

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: P196423

Luminaire Tested: **NAV-AF-01-D-UNV-5NQ-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196423
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-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4907.9 lumens
Efficiency: N/A
Efficacy: 111.5 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

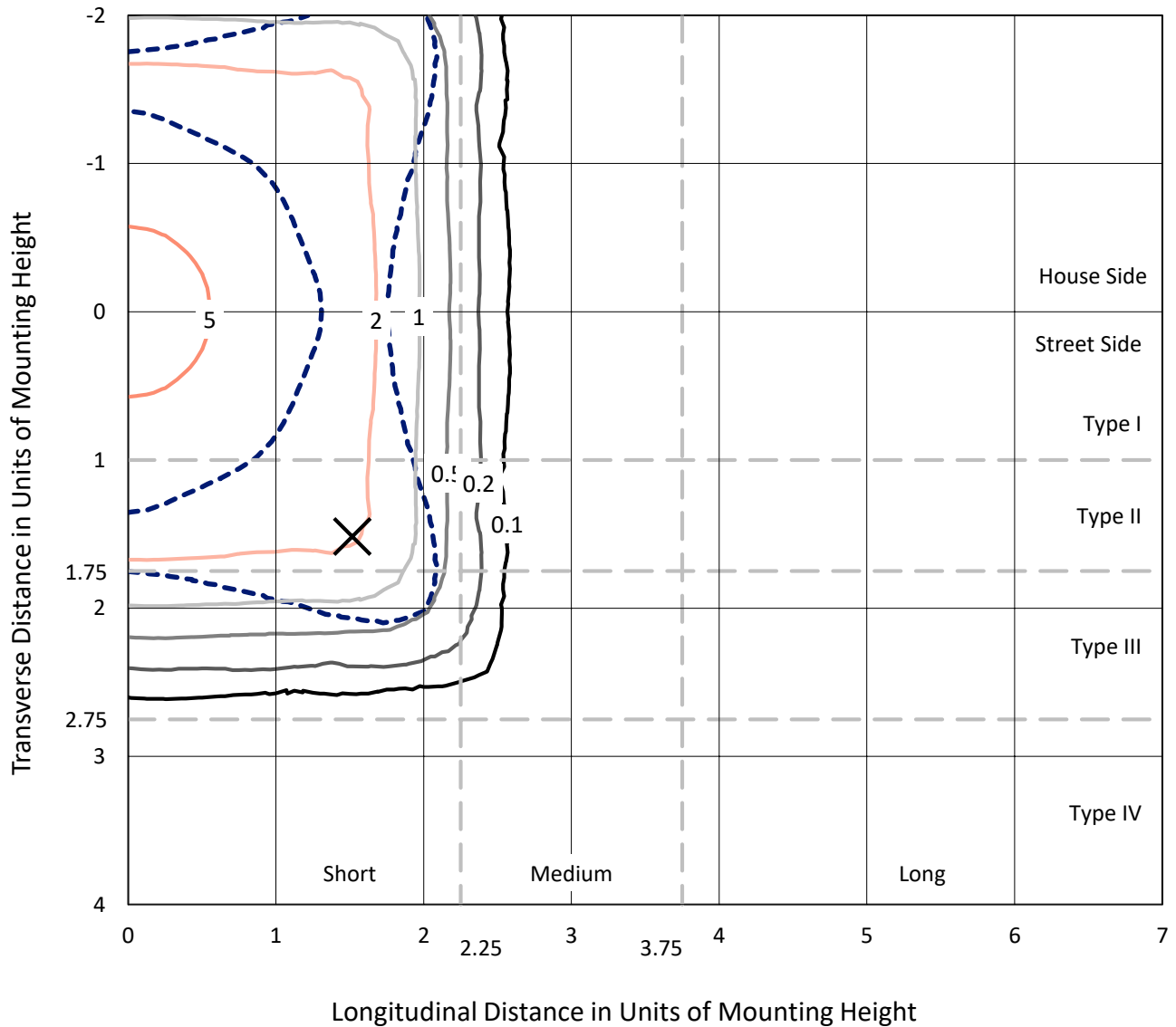
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

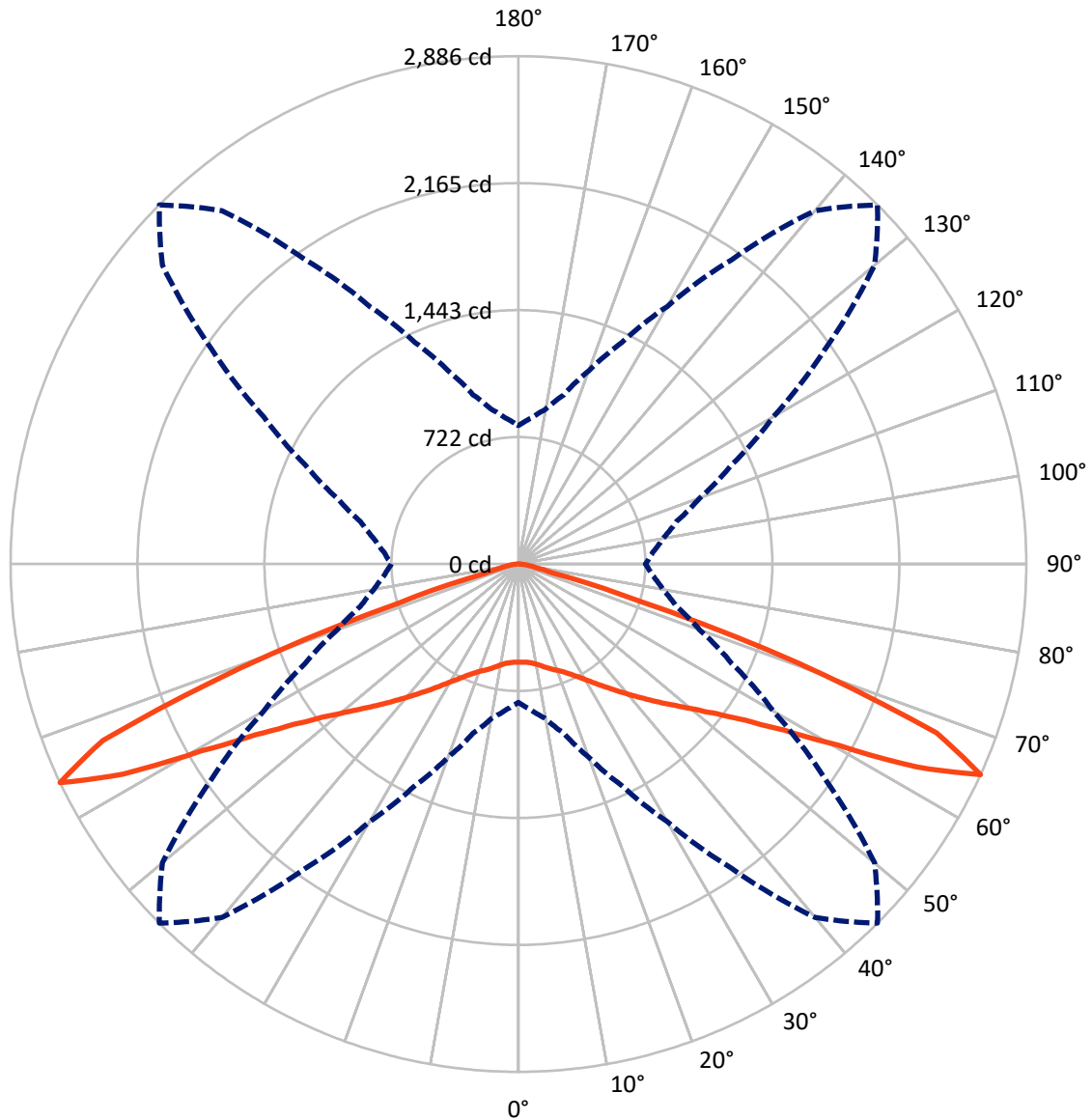
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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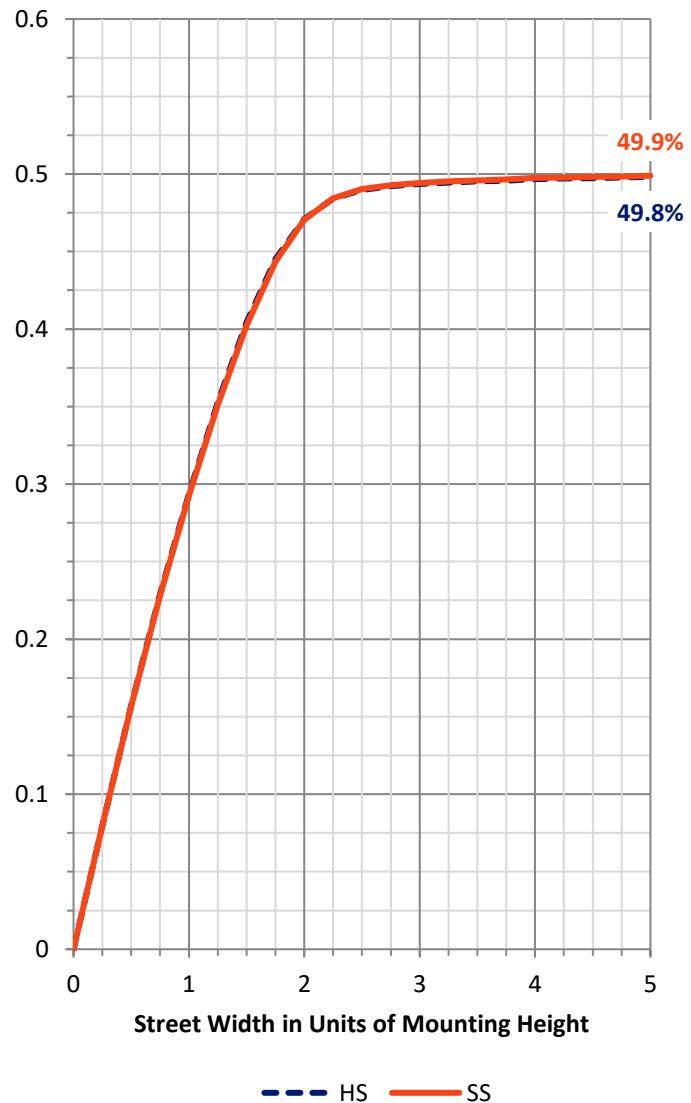
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2454.0	0.0	2454.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2454.0	0.0	2454.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	4907.9	0.0	4907.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	1.1
10°-20°	174.2	3.6
20°-30°	325.0	6.6
30°-40°	548.1	11.2
40°-50°	890.2	18.1
50°-60°	1394.8	28.4
60°-70°	1316.7	26.8
70°-80°	177.4	3.6
80°-90°	27.0	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°	4907.9	100.0
0°-180°	4907.9	100.0



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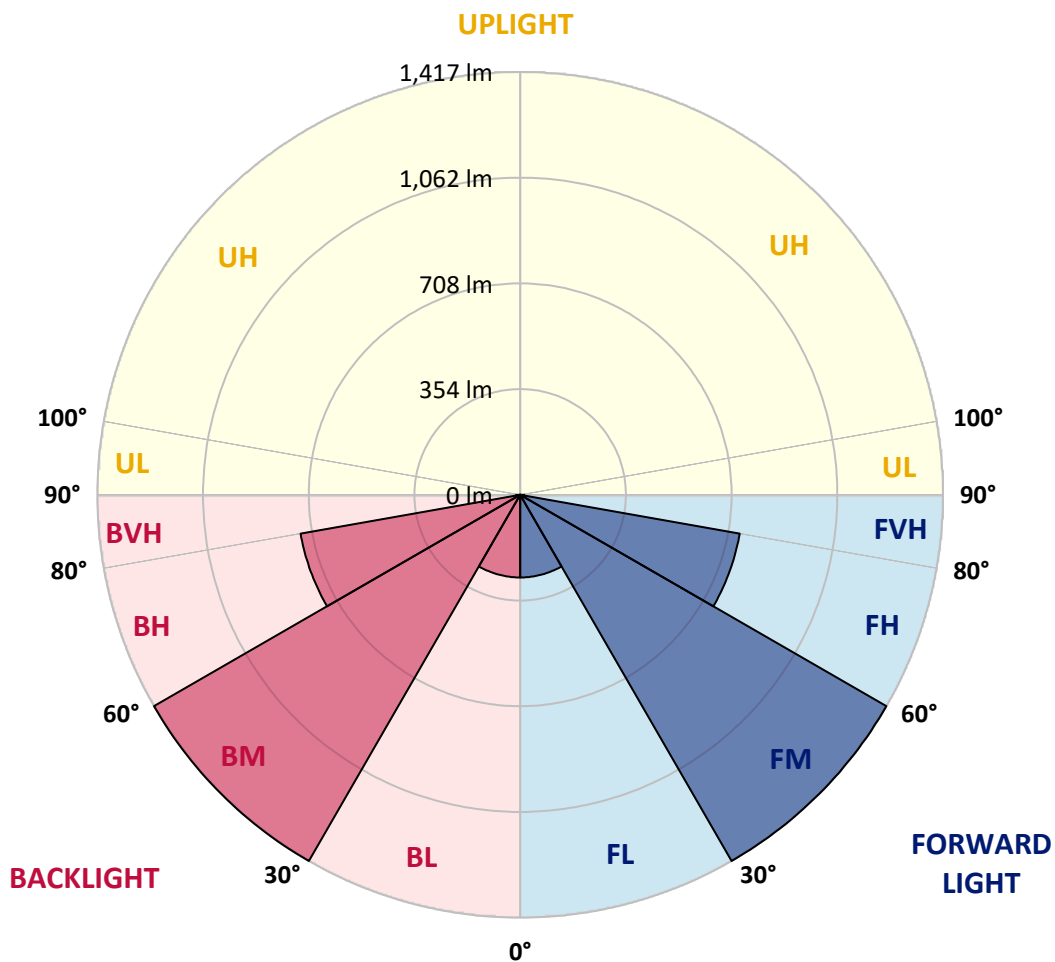
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	276.8	5.6			
FM (30°-60°)	1416.6	28.9			
FH (60°-80°)	747.0	15.2			G1/1800
FVH (80°-90°)	13.5	0.3			G1/100
BL (0°-30°)	276.8	5.6	B1/500		
BM (30°-60°)	1416.6	28.9	B2/2500		
BH (60°-80°)	747.0	15.2	B2/1000		G1/1800
BVH (80°-90°)	13.5	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	558.4	558.4	558.4	558.4	558.4	558.4	558.4	558.4	558.4	558.4	558.4
2.5°	562.9	562.9	563.8	563.4	562.2	561.4	560.4	559.2	558.6	558.0	557.7
5°	566.0	566.0	566.8	566.5	565.6	564.5	563.8	562.9	561.9	561.4	561.6
7.5°	573.6	573.8	574.1	573.8	572.9	572.1	570.8	570.6	569.2	568.3	569.0
10°	585.2	585.2	585.5	585.7	585.2	583.0	583.0	582.5	581.1	579.9	580.2
12.5°	597.9	597.9	598.3	598.3	598.3	597.1	597.4	597.1	595.6	594.9	595.6
15°	610.5	610.9	610.9	611.5	611.5	611.8	613.0	613.0	612.4	612.1	612.1
17.5°	625.2	625.8	626.2	627.0	627.3	628.0	629.3	629.6	629.8	628.9	629.3
20°	644.7	645.0	646.0	646.3	647.6	647.6	648.1	647.8	647.3	646.0	646.0
22.5°	666.8	667.5	669.2	669.2	670.8	669.9	670.2	669.2	667.7	667.1	666.5
25°	695.6	696.4	697.9	697.4	697.9	696.4	696.4	696.4	695.6	694.7	694.4
27.5°	731.9	730.4	731.9	730.7	730.4	729.2	729.6	728.9	728.0	727.6	726.5
30°	769.8	768.0	768.9	769.1	768.6	768.3	767.1	766.1	764.6	765.0	764.0
32.5°	813.2	811.5	812.4	812.7	812.1	812.7	812.4	810.1	808.4	809.6	809.6
35°	864.9	863.7	866.1	867.1	865.3	864.4	863.0	860.6	857.9	859.8	860.0
37.5°	926.9	925.4	927.3	929.7	926.4	924.6	919.6	916.0	914.2	915.0	916.2
40°	991.5	991.8	997.0	997.6	993.9	991.8	986.9	981.3	976.2	976.2	977.8
42.5°	1059.4	1060.3	1066.4	1068.5	1067.4	1063.3	1056.6	1049.9	1043.2	1044.4	1046.2
45°	1136.1	1134.8	1141.3	1146.4	1145.6	1144.4	1137.9	1125.7	1119.6	1119.3	1122.3
47.5°	1216.8	1219.3	1226.0	1234.8	1234.5	1231.5	1223.2	1211.9	1200.6	1201.6	1205.2
50°	1311.0	1314.4	1325.7	1334.5	1335.8	1334.8	1325.1	1311.8	1296.1	1296.9	1301.9
52.5°	1395.4	1400.2	1413.4	1431.8	1443.1	1448.2	1441.9	1429.6	1413.4	1414.4	1419.5
55°	1471.8	1479.5	1499.0	1524.0	1546.7	1567.8	1577.2	1576.9	1565.0	1567.8	1574.5
57.5°	1519.8	1530.5	1560.1	1600.5	1645.5	1687.9	1724.6	1759.2	1766.8	1781.3	1781.3
60°	1455.4	1480.4	1519.8	1588.8	1677.2	1772.6	1876.0	1976.6	2041.4	2092.5	2064.9
62.5°	1215.3	1252.3	1307.7	1398.7	1536.3	1706.6	1914.2	2148.0	2392.0	2541.3	2431.8
65°	786.3	832.8	893.0	995.5	1168.8	1388.0	1690.4	2110.8	2621.3	2886.1	2641.6
67.5°	311.5	343.1	379.6	452.5	602.9	818.2	1157.5	1676.0	2314.7	2564.6	2290.3
70°	148.9	154.0	161.1	176.7	214.3	289.2	465.0	825.8	1419.5	1682.8	1385.6
72.5°	107.6	108.5	111.9	117.1	128.1	143.3	174.3	252.5	489.5	711.8	490.1
75°	81.6	82.8	84.6	87.4	93.2	100.6	112.2	134.5	167.5	193.2	167.2
77.5°	62.1	63.3	64.8	67.5	70.6	75.8	80.1	88.9	103.0	108.5	107.9
80°	45.3	47.4	49.8	52.2	54.4	56.9	57.2	61.4	69.4	74.7	73.1
82.5°	28.7	30.6	37.0	39.8	40.1	40.7	40.3	40.7	44.9	48.6	47.4
85°	18.3	19.5	23.0	26.0	25.3	26.6	26.6	26.0	24.1	20.8	24.8
87.5°	9.2	9.5	11.0	13.7	13.1	11.6	11.4	11.4	8.3	7.0	7.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	558.4	558.4	558.4	558.4	558.4	558.4	558.4	558.4
2.5°	556.7	557.3	556.4	556.4	556.1	556.7	555.8	555.8
5°	561.0	561.9	561.6	561.6	562.2	562.9	562.5	562.2
7.5°	568.7	569.2	569.9	570.3	570.8	570.6	571.1	570.8
10°	580.2	579.6	580.6	579.6	579.9	579.4	579.6	579.6
12.5°	594.9	594.1	593.4	592.8	592.8	591.6	591.6	591.8
15°	611.8	610.2	609.0	608.5	607.8	607.8	606.9	607.5
17.5°	628.2	626.7	624.6	624.6	623.7	623.1	622.4	624.0
20°	645.7	644.2	643.0	642.7	640.8	640.3	640.5	642.3
22.5°	665.9	665.0	665.0	664.4	663.1	662.2	662.2	664.4
25°	693.1	691.3	691.6	691.8	691.3	691.3	690.6	692.1
27.5°	726.5	724.9	725.8	726.5	725.8	726.7	725.8	727.0
30°	765.6	764.6	765.6	766.5	765.0	765.0	764.4	765.3
32.5°	812.4	811.1	811.7	811.7	809.6	807.8	805.4	807.1
35°	863.7	862.2	863.3	864.4	861.8	860.0	856.4	857.9
37.5°	920.3	920.8	922.3	926.4	925.8	922.7	920.0	921.2
40°	983.6	986.6	993.2	996.1	995.5	992.4	988.8	989.4
42.5°	1055.1	1059.0	1066.1	1070.6	1068.5	1064.3	1059.7	1061.6
45°	1133.0	1139.1	1148.4	1152.9	1150.2	1145.6	1139.1	1142.6
47.5°	1215.6	1227.8	1240.1	1246.2	1245.2	1238.8	1230.6	1231.5
50°	1314.4	1330.6	1346.2	1352.3	1347.7	1337.9	1326.3	1326.0
52.5°	1437.3	1454.7	1467.6	1466.0	1454.7	1439.4	1426.3	1425.7
55°	1590.7	1596.5	1594.7	1581.5	1561.7	1537.9	1521.0	1518.2
57.5°	1776.3	1756.8	1728.1	1688.3	1643.6	1598.4	1567.8	1556.5
60°	2003.2	1914.8	1812.1	1703.9	1605.1	1531.2	1484.3	1455.9
62.5°	2190.5	1934.7	1705.1	1517.1	1363.2	1271.9	1208.0	1168.5
65°	2126.4	1671.4	1338.9	1096.4	928.4	834.0	766.5	721.5
67.5°	1642.7	1116.8	777.2	538.7	408.4	345.8	302.1	273.5
70°	828.1	428.3	259.6	183.1	156.6	145.6	138.2	134.0
72.5°	243.1	162.4	134.8	119.2	109.8	103.0	98.8	96.5
75°	134.5	109.8	96.9	88.1	82.0	77.3	74.7	72.7
77.5°	92.7	79.8	73.4	67.5	62.8	59.3	57.2	55.2
80°	64.8	58.4	55.6	52.6	48.9	46.2	43.1	41.8
82.5°	43.1	40.3	39.8	37.2	35.2	32.1	26.6	24.8
85°	25.3	25.0	25.0	24.1	22.6	19.8	16.0	16.0
87.5°	8.8	9.2	9.5	10.1	9.9	8.3	6.8	6.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)