

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: P270246

Luminaire Tested: **NAV-AF-01-D-UNV-5NQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270246
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-5NQ-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3595.2 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B2 - U0 - G0

Input Watts (W): 34
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

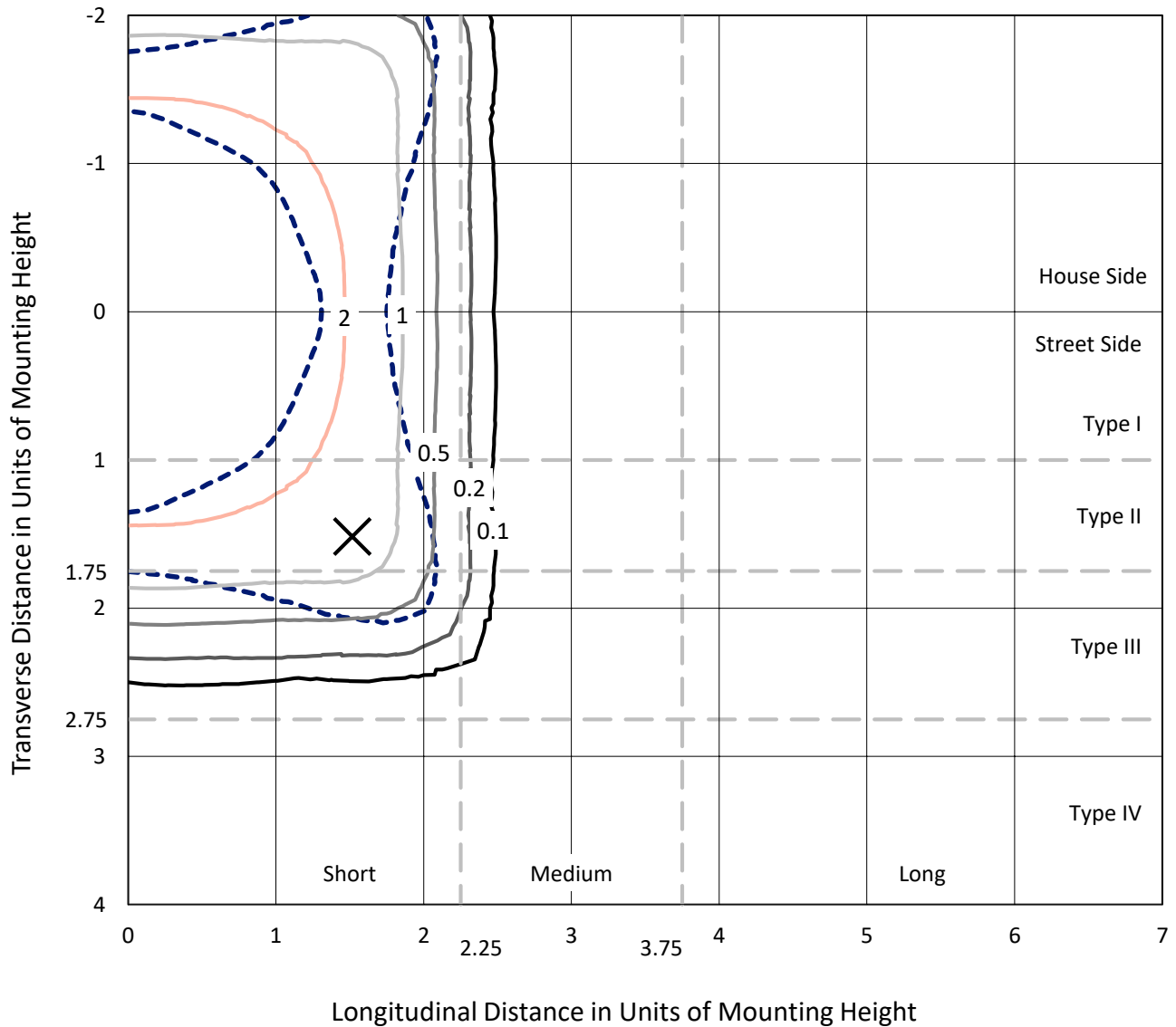


REPORT NUMBER: P270246

CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7027-600

Iso-Footcandle Lines of Horizontal Illumination

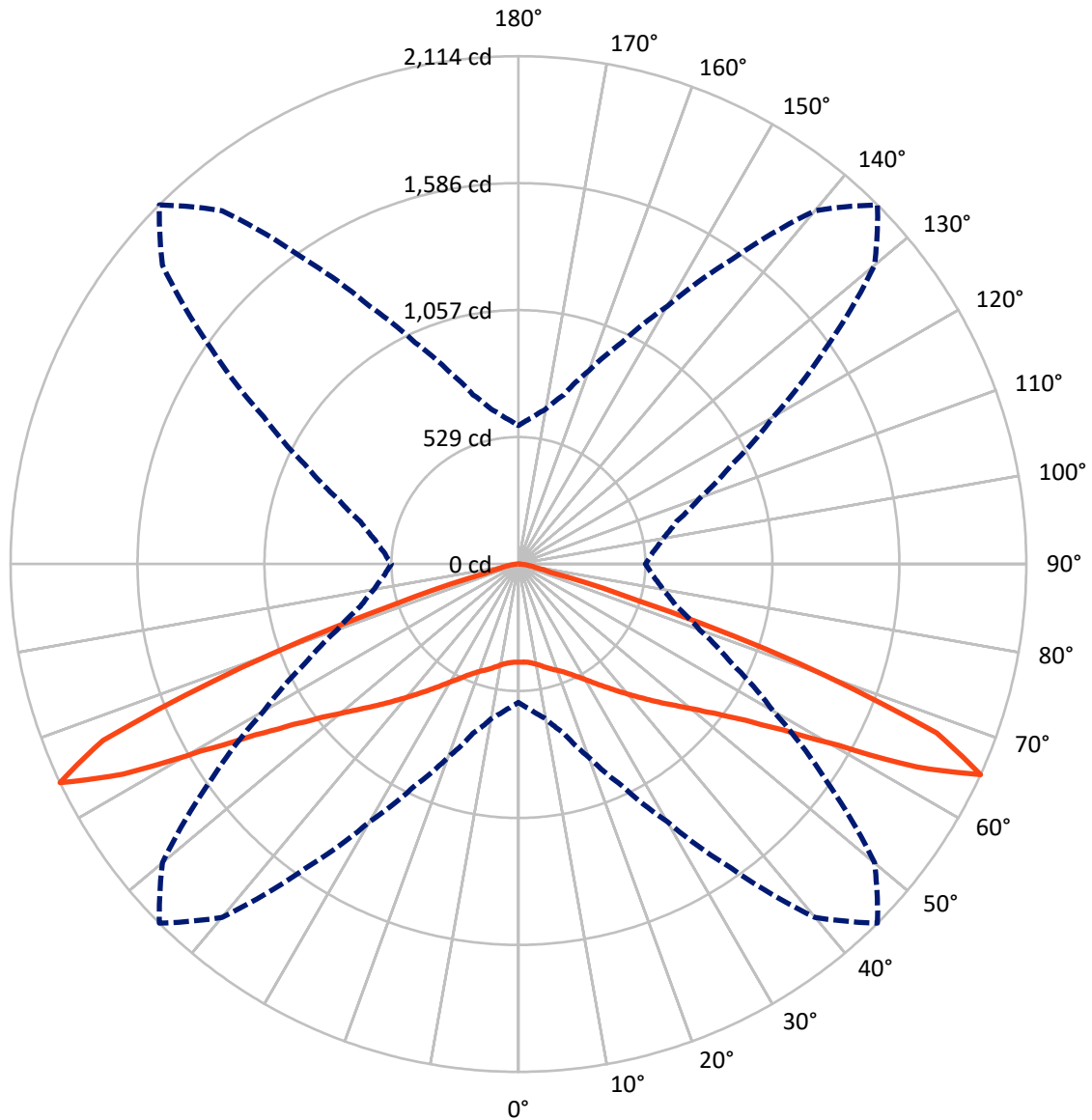
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P270246
CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7027-600

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P270246

CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7027-600

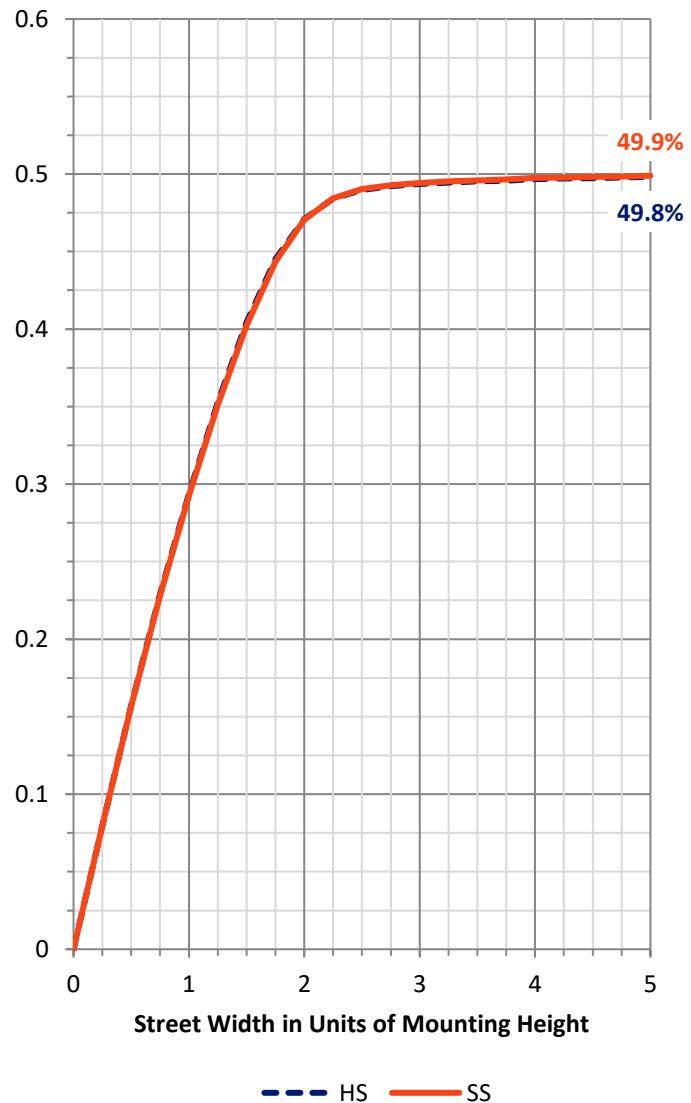
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1797.6	0.0	1797.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1797.6	0.0	1797.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	3595.2	0.0	3595.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	1.1
10°-20°	127.6	3.6
20°-30°	238.1	6.6
30°-40°	401.5	11.2
40°-50°	652.1	18.1
50°-60°	1021.8	28.4
60°-70°	964.5	26.8
70°-80°	130.0	3.6
80°-90°	19.8	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°	3595.2	100.0
0°-180°	3595.2	100.0



REPORT NUMBER: P270246

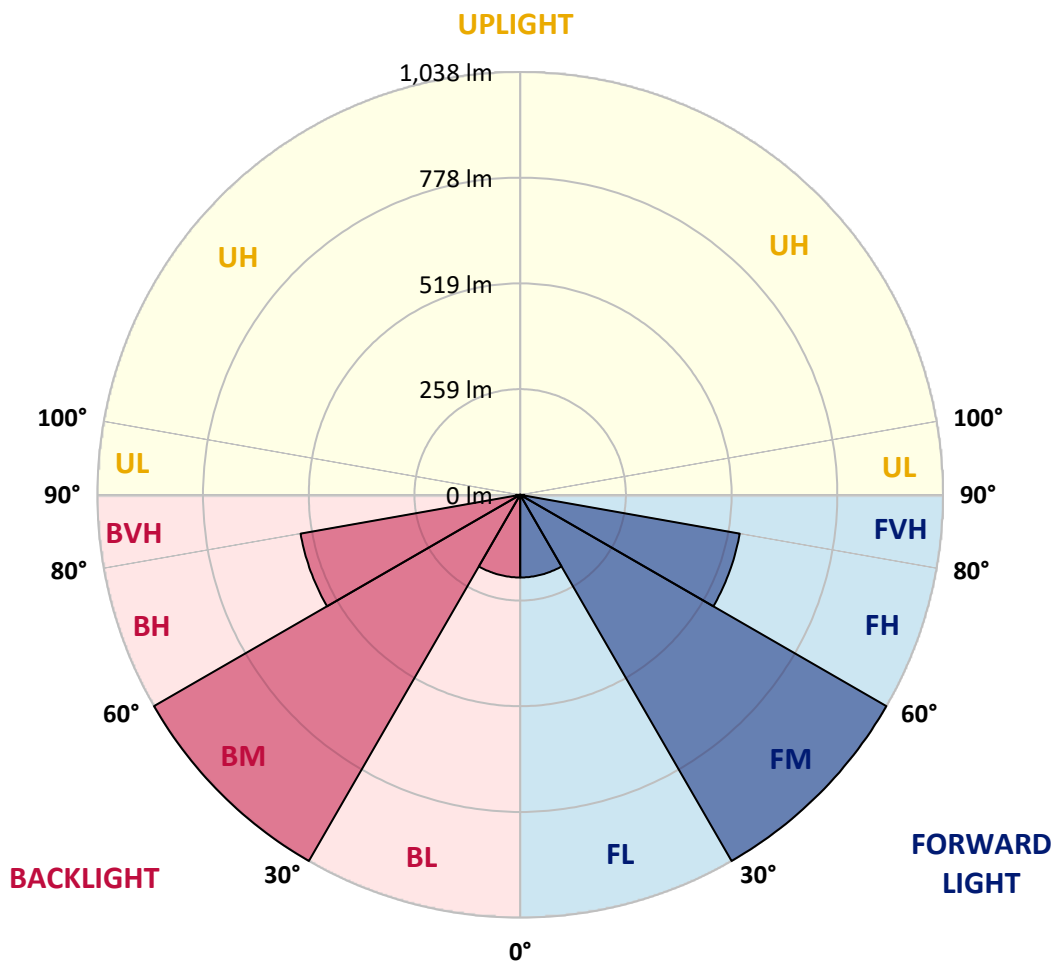
CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	202.8	5.6			
FM	(30°-60°)	1037.7	28.9			
FH	(60°-80°)	547.2	15.2			G0/660
FVH	(80°-90°)	9.9	0.3			G0/10
BL	(0°-30°)	202.8	5.6	B1/500		
BM	(30°-60°)	1037.7	28.9	B2/2500		
BH	(60°-80°)	547.2	15.2	B2/1000		G0/660
BVH	(80°-90°)	9.9	0.3			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G0

Type V Short





REPORT NUMBER: P270246

CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7027-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	409.0	409.0	409.0	409.0	409.0	409.0	409.0	409.0	409.0	409.0	409.0
2.5°	412.3	412.3	413.0	412.7	411.9	411.2	410.5	409.5	409.2	408.6	408.5
5°	414.6	414.6	415.2	414.9	414.3	413.4	413.0	412.3	411.7	411.2	411.5
7.5°	420.1	420.3	420.5	420.3	419.7	419.0	418.2	417.9	417.1	416.4	416.8
10°	428.6	428.6	428.9	429.1	428.6	427.1	427.1	426.6	425.7	424.9	425.1
12.5°	438.1	438.1	438.4	438.4	438.4	437.4	437.7	437.4	436.2	435.8	436.2
15°	447.3	447.4	447.4	448.0	448.0	448.2	449.1	449.1	448.7	448.3	448.3
17.5°	458.0	458.5	458.7	459.4	459.6	460.0	460.9	461.1	461.4	460.7	460.9
20°	472.2	472.6	473.2	473.4	474.3	474.3	474.8	474.6	474.1	473.2	473.2
22.5°	488.5	488.9	490.3	490.3	491.4	490.7	491.0	490.3	489.1	488.7	488.1
25°	509.5	510.1	511.2	510.9	511.2	510.1	510.1	510.1	509.5	508.8	508.6
27.5°	536.2	535.0	536.2	535.3	535.0	534.1	534.3	534.0	533.2	533.1	532.2
30°	564.0	562.6	563.2	563.4	563.1	562.8	561.9	561.3	560.2	560.4	559.6
32.5°	595.8	594.4	595.0	595.2	594.9	595.2	595.0	593.5	592.2	593.1	593.1
35°	633.6	632.6	634.5	635.1	633.8	633.1	632.2	630.4	628.5	629.8	630.0
37.5°	679.1	678.0	679.3	681.0	678.6	677.2	673.6	670.9	669.6	670.3	671.3
40°	726.3	726.5	730.3	730.9	728.0	726.5	723.0	719.0	715.1	715.1	716.2
42.5°	776.0	776.7	781.2	782.8	781.9	778.9	774.0	769.0	764.2	765.0	766.3
45°	832.2	831.3	836.1	839.8	839.1	838.3	833.5	824.6	820.2	820.0	822.2
47.5°	891.4	893.2	898.0	904.6	904.4	902.1	896.1	887.7	879.5	880.2	882.9
50°	960.3	962.9	971.1	977.5	978.4	977.7	970.6	960.9	949.4	950.0	953.6
52.5°	1022.1	1025.8	1035.3	1048.9	1057.0	1060.9	1056.1	1047.2	1035.3	1036.0	1039.9
55°	1078.1	1083.7	1098.1	1116.5	1133.0	1148.5	1155.4	1155.2	1146.4	1148.5	1153.3
57.5°	1113.3	1121.2	1142.9	1172.4	1205.3	1236.4	1263.3	1288.7	1294.3	1304.8	1304.8
60°	1066.1	1084.4	1113.3	1163.9	1228.6	1298.5	1374.1	1447.9	1495.4	1532.8	1512.6
62.5°	890.2	917.3	957.9	1024.5	1125.3	1250.1	1402.3	1573.6	1752.2	1861.6	1781.3
65°	576.1	610.0	654.1	729.2	856.2	1016.8	1238.3	1546.3	1920.1	2114.2	1934.9
67.5°	228.2	251.3	278.1	331.5	441.6	599.3	847.9	1227.8	1695.6	1878.5	1677.7
70°	109.1	112.8	118.0	129.4	157.1	211.9	340.6	604.9	1039.9	1232.7	1014.9
72.5°	78.8	79.5	81.9	85.8	93.9	105.0	127.6	185.1	358.6	521.3	359.1
75°	59.7	60.6	62.1	64.0	68.4	73.8	82.1	98.5	122.7	141.6	122.4
77.5°	45.5	46.4	47.5	49.4	51.7	55.5	58.7	65.1	75.5	79.5	79.1
80°	33.1	34.8	36.6	38.3	39.9	41.6	42.0	45.0	50.8	54.6	53.4
82.5°	21.0	22.4	27.0	29.1	29.4	29.7	29.6	29.7	32.9	35.7	34.8
85°	13.5	14.4	16.8	19.0	18.5	19.6	19.6	19.0	17.6	15.2	18.1
87.5°	6.6	6.9	8.1	10.2	9.6	8.5	8.3	8.3	6.1	5.1	5.6
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: P270246

CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7027-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	409.0	409.0	409.0	409.0	409.0	409.0	409.0	409.0
2.5°	407.8	408.3	407.7	407.7	407.4	407.8	407.1	407.1
5°	411.0	411.7	411.5	411.5	411.9	412.3	412.1	411.9
7.5°	416.5	417.1	417.4	417.7	418.2	417.9	418.3	418.2
10°	425.1	424.5	425.3	424.5	424.9	424.4	424.5	424.5
12.5°	435.8	435.1	434.7	434.2	434.2	433.3	433.3	433.6
15°	448.2	447.0	446.1	445.6	445.2	445.2	444.5	445.0
17.5°	460.2	459.2	457.5	457.5	456.9	456.3	456.0	457.1
20°	473.0	471.9	471.0	470.7	469.5	468.9	469.2	470.5
22.5°	487.8	487.2	487.2	486.6	485.8	485.1	485.1	486.6
25°	507.7	506.4	506.6	506.9	506.4	506.4	505.9	507.1
27.5°	532.2	531.0	531.6	532.2	531.6	532.3	531.6	532.5
30°	560.8	560.2	560.8	561.5	560.4	560.4	560.0	560.5
32.5°	595.0	594.1	594.6	594.6	593.1	591.8	589.8	591.3
35°	632.6	631.6	632.4	633.1	631.2	630.0	627.2	628.5
37.5°	674.1	674.5	675.6	678.6	678.1	676.0	673.9	674.7
40°	720.5	722.6	727.6	729.7	729.2	727.0	724.3	724.8
42.5°	772.9	775.7	780.9	784.3	782.8	779.5	776.2	777.7
45°	829.9	834.4	841.3	844.5	842.5	839.1	834.4	837.0
47.5°	890.5	899.5	908.4	912.9	912.1	907.5	901.4	902.1
50°	962.9	974.8	986.1	990.7	987.1	980.1	971.5	971.2
52.5°	1052.9	1065.6	1075.0	1073.8	1065.6	1054.4	1044.8	1044.3
55°	1165.2	1169.6	1168.2	1158.5	1144.0	1126.6	1114.2	1112.2
57.5°	1301.1	1286.8	1265.8	1236.6	1204.0	1170.9	1148.5	1140.2
60°	1467.4	1402.7	1327.3	1248.1	1175.8	1121.5	1087.3	1066.5
62.5°	1604.6	1417.2	1249.1	1111.3	998.6	931.6	884.9	855.9
65°	1557.7	1224.4	980.7	803.2	680.1	610.9	561.5	528.6
67.5°	1203.3	818.1	569.3	394.6	299.2	253.3	221.3	200.4
70°	606.6	313.8	190.1	134.1	114.7	106.5	101.1	98.1
72.5°	178.0	118.9	98.8	87.3	80.4	75.5	72.4	70.7
75°	98.5	80.4	71.0	64.5	60.0	56.7	54.6	53.3
77.5°	67.8	58.5	53.8	49.4	46.0	43.5	42.0	40.6
80°	47.5	42.8	40.8	38.4	35.8	33.9	31.6	30.7
82.5°	31.6	29.6	29.1	27.3	25.7	23.5	19.6	18.1
85°	18.5	18.3	18.3	17.6	16.6	14.6	11.7	11.7
87.5°	6.5	6.6	6.9	7.4	7.1	6.1	4.9	4.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)