

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: P196549

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196549
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)
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-SL2-7030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4819.4 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - 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

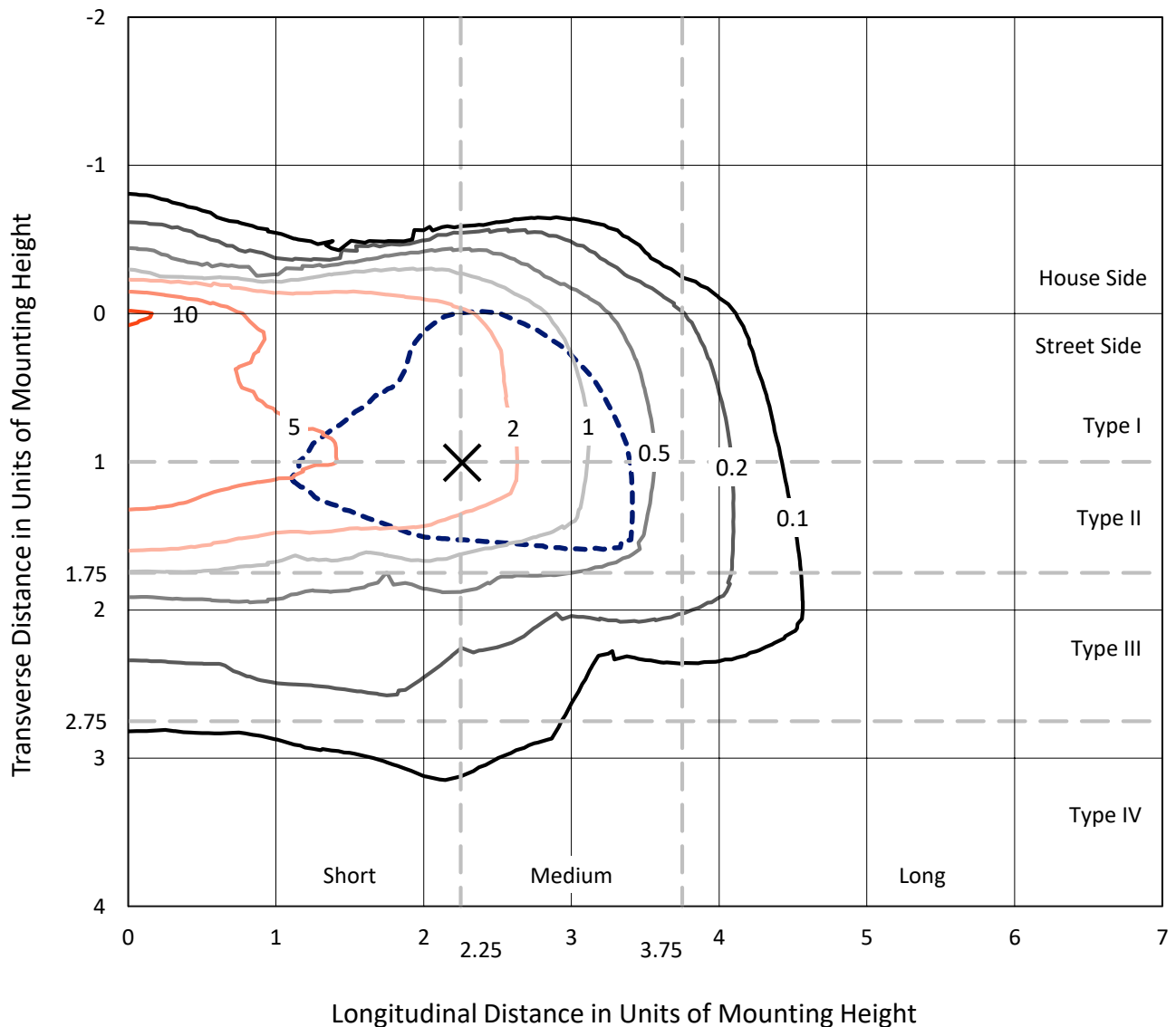


REPORT NUMBER: P196549

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

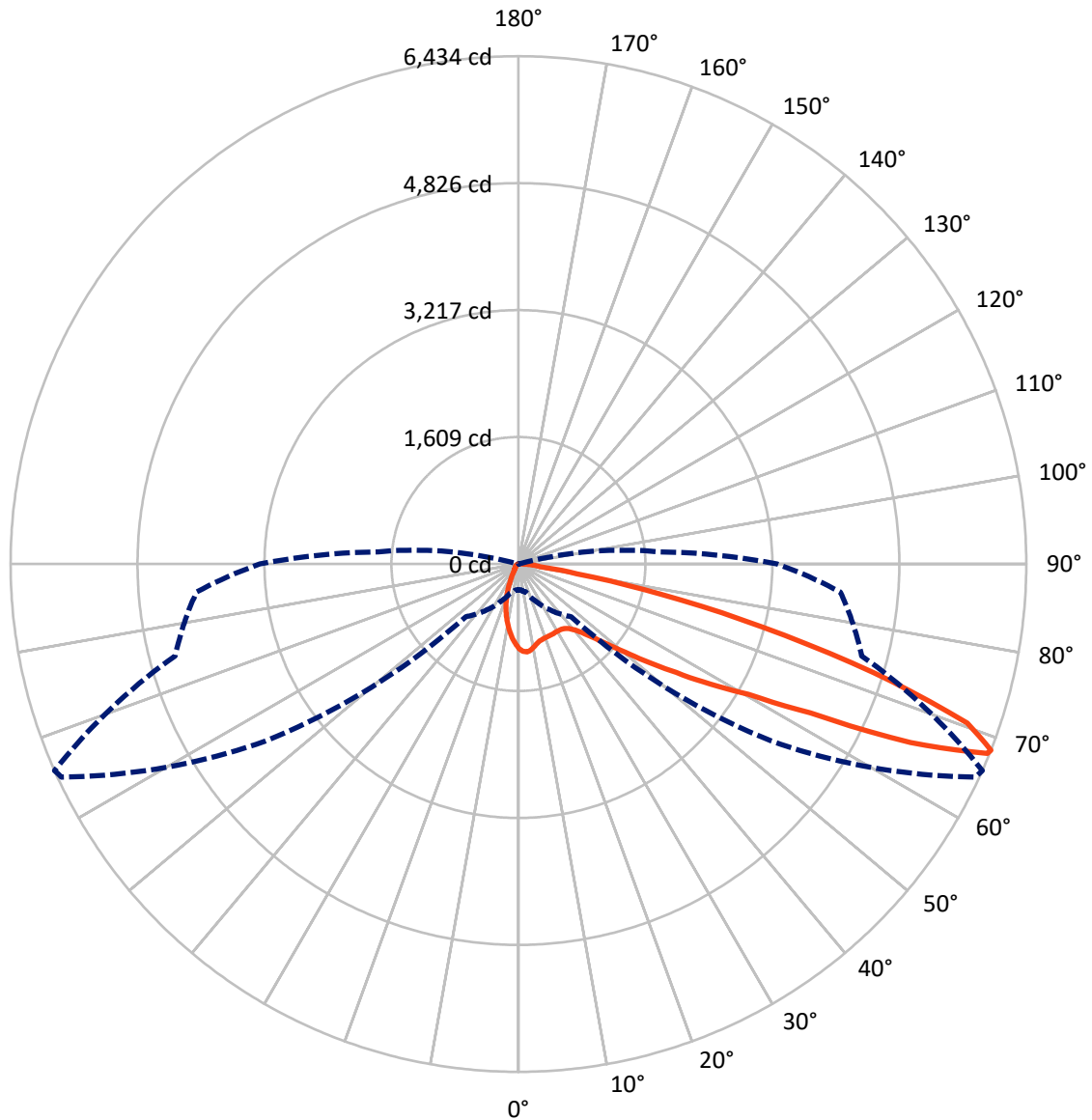
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.7 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P196549
CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P196549

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-HSS

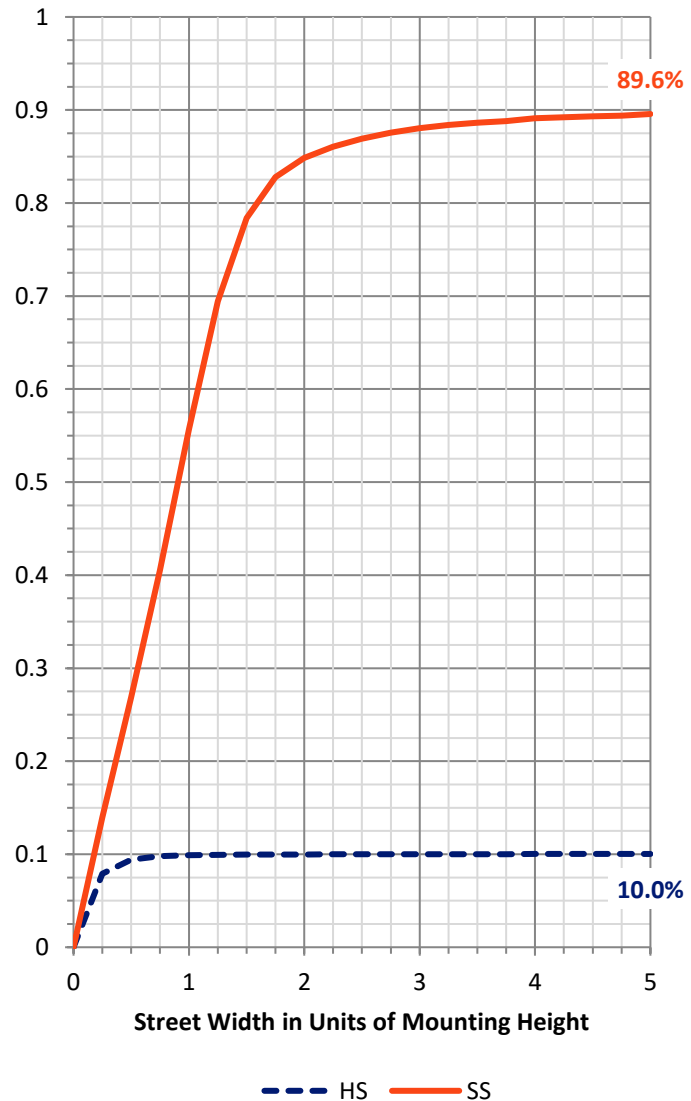
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	488.2	0.0	488.2
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	4331.3	0.0	4331.3
	% Fixture	89.9	0.0	89.9
Total	Lumens	4819.4	0.0	4819.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.0	1.8
10°-20°	189.4	3.9
20°-30°	274.4	5.7
30°-40°	420.1	8.7
40°-50°	718.6	14.9
50°-60°	1124.1	23.3
60°-70°	1294.3	26.9
70°-80°	647.7	13.4
80°-90°	62.7	1.3
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°	4819.4	100.0
0°-180°	4819.4	100.0

Coefficient of Utilization



REPORT NUMBER: P196549

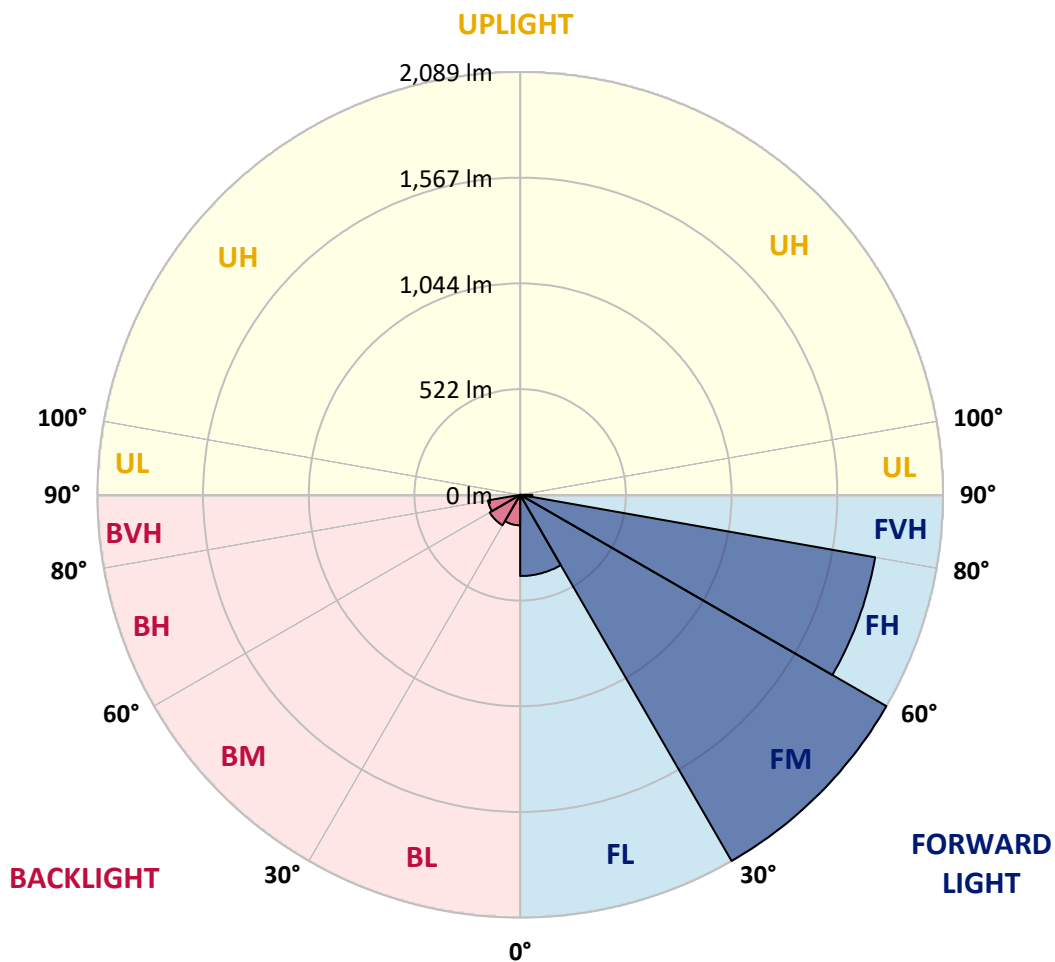
CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	401.2	8.3			
FM	(30°-60°)	2089.0	43.3			
FH	(60°-80°)	1780.8	36.9			G1/1800
FVH	(80°-90°)	60.4	1.3			G1/100
BL	(0°-30°)	150.7	3.1	B1/500		
BM	(30°-60°)	173.8	3.6	B0/220		
BH	(60°-80°)	161.3	3.3	B1/500		G1/500
BVH	(80°-90°)	2.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Medium





REPORT NUMBER: P196549

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7
2.5°	1129.3	1130.1	1129.7	1130.9	1130.1	1124.4	1118.4	1105.4	1106.7	1090.0	1071.5
5°	1049.9	1056.3	1062.8	1069.2	1084.7	1098.3	1114.6	1118.4	1118.4	1103.9	1076.8
7.5°	968.9	969.3	976.4	985.2	1006.0	1031.0	1068.8	1102.9	1103.6	1107.4	1077.6
10°	908.1	909.9	914.8	924.4	945.1	969.6	1012.1	1065.4	1069.5	1097.5	1069.9
12.5°	860.8	863.0	868.3	879.2	898.2	923.6	968.1	1029.1	1034.8	1088.1	1067.7
15°	824.4	827.4	831.6	842.6	863.0	889.8	938.6	1004.8	1011.6	1084.3	1074.9
17.5°	809.3	809.3	808.8	816.5	836.9	864.1	915.1	992.0	1000.7	1087.3	1086.9
20°	815.7	814.5	806.7	804.7	817.3	844.5	896.7	983.7	993.5	1093.0	1101.8
22.5°	849.7	847.6	829.8	815.0	811.1	829.3	884.1	978.0	989.8	1104.7	1121.4
25°	922.0	915.1	890.6	857.3	827.4	825.6	875.5	975.0	987.4	1118.4	1143.0
27.5°	1015.8	1013.9	974.6	929.9	872.4	838.0	872.9	972.7	985.2	1128.2	1160.4
30°	1132.4	1133.1	1087.6	1029.4	942.5	873.2	881.1	971.6	984.4	1128.9	1168.0
32.5°	1252.6	1253.4	1215.6	1153.1	1038.2	933.7	904.5	976.9	988.6	1125.9	1167.6
35°	1368.5	1369.6	1346.8	1296.6	1166.1	1017.7	948.9	995.1	1003.3	1127.8	1166.8
37.5°	1514.9	1519.4	1491.4	1444.5	1326.4	1141.1	1021.1	1031.7	1038.5	1143.3	1172.5
40°	1764.5	1758.5	1678.3	1598.9	1500.4	1291.2	1125.6	1094.9	1097.2	1183.4	1193.9
42.5°	2055.5	2047.9	1910.6	1773.6	1679.5	1472.5	1259.1	1191.8	1191.4	1250.8	1240.9
45°	2305.9	2301.4	2156.9	1974.2	1877.7	1672.6	1423.6	1331.4	1326.9	1367.3	1326.4
47.5°	2483.8	2479.9	2370.7	2187.6	2106.9	1892.8	1629.2	1521.7	1512.2	1519.8	1465.2
50°	2501.2	2497.0	2458.8	2341.2	2374.9	2215.9	1883.0	1771.0	1758.8	1747.2	1675.3
52.5°	2338.4	2338.1	2358.2	2350.6	2562.4	2631.7	2194.4	2079.3	2065.0	2035.1	1963.6
55°	2006.0	2004.1	2080.1	2190.5	2558.3	3060.8	2669.2	2446.4	2427.4	2367.6	2273.8
57.5°	1465.7	1455.9	1614.8	1848.8	2378.6	3248.4	3423.2	2902.3	2870.8	2681.3	2536.8
60°	809.3	813.0	1017.3	1294.7	1953.0	3211.3	4117.1	3433.8	3351.3	2951.7	2806.1
62.5°	453.7	463.0	615.1	841.4	1245.1	2910.5	4489.4	4348.6	4150.0	3267.3	3146.6
65°	343.2	348.9	425.2	649.2	785.0	2034.0	4548.8	5627.7	5456.4	3745.5	3688.8
67.5°	323.1	327.7	365.2	538.3	715.1	1054.8	4101.6	6384.4	6406.0	4397.8	4108.7
68°	325.4	331.0	368.5	518.0	713.9	943.6	3910.8	6388.3	6434.1	4503.0	4094.4
70°	299.0	300.4	389.7	508.0	691.9	743.4	2829.2	5950.5	6032.6	4628.2	3716.8
72.5°	114.2	114.6	174.9	440.0	724.9	747.6	1425.2	4703.1	4707.3	4027.8	2897.7
75°	59.4	49.9	54.8	137.6	692.3	728.6	715.1	3211.3	3191.3	2724.1	1775.6
77.5°	40.9	34.9	36.7	47.6	287.9	728.3	516.5	1846.7	1842.5	1158.8	506.6
80°	23.1	20.1	22.0	40.1	101.1	683.6	481.3	793.8	748.0	203.5	82.1
82.5°	11.7	9.9	11.7	33.7	62.9	430.2	467.9	311.4	277.3	48.4	53.3
85°	3.1	3.1	5.7	23.5	39.0	141.2	419.5	224.7	202.0	21.2	37.8
87.5°	0.8	0.3	2.3	8.7	13.9	30.6	232.7	125.2	107.8	10.9	22.0
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: P196549

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-7030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7	1073.7
2.5°	1063.8	1053.3	1032.5	1009.0	992.4	974.3	963.6	950.8	940.9	932.2	938.6
5°	1060.2	1039.7	993.5	941.7	898.2	856.6	825.6	796.1	773.7	759.7	765.4
7.5°	1050.3	1020.1	945.1	864.1	793.0	726.0	671.5	622.8	584.9	564.5	570.9
10°	1033.6	990.9	890.3	777.8	678.4	583.8	502.8	430.2	375.3	349.6	355.6
12.5°	1021.5	965.1	833.4	694.7	563.8	429.4	322.0	238.7	196.0	170.2	172.5
15°	1016.2	945.1	780.5	606.8	438.4	275.8	174.0	125.9	111.2	106.0	106.3
17.5°	1016.9	929.2	730.2	515.7	312.2	158.5	106.6	96.1	93.9	92.7	92.7
20°	1018.9	913.3	678.0	420.7	199.7	102.1	88.9	85.5	84.3	82.8	83.2
22.5°	1024.6	901.2	625.4	325.4	122.9	83.2	78.6	75.7	73.8	71.4	71.9
25°	1033.3	892.1	573.6	234.2	86.7	72.6	68.5	64.4	60.9	58.2	58.7
27.5°	1038.5	879.2	518.3	159.6	71.9	63.6	57.9	52.2	48.4	46.1	45.8
30°	1034.8	858.4	455.5	104.8	63.6	54.8	48.1	41.6	37.8	35.9	35.9
32.5°	1024.6	831.6	386.2	76.4	56.4	47.3	39.0	33.4	30.6	29.5	29.9
35°	1012.9	803.6	312.5	64.7	50.7	40.1	31.8	27.2	26.1	25.6	25.6
37.5°	1006.4	779.3	241.8	58.7	45.5	33.4	26.1	23.5	22.3	22.3	22.3
40°	1013.6	760.9	178.9	54.1	40.1	27.7	22.0	20.1	19.6	19.6	19.6
42.5°	1044.2	754.4	130.9	50.4	34.9	23.1	18.9	17.4	17.1	17.4	17.4
45°	1103.9	768.4	99.1	46.6	29.9	18.9	16.3	15.2	15.2	15.6	15.6
47.5°	1205.3	804.3	81.3	42.7	25.0	15.9	13.9	13.2	13.2	13.6	13.6
50°	1362.8	870.9	72.9	38.6	20.8	13.6	11.7	11.4	11.4	11.7	12.1
52.5°	1601.8	997.6	68.9	34.4	17.1	11.4	9.9	9.5	9.9	10.2	10.2
55°	1867.9	1160.0	63.9	30.3	14.4	9.5	7.9	7.9	8.3	9.1	9.1
57.5°	2115.7	1316.6	59.4	25.0	12.4	7.5	6.4	6.4	7.2	7.9	7.9
60°	2377.5	1470.2	53.3	20.1	10.6	6.0	5.3	5.3	6.4	7.2	7.5
62.5°	2701.0	1648.8	45.5	15.9	8.3	4.6	3.9	4.9	6.0	7.2	7.2
65°	3168.6	1870.8	35.5	12.4	6.4	3.4	3.1	4.6	5.7	6.8	7.2
67.5°	3338.4	1842.5	26.9	10.2	4.9	2.6	2.6	4.2	5.7	6.8	6.8
68°	3276.3	1780.5	25.6	9.9	4.6	2.6	2.6	4.2	5.7	6.8	6.8
70°	2855.0	1455.5	21.2	7.5	3.9	2.3	2.3	3.9	5.7	6.4	6.8
72.5°	2137.6	967.1	18.1	4.9	3.4	2.3	1.8	3.9	5.3	6.4	6.4
75°	1226.2	401.4	15.6	3.9	3.1	1.8	1.8	3.4	5.3	6.4	6.4
77.5°	346.6	93.9	12.4	3.1	2.6	1.8	1.5	3.4	4.9	6.0	6.0
80°	63.6	28.0	9.9	2.6	2.3	1.8	1.5	3.4	4.9	6.0	6.0
82.5°	41.9	13.2	7.2	2.6	2.3	1.8	1.5	3.1	4.6	5.7	5.7
85°	31.3	9.5	4.6	2.6	2.3	1.8	1.5	3.1	4.6	5.7	5.7
87.5°	17.4	4.2	3.4	3.1	2.6	1.8	1.5	2.6	4.2	5.3	5.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)