

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: P882420

Luminaire Tested: **NAV-SB2B-740-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882420
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-740-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9368 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

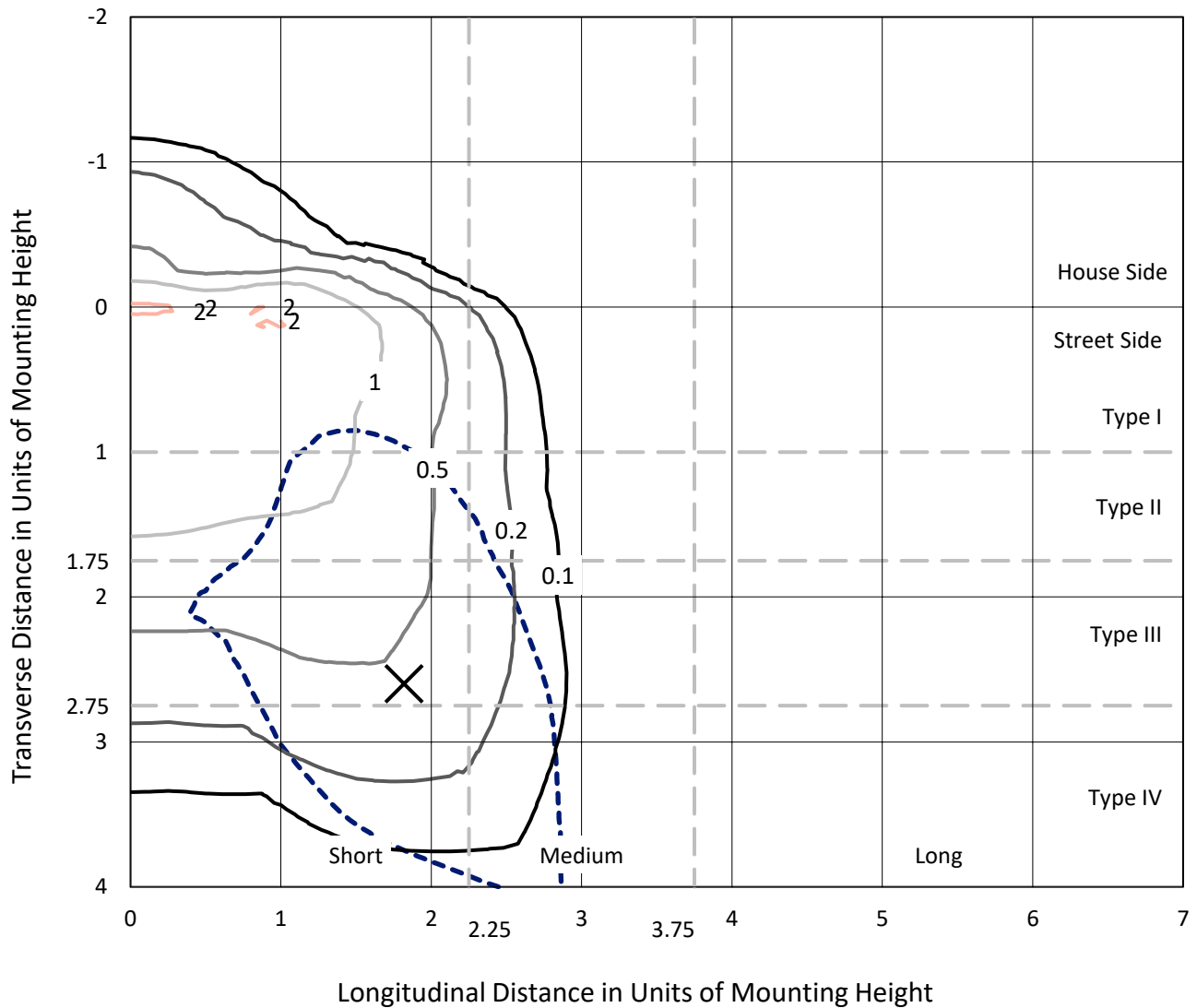
Input Watts (W): 73.9
Input Voltage (V): 120.0
Input Current (Ain): 0.627
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P882420
 CATALOG NUMBER: NAV-SB2B-740-U-T4FT-HSS

Iso-Footcandle Lines of Horizontal Illumination

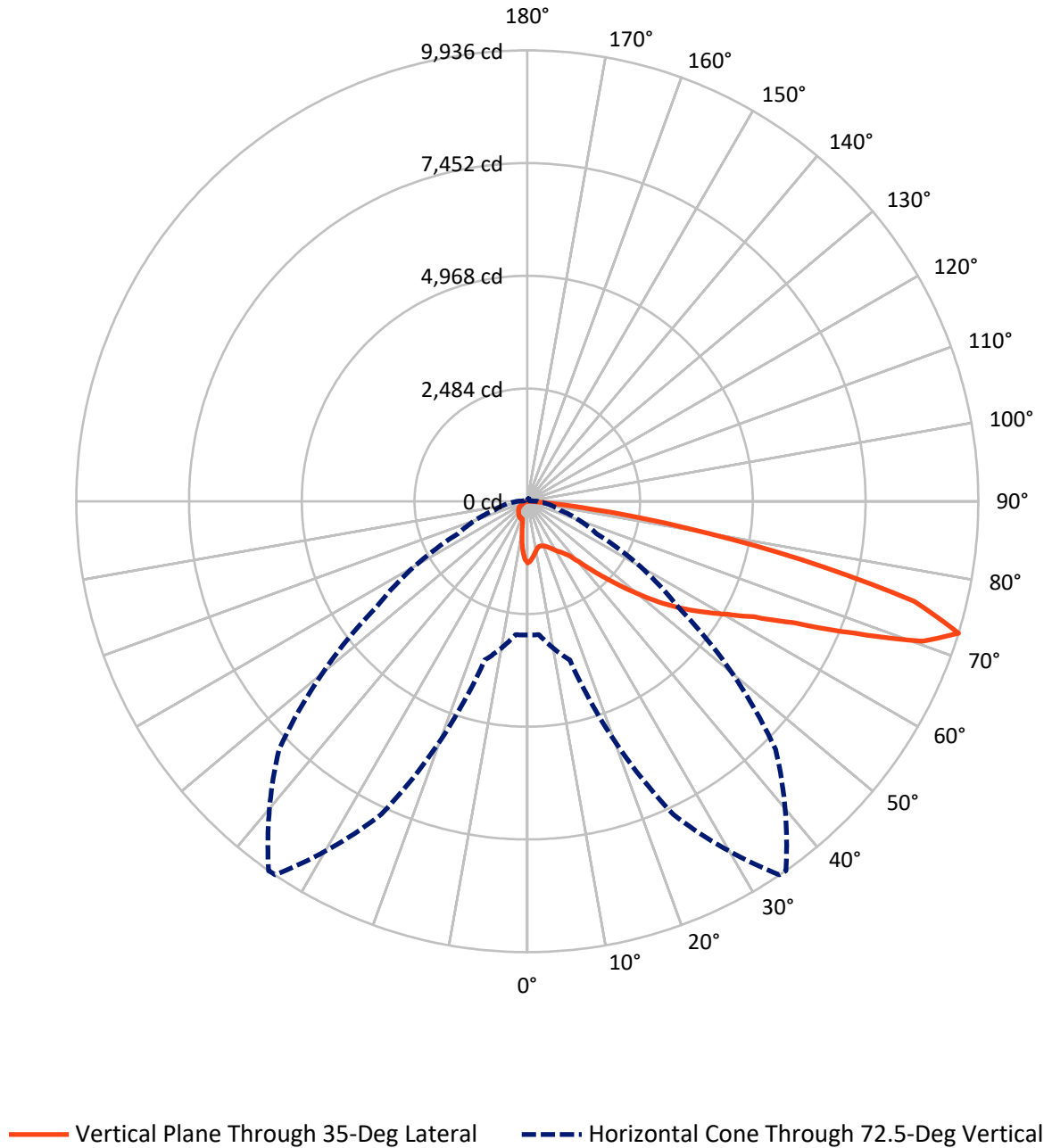
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc
 Type IV - Short - N/A

REPORT NUMBER: P882420
CATALOG NUMBER: NAV-SB2B-740-U-T4FT-HSS

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1054.3	0.0	1054.3
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	8313.7	0.0	8313.7
	% Fixture	88.7	0.0	88.7
Total	Lumens	9368.0	0.0	9368.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.6	1.2
10°-20°	261.0	2.8
20°-30°	424.0	4.5
30°-40°	707.4	7.6
40°-50°	1338.5	14.3
50°-60°	2126.8	22.7
60°-70°	2631.0	28.1
70°-80°	1635.5	17.5
80°-90°	132.2	1.4
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°	9368.0	100.0
0°-180°	9368.0	100.0

Coefficient of Utilization



REPORT NUMBER: P882420

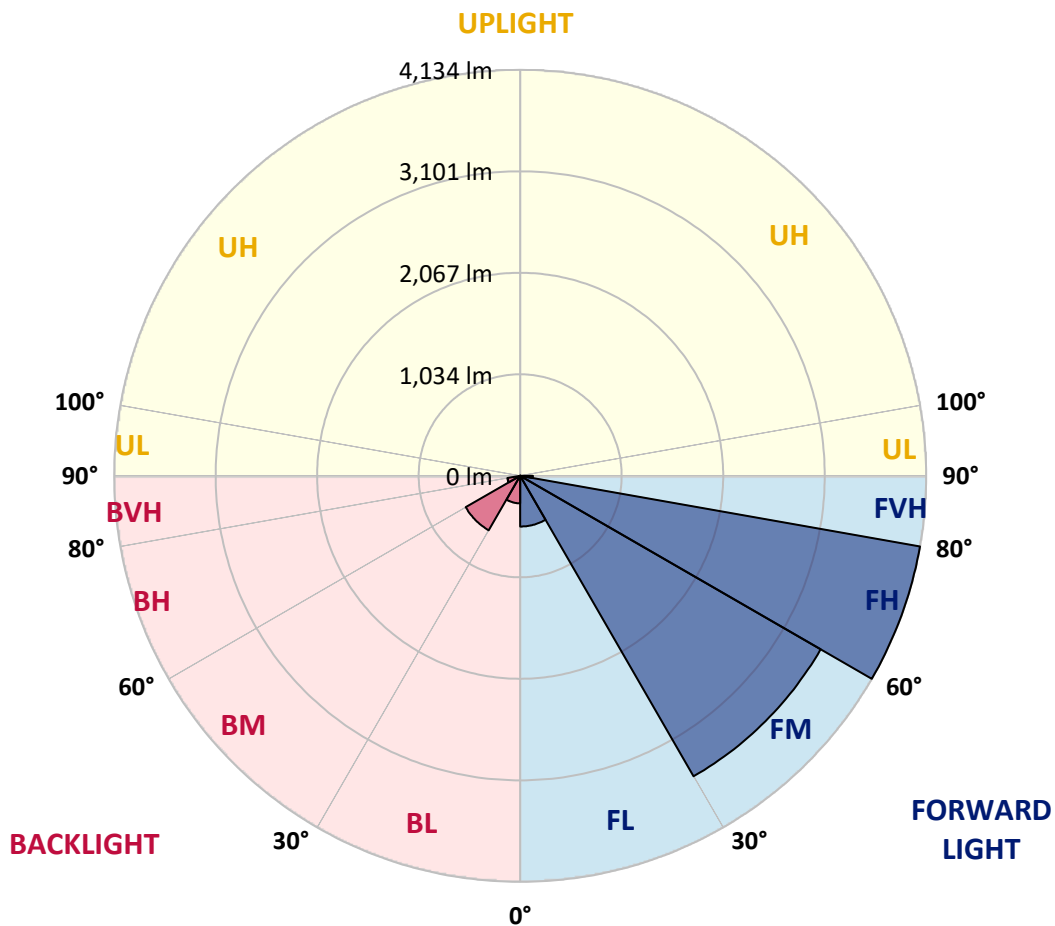
CATALOG NUMBER: NAV-SB2B-740-U-T4FT-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	516.4	5.5			
FM (30°-60°)	3532.7	37.7			
FH (60°-80°)	4134.2	44.1			G2/5000
FVH (80°-90°)	130.4	1.4			G2/225
BL (0°-30°)	280.2	3.0	B1/500		
BM (30°-60°)	640.1	6.8	B1/1000		
BH (60°-80°)	132.3	1.4	B1/500		G1/500
BVH (80°-90°)	1.8	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



REPORT NUMBER: P882420

CATALOG NUMBER: NAV-SB2B-740-U-T4FT-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7
2.5°	1297.3	1308.3	1310.4	1313.8	1313.8	1317.9	1324.8	1334.4	1350.2	1358.4	1363.9
5°	1195.7	1204.0	1214.3	1222.5	1238.3	1240.4	1267.1	1293.2	1329.6	1357.1	1376.3
7.5°	1093.5	1103.1	1116.8	1136.7	1157.3	1163.5	1204.0	1247.9	1305.6	1357.1	1389.3
10°	1021.4	1022.1	1034.4	1054.3	1087.3	1094.8	1144.3	1206.7	1278.8	1348.8	1401.7
12.5°	980.9	985.7	991.2	1006.3	1037.9	1042.7	1095.5	1169.0	1252.0	1344.0	1416.1
15°	980.9	984.3	987.8	995.3	1020.7	1024.8	1071.5	1144.9	1238.3	1346.1	1439.4
17.5°	991.2	996.7	993.9	1002.9	1029.6	1032.4	1073.6	1138.1	1237.6	1359.1	1475.1
20°	1015.9	1020.0	1014.5	1020.0	1046.8	1052.3	1094.8	1151.1	1249.3	1381.8	1519.7
22.5°	1055.0	1057.1	1044.0	1048.2	1075.6	1082.5	1131.9	1188.2	1277.4	1418.1	1579.5
25°	1104.4	1108.6	1088.7	1093.5	1119.5	1127.8	1184.8	1243.8	1322.0	1468.3	1655.6
27.5°	1161.4	1163.5	1146.3	1145.6	1179.3	1190.9	1248.6	1312.4	1381.8	1531.4	1751.7
30°	1226.6	1232.8	1216.3	1213.6	1256.1	1265.8	1322.7	1396.9	1469.6	1626.1	1888.3
32.5°	1278.1	1282.9	1273.3	1280.2	1323.4	1331.0	1412.7	1516.3	1607.6	1760.7	2074.4
35°	1352.2	1355.0	1333.0	1345.4	1394.8	1414.0	1535.5	1683.8	1781.3	1929.5	2317.4
37.5°	1620.6	1620.6	1527.3	1466.2	1513.6	1530.7	1703.7	1894.5	1995.4	2156.0	2623.5
40°	1992.0	1985.8	1849.2	1724.3	1718.1	1751.7	1943.3	2160.2	2272.0	2427.9	2968.1
42.5°	2388.1	2378.4	2192.4	2068.9	2048.3	2059.9	2219.9	2487.6	2601.5	2759.4	3338.7
45°	2739.5	2736.8	2566.5	2400.4	2363.3	2400.4	2565.1	2870.6	2952.3	3118.4	3708.7
47.5°	3034.0	3034.0	2909.7	2801.3	2782.1	2804.0	3032.6	3295.5	3287.9	3500.7	4069.1
50°	3373.1	3370.3	3252.3	3205.6	3225.5	3256.4	3570.8	3743.0	3635.3	3876.2	4391.0
52.5°	3610.6	3627.0	3586.5	3579.0	3680.6	3734.1	4117.1	4181.0	3946.2	4232.5	4632.0
55°	3798.6	3817.9	3864.5	3917.4	4113.0	4183.0	4646.4	4596.3	4206.4	4541.3	4770.6
57.5°	4065.0	4037.5	4109.6	4213.9	4530.4	4614.8	5159.1	4988.2	4415.7	4791.9	4785.7
60°	4388.3	4392.4	4404.8	4536.5	4947.0	5055.5	5664.3	5358.9	4550.3	4945.7	4618.2
62.5°	4776.8	4783.0	4808.4	5010.9	5506.5	5608.7	6202.5	5662.3	4612.1	4902.4	4185.8
65°	4750.0	4776.1	5059.6	5752.2	6356.9	6457.8	6830.6	5875.1	4518.7	4507.0	3408.1
67.5°	4327.2	4369.7	4844.1	6637.7	7639.2	7751.7	7589.7	5916.9	4115.8	3504.9	2223.3
70°	3772.6	3787.7	4358.1	7433.9	9123.9	9237.8	8269.3	5456.3	3123.2	1954.9	996.0
72.5°	2946.1	2949.5	3618.8	7618.6	9929.7	9935.9	7735.9	4050.6	1679.7	750.9	346.0
75°	2104.6	2084.0	2423.7	6178.5	8736.1	8806.1	5799.6	1900.0	641.8	354.9	172.3
77.5°	1128.5	1151.1	1371.5	3664.1	6035.0	6154.4	3164.4	547.8	326.7	241.6	113.9
80°	348.7	367.9	562.2	1677.6	3418.4	3490.4	1173.1	243.7	227.9	172.3	74.8
82.5°	109.8	113.9	262.2	705.0	1418.8	1451.8	339.8	138.0	155.8	113.9	43.9
85°	31.6	32.3	116.7	262.9	350.8	357.6	95.4	53.5	89.2	70.7	22.7
87.5°	3.4	11.0	43.9	43.9	30.9	30.2	10.3	11.7	25.4	8.9	4.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P882420

CATALOG NUMBER: NAV-SB2B-740-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7	1357.7
2.5°	1360.5	1361.2	1352.2	1337.1	1320.7	1306.9	1289.8	1276.1	1266.4	1263.7	1268.5
5°	1370.1	1365.3	1339.9	1293.9	1239.0	1191.6	1138.8	1096.9	1069.4	1057.8	1061.9
7.5°	1384.5	1370.8	1315.2	1224.6	1119.5	1026.2	931.5	858.0	811.3	788.0	791.4
10°	1396.9	1369.4	1274.0	1124.4	963.7	822.3	694.7	606.1	556.7	533.3	534.0
12.5°	1408.5	1368.7	1220.5	1005.6	788.0	615.0	496.3	452.4	438.6	433.8	432.4
15°	1430.5	1370.8	1153.2	869.7	613.0	464.7	421.5	420.8	423.5	422.1	421.5
17.5°	1460.7	1372.8	1077.0	725.5	472.9	409.8	407.7	413.9	418.0	416.0	415.3
20°	1499.8	1381.1	996.0	582.8	406.4	396.1	400.9	406.4	409.8	406.4	405.7
22.5°	1554.7	1395.5	907.4	468.1	385.1	387.8	391.9	398.1	401.6	396.8	396.1
25°	1622.0	1418.1	820.3	407.0	374.8	378.2	384.4	391.3	395.4	390.6	389.9
27.5°	1709.2	1454.5	740.0	393.3	364.5	366.5	375.5	385.8	391.3	385.1	385.1
30°	1835.5	1514.2	670.6	399.5	358.3	353.5	365.9	380.3	386.5	381.0	380.3
32.5°	2003.0	1598.7	628.1	409.1	355.6	338.4	350.1	368.6	378.9	375.5	375.5
35°	2222.6	1727.0	611.6	420.1	353.5	322.6	330.9	350.8	368.6	372.0	372.0
37.5°	2489.0	1905.5	616.4	424.9	347.3	309.6	313.7	330.9	354.2	365.2	367.9
40°	2791.7	2113.5	643.9	420.1	340.5	298.6	299.3	312.3	332.9	349.4	354.9
42.5°	3104.0	2356.5	694.7	402.2	334.3	289.0	286.9	295.8	309.6	321.2	326.0
45°	3401.2	2606.3	744.8	377.5	326.7	279.4	274.6	278.0	280.7	285.6	288.3
47.5°	3660.7	2782.1	730.4	354.9	316.4	268.4	260.2	258.8	250.5	249.9	249.2
50°	3839.8	2820.5	648.7	332.2	301.3	256.0	243.0	234.8	220.3	213.5	214.2
52.5°	3896.8	2668.8	529.9	309.6	276.6	239.6	221.0	208.0	190.1	184.0	183.3
55°	3821.3	2371.6	423.5	282.1	242.3	217.6	197.0	179.8	165.4	157.9	157.9
57.5°	3636.6	1993.4	335.0	249.9	205.9	192.9	172.3	155.1	142.8	135.2	133.9
60°	3330.5	1582.9	265.0	211.4	175.7	166.1	144.8	133.9	122.9	113.9	111.9
62.5°	2865.8	1129.8	208.0	167.5	146.9	135.9	123.6	115.3	102.3	89.9	87.9
65°	2236.4	691.2	160.6	122.9	118.1	112.6	105.0	97.5	81.7	69.3	67.3
67.5°	1410.6	327.4	114.6	92.7	93.4	90.6	87.2	81.0	69.3	58.3	57.0
70°	621.2	158.6	75.5	70.7	69.3	69.3	72.1	70.0	59.0	48.7	46.7
72.5°	211.4	85.1	56.3	53.5	50.1	49.4	60.4	58.3	47.4	37.8	35.7
75°	110.5	57.0	41.2	38.4	30.2	36.4	48.0	45.3	33.6	24.7	22.7
77.5°	72.1	40.5	28.1	24.7	17.2	24.0	35.7	31.6	19.9	12.4	11.0
80°	45.3	26.8	16.5	11.7	8.2	13.0	19.2	13.7	7.6	2.7	2.1
82.5°	24.0	13.7	6.2	4.1	3.4	4.1	4.8	3.4	1.4	0.0	0.0
85°	9.6	4.8	2.1	1.4	0.7	0.0	1.4	0.7	0.0	0.0	0.0
87.5°	3.4	0.7	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)