

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: P270255

Luminaire Tested: **NAV-AF-01-D-UNV-AFL-7027-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270255  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24283)  
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-AFL-7027-600-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2935.6 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B0 - U0 - G0

Input Watts (W): 34  
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

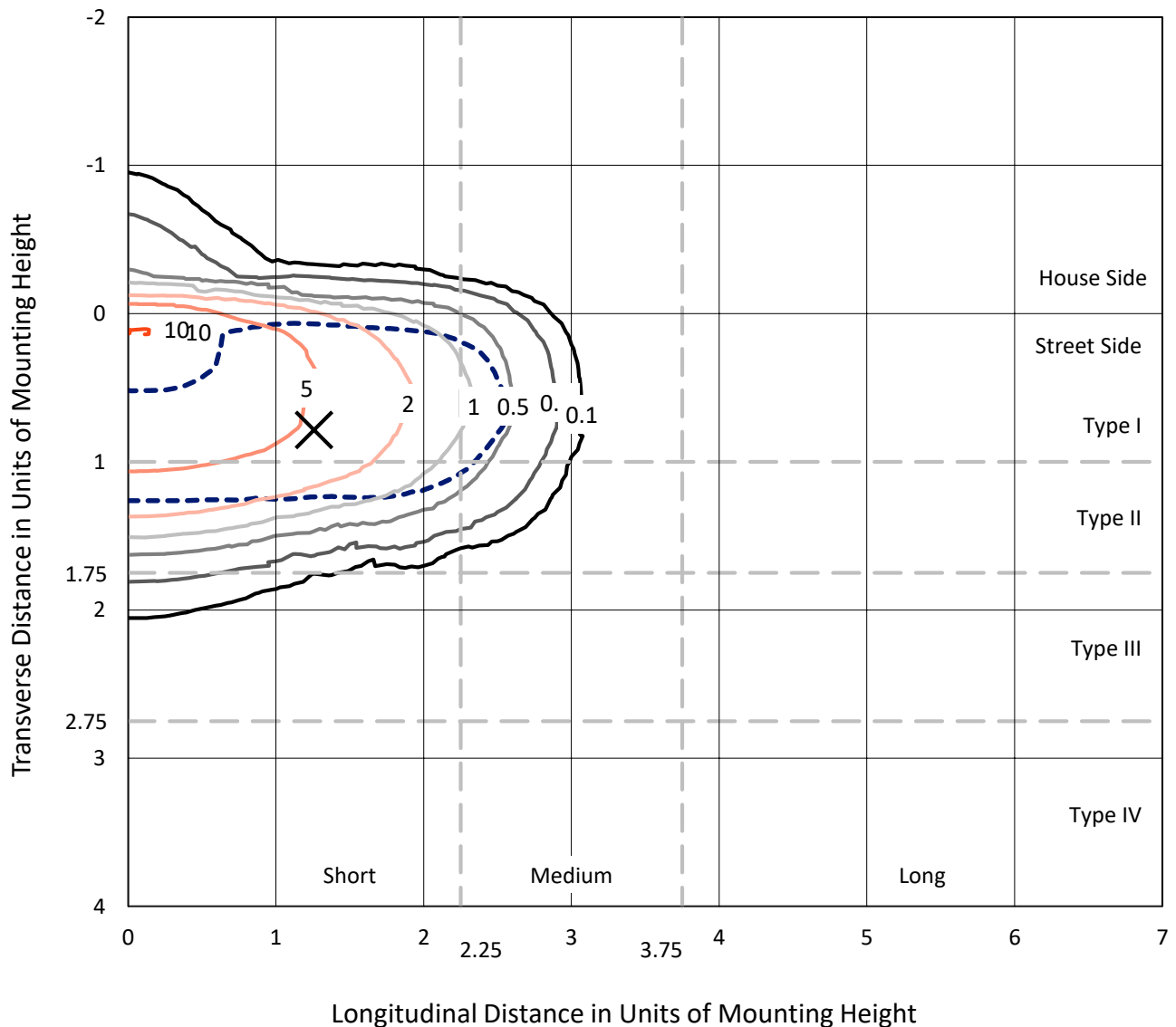


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### Iso-Footcandle Lines of Horizontal Illumination

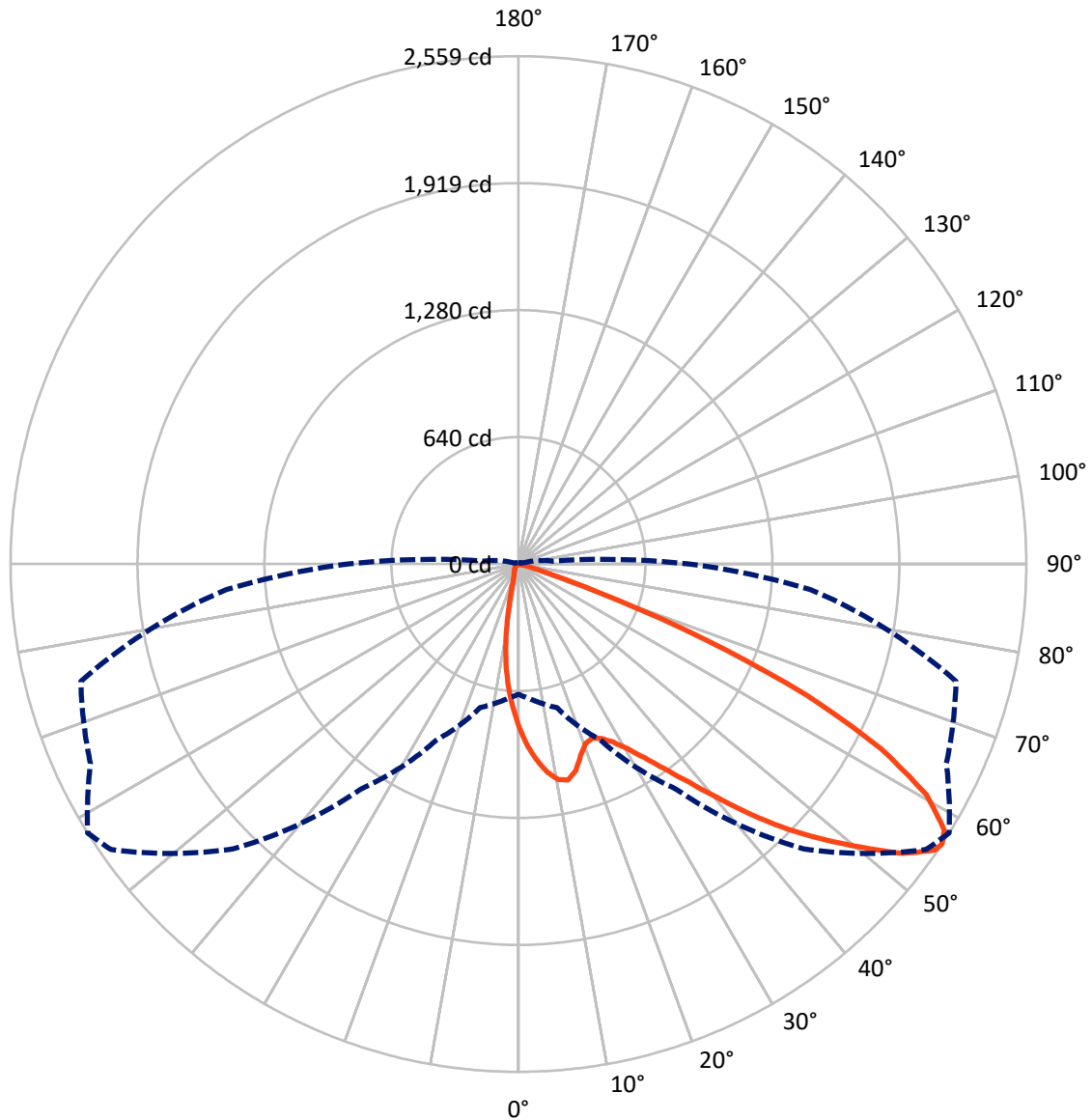
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.3 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 56-Deg Vertical

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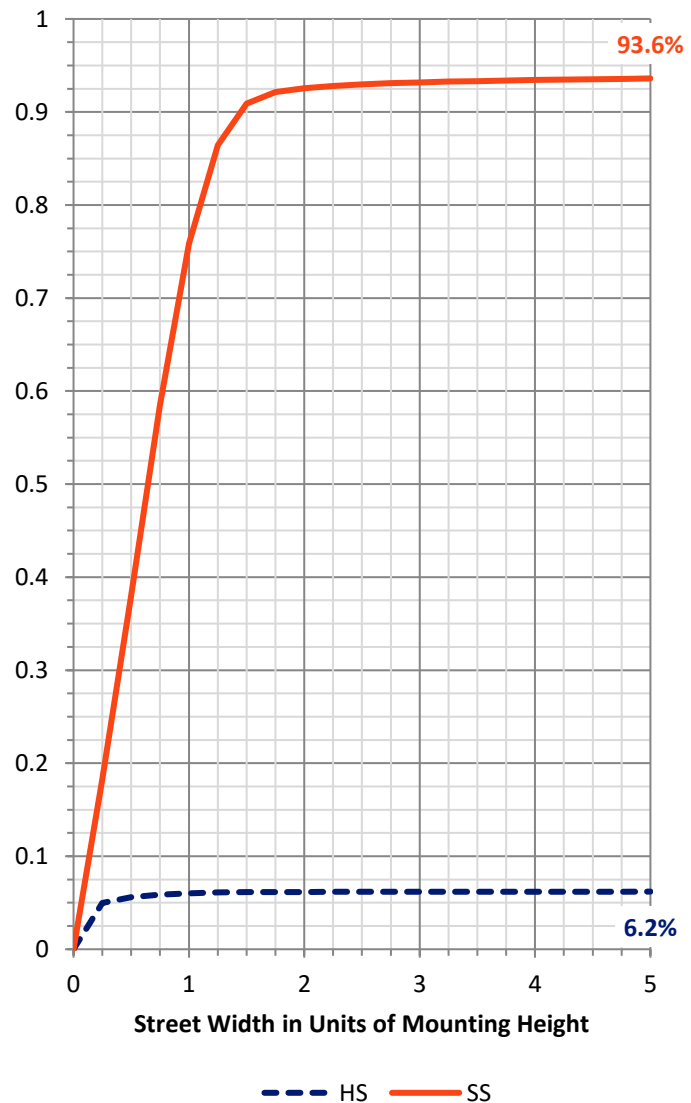
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	183.2	0.0	183.2
	% Fixture	6.2	0.0	6.2
<b>Street Side</b>	Lumens	2752.4	0.0	2752.4
	% Fixture	93.8	0.0	93.8
<b>Total</b>	Lumens	2935.6	0.0	2935.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.9	2.4
10°-20°	165.0	5.6
20°-30°	277.6	9.5
30°-40°	475.4	16.2
40°-50°	717.3	24.4
50°-60°	745.7	25.4
60°-70°	418.6	14.3
70°-80°	57.4	2.0
80°-90°	7.8	0.3
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°	2935.6	100.0
0°-180°	2935.6	100.0



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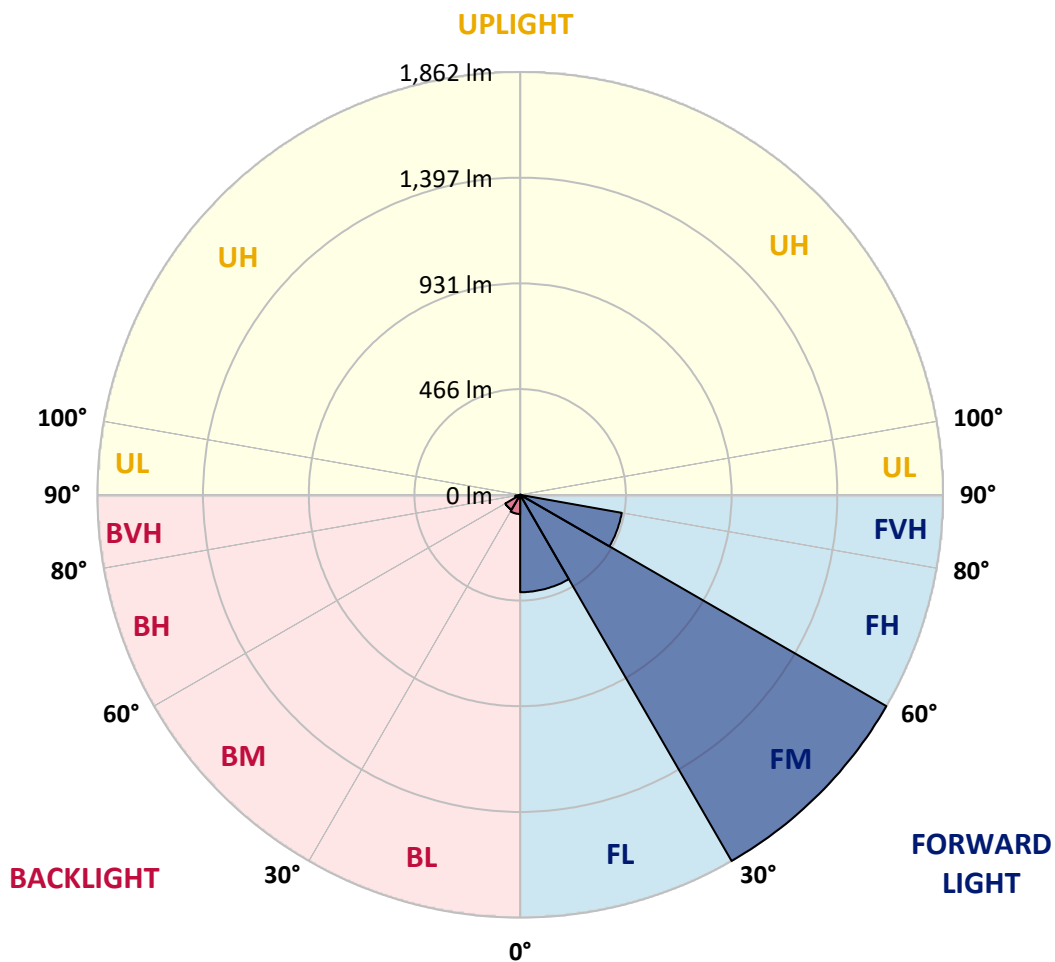
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	429.0	14.6			
FM	(30°-60°)	1862.5	63.4			
FH	(60°-80°)	454.2	15.5			G0/660
FVH	(80°-90°)	6.7	0.2			G0/10
BL	(0°-30°)	84.5	2.9	B0/110		
BM	(30°-60°)	75.9	2.6	B0/220		
BH	(60°-80°)	21.7	0.7	B0/110		G0/110
BVH	(80°-90°)	1.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G0**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	831.1	831.1	831.1	831.1	831.1	831.1	831.1	831.1	831.1	831.1	831.1
2.5°	1000.1	994.0	987.7	976.1	965.3	948.7	926.0	920.4	902.3	872.9	845.2
5°	1086.3	1085.2	1080.9	1071.5	1059.8	1039.7	1013.9	996.7	968.9	922.3	869.2
7.5°	1035.1	1044.5	1060.1	1082.0	1096.8	1094.8	1075.1	1060.1	1032.5	968.9	892.7
10°	872.7	874.4	895.7	941.9	1014.8	1082.8	1108.7	1104.6	1079.4	1009.7	913.3
12.5°	815.2	816.4	821.3	836.1	883.6	978.6	1095.3	1116.2	1114.3	1048.6	935.3
15°	819.8	820.4	821.8	826.5	839.8	887.5	1027.1	1080.8	1136.6	1085.6	956.9
17.5°	855.1	854.6	850.4	845.9	850.2	865.8	957.8	1014.1	1132.0	1116.8	974.5
20°	924.0	926.3	912.0	892.0	881.7	882.5	923.5	965.8	1105.5	1140.8	987.7
22.5°	1021.2	1022.7	999.2	964.6	934.3	919.1	930.6	953.0	1075.1	1163.3	998.5
25°	1136.8	1136.8	1103.9	1054.9	1008.1	974.8	964.9	973.4	1063.5	1188.5	1009.2
27.5°	1261.8	1266.3	1223.3	1159.1	1097.2	1048.4	1017.5	1016.0	1072.3	1220.4	1021.4
30°	1397.9	1401.8	1350.8	1272.2	1198.9	1136.4	1088.9	1078.7	1106.6	1263.1	1039.0
32.5°	1533.0	1536.5	1480.0	1399.7	1314.5	1241.0	1178.5	1162.1	1168.2	1325.7	1065.0
35°	1705.2	1705.8	1634.3	1538.8	1447.8	1361.6	1282.5	1266.3	1259.7	1404.5	1102.4
37.5°	1842.0	1836.6	1791.3	1701.1	1596.5	1506.5	1413.6	1392.5	1376.4	1515.4	1160.4
40°	1874.3	1874.3	1867.4	1840.4	1757.3	1670.6	1580.6	1549.1	1513.6	1646.0	1238.4
42.5°	1790.2	1795.6	1839.9	1898.8	1899.5	1844.0	1755.9	1729.4	1666.7	1794.8	1323.5
45°	1602.2	1603.8	1710.3	1869.3	1977.2	2009.0	1944.1	1907.6	1820.7	1949.2	1401.4
47.5°	1534.7	1539.5	1584.8	1779.3	1983.1	2142.7	2124.6	2074.5	1963.2	2090.4	1474.2
50°	1430.7	1436.7	1492.2	1646.7	1930.6	2228.5	2297.2	2243.5	2092.8	2207.9	1510.2
52.5°	1182.1	1191.5	1269.8	1471.2	1799.7	2232.1	2455.3	2423.2	2225.6	2270.8	1506.0
55°	813.4	820.4	911.6	1148.6	1535.4	2122.5	2523.5	2545.6	2344.0	2285.0	1485.3
56°	656.2	682.3	748.9	978.6	1384.7	2029.5	2507.8	2559.1	2379.3	2282.8	1476.5
57.5°	433.8	438.7	511.6	709.1	1112.0	1827.2	2437.0	2530.4	2424.4	2271.4	1469.9
60°	204.1	206.3	232.5	327.3	601.9	1331.5	2207.0	2362.1	2441.1	2247.3	1469.6
62.5°	132.9	133.5	136.6	156.1	246.1	725.2	1829.6	2052.6	2303.8	2244.7	1465.5
65°	109.6	110.6	106.9	109.4	128.7	273.4	1290.5	1600.3	1981.5	2181.4	1417.5
67.5°	96.6	96.7	91.5	88.8	94.3	120.1	650.3	1009.4	1482.1	1853.7	1167.5
70°	88.0	87.9	81.9	75.3	75.5	79.7	211.9	419.2	820.0	1100.7	670.3
72.5°	78.2	78.6	75.3	65.8	62.7	56.5	79.7	113.0	279.1	353.5	176.6
75°	68.5	67.6	64.3	58.2	52.5	37.9	40.1	48.1	72.9	72.1	38.1
77.5°	51.9	51.1	52.6	49.8	41.1	26.4	22.0	25.2	32.9	30.7	15.5
80°	39.6	39.2	35.8	42.6	37.4	19.9	15.0	15.5	18.0	16.3	7.6
82.5°	28.7	28.4	27.0	26.2	23.7	14.6	11.4	12.0	13.5	11.4	5.6
85°	11.0	11.0	21.3	18.0	16.3	9.8	8.1	8.8	10.3	8.3	3.9
87.5°	1.7	1.7	14.4	11.9	7.4	4.9	5.1	5.6	6.1	4.9	3.0
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	831.1	831.1	831.1	831.1	831.1	831.1	831.1	831.1	831.1	831.1	831.1
2.5°	829.0	814.0	780.9	749.1	721.3	690.9	675.4	657.6	650.8	637.4	638.8
5°	837.4	806.0	740.1	670.3	606.5	541.6	495.4	451.9	427.9	403.8	403.8
7.5°	846.2	798.2	696.0	584.7	477.3	366.0	287.1	223.9	188.9	165.3	164.6
10°	852.2	788.2	646.2	485.5	327.1	188.6	113.7	89.7	80.8	77.1	76.8
12.5°	860.0	778.1	589.3	368.7	181.6	89.7	71.0	67.3	65.7	64.7	64.7
15°	866.8	763.7	520.3	247.9	95.4	67.3	61.2	59.7	59.6	59.4	59.6
17.5°	868.3	743.3	437.7	145.2	69.2	58.7	56.0	54.8	54.8	54.6	54.6
20°	864.8	716.5	346.2	89.7	59.7	54.0	51.1	49.8	49.4	49.4	49.4
22.5°	857.3	682.3	255.9	67.8	54.4	49.8	46.0	44.6	44.6	44.7	45.0
25°	848.2	641.7	175.8	58.5	50.3	45.3	41.4	40.1	40.6	41.1	41.2
27.5°	836.5	593.3	115.2	50.7	45.0	40.8	37.4	36.6	37.4	38.3	38.7
30°	825.0	540.2	78.0	43.8	38.9	35.8	33.9	33.5	34.9	37.0	37.2
32.5°	817.3	485.9	58.8	39.4	34.2	31.6	30.7	31.1	33.1	35.5	35.8
35°	816.6	432.8	50.1	35.8	31.1	28.7	28.2	29.6	31.8	33.5	34.0
37.5°	827.1	382.9	45.5	33.1	28.7	26.2	25.5	27.9	30.1	31.8	32.2
40°	848.4	338.4	42.3	30.7	26.7	23.7	23.3	25.3	27.3	29.4	30.1
42.5°	875.0	296.8	38.7	28.2	24.4	21.1	20.7	22.2	24.2	27.0	27.6
45°	898.1	258.1	34.9	25.5	22.0	18.1	18.0	19.8	21.3	24.0	24.4
47.5°	917.6	225.7	31.4	22.5	18.9	16.1	15.9	16.8	17.6	20.1	20.7
50°	907.3	198.4	27.8	18.5	15.2	13.8	13.7	13.7	14.8	17.2	17.6
52.5°	882.0	181.4	24.4	15.5	12.5	11.9	11.1	11.4	12.5	13.7	13.8
55°	861.7	173.4	21.5	13.7	10.5	9.8	9.3	9.0	9.3	8.8	8.3
56°	856.8	172.5	20.8	13.2	10.2	9.3	8.3	7.8	7.6	6.6	6.5
57.5°	854.5	172.5	19.8	12.3	9.4	8.3	7.1	6.3	5.4	4.8	4.8
60°	852.6	173.6	18.3	10.8	8.1	6.6	5.1	3.9	3.1	3.1	3.1
62.5°	848.9	173.2	16.8	9.0	6.9	5.1	3.1	2.4	2.2	2.4	2.6
65°	806.0	160.7	14.8	7.1	5.4	3.7	1.7	1.7	2.1	2.4	2.6
67.5°	649.6	121.8	12.0	5.6	3.9	2.6	1.5	1.5	2.1	2.4	2.6
70°	356.7	64.3	10.3	4.0	3.0	2.2	1.5	1.3	2.1	2.4	2.6
72.5°	87.1	26.9	9.4	3.1	2.6	2.1	1.3	1.3	2.1	2.4	2.6
75°	21.5	20.1	7.6	2.4	2.2	1.7	1.3	1.3	2.1	2.4	2.6
77.5°	10.2	26.7	5.1	2.2	2.1	1.5	1.3	1.3	2.1	2.4	2.4
80°	6.1	20.1	3.1	2.1	1.7	1.5	1.3	1.3	2.1	2.4	2.6
82.5°	3.7	5.7	2.2	2.1	1.7	1.3	1.3	1.3	2.1	2.4	2.6
85°	3.1	3.0	2.2	2.1	1.7	1.5	1.3	1.3	2.2	2.6	2.6
87.5°	2.4	2.2	2.1	1.7	1.7	1.5	1.3	1.3	2.1	2.4	2.6
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)