

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: P270245

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270245
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
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5456 lumens
Efficiency: N/A
Efficacy: 92.5 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

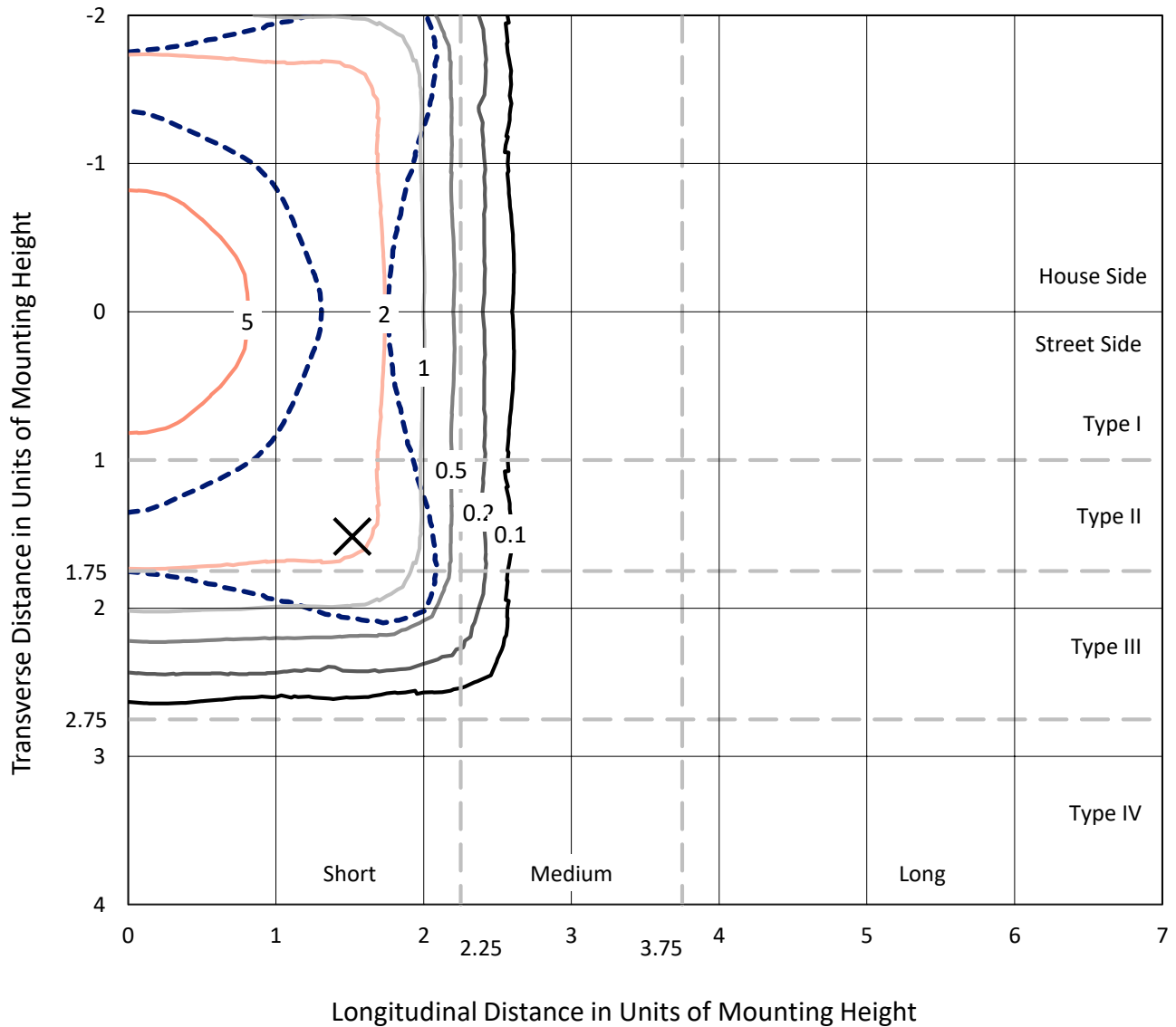
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270245
 CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7027

Iso-Footcandle Lines of Horizontal Illumination

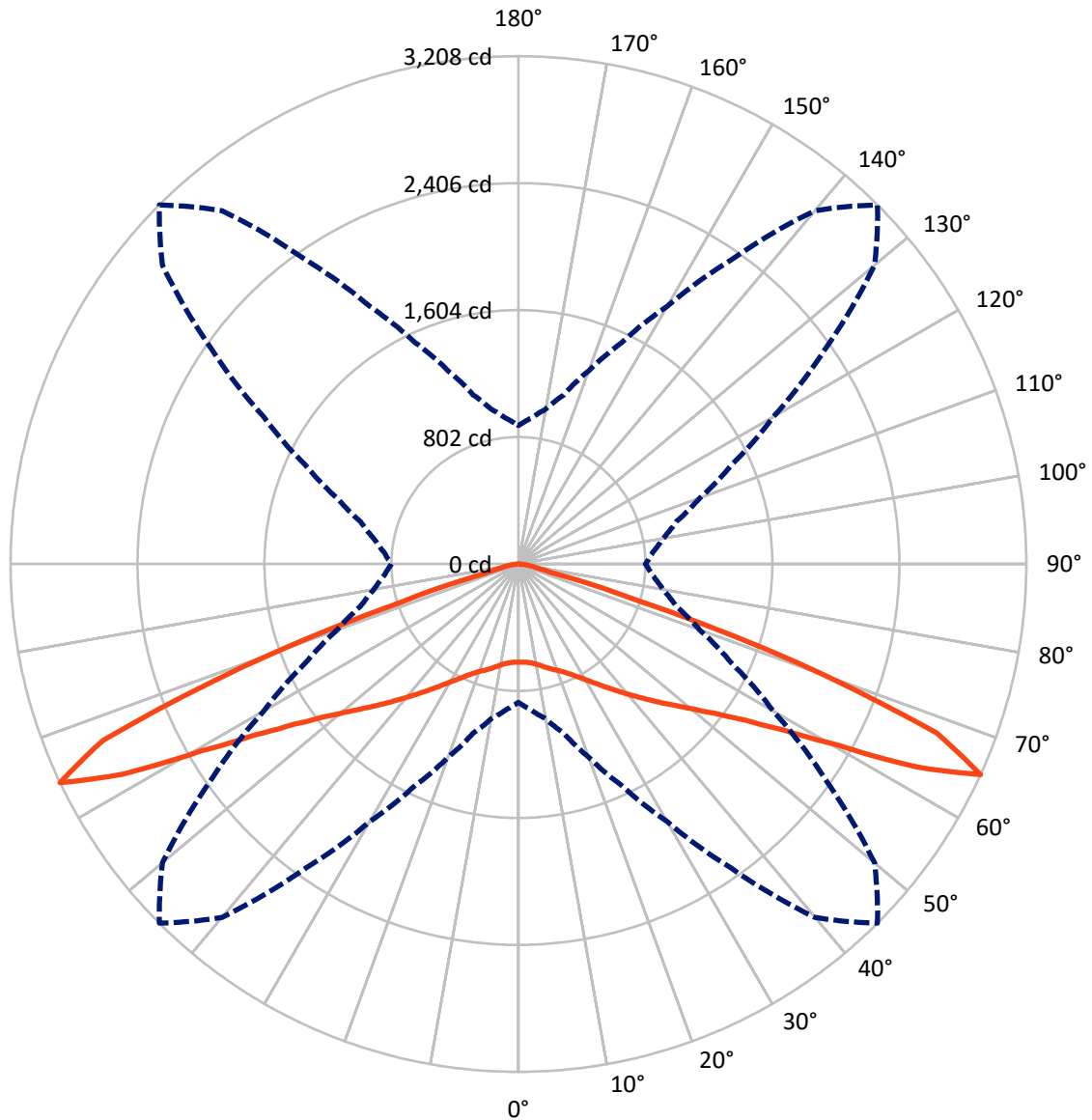
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.2 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P270245
CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270245
 CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7027

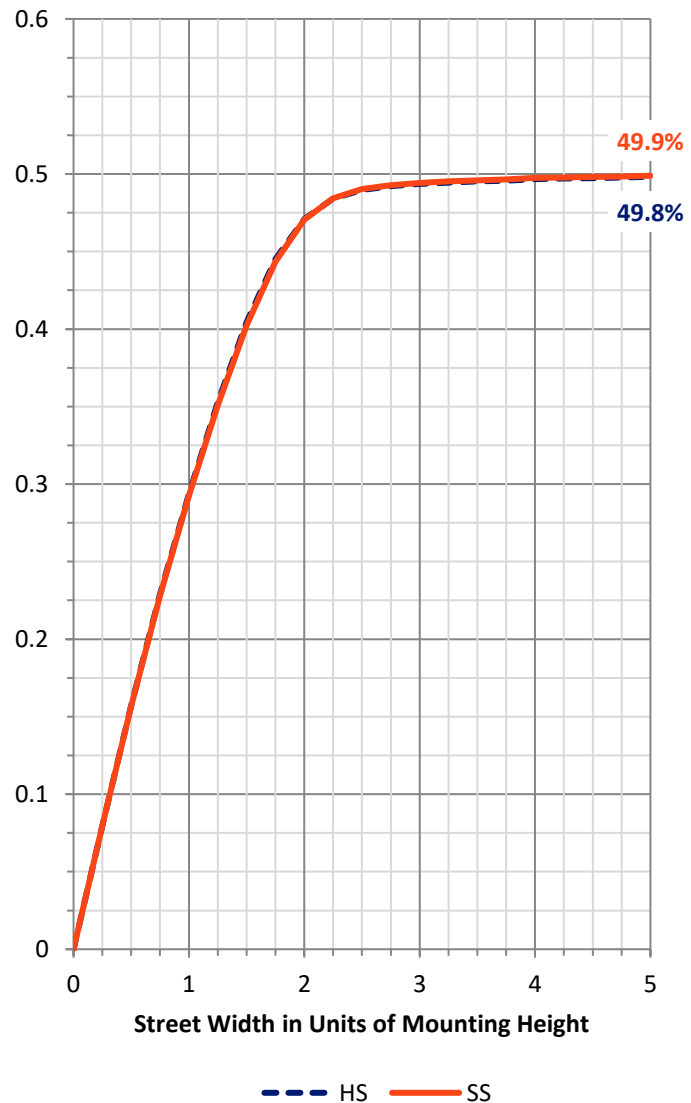
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2728.0	0.0	2728.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2728.0	0.0	2728.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	5456.0	0.0	5456.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	1.1
10°-20°	193.7	3.6
20°-30°	361.3	6.6
30°-40°	609.3	11.2
40°-50°	989.7	18.1
50°-60°	1550.6	28.4
60°-70°	1463.7	26.8
70°-80°	197.3	3.6
80°-90°	30.0	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°	5456.0	100.0
0°-180°	5456.0	100.0



REPORT NUMBER: P270245

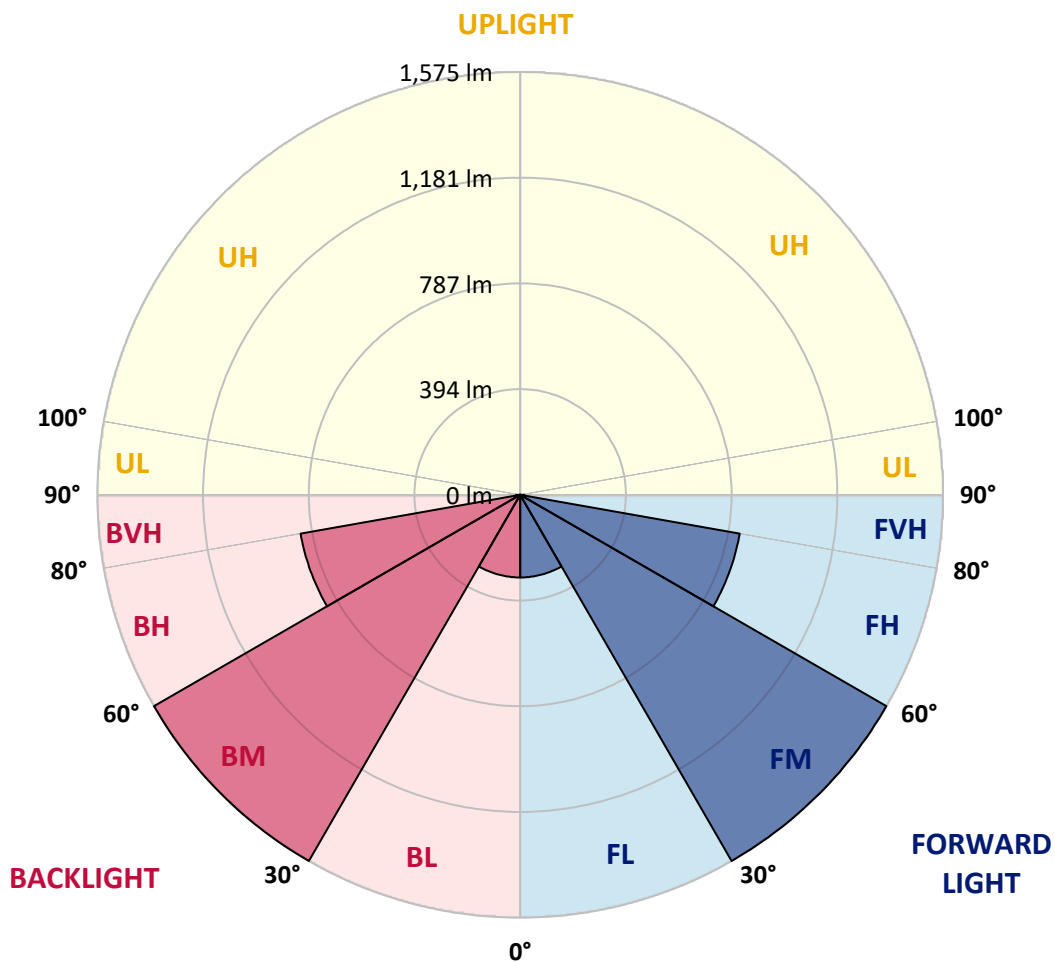
CATALOG NUMBER: NAV-AF-01-D-UNV-5NQ-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	307.7	5.6			
FM	(30°-60°)	1574.8	28.9			
FH	(60°-80°)	830.5	15.2			G1/1800
FVH	(80°-90°)	15.0	0.3			G1/100
BL	(0°-30°)	307.7	5.6	B1/500		
BM	(30°-60°)	1574.8	28.9	B2/2500		
BH	(60°-80°)	830.5	15.2	B2/1000		G1/1800
BVH	(80°-90°)	15.0	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: P270245

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5
2.5°	625.7	625.7	626.7	626.4	625.0	624.1	623.1	621.6	621.0	620.3	619.9
5°	629.2	629.2	630.2	629.8	628.8	627.5	626.7	625.7	624.7	624.1	624.3
7.5°	637.5	637.9	638.2	637.9	637.0	635.9	634.6	634.3	632.9	631.9	632.4
10°	650.6	650.6	650.8	651.2	650.6	648.1	648.1	647.5	646.2	644.8	645.2
12.5°	664.7	664.7	665.1	665.1	665.1	663.8	664.1	663.8	662.1	661.4	662.1
15°	678.7	679.1	679.1	679.7	679.7	680.0	681.5	681.5	680.7	680.5	680.5
17.5°	695.1	695.7	696.0	697.1	697.4	698.2	699.5	699.8	700.1	699.2	699.5
20°	716.8	717.1	718.1	718.6	719.8	719.8	720.5	720.3	719.5	718.1	718.1
22.5°	741.3	742.0	743.9	743.9	745.8	744.7	745.1	743.9	742.3	741.6	740.9
25°	773.3	774.2	776.0	775.2	776.0	774.2	774.2	774.2	773.3	772.3	771.9
27.5°	813.7	812.0	813.7	812.2	812.0	810.6	811.0	810.4	809.3	809.0	807.5
30°	855.8	853.7	854.7	855.1	854.5	854.1	852.8	851.8	850.1	850.3	849.3
32.5°	904.1	902.1	903.1	903.3	902.7	903.3	903.1	900.7	898.7	900.0	900.0
35°	961.5	960.2	962.9	963.9	961.8	960.8	959.5	956.8	953.7	955.7	956.1
37.5°	1030.5	1028.7	1030.8	1033.6	1029.8	1027.8	1022.4	1018.3	1016.3	1017.3	1018.6
40°	1102.2	1102.6	1108.4	1109.0	1104.9	1102.6	1097.1	1091.0	1085.2	1085.2	1086.9
42.5°	1177.7	1178.7	1185.6	1187.9	1186.5	1182.1	1174.7	1167.2	1159.6	1161.0	1163.0
45°	1262.9	1261.6	1268.8	1274.5	1273.5	1272.2	1265.1	1251.3	1244.6	1244.3	1247.7
47.5°	1352.7	1355.5	1362.9	1372.8	1372.4	1369.0	1359.9	1347.3	1334.7	1335.7	1339.8
50°	1457.4	1461.2	1473.7	1483.6	1485.0	1483.9	1473.0	1458.4	1440.7	1441.8	1447.2
52.5°	1551.3	1556.7	1571.2	1591.6	1604.3	1610.0	1602.8	1589.3	1571.2	1572.3	1578.1
55°	1636.3	1644.6	1666.4	1694.4	1719.4	1742.9	1753.4	1753.1	1739.8	1742.9	1750.3
57.5°	1689.5	1701.4	1734.4	1779.3	1829.2	1876.5	1917.3	1955.7	1964.1	1980.1	1980.1
60°	1617.8	1645.7	1689.5	1766.3	1864.6	1970.6	2085.4	2197.3	2269.4	2326.2	2295.6
62.5°	1351.1	1392.2	1453.6	1555.0	1707.9	1897.2	2127.9	2388.0	2659.3	2825.1	2703.4
65°	874.2	925.9	992.7	1106.6	1299.4	1543.1	1879.2	2346.6	2914.1	3208.4	2936.6
67.5°	346.3	381.3	422.2	503.1	670.2	909.5	1286.8	1863.3	2573.3	2851.0	2546.1
70°	165.5	171.2	179.1	196.5	238.3	321.6	517.0	918.0	1578.1	1870.7	1540.4
72.5°	119.7	120.6	124.3	130.2	142.4	159.4	193.8	280.7	544.2	791.2	544.8
75°	90.8	92.0	94.1	97.1	103.7	111.7	124.8	149.6	186.3	214.9	185.9
77.5°	69.0	70.3	72.0	75.1	78.5	84.4	89.0	99.0	114.5	120.6	120.0
80°	50.3	52.7	55.3	58.1	60.5	63.2	63.6	68.4	77.2	83.0	81.2
82.5°	32.0	34.0	41.1	44.1	44.6	45.3	44.8	45.3	49.9	54.1	52.7
85°	20.4	21.7	25.5	28.8	28.1	29.6	29.6	28.8	26.9	23.0	27.5
87.5°	10.2	10.5	12.2	15.4	14.6	12.9	12.5	12.5	9.2	7.8	8.5
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: P270245

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	620.5	620.5	620.5	620.5	620.5	620.5	620.5	620.5
2.5°	618.9	619.7	618.7	618.7	618.3	618.9	617.9	617.9
5°	623.7	624.7	624.3	624.3	625.0	625.7	625.4	625.0
7.5°	632.1	632.9	633.6	633.8	634.6	634.3	634.9	634.6
10°	645.2	644.4	645.4	644.4	644.8	644.1	644.4	644.4
12.5°	661.4	660.3	659.7	659.0	659.0	657.6	657.6	658.0
15°	680.0	678.4	677.1	676.3	675.6	675.6	674.6	675.3
17.5°	698.4	696.7	694.4	694.4	693.3	692.7	692.1	693.8
20°	717.8	716.0	714.8	714.4	712.4	711.6	712.0	714.2
22.5°	740.3	739.2	739.2	738.5	737.1	736.3	736.3	738.5
25°	770.4	768.5	768.8	769.2	768.5	768.5	767.8	769.5
27.5°	807.5	805.9	806.9	807.5	806.9	807.8	806.9	808.2
30°	851.1	850.1	851.1	852.1	850.3	850.3	849.6	850.8
32.5°	903.1	901.7	902.3	902.3	900.0	897.9	895.3	897.2
35°	960.2	958.4	959.7	960.8	958.1	956.1	952.1	953.7
37.5°	1023.0	1023.7	1025.4	1029.8	1029.2	1025.8	1022.7	1024.1
40°	1093.3	1096.8	1104.2	1107.3	1106.6	1103.3	1099.2	1099.9
42.5°	1172.9	1177.4	1185.1	1190.3	1187.9	1183.1	1177.9	1180.1
45°	1259.7	1266.4	1276.6	1281.7	1278.6	1273.5	1266.4	1270.2
47.5°	1351.4	1365.0	1378.5	1385.4	1384.3	1377.2	1367.9	1369.0
50°	1461.2	1479.1	1496.4	1503.4	1498.3	1487.4	1474.4	1474.1
52.5°	1597.7	1617.2	1631.4	1629.7	1617.2	1600.2	1585.6	1584.9
55°	1768.5	1774.8	1772.8	1758.3	1736.2	1709.6	1690.9	1687.8
57.5°	1974.7	1952.9	1920.9	1876.7	1827.2	1776.8	1742.9	1730.3
60°	2226.9	2128.7	2014.4	1894.2	1784.4	1702.1	1650.0	1618.4
62.5°	2435.2	2150.7	1895.6	1686.5	1515.5	1413.9	1342.8	1298.9
65°	2363.9	1858.1	1488.3	1218.8	1032.2	927.2	852.1	802.0
67.5°	1826.2	1241.5	864.0	598.9	454.1	384.5	335.7	304.2
70°	920.8	476.2	288.5	203.6	174.0	161.8	153.6	148.8
72.5°	270.2	180.5	149.8	132.6	122.0	114.5	109.9	107.3
75°	149.6	122.0	107.7	97.8	91.1	86.0	83.0	80.8
77.5°	102.9	88.8	81.6	75.1	69.7	65.9	63.6	61.5
80°	72.0	64.9	61.9	58.5	54.3	51.4	47.9	46.5
82.5°	47.9	44.8	44.1	41.4	39.0	35.8	29.6	27.5
85°	28.1	27.8	27.8	26.9	25.2	22.1	17.6	17.6
87.5°	9.8	10.2	10.5	11.1	10.9	9.2	7.5	7.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)