

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: P270280

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270280  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)  
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-SL3-7027-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4506 lumens  
Efficiency: N/A  
Efficacy: 76.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-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

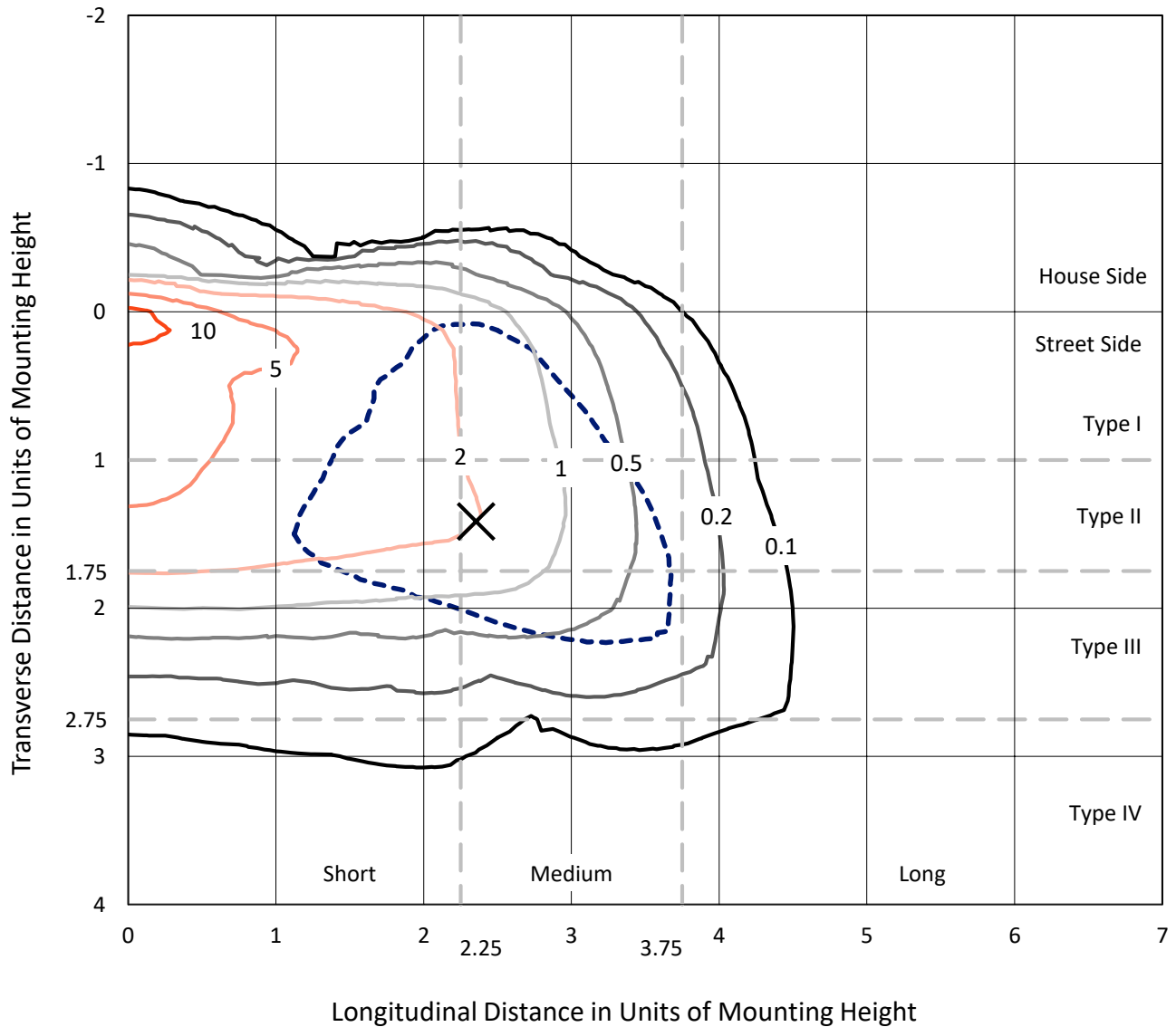


REPORT NUMBER: P270280

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

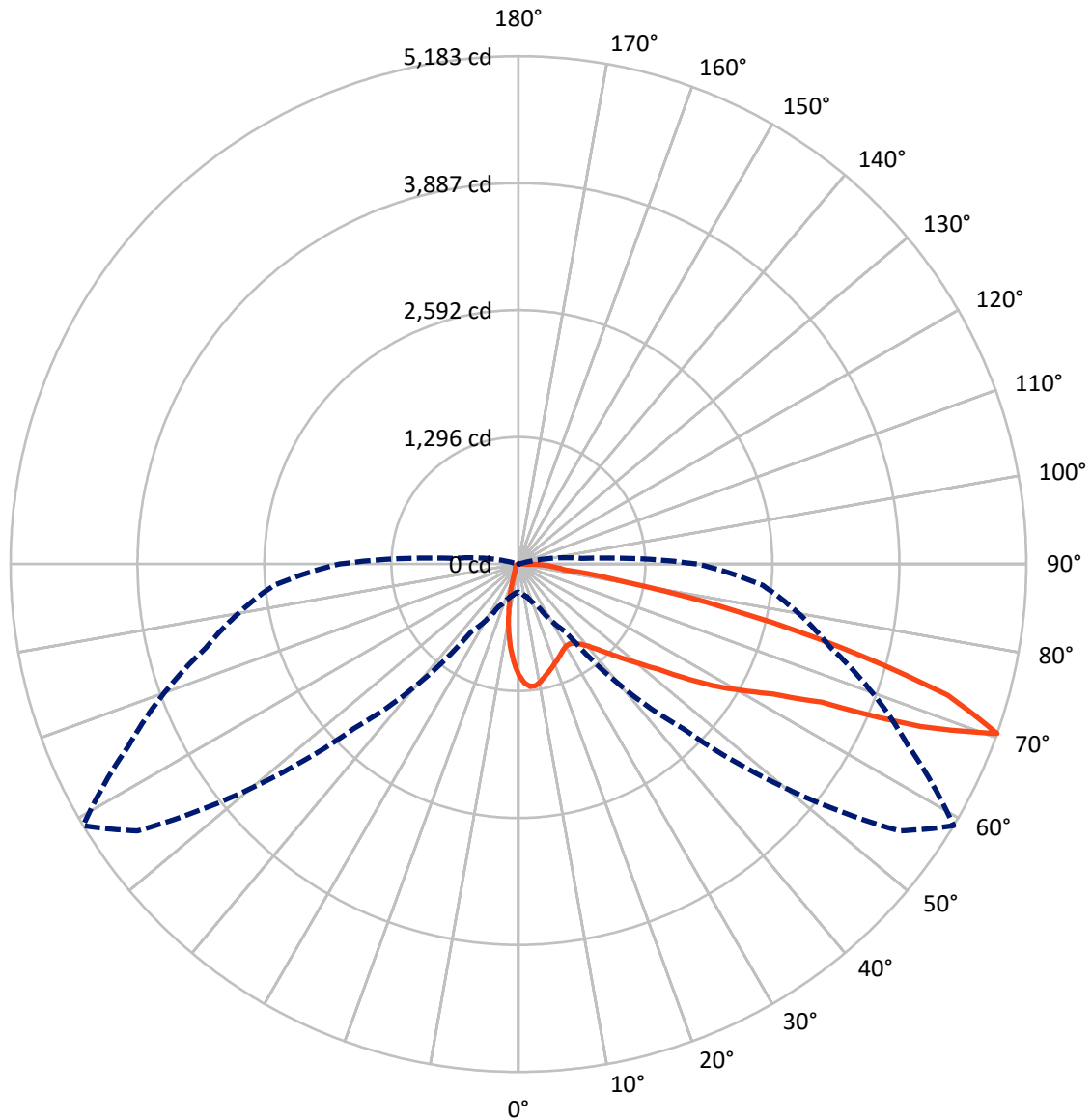
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.1 fc  
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P270280  
CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7027-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P270280

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7027-HSS

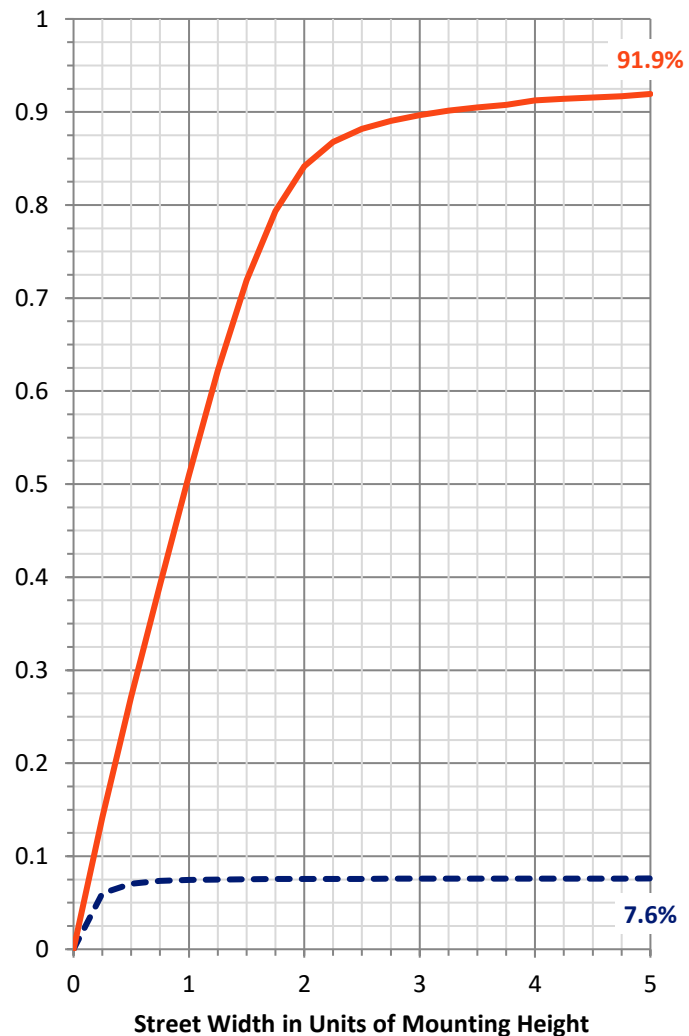
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	346.4	0.0	346.4
	% Fixture	7.7	0.0	7.7
<b>Street Side</b>	Lumens	4159.6	0.0	4159.6
	% Fixture	92.3	0.0	92.3
<b>Total</b>	Lumens	4506.0	0.0	4506.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.7	2.1
10°-20°	196.5	4.4
20°-30°	266.0	5.9
30°-40°	383.9	8.5
40°-50°	637.6	14.1
50°-60°	975.2	21.6
60°-70°	1213.0	26.9
70°-80°	670.5	14.9
80°-90°	69.5	1.5
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°	4506.0	100.0
0°-180°	4506.0	100.0



--- HS    — SS

REPORT NUMBER: P270280

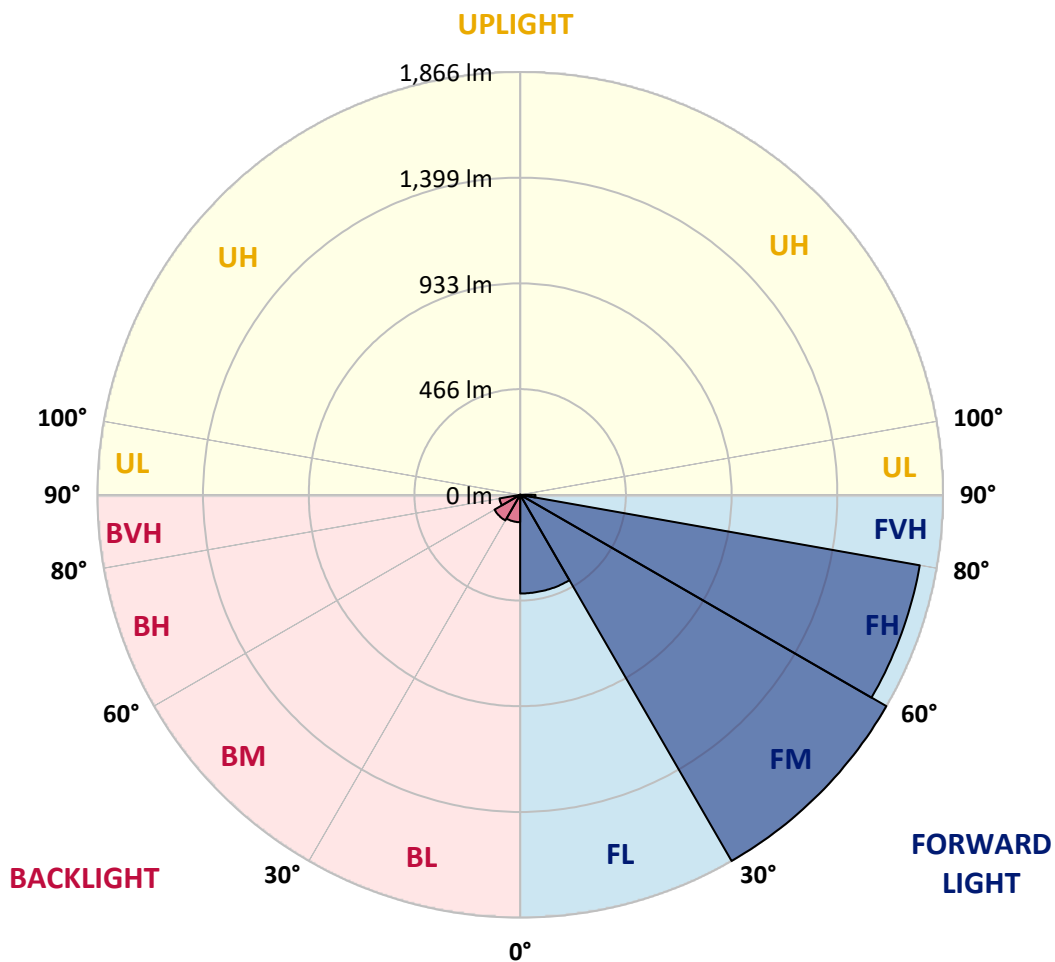
CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7027-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	435.5	9.7			
FM	(30°-60°)	1866.0	41.4			
FH	(60°-80°)	1790.6	39.7			G1/1800
FVH	(80°-90°)	67.5	1.5			G1/100
BL	(0°-30°)	120.7	2.7	B1/500		
BM	(30°-60°)	130.7	2.9	B0/220		
BH	(60°-80°)	92.9	2.1	B0/110		G0/110
BVH	(80°-90°)	2.0	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 III Medium





REPORT NUMBER: P270280

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7027-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4
2.5°	1287.9	1286.0	1277.4	1275.8	1266.3	1247.1	1225.1	1216.2	1198.2	1169.7	1138.1
5°	1309.4	1310.4	1311.0	1307.4	1306.0	1290.3	1265.8	1255.3	1231.1	1184.2	1126.5
7.5°	1229.2	1231.8	1240.4	1244.2	1260.4	1266.5	1261.4	1254.7	1235.6	1180.3	1098.9
10°	1144.5	1149.7	1158.8	1164.9	1185.0	1201.3	1222.1	1223.8	1219.5	1166.5	1068.1
12.5°	1071.8	1076.4	1086.7	1098.9	1119.4	1140.4	1171.4	1182.2	1195.9	1157.7	1045.9
15°	1009.2	1010.6	1020.5	1035.7	1062.5	1091.5	1128.2	1144.1	1170.8	1154.3	1028.9
17.5°	954.4	954.8	961.2	975.2	1007.9	1045.9	1088.7	1109.9	1143.5	1149.7	1013.9
20°	918.4	918.1	918.4	926.0	954.8	1000.1	1052.0	1074.2	1117.3	1143.8	998.6
22.5°	906.2	904.6	896.7	894.0	912.4	952.2	1014.2	1043.2	1093.9	1142.1	987.4
25°	921.2	920.1	903.4	887.9	889.5	914.4	975.9	1011.2	1075.5	1148.3	984.7
27.5°	969.5	967.5	942.0	911.3	891.9	896.4	947.4	984.5	1060.9	1163.1	988.5
30°	1032.7	1033.1	1005.8	968.7	923.2	898.0	932.0	967.0	1051.0	1185.7	996.6
32.5°	1102.9	1102.7	1083.4	1040.4	982.3	929.3	938.9	968.5	1052.4	1218.6	1012.3
35°	1175.8	1172.0	1165.6	1127.8	1059.9	984.1	969.8	991.5	1066.6	1262.1	1038.8
37.5°	1259.8	1258.3	1264.9	1225.1	1155.7	1064.6	1024.2	1038.8	1102.7	1326.3	1081.6
40°	1393.4	1385.8	1388.9	1334.8	1263.8	1173.0	1100.3	1104.0	1160.2	1411.3	1149.2
42.5°	1647.9	1617.7	1560.8	1459.6	1382.9	1293.4	1199.9	1193.5	1241.4	1514.4	1238.4
45°	1952.1	1917.4	1774.3	1597.2	1501.7	1422.6	1322.9	1305.6	1341.3	1637.0	1353.1
47.5°	2206.1	2168.7	1979.0	1741.1	1622.8	1555.9	1459.2	1438.8	1461.0	1779.5	1491.2
50°	2292.7	2272.1	2105.4	1860.7	1744.8	1705.3	1630.2	1596.3	1601.7	1933.2	1652.3
52.5°	2252.9	2245.9	2134.4	1942.7	1857.7	1870.6	1817.5	1781.9	1775.7	2101.0	1830.4
55°	2169.0	2165.6	2111.2	1988.2	1957.2	2021.8	2080.3	2049.4	1991.5	2279.4	1977.6
57.5°	2049.0	2061.9	2101.0	2075.9	2079.5	2181.5	2324.4	2340.4	2253.9	2421.7	2086.8
60°	1728.5	1763.2	1942.2	2170.0	2344.3	2447.4	2585.7	2615.7	2476.3	2518.8	2212.9
62.5°	1277.7	1327.3	1582.6	2001.1	2490.2	2952.9	2933.4	2920.2	2688.4	2649.0	2442.3
65°	750.5	808.7	1024.4	1563.6	2270.2	3277.8	3582.7	3399.1	3011.7	2919.5	2807.7
67.5°	374.0	374.2	471.8	825.4	1677.9	3051.2	4530.4	4424.3	3699.0	3318.2	2951.8
70°	287.5	295.5	349.1	479.6	848.4	2376.3	4747.6	5183.0	4389.7	3300.6	2504.6
72.5°	243.7	248.8	310.6	417.4	634.4	1304.6	4109.9	4581.4	4188.7	2788.7	1846.0
75°	175.3	179.5	275.1	378.6	584.0	647.1	2819.3	3397.7	3142.9	1961.7	1016.1
77.5°	43.5	43.2	95.8	307.3	522.5	539.2	1617.7	2178.8	1803.3	803.3	261.0
80°	19.4	18.7	21.7	64.6	486.2	508.9	711.5	1100.3	691.8	130.2	79.9
82.5°	13.7	12.9	13.7	23.7	162.5	472.1	430.0	476.9	253.2	44.6	34.0
85°	4.4	4.1	7.5	20.0	45.5	272.2	419.5	356.3	188.4	19.0	22.7
87.5°	0.7	0.7	2.8	10.9	13.2	90.8	246.0	246.8	84.6	11.1	10.2
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: P270280

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-7027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4	1139.4
2.5°	1122.1	1102.0	1073.8	1045.5	1020.0	994.0	972.9	963.1	958.6	952.5	939.2
5°	1096.2	1059.9	997.9	937.1	880.3	826.0	779.4	752.9	724.4	723.0	709.0
7.5°	1054.8	1003.0	905.5	811.0	724.4	641.4	570.1	523.8	492.2	472.5	458.9
10°	1008.5	942.2	813.1	680.1	562.2	451.4	359.6	299.9	263.5	245.1	234.5
12.5°	971.8	888.6	722.0	554.8	406.9	279.7	194.5	150.9	131.5	124.1	120.6
15°	940.2	839.2	636.7	442.5	271.6	160.7	112.5	98.3	95.2	95.2	94.9
17.5°	908.2	791.6	553.7	332.5	170.9	105.5	88.8	86.6	87.0	88.0	88.0
20°	878.1	746.4	473.9	237.0	112.2	84.4	80.6	79.9	80.8	82.3	81.9
22.5°	853.5	706.6	399.0	162.9	86.3	76.4	74.1	73.1	73.8	74.7	74.4
25°	836.2	672.7	330.3	113.5	75.1	69.7	67.0	65.5	64.9	65.5	65.2
27.5°	825.6	644.2	265.8	85.2	67.4	62.9	59.5	56.8	55.1	55.1	54.3
30°	818.9	617.2	208.3	70.6	60.8	56.1	51.4	47.6	44.8	44.1	43.8
32.5°	818.5	594.1	155.6	62.5	54.7	49.2	43.5	38.7	35.8	35.0	34.7
35°	827.0	575.5	114.5	56.5	49.2	42.8	36.4	31.4	28.6	28.6	28.1
37.5°	849.1	564.7	86.6	51.7	44.8	37.4	30.6	25.8	23.4	24.2	24.2
40°	890.2	562.6	70.6	47.9	41.1	32.6	24.9	21.1	20.0	21.1	21.1
42.5°	953.1	573.5	62.9	45.3	37.6	27.8	20.8	18.1	17.6	18.7	18.7
45°	1035.0	594.9	58.5	42.8	34.0	23.1	17.3	15.6	15.4	16.7	16.7
47.5°	1134.3	623.8	54.3	40.2	30.3	19.0	14.6	13.2	13.2	14.6	14.9
50°	1251.9	662.8	50.3	37.4	27.2	16.0	12.2	11.1	11.6	12.9	13.2
52.5°	1387.3	710.7	46.5	35.0	23.7	12.9	10.2	9.5	9.8	11.1	11.6
55°	1503.9	752.6	42.1	32.6	19.4	10.5	8.5	8.2	8.5	10.2	10.2
57.5°	1605.5	792.7	38.1	28.8	15.4	8.5	6.7	6.7	7.5	9.3	9.5
60°	1740.3	855.9	34.7	24.4	11.6	6.5	5.4	5.7	6.7	8.2	8.5
62.5°	1979.3	963.3	30.3	20.4	8.5	5.1	4.4	4.8	6.1	7.8	8.2
65°	2278.6	1065.0	25.2	17.0	6.5	3.8	3.5	4.4	6.1	7.8	8.2
67.5°	2247.9	926.2	19.8	13.7	4.8	3.1	2.8	4.1	5.7	7.8	8.2
70°	1823.0	649.3	14.6	9.3	3.8	2.8	2.8	4.1	5.7	7.5	7.8
72.5°	1264.5	361.3	11.1	6.1	3.5	2.8	2.3	3.8	5.4	7.5	7.8
75°	601.7	110.9	8.9	4.4	3.1	2.3	2.1	3.8	5.4	7.5	7.8
77.5°	115.6	28.1	7.1	3.8	2.8	2.3	2.1	3.5	5.4	7.1	7.5
80°	39.0	12.5	5.7	3.5	2.8	2.3	2.1	3.5	5.1	6.7	7.1
82.5°	21.4	7.1	5.1	3.1	2.8	2.1	1.6	3.1	4.8	6.7	7.1
85°	16.7	5.1	4.1	3.1	2.8	2.1	1.6	3.1	4.8	6.5	6.7
87.5°	8.5	3.8	3.5	3.1	2.8	2.1	1.6	2.8	4.4	6.1	6.7
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)