

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: P196597

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196597  
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-SL3-7030-HSS  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 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: 5016.1 lumens  
Efficiency: N/A  
Efficacy: 85.0 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 - G2

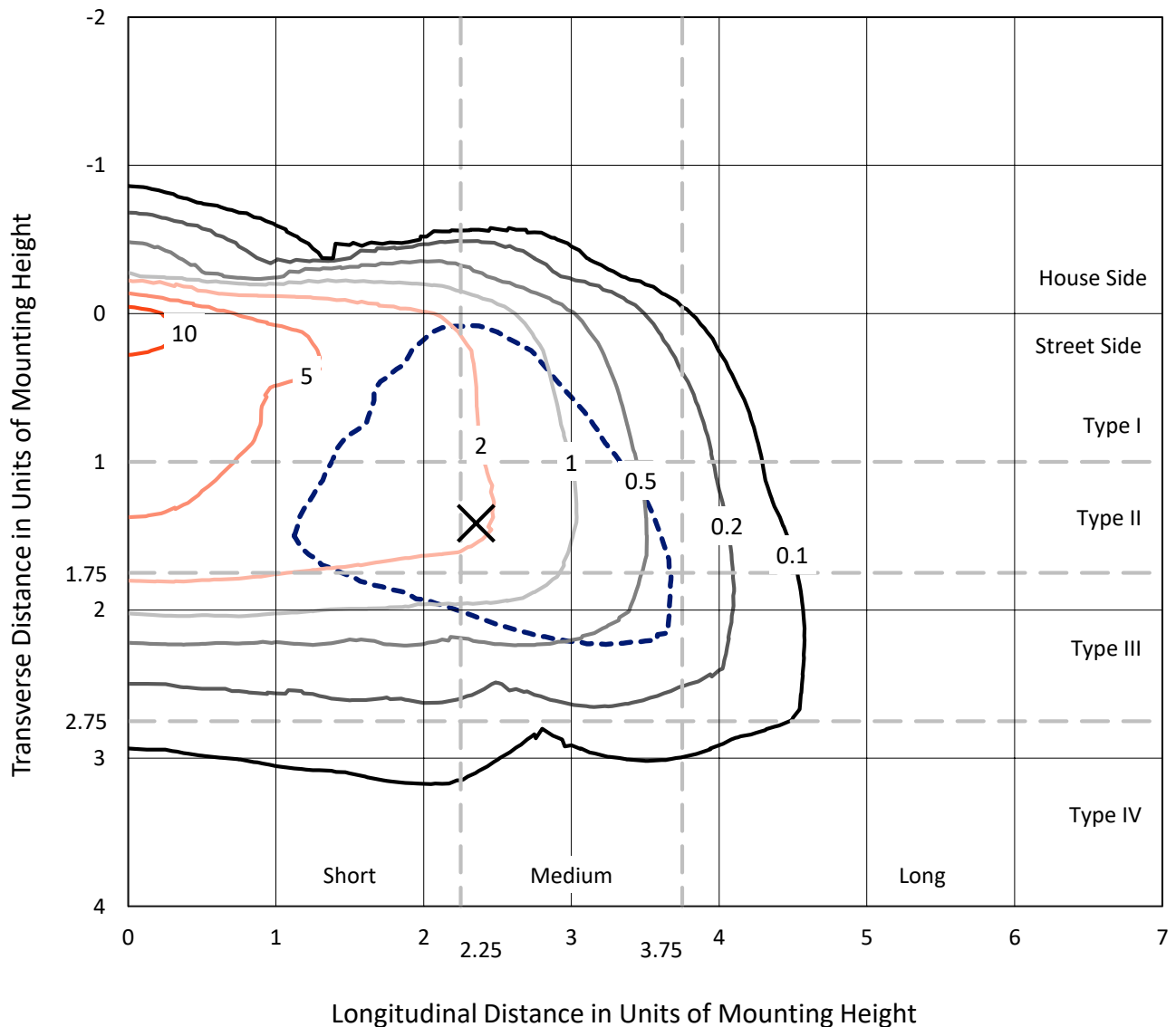
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

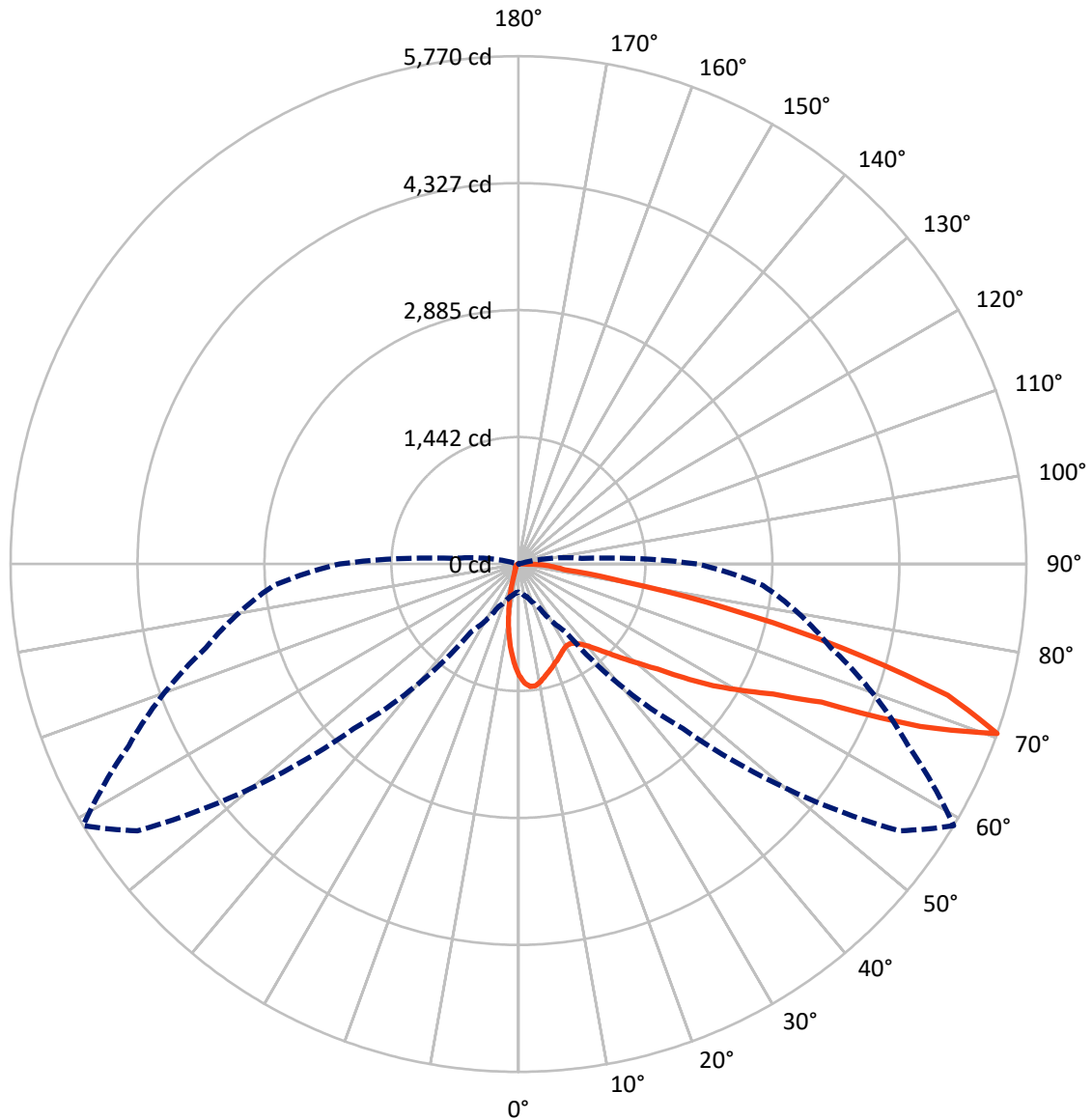
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.5 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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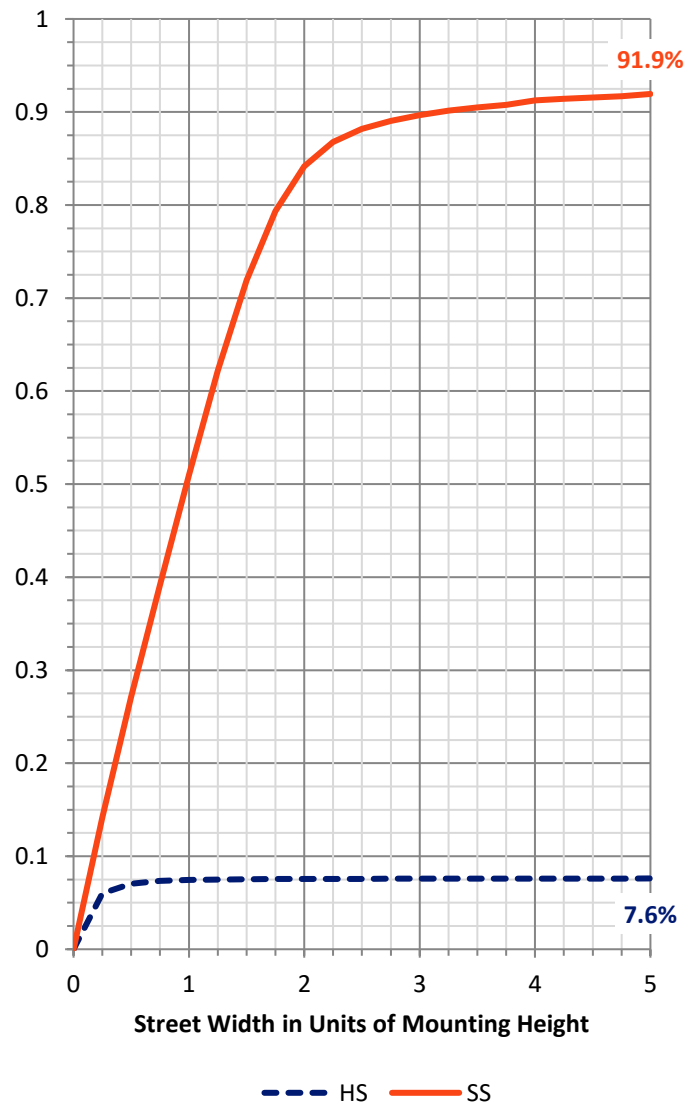
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	385.6	0.0	385.6
	% Fixture	7.7	0.0	7.7
<b>Street Side</b>	Lumens	4630.5	0.0	4630.5
	% Fixture	92.3	0.0	92.3
<b>Total</b>	Lumens	5016.1	0.0	5016.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.3	2.1
10°-20°	218.8	4.4
20°-30°	296.1	5.9
30°-40°	427.4	8.5
40°-50°	709.7	14.1
50°-60°	1085.6	21.6
60°-70°	1350.3	26.9
70°-80°	746.4	14.9
80°-90°	77.4	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°	5016.1	100.0
0°-180°	5016.1	100.0

**Coefficient of Utilization**



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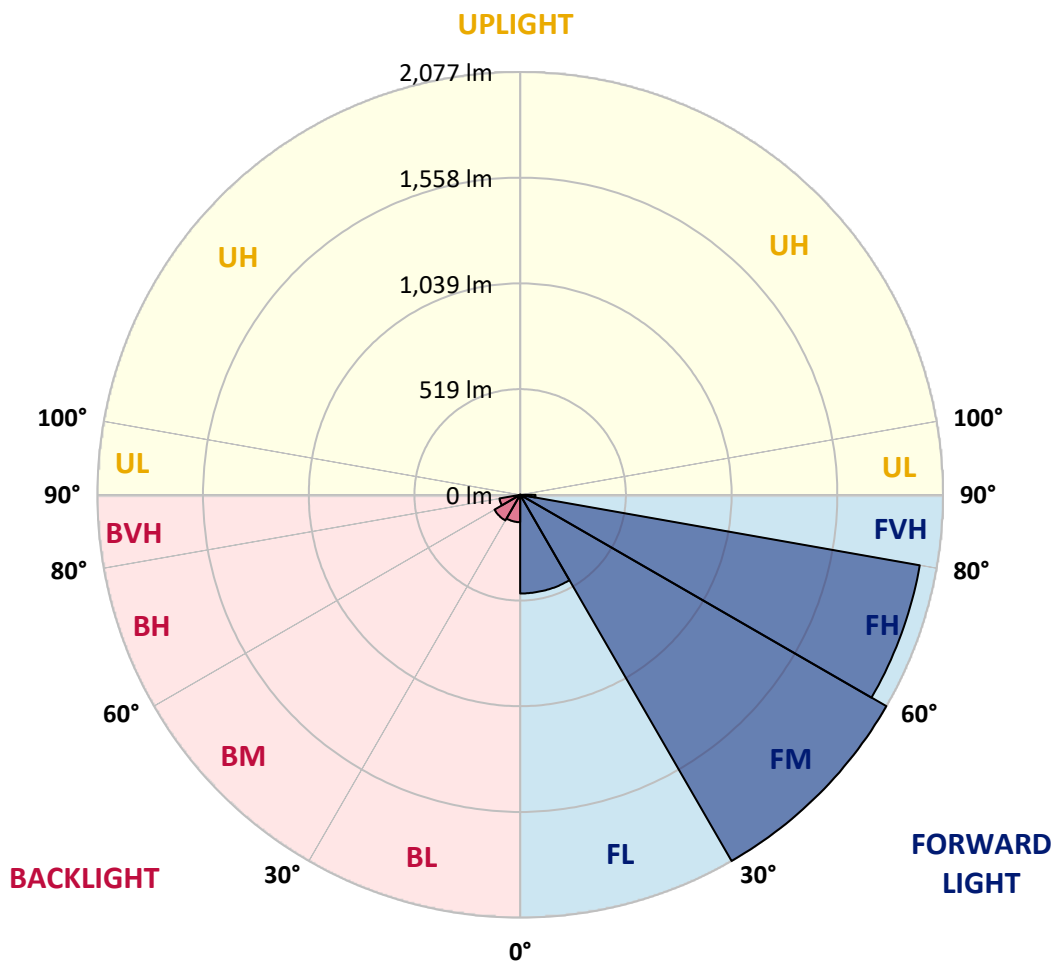
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	484.8	9.7			
FM	(30°-60°)	2077.2	41.4			
FH	(60°-80°)	1993.3	39.7			G2/5000
FVH	(80°-90°)	75.2	1.5			G1/100
BL	(0°-30°)	134.4	2.7	B1/500		
BM	(30°-60°)	145.5	2.9	B0/220		
BH	(60°-80°)	103.5	2.1	B0/110		G0/110
BVH	(80°-90°)	2.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4
2.5°	1433.7	1431.6	1422.0	1420.2	1409.6	1388.3	1363.8	1353.9	1333.8	1302.1	1266.9
5°	1457.6	1458.7	1459.4	1455.4	1453.8	1436.4	1409.1	1397.4	1370.5	1318.3	1254.0
7.5°	1368.3	1371.3	1380.8	1385.0	1403.1	1409.9	1404.2	1396.7	1375.5	1313.9	1223.3
10°	1274.1	1279.8	1290.0	1296.8	1319.1	1337.3	1360.4	1362.3	1357.6	1298.6	1189.0
12.5°	1193.1	1198.3	1209.7	1223.3	1246.1	1269.5	1304.0	1316.0	1331.3	1288.8	1164.3
15°	1123.5	1125.0	1136.0	1153.0	1182.8	1215.1	1255.9	1273.6	1303.3	1285.0	1145.4
17.5°	1062.5	1062.9	1070.0	1085.6	1122.0	1164.3	1212.0	1235.5	1273.0	1279.8	1128.7
20°	1022.4	1022.0	1022.4	1030.8	1062.9	1113.3	1171.1	1195.8	1243.8	1273.3	1111.7
22.5°	1008.8	1007.0	998.2	995.2	1015.7	1060.0	1129.0	1161.3	1217.7	1271.4	1099.2
25°	1025.5	1024.3	1005.7	988.4	990.2	1017.9	1086.4	1125.7	1197.3	1278.3	1096.2
27.5°	1079.2	1077.0	1048.6	1014.5	992.9	997.9	1054.6	1095.9	1181.0	1294.8	1100.4
30°	1149.6	1150.0	1119.7	1078.4	1027.7	999.7	1037.5	1076.5	1170.0	1319.9	1109.4
32.5°	1227.8	1227.5	1206.0	1158.2	1093.5	1034.5	1045.2	1078.1	1171.5	1356.6	1126.9
35°	1308.9	1304.7	1297.6	1255.5	1179.9	1095.5	1079.6	1103.7	1187.4	1405.0	1156.4
37.5°	1402.4	1400.8	1408.1	1363.8	1286.5	1185.1	1140.1	1156.4	1227.5	1476.5	1204.0
40°	1551.1	1542.7	1546.1	1485.9	1406.9	1305.8	1224.9	1229.0	1291.5	1571.1	1279.3
42.5°	1834.5	1800.8	1737.5	1624.8	1539.4	1439.8	1335.7	1328.6	1381.9	1685.8	1378.6
45°	2173.1	2134.5	1975.2	1778.0	1671.7	1583.6	1472.7	1453.4	1493.1	1822.3	1506.3
47.5°	2455.8	2414.2	2203.0	1938.2	1806.5	1732.0	1624.4	1601.7	1626.4	1980.9	1660.0
50°	2552.3	2529.3	2343.8	2071.3	1942.3	1898.4	1814.8	1777.0	1783.0	2152.0	1839.4
52.5°	2508.0	2500.1	2376.0	2162.6	2068.0	2082.4	2023.3	1983.6	1976.7	2338.9	2037.6
55°	2414.5	2410.8	2350.2	2213.3	2178.8	2250.7	2315.8	2281.4	2217.0	2537.5	2201.5
57.5°	2281.0	2295.3	2338.9	2310.9	2314.9	2428.5	2587.5	2605.3	2509.1	2695.8	2323.0
60°	1924.2	1962.8	2162.1	2415.7	2609.7	2724.5	2878.4	2911.8	2756.6	2803.9	2463.4
62.5°	1422.4	1477.6	1761.8	2227.6	2772.1	3287.2	3265.5	3250.8	2992.7	2948.9	2718.8
65°	835.5	900.2	1140.4	1740.6	2527.2	3648.9	3988.3	3783.9	3352.6	3250.0	3125.6
67.5°	416.3	416.6	525.2	918.8	1867.8	3396.6	5043.3	4925.2	4117.8	3693.9	3286.0
70°	320.1	328.9	388.6	533.9	944.4	2645.3	5285.1	5769.8	4886.6	3674.3	2788.1
72.5°	271.3	277.0	345.8	464.7	706.2	1452.3	4575.2	5100.0	4662.9	3104.4	2055.0
75°	195.2	199.8	306.2	421.5	650.1	720.4	3138.5	3782.4	3498.7	2183.8	1131.1
77.5°	48.4	48.1	106.7	342.1	581.6	600.2	1800.8	2425.5	2007.4	894.2	290.6
80°	21.6	20.8	24.2	71.9	541.2	566.5	792.0	1224.9	770.1	144.9	88.9
82.5°	15.2	14.4	15.2	26.4	180.9	525.6	478.7	530.9	281.9	49.6	37.8
85°	4.9	4.6	8.3	22.3	50.7	303.0	467.0	396.6	209.7	21.2	25.3
87.5°	0.8	0.8	3.1	12.1	14.7	101.1	273.9	274.7	94.2	12.4	11.4
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°	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4	1268.4
2.5°	1249.1	1226.8	1195.4	1163.9	1135.5	1106.5	1083.0	1072.1	1067.1	1060.3	1045.5
5°	1220.3	1179.9	1110.9	1043.2	980.0	919.5	867.6	838.1	806.4	804.8	789.3
7.5°	1174.2	1116.6	1008.0	902.8	806.4	714.0	634.6	583.1	547.9	526.0	510.8
10°	1122.7	1048.9	905.1	757.1	625.8	502.5	400.3	333.8	293.3	272.8	261.1
12.5°	1081.8	989.2	803.7	617.6	453.0	311.4	216.5	168.0	146.4	138.1	134.3
15°	1046.6	934.2	708.8	492.6	302.3	178.9	125.2	109.4	106.0	106.0	105.6
17.5°	1011.0	881.2	616.4	370.1	190.3	117.4	98.8	96.4	96.9	98.0	98.0
20°	977.5	830.9	527.5	263.8	124.9	93.9	89.7	88.9	90.0	91.6	91.2
22.5°	950.1	786.6	444.2	181.3	96.1	85.1	82.5	81.4	82.2	83.2	82.8
25°	930.9	748.9	367.7	126.4	83.6	77.6	74.6	72.9	72.2	72.9	72.6
27.5°	919.1	717.1	295.9	94.9	75.0	70.0	66.2	63.2	61.3	61.3	60.5
30°	911.6	687.1	231.9	78.6	67.7	62.4	57.2	53.0	49.9	49.1	48.8
32.5°	911.2	661.4	173.2	69.6	60.9	54.8	48.4	43.1	39.8	39.0	38.6
35°	920.6	640.6	127.5	62.9	54.8	47.6	40.5	34.9	31.8	31.8	31.3
37.5°	945.2	628.6	96.4	57.5	49.9	41.6	34.1	28.7	26.1	26.9	26.9
40°	991.0	626.3	78.6	53.3	45.8	36.3	27.7	23.5	22.3	23.5	23.5
42.5°	1061.0	638.4	70.0	50.4	41.9	31.0	23.1	20.1	19.6	20.8	20.8
45°	1152.2	662.2	65.1	47.6	37.8	25.7	19.3	17.4	17.1	18.6	18.6
47.5°	1262.7	694.4	60.5	44.7	33.7	21.2	16.3	14.7	14.7	16.3	16.6
50°	1393.6	737.8	56.0	41.6	30.3	17.8	13.6	12.4	12.9	14.4	14.7
52.5°	1544.3	791.2	51.8	39.0	26.4	14.4	11.4	10.6	10.9	12.4	12.9
55°	1674.1	837.8	46.9	36.3	21.6	11.7	9.5	9.1	9.5	11.4	11.4
57.5°	1787.2	882.4	42.4	32.1	17.1	9.5	7.5	7.5	8.3	10.3	10.6
60°	1937.3	952.8	38.6	27.2	12.9	7.2	6.0	6.4	7.5	9.1	9.5
62.5°	2203.4	1072.4	33.7	22.7	9.5	5.7	4.9	5.3	6.8	8.7	9.1
65°	2536.5	1185.6	28.0	18.9	7.2	4.2	3.9	4.9	6.8	8.7	9.1
67.5°	2502.4	1031.1	22.0	15.2	5.3	3.4	3.1	4.6	6.4	8.7	9.1
70°	2029.4	722.8	16.3	10.3	4.2	3.1	3.1	4.6	6.4	8.3	8.7
72.5°	1407.6	402.2	12.4	6.8	3.9	3.1	2.6	4.2	6.0	8.3	8.7
75°	669.8	123.4	9.9	4.9	3.4	2.6	2.3	4.2	6.0	8.3	8.7
77.5°	128.7	31.3	7.9	4.2	3.1	2.6	2.3	3.9	6.0	7.9	8.3
80°	43.4	13.9	6.4	3.9	3.1	2.6	2.3	3.9	5.7	7.5	7.9
82.5°	23.8	7.9	5.7	3.4	3.1	2.3	1.8	3.4	5.3	7.5	7.9
85°	18.6	5.7	4.6	3.4	3.1	2.3	1.8	3.4	5.3	7.2	7.5
87.5°	9.5	4.2	3.9	3.4	3.1	2.3	1.8	3.1	4.9	6.8	7.5
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)