

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: P960881

Luminaire Tested: **NAV-SB1D-735-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960881
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-735-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7974.5 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - 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

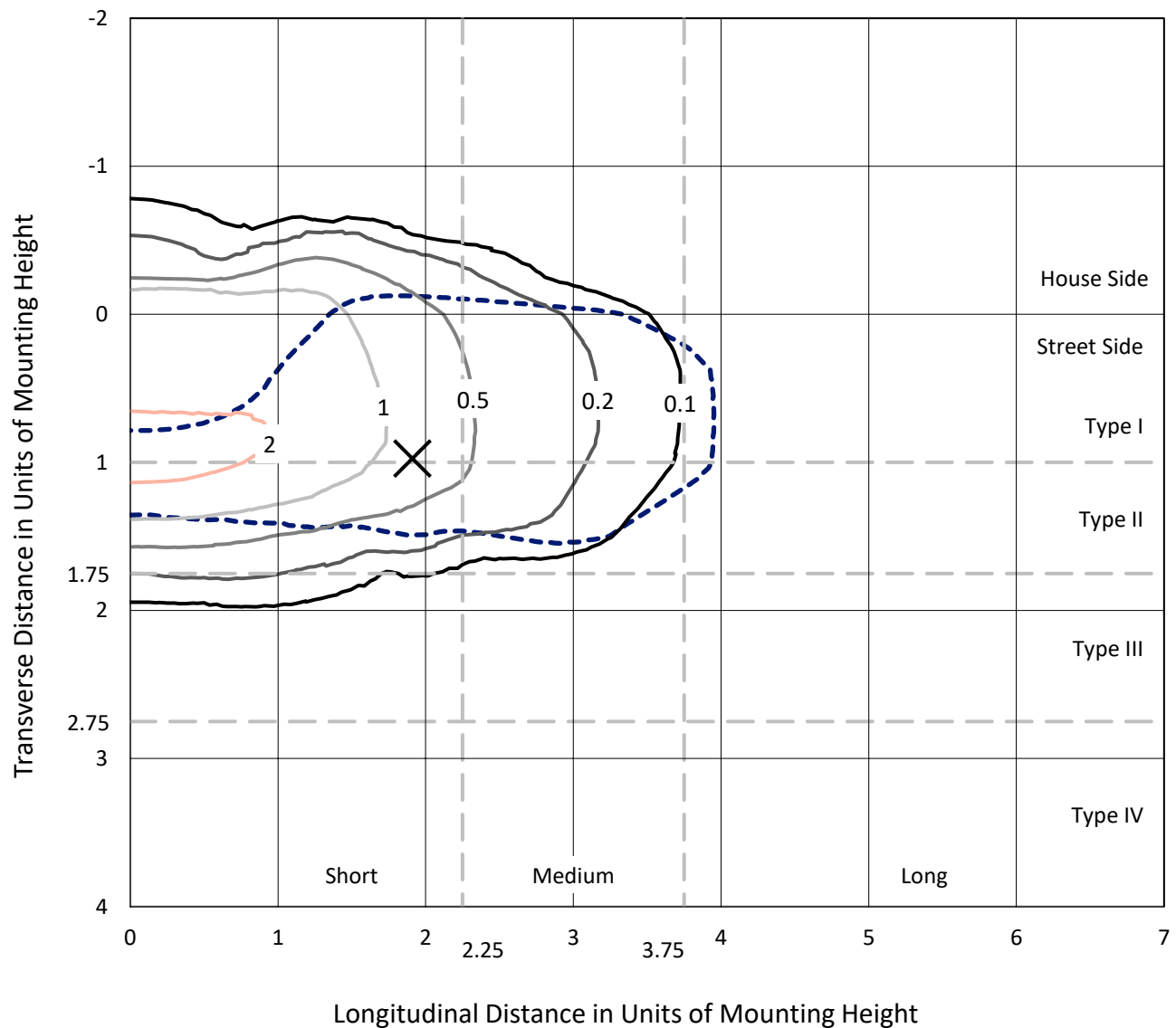


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Iso-Footcandle Lines of Horizontal Illumination

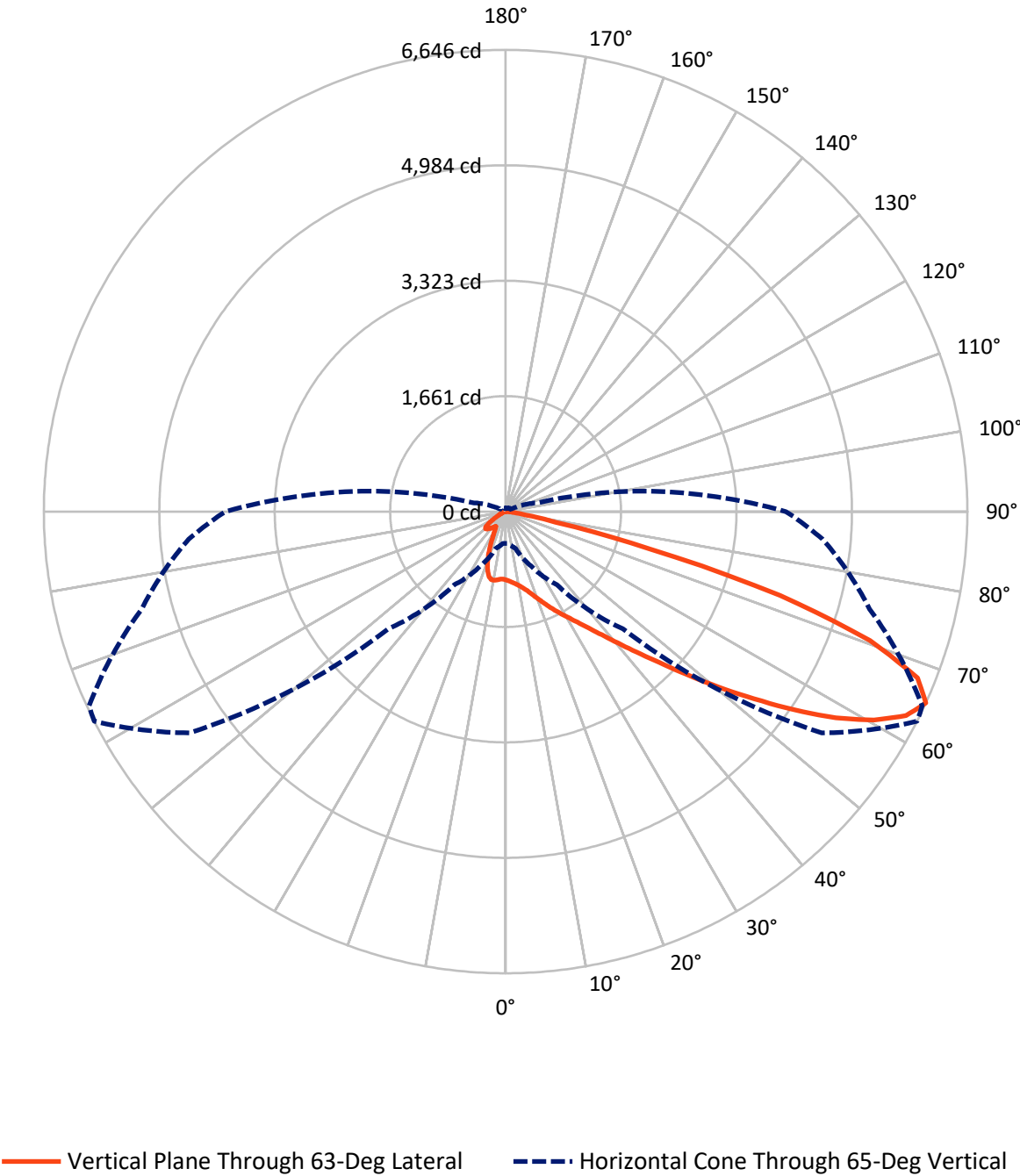
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1172.2	0.0	1172.2
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	6802.3	0.0	6802.3
	% Fixture	85.3	0.0	85.3
Total	Lumens	7974.5	0.0	7974.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	1.2
10°-20°	257.3	3.2
20°-30°	448.0	5.6
30°-40°	807.5	10.1
40°-50°	1601.5	20.1
50°-60°	2181.5	27.4
60°-70°	1741.3	21.8
70°-80°	788.0	9.9
80°-90°	56.6	0.7
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°	7974.5	100.0
0°-180°	7974.5	100.0

Coefficient of Utilization



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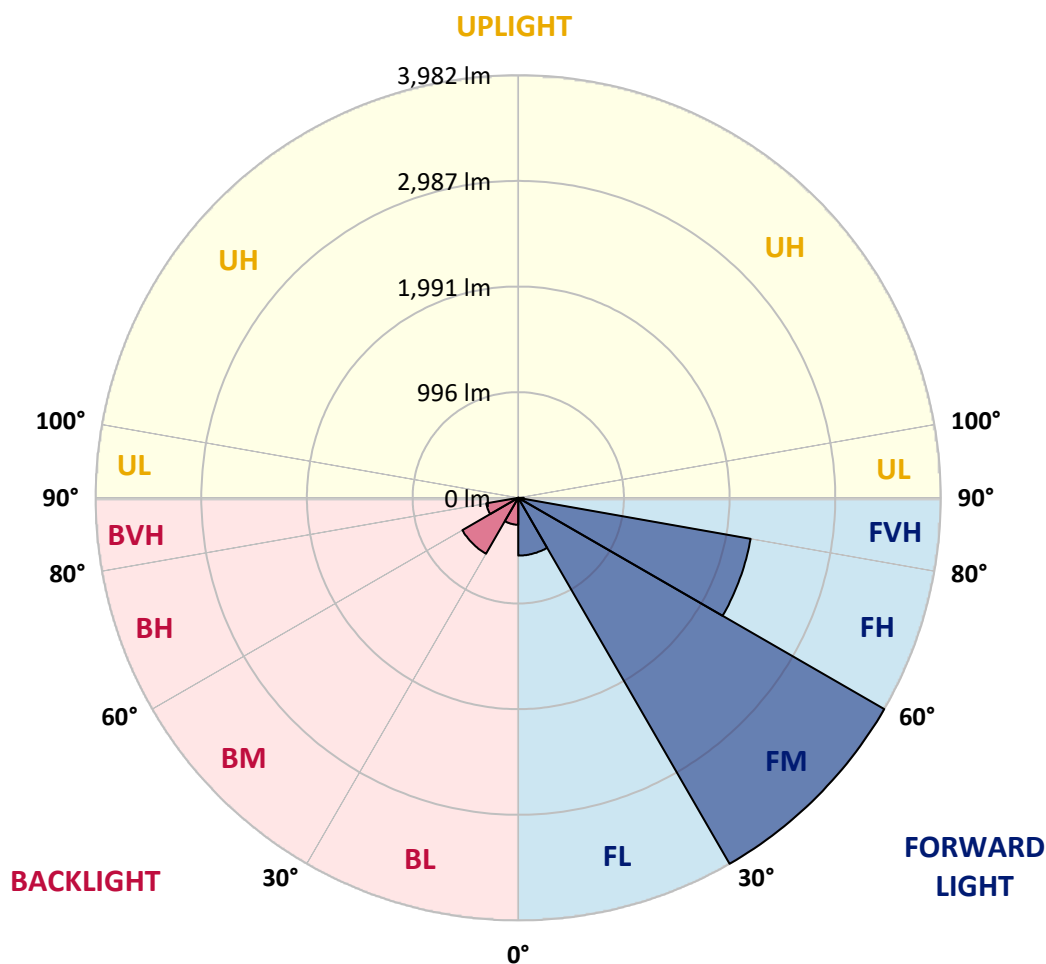
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	544.4	6.8			
FM	(30°-60°)	3982.3	49.9			
FH	(60°-80°)	2223.3	27.9			G2/5000
FVH	(80°-90°)	52.4	0.7			G1/100
BL	(0°-30°)	253.7	3.2	B1/500		
BM	(30°-60°)	608.3	7.6	B1/1000		
BH	(60°-80°)	306.0	3.8	B1/500		G1/500
BVH	(80°-90°)	4.2	0.1			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 II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	984.2	984.2	984.2	984.2	984.2	984.2	984.2	984.2	984.2	984.2	984.2
2.5°	1007.3	1004.5	1008.3	1006.7	1005.6	1003.4	1002.3	1001.2	999.1	997.3	990.8
5°	1010.0	1008.3	1012.2	1015.5	1018.7	1022.0	1023.7	1025.9	1023.7	1019.4	1012.7
7.5°	987.0	985.8	994.0	1004.0	1018.7	1031.4	1045.1	1052.8	1053.3	1051.6	1044.6
10°	985.3	982.6	990.8	1002.9	1022.0	1044.6	1068.7	1085.2	1087.3	1094.5	1086.8
12.5°	1011.1	1008.3	1019.9	1033.0	1052.8	1076.4	1106.0	1129.0	1132.3	1142.2	1136.7
15°	1054.4	1050.6	1063.7	1080.8	1106.0	1132.8	1164.2	1185.0	1187.8	1199.8	1189.9
17.5°	1104.8	1101.1	1116.4	1134.6	1161.9	1198.7	1234.9	1258.0	1261.3	1268.9	1250.8
20°	1169.6	1164.7	1176.8	1193.2	1222.3	1266.2	1309.5	1342.4	1341.9	1341.9	1312.3
22.5°	1244.8	1237.1	1247.5	1260.8	1288.1	1341.3	1398.9	1437.9	1437.9	1422.5	1373.7
25°	1325.4	1317.7	1329.3	1341.3	1365.5	1425.9	1493.3	1541.6	1543.8	1517.4	1439.5
27.5°	1426.4	1416.6	1425.3	1439.5	1453.9	1515.3	1595.3	1651.3	1652.4	1611.8	1502.1
30°	1620.6	1592.6	1565.2	1549.8	1556.4	1617.3	1702.8	1764.8	1770.4	1714.4	1570.1
32.5°	1976.1	1970.6	1874.0	1747.8	1682.0	1727.0	1823.1	1897.7	1901.0	1829.1	1658.4
35°	2528.6	2521.9	2366.7	2126.4	1911.9	1874.0	1968.9	2057.3	2055.1	1973.9	1773.1
37.5°	3188.0	3181.9	2977.3	2655.8	2308.5	2096.2	2157.1	2249.9	2263.6	2157.1	1921.3
40°	3751.4	3728.8	3599.4	3289.4	2835.3	2464.9	2424.8	2486.3	2500.6	2374.4	2109.4
42.5°	4178.2	4159.0	4093.1	3899.5	3472.7	3010.2	2740.3	2763.9	2779.8	2628.4	2325.5
45°	4399.3	4394.9	4421.2	4403.1	4122.2	3679.5	3191.2	3093.0	3099.1	2909.8	2570.8
47.5°	4430.6	4428.4	4548.5	4718.6	4680.8	4434.4	3770.1	3503.4	3482.0	3227.4	2837.4
50°	4246.3	4241.9	4472.3	4791.0	5053.8	5068.6	4427.3	3965.9	3918.7	3556.0	3115.6
52.5°	3657.6	3656.5	4035.0	4565.6	5184.9	5623.8	5076.8	4473.9	4394.9	3903.9	3409.6
55°	2814.3	2834.6	3268.6	3895.7	4945.7	5891.0	5659.9	5037.9	4916.6	4254.0	3680.6
57.5°	1993.6	2023.2	2452.3	3010.7	4204.0	5732.9	6054.5	5603.0	5472.4	4602.9	3955.5
60°	1070.9	1097.3	1526.7	2193.3	3127.6	5143.8	6262.3	6093.4	5970.0	4934.1	4203.4
62.5°	638.1	646.8	824.5	1415.9	2115.4	3929.6	6174.1	6467.0	6365.6	5212.3	4419.1
65°	458.1	459.7	549.2	864.6	1284.3	2387.5	5554.7	6645.9	6614.5	5421.9	4578.7
67.5°	385.7	384.6	421.9	574.4	875.0	1196.0	4257.2	6392.9	6525.7	5554.7	4669.2
70°	330.8	332.4	376.4	420.8	657.7	677.0	2116.5	5566.2	5849.3	5589.7	4663.8
72.5°	246.3	251.8	292.4	383.5	496.5	465.8	730.7	4127.2	4639.0	5266.7	4421.7
75°	173.9	176.6	205.7	322.6	370.3	339.1	373.1	2133.5	2789.6	4037.8	3619.2
77.5°	133.9	138.8	155.8	225.5	364.8	238.1	228.3	738.4	1134.6	2439.1	2481.3
80°	72.5	81.2	112.4	163.0	256.2	168.4	113.1	294.1	384.6	1140.5	956.7
82.5°	37.3	41.7	78.4	117.4	146.0	147.0	56.0	122.4	158.6	352.2	131.1
85°	14.9	18.1	52.7	64.8	75.1	72.5	25.2	49.4	57.1	97.7	40.1
87.5°	3.3	5.5	19.2	14.9	14.2	15.4	6.0	11.5	11.0	11.5	7.2
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°	984.2	984.2	984.2	984.2	984.2	984.2	984.2	984.2	984.2	984.2	984.2
2.5°	990.3	988.0	982.1	975.4	967.7	963.4	960.6	960.0	956.2	953.5	956.2
5°	1006.7	1004.5	993.0	979.3	964.4	952.9	942.0	932.1	917.8	915.1	914.0
7.5°	1039.7	1033.6	1015.0	996.3	968.3	934.8	894.2	847.6	805.9	793.2	787.3
10°	1080.2	1071.9	1048.4	1015.5	953.5	862.4	764.2	673.1	600.8	580.5	572.8
12.5°	1126.3	1119.2	1087.9	1026.9	891.4	726.3	576.0	463.0	392.8	375.3	370.3
15°	1181.1	1170.8	1127.4	1009.4	780.6	551.9	395.5	328.6	303.4	300.1	296.8
17.5°	1239.3	1222.3	1162.5	946.4	631.4	392.3	305.6	286.4	275.4	272.1	270.5
20°	1292.5	1270.6	1183.4	850.9	471.8	305.6	273.8	261.2	251.2	247.4	245.2
22.5°	1345.7	1314.5	1183.4	720.9	353.8	271.0	251.2	239.7	228.3	223.2	220.6
25°	1401.2	1359.5	1162.5	576.0	284.7	248.6	229.9	217.3	207.4	201.3	199.2
27.5°	1454.9	1397.3	1114.8	438.9	253.5	228.8	210.1	198.0	188.7	184.3	184.3
30°	1505.9	1434.6	1047.9	333.0	233.2	209.6	192.0	181.6	172.3	167.9	168.4
32.5°	1575.0	1481.8	976.5	273.2	215.6	191.5	175.6	165.6	157.4	154.2	154.2
35°	1671.1	1551.4	915.1	268.2	200.8	176.6	160.7	151.4	143.2	140.4	140.4
37.5°	1807.1	1663.9	882.7	301.1	188.7	163.5	148.6	138.8	131.1	128.9	128.3
40°	1975.0	1816.4	900.3	334.2	180.5	152.0	137.7	127.8	121.3	118.5	118.0
42.5°	2174.1	2004.6	997.3	359.4	175.0	142.1	127.3	116.3	111.9	110.8	110.8
45°	2402.9	2211.4	1146.1	386.2	166.3	132.7	116.8	108.6	105.4	104.8	104.2
47.5°	2663.0	2438.6	1318.4	419.6	157.4	124.0	108.6	103.1	100.3	99.3	99.3
50°	2920.8	2667.4	1495.5	438.3	150.4	115.7	102.1	97.7	95.4	94.9	94.9
52.5°	3190.7	2902.7	1638.7	420.8	144.3	109.2	96.6	93.3	91.0	90.5	90.5
55°	3448.0	3093.0	1663.4	357.1	132.2	102.6	90.5	88.9	86.1	86.1	85.6
57.5°	3669.6	3188.5	1488.9	262.2	120.1	92.8	84.5	82.8	80.7	80.1	79.5
60°	3873.2	3161.1	1149.3	176.6	107.0	82.8	76.8	75.7	73.5	70.7	70.2
62.5°	3987.9	3040.4	786.2	115.2	93.8	72.5	68.1	67.4	62.5	57.1	56.0
65°	4031.2	2792.4	490.5	83.9	78.4	62.0	58.7	57.6	50.4	44.5	43.9
67.5°	3993.3	2384.3	247.4	66.4	62.0	51.6	48.3	48.3	43.4	37.8	37.3
70°	3841.9	1787.4	104.2	53.2	47.8	39.5	39.5	41.7	36.8	30.7	30.1
72.5°	3513.3	1202.5	55.5	40.6	35.7	28.0	32.4	34.0	29.1	23.1	23.1
75°	2792.9	733.5	38.4	30.1	22.4	19.8	24.7	25.8	19.8	15.4	14.9
77.5°	1910.3	421.4	25.8	19.2	14.2	11.5	17.0	15.9	10.5	7.2	7.7
80°	838.9	175.6	14.9	8.8	5.5	4.4	6.0	4.4	3.3	2.2	2.2
82.5°	98.2	41.1	5.5	3.3	2.2	1.1	0.5	0.0	0.0	0.0	0.0
85°	20.3	4.9	2.8	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.8	1.1	0.5	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)