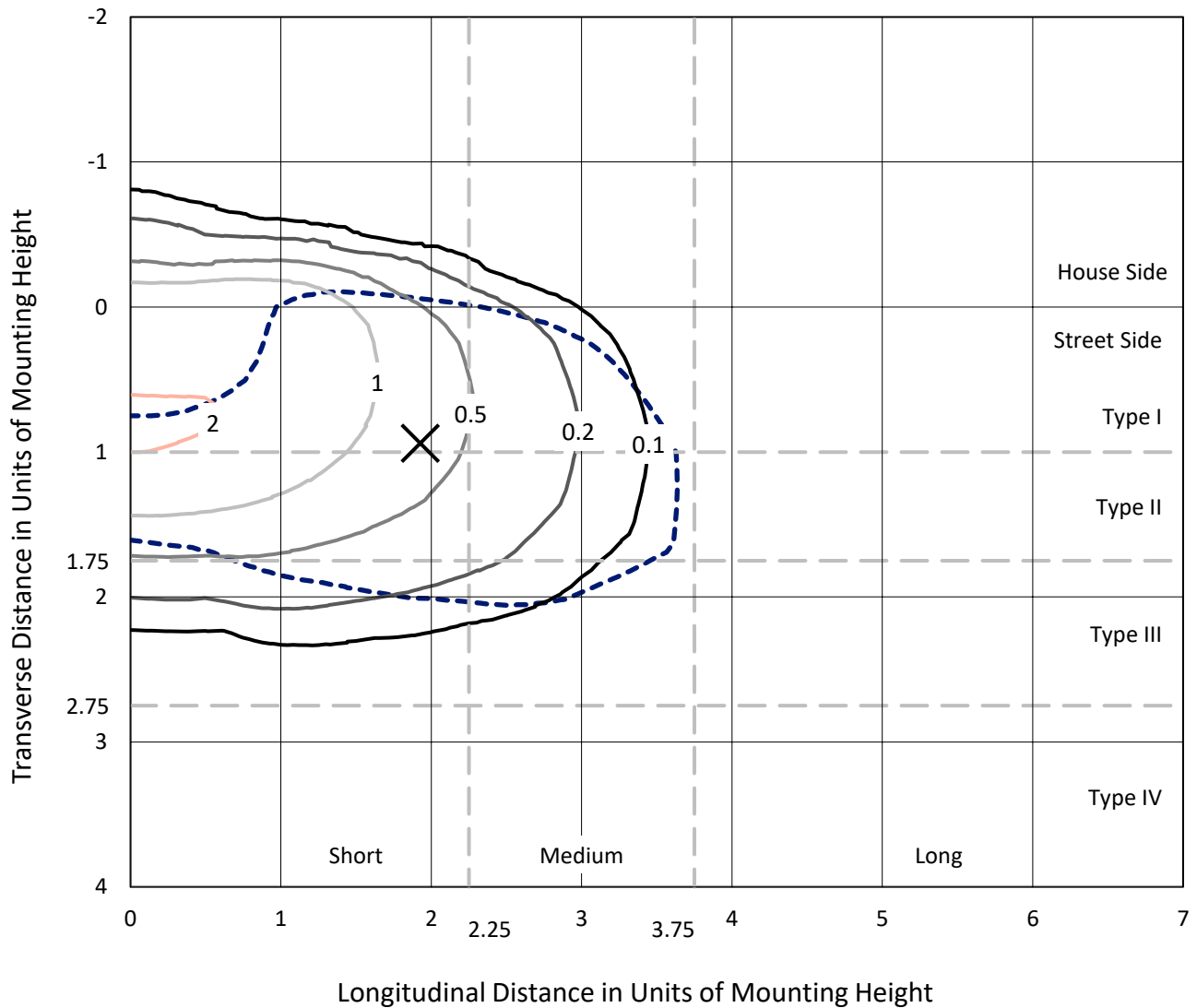
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

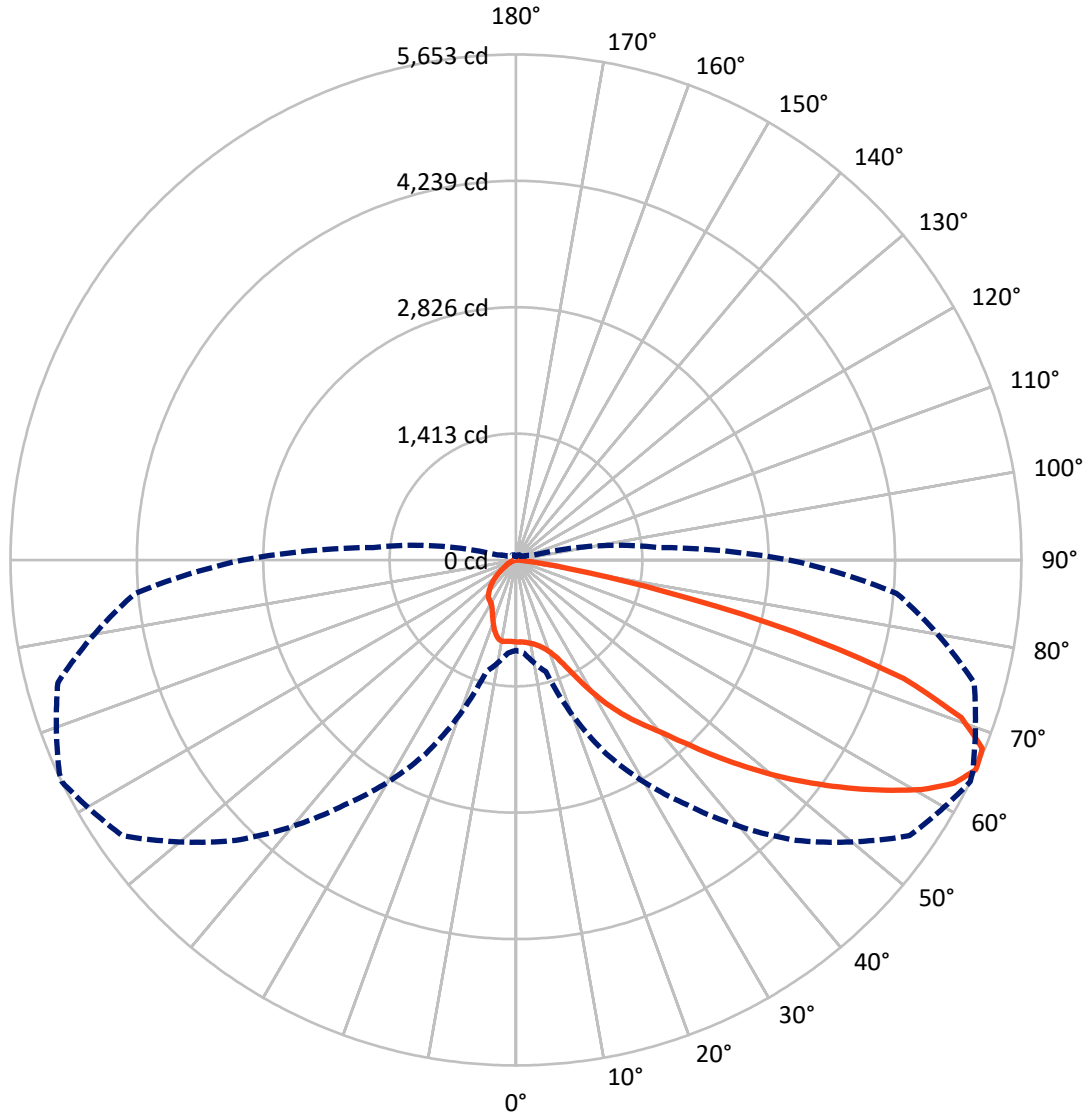
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 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	1053.3	0.0	1053.3
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	6822.7	0.0	6822.7
	% Fixture	86.6	0.0	86.6
Total	Lumens	7876.0	0.0	7876.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.5	1.1
10°-20°	229.2	2.9
20°-30°	434.4	5.5
30°-40°	879.0	11.2
40°-50°	1497.3	19.0
50°-60°	2036.3	25.9
60°-70°	1912.1	24.3
70°-80°	766.1	9.7
80°-90°	37.1	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°	7876.0	100.0
0°-180°	7876.0	100.0

Coefficient of Utilization



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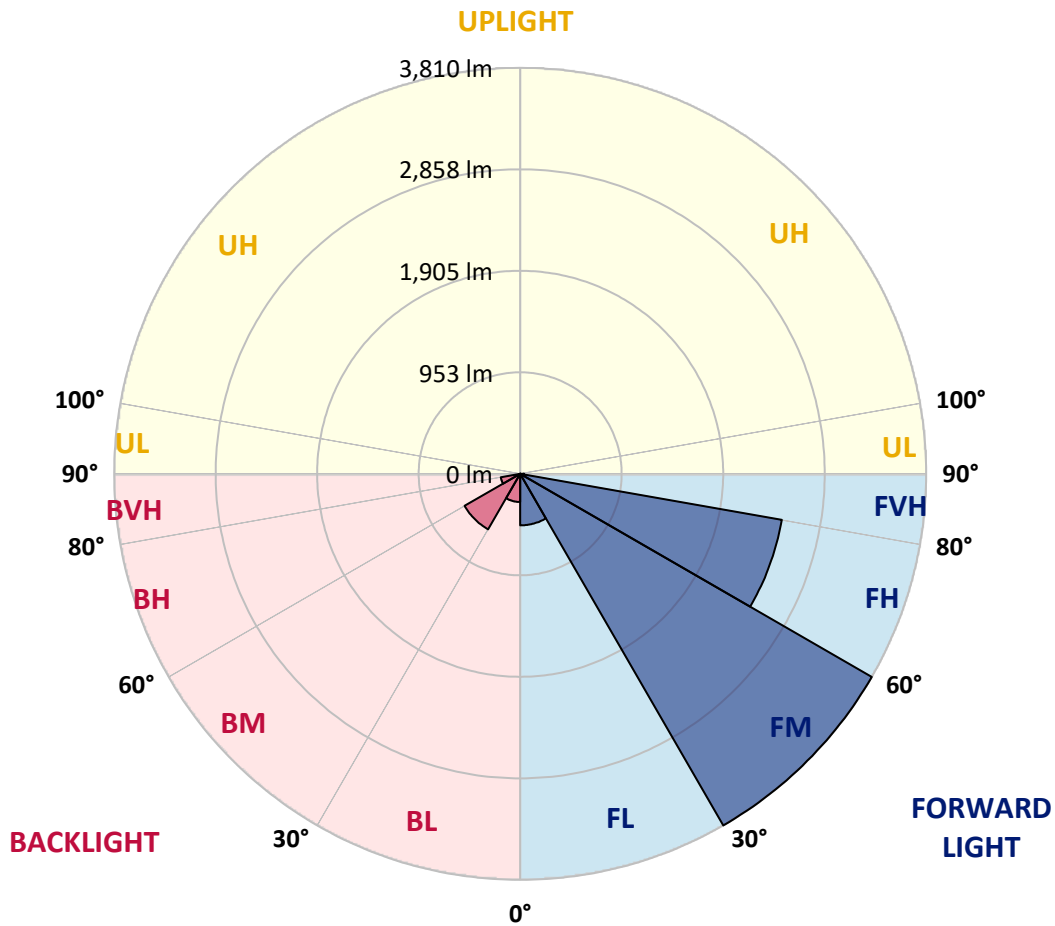
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	483.7	6.1			
FM (30°-60°)	3810.4	48.4			
FH (60°-80°)	2493.4	31.7			G2/5000
FVH (80°-90°)	35.3	0.4			G1/100
BL (0°-30°)	264.4	3.4	B1/500		
BM (30°-60°)	602.1	7.6	B1/1000		
BH (60°-80°)	184.9	2.3	B1/500		G1/500
BVH (80°-90°)	1.8	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 III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	916.1	916.1	916.1	916.1	916.1	916.1	916.1	916.1	916.1	916.1	916.1
2.5°	912.9	919.2	917.6	916.1	915.5	916.6	917.1	916.6	916.6	916.6	917.1
5°	895.5	900.7	900.7	904.4	909.7	916.1	920.8	921.9	922.9	924.5	924.0
7.5°	862.2	866.4	869.6	881.7	894.9	911.8	926.1	933.5	934.5	940.3	942.5
10°	839.5	844.8	850.1	862.7	881.7	907.1	931.4	949.3	952.0	965.7	972.0
12.5°	838.4	843.7	850.6	864.3	886.5	913.4	943.0	968.9	973.6	993.7	1006.9
15°	849.5	855.9	862.2	879.1	902.9	935.6	967.3	999.5	1004.2	1032.7	1047.0
17.5°	872.2	880.7	885.4	902.3	927.7	964.1	1005.8	1042.8	1047.0	1080.3	1098.2
20°	917.1	927.1	928.7	942.5	967.3	1006.3	1056.0	1101.9	1107.2	1145.2	1165.3
22.5°	1010.0	1024.3	1011.6	1018.5	1040.7	1079.7	1133.6	1191.7	1199.1	1242.4	1260.3
25°	1173.7	1193.8	1161.0	1149.4	1158.9	1199.6	1267.2	1340.6	1349.0	1383.9	1392.8
27.5°	1495.3	1469.4	1419.8	1371.2	1342.7	1365.9	1441.9	1532.8	1543.3	1577.1	1566.5
30°	1848.5	1825.8	1758.7	1651.0	1583.4	1579.7	1650.0	1751.3	1763.5	1795.7	1763.5
32.5°	2202.2	2180.6	2107.7	1975.2	1858.0	1799.9	1848.5	1961.0	1967.3	1987.9	1940.4
35°	2550.2	2528.0	2455.1	2319.5	2175.3	2043.3	2033.8	2160.5	2162.6	2184.3	2113.5
37.5°	2900.2	2881.8	2804.1	2671.1	2529.1	2346.9	2258.7	2349.6	2352.2	2373.3	2299.9
40°	3150.0	3157.9	3104.6	3001.6	2879.7	2680.6	2511.1	2550.7	2534.9	2570.2	2526.4
42.5°	3364.3	3380.2	3333.7	3282.0	3211.2	3035.9	2823.7	2816.8	2791.5	2810.5	2765.1
45°	3549.7	3562.9	3521.2	3509.0	3507.4	3384.4	3165.3	3124.1	3088.7	3085.0	3030.7
47.5°	3617.8	3643.1	3661.1	3701.7	3780.9	3729.2	3518.5	3454.6	3415.0	3386.0	3299.9
50°	3643.7	3670.6	3731.8	3850.1	4037.5	4059.7	3870.2	3798.4	3749.8	3697.0	3570.3
52.5°	3608.8	3656.9	3739.2	3938.3	4210.2	4324.8	4207.5	4144.7	4089.3	4003.2	3815.2
55°	3403.4	3451.5	3619.9	3937.2	4296.2	4510.6	4526.4	4498.5	4436.2	4300.5	4013.2
57.5°	2970.5	3041.7	3308.4	3803.1	4294.7	4670.6	4839.0	4859.1	4789.4	4595.1	4169.0
60°	2370.7	2467.3	2792.5	3505.8	4162.1	4757.2	5113.0	5213.4	5139.4	4885.5	4295.2
62.5°	1654.2	1766.1	2073.9	3040.2	3859.1	4694.9	5313.2	5498.5	5442.5	5145.3	4343.8
65°	1009.0	1044.9	1293.0	2392.3	3343.8	4434.1	5374.9	5652.6	5634.2	5304.2	4272.0
67.5°	672.1	702.2	773.5	1640.5	2595.6	3912.9	5227.1	5625.7	5631.0	5278.3	4009.0
70°	405.0	430.8	477.3	954.1	1682.2	3097.2	4769.3	5282.5	5313.2	4932.5	3510.6
72.5°	166.8	184.3	226.5	432.4	871.2	1965.7	3797.8	4535.4	4606.7	4147.4	2694.3
75°	94.5	103.5	133.1	217.0	378.0	916.1	2300.4	3219.7	3324.7	2858.5	1620.9
77.5°	62.8	67.1	86.1	140.4	212.8	312.6	983.1	1677.4	1878.1	1561.3	701.7
80°	42.2	45.9	59.1	94.0	138.3	134.1	313.1	621.4	764.5	536.4	171.1
82.5°	28.5	29.0	42.2	61.8	87.6	64.9	92.4	193.2	242.9	155.2	64.9
85°	16.4	15.8	31.2	35.9	39.1	26.9	28.0	58.1	76.0	65.5	37.0
87.5°	2.1	3.2	12.1	9.5	5.3	5.8	5.8	10.0	14.8	15.8	7.9
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°	916.1	916.1	916.1	916.1	916.1	916.1	916.1	916.1	916.1	916.1	916.1
2.5°	917.1	916.6	915.0	913.4	909.7	907.6	908.7	907.6	907.1	907.6	909.7
5°	924.0	922.4	918.2	912.9	905.5	896.5	890.7	882.3	874.3	869.6	870.7
7.5°	942.5	940.9	935.1	920.3	896.5	859.0	824.7	794.6	771.9	758.7	759.2
10°	972.0	969.4	960.4	927.7	865.4	783.5	715.4	658.9	622.0	604.5	603.0
12.5°	1006.9	1003.7	987.9	920.8	806.2	678.5	584.5	521.7	487.3	472.0	470.4
15°	1048.1	1043.8	1012.7	888.1	720.2	562.3	476.2	429.3	407.1	393.4	393.9
17.5°	1099.3	1091.9	1031.2	839.0	626.7	473.6	409.7	374.3	354.8	341.6	340.6
20°	1165.8	1153.7	1045.9	780.4	540.7	417.6	364.8	335.3	320.5	308.9	306.8
22.5°	1258.7	1241.3	1063.9	717.0	479.9	379.1	331.6	309.9	297.8	284.6	282.5
25°	1373.8	1353.2	1086.1	658.4	438.2	345.8	307.3	289.3	275.1	259.8	258.2
27.5°	1534.9	1497.9	1112.5	610.4	402.3	317.3	285.1	265.1	248.7	236.0	233.4
30°	1714.4	1653.7	1135.7	581.3	369.6	290.9	256.1	236.0	220.7	211.7	210.1
32.5°	1884.4	1802.0	1151.0	568.6	340.0	260.8	224.4	202.7	191.1	188.5	190.1
35°	2044.9	1936.1	1149.4	556.5	313.6	230.7	193.2	171.1	162.1	163.7	163.7
37.5°	2229.7	2079.2	1138.3	537.5	292.0	203.3	166.3	146.8	138.9	139.4	141.5
40°	2444.6	2244.5	1131.5	501.6	268.2	177.9	144.1	128.3	122.5	120.4	119.9
42.5°	2673.7	2404.5	1132.5	460.9	238.7	155.2	128.8	115.6	110.3	108.8	108.2
45°	2903.9	2557.0	1134.1	418.7	207.5	137.8	117.7	106.7	103.5	101.4	101.4
47.5°	3120.4	2686.9	1104.6	373.3	176.9	124.6	108.8	101.4	98.7	96.1	96.1
50°	3322.1	2773.5	1033.3	320.5	152.6	114.0	101.9	96.6	94.0	91.3	91.3
52.5°	3478.9	2787.3	915.5	266.1	135.7	106.1	97.7	92.9	89.8	87.1	86.6
55°	3548.6	2701.2	748.2	215.4	122.5	99.3	93.5	88.7	85.0	82.4	81.8
57.5°	3530.7	2520.1	583.4	173.2	109.8	92.4	88.2	85.0	80.8	76.6	76.0
60°	3442.5	2277.7	439.8	144.1	98.2	85.0	82.4	79.7	73.9	67.6	66.5
62.5°	3289.9	1973.1	313.6	119.3	85.5	76.6	75.5	73.4	64.9	53.3	52.3
65°	3056.5	1603.0	211.2	99.3	73.4	67.1	67.6	63.9	52.8	39.6	38.5
67.5°	2715.4	1172.1	135.2	81.3	61.2	56.0	56.5	54.4	44.9	33.8	32.2
70°	2280.9	776.1	88.2	61.8	49.1	43.3	46.5	47.0	38.0	27.5	26.4
72.5°	1672.1	458.3	61.8	45.9	35.9	30.1	38.0	39.1	30.6	20.6	19.5
75°	953.0	217.5	46.5	33.3	22.2	21.1	29.6	29.6	21.1	13.7	12.7
77.5°	400.2	90.8	32.7	21.6	12.7	12.1	20.1	18.5	10.6	6.3	6.3
80°	115.6	40.7	17.4	10.6	5.3	4.8	7.9	5.8	2.6	1.1	1.1
82.5°	45.4	18.0	6.9	4.2	2.1	2.1	1.1	0.0	0.0	0.0	0.0
85°	26.9	7.4	3.2	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.9	1.6	1.1	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)