

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: P959453

Luminaire Tested: **NAV-SB1A-830-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959453
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1A-830-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE II ROADWAY
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3499.3 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B0 - U0 - G1

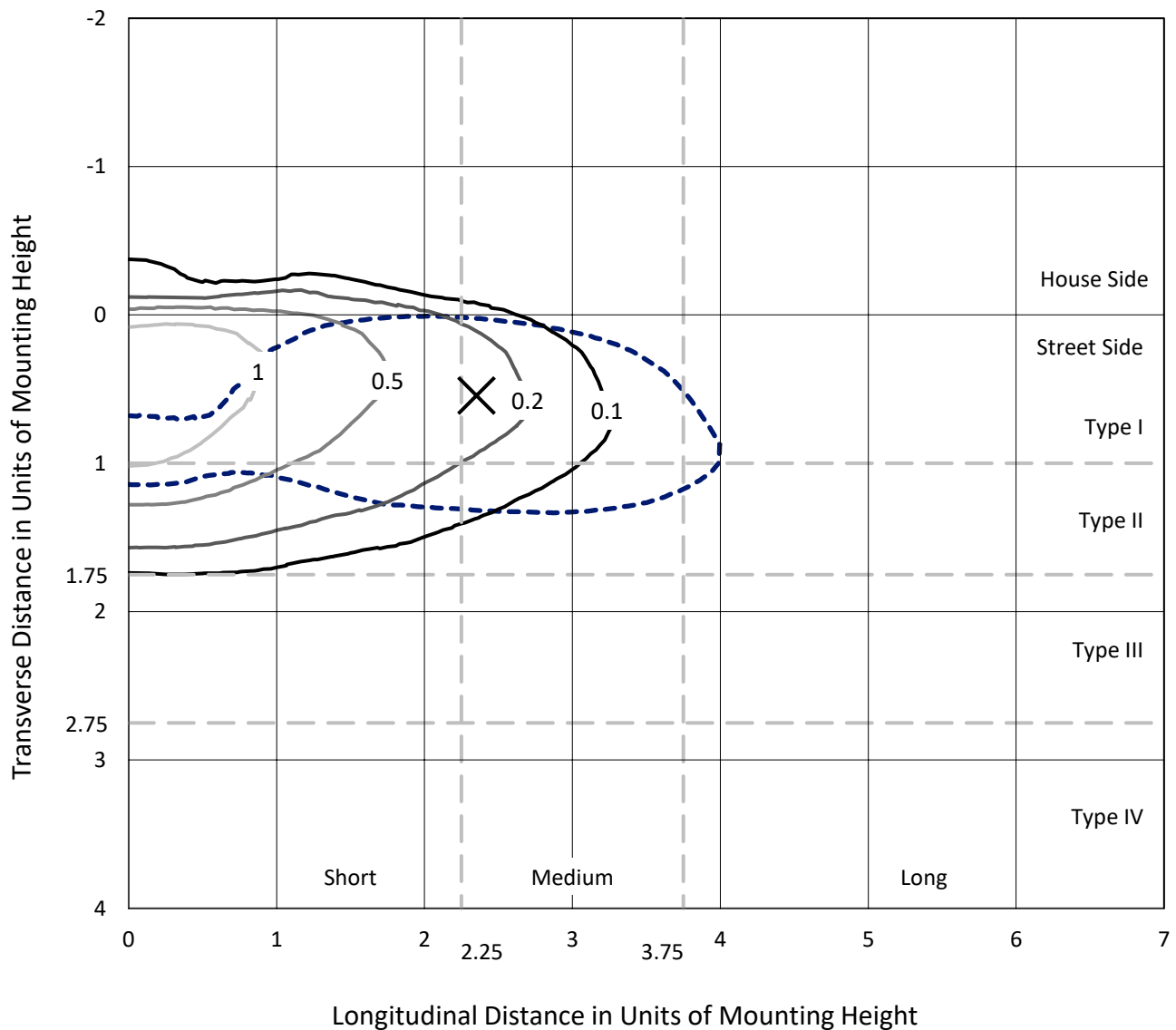
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P959453
CATALOG NUMBER: NAV-SB1A-830-U-T2R-HSS

Iso-Footcandle Lines of Horizontal Illumination

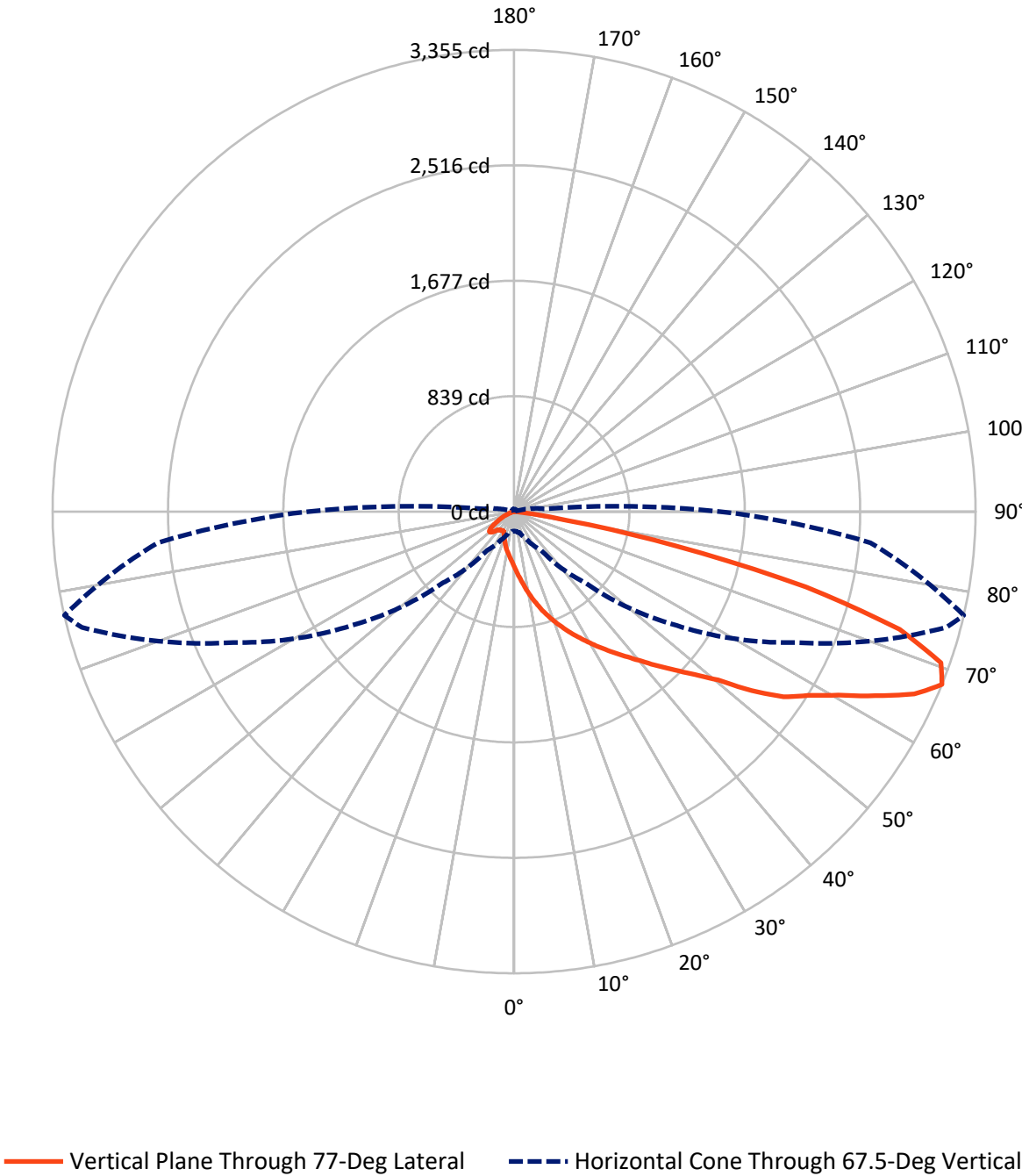
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc
Type II - Medium - N/A

REPORT NUMBER: P959453
CATALOG NUMBER: NAV-SB1A-830-U-T2R-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P959453

CATALOG NUMBER: NAV-SB1A-830-U-T2R-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	257.4	0.0	257.4
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	3241.9	0.0	3241.9
	% Fixture	92.6	0.0	92.6
Total	Lumens	3499.3	0.0	3499.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.2	1.2
10°-20°	144.2	4.1
20°-30°	278.3	8.0
30°-40°	483.2	13.8
40°-50°	701.6	20.0
50°-60°	805.7	23.0
60°-70°	699.5	20.0
70°-80°	329.5	9.4
80°-90°	16.3	0.5
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°	3499.3	100.0
0°-180°	3499.3	100.0

Coefficient of Utilization



REPORT NUMBER: P959453

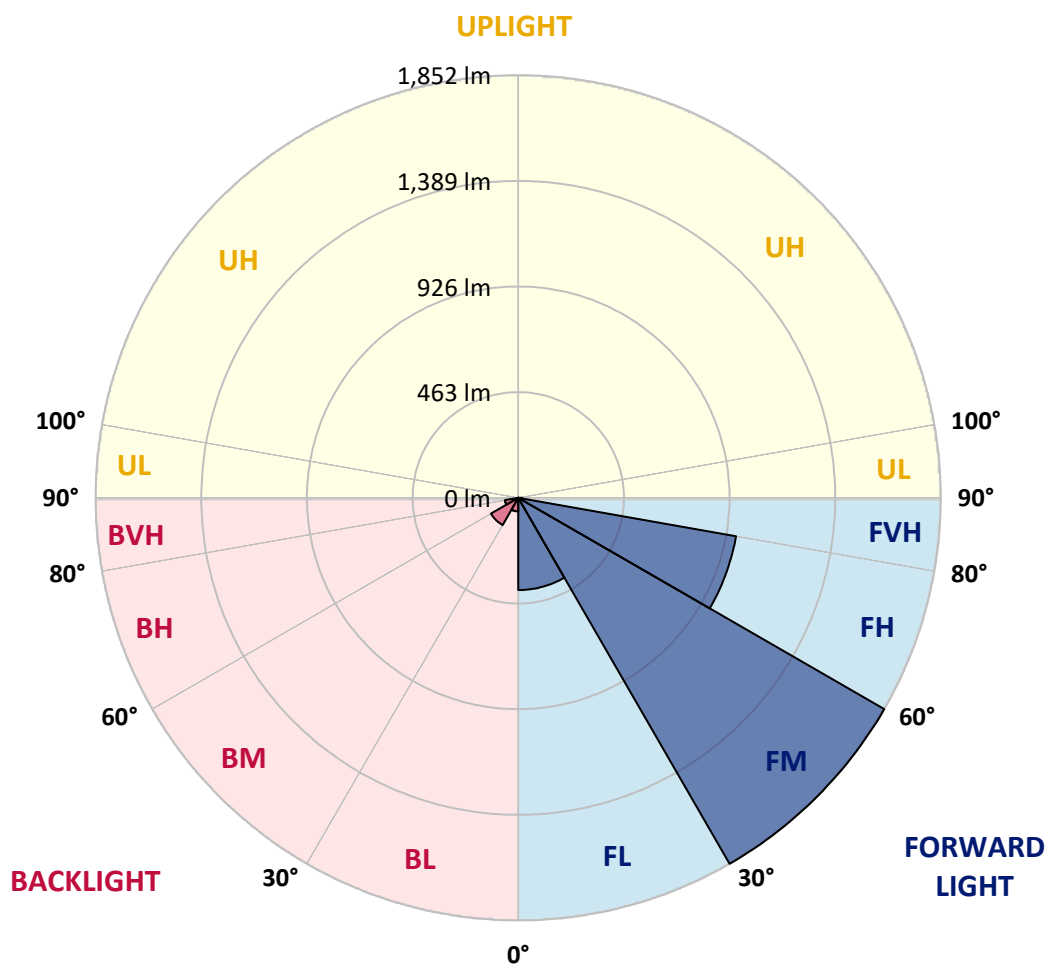
CATALOG NUMBER: NAV-SB1A-830-U-T2R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	404.1	11.5			
FM	(30°-60°)	1852.5	52.9			
FH	(60°-80°)	969.3	27.7			G1/1800
FVH	(80°-90°)	16.0	0.5			G1/100
BL	(0°-30°)	59.6	1.7	B0/110		
BM	(30°-60°)	137.9	3.9	B0/220		
BH	(60°-80°)	59.6	1.7	B0/110		G0/110
BVH	(80°-90°)	0.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium



REPORT NUMBER: P959453

CATALOG NUMBER: NAV-SB1A-830-U-T2R-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5
2.5°	558.7	562.1	557.2	547.6	533.2	523.9	501.1	479.6	455.7	448.0	424.1
5°	681.0	684.1	678.4	668.0	648.8	630.6	600.6	555.7	508.9	493.9	451.5
7.5°	771.6	773.4	771.2	761.7	743.4	722.7	689.3	636.0	566.7	550.2	485.2
10°	836.8	842.4	841.8	838.1	825.9	809.2	773.6	713.0	631.5	610.2	523.3
12.5°	880.1	886.3	890.1	898.3	897.7	887.0	855.8	791.6	696.0	671.1	566.1
15°	892.7	899.4	913.5	932.6	949.6	955.0	933.1	868.8	767.1	735.1	610.0
17.5°	885.5	896.0	912.9	943.1	980.2	1004.8	1002.4	943.3	831.6	795.1	653.0
20°	901.4	911.3	924.7	950.1	993.3	1037.8	1055.6	1014.5	895.7	857.5	698.2
22.5°	989.1	987.4	988.7	992.8	1018.7	1062.8	1099.5	1079.3	959.2	920.0	746.0
25°	1128.2	1120.4	1107.1	1084.8	1078.2	1099.5	1137.8	1136.7	1026.1	984.1	794.9
27.5°	1287.7	1286.4	1255.3	1201.4	1171.1	1162.8	1181.0	1192.6	1092.3	1047.7	844.0
30°	1440.4	1443.9	1402.0	1342.0	1286.2	1253.8	1237.3	1245.6	1159.7	1116.0	894.6
32.5°	1573.5	1577.2	1531.6	1461.3	1392.3	1353.1	1318.4	1298.0	1233.2	1185.6	950.3
35°	1685.8	1689.5	1637.1	1559.5	1485.9	1450.5	1411.1	1355.3	1307.1	1262.7	1012.2
37.5°	1786.2	1785.1	1714.9	1636.7	1564.4	1536.3	1515.7	1425.9	1383.1	1340.3	1080.9
40°	1845.5	1850.1	1790.2	1703.9	1633.6	1613.2	1611.9	1513.5	1470.9	1429.4	1156.0
42.5°	1862.9	1870.9	1827.5	1756.6	1693.0	1670.9	1705.0	1608.2	1573.1	1532.6	1241.0
45°	1831.6	1839.5	1819.7	1770.6	1733.4	1719.0	1784.9	1706.4	1682.1	1642.2	1336.8
47.5°	1740.3	1750.1	1754.9	1744.4	1744.0	1758.6	1856.6	1809.8	1811.6	1770.8	1447.9
50°	1563.7	1580.2	1624.1	1661.0	1718.2	1789.9	1926.4	1922.0	1957.6	1922.5	1592.5
52.5°	1242.5	1266.0	1417.3	1518.2	1646.7	1784.0	2003.1	2102.0	2213.9	2162.3	1796.6
55°	998.5	998.5	1121.5	1310.6	1507.2	1745.4	2036.6	2218.8	2388.4	2376.2	1940.2
57.5°	814.1	823.8	902.2	1069.4	1305.3	1653.2	2057.2	2292.3	2529.0	2520.1	2080.6
60°	502.4	523.5	671.7	836.6	1075.6	1489.1	2044.2	2366.6	2699.5	2706.7	2249.7
62.5°	282.9	290.8	356.8	601.9	836.4	1268.6	1944.4	2408.1	2917.7	2948.1	2424.0
65°	195.4	199.3	224.7	374.6	579.7	1010.0	1749.5	2382.3	3136.3	3197.8	2571.7
67.5°	141.9	143.8	159.7	228.8	344.0	732.3	1443.9	2251.9	3252.1	3354.9	2600.0
70°	109.1	110.4	121.9	150.4	203.2	452.0	1048.7	1992.6	3168.3	3291.0	2455.3
72.5°	88.7	90.0	98.9	111.2	134.7	267.3	635.6	1618.3	2797.9	2930.5	2090.2
75°	74.7	76.5	84.6	92.6	105.6	171.7	298.2	1126.9	2104.1	2191.0	1453.6
77.5°	41.5	38.2	68.7	76.7	89.1	108.6	139.5	663.2	1178.4	1202.5	644.9
80°	25.8	26.8	54.5	61.7	68.5	54.7	63.9	255.3	408.6	388.1	124.9
82.5°	1.5	3.5	41.9	44.6	46.9	23.5	24.1	86.7	98.4	90.4	22.1
85°	0.0	0.0	19.2	15.5	16.3	6.8	7.0	20.2	13.2	14.3	4.3
87.5°	0.0	0.0	0.0	0.4	0.0	0.6	1.3	1.7	0.6	0.8	1.5
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: P959453

CATALOG NUMBER: NAV-SB1A-830-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5	403.5
2.5°	409.0	393.7	362.8	332.7	308.1	285.4	269.1	253.6	245.8	245.3	244.9
5°	421.4	389.4	327.7	273.2	229.3	194.0	171.3	155.0	146.7	143.8	143.4
7.5°	438.7	390.7	296.8	221.0	169.2	139.1	126.1	120.8	119.1	117.2	116.6
10°	460.6	393.7	269.3	177.9	133.5	118.2	113.0	110.8	109.5	108.2	107.8
12.5°	485.2	396.6	241.9	147.8	117.4	109.5	105.8	103.2	101.5	99.9	99.5
15°	509.1	398.3	213.4	126.7	109.1	102.8	98.9	96.0	93.7	91.9	91.7
17.5°	532.8	400.7	186.7	114.1	102.4	96.0	92.1	88.7	86.7	84.8	84.6
20°	559.1	400.3	161.4	105.2	95.6	89.3	85.2	81.9	79.9	77.8	77.6
22.5°	583.4	398.1	139.3	97.6	88.7	82.6	78.0	74.7	72.8	71.0	70.8
25°	611.5	396.4	120.8	90.6	82.1	76.1	71.0	68.1	65.8	64.4	64.1
27.5°	638.5	393.7	107.3	84.4	75.8	70.0	65.2	61.7	59.8	58.6	58.6
30°	664.9	393.1	102.4	78.2	70.2	64.4	59.6	56.3	54.7	54.3	54.1
32.5°	696.9	394.8	104.6	76.1	65.0	59.1	54.5	52.2	50.6	50.6	50.6
35°	731.0	394.4	107.8	78.0	61.5	53.9	50.4	48.9	47.4	47.4	47.4
37.5°	773.8	395.0	110.4	81.3	60.2	49.5	47.6	45.6	44.8	44.8	44.8
40°	837.7	416.6	109.1	84.0	59.8	46.5	42.6	41.9	41.3	41.3	41.3
42.5°	915.9	463.3	110.8	84.4	59.6	44.3	39.2	40.4	38.8	38.6	38.4
45°	1001.5	514.3	121.9	79.7	59.3	43.3	37.4	38.8	36.5	36.5	36.5
47.5°	1086.5	565.0	133.2	73.2	58.6	43.0	35.9	35.0	34.3	34.5	34.5
50°	1203.7	606.3	137.6	64.4	57.2	42.6	33.0	33.2	32.8	33.2	33.2
52.5°	1331.2	615.0	132.3	54.3	52.8	41.3	31.1	32.0	31.8	32.2	32.2
55°	1410.7	605.6	109.3	45.2	46.0	36.1	29.1	30.9	30.9	30.9	30.9
57.5°	1492.8	565.8	77.6	36.7	38.2	29.5	27.4	29.7	29.5	29.3	29.3
60°	1552.0	501.5	51.0	30.2	30.4	24.3	25.4	28.0	27.8	26.8	26.8
62.5°	1596.0	430.5	32.8	25.6	23.3	21.9	23.3	25.4	24.6	22.1	21.7
65°	1591.1	332.0	25.2	21.9	19.2	19.2	20.2	22.1	19.6	15.7	15.2
67.5°	1498.2	224.7	20.9	18.4	16.1	15.9	16.7	18.4	16.7	13.2	12.8
70°	1332.5	146.9	16.7	14.3	12.8	11.7	13.4	15.9	14.1	10.7	10.2
72.5°	1081.5	89.5	12.6	10.5	9.3	7.6	10.7	13.0	11.3	7.8	7.4
75°	699.7	45.6	8.7	6.8	5.0	4.6	7.8	9.7	7.8	4.8	4.1
77.5°	267.7	19.2	4.8	3.1	2.6	2.2	4.3	5.8	3.3	1.1	0.8
80°	51.5	8.0	2.4	1.5	1.3	0.8	0.6	0.4	0.0	0.0	0.0
82.5°	8.9	2.6	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)