

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: P882113

Luminaire Tested: **NAV-SB1D-830-U-SL4-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882113
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-SB1D-830-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS 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: 6221 lumens
Efficiency: N/A
Efficacy: 78.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

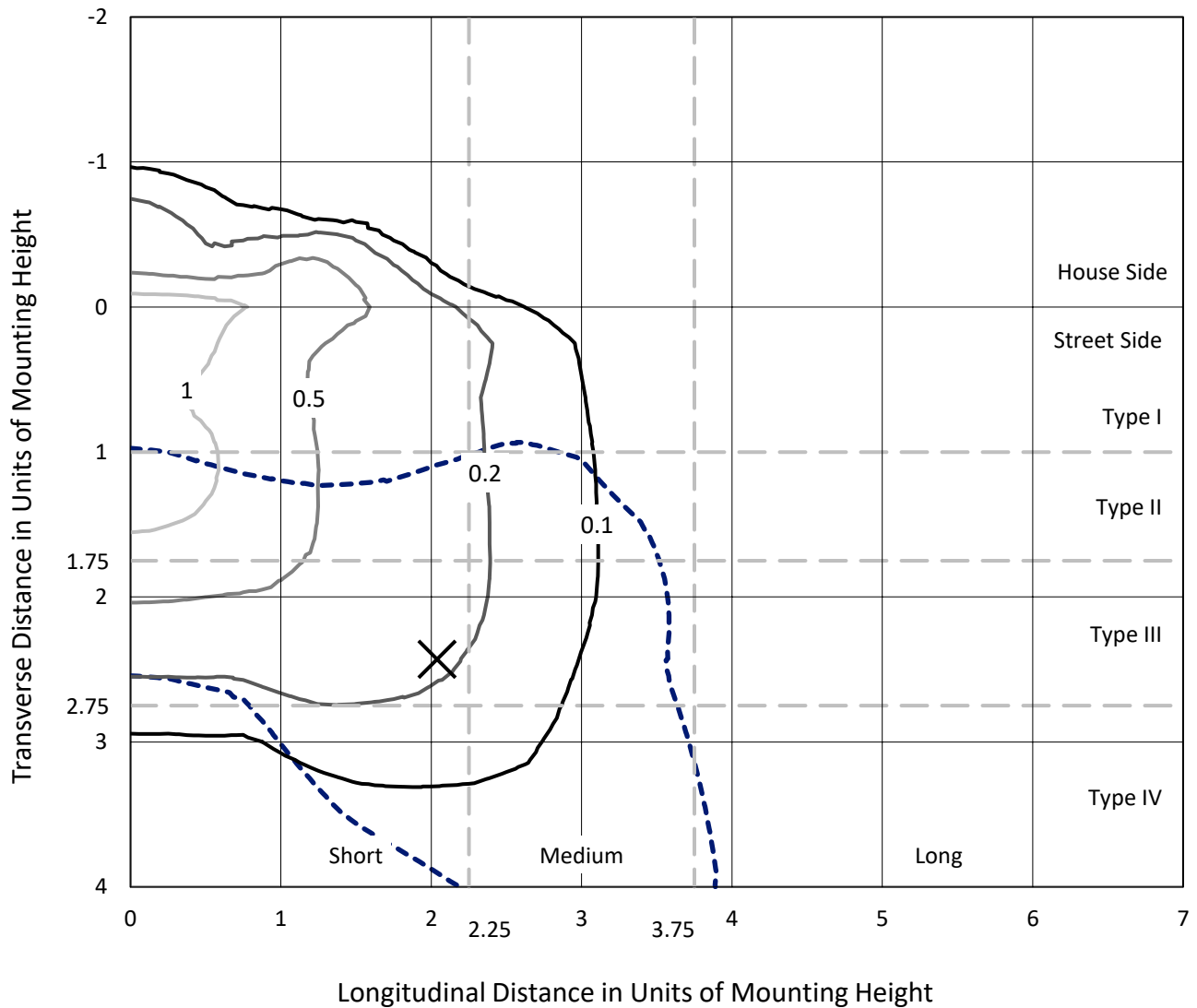
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

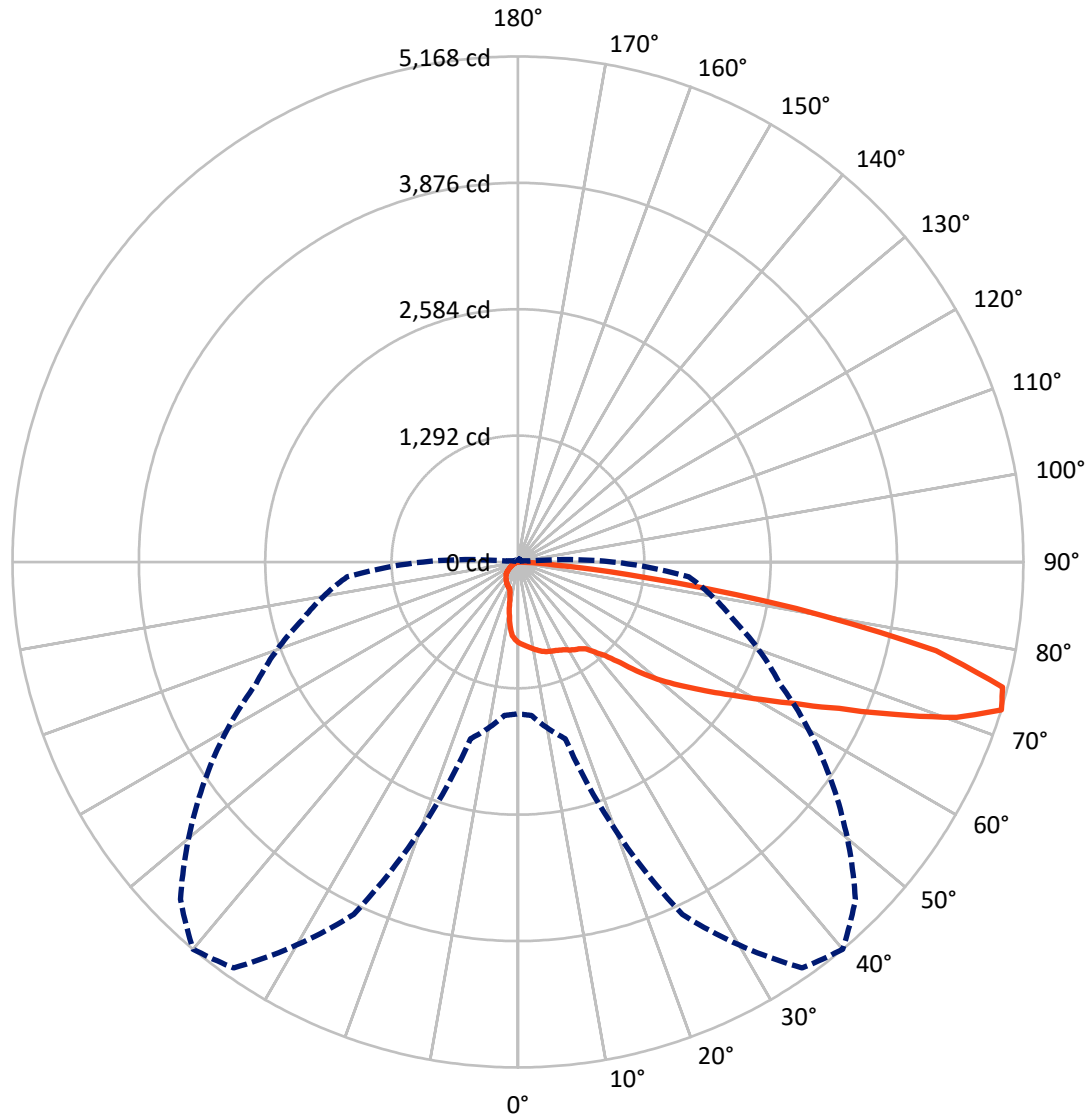
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	803.4	0.0	803.4
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	5417.6	0.0	5417.6
	% Fixture	87.1	0.0	87.1
Total	Lumens	6221.0	0.0	6221.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	1.2
10°-20°	204.3	3.3
20°-30°	330.6	5.3
30°-40°	488.0	7.8
40°-50°	821.4	13.2
50°-60°	1275.3	20.5
60°-70°	1595.8	25.7
70°-80°	1306.5	21.0
80°-90°	123.9	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°	6221.0	100.0
0°-180°	6221.0	100.0

Coefficient of Utilization



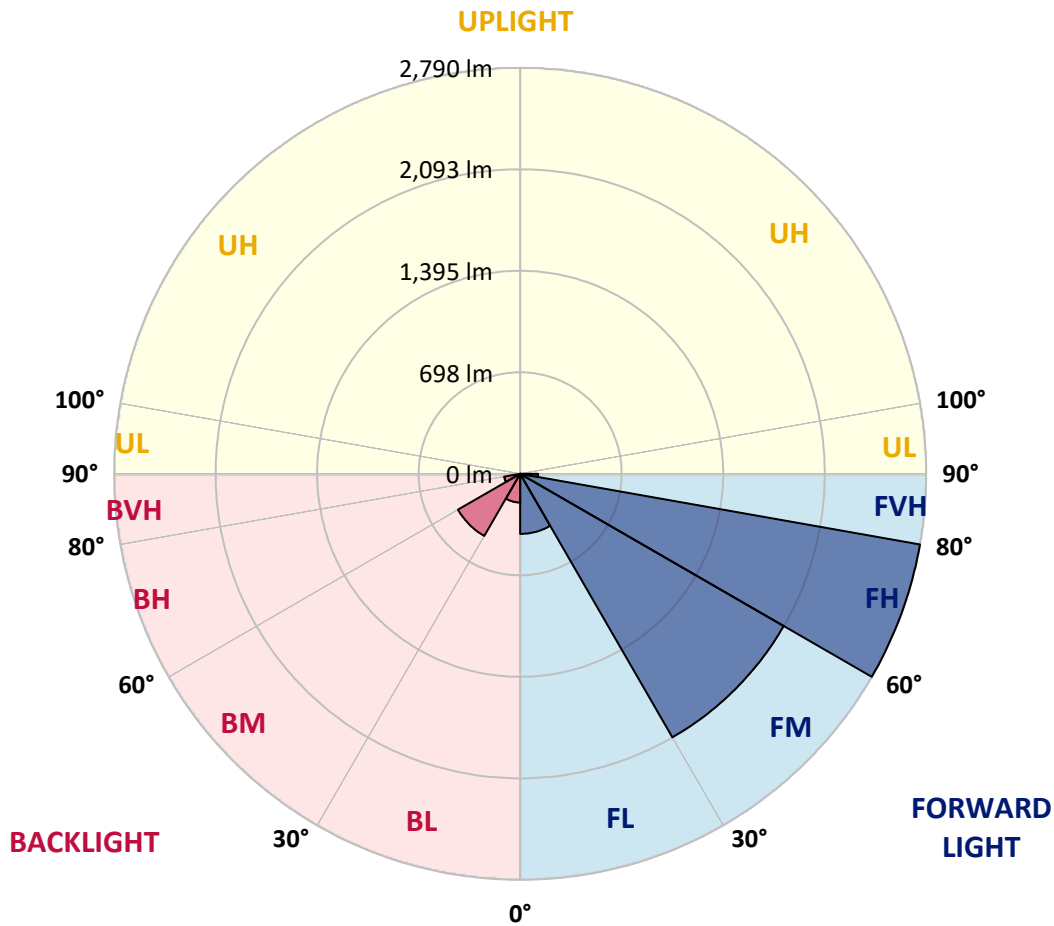
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	412.9	6.6			
FM (30°-60°)	2091.4	33.6			
FH (60°-80°)	2790.4	44.9			G2/5000
FVH (80°-90°)	122.9	2.0			G2/225
BL (0°-30°)	197.2	3.2	B1/500		
BM (30°-60°)	493.3	7.9	B1/1000		
BH (60°-80°)	111.9	1.8	B1/500		G1/500
BVH (80°-90°)	0.9	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7
2.5°	848.5	851.8	849.9	846.2	845.3	843.4	841.0	840.1	836.8	834.0	830.7
5°	872.4	875.7	873.4	868.2	865.9	863.5	860.3	857.4	850.9	844.8	837.3
7.5°	898.7	901.5	898.7	891.2	887.4	884.6	879.9	875.7	868.2	859.3	849.9
10°	927.7	930.1	925.9	916.0	909.9	905.7	901.5	896.8	889.8	879.9	868.7
12.5°	954.9	957.7	951.2	939.4	932.4	928.2	923.5	919.8	912.7	903.4	891.7
15°	979.7	984.0	972.7	960.1	952.1	948.8	944.1	941.8	937.1	930.5	919.8
17.5°	998.5	1001.3	989.6	974.6	965.7	963.3	960.1	961.5	960.5	957.2	950.2
20°	1014.4	1016.3	1000.8	982.5	972.7	973.2	972.2	976.9	978.8	978.8	978.3
22.5°	1034.1	1034.6	1014.9	991.9	980.2	983.5	984.9	990.0	993.8	997.5	1006.0
25°	1059.9	1058.9	1035.5	1004.1	993.8	998.5	1001.8	1003.6	1007.9	1013.9	1033.2
27.5°	1098.3	1095.5	1065.5	1023.8	1011.6	1015.8	1021.9	1021.0	1019.1	1023.8	1056.1
30°	1147.0	1143.3	1103.4	1051.4	1040.2	1043.9	1045.8	1037.4	1023.8	1028.0	1076.3
32.5°	1224.3	1217.8	1162.5	1082.4	1065.0	1069.2	1066.9	1049.6	1029.4	1033.6	1096.4
35°	1358.8	1342.9	1264.6	1147.0	1093.1	1088.4	1082.8	1066.0	1041.1	1036.9	1113.3
37.5°	1644.6	1616.5	1483.0	1273.1	1156.8	1126.4	1109.1	1092.2	1053.8	1036.9	1132.5
40°	1967.0	1938.4	1784.2	1483.9	1262.7	1211.2	1170.0	1123.1	1066.9	1043.0	1162.5
42.5°	2303.4	2272.0	2113.6	1745.3	1414.1	1308.2	1231.3	1147.9	1088.4	1061.7	1202.3
45°	2679.2	2639.8	2432.7	2018.0	1633.8	1469.4	1330.2	1199.0	1125.9	1095.0	1256.7
47.5°	3075.6	3024.5	2750.9	2282.8	1870.5	1692.4	1511.1	1290.4	1181.2	1144.7	1330.2
50°	3427.0	3376.4	3079.3	2559.7	2091.6	1904.7	1717.2	1416.9	1264.1	1215.0	1429.1
52.5°	3679.5	3641.1	3378.2	2845.5	2321.7	2103.8	1904.2	1564.0	1369.1	1304.9	1545.7
55°	3848.7	3813.5	3590.0	3116.3	2589.2	2323.1	2088.3	1723.8	1495.6	1412.7	1674.6
57.5°	3951.3	3931.1	3743.2	3358.1	2854.4	2563.0	2299.2	1899.5	1644.6	1539.7	1818.4
60°	3987.8	3971.4	3838.4	3588.6	3174.9	2851.1	2547.0	2097.7	1825.5	1684.0	1966.0
62.5°	3890.4	3893.7	3906.8	3861.8	3512.7	3188.5	2844.1	2335.7	2026.0	1847.5	2104.7
65°	3431.7	3458.8	3708.1	4164.5	3960.2	3611.1	3222.2	2626.2	2255.6	2033.5	2214.8
67.5°	2841.3	2880.6	3190.8	4341.6	4437.2	4159.8	3748.9	2996.4	2529.2	2222.8	2256.5
70°	2175.0	2217.2	2593.0	4304.6	4883.7	4759.5	4400.2	3467.3	2812.7	2354.0	2150.2
72.5°	1552.3	1573.9	1870.0	3975.2	5066.9	5168.1	4879.9	3913.3	2957.5	2281.4	1753.8
75°	1090.8	1087.0	1283.4	3201.1	4781.6	5118.4	4711.7	3672.0	2676.4	1812.4	1081.4
77.5°	475.1	476.0	641.0	1944.0	3816.3	4371.6	3916.6	2300.1	1865.8	960.5	456.4
80°	123.2	127.0	235.2	774.0	2297.8	2885.3	2388.7	1011.1	862.1	234.3	87.2
82.5°	43.6	46.4	108.2	243.2	847.6	1323.2	1063.6	323.3	224.9	67.0	23.4
85°	12.7	15.0	58.1	74.5	175.2	373.9	258.2	62.8	55.3	34.7	6.1
87.5°	0.0	1.9	11.7	10.3	10.3	7.0	13.1	7.0	8.9	4.2	1.9
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°	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7	823.7
2.5°	827.9	824.6	817.6	810.1	803.1	796.5	794.7	787.6	784.4	784.8	784.4
5°	832.1	826.1	812.5	796.1	779.2	760.0	744.1	721.6	702.4	700.0	698.6
7.5°	843.4	833.6	811.5	779.7	737.5	684.6	635.4	586.6	559.0	544.0	543.0
10°	860.7	847.6	813.9	753.0	663.5	568.8	494.3	432.9	401.5	387.0	384.2
12.5°	881.3	866.8	817.6	707.5	567.9	443.7	363.1	325.6	319.1	318.1	317.7
15°	910.4	894.5	821.8	646.1	464.3	337.8	300.8	301.3	306.4	309.2	308.8
17.5°	942.7	926.8	815.7	571.2	362.2	288.6	287.7	291.9	299.4	302.2	301.7
20°	975.5	960.5	794.2	483.1	292.8	275.0	278.8	283.5	291.0	294.7	294.7
22.5°	1009.3	996.1	760.0	389.4	264.3	265.2	269.9	274.6	283.0	287.2	287.2
25°	1045.3	1034.1	714.5	312.1	252.1	254.9	261.0	266.6	275.5	280.7	280.7
27.5°	1081.9	1073.4	663.0	260.5	240.8	244.1	251.1	258.6	267.5	273.6	274.1
30°	1121.7	1117.0	621.8	241.3	230.1	232.9	240.8	249.3	259.1	266.6	267.5
32.5°	1162.5	1161.5	601.6	255.4	220.2	222.1	229.1	237.6	249.7	259.1	260.0
35°	1202.8	1204.6	589.9	295.2	216.9	211.8	216.5	224.0	238.5	250.2	252.1
37.5°	1254.3	1259.0	589.4	338.3	224.9	201.5	204.8	209.9	222.6	236.1	238.5
40°	1331.2	1356.0	619.4	375.3	239.0	192.1	193.0	194.0	200.5	211.8	215.5
42.5°	1433.3	1505.9	727.7	400.6	244.6	183.7	180.4	175.2	174.3	180.4	183.7
45°	1560.3	1687.2	917.9	414.7	239.0	174.3	165.4	151.8	146.7	150.9	150.9
47.5°	1709.7	1885.9	1143.3	417.9	229.6	162.6	146.7	128.9	124.6	126.0	125.6
50°	1855.5	2034.9	1341.5	390.8	214.1	147.6	126.0	111.0	108.2	108.7	108.7
52.5°	1984.3	2086.0	1397.7	326.6	193.5	129.3	108.2	97.9	96.1	96.1	95.6
55°	2069.6	2030.7	1246.3	249.7	167.7	110.6	92.8	87.6	86.7	86.2	85.3
57.5°	2087.4	1850.8	941.3	180.4	131.2	93.2	82.5	79.7	77.8	75.9	75.0
60°	2023.7	1550.9	599.3	126.0	98.4	79.7	73.1	71.2	67.5	63.7	62.3
62.5°	1885.9	1171.4	331.7	87.6	79.2	67.9	64.7	62.3	55.3	49.2	47.3
65°	1700.8	778.7	146.7	68.4	64.7	57.2	55.3	52.0	43.6	36.5	35.1
67.5°	1514.8	448.4	66.1	54.8	52.0	46.9	45.4	43.1	37.0	30.5	29.5
70°	1302.6	227.2	45.4	43.6	40.3	35.6	37.0	36.5	30.5	24.8	23.9
72.5°	969.9	112.9	34.2	32.8	29.1	25.3	30.5	30.0	23.9	18.7	17.8
75°	549.1	55.8	24.8	23.0	17.3	18.7	24.4	23.0	16.4	12.2	11.2
77.5°	217.9	28.6	16.4	14.1	10.3	12.7	17.8	15.5	8.4	5.2	4.7
80°	50.1	14.1	8.4	6.1	4.7	7.5	9.4	5.6	2.3	0.5	0.0
82.5°	14.1	6.1	2.8	2.3	2.3	2.8	2.3	0.9	0.0	0.0	0.0
85°	4.7	2.8	0.9	0.5	0.5	0.5	0.5	0.0	0.0	0.0	0.0
87.5°	1.9	0.9	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)