

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: P197282

Luminaire Tested: **NAV-AF-02-D-UNV-T3R-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197282
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-02-D-UNV-T3R-8030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6661 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 66
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: 25 FT

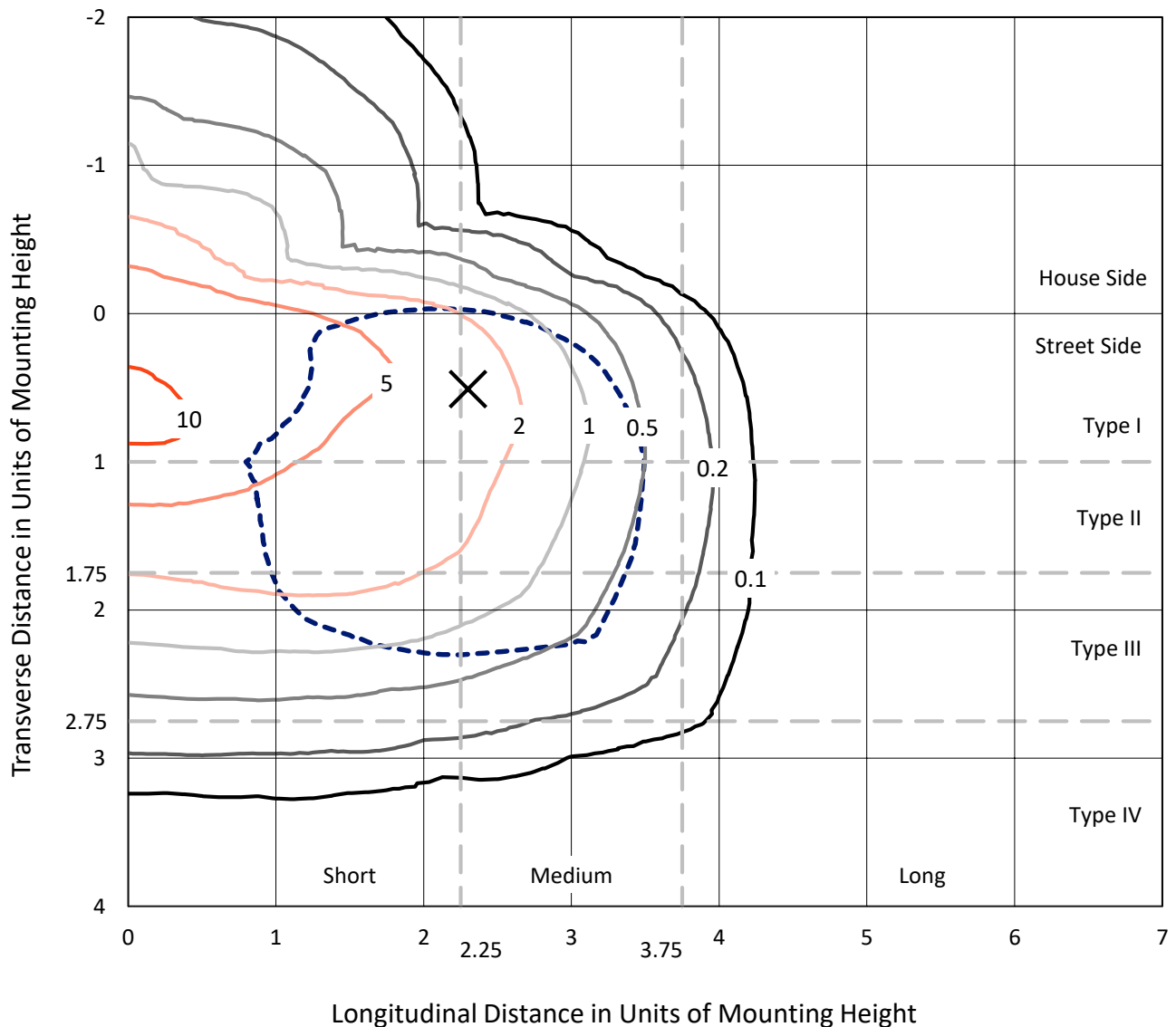


REPORT NUMBER: P197282

CATALOG NUMBER: NAV-AF-02-D-UNV-T3R-8030-600

Iso-Footcandle Lines of Horizontal Illumination

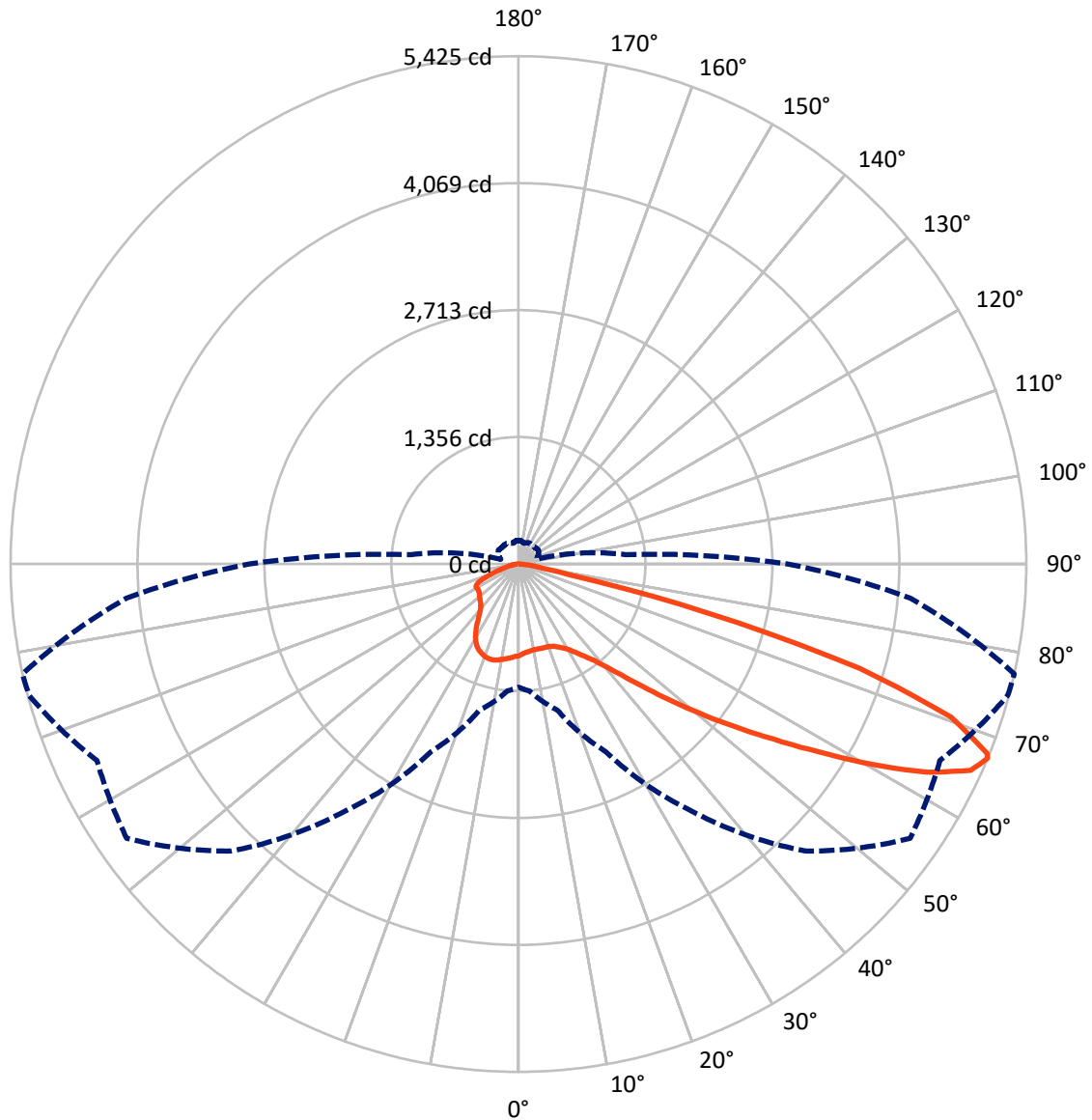
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.8 fc
 Type III - Medium - Full Cutoff

REPORT NUMBER: P197282
CATALOG NUMBER: NAV-AF-02-D-UNV-T3R-8030-600

Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P197282

CATALOG NUMBER: NAV-AF-02-D-UNV-T3R-8030-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1144.7	0.0	1144.7
	% Fixture	17.2	0.0	17.2
Street Side	Lumens	5516.3	0.0	5516.3
	% Fixture	82.8	0.0	82.8
Total	Lumens	6661.0	0.0	6661.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.3	1.3
10°-20°	241.8	3.6
20°-30°	410.8	6.2
30°-40°	657.2	9.9
40°-50°	1011.8	15.2
50°-60°	1403.8	21.1
60°-70°	1872.6	28.1
70°-80°	891.2	13.4
80°-90°	84.4	1.3
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°	6661.0	100.0
0°-180°	6661.0	100.0



REPORT NUMBER: P197282

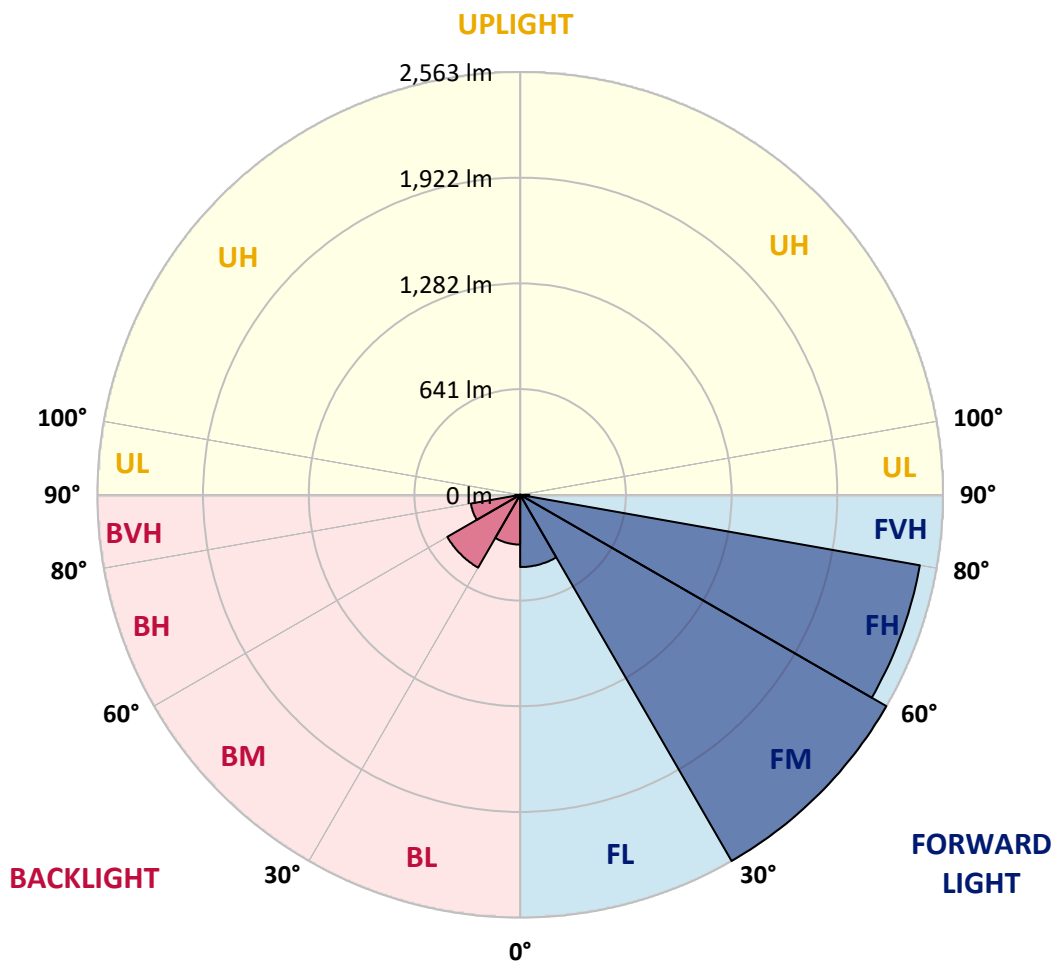
CATALOG NUMBER: NAV-AF-02-D-UNV-T3R-8030-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	438.0	6.6			
FM	(30°-60°)	2563.2	38.5			
FH	(60°-80°)	2460.3	36.9			G2/5000
FVH	(80°-90°)	54.8	0.8			G1/100
BL	(0°-30°)	301.9	4.5	B1/500		
BM	(30°-60°)	509.7	7.7	B1/1000		
BH	(60°-80°)	303.5	4.6	B1/500		G1/500
BVH	(80°-90°)	29.6	0.4			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 III Medium





REPORT NUMBER: P197282

CATALOG NUMBER: NAV-AF-02-D-UNV-T3R-8030-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	980.3	980.3	980.3	980.3	980.3	980.3	980.3	980.3	980.3	980.3	980.3
2.5°	879.0	883.2	883.6	895.5	900.9	914.4	929.3	942.4	954.0	958.1	965.5
5°	790.9	790.9	792.2	800.0	815.2	837.0	867.9	901.7	937.1	945.7	967.6
7.5°	744.8	745.6	746.5	754.3	766.2	785.6	816.5	862.6	921.4	935.9	974.1
10°	748.9	747.7	743.6	741.9	746.9	759.2	786.0	833.3	908.3	930.5	986.1
12.5°	813.6	811.1	797.5	777.8	759.6	755.1	773.6	818.5	902.1	930.5	1006.3
15°	924.3	926.0	899.2	858.0	810.7	778.6	776.1	813.2	900.0	933.0	1029.7
17.5°	1068.4	1069.3	1032.2	972.5	893.9	827.6	793.0	813.2	900.0	935.4	1052.4
20°	1221.6	1215.8	1173.8	1098.9	996.8	895.5	823.9	818.1	902.5	939.2	1073.8
22.5°	1352.9	1347.6	1303.5	1224.9	1108.0	975.8	865.5	834.6	916.1	954.4	1103.8
25°	1467.8	1471.1	1428.3	1339.8	1218.7	1066.4	927.6	872.5	944.5	982.0	1140.9
27.5°	1607.4	1601.2	1551.8	1467.4	1332.8	1160.2	1005.4	920.2	978.3	1015.3	1186.2
30°	1768.8	1765.9	1699.2	1612.3	1458.3	1265.2	1082.4	971.7	1022.3	1061.0	1243.0
32.5°	1964.8	1964.4	1892.7	1786.1	1599.6	1383.8	1173.4	1042.1	1086.5	1125.7	1318.4
35°	2186.7	2186.3	2112.2	1971.4	1762.2	1515.2	1280.5	1127.7	1166.0	1207.2	1408.1
37.5°	2340.7	2338.2	2299.5	2162.8	1942.1	1667.9	1414.3	1243.0	1256.2	1302.3	1516.4
40°	2370.3	2385.1	2418.5	2337.8	2138.5	1837.5	1548.5	1366.9	1379.3	1438.6	1652.7
42.5°	2338.2	2357.6	2468.3	2491.0	2334.9	2043.0	1716.5	1538.6	1554.3	1628.0	1812.8
45°	2310.2	2327.1	2465.8	2575.8	2528.8	2267.0	1926.1	1748.2	1777.8	1869.2	1995.6
47.5°	2262.4	2278.1	2417.3	2591.0	2639.6	2482.7	2178.5	2000.2	2051.2	2162.0	2204.0
50°	2260.0	2267.0	2351.0	2539.9	2677.9	2646.6	2458.0	2295.0	2373.2	2500.8	2434.5
52.5°	2197.4	2246.4	2322.6	2458.4	2678.7	2742.1	2733.5	2618.2	2738.8	2880.0	2687.3
55°	1814.5	1870.9	2227.9	2418.5	2673.8	2824.0	2985.0	2962.0	3150.5	3299.2	2970.6
57.5°	1694.3	1718.1	1954.5	2430.4	2714.9	2959.5	3236.6	3331.3	3621.6	3783.8	3310.3
60°	1661.3	1686.4	1899.7	2436.2	2826.5	3206.1	3577.9	3748.4	4175.3	4347.4	3696.1
62.5°	1624.7	1657.2	1903.8	2441.5	3022.5	3570.9	4030.8	4200.9	4743.9	4897.5	4057.6
65°	1517.6	1560.9	1827.7	2407.8	3237.0	4028.8	4629.5	4672.7	5213.7	5311.3	4275.8
67°	1314.6	1362.0	1618.5	2212.6	3217.2	4337.1	5108.3	4967.9	5413.4	5425.3	4205.0
67.5°	1250.4	1299.4	1547.7	2131.5	3160.8	4377.5	5193.1	5008.7	5411.8	5398.6	4139.1
70°	842.0	897.2	1096.0	1565.0	2535.4	4074.0	5172.5	4883.1	5056.8	4905.7	3556.1
72.5°	417.9	419.6	546.8	857.2	1536.2	2922.0	4314.9	4177.4	4099.2	3813.8	2609.5
75°	201.3	205.0	258.2	378.8	647.6	1508.6	2942.6	2818.7	2400.0	2078.0	1306.0
77.5°	153.6	157.3	200.5	246.6	270.1	492.0	1457.5	1178.0	695.4	555.4	368.1
80°	118.6	125.6	169.2	189.4	178.7	197.2	458.3	360.7	270.5	248.3	182.4
82.5°	92.6	96.8	143.7	143.7	123.5	132.2	213.3	208.3	168.0	151.5	98.0
85°	65.5	73.7	115.7	107.0	81.1	81.9	127.6	122.3	86.5	69.6	38.3
87.5°	29.2	37.5	82.3	70.0	43.2	33.3	52.3	44.9	34.2	26.4	17.7
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: P197282

CATALOG NUMBER: NAV-AF-02-D-UNV-T3R-8030-600

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	980.3	980.3	980.3	980.3	980.3	980.3	980.3	980.3	980.3	980.3	980.3
2.5°	973.7	980.3	990.6	996.8	1005.0	1008.3	1011.6	1017.4	1021.9	1020.7	1018.6
5°	982.8	993.9	1006.7	1010.8	1010.8	1006.7	1004.2	1004.6	1003.4	1002.6	1000.1
7.5°	996.0	1011.2	1020.3	1016.1	1003.4	987.3	972.1	963.0	954.4	949.0	950.7
10°	1014.5	1031.4	1031.8	1013.7	983.2	948.2	918.2	898.8	880.3	872.0	874.5
12.5°	1041.3	1058.1	1043.7	1004.6	951.1	896.3	841.2	801.2	765.4	756.8	754.3
15°	1070.1	1083.3	1051.1	985.3	905.0	814.8	722.2	662.5	622.5	615.5	613.1
17.5°	1095.2	1102.6	1047.4	950.7	832.1	690.1	582.2	541.8	533.6	537.7	537.7
20°	1117.4	1115.0	1031.4	897.2	717.2	551.7	489.1	488.7	499.8	510.1	511.0
22.5°	1145.4	1126.1	1005.9	817.7	580.1	460.3	449.6	460.3	472.7	484.2	485.4
25°	1178.8	1138.4	971.7	704.5	466.5	417.9	422.4	431.5	439.3	448.4	448.8
27.5°	1212.1	1147.9	923.5	571.5	404.7	390.7	395.7	399.4	401.4	407.2	407.2
30°	1250.8	1155.3	853.9	457.8	376.3	366.8	364.0	362.3	364.0	371.8	372.2
32.5°	1299.4	1168.5	758.8	392.8	363.1	350.0	335.1	326.9	332.7	346.7	349.1
35°	1354.6	1184.1	644.8	366.8	358.6	341.7	314.6	301.8	303.9	316.6	318.7
37.5°	1423.8	1204.3	532.4	360.7	363.1	340.9	305.1	287.0	277.9	278.3	277.9
40°	1512.3	1224.5	443.4	362.3	373.0	343.0	300.6	272.2	253.2	254.0	255.7
42.5°	1604.9	1237.7	387.0	367.3	385.0	345.9	298.9	257.7	241.3	255.3	268.0
45°	1713.2	1233.9	357.8	371.8	394.0	347.1	292.7	256.1	242.5	284.5	308.4
47.5°	1837.5	1217.9	341.3	373.8	396.5	346.7	288.2	261.4	252.8	325.7	352.9
50°	1972.6	1192.8	328.1	370.6	395.3	345.0	293.2	268.0	256.9	334.7	355.7
52.5°	2120.4	1169.7	314.6	363.1	389.1	340.1	299.3	265.2	245.4	308.4	324.4
55°	2295.4	1164.4	299.3	350.4	378.8	334.7	296.0	256.1	232.6	273.4	283.3
57.5°	2495.5	1197.7	279.6	334.7	364.8	324.0	288.2	251.2	228.1	248.7	254.0
60°	2749.5	1271.4	258.6	318.3	347.5	308.0	281.2	252.4	229.3	245.0	246.2
62.5°	2948.0	1337.7	239.6	298.1	324.4	288.6	273.8	253.6	233.0	249.9	247.9
65°	3020.0	1305.2	216.2	268.0	291.9	267.2	263.5	254.4	233.0	252.8	248.3
67°	2872.2	1150.0	193.9	238.0	261.0	248.3	253.6	251.2	228.9	252.4	244.6
67.5°	2801.8	1095.2	188.2	233.0	252.8	242.5	251.2	249.5	227.7	251.6	242.5
70°	2310.6	785.6	158.9	195.6	211.6	213.7	235.9	238.8	217.8	236.3	219.9
72.5°	1644.0	491.6	137.1	151.5	170.9	182.8	215.3	224.4	204.6	205.5	191.9
75°	813.6	263.9	122.3	116.9	133.0	152.3	187.7	204.6	185.3	171.3	166.7
77.5°	274.6	149.5	103.3	94.3	103.3	122.3	155.6	178.7	163.5	144.9	142.0
80°	142.0	108.7	80.7	75.8	81.5	94.7	121.9	148.6	139.6	140.4	115.7
82.5°	88.5	66.3	58.1	57.6	61.8	72.5	89.8	120.6	119.8	102.5	74.5
85°	41.2	38.3	37.1	38.3	39.5	41.2	58.5	86.1	91.0	55.2	49.0
87.5°	17.3	16.9	14.8	16.1	17.7	17.3	23.5	36.6	51.1	34.6	31.7
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)