

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: P882416

Luminaire Tested: **NAV-SB2B-740-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882416
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-740-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 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: 9035 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

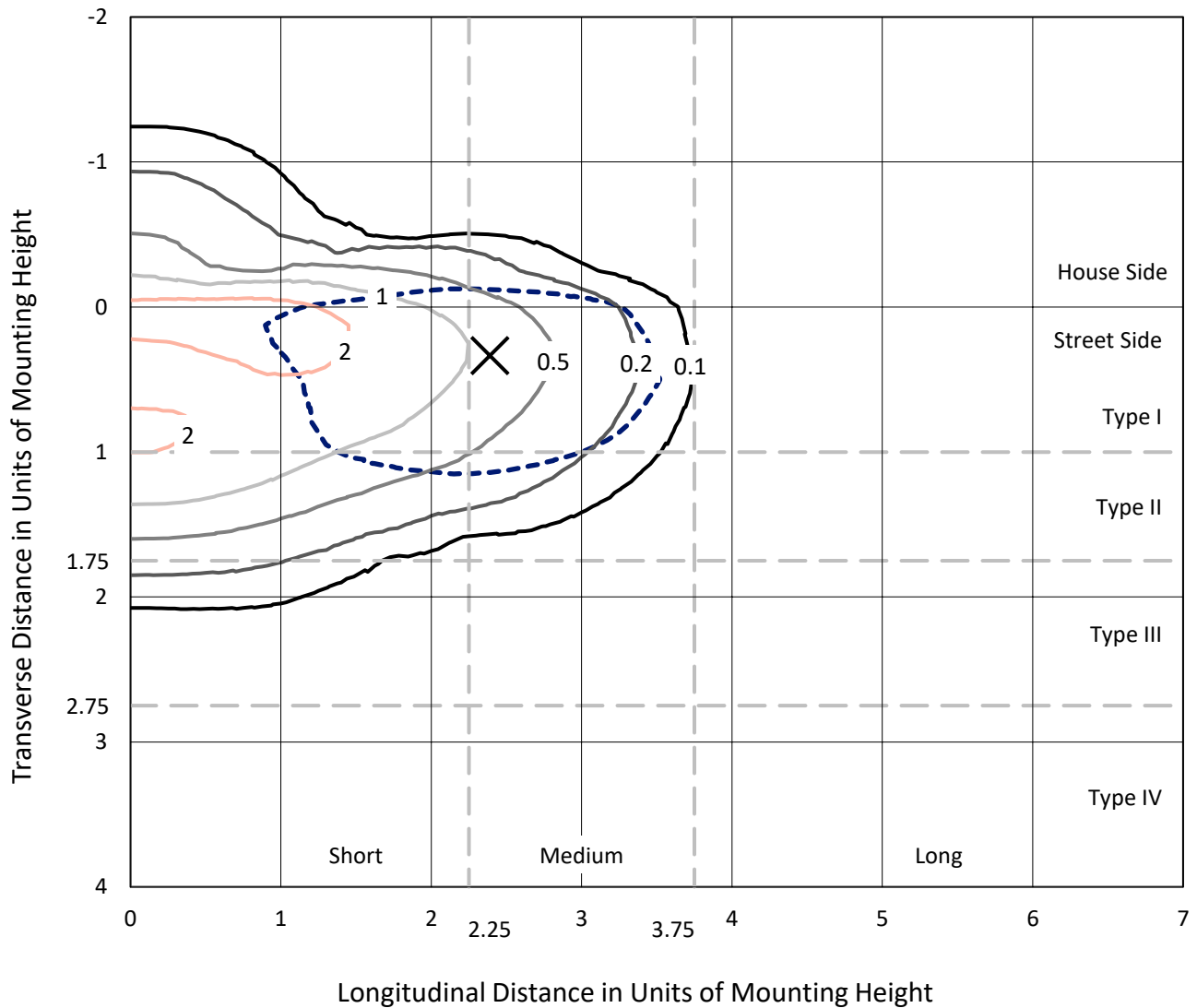
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

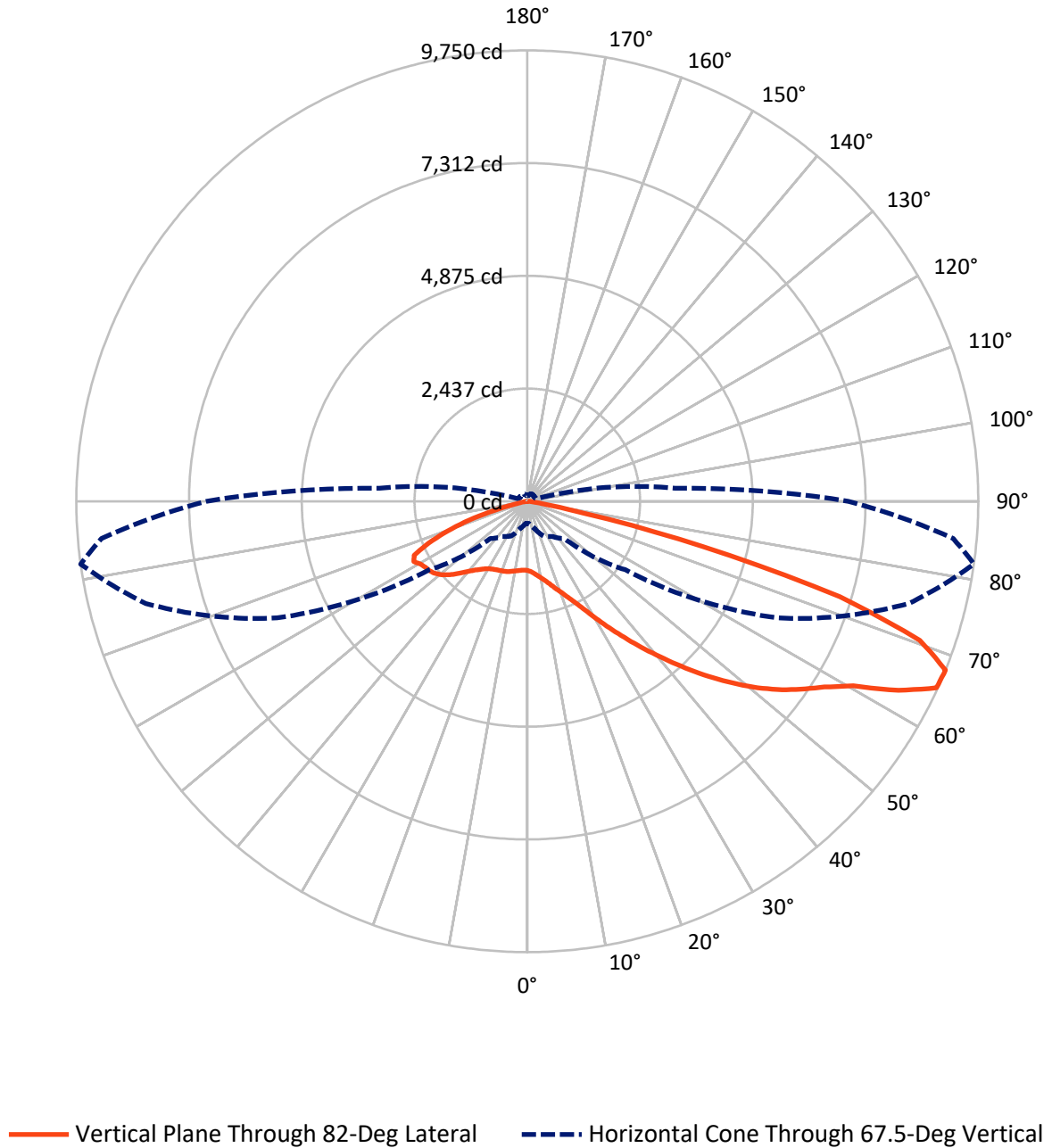
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 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	1636.6	0.0	1636.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	7398.4	0.0	7398.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	9035.0	0.0	9035.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	1.5
10°-20°	346.5	3.8
20°-30°	555.0	6.1
30°-40°	981.5	10.9
40°-50°	1719.6	19.0
50°-60°	2293.5	25.4
60°-70°	2135.1	23.6
70°-80°	819.5	9.1
80°-90°	50.9	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°	9035.0	100.0
0°-180°	9035.0	100.0

Coefficient of Utilization



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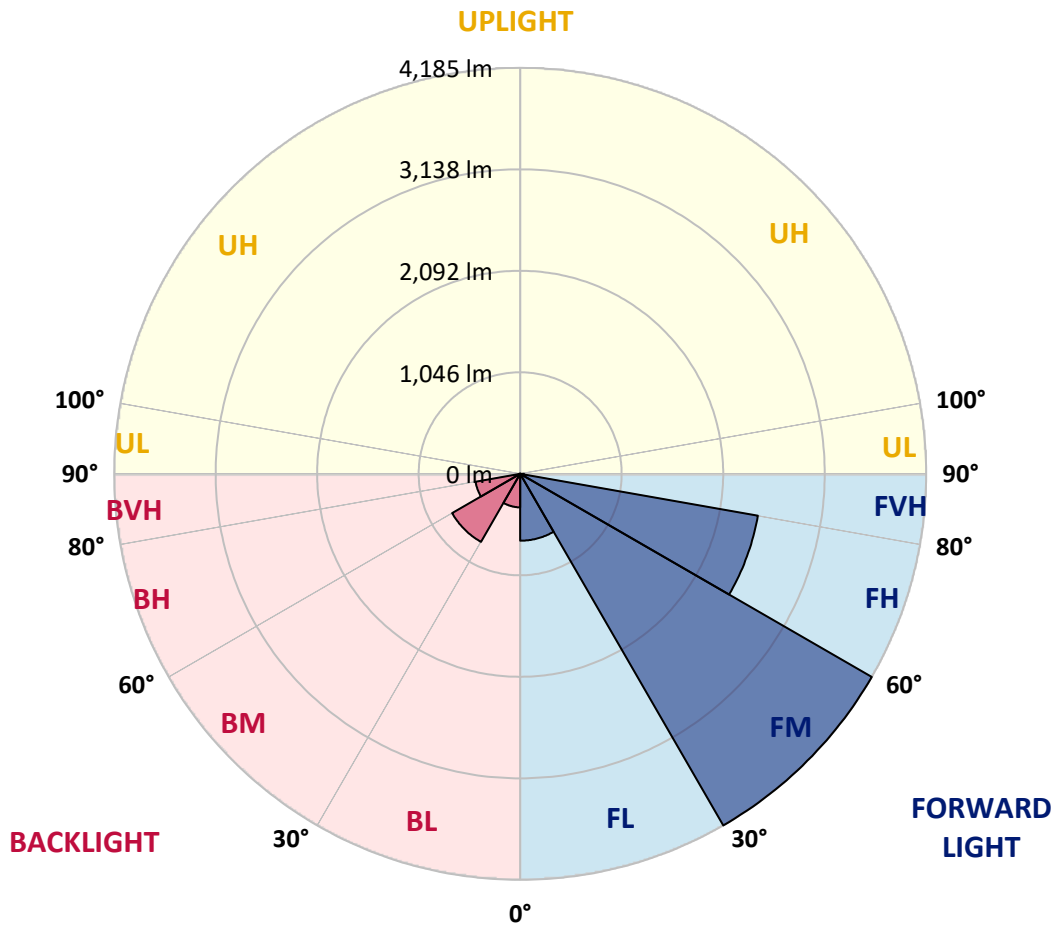
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	689.3	7.6			
FM (30°-60°)	4184.6	46.3			
FH (60°-80°)	2487.5	27.5			G2/5000
FVH (80°-90°)	37.0	0.4			G1/100
BL (0°-30°)	345.6	3.8	B1/500		
BM (30°-60°)	810.0	9.0	B1/1000		
BH (60°-80°)	467.1	5.2	B1/500		G1/500
BVH (80°-90°)	13.9	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°	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8
2.5°	1582.0	1591.1	1585.9	1583.3	1578.8	1572.3	1567.0	1550.8	1533.9	1522.8	1518.9
5°	1613.9	1623.0	1622.3	1624.9	1628.2	1630.1	1628.8	1610.6	1586.6	1567.7	1556.6
7.5°	1586.6	1597.0	1605.4	1618.4	1641.2	1665.3	1677.0	1673.1	1648.4	1622.3	1608.7
10°	1509.2	1520.2	1540.4	1571.0	1619.1	1671.1	1714.7	1734.9	1719.3	1690.6	1671.8
12.5°	1367.3	1378.4	1418.1	1484.4	1565.1	1655.5	1738.8	1792.8	1796.7	1768.1	1745.9
15°	1208.0	1219.0	1261.3	1344.6	1467.5	1612.6	1751.8	1853.9	1888.4	1863.7	1837.0
17.5°	1109.1	1118.9	1150.7	1217.7	1345.9	1526.7	1747.2	1919.0	1997.7	1978.2	1946.3
20°	1079.2	1087.6	1102.6	1149.4	1256.1	1437.6	1717.3	1980.1	2115.4	2104.4	2068.6
22.5°	1111.0	1118.9	1123.4	1144.2	1211.2	1379.1	1679.6	2042.6	2252.0	2253.3	2209.7
25°	1184.6	1192.4	1187.2	1200.2	1229.4	1360.8	1665.3	2116.1	2423.8	2438.1	2388.6
27.5°	1305.5	1306.2	1293.8	1293.2	1297.7	1388.2	1680.2	2194.8	2640.4	2667.0	2605.9
30°	1548.2	1538.4	1490.9	1439.6	1416.1	1470.1	1721.9	2287.8	2896.0	2943.5	2866.7
32.5°	1922.2	1907.9	1820.7	1697.8	1574.2	1602.2	1796.7	2393.8	3174.4	3260.3	3166.6
35°	2328.1	2324.2	2233.2	2050.4	1834.4	1790.2	1918.3	2533.0	3478.2	3614.8	3503.6
37.5°	2705.4	2703.5	2651.4	2436.1	2173.3	2052.3	2113.5	2715.2	3803.5	4001.2	3869.8
40°	3050.2	3056.0	3004.0	2811.4	2546.7	2388.6	2378.9	2940.2	4165.1	4422.1	4266.0
42.5°	3348.1	3354.6	3301.9	3159.5	2915.5	2760.7	2704.8	3216.1	4518.4	4874.2	4689.4
45°	3550.4	3590.7	3582.9	3469.1	3294.1	3133.4	3096.4	3562.1	4921.0	5353.6	5137.0
47.5°	3607.7	3644.7	3703.3	3718.9	3612.2	3454.1	3498.4	3979.1	5328.2	5833.7	5587.1
50°	3466.5	3501.0	3622.6	3784.6	3858.7	3810.0	3889.3	4426.0	5745.2	6312.4	6028.8
52.5°	3188.1	3223.2	3376.7	3633.0	3935.5	4089.0	4281.6	4866.4	6149.1	6765.8	6447.1
55°	2785.4	2822.5	3019.6	3309.7	3789.1	4204.2	4608.8	5306.1	6519.3	7173.7	6824.4
57.5°	2237.7	2265.0	2469.9	2875.8	3421.0	4089.7	4850.1	5786.2	6867.9	7574.4	7198.4
60°	1458.4	1482.5	1720.6	2173.3	2810.8	3707.2	4898.2	6321.5	7331.1	8095.4	7702.5
62.5°	969.9	986.2	1127.3	1459.7	1979.5	2972.8	4616.6	6748.9	8010.2	9002.2	8567.0
65°	665.5	681.7	822.9	1054.5	1278.9	1966.5	3806.7	6692.3	8625.6	9722.3	9207.8
67.5°	474.9	488.5	608.2	826.8	925.7	1142.3	2580.5	5969.0	8537.1	9749.6	9242.3
70°	340.2	348.0	446.9	644.0	735.7	686.3	1435.0	4565.2	7474.9	9002.9	8538.4
72.5°	238.1	240.7	310.3	490.5	592.6	500.9	683.0	3043.7	5653.5	7066.3	6619.5
75°	161.3	164.6	208.8	359.7	475.5	382.5	361.7	1632.1	3318.8	3911.4	3506.2
77.5°	98.9	100.2	134.7	245.9	355.8	291.4	232.9	691.5	1284.1	1260.7	1074.6
80°	55.9	55.9	85.9	152.9	242.6	188.0	163.3	294.0	406.6	357.1	314.8
82.5°	31.2	31.9	62.4	95.0	160.7	111.2	89.8	136.0	175.6	155.5	135.3
85°	13.0	14.3	38.4	44.9	76.8	55.3	36.4	57.2	65.0	57.9	42.3
87.5°	1.3	2.0	11.7	8.5	9.1	11.1	5.2	11.1	9.1	9.1	6.5
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°	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8	1496.8
2.5°	1506.6	1496.8	1472.1	1443.5	1405.7	1387.5	1362.8	1345.9	1331.6	1332.9	1319.9
5°	1535.8	1511.1	1455.8	1386.9	1301.0	1239.8	1174.8	1129.9	1093.5	1085.7	1068.1
7.5°	1576.2	1537.1	1440.2	1316.0	1170.9	1061.0	962.7	899.6	854.8	840.4	826.1
10°	1628.2	1571.6	1420.0	1226.8	1018.0	878.2	772.8	723.4	692.8	682.4	674.6
12.5°	1688.7	1611.3	1393.4	1118.2	860.6	726.0	659.0	634.2	624.5	621.2	619.3
15°	1764.8	1660.7	1353.0	989.4	727.3	632.9	604.3	601.1	602.4	601.1	600.4
17.5°	1855.2	1714.7	1287.3	856.7	637.5	585.4	575.0	577.6	580.9	580.2	578.9
20°	1954.1	1768.1	1203.4	739.0	576.3	551.6	545.8	548.4	551.0	549.7	549.0
22.5°	2066.6	1825.3	1110.4	647.2	535.4	520.4	513.9	514.5	514.5	511.9	510.6
25°	2201.3	1888.4	1012.8	582.2	504.1	492.4	484.6	482.0	478.1	470.3	469.0
27.5°	2362.0	1955.4	919.2	536.7	479.4	468.4	459.3	452.7	443.0	430.0	428.7
30°	2542.8	2036.7	839.8	508.0	459.9	448.8	438.4	428.7	414.4	398.1	396.8
32.5°	2755.5	2123.9	781.9	489.2	442.3	430.6	418.3	406.6	390.9	374.7	375.3
35°	3009.2	2229.3	748.1	476.2	428.7	413.1	399.4	386.4	374.7	360.4	359.1
37.5°	3284.4	2341.1	737.7	469.7	419.6	395.5	379.9	370.8	369.5	361.0	360.4
40°	3585.5	2473.8	745.5	465.8	409.8	378.6	361.7	359.7	363.0	348.0	348.7
42.5°	3904.3	2631.3	758.5	461.2	396.2	361.7	345.4	345.4	342.8	322.0	322.0
45°	4249.0	2812.7	771.5	450.1	379.9	344.8	332.4	327.9	316.8	296.6	296.0
47.5°	4596.4	2997.5	781.2	430.0	360.4	330.5	319.4	309.0	292.7	274.5	273.9
50°	4926.2	3163.4	770.8	400.1	338.3	316.8	305.1	290.8	273.2	260.8	258.9
52.5°	5220.9	3307.1	726.6	364.9	314.8	302.5	292.1	277.1	262.8	249.8	248.5
55°	5477.2	3423.6	648.5	331.8	294.0	290.1	279.7	260.8	241.3	230.3	229.0
57.5°	5723.1	3512.0	551.0	304.4	275.2	276.5	260.8	243.9	225.7	214.0	212.7
60°	6050.3	3630.4	452.1	279.1	255.0	258.9	242.0	229.6	206.9	191.9	189.9
62.5°	6573.3	3814.5	359.1	247.8	231.6	232.9	225.7	210.8	183.4	165.9	164.6
65°	6988.3	3746.9	283.0	214.0	204.9	206.9	206.9	190.6	161.3	141.2	139.2
67.5°	6941.5	3208.3	225.7	180.8	179.5	180.8	185.4	171.7	143.1	126.8	124.2
70°	6394.4	2551.9	180.8	150.3	156.1	152.9	165.9	156.8	128.8	112.5	110.6
72.5°	5217.6	1838.3	137.9	124.2	119.7	124.9	149.6	141.2	107.3	89.1	87.2
75°	3048.9	980.9	102.8	98.2	86.5	104.1	132.7	120.3	82.0	65.7	63.7
77.5°	992.7	342.2	75.5	72.2	64.4	83.9	113.2	101.5	67.0	52.0	50.1
80°	266.1	103.4	51.4	47.5	41.6	62.4	89.8	80.7	48.1	33.8	33.2
82.5°	106.7	43.6	29.9	26.7	22.8	42.9	70.9	65.0	35.8	21.5	21.5
85°	34.5	14.3	11.1	8.5	10.4	26.7	42.3	44.2	25.4	11.1	8.5
87.5°	4.6	2.0	2.0	2.6	2.0	4.6	13.0	12.4	7.2	1.3	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)