

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: P882286

Luminaire Tested: **NAV-SB2A-830-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882286
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5841 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G1

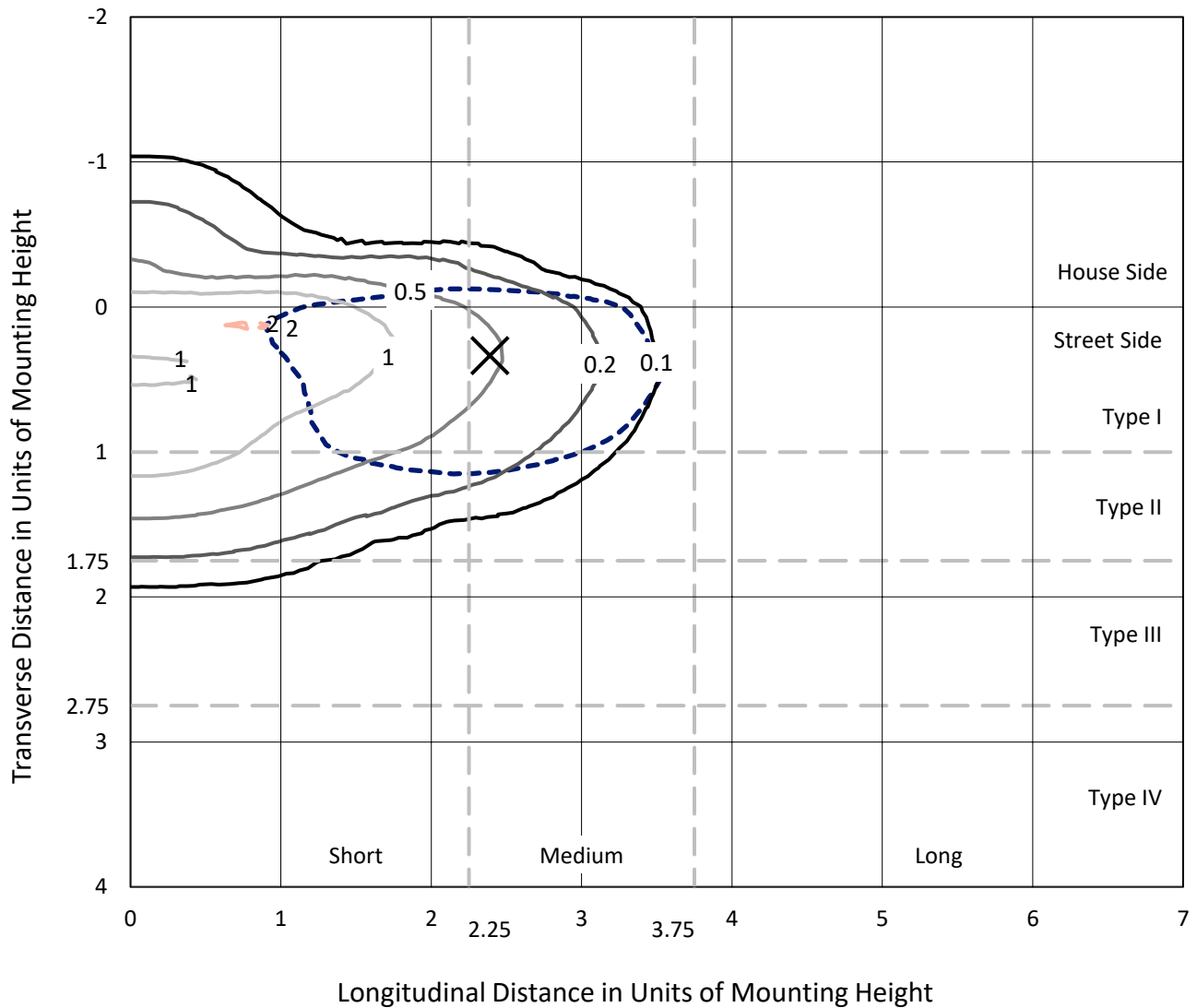
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

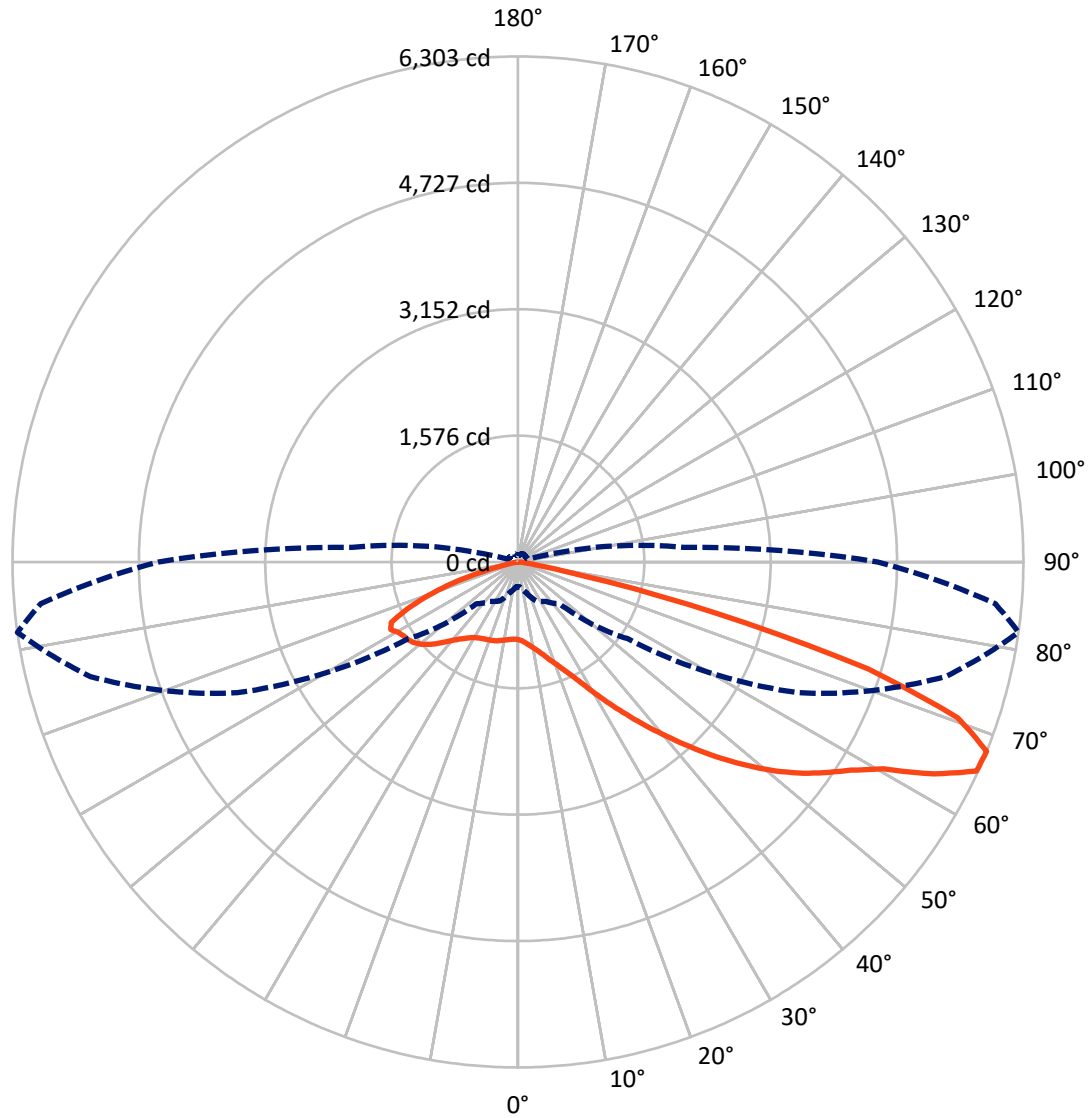
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1058.0	0.0	1058.0
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	4782.9	0.0	4782.9
	% Fixture	81.9	0.0	81.9
Total	Lumens	5841.0	0.0	5841.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	1.5
10°-20°	224.0	3.8
20°-30°	358.8	6.1
30°-40°	634.5	10.9
40°-50°	1111.7	19.0
50°-60°	1482.7	25.4
60°-70°	1380.3	23.6
70°-80°	529.8	9.1
80°-90°	32.9	0.6
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°	5841.0	100.0
0°-180°	5841.0	100.0

Coefficient of Utilization



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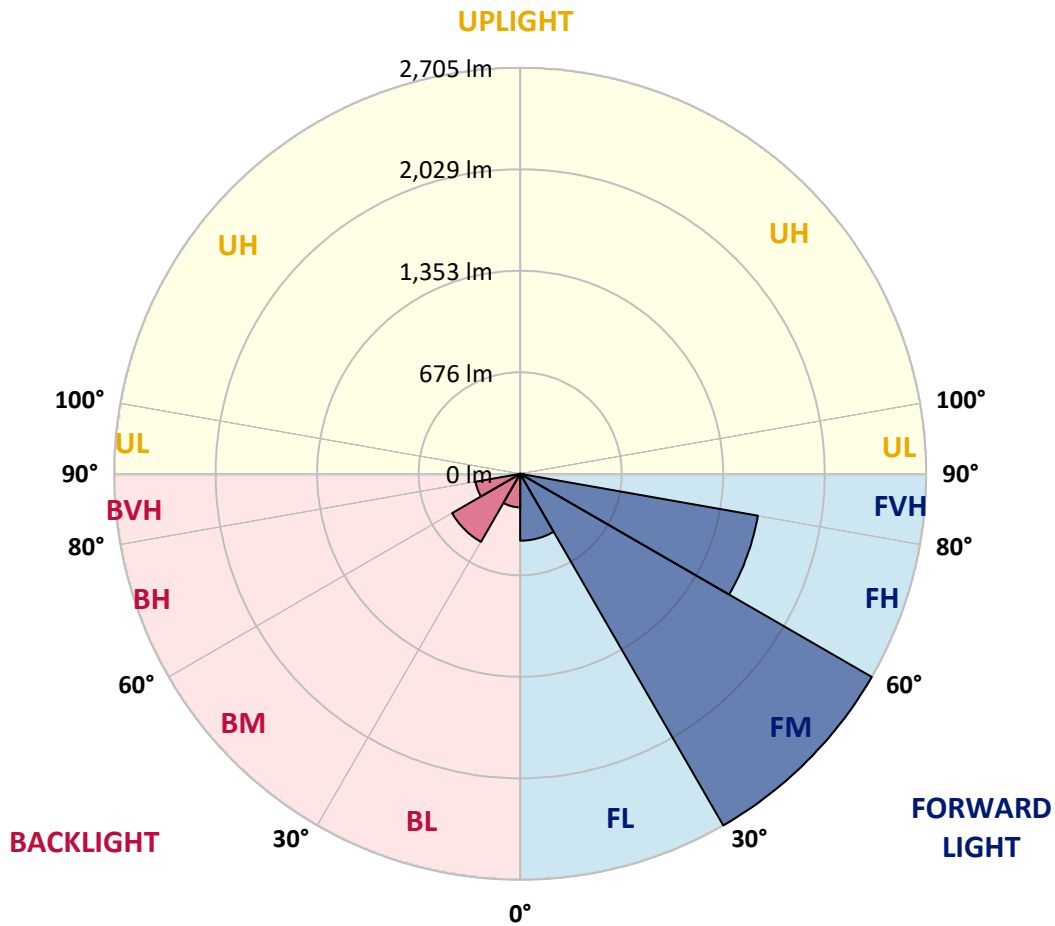
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	445.6	7.6			
FM (30°-60°)	2705.3	46.3			
FH (60°-80°)	1608.1	27.5			G1/1800
FVH (80°-90°)	23.9	0.4			G1/100
BL (0°-30°)	223.5	3.8	B1/500		
BM (30°-60°)	523.6	9.0	B1/1000		
BH (60°-80°)	302.0	5.2	B1/500		G1/500
BVH (80°-90°)	9.0	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	967.7	967.7	967.7	967.7	967.7	967.7	967.7	967.7	967.7	967.7	967.7
2.5°	1022.7	1028.6	1025.3	1023.6	1020.6	1016.4	1013.1	1002.6	991.6	984.5	982.0
5°	1043.4	1049.2	1048.8	1050.5	1052.6	1053.9	1053.0	1041.3	1025.7	1013.5	1006.3
7.5°	1025.7	1032.4	1037.9	1046.3	1061.0	1076.6	1084.1	1081.6	1065.6	1048.8	1040.0
10°	975.6	982.8	995.8	1015.6	1046.7	1080.4	1108.5	1121.6	1111.5	1093.0	1080.8
12.5°	884.0	891.1	916.8	959.7	1011.8	1070.3	1124.1	1159.0	1161.5	1143.0	1128.7
15°	780.9	788.1	815.4	869.3	948.7	1042.5	1132.5	1198.5	1220.8	1204.8	1187.6
17.5°	717.0	723.3	743.9	787.2	870.1	987.0	1129.6	1240.6	1291.5	1278.9	1258.2
20°	697.7	703.1	712.8	743.1	812.1	929.4	1110.2	1280.1	1367.6	1360.4	1337.3
22.5°	718.3	723.3	726.3	739.7	783.0	891.5	1085.8	1320.5	1455.9	1456.7	1428.6
25°	765.8	770.8	767.5	775.9	794.8	879.8	1076.6	1368.0	1566.9	1576.2	1544.2
27.5°	844.0	844.4	836.4	836.0	839.0	897.4	1086.2	1418.9	1707.0	1724.2	1684.7
30°	1000.9	994.6	963.9	930.6	915.5	950.4	1113.2	1479.0	1872.2	1902.9	1853.3
32.5°	1242.7	1233.4	1177.1	1097.6	1017.7	1035.8	1161.5	1547.6	2052.2	2107.7	2047.2
35°	1505.1	1502.6	1443.7	1325.5	1185.9	1157.3	1240.2	1637.6	2248.6	2336.9	2265.0
37.5°	1749.0	1747.8	1714.1	1574.9	1405.0	1326.8	1366.3	1755.3	2458.9	2586.7	2501.8
40°	1971.9	1975.7	1942.0	1817.6	1646.4	1544.2	1537.9	1900.8	2692.7	2858.8	2757.9
42.5°	2164.5	2168.7	2134.6	2042.5	1884.8	1784.8	1748.6	2079.1	2921.1	3151.1	3031.7
45°	2295.3	2321.4	2316.3	2242.7	2129.6	2025.7	2001.8	2302.9	3181.4	3461.0	3321.0
47.5°	2332.3	2356.3	2394.1	2404.2	2335.2	2233.1	2261.6	2572.4	3444.6	3771.4	3612.0
50°	2241.0	2263.3	2342.0	2446.7	2494.6	2463.1	2514.4	2861.3	3714.2	4080.9	3897.5
52.5°	2061.1	2083.8	2183.0	2348.7	2544.2	2643.5	2768.0	3146.0	3975.3	4374.0	4167.9
55°	1800.7	1824.7	1952.1	2139.7	2449.6	2717.9	2979.5	3430.3	4214.6	4637.7	4411.9
57.5°	1446.6	1464.3	1596.8	1859.2	2211.6	2643.9	3135.5	3740.7	4440.0	4896.7	4653.7
60°	942.8	958.4	1112.3	1405.0	1817.1	2396.6	3166.6	4086.8	4739.5	5233.6	4979.6
62.5°	627.0	637.5	728.8	943.7	1279.7	1921.9	2984.6	4363.1	5178.5	5819.8	5538.5
65°	430.2	440.7	532.0	681.7	826.8	1271.3	2461.0	4326.5	5576.3	6285.3	5952.7
67.5°	307.0	315.8	393.2	534.5	598.4	738.5	1668.3	3858.8	5519.1	6303.0	5975.0
70°	219.9	225.0	288.9	416.3	475.6	443.7	927.7	2951.3	4832.4	5820.2	5520.0
72.5°	153.9	155.6	200.6	317.1	383.1	323.8	441.6	1967.7	3654.9	4568.3	4279.4
75°	104.3	106.4	135.0	232.6	307.4	247.3	233.8	1055.1	2145.6	2528.7	2266.7
77.5°	63.9	64.8	87.1	159.0	230.0	188.4	150.6	447.0	830.1	815.0	694.7
80°	36.2	36.2	55.5	98.8	156.9	121.5	105.6	190.1	262.8	230.9	203.5
82.5°	20.2	20.6	40.4	61.4	103.9	71.9	58.0	87.9	113.5	100.5	87.5
85°	8.4	9.3	24.8	29.0	49.6	35.7	23.6	37.0	42.1	37.4	27.3
87.5°	0.8	1.3	7.6	5.5	5.9	7.1	3.4	7.1	5.9	5.9	4.2
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°	967.7	967.7	967.7	967.7	967.7	967.7	967.7	967.7	967.7	967.7	967.7
2.5°	974.0	967.7	951.7	933.2	908.8	897.0	881.0	870.1	860.8	861.7	853.3
5°	992.9	976.9	941.2	896.6	841.1	801.5	759.5	730.5	706.9	701.9	690.5
7.5°	1019.0	993.7	931.1	850.7	757.0	685.9	622.4	581.6	552.6	543.3	534.1
10°	1052.6	1016.0	918.0	793.1	658.1	567.7	499.6	467.6	447.9	441.1	436.1
12.5°	1091.7	1041.7	900.8	722.9	556.4	469.3	426.0	410.0	403.7	401.6	400.4
15°	1140.9	1073.6	874.7	639.6	470.2	409.2	390.7	388.6	389.4	388.6	388.2
17.5°	1199.4	1108.5	832.2	553.8	412.1	378.5	371.8	373.4	375.5	375.1	374.3
20°	1263.3	1143.0	778.0	477.7	372.6	356.6	352.8	354.5	356.2	355.4	354.9
22.5°	1336.0	1180.0	717.9	418.4	346.1	336.4	332.2	332.6	332.6	331.0	330.1
25°	1423.1	1220.8	654.8	376.4	325.9	318.3	313.3	311.6	309.1	304.0	303.2
27.5°	1527.0	1264.1	594.2	346.9	309.9	302.8	296.9	292.7	286.4	278.0	277.1
30°	1643.9	1316.7	542.9	328.4	297.3	290.2	283.4	277.1	267.9	257.4	256.5
32.5°	1781.4	1373.1	505.5	316.2	286.0	278.4	270.4	262.8	252.7	242.2	242.6
35°	1945.4	1441.2	483.6	307.8	277.1	267.0	258.2	249.8	242.2	233.0	232.1
37.5°	2123.3	1513.5	476.9	303.6	271.2	255.7	245.6	239.7	238.9	233.4	233.0
40°	2318.0	1599.3	481.9	301.1	264.9	244.8	233.8	232.6	234.7	225.0	225.4
42.5°	2524.1	1701.1	490.3	298.2	256.1	233.8	223.3	223.3	221.6	208.2	208.2
45°	2746.9	1818.4	498.8	291.0	245.6	222.9	214.9	212.0	204.8	191.8	191.3
47.5°	2971.5	1937.8	505.1	278.0	233.0	213.6	206.5	199.8	189.2	177.5	177.0
50°	3184.7	2045.1	498.3	258.6	218.7	204.8	197.2	188.0	176.6	168.6	167.4
52.5°	3375.2	2138.0	469.7	235.9	203.5	195.5	188.8	179.1	169.9	161.5	160.6
55°	3540.9	2213.3	419.3	214.5	190.1	187.6	180.8	168.6	156.0	148.9	148.0
57.5°	3699.9	2270.5	356.2	196.8	177.9	178.7	168.6	157.7	145.9	138.4	137.5
60°	3911.4	2347.0	292.3	180.4	164.9	167.4	156.4	148.4	133.7	124.1	122.8
62.5°	4249.5	2466.0	232.1	160.2	149.7	150.6	145.9	136.3	118.6	107.2	106.4
65°	4517.8	2422.3	182.9	138.4	132.5	133.7	133.7	123.2	104.3	91.3	90.0
67.5°	4487.6	2074.1	145.9	116.9	116.1	116.9	119.9	111.0	92.5	82.0	80.3
70°	4133.9	1649.8	116.9	97.1	100.9	98.8	107.2	101.3	83.3	72.8	71.5
72.5°	3373.1	1188.4	89.2	80.3	77.4	80.7	96.7	91.3	69.4	57.6	56.4
75°	1971.1	634.2	66.4	63.5	55.9	67.3	85.8	77.8	53.0	42.5	41.2
77.5°	641.7	221.2	48.8	46.7	41.6	54.2	73.2	65.6	43.3	33.6	32.4
80°	172.0	66.9	33.2	30.7	26.9	40.4	58.0	52.1	31.1	21.9	21.4
82.5°	69.0	28.2	19.3	17.2	14.7	27.8	45.8	42.1	23.1	13.9	13.9
85°	22.3	9.3	7.1	5.5	6.7	17.2	27.3	28.6	16.4	7.1	5.5
87.5°	2.9	1.3	1.3	1.7	1.3	2.9	8.4	8.0	4.6	0.8	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)