

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: P270243

Luminaire Tested: **NAV-AF-01-D-UNV-5MQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270243
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-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4566.8 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

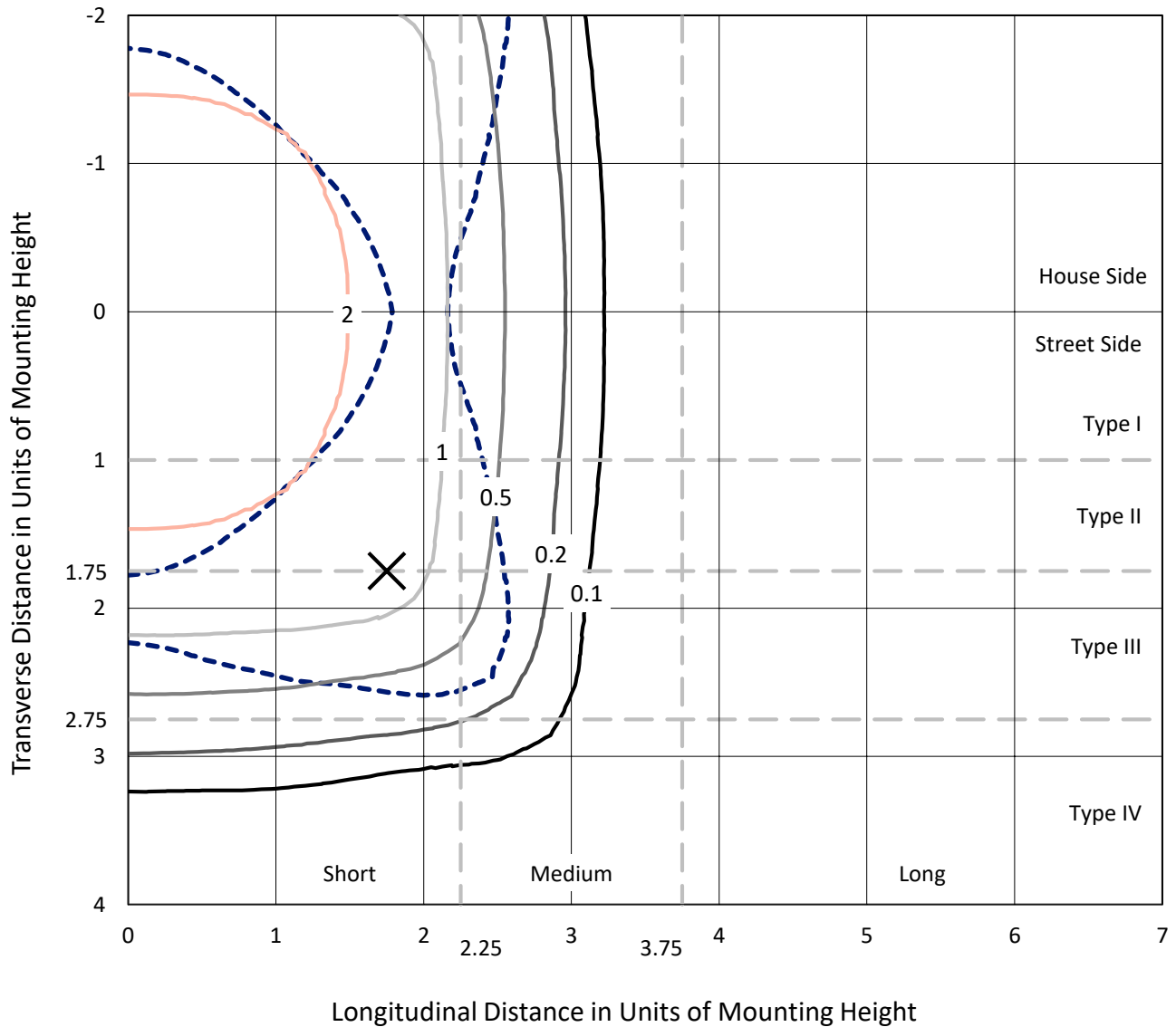
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270243
 CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027-800

Iso-Footcandle Lines of Horizontal Illumination

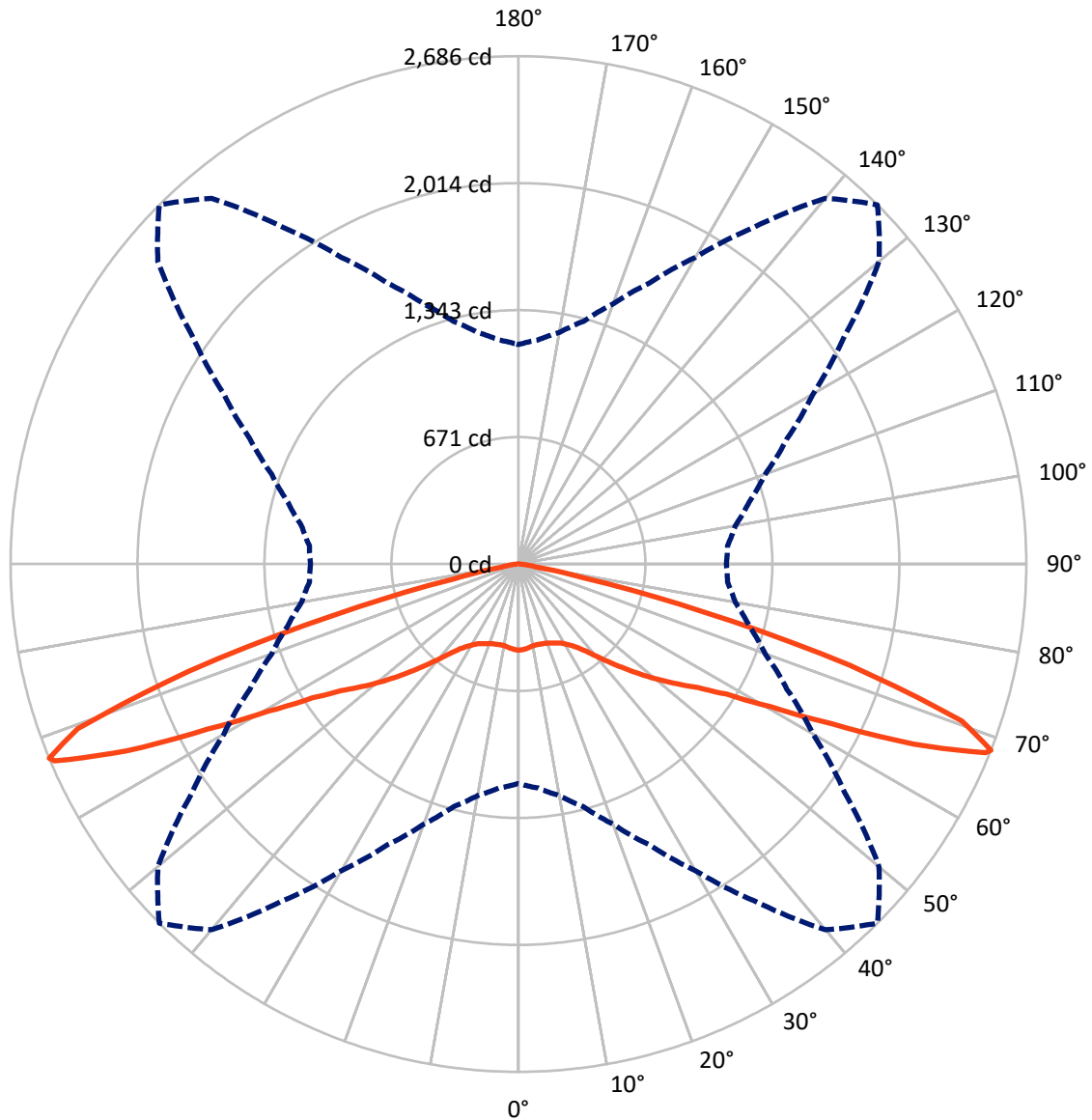
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.6 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P270243
CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027-800

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270243

CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027-800

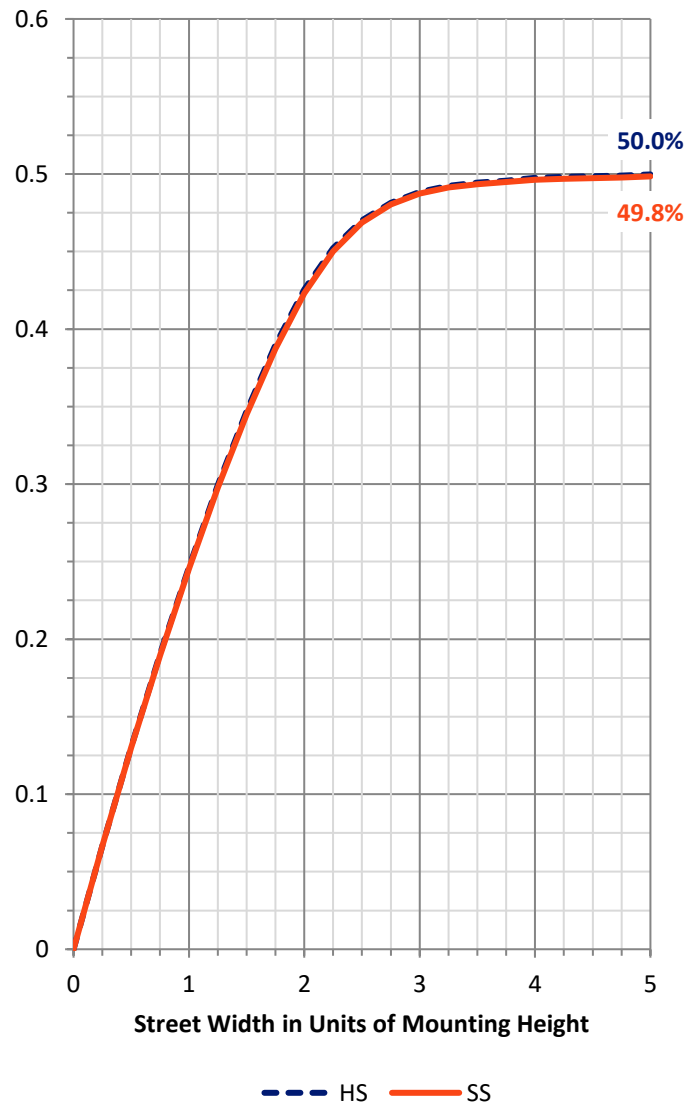
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2283.4	0.0	2283.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2283.4	0.0	2283.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	4566.8	0.0	4566.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.6	0.9
10°-20°	123.6	2.7
20°-30°	210.2	4.6
30°-40°	344.0	7.5
40°-50°	614.7	13.5
50°-60°	1038.1	22.7
60°-70°	1609.7	35.2
70°-80°	553.5	12.1
80°-90°	30.4	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°	4566.8	100.0
0°-180°	4566.8	100.0



REPORT NUMBER: P270243

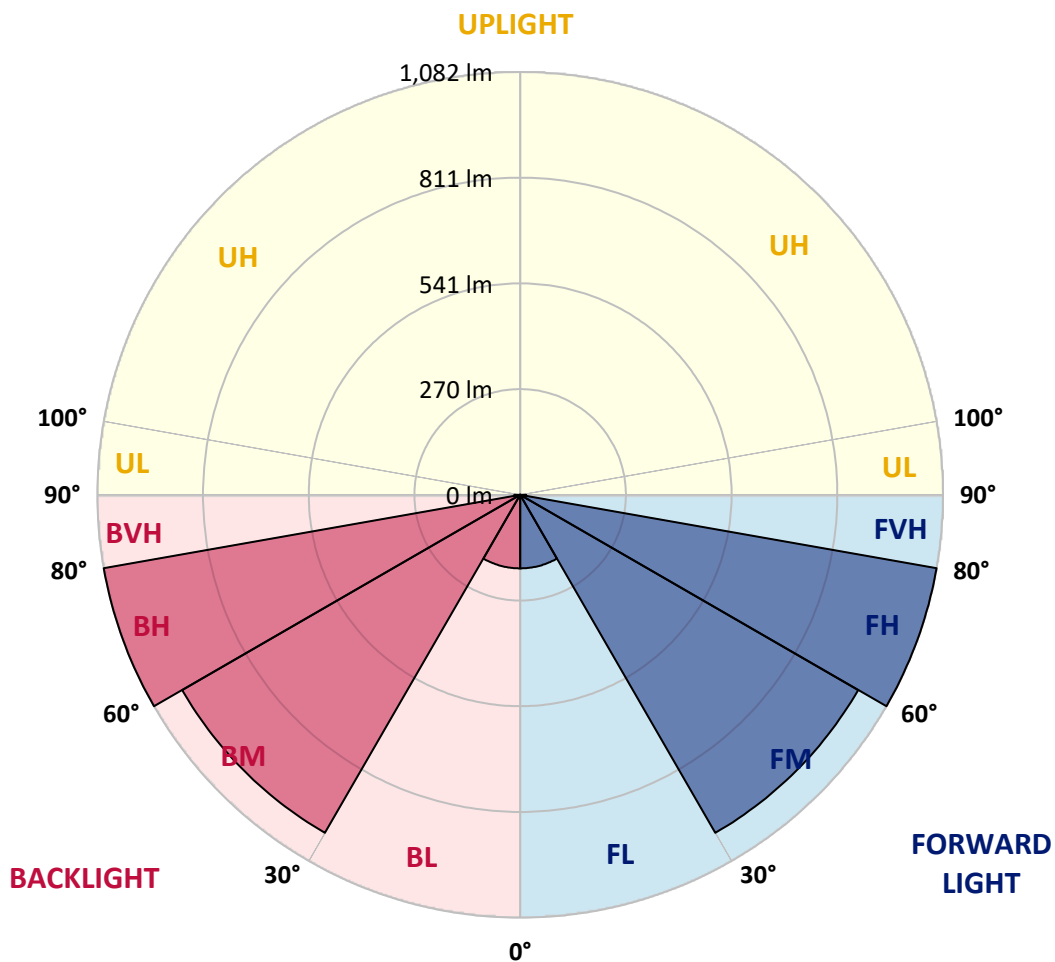
CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	188.2	4.1			
FM	(30°-60°)	998.4	21.9			
FH	(60°-80°)	1081.6	23.7			G1/1800
FVH	(80°-90°)	15.2	0.3			G1/100
BL	(0°-30°)	188.2	4.1	B1/500		
BM	(30°-60°)	998.4	21.9	B1/1000		
BH	(60°-80°)	1081.6	23.7	B3/2500		G1/1800
BVH	(80°-90°)	15.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





REPORT NUMBER: P270243

CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	455.6	455.6	455.6	455.6	455.6	455.6	455.6	455.6	455.6	455.6	455.6
2.5°	457.4	457.4	458.0	457.7	457.0	456.1	455.4	454.5	453.9	453.4	452.7
5°	452.7	452.7	453.6	453.0	452.4	451.7	451.0	450.2	449.7	449.2	449.4
7.5°	446.5	447.1	447.7	447.4	446.3	446.1	445.2	444.9	444.4	443.6	443.9
10°	441.2	441.5	442.1	441.8	441.5	440.7	440.4	440.2	439.9	438.8	438.6
12.5°	435.9	436.5	437.0	437.4	437.0	437.4	437.7	438.0	437.7	437.0	437.0
15°	431.7	432.4	433.3	434.1	434.3	435.9	437.0	438.3	439.0	439.4	438.6
17.5°	429.6	430.4	431.5	433.3	434.6	436.5	438.6	440.2	441.5	441.8	441.0
20°	429.3	430.1	431.7	433.7	436.2	438.8	441.8	444.4	445.7	446.5	445.7
22.5°	431.2	432.4	434.6	437.0	440.2	443.6	447.4	450.2	453.0	454.2	453.4
25°	436.8	438.0	440.4	443.6	446.8	451.0	455.0	458.7	461.4	462.8	461.6
27.5°	448.6	448.9	451.7	455.0	458.9	462.5	467.6	469.3	471.5	472.9	471.5
30°	465.1	465.6	468.1	473.4	477.1	481.9	484.6	486.3	488.9	490.3	488.6
32.5°	490.3	490.8	493.0	498.1	501.4	505.0	508.4	509.5	512.0	513.7	511.8
35°	525.8	526.9	528.8	532.2	535.0	537.7	540.3	539.4	541.0	543.4	541.4
37.5°	574.3	574.1	574.6	577.3	579.9	581.7	585.5	583.5	585.3	587.3	586.1
40°	631.1	631.1	630.9	635.5	636.4	638.2	642.4	639.9	642.1	644.4	642.4
42.5°	695.7	696.8	698.3	701.9	705.0	705.6	707.5	706.3	709.2	711.2	709.2
45°	770.1	771.9	773.5	782.0	783.3	784.4	785.8	782.2	785.3	786.9	786.3
47.5°	847.3	850.4	854.1	862.7	868.3	870.8	872.0	867.8	868.0	870.5	870.8
50°	934.5	938.0	941.7	951.3	956.7	961.1	962.5	957.9	958.4	960.3	960.8
52.5°	1015.2	1019.0	1026.9	1040.1	1047.6	1055.4	1056.0	1050.1	1052.6	1054.0	1053.0
55°	1090.9	1095.9	1106.4	1123.9	1137.7	1153.1	1160.0	1153.6	1153.6	1152.4	1151.8
57.5°	1179.3	1184.9	1195.6	1215.9	1234.9	1257.1	1276.0	1282.5	1294.3	1298.1	1292.0
60°	1312.5	1318.4	1329.2	1356.0	1380.1	1412.2	1443.5	1469.0	1510.4	1532.8	1512.7
62.5°	1434.1	1442.9	1468.8	1515.7	1567.7	1627.3	1696.4	1745.5	1820.9	1858.4	1807.7
65°	1406.3	1424.5	1474.8	1548.7	1656.1	1785.3	1926.0	2061.0	2216.6	2296.2	2193.3
67.5°	1228.5	1244.0	1298.1	1384.0	1518.0	1696.1	1914.7	2194.4	2515.3	2664.6	2482.5
68°	1160.6	1189.4	1243.3	1328.7	1463.7	1638.8	1872.2	2174.3	2524.4	2685.8	2489.3
70°	889.9	900.2	951.9	1028.6	1174.3	1346.0	1581.7	1926.0	2321.7	2487.8	2285.6
72.5°	422.8	429.0	462.5	538.1	630.6	770.4	978.6	1303.3	1659.8	1832.5	1631.0
75°	155.0	156.3	164.2	182.0	216.8	269.3	369.2	571.1	845.3	1008.2	848.8
77.5°	83.6	83.9	87.0	91.4	97.6	104.7	119.7	160.4	258.9	352.3	273.5
80°	52.6	52.3	55.3	59.0	63.2	66.6	67.9	72.8	81.9	95.8	88.2
82.5°	26.9	29.4	36.3	40.2	46.4	47.5	46.2	45.9	48.7	52.6	54.3
85°	14.8	13.1	19.4	25.7	27.9	28.7	29.0	27.4	26.9	26.3	27.7
87.5°	7.5	6.9	8.4	12.8	13.7	11.1	11.5	9.8	6.6	6.6	6.9
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: P270243

CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027-800

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	455.6	455.6	455.6	455.6	455.6	455.6	455.6	455.6
2.5°	452.1	452.4	451.8	451.8	451.8	452.1	451.8	451.7
5°	448.6	449.2	449.2	449.4	449.7	449.7	449.7	449.7
7.5°	443.3	443.6	444.1	444.1	444.1	444.1	444.1	444.1
10°	438.3	437.7	437.4	436.8	436.8	435.9	436.2	436.5
12.5°	435.7	434.6	434.1	433.3	432.7	431.7	431.7	432.1
15°	436.8	435.1	433.4	433.0	432.4	431.7	431.2	431.5
17.5°	439.0	437.0	435.1	434.1	433.0	432.1	431.7	432.1
20°	443.9	441.0	438.0	435.9	433.7	433.3	432.4	433.3
22.5°	450.2	446.8	443.0	439.4	436.8	435.7	434.6	435.4
25°	458.0	454.5	450.5	446.3	443.6	442.7	441.2	441.2
27.5°	468.9	466.0	462.5	458.7	455.8	455.0	452.7	452.7
30°	486.3	483.3	480.1	476.8	474.0	473.1	470.4	470.4
32.5°	509.2	505.8	503.9	501.2	498.9	497.5	494.2	493.9
35°	540.1	536.9	536.6	534.8	532.4	532.8	529.5	528.8
37.5°	584.2	581.7	582.6	580.8	578.9	580.6	578.6	578.6
40°	640.8	639.9	640.8	639.6	639.9	640.1	638.4	639.1
42.5°	708.9	706.6	711.6	711.2	710.3	712.5	708.7	705.9
45°	787.5	786.6	791.6	792.6	790.9	792.2	785.3	784.9
47.5°	872.9	872.9	877.3	876.7	874.9	875.3	867.0	861.7
50°	961.7	961.1	965.7	964.5	962.3	962.1	953.3	948.0
52.5°	1054.3	1054.3	1060.7	1057.7	1052.4	1049.8	1039.2	1032.2
55°	1156.7	1155.2	1157.1	1147.1	1136.7	1129.2	1116.1	1110.8
57.5°	1286.2	1269.9	1255.9	1243.1	1228.5	1219.5	1204.2	1198.6
60°	1469.8	1426.5	1407.7	1382.0	1358.0	1346.0	1325.5	1314.7
62.5°	1724.3	1652.5	1601.6	1544.8	1490.0	1451.4	1420.4	1406.7
65°	2018.5	1861.9	1732.4	1610.8	1507.6	1425.7	1380.1	1365.9
67.5°	2130.4	1843.0	1619.5	1445.0	1319.7	1222.1	1167.5	1156.1
68°	2106.6	1799.2	1567.2	1388.5	1262.7	1164.3	1109.9	1099.5
70°	1858.4	1518.0	1273.0	1095.2	977.6	884.0	845.7	829.1
72.5°	1266.8	974.9	747.7	598.2	510.3	451.0	415.8	403.8
75°	583.1	394.0	263.2	196.5	166.9	152.7	141.8	139.0
77.5°	170.0	123.5	106.3	98.5	92.5	87.6	83.9	83.6
80°	80.8	75.7	73.5	68.5	63.2	58.5	55.1	55.7
82.5°	54.3	52.9	52.9	47.8	39.4	33.9	27.9	25.2
85°	28.7	30.0	31.6	30.0	26.1	19.4	12.5	13.7
87.5°	9.8	11.1	11.8	11.5	10.3	7.8	5.8	5.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)