

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: P196465

Luminaire Tested: **NAV-AF-01-D-UNV-AFL-7030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196465
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-7030-600-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 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: 3267.9 lumens
Efficiency: N/A
Efficacy: 96.1 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

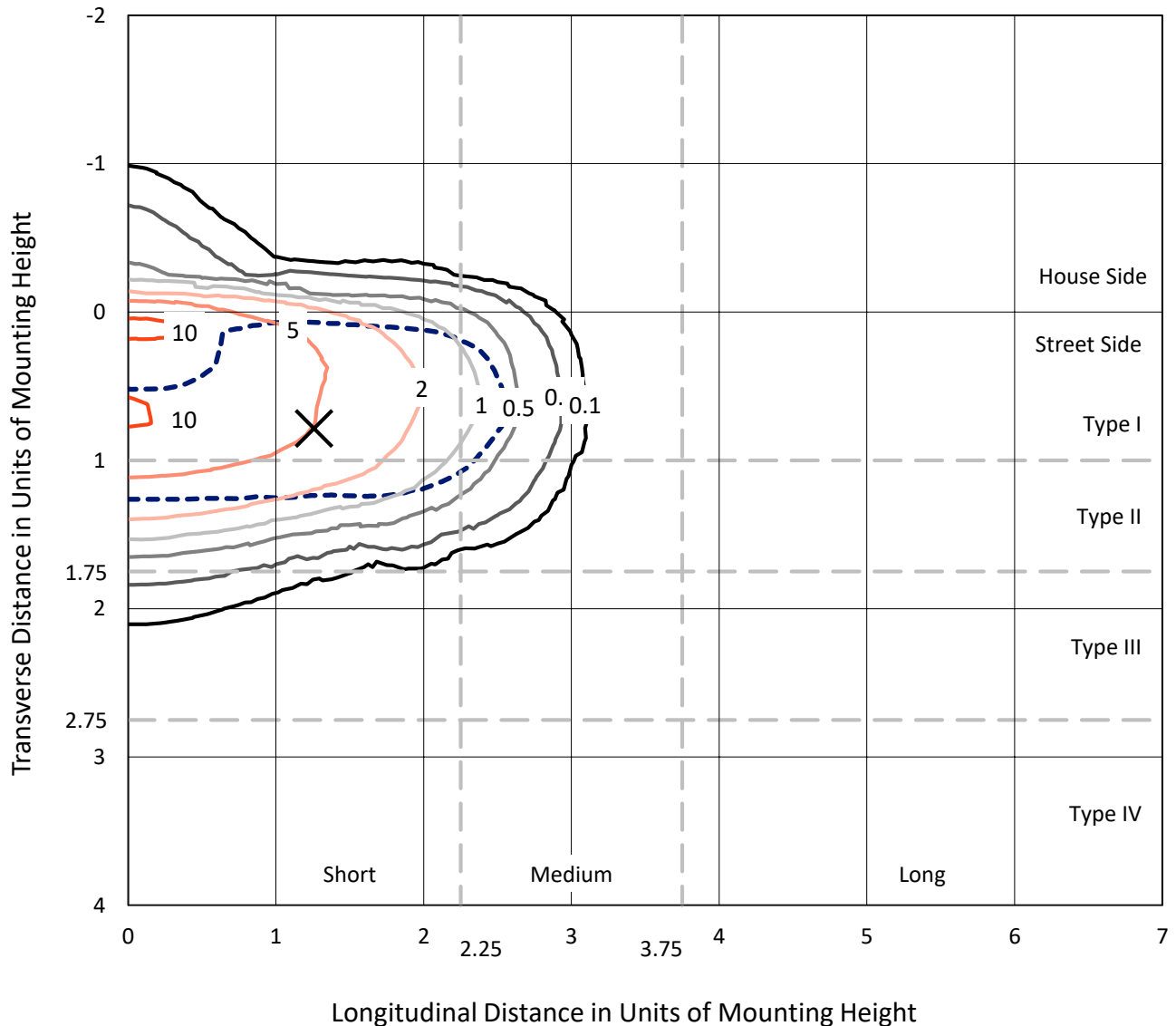


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

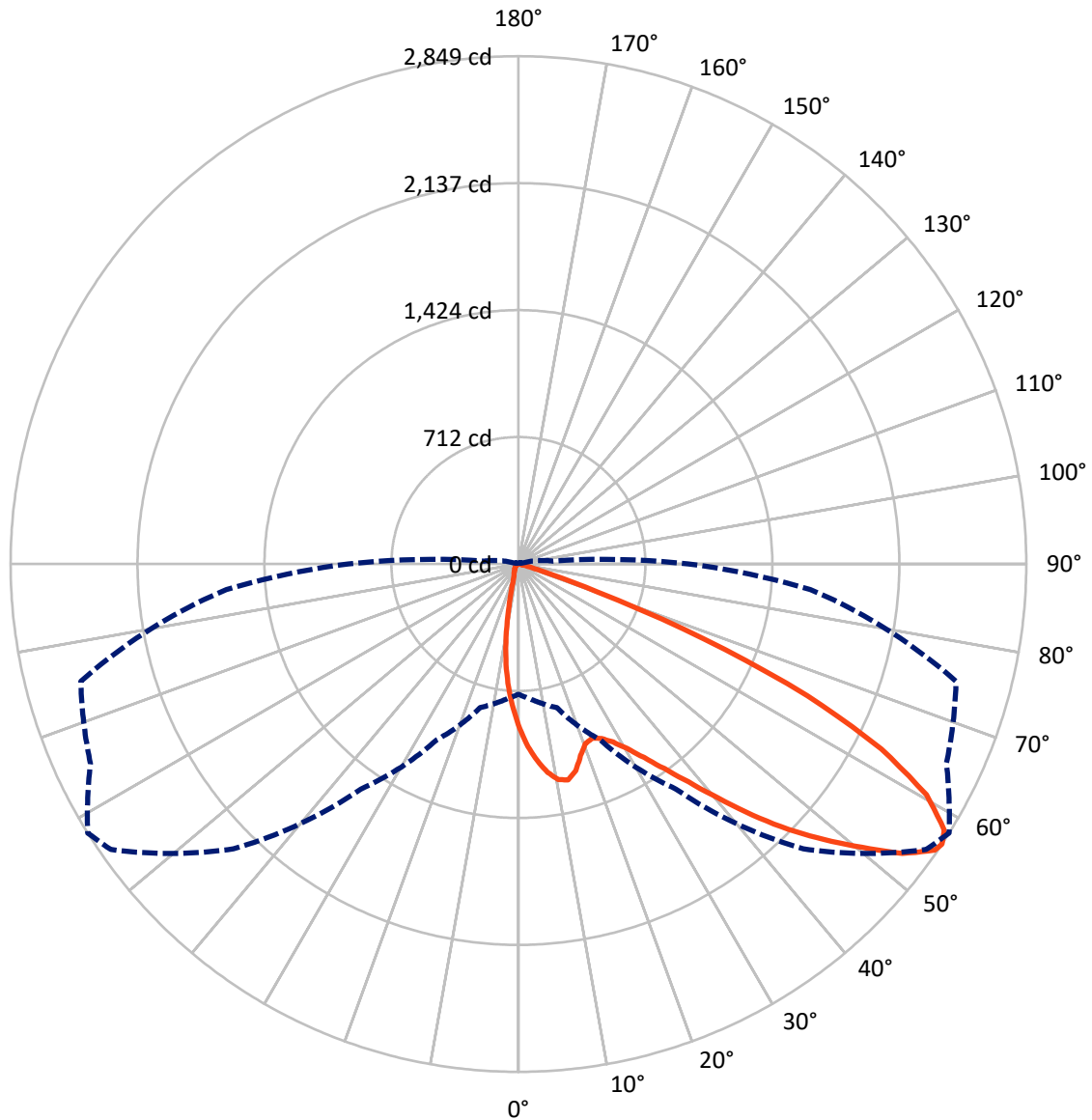


Based on 10 foot mounting height. Maximum calculated value = 11.5 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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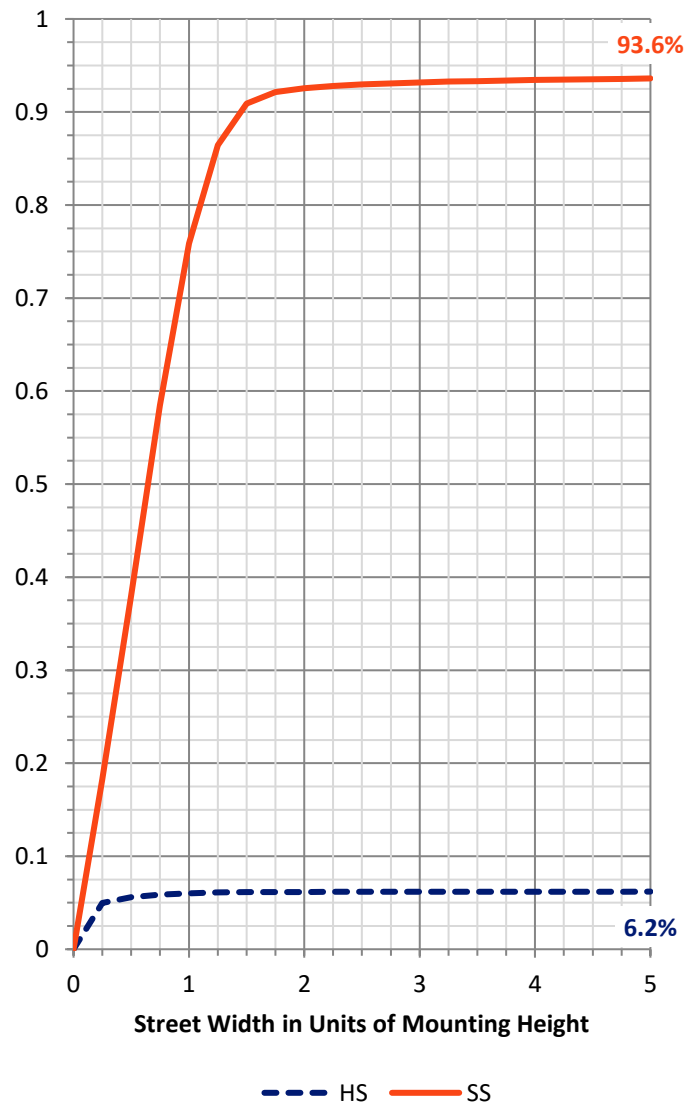
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	204.0	0.0	204.0
	% Fixture	6.2	0.0	6.2
Street Side	Lumens	3064.0	0.0	3064.0
	% Fixture	93.8	0.0	93.8
Total	Lumens	3267.9	0.0	3267.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.9	2.4
10°-20°	183.7	5.6
20°-30°	309.0	9.5
30°-40°	529.2	16.2
40°-50°	798.6	24.4
50°-60°	830.1	25.4
60°-70°	466.0	14.3
70°-80°	63.9	2.0
80°-90°	8.6	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°	3267.9	100.0
0°-180°	3267.9	100.0



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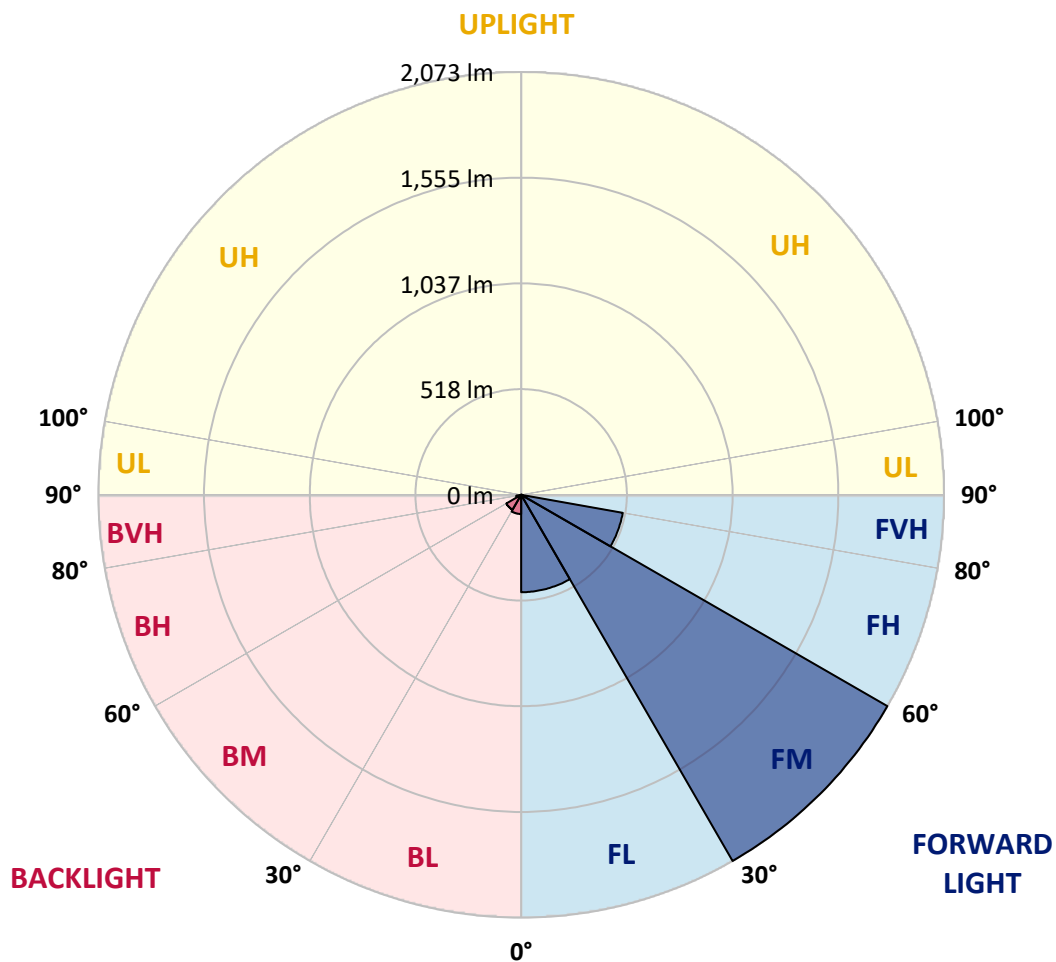
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	477.5	14.6			
FM	(30°-60°)	2073.3	63.4			
FH	(60°-80°)	505.7	15.5			G0/660
FVH	(80°-90°)	7.5	0.2			G0/10
BL	(0°-30°)	94.1	2.9	B0/110		
BM	(30°-60°)	84.5	2.6	B0/220		
BH	(60°-80°)	24.2	0.7	B0/110		G0/110
BVH	(80°-90°)	1.2	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°	925.2	925.2	925.2	925.2	925.2	925.2	925.2	925.2	925.2	925.2	925.2
2.5°	1113.3	1106.5	1099.5	1086.6	1074.6	1056.1	1030.8	1024.6	1004.5	971.7	940.9
5°	1209.3	1208.0	1203.3	1192.8	1179.8	1157.4	1128.7	1109.5	1078.6	1026.7	967.6
7.5°	1152.3	1162.8	1180.1	1204.5	1221.0	1218.7	1196.8	1180.1	1149.4	1078.6	993.8
10°	971.5	973.4	997.1	1048.5	1129.7	1205.4	1234.2	1229.7	1201.6	1124.0	1016.7
12.5°	907.5	908.8	914.3	930.8	983.6	1089.4	1219.3	1242.6	1240.4	1167.3	1041.2
15°	912.6	913.3	914.8	920.1	934.9	988.0	1143.4	1203.1	1265.3	1208.5	1065.2
17.5°	951.9	951.4	946.7	941.7	946.4	963.8	1066.2	1128.9	1260.1	1243.2	1084.8
20°	1028.6	1031.2	1015.2	993.0	981.5	982.4	1028.0	1075.1	1230.7	1270.0	1099.5
22.5°	1136.8	1138.5	1112.3	1073.8	1040.1	1023.2	1036.0	1060.9	1196.8	1295.0	1111.5
25°	1265.5	1265.5	1228.9	1174.3	1122.2	1085.1	1074.1	1083.6	1183.9	1323.1	1123.5
27.5°	1404.7	1409.7	1361.8	1290.3	1221.4	1167.1	1132.7	1131.0	1193.7	1358.6	1137.0
30°	1556.1	1560.5	1503.7	1416.2	1334.6	1265.1	1212.2	1200.8	1231.9	1406.1	1156.6
32.5°	1706.6	1710.4	1647.5	1558.2	1463.3	1381.5	1311.9	1293.7	1300.5	1475.8	1185.6
35°	1898.2	1898.9	1819.3	1713.0	1611.7	1515.7	1427.7	1409.7	1402.3	1563.5	1227.2
37.5°	2050.5	2044.5	1994.1	1893.7	1777.2	1677.0	1573.6	1550.1	1532.2	1687.0	1291.8
40°	2086.5	2086.5	2078.8	2048.7	1956.2	1859.7	1759.5	1724.5	1685.0	1832.3	1378.6
42.5°	1992.9	1998.9	2048.2	2113.8	2114.5	2052.8	1954.7	1925.2	1855.4	1998.0	1473.3
45°	1783.6	1785.4	1903.9	2080.9	2201.0	2236.4	2164.2	2123.6	2026.8	2169.9	1560.0
47.5°	1708.4	1713.8	1764.2	1980.7	2207.6	2385.3	2365.1	2309.3	2185.4	2327.0	1641.1
50°	1592.7	1599.4	1661.1	1833.1	2149.2	2480.8	2557.3	2497.5	2329.7	2457.9	1681.2
52.5°	1315.9	1326.4	1413.5	1637.8	2003.4	2484.8	2733.3	2697.5	2477.6	2527.9	1676.5
55°	905.5	913.3	1014.8	1278.6	1709.2	2362.8	2809.2	2833.8	2609.4	2543.7	1653.5
56°	730.5	759.5	833.7	1089.4	1541.5	2259.2	2791.7	2848.8	2648.6	2541.2	1643.6
57.5°	482.9	488.4	569.5	789.4	1237.9	2034.0	2712.9	2816.9	2698.9	2528.5	1636.3
60°	227.2	229.7	258.8	364.3	670.0	1482.2	2456.9	2629.5	2717.4	2501.7	1636.0
62.5°	148.0	148.6	152.1	173.8	274.0	807.3	2036.7	2285.0	2564.6	2498.8	1631.4
65°	122.0	123.1	119.0	121.8	143.3	304.4	1436.6	1781.5	2205.8	2428.4	1578.0
67.5°	107.5	107.7	101.9	98.8	105.0	133.7	723.9	1123.7	1649.9	2063.5	1299.7
70°	98.0	97.8	91.2	83.8	84.0	88.7	235.9	466.7	912.8	1225.3	746.2
72.5°	87.0	87.5	83.8	73.3	69.8	62.9	88.7	125.8	310.7	393.5	196.6
75°	76.3	75.3	71.6	64.8	58.4	42.2	44.6	53.6	81.1	80.3	42.4
77.5°	57.8	56.9	58.6	55.4	45.7	29.4	24.5	28.0	36.6	34.2	17.2
80°	44.1	43.6	39.9	47.4	41.6	22.2	16.7	17.2	20.0	18.2	8.5
82.5°	31.9	31.6	30.1	29.2	26.4	16.2	12.7	13.4	15.0	12.7	6.2
85°	12.2	12.2	23.7	20.0	18.2	10.9	9.0	9.8	11.5	9.2	4.3
87.5°	1.9	1.9	16.0	13.2	8.2	5.5	5.7	6.2	6.8	5.5	3.3
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°	925.2	925.2	925.2	925.2	925.2	925.2	925.2	925.2	925.2	925.2	925.2
2.5°	922.8	906.1	869.3	833.9	803.0	769.1	751.9	732.0	724.5	709.6	711.1
5°	932.2	897.3	823.9	746.2	675.2	602.9	551.5	503.1	476.3	449.5	449.5
7.5°	942.0	888.6	774.8	650.9	531.3	407.4	319.6	249.3	210.3	184.0	183.2
10°	948.7	877.4	719.4	540.5	364.1	209.9	126.6	99.8	90.0	85.8	85.5
12.5°	957.4	866.2	656.0	410.4	202.2	99.8	79.0	74.9	73.1	72.0	72.0
15°	964.9	850.2	579.2	276.0	106.2	74.9	68.1	66.5	66.3	66.1	66.3
17.5°	966.6	827.5	487.2	161.6	77.0	65.3	62.3	61.0	61.0	60.8	60.8
20°	962.7	797.6	385.4	99.8	66.5	60.1	56.9	55.4	55.0	55.0	55.0
22.5°	954.4	759.5	284.9	75.5	60.6	55.4	51.2	49.6	49.6	49.8	50.1
25°	944.2	714.3	195.7	65.1	56.0	50.4	46.1	44.6	45.2	45.7	45.9
27.5°	931.2	660.5	128.2	56.4	50.1	45.4	41.6	40.7	41.6	42.6	43.1
30°	918.4	601.4	86.8	48.8	43.3	39.9	37.7	37.3	38.9	41.2	41.4
32.5°	909.8	540.9	65.5	43.9	38.1	35.2	34.2	34.6	36.9	39.5	39.9
35°	909.0	481.8	55.8	39.9	34.6	31.9	31.4	32.9	35.4	37.3	37.9
37.5°	920.7	426.3	50.6	36.9	31.9	29.2	28.4	31.1	33.5	35.4	35.9
40°	944.4	376.7	47.1	34.2	29.7	26.4	25.9	28.2	30.4	32.7	33.5
42.5°	974.1	330.4	43.1	31.4	27.2	23.5	23.0	24.7	26.9	30.1	30.7
45°	999.8	287.3	38.9	28.4	24.5	20.2	20.0	22.0	23.7	26.7	27.2
47.5°	1021.5	251.3	34.9	25.1	21.0	17.9	17.7	18.7	19.6	22.4	23.0
50°	1010.0	220.9	30.9	20.6	16.9	15.4	15.2	15.2	16.5	19.2	19.6
52.5°	981.8	201.9	27.2	17.2	13.9	13.2	12.4	12.7	13.9	15.2	15.4
55°	959.2	193.0	23.9	15.2	11.7	10.9	10.3	10.0	10.3	9.8	9.2
56°	953.8	192.0	23.2	14.7	11.3	10.3	9.2	8.7	8.5	7.4	7.2
57.5°	951.2	192.0	22.0	13.7	10.5	9.2	7.9	7.0	6.0	5.3	5.3
60°	949.1	193.3	20.4	12.0	9.0	7.4	5.7	4.3	3.5	3.5	3.5
62.5°	945.0	192.8	18.7	10.0	7.7	5.7	3.5	2.7	2.5	2.7	2.9
65°	897.3	178.9	16.5	7.9	6.0	4.1	1.9	1.9	2.3	2.7	2.9
67.5°	723.1	135.6	13.4	6.2	4.3	2.9	1.7	1.7	2.3	2.7	2.9
70°	397.1	71.6	11.5	4.5	3.3	2.5	1.7	1.5	2.3	2.7	2.9
72.5°	97.0	29.9	10.5	3.5	2.9	2.3	1.5	1.5	2.3	2.7	2.9
75°	23.9	22.4	8.5	2.7	2.5	1.9	1.5	1.5	2.3	2.7	2.9
77.5°	11.3	29.7	5.7	2.5	2.3	1.7	1.5	1.5	2.3	2.7	2.7
80°	6.8	22.4	3.5	2.3	1.9	1.7	1.5	1.5	2.3	2.7	2.9
82.5°	4.1	6.4	2.5	2.3	1.9	1.5	1.5	1.5	2.3	2.7	2.9
85°	3.5	3.3	2.5	2.3	1.9	1.7	1.5	1.5	2.5	2.9	2.9
87.5°	2.7	2.5	2.3	1.9	1.9	1.7	1.5	1.5	2.3	2.7	2.9
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)