

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: P960828

Luminaire Tested: **NAV-SB1D-727-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960828
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-727-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV WIDE OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7454.8 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

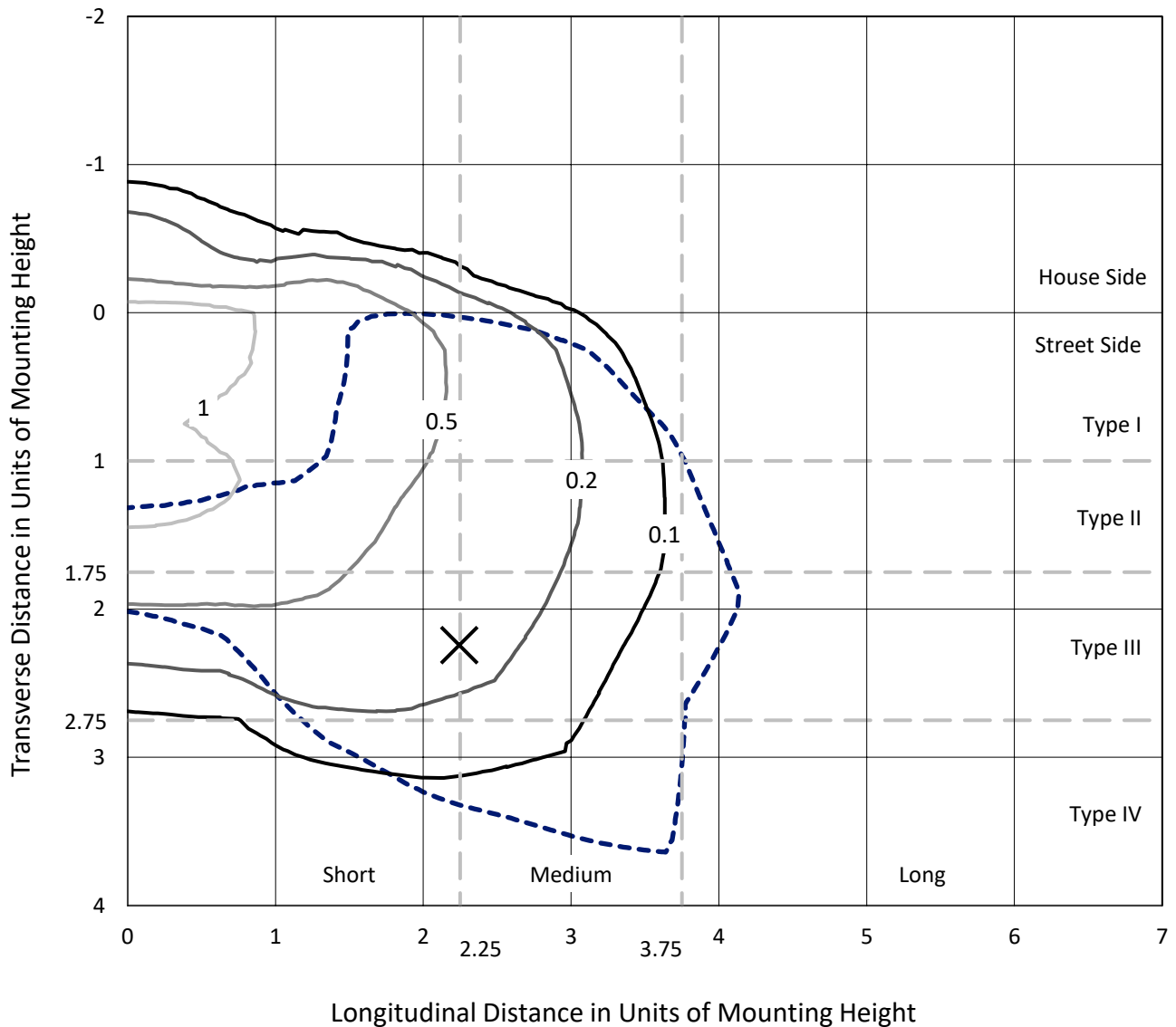
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

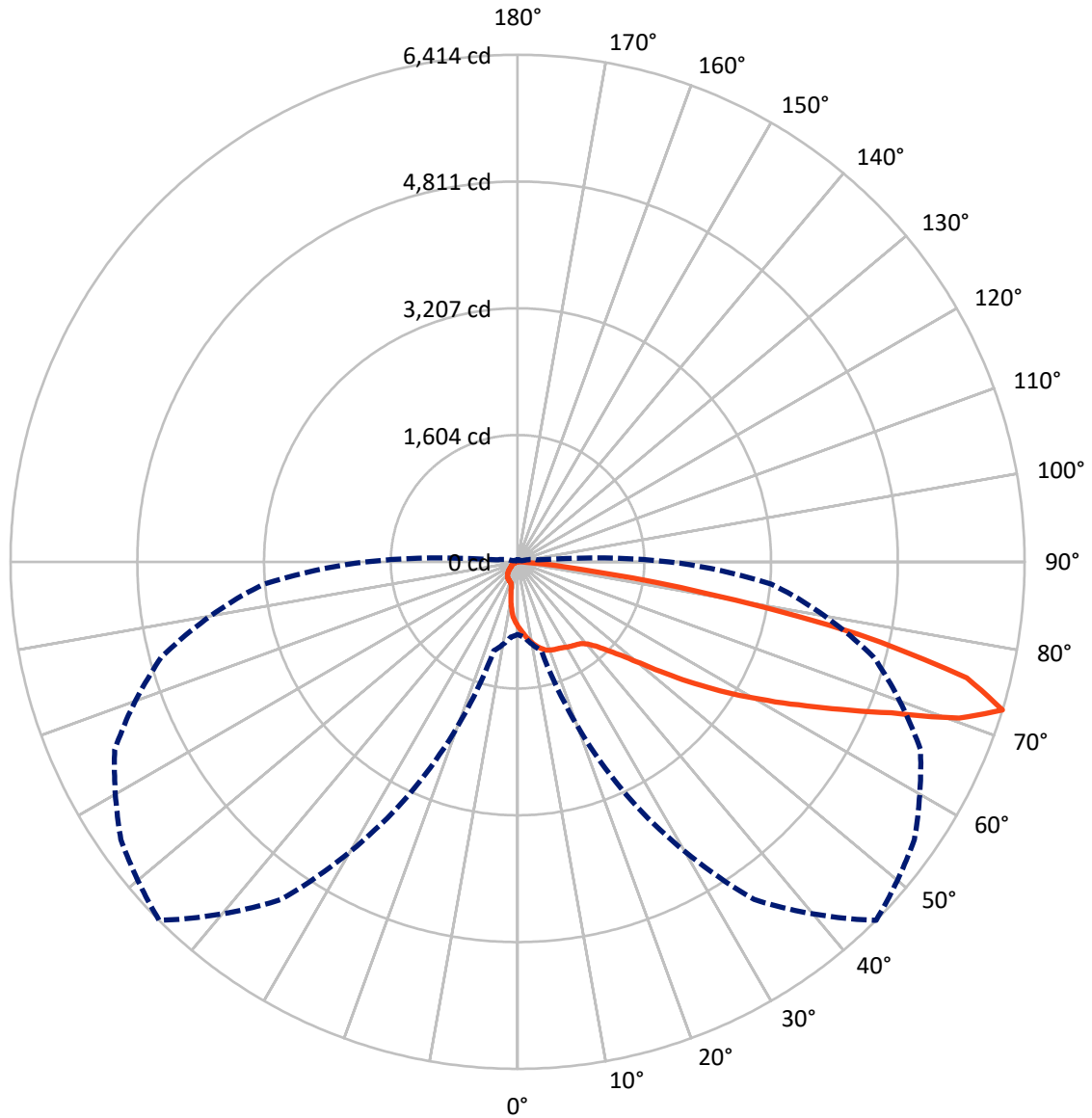
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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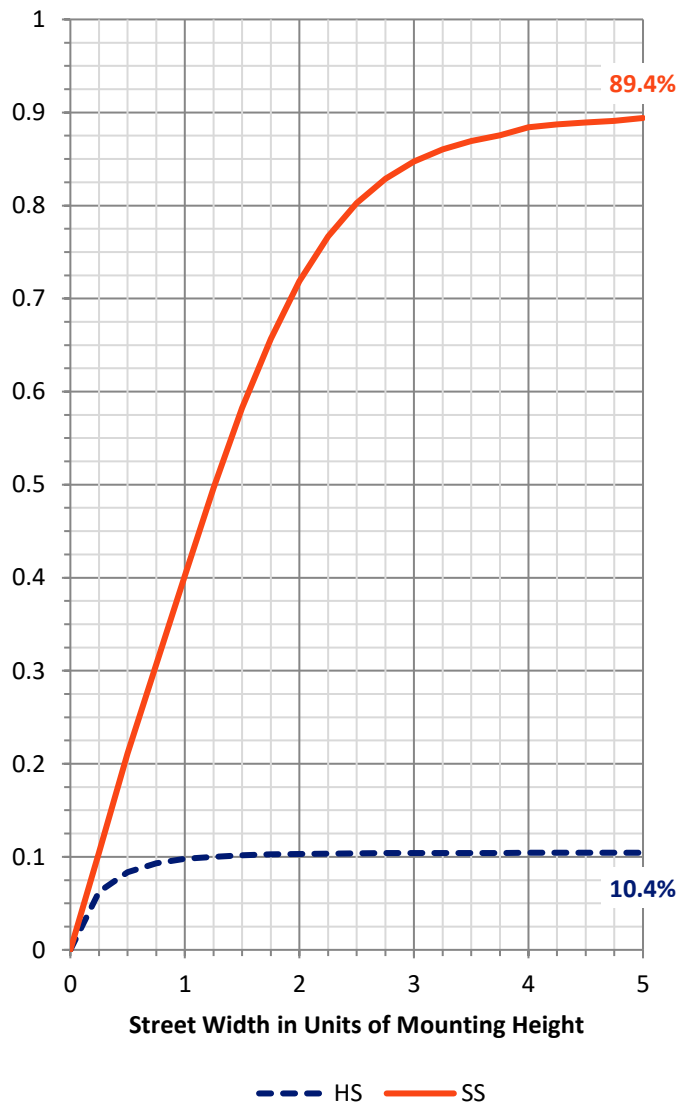
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	783.3	0.0	783.3
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	6671.5	0.0	6671.5
	% Fixture	89.5	0.0	89.5
Total	Lumens	7454.8	0.0	7454.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.9	1.0
10°-20°	224.9	3.0
20°-30°	369.3	5.0
30°-40°	523.8	7.0
40°-50°	865.7	11.6
50°-60°	1555.2	20.9
60°-70°	2159.4	29.0
70°-80°	1566.4	21.0
80°-90°	113.2	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°	7454.8	100.0
0°-180°	7454.8	100.0

Coefficient of Utilization



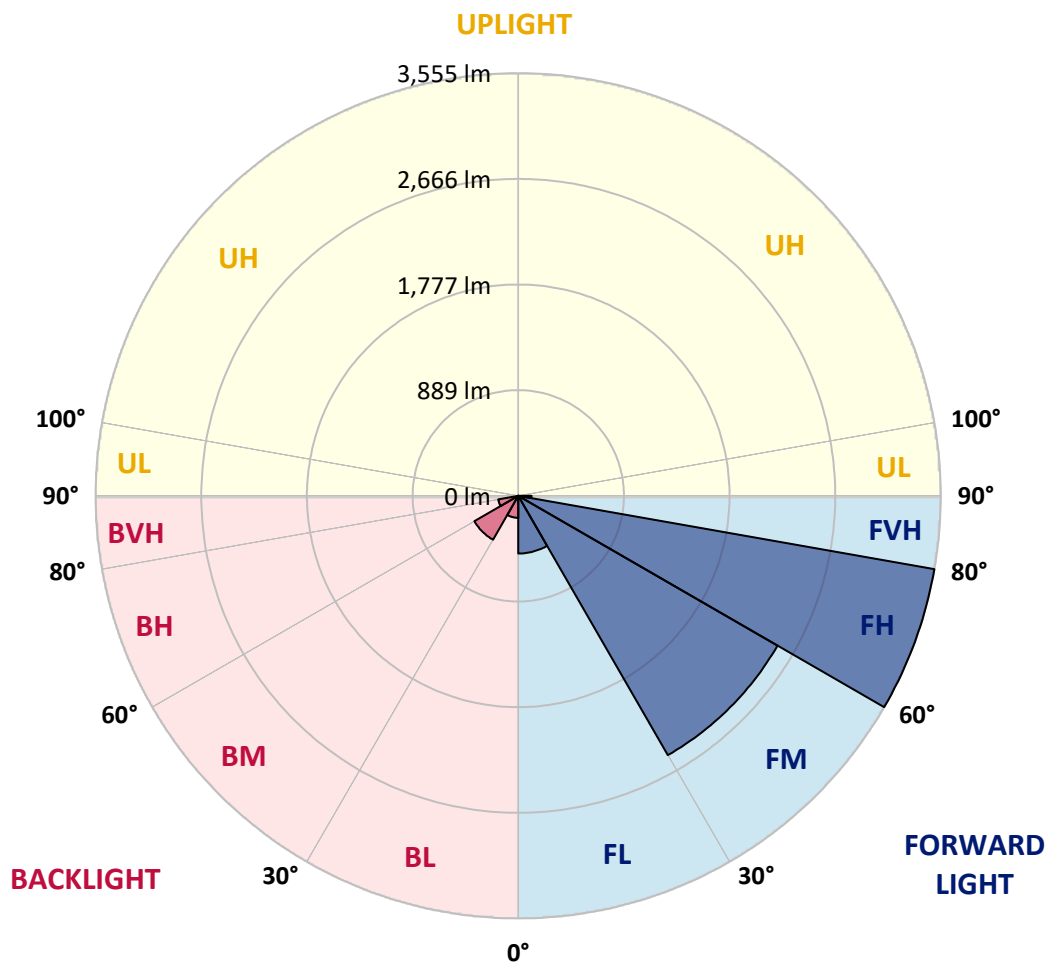
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	485.6	6.5			
FM (30°-60°)	2518.6	33.8			
FH (60°-80°)	3555.0	47.7			G2/5000
FVH (80°-90°)	112.3	1.5			G2/225
BL (0°-30°)	185.5	2.5	B1/500		
BM (30°-60°)	426.0	5.7	B1/1000		
BH (60°-80°)	170.8	2.3	B1/500		G1/500
BVH (80°-90°)	1.0	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-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	816.7	816.7	816.7	816.7	816.7	816.7	816.7	816.7	816.7	816.7	816.7
2.5°	892.0	893.5	892.5	886.4	876.3	870.6	867.6	857.4	850.7	839.1	826.9
5°	974.0	980.0	976.5	964.2	944.9	931.2	927.1	906.2	887.4	865.5	840.1
7.5°	1061.0	1063.9	1057.4	1041.6	1015.7	992.2	988.7	959.7	929.7	896.1	861.5
10°	1136.2	1139.8	1129.7	1106.7	1077.2	1048.2	1043.1	1011.1	975.5	934.2	890.0
12.5°	1199.4	1202.9	1189.7	1162.1	1129.7	1099.6	1094.5	1061.0	1021.7	976.0	921.0
15°	1247.2	1253.8	1235.9	1206.4	1171.4	1141.3	1138.8	1105.7	1067.5	1016.7	958.2
17.5°	1275.2	1281.8	1265.0	1229.4	1199.4	1173.9	1170.9	1143.4	1107.7	1058.9	994.2
20°	1279.7	1285.9	1268.0	1237.0	1212.1	1191.7	1190.2	1170.3	1144.4	1097.6	1033.5
22.5°	1266.0	1273.7	1257.4	1232.5	1215.1	1204.5	1202.4	1191.2	1176.4	1136.7	1070.1
25°	1251.7	1257.9	1245.7	1223.7	1214.6	1213.6	1215.1	1213.1	1210.0	1176.4	1112.8
27.5°	1250.7	1257.4	1243.6	1222.7	1217.7	1228.4	1229.9	1239.5	1242.1	1212.6	1154.0
30°	1259.4	1263.9	1250.7	1228.9	1226.3	1250.7	1251.2	1268.5	1272.6	1243.1	1194.7
32.5°	1278.2	1283.3	1270.1	1238.0	1234.4	1268.5	1270.1	1292.9	1299.6	1275.7	1237.5
35°	1322.5	1328.6	1313.3	1263.4	1250.7	1285.4	1290.0	1316.9	1330.1	1310.3	1281.8
37.5°	1432.9	1415.1	1394.2	1314.9	1287.9	1311.8	1319.4	1350.9	1374.4	1351.5	1334.7
40°	1707.1	1651.2	1586.1	1402.4	1353.0	1368.3	1374.4	1405.9	1438.0	1415.6	1407.4
42.5°	2118.8	2052.7	1947.8	1603.9	1451.2	1458.9	1463.4	1490.9	1536.2	1518.4	1520.4
45°	2485.7	2461.7	2354.9	1947.8	1634.9	1597.3	1602.9	1617.1	1683.8	1677.1	1690.3
47.5°	2767.6	2753.9	2671.5	2342.7	1945.3	1766.7	1782.5	1789.1	1885.3	1908.7	1944.3
50°	2984.4	2979.3	2905.5	2693.8	2350.8	2016.6	2022.1	2007.9	2151.9	2209.9	2277.5
52.5°	3188.9	3206.2	3151.8	3020.0	2783.9	2343.8	2342.7	2275.5	2469.9	2557.5	2673.0
55°	3373.6	3379.7	3385.4	3352.8	3219.4	2716.2	2706.5	2596.6	2838.8	2929.4	3054.6
57.5°	3547.1	3549.7	3599.6	3666.2	3672.8	3116.1	3098.4	2966.6	3241.9	3306.4	3383.3
60°	3663.7	3675.3	3780.7	3965.9	4046.8	3528.9	3519.1	3384.9	3652.0	3682.0	3667.8
62.5°	3495.8	3567.0	3832.6	4199.9	4399.9	3986.2	3981.7	3855.5	4083.5	4059.0	3936.9
65°	2829.7	2950.3	3417.4	4358.2	4746.5	4497.2	4503.7	4369.5	4526.7	4447.3	4155.8
67.5°	1979.4	2106.6	2659.3	4370.9	5133.7	5097.1	5135.2	4924.6	4997.4	4819.2	4207.6
70°	1368.8	1434.4	1794.2	4097.2	5435.5	5923.5	5922.4	5606.4	5465.5	4988.7	3943.0
72.5°	920.4	954.6	1165.2	3250.5	5213.6	6414.4	6384.9	6127.4	5623.3	4665.6	3221.5
75°	388.3	413.2	539.4	1826.8	4124.7	5868.4	5788.6	5415.1	4996.4	3673.8	2009.9
77.5°	123.1	133.9	212.7	653.8	2272.0	4411.2	4326.7	3381.8	3348.7	1843.1	734.7
80°	58.5	68.2	119.6	262.6	894.0	2399.2	2387.5	1534.1	1440.5	497.6	147.6
82.5°	25.4	30.0	66.1	140.4	400.0	855.9	873.2	522.0	432.0	188.8	45.3
85°	8.1	10.7	30.5	64.6	168.9	212.7	210.1	124.1	174.0	102.8	15.8
87.5°	0.0	0.0	10.1	14.8	17.3	12.2	13.7	10.7	48.4	28.5	5.6
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°	816.7	816.7	816.7	816.7	816.7	816.7	816.7	816.7	816.7	816.7	816.7
2.5°	820.7	812.6	798.4	785.2	773.5	761.8	754.6	744.5	743.4	743.4	746.0
5°	826.4	813.1	787.7	760.8	729.7	700.2	670.7	642.2	633.0	626.4	629.5
7.5°	842.7	821.7	781.6	730.2	671.2	606.5	561.3	512.4	493.5	483.4	484.9
10°	866.0	837.5	776.5	686.4	590.8	502.8	438.1	385.2	364.8	356.2	356.2
12.5°	892.0	856.9	767.3	632.0	502.8	397.4	334.4	309.9	306.8	306.8	306.8
15°	923.0	880.3	751.5	567.8	410.6	314.5	292.1	293.0	296.1	298.2	298.2
17.5°	955.1	905.3	726.6	496.1	329.2	282.9	283.4	285.0	287.5	289.6	289.6
20°	989.7	930.2	693.5	419.8	282.4	273.8	275.3	276.9	278.8	279.8	280.3
22.5°	1026.8	953.6	654.4	345.0	266.6	266.1	266.6	268.1	270.7	270.7	271.7
25°	1066.5	979.5	609.6	290.6	258.5	258.5	259.5	260.6	262.6	262.6	263.1
27.5°	1107.2	1003.5	562.3	262.1	251.3	250.8	250.8	252.4	253.4	253.9	254.4
30°	1152.0	1031.5	515.0	255.9	245.8	243.2	241.7	242.7	243.7	244.3	245.3
32.5°	1197.8	1058.4	472.7	258.5	240.2	235.5	230.5	229.5	229.5	231.5	233.1
35°	1248.7	1087.9	440.1	267.1	237.1	224.4	216.3	211.7	212.2	215.2	216.8
37.5°	1309.7	1123.5	416.3	274.8	235.1	211.7	198.4	192.8	189.3	192.8	191.9
40°	1389.7	1176.0	398.9	280.8	232.6	196.9	179.1	169.9	163.4	165.3	164.3
42.5°	1507.2	1258.4	392.3	281.4	226.9	179.6	159.3	147.1	137.4	137.9	135.8
45°	1672.1	1388.7	426.4	274.8	214.7	160.8	138.4	122.1	116.0	114.5	112.4
47.5°	1898.0	1578.4	505.3	261.1	196.9	142.5	118.1	104.3	99.7	97.2	95.6
50°	2200.8	1822.1	592.8	245.8	179.1	125.2	101.3	92.7	89.6	87.0	86.5
52.5°	2551.8	2069.5	664.5	230.5	161.3	109.9	90.6	85.5	82.9	80.9	80.4
55°	2873.9	2239.9	660.5	214.2	144.0	97.7	82.9	79.8	76.9	74.8	73.8
57.5°	3074.4	2263.8	544.5	196.4	124.1	88.0	75.8	73.8	70.2	67.6	67.1
60°	3166.5	2127.5	381.6	173.0	104.3	78.8	68.2	67.1	62.6	59.0	58.0
62.5°	3183.3	1874.1	254.4	144.0	87.0	70.2	60.6	59.0	52.9	46.8	43.8
65°	3115.2	1511.8	176.1	112.4	74.3	61.1	51.9	48.9	42.2	36.1	34.1
67.5°	2899.4	1061.5	122.6	80.9	63.1	48.4	41.2	40.2	35.2	30.0	28.5
70°	2504.0	605.1	81.9	60.6	49.9	33.1	32.6	33.6	28.5	24.4	22.3
72.5°	1919.8	276.9	50.8	44.3	34.1	22.3	25.9	26.4	21.8	18.3	16.3
75°	1130.2	118.6	32.1	28.5	17.3	14.8	18.9	19.4	14.8	11.7	10.1
77.5°	384.7	44.8	20.4	16.8	8.6	8.1	12.2	12.2	8.1	4.6	3.6
80°	87.5	16.8	10.1	6.7	4.1	3.6	4.1	3.6	2.0	0.5	0.0
82.5°	24.9	6.7	4.1	2.6	1.5	1.5	0.5	0.0	0.0	0.0	0.0
85°	7.2	3.1	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)