

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: P881606

Luminaire Tested: **NAV-SB1A-830-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881606
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-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 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: 2869 lumens
Efficiency: N/A
Efficacy: 92.8 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

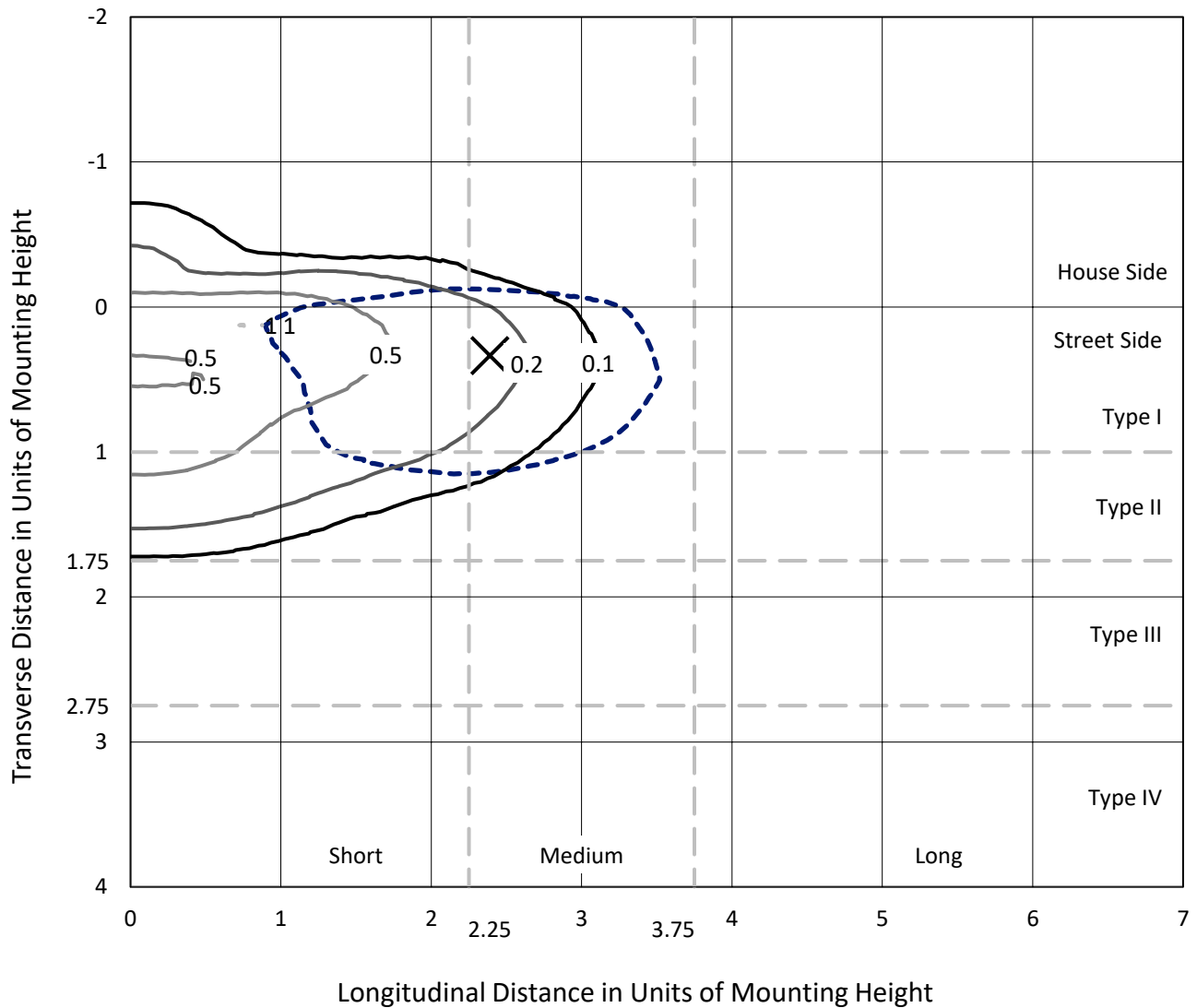
Input Watts (W): 30.9
Input Voltage (V): 120.0
Input Current (Ain): 0.263
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 6.356
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P881606
 CATALOG NUMBER: NAV-SB1A-830-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

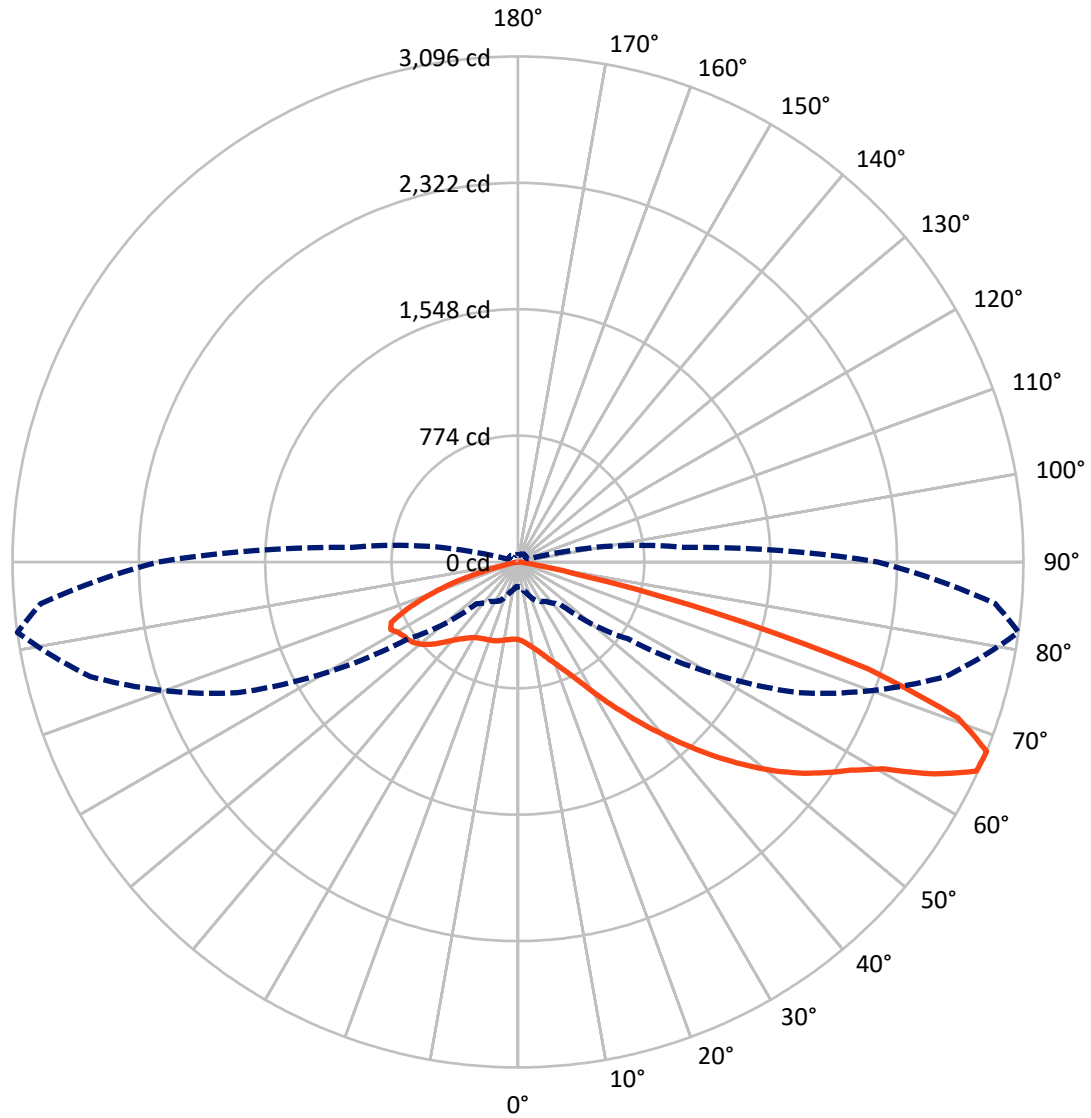
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type II - Medium - N/A

REPORT NUMBER: P881606
CATALOG NUMBER: NAV-SB1A-830-U-T2-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P881606
 CATALOG NUMBER: NAV-SB1A-830-U-T2-HSS

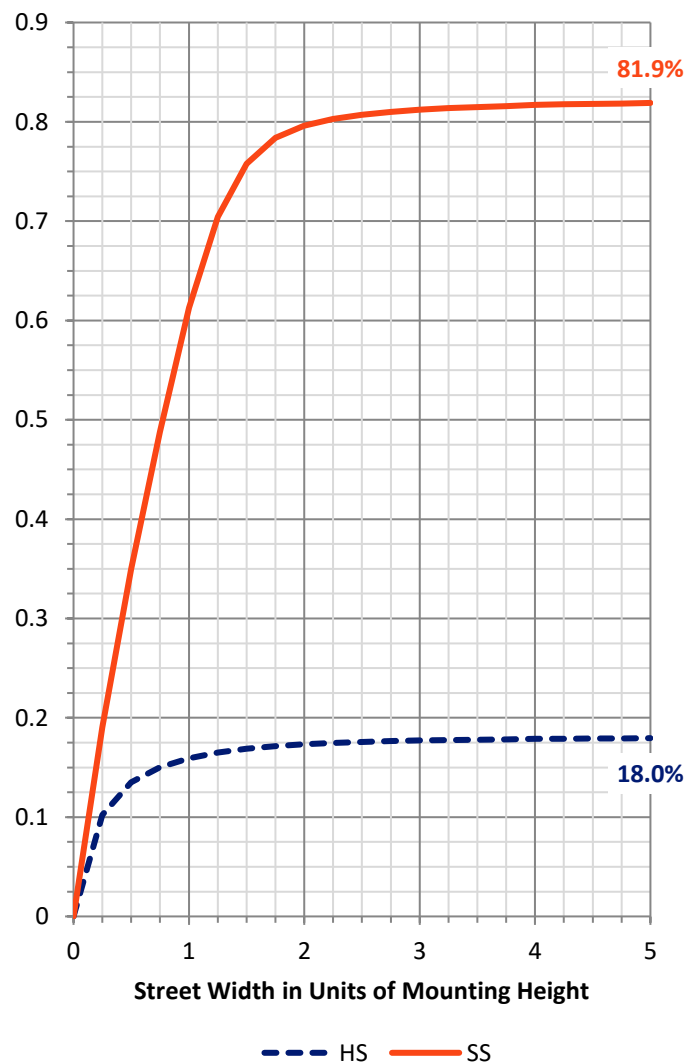
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	519.7	0.0	519.7
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	2349.3	0.0	2349.3
	% Fixture	81.9	0.0	81.9
Total	Lumens	2869.0	0.0	2869.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.3	1.5
10°-20°	110.0	3.8
20°-30°	176.2	6.1
30°-40°	311.7	10.9
40°-50°	546.1	19.0
50°-60°	728.3	25.4
60°-70°	678.0	23.6
70°-80°	260.2	9.1
80°-90°	16.2	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°	2869.0	100.0
0°-180°	2869.0	100.0

Coefficient of Utilization



REPORT NUMBER: P881606

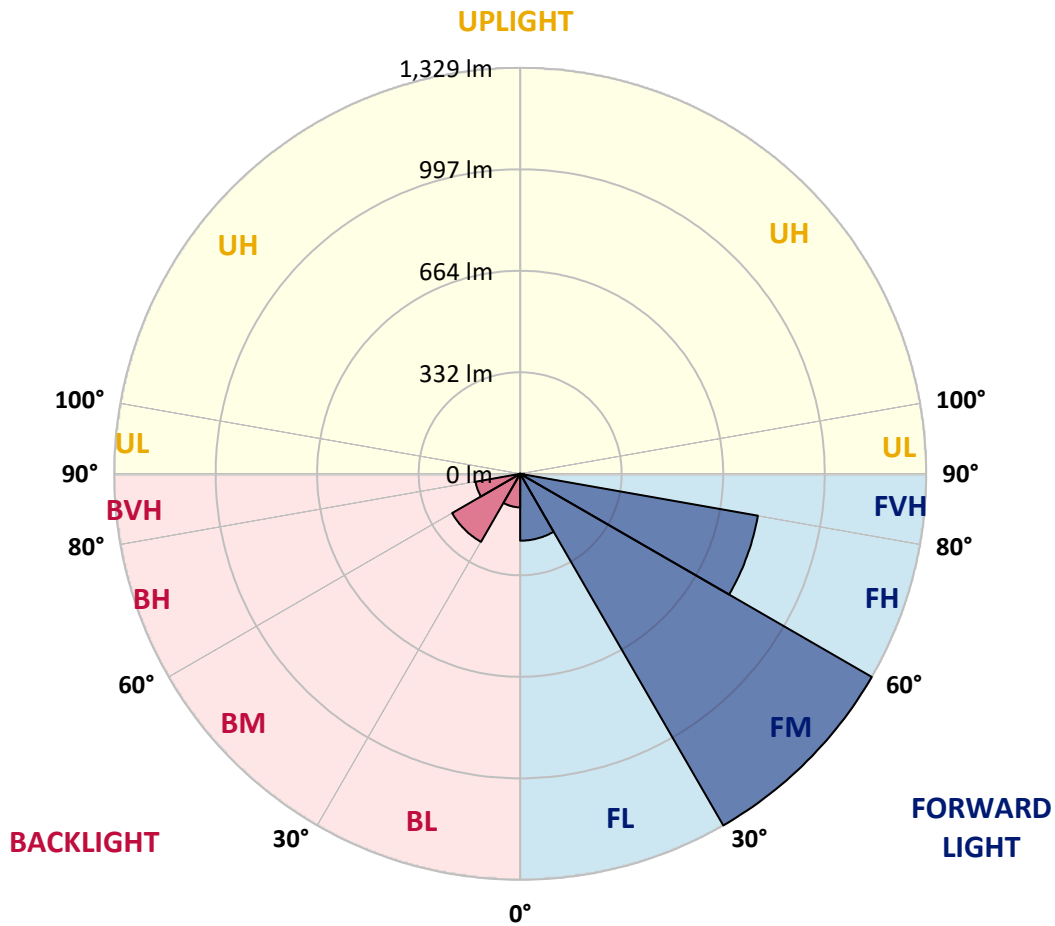
CATALOG NUMBER: NAV-SB1A-830-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	218.9	7.6			
FM (30°-60°)	1328.8	46.3			
FH (60°-80°)	789.9	27.5			G1/1800
FVH (80°-90°)	11.8	0.4			G1/100
BL (0°-30°)	109.8	3.8	B0/110		
BM (30°-60°)	257.2	9.0	B1/1000		
BH (60°-80°)	148.3	5.2	B1/500		G1/500
BVH (80°-90°)	4.4	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



REPORT NUMBER: P881606
 CATALOG NUMBER: NAV-SB1A-830-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	475.3	475.3	475.3	475.3	475.3	475.3	475.3	475.3	475.3	475.3	475.3
2.5°	502.4	505.2	503.6	502.8	501.3	499.3	497.6	492.4	487.1	483.6	482.3
5°	512.5	515.4	515.2	516.0	517.0	517.6	517.2	511.4	503.8	497.8	494.3
7.5°	503.8	507.1	509.8	513.9	521.2	528.8	532.5	531.3	523.4	515.2	510.8
10°	479.2	482.7	489.1	498.8	514.1	530.7	544.5	550.9	545.9	536.9	530.9
12.5°	434.2	437.7	450.3	471.4	497.0	525.7	552.1	569.3	570.5	561.4	554.4
15°	383.6	387.1	400.5	427.0	466.0	512.1	556.3	588.7	599.6	591.8	583.3
17.5°	352.2	355.3	365.4	386.7	427.4	484.8	554.8	609.4	634.3	628.2	618.0
20°	342.7	345.4	350.1	365.0	398.9	456.5	545.3	628.8	671.7	668.2	656.9
22.5°	352.8	355.3	356.7	363.3	384.6	437.9	533.3	648.6	715.1	715.5	701.7
25°	376.1	378.6	377.0	381.1	390.4	432.1	528.8	671.9	769.6	774.2	758.5
27.5°	414.6	414.8	410.8	410.6	412.1	440.8	533.5	696.9	838.4	846.9	827.5
30°	491.6	488.5	473.4	457.1	449.7	466.8	546.8	726.5	919.6	934.7	910.3
32.5°	610.4	605.8	578.2	539.1	499.9	508.8	570.5	760.1	1008.0	1035.3	1005.5
35°	739.3	738.0	709.1	651.1	582.5	568.5	609.1	804.3	1104.5	1147.9	1112.5
37.5°	859.1	858.5	841.9	773.6	690.1	651.7	671.1	862.2	1207.8	1270.6	1228.8
40°	968.6	970.4	953.9	892.8	808.7	758.5	755.4	933.7	1322.6	1404.2	1354.6
42.5°	1063.2	1065.2	1048.5	1003.3	925.8	876.6	858.9	1021.2	1434.8	1547.8	1489.1
45°	1127.4	1140.2	1137.7	1101.6	1046.0	995.0	983.2	1131.1	1562.6	1700.0	1631.2
47.5°	1145.6	1157.4	1176.0	1180.9	1147.0	1096.8	1110.9	1263.5	1691.9	1852.4	1774.1
50°	1100.8	1111.7	1150.3	1201.8	1225.3	1209.8	1235.0	1405.4	1824.3	2004.5	1914.4
52.5°	1012.4	1023.5	1072.3	1153.6	1249.7	1298.4	1359.6	1545.3	1952.6	2148.4	2047.2
55°	884.5	896.3	958.9	1051.0	1203.2	1335.0	1463.5	1684.9	2070.2	2278.0	2167.0
57.5°	710.6	719.2	784.3	913.2	1086.3	1298.6	1540.1	1837.4	2180.9	2405.2	2285.8
60°	463.1	470.8	546.4	690.1	892.5	1177.2	1555.4	2007.4	2327.9	2570.6	2445.9
62.5°	308.0	313.1	358.0	463.5	628.6	944.0	1466.0	2143.1	2543.6	2858.6	2720.4
65°	211.3	216.5	261.3	334.8	406.1	624.4	1208.8	2125.1	2739.0	3087.3	2923.9
67.5°	150.8	155.1	193.1	262.5	293.9	362.7	819.4	1895.4	2710.9	3095.9	2934.8
70°	108.0	110.5	141.9	204.5	233.6	217.9	455.7	1449.6	2373.6	2858.8	2711.3
72.5°	75.6	76.4	98.5	155.7	188.2	159.1	216.9	966.5	1795.2	2243.9	2102.0
75°	51.2	52.3	66.3	114.2	151.0	121.5	114.8	518.3	1053.9	1242.0	1113.4
77.5°	31.4	31.8	42.8	78.1	113.0	92.5	73.9	219.6	407.8	400.3	341.2
80°	17.8	17.8	27.3	48.5	77.0	59.7	51.8	93.4	129.1	113.4	100.0
82.5°	9.9	10.1	19.8	30.2	51.0	35.3	28.5	43.2	55.8	49.4	43.0
85°	4.1	4.5	12.2	14.3	24.4	17.6	11.6	18.2	20.7	18.4	13.4
87.5°	0.4	0.6	3.7	2.7	2.9	3.5	1.7	3.5	2.9	2.9	2.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P881606
 CATALOG NUMBER: NAV-SB1A-830-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	475.3	475.3	475.3	475.3	475.3	475.3	475.3	475.3	475.3	475.3	475.3
2.5°	478.4	475.3	467.4	458.4	446.4	440.6	432.7	427.4	422.8	423.2	419.1
5°	487.7	479.8	462.3	440.4	413.1	393.7	373.0	358.8	347.2	344.7	339.2
7.5°	500.5	488.1	457.3	417.9	371.8	336.9	305.7	285.7	271.4	266.9	262.3
10°	517.0	499.1	450.9	389.6	323.3	278.9	245.4	229.7	220.0	216.7	214.2
12.5°	536.2	511.7	442.5	355.1	273.3	230.5	209.2	201.4	198.3	197.3	196.6
15°	560.4	527.3	429.6	314.2	230.9	201.0	191.9	190.9	191.3	190.9	190.7
17.5°	589.1	544.5	408.8	272.0	202.4	185.9	182.6	183.4	184.5	184.3	183.8
20°	620.5	561.4	382.1	234.7	183.0	175.2	173.3	174.1	175.0	174.5	174.3
22.5°	656.2	579.6	352.6	205.5	170.0	165.2	163.2	163.4	163.4	162.6	162.2
25°	699.0	599.6	321.6	184.9	160.1	156.4	153.9	153.1	151.8	149.3	148.9
27.5°	750.0	620.9	291.9	170.4	152.2	148.7	145.8	143.8	140.7	136.5	136.1
30°	807.4	646.7	266.7	161.3	146.0	142.5	139.2	136.1	131.6	126.4	126.0
32.5°	875.0	674.4	248.3	155.3	140.5	136.7	132.8	129.1	124.1	119.0	119.2
35°	955.5	707.9	237.5	151.2	136.1	131.2	126.8	122.7	119.0	114.4	114.0
37.5°	1042.9	743.4	234.2	149.1	133.2	125.6	120.6	117.7	117.3	114.6	114.4
40°	1138.6	785.6	236.7	147.9	130.1	120.2	114.8	114.2	115.3	110.5	110.7
42.5°	1239.8	835.5	240.8	146.5	125.8	114.8	109.7	109.7	108.9	102.2	102.2
45°	1349.3	893.2	245.0	142.9	120.6	109.5	105.6	104.1	100.6	94.2	94.0
47.5°	1459.6	951.8	248.1	136.5	114.4	104.9	101.4	98.1	93.0	87.2	87.0
50°	1564.3	1004.5	244.8	127.0	107.4	100.6	96.9	92.3	86.8	82.8	82.2
52.5°	1657.9	1050.2	230.7	115.9	100.0	96.1	92.7	88.0	83.5	79.3	78.9
55°	1739.2	1087.1	205.9	105.3	93.4	92.1	88.8	82.8	76.6	73.1	72.7
57.5°	1817.3	1115.2	175.0	96.7	87.4	87.8	82.8	77.5	71.7	68.0	67.5
60°	1921.2	1152.8	143.6	88.6	81.0	82.2	76.8	72.9	65.7	60.9	60.3
62.5°	2087.3	1211.3	114.0	78.7	73.5	73.9	71.7	66.9	58.3	52.7	52.3
65°	2219.1	1189.8	89.9	68.0	65.1	65.7	65.7	60.5	51.2	44.8	44.2
67.5°	2204.2	1018.8	71.7	57.4	57.0	57.4	58.9	54.5	45.4	40.3	39.5
70°	2030.5	810.3	57.4	47.7	49.6	48.5	52.7	49.8	40.9	35.7	35.1
72.5°	1656.8	583.7	43.8	39.5	38.0	39.7	47.5	44.8	34.1	28.3	27.7
75°	968.2	311.5	32.6	31.2	27.5	33.0	42.1	38.2	26.0	20.9	20.2
77.5°	315.2	108.7	24.0	22.9	20.4	26.6	35.9	32.2	21.3	16.5	15.9
80°	84.5	32.8	16.3	15.1	13.2	19.8	28.5	25.6	15.3	10.7	10.5
82.5°	33.9	13.8	9.5	8.5	7.2	13.6	22.5	20.7	11.4	6.8	6.8
85°	10.9	4.5	3.5	2.7	3.3	8.5	13.4	14.0	8.1	3.5	2.7
87.5°	1.4	0.6	0.6	0.8	0.6	1.4	4.1	3.9	2.3	0.4	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)