

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: P962065

Luminaire Tested: **NAV-SB2B-827-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962065
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-827-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10044 lumens
Efficiency: N/A
Efficacy: 135.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G2

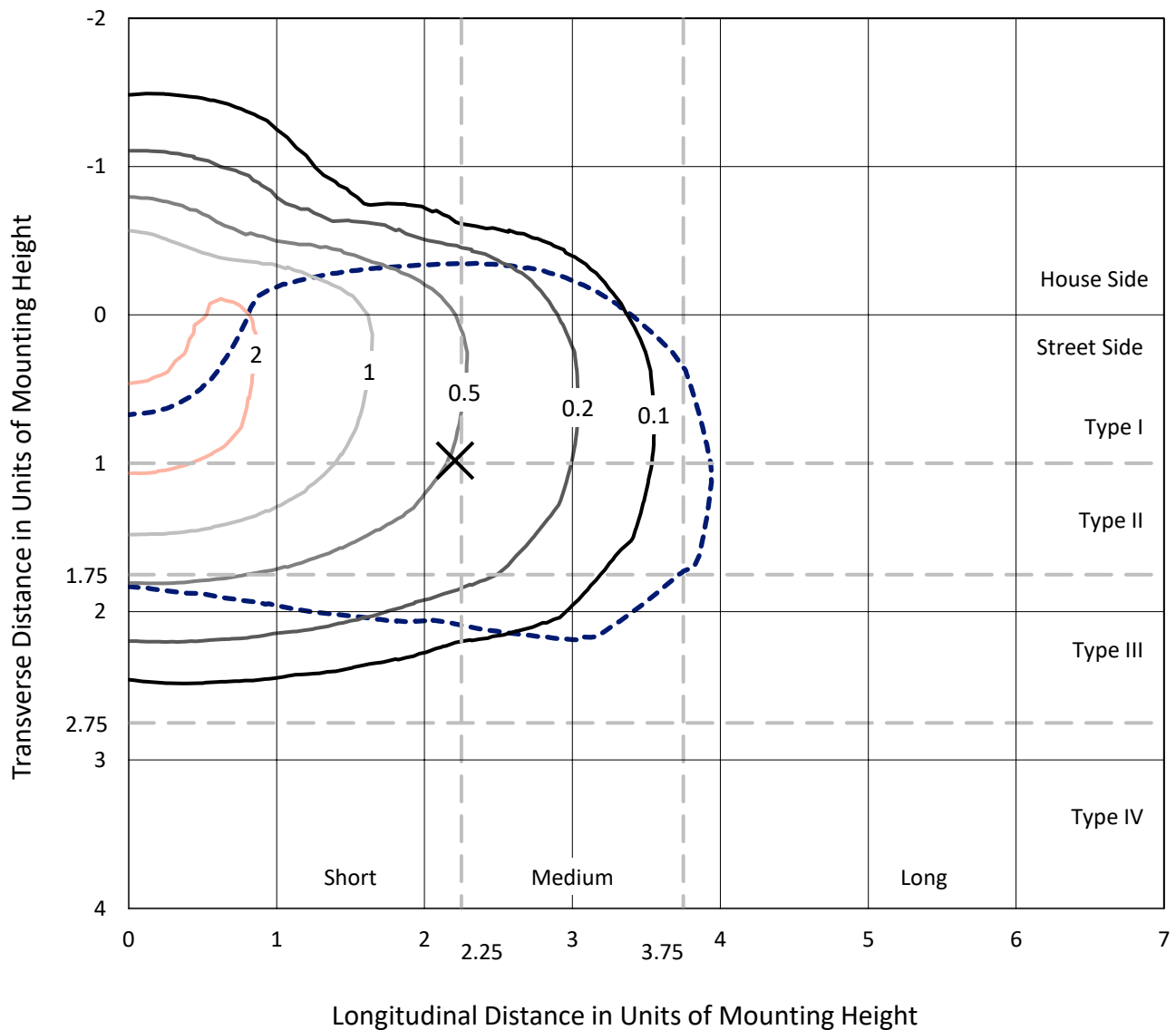
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

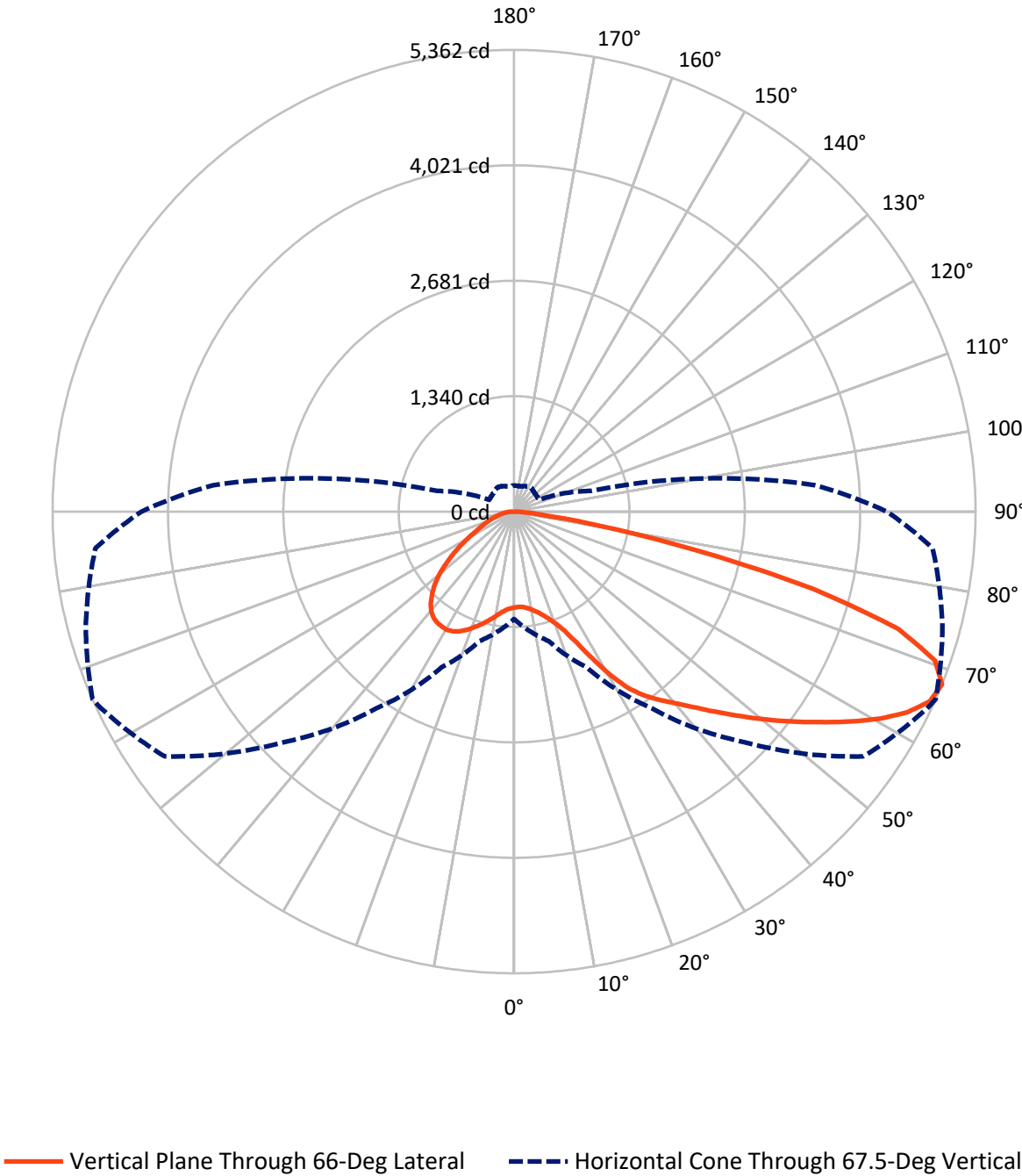
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2497.4	0.0	2497.4
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	7546.6	0.0	7546.6
	% Fixture	75.1	0.0	75.1
Total	Lumens	10044.0	0.0	10044.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.4	1.1
10°-20°	364.9	3.6
20°-30°	703.3	7.0
30°-40°	1233.2	12.3
40°-50°	1833.4	18.3
50°-60°	2324.0	23.1
60°-70°	2274.0	22.6
70°-80°	1084.7	10.8
80°-90°	115.9	1.2
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°	10044.0	100.0
0°-180°	10044.0	100.0

Coefficient of Utilization



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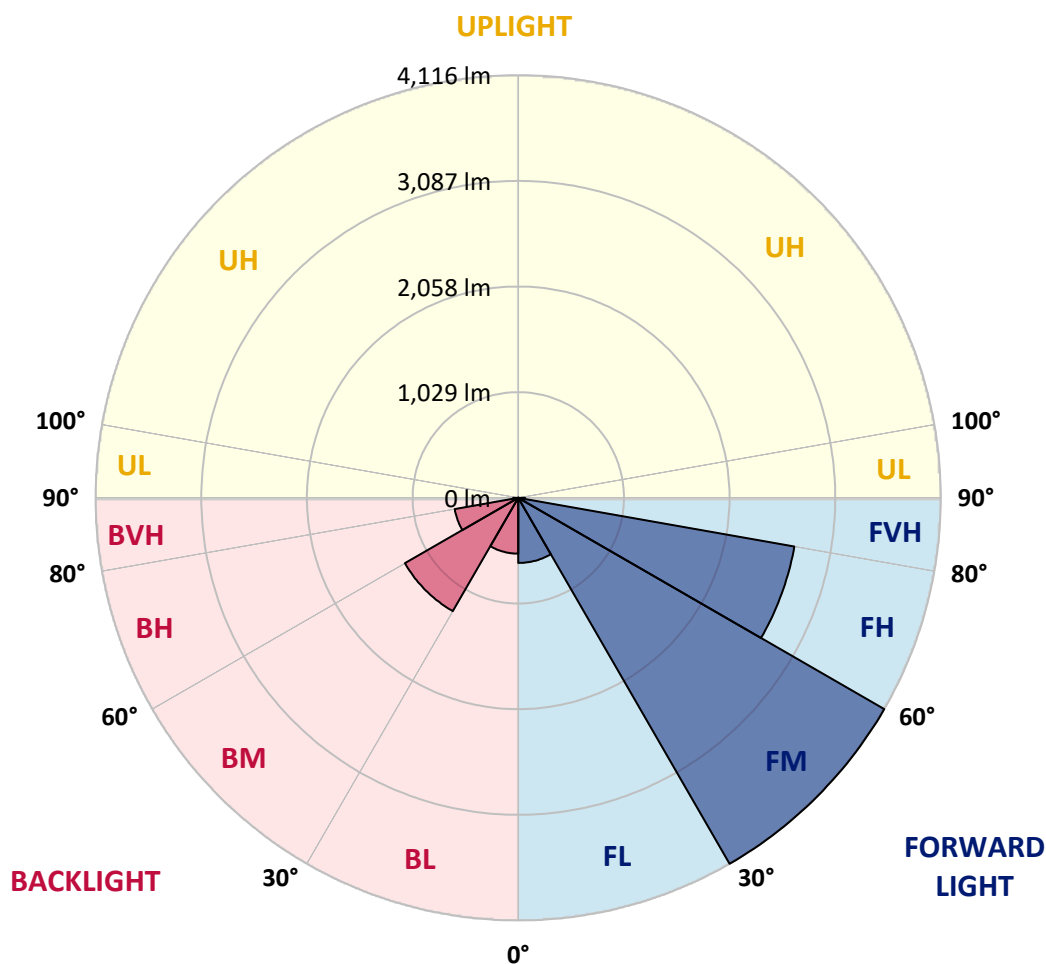
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	634.7	6.3			
FM	(30°-60°)	4115.9	41.0			
FH	(60°-80°)	2730.2	27.2			G2/5000
FVH	(80°-90°)	65.7	0.7			G1/100
BL	(0°-30°)	544.0	5.4	B2/1000		
BM	(30°-60°)	1274.7	12.7	B2/2500		
BH	(60°-80°)	628.5	6.3	B2/1000		G2/1000
BVH	(80°-90°)	50.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0
2.5°	1102.4	1108.7	1107.1	1104.5	1104.0	1105.1	1106.6	1108.2	1107.7	1110.3	1114.6
5°	1099.2	1105.6	1105.1	1105.1	1107.1	1111.4	1114.0	1116.6	1114.0	1117.1	1123.0
7.5°	1101.4	1106.1	1108.2	1110.3	1115.6	1123.5	1129.9	1135.6	1132.5	1136.2	1143.6
10°	1128.2	1131.9	1134.1	1134.1	1137.8	1146.8	1153.0	1163.6	1161.0	1166.8	1176.3
12.5°	1177.3	1181.0	1181.0	1179.0	1181.5	1187.4	1189.5	1201.1	1196.4	1205.8	1215.3
15°	1237.5	1244.9	1239.1	1235.4	1236.5	1242.2	1241.7	1250.7	1245.9	1253.9	1262.3
17.5°	1304.0	1313.5	1304.0	1303.5	1301.3	1307.7	1308.2	1316.1	1307.7	1313.5	1319.3
20°	1382.6	1395.8	1387.8	1390.5	1385.8	1388.5	1391.0	1402.7	1389.5	1393.7	1392.2
22.5°	1493.4	1509.3	1500.8	1510.8	1507.7	1505.6	1505.0	1525.6	1505.0	1506.6	1491.4
25°	1655.0	1673.9	1659.2	1672.9	1672.9	1679.8	1687.7	1714.0	1679.8	1669.7	1630.2
27.5°	1893.5	1912.4	1883.4	1891.8	1889.2	1906.1	1897.7	1963.1	1926.2	1909.8	1830.1
30°	2180.5	2214.3	2159.4	2157.3	2154.7	2181.6	2193.7	2237.0	2199.5	2183.1	2087.1
32.5°	2490.9	2526.2	2460.7	2441.8	2431.7	2448.1	2438.1	2472.9	2447.0	2421.7	2303.0
35°	2819.1	2853.9	2791.6	2754.7	2714.6	2680.3	2644.4	2653.3	2629.1	2590.6	2467.6
37.5°	3129.3	3193.2	3127.3	3087.7	3013.8	2946.8	2846.5	2804.8	2782.2	2746.8	2622.8
40°	3445.4	3481.8	3431.7	3398.0	3317.7	3212.8	3052.3	2964.2	2933.5	2899.3	2794.3
42.5°	3678.2	3713.1	3686.1	3662.8	3600.1	3478.1	3270.8	3160.5	3116.2	3077.7	2988.5
45°	3862.9	3888.7	3871.8	3880.3	3853.4	3735.2	3497.2	3371.0	3325.1	3278.2	3207.9
47.5°	3937.3	3964.7	3991.7	4041.8	4087.7	4000.6	3740.4	3599.0	3550.5	3502.4	3433.3
50°	3928.8	3956.8	4034.9	4141.5	4284.0	4255.0	3996.9	3841.8	3796.9	3742.1	3678.2
52.5°	3861.3	3893.0	3993.2	4170.5	4397.5	4445.5	4258.2	4092.4	4050.2	3984.8	3920.9
55°	3684.0	3703.0	3853.4	4104.6	4424.4	4578.5	4514.1	4359.4	4317.3	4226.0	4156.3
57.5°	3355.2	3382.7	3601.6	3926.8	4356.9	4668.7	4738.9	4640.2	4599.6	4468.2	4395.3
60°	2926.2	2969.9	3220.7	3628.1	4184.8	4668.2	4943.2	4916.2	4882.4	4706.7	4630.7
62.5°	2440.7	2491.4	2732.5	3205.9	3884.0	4535.7	5070.8	5147.3	5129.9	4926.8	4829.7
65°	1874.4	1909.3	2149.4	2659.7	3415.9	4251.3	5085.6	5305.1	5308.3	5094.0	4933.6
67.5°	1248.0	1348.3	1556.8	1995.8	2789.0	3786.3	4955.8	5331.0	5361.6	5151.5	4881.4
70°	609.0	740.9	945.2	1297.1	1995.8	3073.5	4616.5	5118.8	5186.9	4983.8	4570.1
72.5°	252.8	295.5	406.8	640.1	1145.6	2073.9	3934.7	4543.6	4669.8	4415.9	3842.3
75°	170.5	184.7	232.7	328.2	521.9	1022.7	2837.5	3387.9	3591.1	3335.1	2726.2
77.5°	131.4	140.3	169.4	229.6	310.3	386.8	1518.7	2041.7	2146.8	1987.4	1418.5
80°	103.4	110.3	126.7	167.3	220.1	206.8	517.7	925.1	985.7	827.0	455.9
82.5°	89.7	92.4	90.8	113.5	146.2	120.8	169.9	341.4	376.8	273.4	148.8
85°	64.9	72.3	75.4	70.2	77.6	61.2	69.7	120.8	132.9	118.7	83.9
87.5°	26.3	39.1	48.1	45.4	28.5	17.4	21.6	35.4	40.6	44.3	27.5
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°	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0	1114.0
2.5°	1115.1	1118.8	1121.4	1124.5	1126.7	1129.9	1136.2	1139.9	1140.4	1143.1	1142.5
5°	1125.1	1130.4	1136.2	1144.6	1154.1	1162.0	1174.1	1182.6	1185.8	1188.4	1187.9
7.5°	1146.8	1154.1	1164.7	1179.5	1193.2	1203.8	1218.5	1228.6	1238.5	1242.2	1242.8
10°	1179.0	1189.5	1204.8	1224.9	1239.6	1253.4	1268.6	1277.0	1287.1	1291.3	1293.4
12.5°	1219.0	1230.1	1250.2	1278.2	1291.8	1301.3	1306.7	1304.5	1306.7	1310.4	1311.4
15°	1265.0	1277.0	1299.8	1329.8	1339.4	1330.9	1319.3	1308.7	1307.2	1308.2	1311.9
17.5°	1319.3	1328.3	1354.6	1380.0	1373.1	1338.2	1312.9	1296.1	1287.6	1284.9	1288.7
20°	1395.3	1395.3	1417.0	1432.7	1386.8	1327.8	1288.1	1260.8	1243.3	1235.9	1234.3
22.5°	1487.6	1479.2	1492.9	1481.8	1384.2	1298.2	1243.3	1195.8	1169.4	1158.9	1157.3
25°	1604.7	1594.8	1591.1	1522.4	1365.2	1251.2	1162.0	1104.5	1081.3	1075.5	1076.6
27.5°	1781.6	1756.2	1708.3	1544.7	1330.3	1177.3	1067.0	1013.7	1000.5	1001.1	1002.7
30°	2016.9	1966.3	1848.6	1548.4	1273.4	1072.9	970.0	931.9	925.6	928.2	937.3
32.5°	2234.9	2186.8	1992.1	1531.5	1185.8	970.5	882.8	857.5	848.1	851.2	855.5
35°	2405.9	2392.7	2125.1	1507.7	1078.1	874.4	804.7	783.1	764.6	760.4	763.6
37.5°	2567.3	2562.1	2224.9	1474.5	971.5	806.4	742.0	713.5	686.5	671.8	672.3
40°	2744.6	2739.4	2290.3	1423.2	877.1	747.2	685.5	648.0	614.8	587.8	590.5
42.5°	2944.1	2912.9	2321.4	1349.9	796.8	697.1	639.6	589.0	545.1	520.3	521.9
45°	3162.1	3091.9	2320.9	1256.4	729.3	651.2	590.5	518.8	478.1	454.9	453.9
47.5°	3393.3	3262.9	2292.4	1153.0	663.9	600.5	514.6	459.6	432.8	418.5	415.3
50°	3631.8	3422.8	2243.8	1034.3	596.9	543.0	467.0	429.6	409.0	395.8	391.0
52.5°	3856.0	3567.9	2185.3	899.7	528.8	487.1	445.9	416.9	395.2	380.5	374.1
55°	4064.4	3693.0	2102.4	762.0	473.3	449.6	435.9	411.6	386.8	369.4	362.5
57.5°	4249.6	3774.3	1959.4	632.7	433.8	423.7	425.4	402.6	374.1	359.4	349.8
60°	4403.8	3833.9	1747.8	512.9	401.6	398.4	409.0	385.8	352.5	335.6	328.2
62.5°	4496.2	3832.8	1488.2	420.0	374.1	375.3	387.3	364.7	330.9	315.1	310.3
65°	4488.3	3738.9	1203.1	359.4	347.8	348.8	364.7	341.4	312.9	303.4	302.9
67.5°	4329.4	3509.8	923.0	319.8	318.8	323.5	341.9	325.6	301.9	300.8	302.4
70°	3899.3	3034.4	664.9	288.1	288.6	295.5	319.8	315.6	296.0	298.2	297.7
72.5°	3126.8	2313.5	446.5	254.9	255.4	266.5	298.7	307.7	290.3	318.3	322.5
75°	2082.4	1442.8	287.1	219.6	220.1	234.3	280.2	292.3	274.4	317.1	319.8
77.5°	1000.5	648.5	207.9	184.7	184.7	197.9	242.2	261.8	233.8	246.4	225.9
80°	345.6	243.8	163.6	148.8	145.7	154.6	204.2	226.9	201.6	185.7	174.1
82.5°	136.1	126.7	131.4	115.6	105.1	110.8	158.9	187.4	148.3	134.1	133.6
85°	78.1	82.3	92.9	76.6	60.7	68.1	116.6	134.6	111.8	98.7	100.8
87.5°	21.1	29.0	42.7	39.6	27.5	29.0	55.5	74.4	64.4	49.6	51.1
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)