

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: P882456

Luminaire Tested: **NAV-SB2B-830-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882456
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-SB2B-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 450mA 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: 7333 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

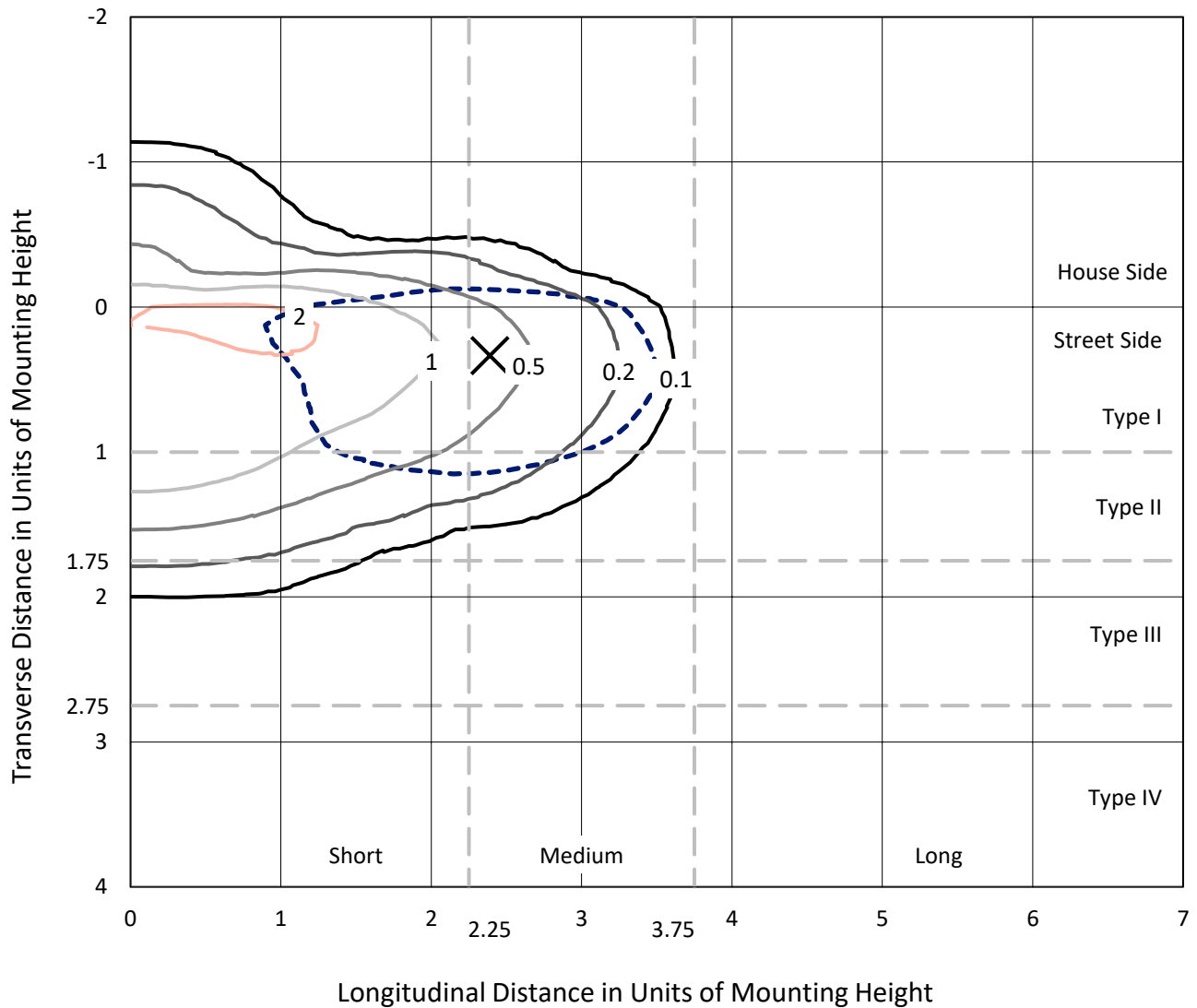
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

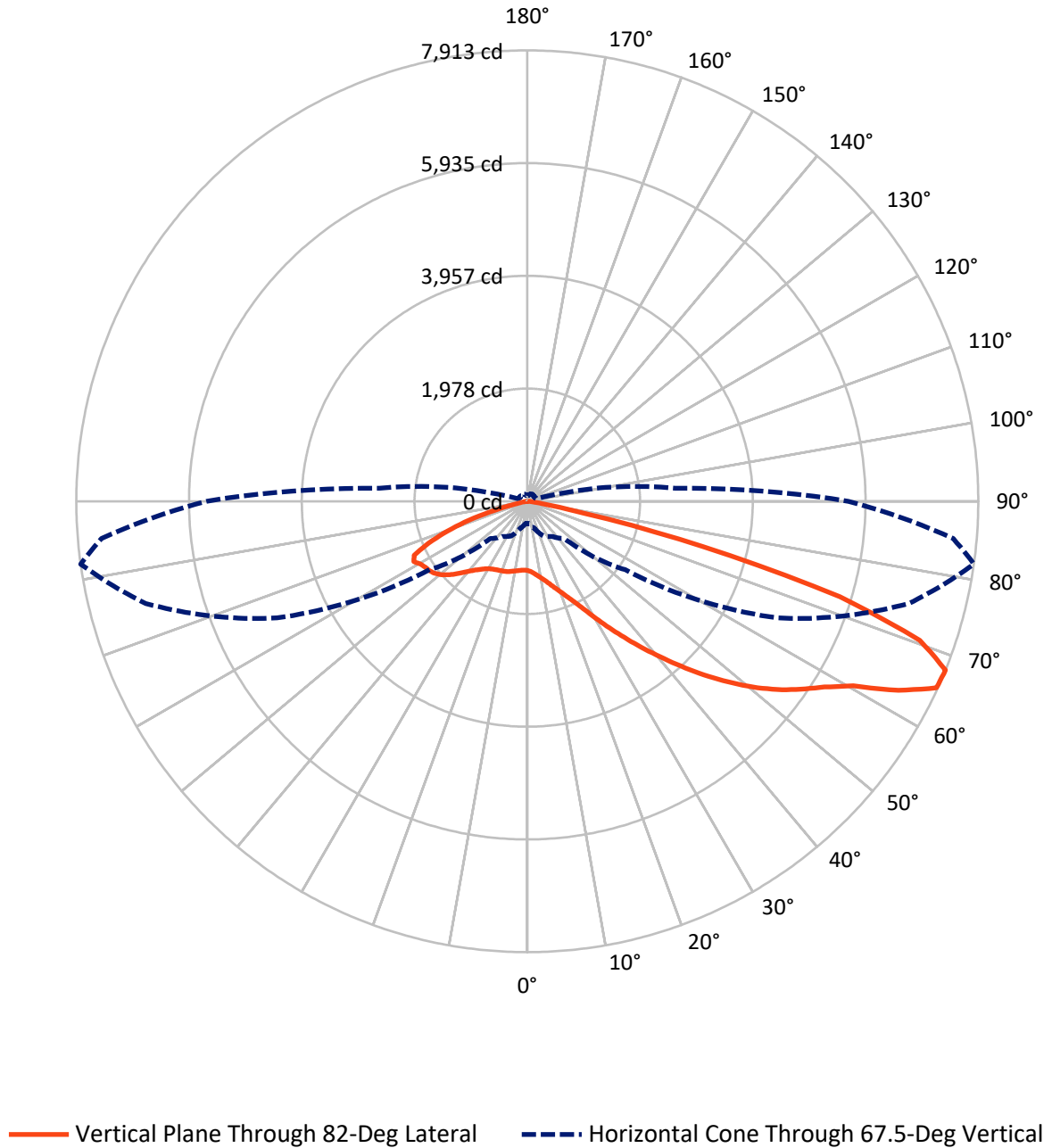
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1328.3	0.0	1328.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	6004.7	0.0	6004.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	7333.0	0.0	7333.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.2	1.5
10°-20°	281.3	3.8
20°-30°	450.5	6.1
30°-40°	796.6	10.9
40°-50°	1395.7	19.0
50°-60°	1861.5	25.4
60°-70°	1732.9	23.6
70°-80°	665.1	9.1
80°-90°	41.3	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°	7333.0	100.0
0°-180°	7333.0	100.0

Coefficient of Utilization



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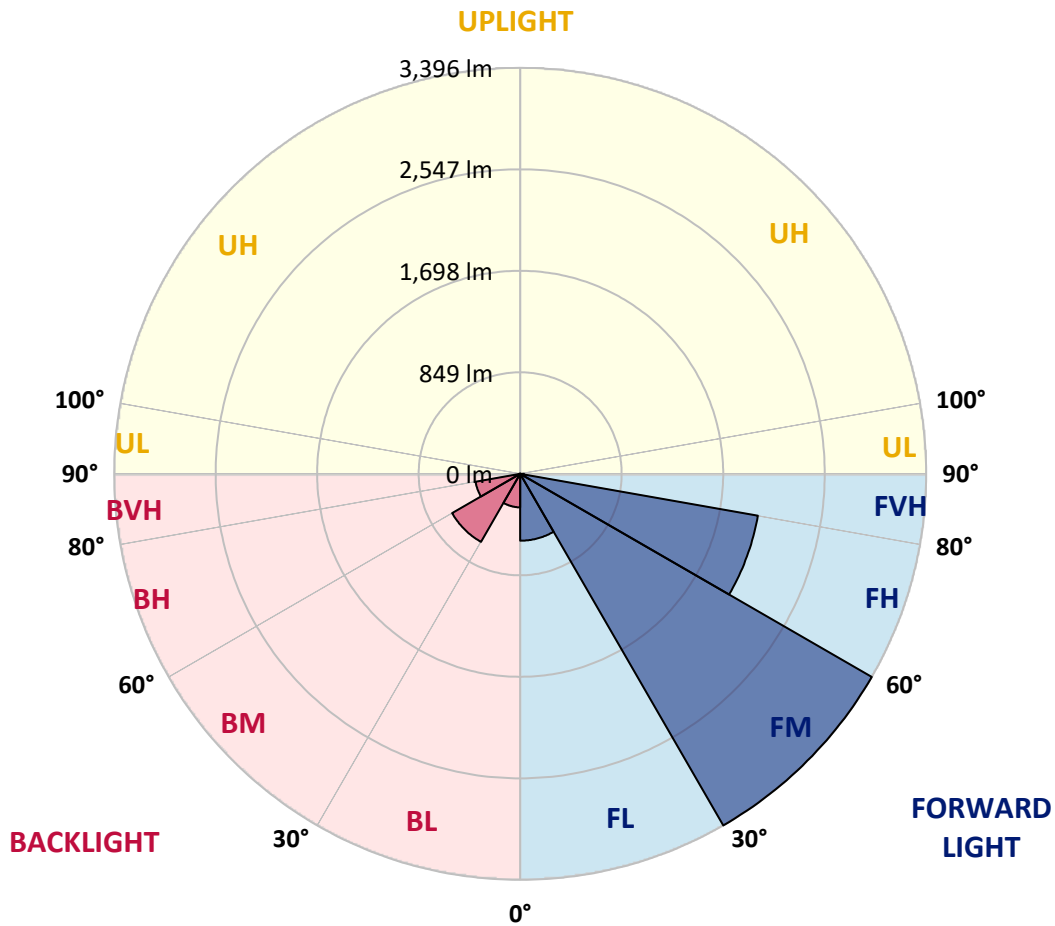
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	559.4	7.6			
FM (30°-60°)	3396.3	46.3			
FH (60°-80°)	2018.9	27.5			G2/5000
FVH (80°-90°)	30.0	0.4			G1/100
BL (0°-30°)	280.5	3.8	B1/500		
BM (30°-60°)	657.4	9.0	B1/1000		
BH (60°-80°)	379.1	5.2	B1/500		G1/500
BVH (80°-90°)	11.3	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°	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8
2.5°	1284.0	1291.4	1287.2	1285.0	1281.4	1276.1	1271.8	1258.7	1244.9	1235.9	1232.8
5°	1309.9	1317.3	1316.7	1318.8	1321.5	1323.1	1322.0	1307.2	1287.7	1272.4	1263.4
7.5°	1287.7	1296.1	1303.0	1313.6	1332.0	1351.6	1361.1	1357.9	1337.8	1316.7	1305.6
10°	1224.9	1233.8	1250.2	1275.0	1314.1	1356.3	1391.7	1408.1	1395.4	1372.2	1356.9
12.5°	1109.8	1118.7	1150.9	1204.8	1270.3	1343.7	1411.2	1455.1	1458.2	1435.0	1417.0
15°	980.4	989.4	1023.7	1091.3	1191.1	1308.8	1421.8	1504.7	1532.7	1512.6	1491.0
17.5°	900.2	908.1	934.0	988.3	1092.3	1239.1	1418.1	1557.5	1621.4	1605.5	1579.6
20°	875.9	882.7	894.9	932.9	1019.5	1166.8	1393.8	1607.1	1716.9	1707.9	1678.9
22.5°	901.8	908.1	911.8	928.7	983.1	1119.3	1363.2	1657.8	1827.8	1828.8	1793.5
25°	961.4	967.7	963.5	974.1	997.8	1104.5	1351.6	1717.4	1967.2	1978.8	1938.7
27.5°	1059.6	1060.1	1050.1	1049.6	1053.3	1126.7	1363.7	1781.3	2143.0	2164.6	2115.0
30°	1256.5	1248.6	1210.1	1168.4	1149.4	1193.2	1397.5	1856.8	2350.5	2389.0	2326.7
32.5°	1560.1	1548.5	1477.8	1378.0	1277.7	1300.4	1458.2	1942.9	2576.4	2646.1	2570.1
35°	1889.6	1886.4	1812.5	1664.1	1488.8	1452.9	1556.9	2055.9	2823.0	2933.9	2843.6
37.5°	2195.8	2194.2	2152.0	1977.2	1763.9	1665.7	1715.3	2203.7	3087.0	3247.5	3140.8
40°	2475.6	2480.3	2438.1	2281.8	2067.0	1938.7	1930.7	2386.4	3380.5	3589.1	3462.3
42.5°	2717.4	2722.7	2679.9	2564.3	2366.3	2240.7	2195.2	2610.2	3667.2	3956.0	3806.0
45°	2881.6	2914.3	2908.0	2815.6	2673.6	2543.2	2513.1	2891.1	3994.0	4345.1	4169.3
47.5°	2928.1	2958.1	3005.7	3018.3	2931.7	2803.5	2839.4	3229.5	4324.5	4734.7	4534.6
50°	2813.5	2841.5	2940.2	3071.7	3131.8	3092.2	3156.7	3592.2	4662.9	5123.3	4893.1
52.5°	2587.5	2616.0	2740.6	2948.6	3194.1	3318.7	3475.0	3949.6	4990.8	5491.3	5232.6
55°	2260.7	2290.8	2450.8	2686.2	3075.4	3412.2	3740.6	4306.5	5291.2	5822.3	5538.8
57.5°	1816.2	1838.3	2004.7	2334.1	2776.5	3319.3	3936.5	4696.2	5574.2	6147.5	5842.4
60°	1183.7	1203.2	1396.4	1763.9	2281.3	3008.8	3975.5	5130.7	5950.1	6570.4	6251.5
62.5°	787.2	800.4	915.0	1184.7	1606.6	2412.8	3746.9	5477.6	6501.3	7306.4	6953.2
65°	540.1	553.3	667.9	855.8	1038.0	1596.0	3089.6	5431.6	7000.7	7890.9	7473.2
67.5°	385.4	396.5	493.6	671.0	751.3	927.1	2094.4	4844.5	6928.9	7913.0	7501.2
70°	276.1	282.5	362.7	522.7	597.1	557.0	1164.7	3705.2	6066.8	7306.9	6930.0
72.5°	193.2	195.3	251.8	398.1	481.0	406.5	554.4	2470.3	4588.5	5735.2	5372.5
75°	130.9	133.6	169.5	292.0	385.9	310.4	293.5	1324.6	2693.6	3174.6	2845.7
77.5°	80.2	81.3	109.3	199.6	288.8	236.5	189.0	561.2	1042.2	1023.2	872.2
80°	45.4	45.4	69.7	124.1	196.9	152.6	132.5	238.6	330.0	289.8	255.5
82.5°	25.3	25.9	50.7	77.1	130.4	90.3	72.9	110.3	142.5	126.2	109.8
85°	10.6	11.6	31.1	36.4	62.3	44.9	29.6	46.5	52.8	47.0	34.3
87.5°	1.1	1.6	9.5	6.9	7.4	9.0	4.2	9.0	7.4	7.4	5.3
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°	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8	1214.8
2.5°	1222.7	1214.8	1194.8	1171.5	1140.9	1126.1	1106.1	1092.3	1080.7	1081.8	1071.2
5°	1246.5	1226.4	1181.6	1125.6	1055.9	1006.3	953.5	917.1	887.5	881.2	866.9
7.5°	1279.2	1247.6	1168.9	1068.1	950.3	861.1	781.4	730.2	693.7	682.1	670.5
10°	1321.5	1275.5	1152.5	995.7	826.3	712.7	627.2	587.1	562.3	553.8	547.5
12.5°	1370.6	1307.8	1130.9	907.6	698.5	589.2	534.8	514.8	506.8	504.2	502.6
15°	1432.3	1347.9	1098.2	803.0	590.3	513.7	490.5	487.8	488.9	487.8	487.3
17.5°	1505.7	1391.7	1044.8	695.3	517.4	475.2	466.7	468.8	471.5	470.9	469.9
20°	1586.0	1435.0	976.7	599.8	467.8	447.7	443.0	445.1	447.2	446.1	445.6
22.5°	1677.3	1481.4	901.2	525.3	434.5	422.4	417.1	417.6	417.6	415.5	414.4
25°	1786.6	1532.7	822.0	472.5	409.2	399.7	393.3	391.2	388.0	381.7	380.7
27.5°	1917.0	1587.0	746.0	435.6	389.1	380.1	372.7	367.5	359.5	349.0	347.9
30°	2063.8	1653.0	681.6	412.3	373.3	364.3	355.8	347.9	336.3	323.1	322.1
32.5°	2236.4	1723.8	634.6	397.0	359.0	349.5	339.5	330.0	317.3	304.1	304.6
35°	2442.3	1809.3	607.2	386.5	347.9	335.3	324.2	313.6	304.1	292.5	291.4
37.5°	2665.7	1900.1	598.7	381.2	340.5	321.0	308.3	300.9	299.9	293.0	292.5
40°	2910.1	2007.8	605.0	378.0	332.6	307.3	293.5	292.0	294.6	282.5	283.0
42.5°	3168.8	2135.6	615.6	374.3	321.5	293.5	280.3	280.3	278.2	261.3	261.3
45°	3448.6	2282.9	626.2	365.3	308.3	279.8	269.8	266.1	257.1	240.7	240.2
47.5°	3730.5	2432.8	634.1	349.0	292.5	268.2	259.2	250.8	237.6	222.8	222.3
50°	3998.2	2567.5	625.6	324.7	274.5	257.1	247.6	236.0	221.7	211.7	210.1
52.5°	4237.4	2684.1	589.7	296.2	255.5	245.5	237.1	224.9	213.3	202.7	201.7
55°	4445.4	2778.6	526.4	269.3	238.6	235.5	227.0	211.7	195.9	186.9	185.8
57.5°	4645.0	2850.4	447.2	247.1	223.3	224.4	211.7	198.0	183.2	173.7	172.6
60°	4910.5	2946.5	366.9	226.5	207.0	210.1	196.4	186.4	167.9	155.7	154.2
62.5°	5335.0	3095.9	291.4	201.2	188.0	189.0	183.2	171.1	148.9	134.6	133.6
65°	5671.8	3041.0	229.7	173.7	166.3	167.9	167.9	154.7	130.9	114.6	113.0
67.5°	5633.8	2603.9	183.2	146.8	145.7	146.8	150.5	139.4	116.2	103.0	100.8
70°	5189.8	2071.2	146.8	122.0	126.7	124.1	134.6	127.2	104.5	91.3	89.8
72.5°	4234.7	1492.0	111.9	100.8	97.1	101.4	121.4	114.6	87.1	72.3	70.7
75°	2474.5	796.2	83.4	79.7	70.2	84.5	107.7	97.7	66.5	53.3	51.7
77.5°	805.7	277.7	61.2	58.6	52.3	68.1	91.9	82.4	54.4	42.2	40.7
80°	215.9	83.9	41.7	38.5	33.8	50.7	72.9	65.5	39.1	27.5	26.9
82.5°	86.6	35.4	24.3	21.6	18.5	34.8	57.5	52.8	29.0	17.4	17.4
85°	28.0	11.6	9.0	6.9	8.4	21.6	34.3	35.9	20.6	9.0	6.9
87.5°	3.7	1.6	1.6	2.1	1.6	3.7	10.6	10.0	5.8	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)