

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: P195487

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195487
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)
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-5WQ-7050-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5135 lumens
Efficiency: N/A
Efficacy: 116.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G1

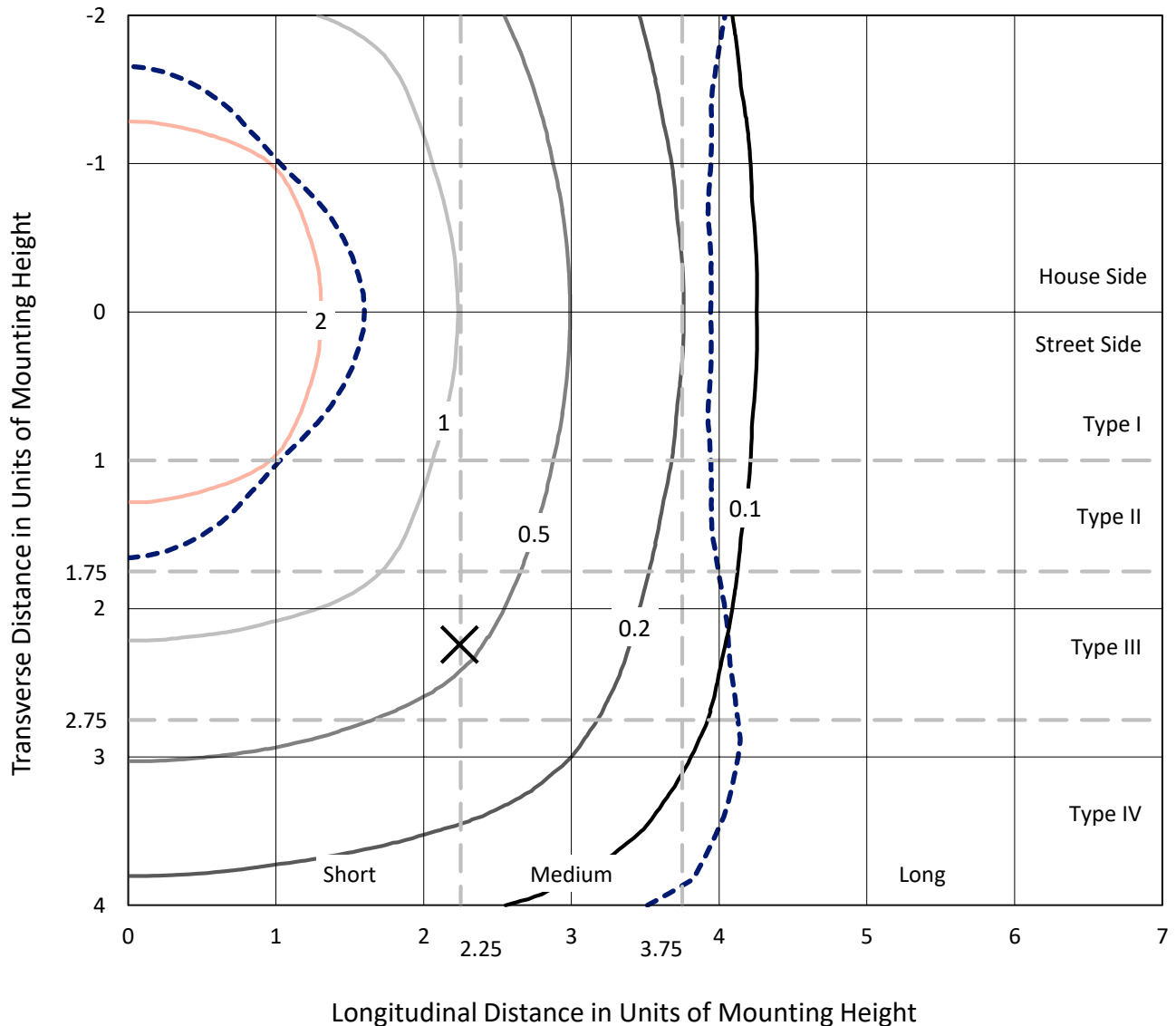
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

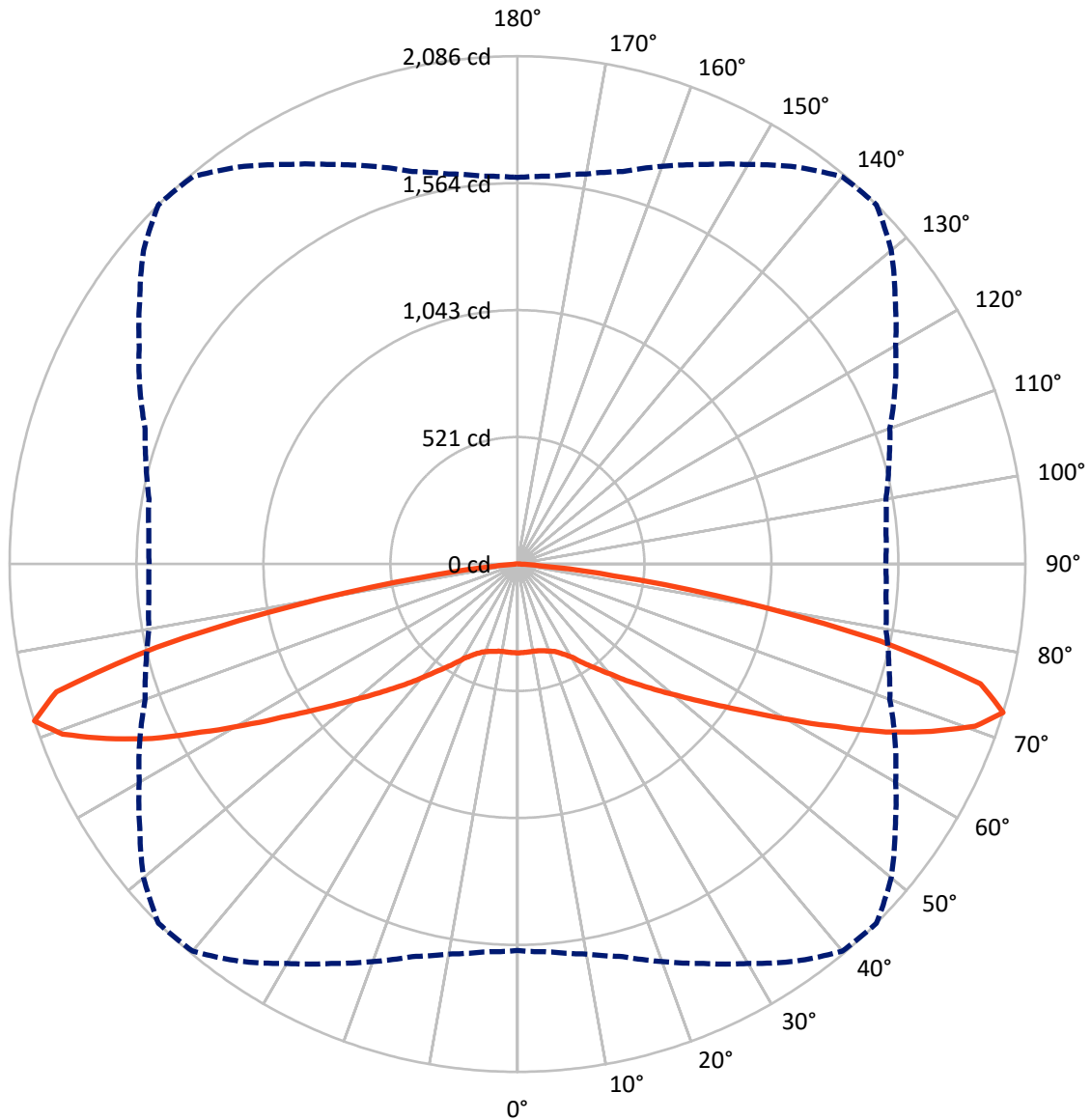
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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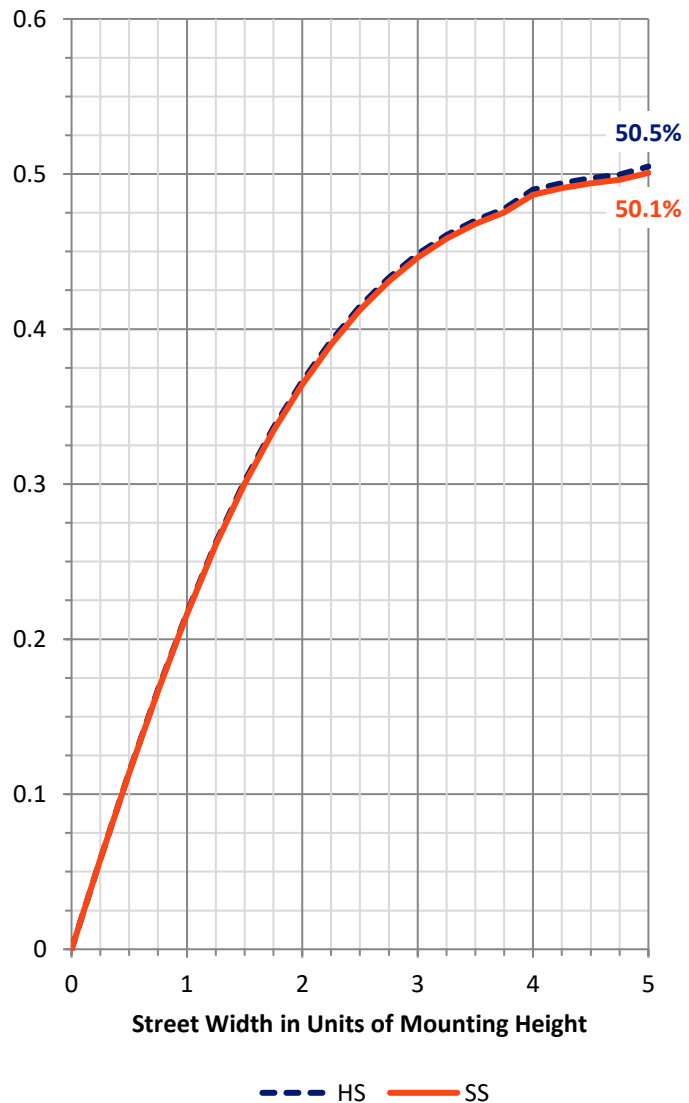
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2567.5	0.0	2567.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2567.5	0.0	2567.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	5135.0	0.0	5135.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	0.7
10°-20°	105.5	2.1
20°-30°	190.4	3.7
30°-40°	324.7	6.3
40°-50°	552.9	10.8
50°-60°	889.7	17.3
60°-70°	1479.6	28.8
70°-80°	1431.4	27.9
80°-90°	126.0	2.5
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°	5135.0	100.0
0°-180°	5135.0	100.0



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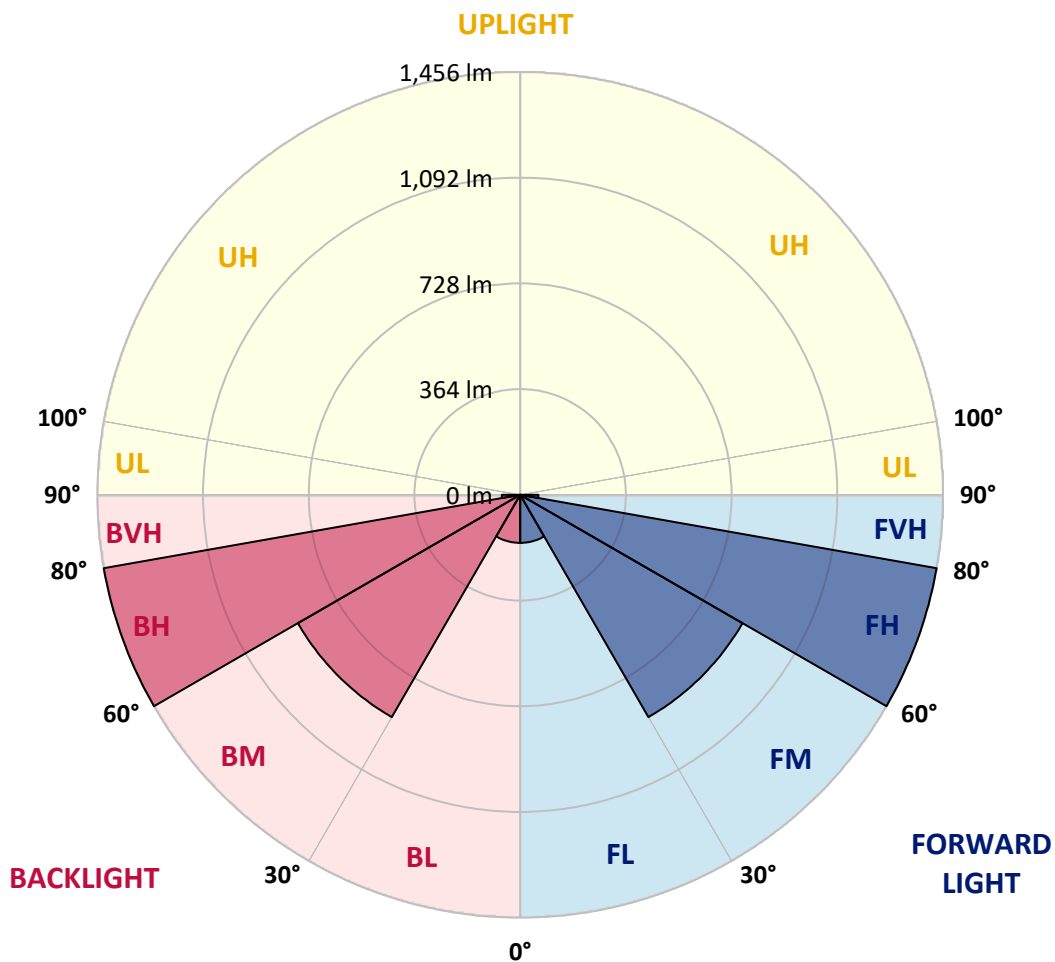
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	165.3	3.2			
FM	(30°-60°)	883.7	17.2			
FH	(60°-80°)	1455.5	28.3			G1/1800
FVH	(80°-90°)	63.0	1.2			G1/100
BL	(0°-30°)	165.3	3.2	B1/500		
BM	(30°-60°)	883.7	17.2	B1/1000		
BH	(60°-80°)	1455.5	28.3	B3/2500		G1/1800
BVH	(80°-90°)	63.0	1.2			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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	365.1	365.1	365.1	365.1	365.1	365.1	365.1	365.1	365.1	365.1	365.1
2.5°	367.9	367.9	368.2	367.9	367.3	367.0	366.0	365.4	364.7	364.4	363.8
5°	368.2	368.2	368.5	368.2	367.6	367.0	366.3	365.4	364.7	364.1	363.8
7.5°	369.5	369.8	370.1	369.8	368.5	367.9	367.0	366.0	364.7	364.1	363.5
10°	372.0	372.0	372.0	371.7	370.7	369.5	368.2	367.3	365.7	364.1	363.2
12.5°	373.9	374.2	374.2	373.6	372.3	370.7	369.5	368.5	367.3	366.0	365.1
15°	376.8	376.8	376.4	375.2	373.3	372.0	371.4	371.1	370.7	370.1	369.2
17.5°	382.4	382.1	381.2	379.3	377.1	376.1	375.5	375.5	375.5	375.2	374.5
20°	390.7	390.7	389.4	386.2	384.3	383.4	382.4	382.4	382.4	381.5	380.5
22.5°	403.9	404.3	402.4	398.6	396.0	394.1	392.9	391.9	391.0	390.3	388.8
25°	422.0	421.6	419.4	414.7	412.8	410.9	408.4	406.8	405.5	404.6	402.7
27.5°	440.9	440.6	438.1	434.0	432.7	429.9	428.0	425.7	424.2	422.6	420.7
30°	465.3	463.7	461.8	458.6	458.0	455.8	453.2	450.1	447.6	445.0	442.8
32.5°	487.1	487.1	484.2	482.6	483.9	483.0	483.3	481.4	479.8	478.8	476.6
35°	517.4	517.4	516.1	514.2	514.6	512.3	512.0	512.3	513.6	513.6	511.1
37.5°	557.9	558.5	554.4	553.8	552.2	549.0	547.4	548.1	550.9	552.5	549.0
40°	608.1	609.4	608.1	604.0	602.1	596.7	593.6	593.6	595.8	597.4	596.1
42.5°	657.7	660.0	657.7	654.6	653.0	648.9	647.3	648.6	651.4	653.3	651.4
45°	713.1	714.6	711.8	708.0	706.1	703.9	702.9	703.9	707.0	708.9	708.3
47.5°	767.4	769.6	766.2	764.6	764.6	762.4	764.9	767.4	770.3	774.7	772.8
50°	820.5	823.4	821.1	821.5	824.0	828.1	832.8	837.9	843.0	847.7	848.3
52.5°	867.9	872.4	872.7	878.4	886.3	892.6	905.9	916.9	928.9	933.0	931.1
55°	917.9	923.9	931.8	940.6	953.3	966.2	988.7	1008.6	1024.4	1034.2	1032.6
57.5°	989.3	995.3	1003.5	1018.1	1037.0	1054.7	1085.4	1116.4	1140.4	1155.2	1148.0
60°	1081.9	1088.2	1099.0	1114.5	1139.1	1163.1	1205.2	1249.7	1287.0	1304.1	1290.8
62.5°	1204.5	1210.5	1217.5	1238.0	1265.5	1296.5	1349.3	1406.5	1453.9	1470.4	1451.7
65°	1379.3	1386.6	1388.8	1405.6	1432.4	1461.2	1518.1	1582.6	1636.6	1663.5	1626.2
67.5°	1576.2	1579.1	1587.9	1607.5	1635.0	1660.9	1705.8	1766.8	1818.7	1833.5	1793.7
70°	1691.6	1697.3	1712.8	1740.0	1772.8	1813.6	1862.6	1928.3	1987.1	1994.1	1943.5
72.5°	1587.3	1599.0	1626.5	1668.8	1737.7	1810.1	1894.5	1991.6	2075.9	2085.7	2004.5
75°	1273.1	1286.4	1319.3	1365.7	1447.3	1554.7	1676.7	1822.5	1948.9	1965.0	1857.5
77.5°	678.6	695.0	742.8	805.3	921.7	1063.9	1210.9	1377.1	1484.6	1520.9	1443.5
80°	171.0	179.8	202.9	239.6	318.3	433.0	559.8	738.7	872.0	928.6	872.0
82.5°	66.4	73.0	79.3	83.8	91.3	107.1	147.9	241.2	324.9	400.1	346.4
85°	25.6	27.2	39.2	44.6	44.6	49.0	56.3	66.4	82.2	89.8	75.2
87.5°	10.1	11.1	13.6	20.9	21.5	19.0	20.2	22.8	17.4	14.5	16.4
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°	365.1	365.1	365.1	365.1	365.1	365.1	365.1	365.1
2.5°	363.5	363.2	362.5	362.8	362.5	362.5	362.5	362.5
5°	363.2	363.2	362.5	362.5	362.5	362.8	362.5	362.5
7.5°	362.8	362.5	361.9	361.6	361.6	361.3	361.3	361.3
10°	362.2	361.6	361.0	360.6	360.6	360.0	360.0	360.0
12.5°	363.8	362.8	362.2	361.9	361.9	361.9	362.2	362.2
15°	368.2	366.3	365.4	365.1	365.4	366.0	366.3	366.6
17.5°	373.0	371.1	369.5	368.9	369.2	370.1	371.1	371.7
20°	379.0	377.4	375.5	374.9	374.9	376.1	376.8	377.7
22.5°	387.5	386.2	384.7	383.7	383.1	384.7	385.6	386.2
25°	401.1	399.8	398.6	397.6	397.3	398.9	399.5	399.8
27.5°	419.1	417.8	417.2	416.9	415.9	416.6	417.5	417.2
30°	442.5	443.4	442.5	442.5	440.9	441.5	440.9	440.3
32.5°	473.8	472.8	470.0	468.1	465.9	465.9	464.9	464.0
35°	505.1	501.9	500.3	501.3	500.3	501.0	499.4	497.8
37.5°	542.1	540.2	539.8	542.7	542.1	542.7	542.7	540.5
40°	591.0	589.8	592.0	596.7	598.6	598.3	599.0	596.1
42.5°	647.3	645.1	646.0	650.2	652.4	653.0	652.7	650.2
45°	703.6	704.2	704.2	708.6	710.8	712.1	709.9	708.9
47.5°	767.1	768.0	765.8	768.7	769.3	771.5	769.6	768.0
50°	840.4	837.0	831.9	832.8	832.8	832.2	830.0	828.1
52.5°	922.3	914.4	904.9	901.7	898.3	894.8	890.4	886.9
55°	1015.5	1001.9	984.9	977.0	970.3	962.4	952.3	948.8
57.5°	1123.6	1100.2	1077.5	1063.3	1046.2	1035.8	1022.8	1022.2
60°	1252.0	1220.3	1180.2	1159.0	1142.0	1129.6	1119.8	1116.0
62.5°	1400.2	1345.8	1302.5	1279.8	1259.9	1252.3	1239.9	1241.5
65°	1552.2	1496.9	1454.9	1436.5	1417.9	1412.8	1401.5	1405.6
67.5°	1716.9	1671.4	1625.2	1608.2	1591.1	1586.0	1574.3	1577.8
70°	1864.5	1806.7	1754.2	1720.7	1691.6	1668.2	1653.4	1647.4
72.5°	1893.9	1793.7	1711.2	1627.4	1579.1	1536.7	1519.3	1512.7
75°	1701.7	1546.2	1428.6	1330.3	1276.0	1214.3	1207.7	1198.5
77.5°	1323.7	1146.7	1004.5	878.0	805.0	729.8	703.9	684.3
80°	789.5	606.9	470.3	329.7	269.0	216.5	203.5	190.0
82.5°	282.6	181.1	122.0	95.1	85.0	78.4	73.3	66.7
85°	68.3	57.5	54.4	49.3	48.7	41.4	29.4	26.2
87.5°	21.8	19.9	20.2	19.3	20.2	15.2	12.3	11.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)