

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: P197077

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197077
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-SL3-8030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 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: 4232 lumens
Efficiency: N/A
Efficacy: 71.7 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

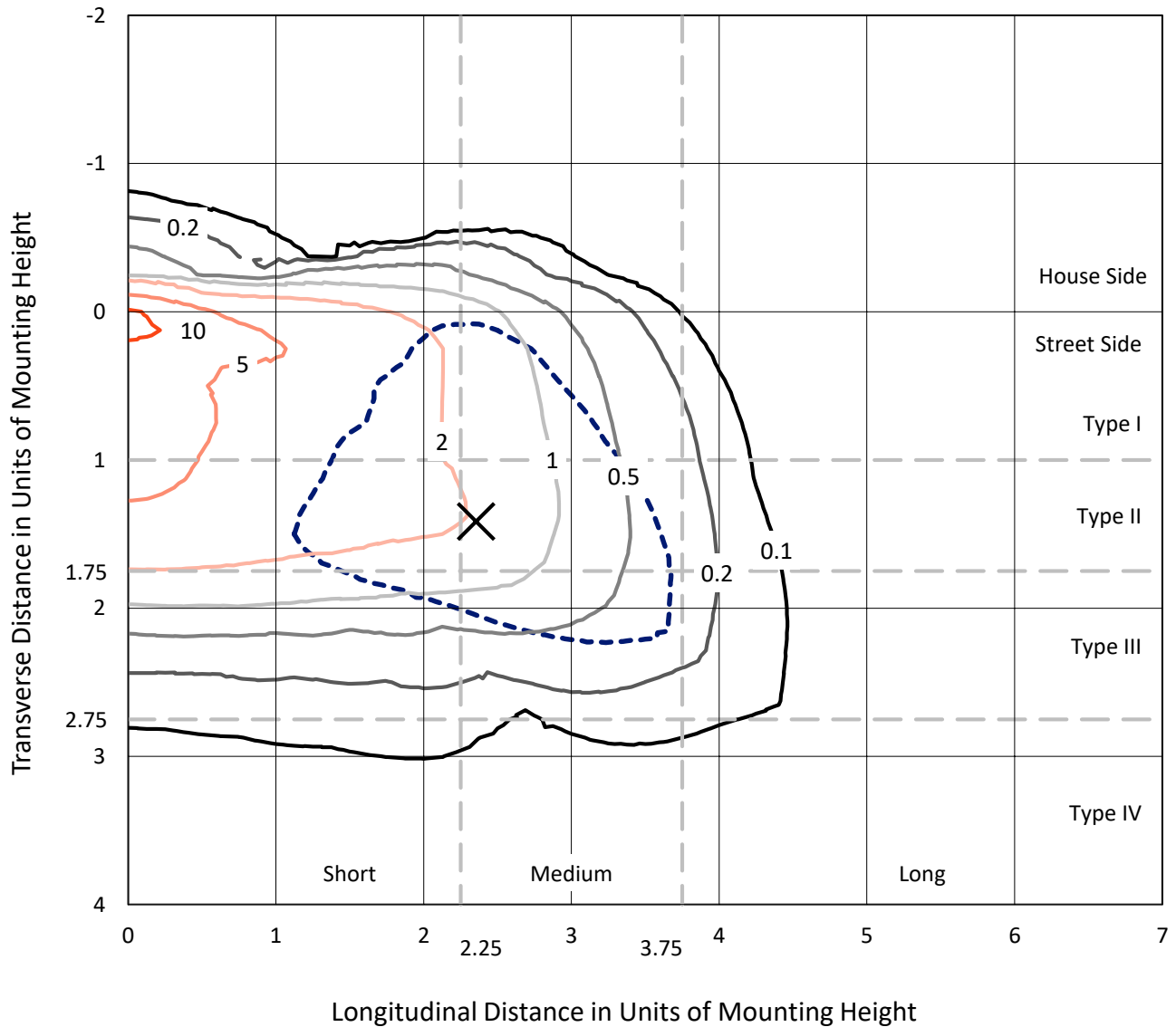
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

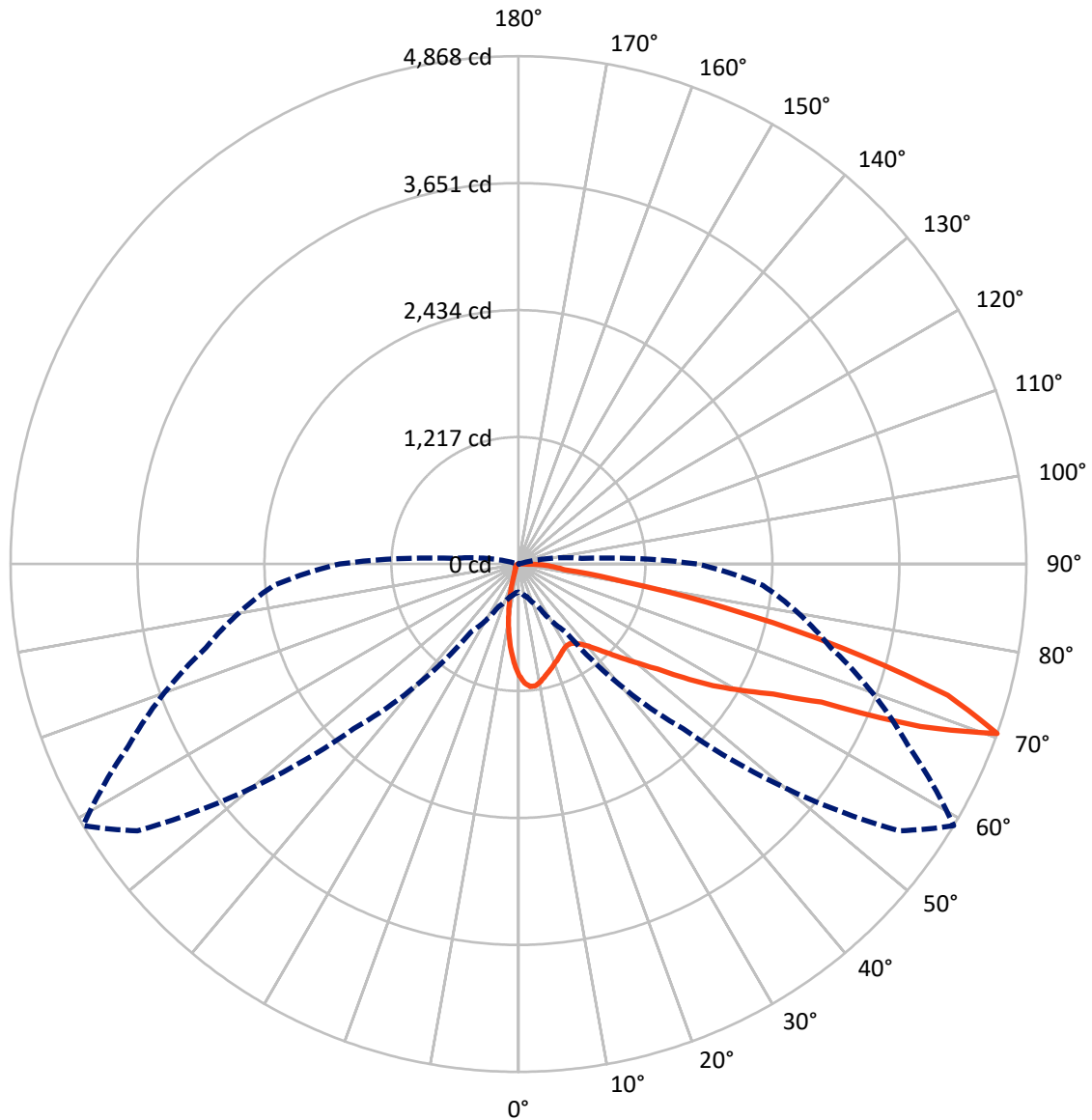


Based on 10 foot mounting height. Maximum calculated value = 11.4 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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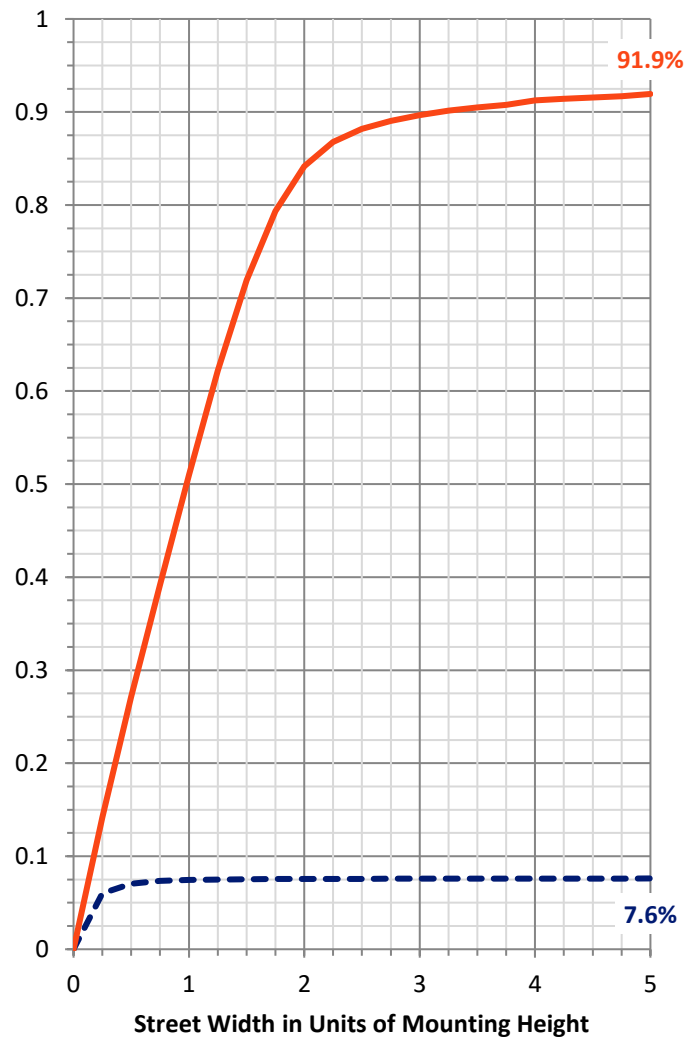
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	325.3	0.0	325.3
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	3906.7	0.0	3906.7
	% Fixture	92.3	0.0	92.3
Total	Lumens	4232.0	0.0	4232.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.0	2.1
10°-20°	184.6	4.4
20°-30°	249.8	5.9
30°-40°	360.6	8.5
40°-50°	598.8	14.1
50°-60°	915.9	21.6
60°-70°	1139.2	26.9
70°-80°	629.8	14.9
80°-90°	65.3	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°	4232.0	100.0
0°-180°	4232.0	100.0



--- HS — SS

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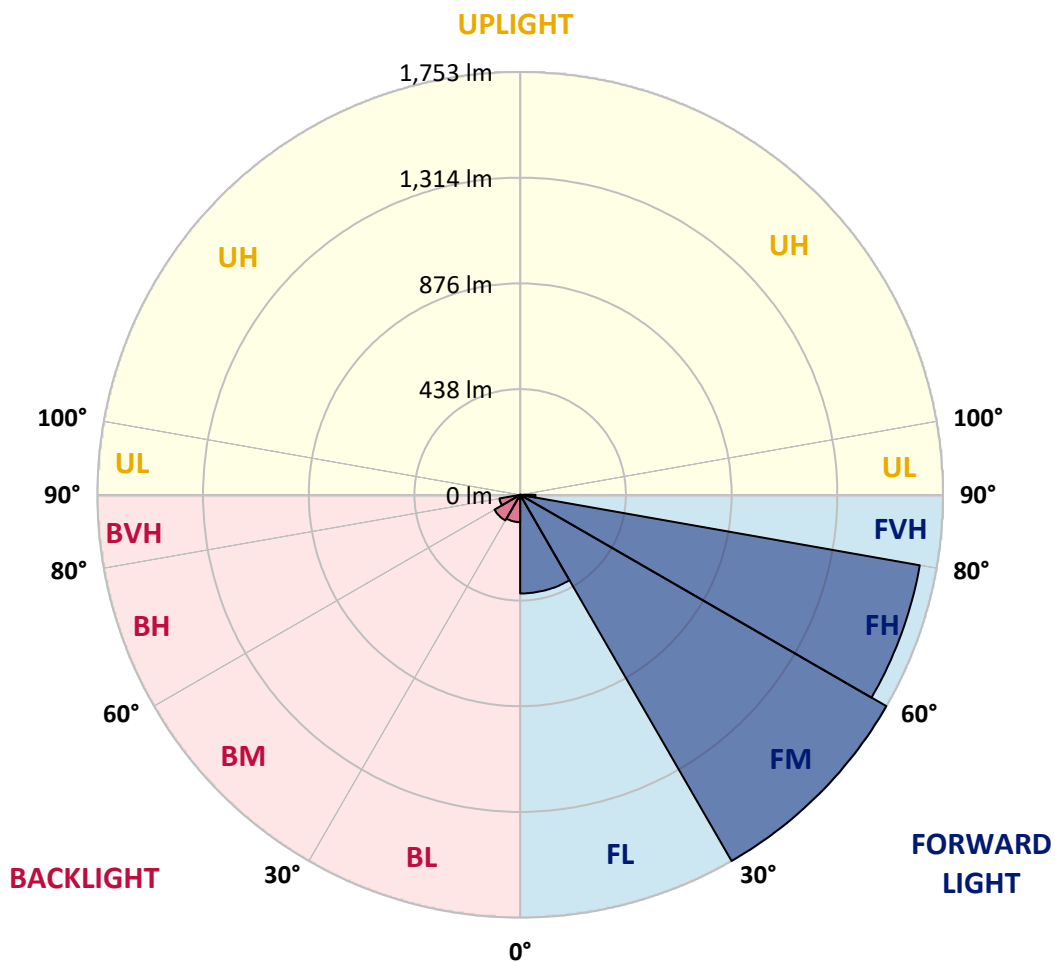
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	409.0	9.7			
FM	(30°-60°)	1752.5	41.4			
FH	(60°-80°)	1681.7	39.7			G1/1800
FVH	(80°-90°)	63.4	1.5			G1/100
BL	(0°-30°)	113.4	2.7	B1/500		
BM	(30°-60°)	122.8	2.9	B0/220		
BH	(60°-80°)	87.3	2.1	B0/110		G0/110
BVH	(80°-90°)	1.9	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1
2.5°	1209.6	1207.7	1199.7	1198.1	1189.2	1171.3	1150.6	1142.3	1125.4	1098.5	1068.8
5°	1229.7	1230.7	1231.3	1227.8	1226.6	1211.9	1188.9	1179.0	1156.3	1112.3	1058.0
7.5°	1154.4	1157.0	1164.9	1168.4	1183.8	1189.5	1184.7	1178.3	1160.5	1108.4	1032.1
10°	1074.9	1079.7	1088.3	1094.1	1112.9	1128.2	1147.7	1149.3	1145.5	1095.7	1003.1
12.5°	1006.6	1011.1	1020.6	1032.1	1051.3	1071.1	1100.1	1110.3	1123.1	1087.4	982.3
15°	947.8	949.1	958.4	972.7	998.0	1025.1	1059.6	1074.6	1099.5	1084.2	966.4
17.5°	896.4	896.8	902.8	915.9	946.6	982.3	1022.6	1042.3	1074.0	1079.7	952.3
20°	862.6	862.3	862.6	869.6	896.8	939.2	988.1	1008.8	1049.4	1074.3	938.0
22.5°	851.1	849.5	842.2	839.6	856.9	894.2	952.6	979.8	1027.3	1072.7	927.4
25°	865.2	864.2	848.6	833.9	835.5	858.8	916.6	949.8	1010.1	1078.4	924.9
27.5°	910.5	908.6	884.6	855.9	837.7	841.9	889.7	924.5	996.4	1092.5	928.4
30°	969.9	970.2	944.7	909.9	867.1	843.5	875.4	908.3	987.1	1113.5	936.0
32.5°	1036.0	1035.6	1017.4	977.2	922.6	872.8	881.8	909.5	988.4	1144.5	950.7
35°	1104.3	1100.8	1094.7	1059.3	995.4	924.2	910.8	931.2	1001.8	1185.4	975.6
37.5°	1183.1	1181.9	1187.9	1150.6	1085.4	999.9	961.9	975.6	1035.6	1245.7	1015.8
40°	1308.6	1301.6	1304.4	1253.7	1187.0	1101.7	1033.4	1036.9	1089.6	1325.5	1079.4
42.5°	1547.7	1519.3	1466.0	1370.9	1298.7	1214.7	1126.9	1120.9	1165.9	1422.3	1163.0
45°	1833.4	1800.9	1666.5	1500.1	1410.4	1336.1	1242.5	1226.2	1259.8	1537.5	1270.9
47.5°	2071.9	2036.8	1858.7	1635.2	1524.1	1461.2	1370.5	1351.4	1372.1	1671.3	1400.5
50°	2153.3	2133.9	1977.4	1747.6	1638.7	1601.7	1531.1	1499.2	1504.3	1815.6	1551.9
52.5°	2116.0	2109.3	2004.6	1824.5	1744.7	1756.8	1707.0	1673.5	1667.8	1973.3	1719.2
55°	2037.1	2033.9	1982.9	1867.3	1838.2	1898.9	1953.8	1924.7	1870.5	2140.9	1857.4
57.5°	1924.4	1936.6	1973.3	1949.6	1953.2	2048.9	2183.0	2198.0	2116.9	2274.3	1959.9
60°	1623.4	1655.9	1824.2	2038.1	2201.9	2298.6	2428.5	2456.6	2325.7	2365.6	2078.3
62.5°	1200.1	1246.7	1486.4	1879.4	2338.8	2773.3	2755.1	2742.7	2524.9	2487.9	2293.8
65°	704.9	759.5	962.2	1468.5	2132.3	3078.5	3364.9	3192.5	2828.5	2742.0	2637.0
67.5°	351.2	351.5	443.1	775.1	1575.8	2865.6	4254.9	4155.3	3474.1	3116.5	2772.4
70°	270.1	277.4	327.9	450.5	796.8	2231.9	4458.9	4867.9	4122.8	3099.9	2352.2
72.5°	228.9	233.7	291.8	392.0	595.7	1225.3	3860.0	4302.8	3934.1	2619.1	1733.8
75°	164.7	168.6	258.3	355.6	548.5	607.8	2647.8	3191.2	2951.8	1842.4	954.2
77.5°	40.9	40.5	90.0	288.6	490.7	506.3	1519.3	2046.4	1693.6	754.4	245.2
80°	18.2	17.6	20.4	60.7	456.5	477.9	668.2	1033.4	649.7	122.3	75.0
82.5°	12.8	12.1	12.8	22.3	152.6	443.4	403.8	447.9	237.8	41.8	31.9
85°	4.2	3.8	7.0	18.8	42.8	255.7	394.0	334.6	176.9	17.9	21.4
87.5°	0.6	0.6	2.6	10.2	12.5	85.2	231.1	231.8	79.5	10.5	9.6
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°	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1	1070.1
2.5°	1053.8	1035.0	1008.5	982.0	958.1	933.5	913.7	904.4	900.3	894.5	882.1
5°	1029.6	995.4	937.3	880.2	826.9	775.8	732.0	707.1	680.3	679.0	666.0
7.5°	990.6	942.1	850.5	761.7	680.3	602.4	535.4	492.0	462.3	443.8	431.0
10°	947.2	885.0	763.6	638.8	528.0	424.0	337.8	281.6	247.4	230.2	220.3
12.5°	912.7	834.5	678.1	521.0	382.1	262.7	182.6	141.7	123.5	116.5	113.3
15°	883.0	788.2	598.0	415.7	255.1	151.0	105.7	92.3	89.4	89.4	89.1
17.5°	853.0	743.5	520.1	312.2	160.6	99.0	83.3	81.4	81.7	82.7	82.7
20°	824.6	701.1	445.0	222.5	105.4	79.2	75.7	75.0	76.0	77.3	76.9
22.5°	801.6	663.7	374.8	152.9	81.1	71.8	69.6	68.6	69.3	70.2	69.9
25°	785.4	631.8	310.3	106.6	70.6	65.4	62.9	61.6	61.0	61.6	61.3
27.5°	775.5	605.0	249.7	80.1	63.2	59.1	55.9	53.3	51.7	51.7	51.1
30°	769.1	579.8	195.7	66.4	57.1	52.7	48.2	44.7	42.1	41.5	41.2
32.5°	768.8	558.0	146.2	58.7	51.4	46.3	40.9	36.4	33.5	32.9	32.6
35°	776.7	540.5	107.6	53.0	46.3	40.2	34.2	29.4	26.8	26.8	26.5
37.5°	797.5	530.3	81.4	48.5	42.1	35.1	28.7	24.3	22.0	22.7	22.7
40°	836.1	528.4	66.4	45.0	38.6	30.6	23.3	19.8	18.8	19.8	19.8
42.5°	895.2	538.6	59.1	42.5	35.4	26.2	19.5	16.9	16.6	17.6	17.6
45°	972.1	558.7	54.9	40.2	31.9	21.7	16.3	14.7	14.4	15.6	15.6
47.5°	1065.3	585.8	51.1	37.7	28.4	17.9	13.7	12.5	12.5	13.7	14.0
50°	1175.8	622.5	47.2	35.1	25.5	15.0	11.5	10.5	10.9	12.1	12.5
52.5°	1302.9	667.5	43.7	32.9	22.3	12.1	9.6	8.9	9.3	10.5	10.9
55°	1412.4	706.8	39.6	30.6	18.2	9.9	8.0	7.7	8.0	9.6	9.6
57.5°	1507.8	744.5	35.8	27.1	14.4	8.0	6.4	6.4	7.0	8.6	8.9
60°	1634.6	803.9	32.6	23.0	10.9	6.1	5.1	5.4	6.4	7.7	8.0
62.5°	1859.0	904.7	28.4	19.2	8.0	4.8	4.2	4.5	5.7	7.3	7.7
65°	2139.9	1000.2	23.6	16.0	6.1	3.5	3.2	4.2	5.7	7.3	7.7
67.5°	2111.2	870.0	18.5	12.8	4.5	2.9	2.6	3.8	5.4	7.3	7.7
70°	1712.1	609.8	13.7	8.6	3.5	2.6	2.6	3.8	5.4	7.0	7.3
72.5°	1187.6	339.4	10.5	5.7	3.2	2.6	2.2	3.5	5.1	7.0	7.3
75°	565.1	104.1	8.3	4.2	2.9	2.2	1.9	3.5	5.1	7.0	7.3
77.5°	108.5	26.5	6.7	3.5	2.6	2.2	1.9	3.2	5.1	6.7	7.0
80°	36.7	11.8	5.4	3.2	2.6	2.2	1.9	3.2	4.8	6.4	6.7
82.5°	20.1	6.7	4.8	2.9	2.6	1.9	1.6	2.9	4.5	6.4	6.7
85°	15.6	4.8	3.8	2.9	2.6	1.9	1.6	2.9	4.5	6.1	6.4
87.5°	8.0	3.5	3.2	2.9	2.6	1.9	1.6	2.6	4.2	5.7	6.4
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)