

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: P882956

Luminaire Tested: **NAV-SB3A-827-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882956
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-SB3A-827-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 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: 7983 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

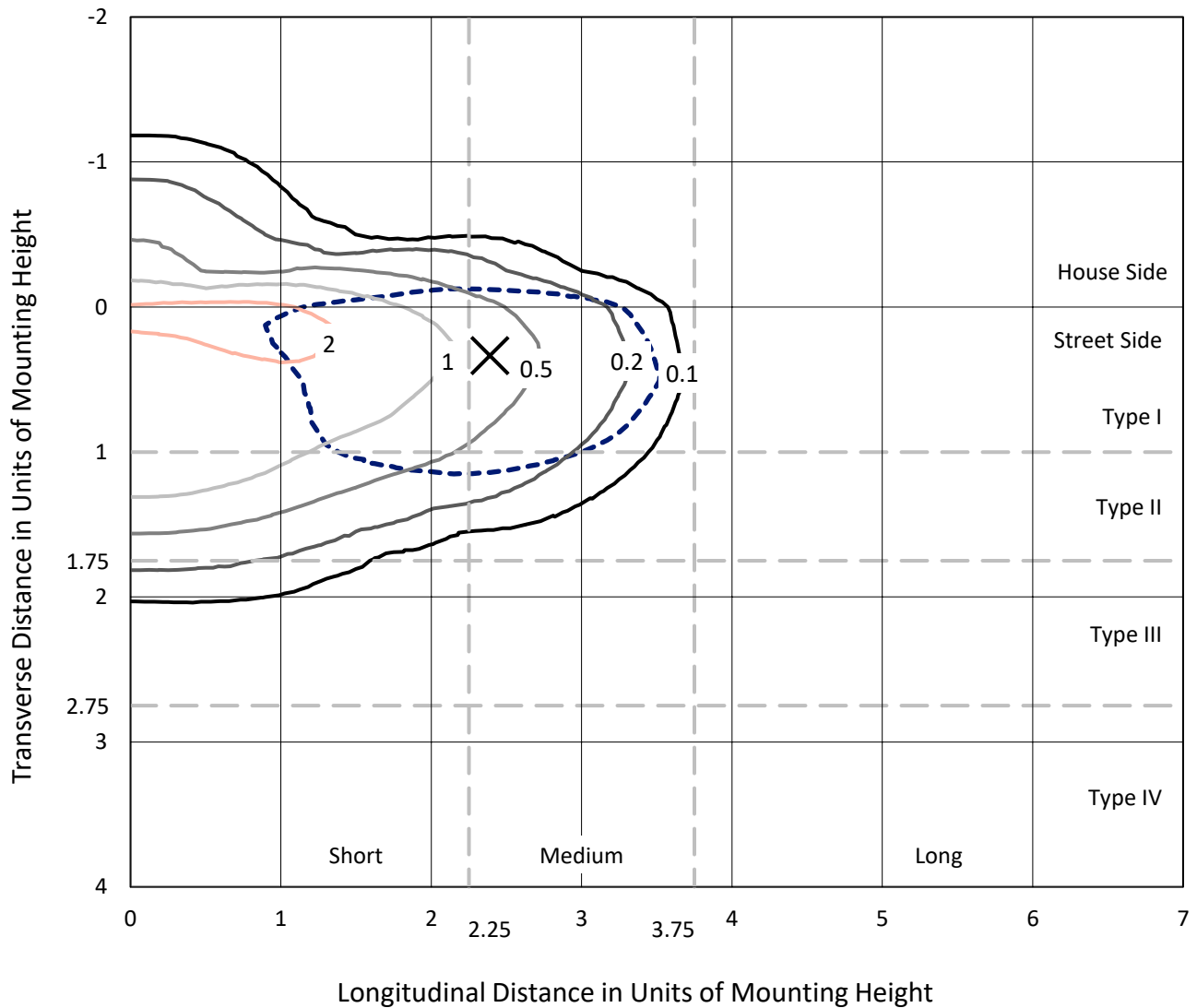
Input Watts (W): 84.7
Input Voltage (V): 120.0
Input Current (Ain): 0.717
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

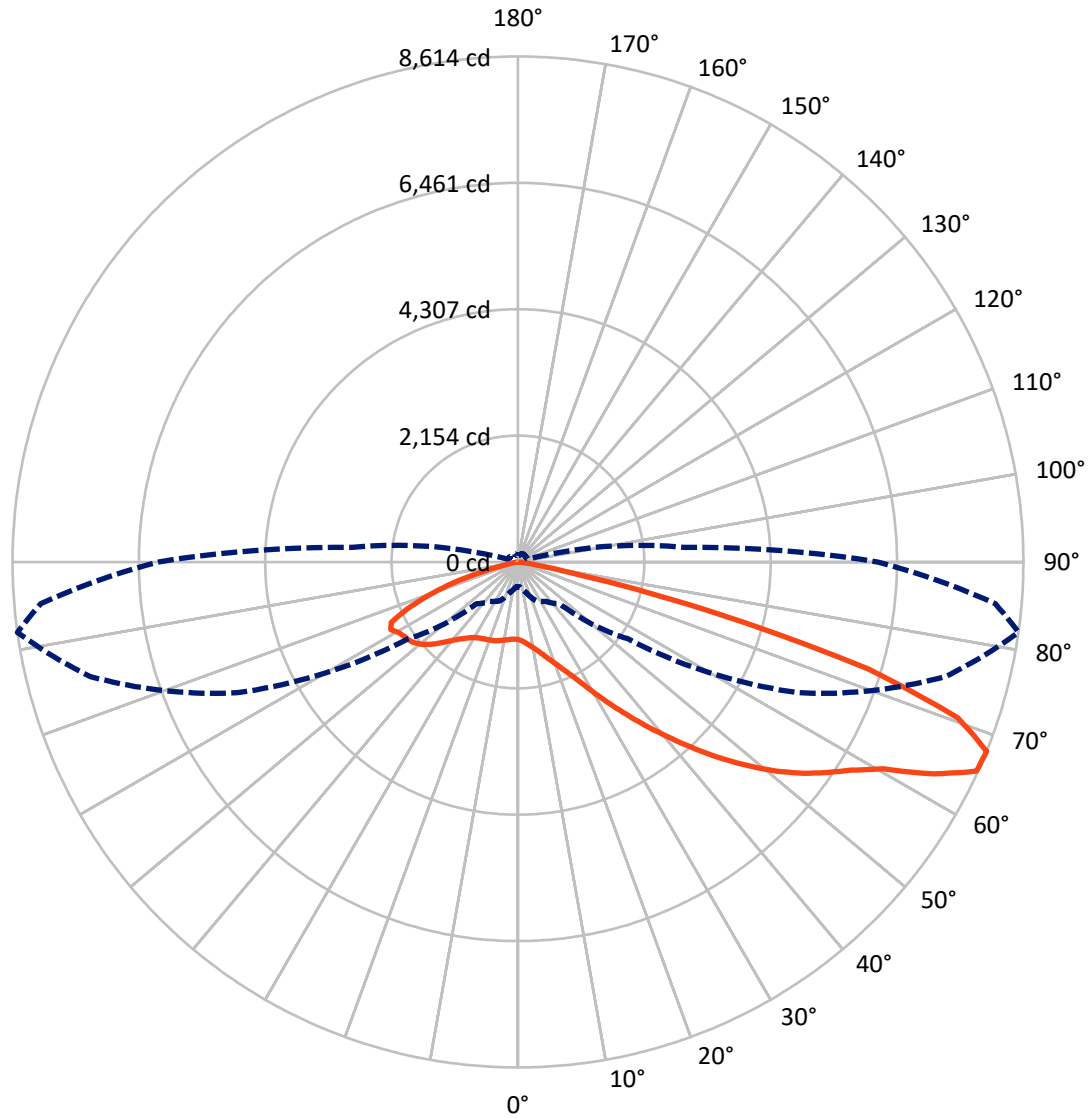
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 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	1446.1	0.0	1446.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	6537.0	0.0	6537.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	7983.0	0.0	7983.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.8	1.5
10°-20°	306.2	3.8
20°-30°	490.4	6.1
30°-40°	867.2	10.9
40°-50°	1519.4	19.0
50°-60°	2026.5	25.4
60°-70°	1886.5	23.6
70°-80°	724.1	9.1
80°-90°	45.0	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°	7983.0	100.0
0°-180°	7983.0	100.0

Coefficient of Utilization



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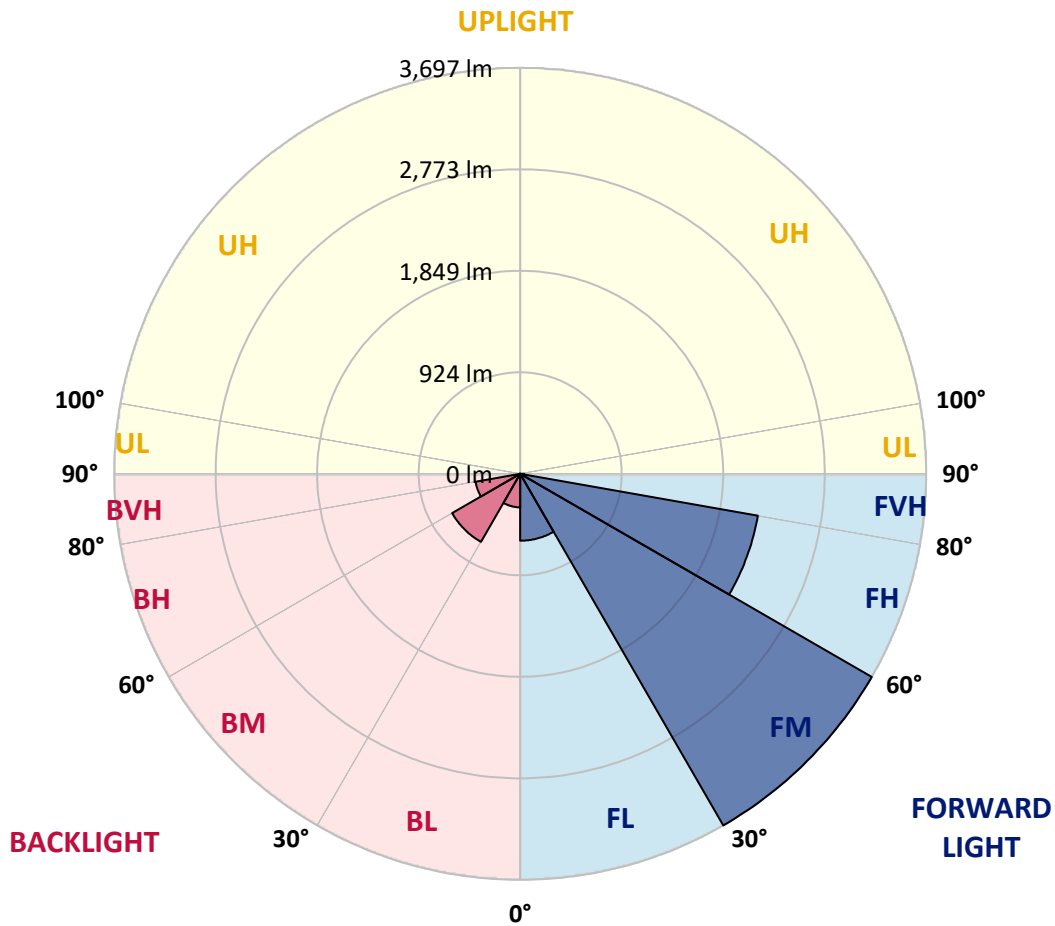
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	609.0	7.6			
FM (30°-60°)	3697.4	46.3			
FH (60°-80°)	2197.8	27.5			G2/5000
FVH (80°-90°)	32.7	0.4			G1/100
BL (0°-30°)	305.4	3.8	B1/500		
BM (30°-60°)	715.6	9.0	B1/1000		
BH (60°-80°)	412.7	5.2	B1/500		G1/500
BVH (80°-90°)	12.3	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5
2.5°	1397.8	1405.9	1401.3	1399.0	1394.9	1389.2	1384.6	1370.2	1355.3	1345.5	1342.1
5°	1426.0	1434.0	1433.4	1435.7	1438.6	1440.3	1439.2	1423.1	1401.8	1385.2	1375.4
7.5°	1401.8	1411.0	1418.5	1430.0	1450.1	1471.4	1481.7	1478.3	1456.4	1433.4	1421.4
10°	1333.4	1343.2	1361.0	1388.0	1430.6	1476.5	1515.1	1532.9	1519.1	1493.8	1477.1
12.5°	1208.1	1217.9	1253.0	1311.6	1382.9	1462.8	1536.3	1584.0	1587.5	1562.2	1542.6
15°	1067.3	1077.1	1114.5	1188.0	1296.6	1424.8	1547.8	1638.1	1668.5	1646.7	1623.1
17.5°	980.0	988.6	1016.7	1075.9	1189.2	1349.0	1543.8	1695.5	1765.1	1747.8	1719.7
20°	953.5	961.0	974.2	1015.6	1109.9	1270.2	1517.4	1749.6	1869.1	1859.3	1827.7
22.5°	981.7	988.6	992.6	1011.0	1070.2	1218.5	1484.0	1804.7	1989.8	1991.0	1952.4
25°	1046.6	1053.5	1048.9	1060.4	1086.3	1202.4	1471.4	1869.7	2141.5	2154.2	2110.5
27.5°	1153.5	1154.1	1143.2	1142.6	1146.6	1226.5	1484.6	1939.2	2332.9	2356.5	2302.5
30°	1367.9	1359.3	1317.3	1271.9	1251.2	1298.9	1521.4	2021.4	2558.8	2600.8	2532.9
32.5°	1698.4	1685.8	1608.7	1500.1	1390.9	1415.6	1587.5	2115.1	2804.8	2880.7	2797.9
35°	2057.1	2053.6	1973.1	1811.6	1620.8	1581.7	1695.0	2238.1	3073.2	3193.9	3095.6
37.5°	2390.4	2388.7	2342.7	2152.5	1920.3	1813.4	1867.4	2399.0	3360.6	3535.3	3419.2
40°	2695.0	2700.2	2654.2	2484.1	2250.2	2110.5	2101.9	2597.9	3680.2	3907.2	3769.2
42.5°	2958.3	2964.0	2917.5	2791.6	2576.1	2439.3	2389.8	2841.6	3992.3	4306.6	4143.4
45°	3137.0	3172.7	3165.8	3065.2	2910.6	2768.6	2735.8	3147.4	4348.0	4730.2	4538.8
47.5°	3187.6	3220.4	3272.1	3285.9	3191.6	3052.0	3091.0	3515.8	4707.8	5154.4	4936.6
50°	3062.9	3093.3	3200.8	3343.9	3409.5	3366.3	3436.5	3910.6	5076.2	5577.4	5326.8
52.5°	2816.9	2847.9	2983.6	3210.0	3477.3	3612.9	3783.0	4299.7	5433.2	5978.0	5696.4
55°	2461.1	2493.9	2668.0	2924.4	3348.0	3714.6	4072.1	4688.3	5760.2	6338.4	6029.8
57.5°	1977.2	2001.3	2182.3	2541.0	3022.6	3613.5	4285.4	5112.5	6068.3	6692.5	6360.2
60°	1288.6	1309.9	1520.2	1920.3	2483.5	3275.5	4327.9	5585.5	6477.5	7152.8	6805.7
62.5°	857.0	871.3	996.1	1289.8	1749.0	2626.6	4079.0	5963.1	7077.5	7954.0	7569.5
65°	588.0	602.3	727.1	931.7	1130.0	1737.5	3363.5	5913.1	7621.3	8590.3	8135.7
67.5°	419.6	431.6	537.4	730.5	817.9	1009.3	2280.1	5274.0	7543.1	8614.4	8166.1
70°	300.6	307.5	394.9	569.0	650.0	606.4	1267.9	4033.6	6604.5	7954.6	7544.2
72.5°	210.4	212.7	274.2	433.4	523.6	442.6	603.5	2689.3	4995.2	6243.6	5848.7
75°	142.5	145.4	184.5	317.8	420.1	338.0	319.6	1442.1	2932.4	3456.0	3097.9
77.5°	87.4	88.5	119.0	217.3	314.4	257.5	205.8	611.0	1134.6	1113.9	949.5
80°	49.4	49.4	75.9	135.1	214.4	166.1	144.3	259.8	359.2	315.5	278.2
82.5°	27.6	28.2	55.2	83.9	142.0	98.3	79.3	120.1	155.2	137.4	119.5
85°	11.5	12.6	33.9	39.7	67.8	48.9	32.2	50.6	57.5	51.2	37.4
87.5°	1.1	1.7	10.3	7.5	8.0	9.8	4.6	9.8	8.0	8.0	5.7
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°	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5	1322.5
2.5°	1331.1	1322.5	1300.7	1275.4	1242.0	1226.0	1204.1	1189.2	1176.5	1177.7	1166.2
5°	1357.0	1335.2	1286.3	1225.4	1149.5	1095.5	1038.0	998.4	966.2	959.3	943.7
7.5°	1392.6	1358.1	1272.5	1162.7	1034.6	937.4	850.6	794.9	755.2	742.6	729.9
10°	1438.6	1388.6	1254.7	1084.0	899.5	775.9	682.8	639.1	612.1	602.9	596.0
12.5°	1492.1	1423.7	1231.1	988.0	760.4	641.4	582.2	560.4	551.8	548.9	547.2
15°	1559.3	1467.4	1195.5	874.2	642.6	559.2	533.9	531.1	532.2	531.1	530.5
17.5°	1639.2	1515.1	1137.4	757.0	563.3	517.3	508.1	510.4	513.3	512.7	511.5
20°	1726.6	1562.2	1063.3	652.9	509.2	487.4	482.2	484.5	486.8	485.7	485.1
22.5°	1826.0	1612.8	981.1	571.9	473.0	459.8	454.1	454.6	454.6	452.3	451.2
25°	1945.0	1668.5	894.9	514.4	445.4	435.1	428.2	425.9	422.4	415.5	414.4
27.5°	2086.9	1727.7	812.1	474.2	423.6	413.8	405.8	400.0	391.4	379.9	378.8
30°	2246.7	1799.6	742.0	448.9	406.4	396.6	387.4	378.8	366.1	351.8	350.6
32.5°	2434.7	1876.6	690.9	432.2	390.8	380.5	369.6	359.2	345.4	331.1	331.6
35°	2658.8	1969.7	661.0	420.7	378.8	365.0	352.9	341.4	331.1	318.4	317.3
37.5°	2901.9	2068.5	651.8	415.0	370.7	349.5	335.7	327.6	326.5	319.0	318.4
40°	3168.1	2185.8	658.7	411.5	362.1	334.5	319.6	317.8	320.7	307.5	308.1
42.5°	3449.7	2324.9	670.2	407.5	350.0	319.6	305.2	305.2	302.9	284.5	284.5
45°	3754.3	2485.2	681.7	397.7	335.7	304.6	293.7	289.7	279.9	262.1	261.5
47.5°	4061.2	2648.5	690.3	379.9	318.4	292.0	282.2	273.0	258.6	242.5	242.0
50°	4352.6	2795.0	681.1	353.5	298.9	279.9	269.6	256.9	241.4	230.5	228.8
52.5°	4613.0	2922.1	642.0	322.4	278.2	267.3	258.1	244.8	232.2	220.7	219.6
55°	4839.4	3024.9	573.0	293.1	259.8	256.3	247.1	230.5	213.2	203.5	202.3
57.5°	5056.7	3103.1	486.8	269.0	243.1	244.3	230.5	215.5	199.4	189.1	187.9
60°	5345.8	3207.7	399.5	246.6	225.3	228.8	213.8	202.9	182.8	169.6	167.8
62.5°	5807.9	3370.4	317.3	219.0	204.6	205.8	199.4	186.2	162.1	146.6	145.4
65°	6174.6	3310.6	250.0	189.1	181.0	182.8	182.8	168.4	142.5	124.7	123.0
67.5°	6133.2	2834.7	199.4	159.8	158.6	159.8	163.8	151.7	126.4	112.1	109.8
70°	5649.8	2254.8	159.8	132.8	137.9	135.1	146.6	138.5	113.8	99.4	97.7
72.5°	4610.1	1624.3	121.8	109.8	105.8	110.4	132.2	124.7	94.8	78.7	77.0
75°	2693.9	866.7	90.8	86.8	76.4	92.0	117.3	106.3	72.4	58.1	56.3
77.5°	877.1	302.3	66.7	63.8	56.9	74.1	100.0	89.7	59.2	46.0	44.3
80°	235.1	91.4	45.4	42.0	36.8	55.2	79.3	71.3	42.5	29.9	29.3
82.5°	94.3	38.5	26.4	23.6	20.1	37.9	62.6	57.5	31.6	19.0	19.0
85°	30.5	12.6	9.8	7.5	9.2	23.6	37.4	39.1	22.4	9.8	7.5
87.5°	4.0	1.7	1.7	2.3	1.7	4.0	11.5	10.9	6.3	1.1	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)