

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: P881566

Luminaire Tested: **NAV-SB1A-740-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881566
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-SB1A-740-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH
HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3535 lumens
Efficiency: N/A
Efficacy: 114.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G1

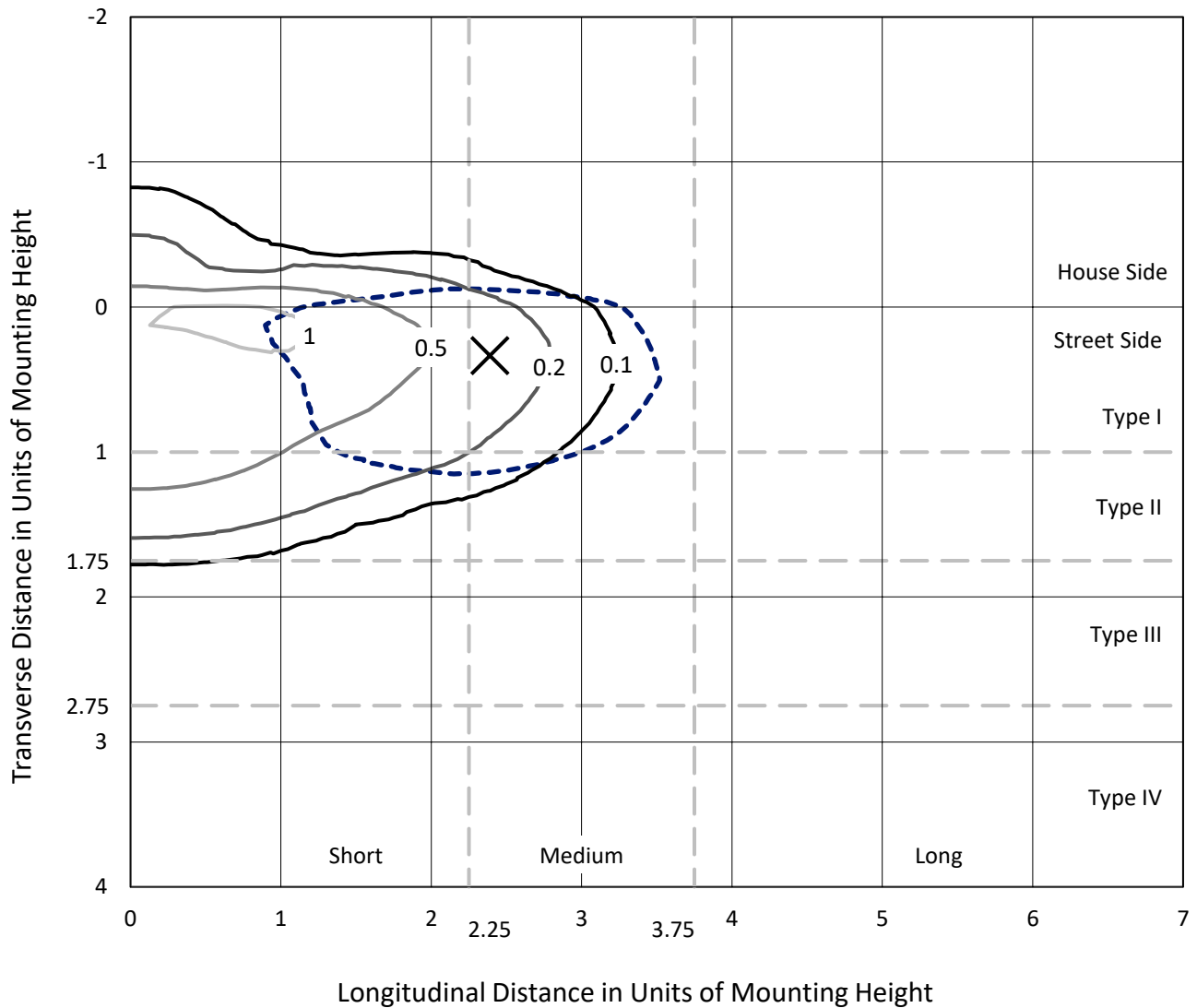
Input Watts (W): 30.9
Input Voltage (V): 120.0
Input Current (Ain): 0.263
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 6.356
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

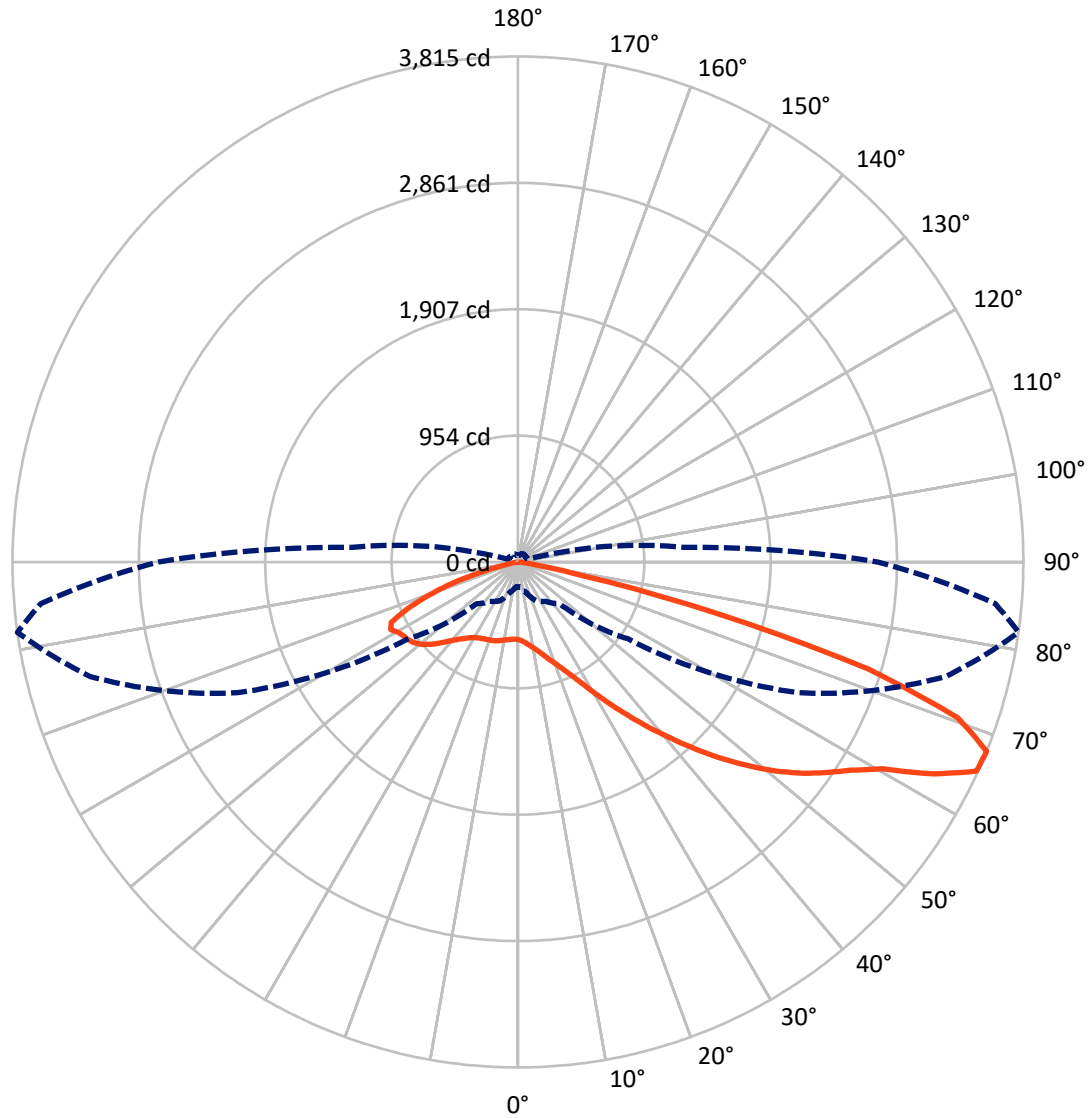
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 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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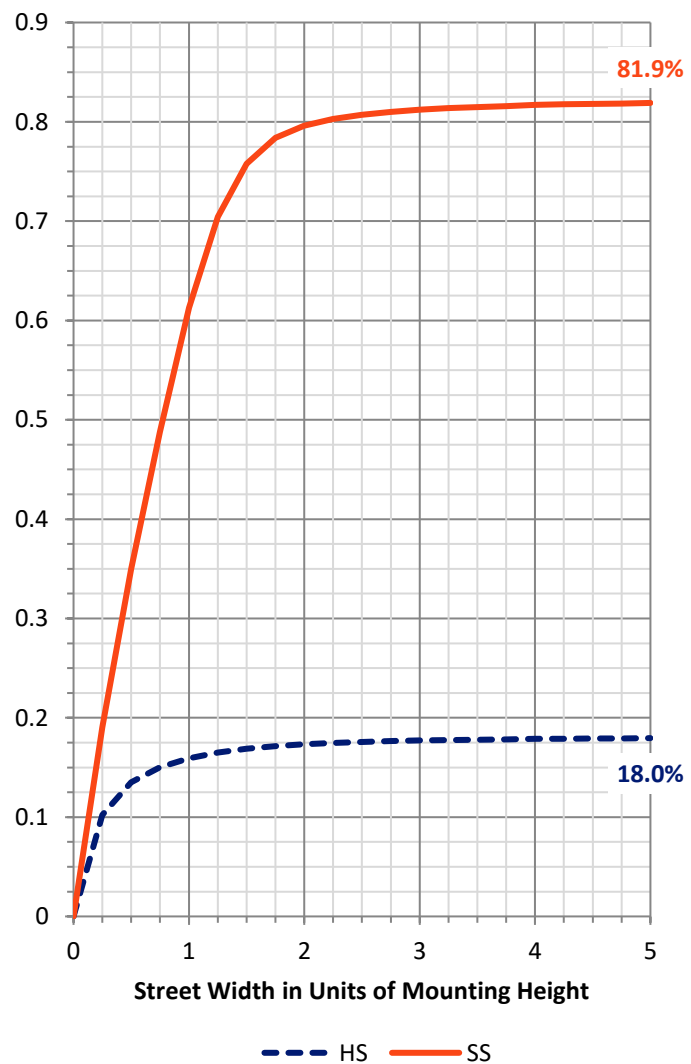
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	640.3	0.0	640.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	2894.7	0.0	2894.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	3535.0	0.0	3535.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.2	1.5
10°-20°	135.6	3.8
20°-30°	217.2	6.1
30°-40°	384.0	10.9
40°-50°	672.8	19.0
50°-60°	897.3	25.4
60°-70°	835.4	23.6
70°-80°	320.6	9.1
80°-90°	19.9	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°	3535.0	100.0
0°-180°	3535.0	100.0

Coefficient of Utilization



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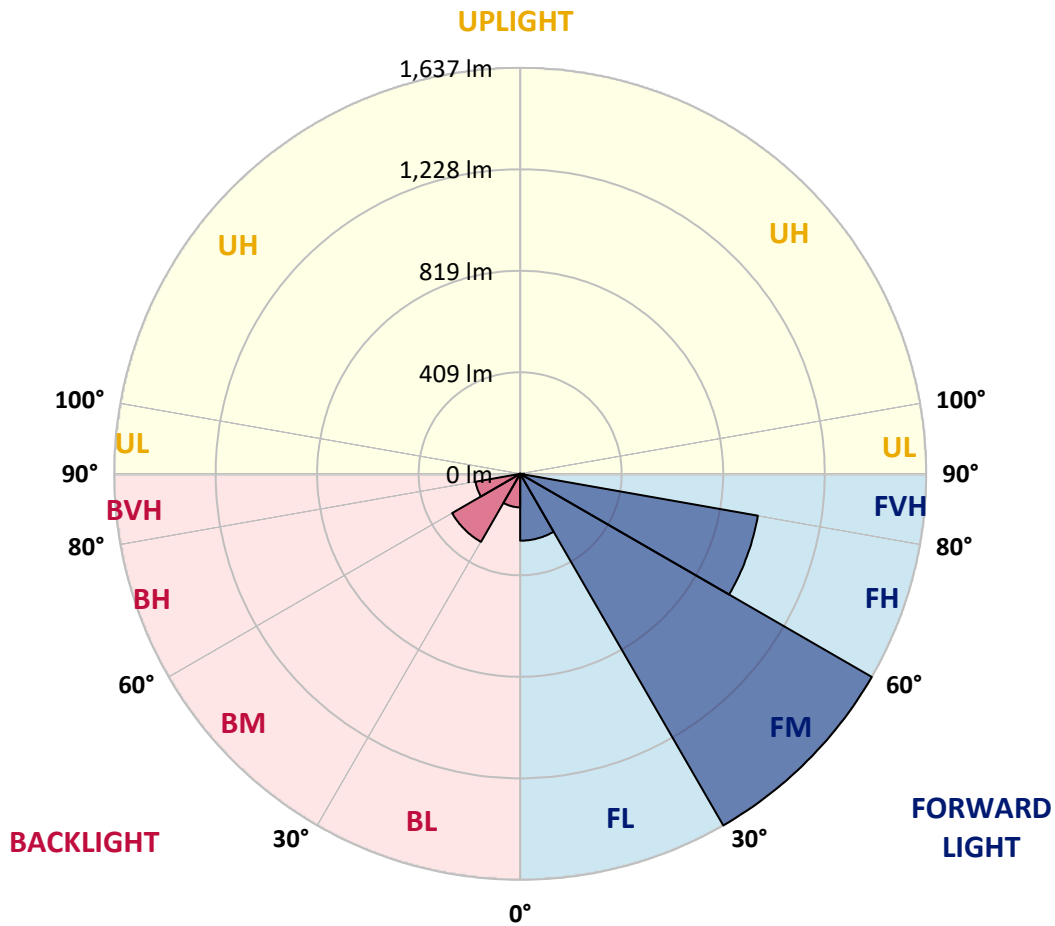
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	269.7	7.6			
FM (30°-60°)	1637.3	46.3			
FH (60°-80°)	973.2	27.5			G1/1800
FVH (80°-90°)	14.5	0.4			G1/100
BL (0°-30°)	135.2	3.8	B1/500		
BM (30°-60°)	316.9	9.0	B1/1000		
BH (60°-80°)	182.8	5.2	B1/500		G1/500
BVH (80°-90°)	5.4	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°	585.6	585.6	585.6	585.6	585.6	585.6	585.6	585.6	585.6	585.6	585.6
2.5°	619.0	622.5	620.5	619.5	617.7	615.2	613.1	606.8	600.1	595.8	594.3
5°	631.4	635.0	634.8	635.8	637.0	637.8	637.3	630.2	620.8	613.4	609.0
7.5°	620.8	624.8	628.1	633.2	642.1	651.5	656.1	654.6	644.9	634.8	629.4
10°	590.5	594.8	602.7	614.6	633.5	653.8	670.9	678.8	672.7	661.5	654.1
12.5°	535.0	539.3	554.8	580.8	612.4	647.7	680.3	701.4	703.0	691.8	683.1
15°	472.6	477.0	493.5	526.1	574.2	630.9	685.4	725.4	738.8	729.2	718.7
17.5°	433.9	437.8	450.2	476.4	526.6	597.3	683.6	750.8	781.6	774.0	761.5
20°	422.2	425.5	431.4	449.7	491.5	562.5	671.9	774.7	827.7	823.3	809.3
22.5°	434.7	437.8	439.5	447.7	473.9	539.6	657.1	799.2	881.1	881.6	864.6
25°	463.5	466.5	464.5	469.6	481.0	532.4	651.5	827.9	948.3	953.9	934.6
27.5°	510.8	511.1	506.2	506.0	507.7	543.1	657.4	858.7	1033.1	1043.5	1019.6
30°	605.7	601.9	583.3	563.2	554.1	575.2	673.7	895.1	1133.1	1151.7	1121.6
32.5°	752.1	746.5	712.4	664.3	615.9	626.9	703.0	936.6	1242.0	1275.6	1239.0
35°	910.9	909.4	873.7	802.2	717.7	700.4	750.6	991.1	1360.9	1414.3	1370.8
37.5°	1058.5	1057.7	1037.4	953.1	850.3	803.0	826.9	1062.3	1488.1	1565.5	1514.1
40°	1193.4	1195.7	1175.3	1100.0	996.4	934.6	930.7	1150.4	1629.6	1730.2	1669.1
42.5°	1310.0	1312.5	1291.9	1236.2	1140.7	1080.1	1058.3	1258.3	1767.8	1907.1	1834.8
45°	1389.1	1404.9	1401.8	1357.3	1288.8	1226.0	1211.5	1393.7	1925.4	2094.6	2009.9
47.5°	1411.5	1426.0	1448.9	1455.0	1413.3	1351.5	1368.8	1556.8	2084.7	2282.5	2186.0
50°	1356.3	1369.8	1417.4	1480.7	1509.8	1490.7	1521.7	1731.7	2247.8	2469.8	2358.8
52.5°	1247.4	1261.1	1321.2	1421.4	1539.8	1599.9	1675.2	1904.0	2405.9	2647.2	2522.5
55°	1089.8	1104.3	1181.4	1295.0	1482.5	1644.9	1803.2	2076.0	2550.7	2806.7	2670.1
57.5°	875.5	886.2	966.4	1125.2	1338.5	1600.1	1897.6	2263.9	2687.1	2963.5	2816.4
60°	570.6	580.0	673.2	850.3	1099.7	1450.5	1916.5	2473.3	2868.3	3167.4	3013.7
62.5°	379.5	385.8	441.1	571.1	774.5	1163.1	1806.3	2640.6	3134.0	3522.2	3351.9
65°	260.4	266.7	322.0	412.6	500.4	769.4	1489.4	2618.4	3374.8	3803.9	3602.6
67.5°	185.8	191.1	238.0	323.5	362.2	446.9	1009.6	2335.4	3340.2	3814.6	3616.1
70°	133.1	136.2	174.8	252.0	287.9	268.5	561.5	1786.2	2924.6	3522.4	3340.7
72.5°	93.2	94.2	121.4	191.9	231.9	196.0	267.2	1190.9	2212.0	2764.8	2589.9
75°	63.1	64.4	81.7	140.7	186.0	149.7	141.5	638.6	1298.5	1530.4	1371.8
77.5°	38.7	39.2	52.7	96.2	139.2	114.0	91.1	270.5	502.4	493.2	420.5
80°	21.9	21.9	33.6	59.8	94.9	73.6	63.9	115.0	159.1	139.7	123.2
82.5°	12.2	12.5	24.4	37.2	62.9	43.5	35.1	53.2	68.7	60.8	52.9
85°	5.1	5.6	15.0	17.6	30.0	21.6	14.3	22.4	25.5	22.7	16.5
87.5°	0.5	0.8	4.6	3.3	3.6	4.3	2.0	4.3	3.6	3.6	2.5
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°	585.6	585.6	585.6	585.6	585.6	585.6	585.6	585.6	585.6	585.6	585.6
2.5°	589.4	585.6	576.0	564.8	550.0	542.9	533.2	526.6	521.0	521.5	516.4
5°	600.9	591.2	569.6	542.6	509.0	485.1	459.6	442.1	427.8	424.8	417.9
7.5°	616.7	601.4	563.5	514.9	458.1	415.1	376.7	352.0	334.4	328.8	323.2
10°	637.0	614.9	555.6	480.0	398.3	343.6	302.4	283.0	271.1	267.0	263.9
12.5°	660.7	630.4	545.2	437.5	336.7	284.0	257.8	248.1	244.3	243.1	242.3
15°	690.5	649.8	529.4	387.1	284.5	247.6	236.4	235.2	235.7	235.2	234.9
17.5°	725.9	670.9	503.7	335.2	249.4	229.1	225.0	226.0	227.3	227.0	226.5
20°	764.6	691.8	470.8	289.1	225.5	215.8	213.5	214.6	215.6	215.1	214.8
22.5°	808.6	714.2	434.5	253.2	209.5	203.6	201.1	201.3	201.3	200.3	199.8
25°	861.3	738.8	396.3	227.8	197.2	192.7	189.6	188.6	187.1	184.0	183.5
27.5°	924.1	765.1	359.6	210.0	187.6	183.2	179.7	177.1	173.3	168.2	167.7
30°	994.9	796.9	328.6	198.8	179.9	175.6	171.5	167.7	162.1	155.8	155.3
32.5°	1078.1	831.0	305.9	191.4	173.1	168.5	163.7	159.1	153.0	146.6	146.9
35°	1177.4	872.2	292.7	186.3	167.7	161.6	156.3	151.2	146.6	141.0	140.5
37.5°	1285.0	916.0	288.6	183.8	164.2	154.7	148.6	145.1	144.6	141.3	141.0
40°	1402.9	967.9	291.7	182.2	160.3	148.1	141.5	140.7	142.0	136.2	136.4
42.5°	1527.6	1029.5	296.8	180.4	155.0	141.5	135.1	135.1	134.1	126.0	126.0
45°	1662.5	1100.5	301.9	176.1	148.6	134.9	130.1	128.3	123.9	116.1	115.8
47.5°	1798.4	1172.8	305.7	168.2	141.0	129.3	125.0	120.9	114.5	107.4	107.1
50°	1927.4	1237.7	301.6	156.5	132.3	123.9	119.4	113.8	106.9	102.1	101.3
52.5°	2042.7	1293.9	284.3	142.8	123.2	118.3	114.3	108.4	102.8	97.7	97.2
55°	2143.0	1339.5	253.7	129.8	115.0	113.5	109.4	102.1	94.4	90.1	89.6
57.5°	2239.2	1374.1	215.6	119.1	107.7	108.2	102.1	95.4	88.3	83.7	83.2
60°	2367.2	1420.4	176.9	109.2	99.8	101.3	94.7	89.8	80.9	75.1	74.3
62.5°	2571.8	1492.5	140.5	97.0	90.6	91.1	88.3	82.5	71.8	64.9	64.4
65°	2734.2	1466.0	110.7	83.7	80.2	80.9	80.9	74.6	63.1	55.2	54.5
67.5°	2715.9	1255.2	88.3	70.8	70.2	70.8	72.5	67.2	56.0	49.6	48.6
70°	2501.8	998.4	70.8	58.8	61.1	59.8	64.9	61.3	50.4	44.0	43.3
72.5°	2041.4	719.2	54.0	48.6	46.8	48.9	58.5	55.2	42.0	34.9	34.1
75°	1192.9	383.8	40.2	38.4	33.8	40.7	51.9	47.1	32.1	25.7	24.9
77.5°	388.4	133.9	29.5	28.3	25.2	32.8	44.3	39.7	26.2	20.4	19.6
80°	104.1	40.5	20.1	18.6	16.3	24.4	35.1	31.6	18.8	13.2	13.0
82.5°	41.7	17.1	11.7	10.4	8.9	16.8	27.7	25.5	14.0	8.4	8.4
85°	13.5	5.6	4.3	3.3	4.1	10.4	16.5	17.3	9.9	4.3	3.3
87.5°	1.8	0.8	0.8	1.0	0.8	1.8	5.1	4.8	2.8	0.5	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)