

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: P270242

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270242
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)
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-5MQ-7027-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3724.7 lumens
Efficiency: N/A
Efficacy: 109.5 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 - G1

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

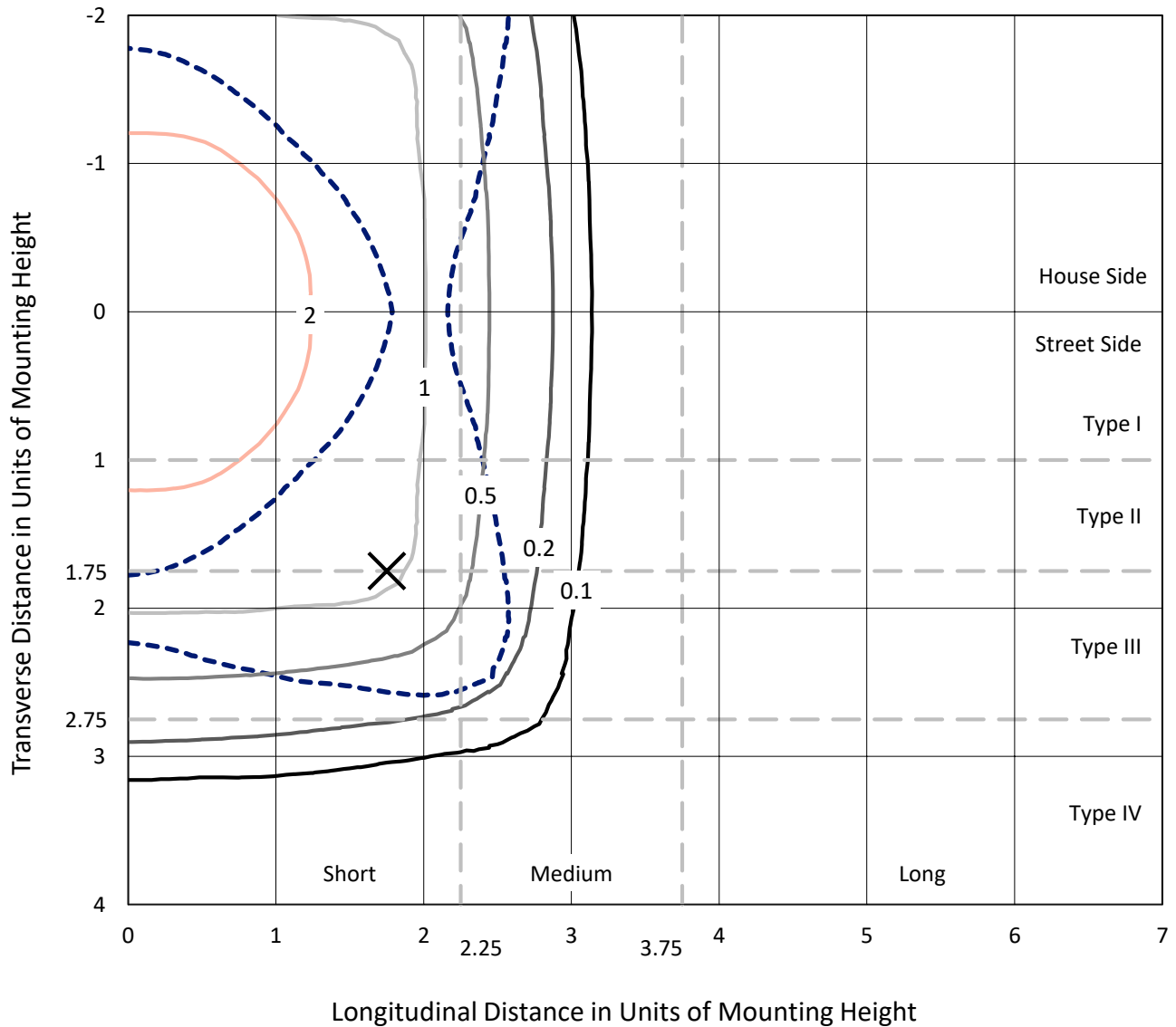


REPORT NUMBER: P270242

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

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

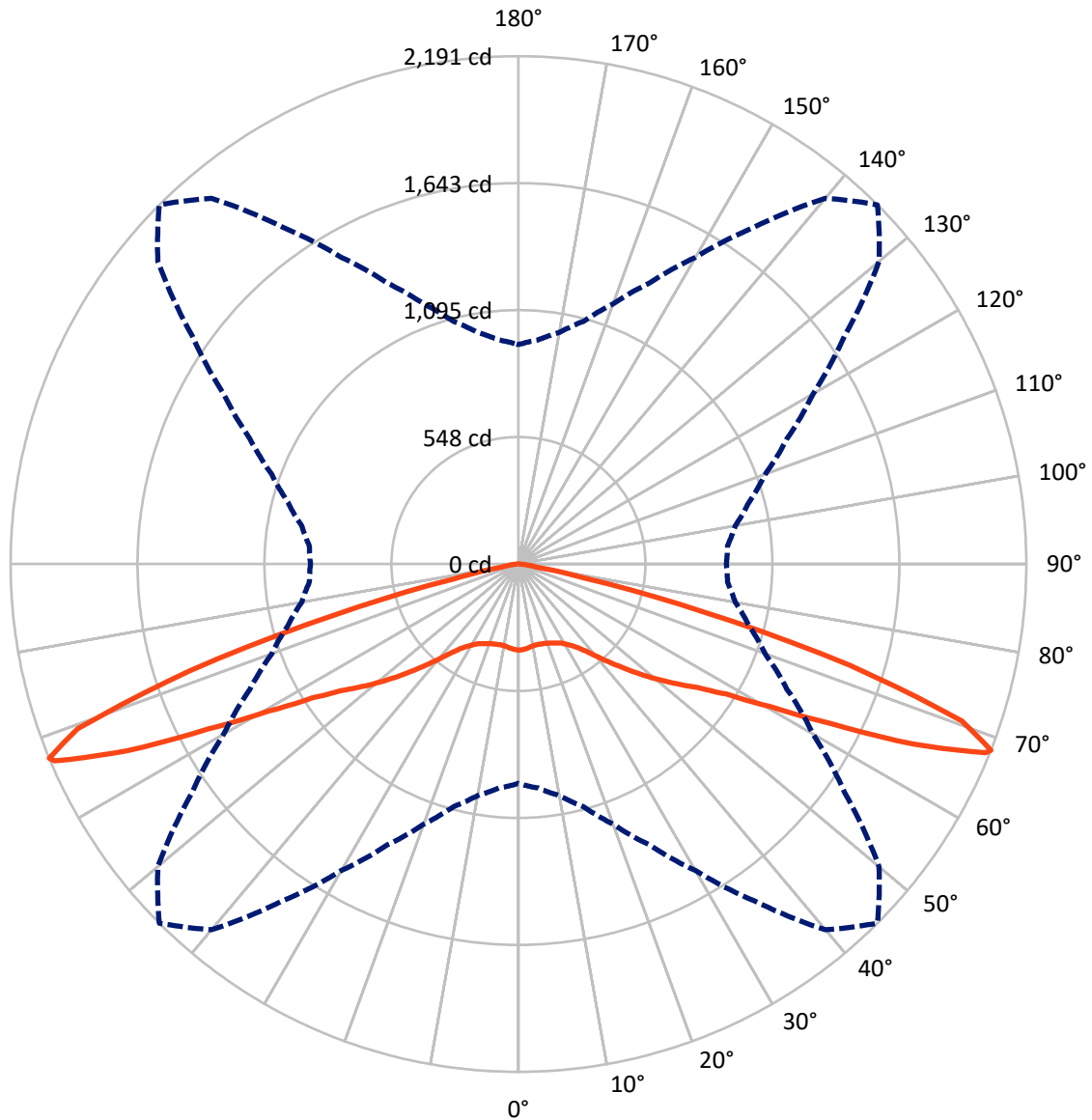


Based on 10 foot mounting height. Maximum calculated value = 3.7 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P270242

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

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P270242

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

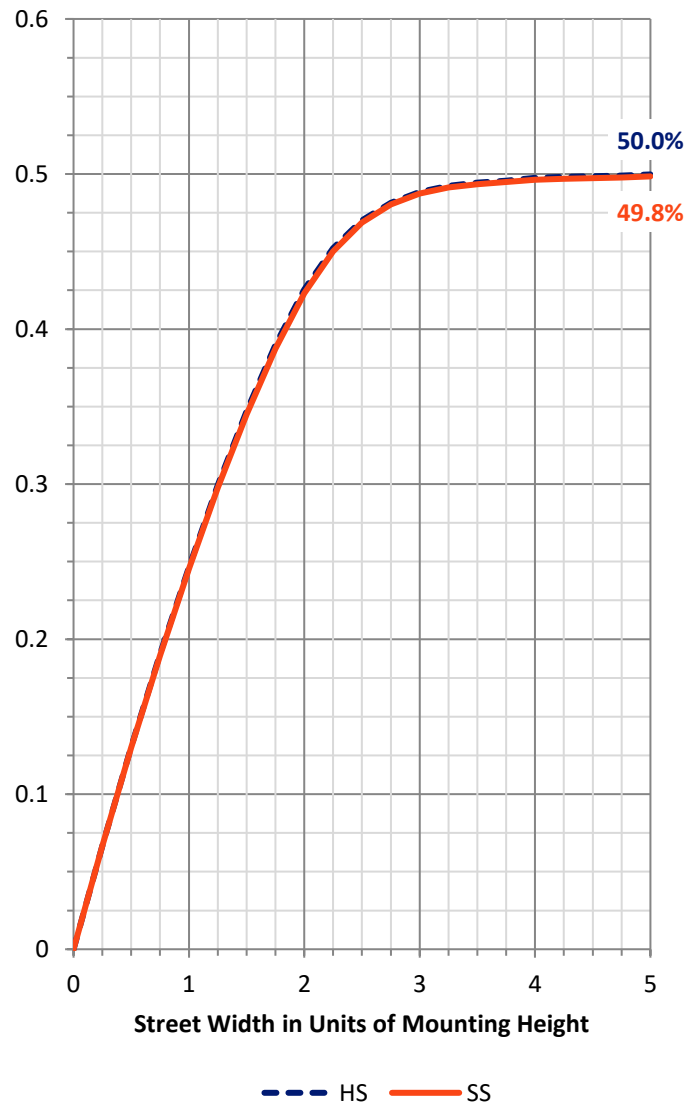
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1862.3	0.0	1862.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1862.3	0.0	1862.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	3724.7	0.0	3724.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	0.9
10°-20°	100.8	2.7
20°-30°	171.4	4.6
30°-40°	280.5	7.5
40°-50°	501.3	13.5
50°-60°	846.7	22.7
60°-70°	1312.9	35.2
70°-80°	451.4	12.1
80°-90°	24.8	0.7
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°	3724.7	100.0
0°-180°	3724.7	100.0



REPORT NUMBER: P270242

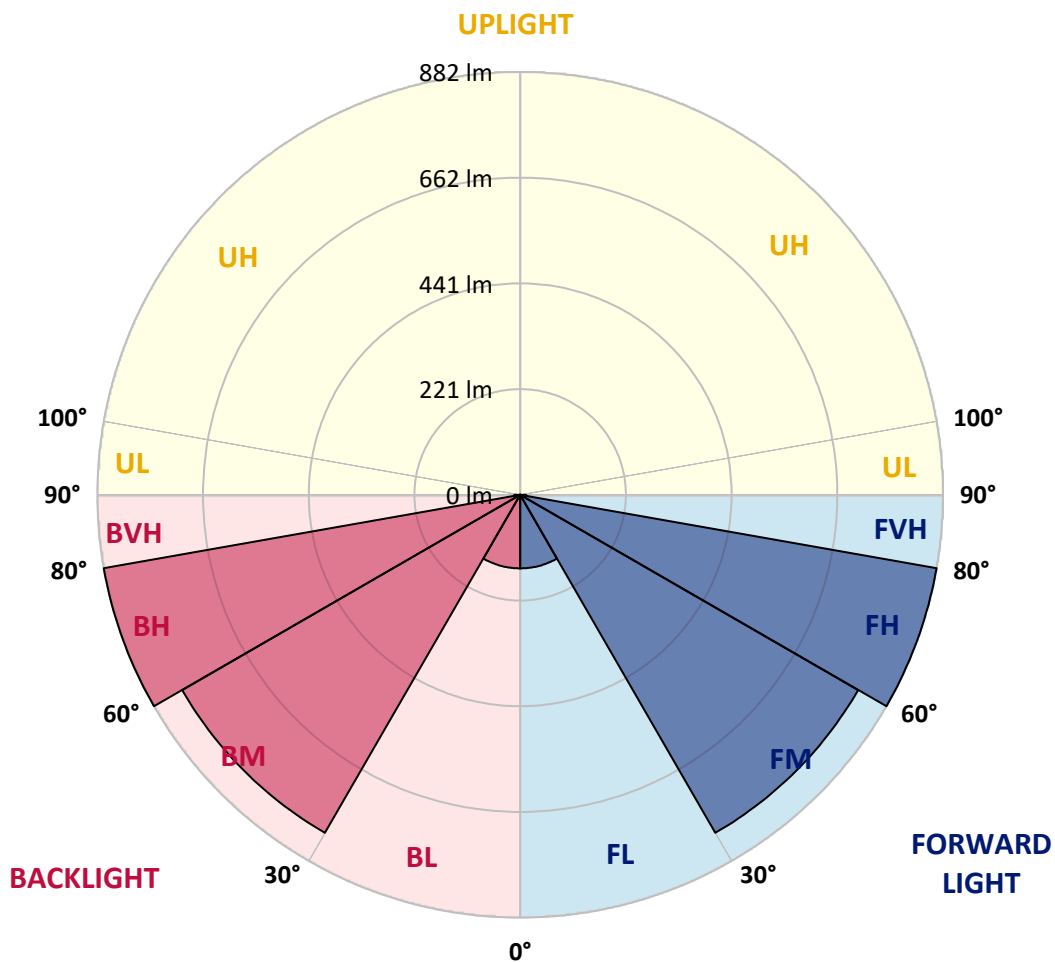
CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	153.5	4.1			
FM (30°-60°)	814.3	21.9			
FH (60°-80°)	882.2	23.7			G1/1800
FVH (80°-90°)	12.4	0.3			G1/100
BL (0°-30°)	153.5	4.1	B1/500		
BM (30°-60°)	814.3	21.9	B1/1000		
BH (60°-80°)	882.2	23.7	B2/1000		G1/1800
BVH (80°-90°)	12.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type V Short





REPORT NUMBER: P270242

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5
2.5°	373.2	373.2	373.6	373.3	372.6	372.0	371.3	370.6	370.2	369.7	369.3
5°	369.3	369.3	369.9	369.6	369.1	368.3	367.9	367.1	366.8	366.2	366.5
7.5°	364.3	364.7	365.3	364.9	364.1	363.9	363.2	362.8	362.5	361.7	361.9
10°	360.0	360.1	360.6	360.4	360.1	359.4	359.2	359.1	358.8	357.9	357.6
12.5°	355.5	356.1	356.4	356.7	356.4	356.7	356.9	357.2	356.9	356.4	356.4
15°	352.1	352.7	353.4	354.0	354.2	355.5	356.4	357.4	358.2	358.3	357.6
17.5°	350.3	351.0	352.0	353.4	354.4	356.1	357.6	359.1	360.1	360.4	359.7
20°	350.1	350.8	352.1	353.8	355.8	357.9	360.4	362.5	363.5	364.3	363.5
22.5°	351.6	352.7	354.4	356.4	359.1	361.7	364.9	367.1	369.6	370.5	369.7
25°	356.3	357.2	359.2	361.7	364.5	367.9	371.1	374.1	376.3	377.5	376.6
27.5°	365.9	366.1	368.3	371.1	374.4	377.3	381.4	382.7	384.6	385.7	384.6
30°	379.4	379.8	381.8	386.1	389.1	393.0	395.3	396.6	398.7	399.8	398.5
32.5°	399.8	400.3	402.1	406.3	409.0	412.0	414.7	415.6	417.6	419.0	417.4
35°	428.9	429.7	431.2	434.1	436.3	438.6	440.7	440.0	441.3	443.1	441.5
37.5°	468.5	468.2	468.7	470.8	473.0	474.5	477.5	476.0	477.4	478.9	478.1
40°	514.8	514.8	514.5	518.2	519.1	520.5	523.9	521.8	523.7	525.5	523.9
42.5°	567.5	568.4	569.5	572.5	575.0	575.5	577.0	576.2	578.4	580.0	578.4
45°	628.2	629.5	630.9	637.7	638.9	639.9	640.9	637.9	640.4	641.7	641.4
47.5°	691.1	693.6	696.5	703.6	708.3	710.3	711.2	707.8	708.0	710.0	710.3
50°	762.2	764.9	768.1	776.0	780.3	784.0	785.1	781.2	781.6	783.2	783.7
52.5°	828.0	831.1	837.5	848.3	854.4	860.8	861.2	856.4	858.5	859.7	858.7
55°	889.9	893.9	902.3	916.7	927.9	940.3	946.2	940.9	940.9	939.9	939.4
57.5°	961.8	966.3	975.1	991.6	1007.2	1025.2	1040.7	1045.9	1055.6	1058.8	1053.7
60°	1070.4	1075.2	1084.1	1106.1	1125.5	1151.8	1177.4	1198.1	1231.8	1250.1	1233.7
62.5°	1169.7	1176.9	1197.9	1236.2	1278.6	1327.2	1383.6	1423.8	1485.1	1515.6	1474.4
65°	1147.0	1161.9	1202.9	1263.1	1350.7	1456.2	1570.9	1681.0	1807.7	1872.8	1788.9
67.5°	1002.0	1014.5	1058.8	1128.8	1238.0	1383.3	1561.8	1789.9	2051.4	2173.2	2024.7
68°	946.5	970.1	1014.0	1083.6	1193.8	1336.6	1526.9	1773.3	2058.9	2190.5	2030.2
70°	725.8	734.3	776.5	838.8	957.8	1097.8	1290.1	1570.9	1893.5	2029.0	1864.2
72.5°	344.9	349.9	377.3	438.8	514.3	628.4	798.1	1062.9	1353.7	1494.6	1330.2
75°	126.3	127.5	133.8	148.5	176.7	219.6	301.1	465.7	689.4	822.3	692.2
77.5°	68.2	68.5	71.0	74.6	79.6	85.2	97.6	131.0	211.2	287.4	223.0
80°	42.8	42.7	45.2	48.1	51.6	54.3	55.4	59.3	66.8	78.2	71.9
82.5°	21.9	24.0	29.6	32.9	37.9	38.7	37.5	37.4	39.6	42.8	44.2
85°	12.0	10.7	15.7	21.0	22.7	23.4	23.7	22.4	21.9	21.4	22.5
87.5°	6.2	5.7	6.8	10.5	11.1	9.2	9.3	7.9	5.5	5.5	5.7
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: P270242

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5
2.5°	368.8	369.1	368.6	368.6	368.6	368.8	368.6	368.3
5°	365.9	366.2	366.2	366.5	366.8	366.8	366.8	366.8
7.5°	361.5	361.7	362.1	362.1	362.1	362.1	362.1	362.1
10°	357.4	356.9	356.7	356.3	356.3	355.5	355.8	356.1
12.5°	355.4	354.4	354.0	353.4	352.9	352.1	352.1	352.3
15°	356.3	354.9	353.6	353.0	352.7	352.1	351.6	352.0
17.5°	358.2	356.4	354.9	354.0	353.0	352.3	352.1	352.3
20°	361.9	359.7	357.2	355.5	353.8	353.4	352.7	353.4
22.5°	367.1	364.5	361.3	358.3	356.3	355.4	354.4	355.1
25°	373.6	370.6	367.4	364.1	361.7	361.1	360.0	360.0
27.5°	382.5	380.1	377.3	374.1	371.8	371.1	369.3	369.3
30°	396.6	394.1	391.7	388.8	386.6	385.9	383.7	383.7
32.5°	415.3	412.6	411.1	408.6	406.9	405.8	403.0	402.8
35°	440.3	438.0	437.7	436.0	434.3	434.5	431.7	431.2
37.5°	476.6	474.5	475.2	473.8	472.1	473.4	471.9	471.9
40°	522.5	521.8	522.5	521.6	521.8	522.0	520.7	521.1
42.5°	578.1	576.4	580.5	580.0	579.3	581.2	578.0	575.8
45°	642.3	641.6	645.7	646.4	645.1	646.2	640.4	640.2
47.5°	711.8	711.8	715.5	715.1	713.7	714.0	707.1	702.7
50°	784.4	784.0	787.5	786.6	784.8	784.6	777.6	773.3
52.5°	859.9	859.9	865.2	862.6	858.3	856.3	847.6	841.8
55°	943.4	942.2	943.8	935.7	927.2	921.0	910.3	906.0
57.5°	1049.0	1035.7	1024.3	1013.8	1002.0	994.8	982.1	977.5
60°	1198.8	1163.5	1148.2	1127.3	1107.6	1097.8	1081.1	1072.2
62.5°	1406.3	1347.7	1306.2	1260.0	1215.2	1183.7	1158.5	1147.2
65°	1646.4	1518.6	1413.0	1313.9	1229.6	1162.8	1125.5	1114.0
67.5°	1737.5	1503.0	1320.9	1178.5	1076.3	996.7	952.3	943.0
68°	1718.2	1467.6	1278.2	1132.5	1029.7	949.5	905.3	896.9
70°	1515.6	1238.0	1038.3	893.2	797.3	721.0	689.7	676.2
72.5°	1033.2	795.1	609.9	487.9	416.3	367.9	339.2	329.4
75°	475.6	321.4	214.7	160.3	136.2	124.5	115.6	113.4
77.5°	138.7	100.8	86.6	80.3	75.5	71.3	68.5	68.2
80°	65.9	61.9	59.9	55.9	51.6	47.7	44.9	45.4
82.5°	44.2	43.1	43.1	38.9	32.2	27.6	22.7	20.5
85°	23.4	24.4	25.8	24.4	21.2	15.7	10.3	11.1
87.5°	7.9	9.2	9.6	9.3	8.4	6.4	4.9	4.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)