

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: P884770

Luminaire Tested: **NAV-SB5D-727-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884770
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-SB5D-727-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 900mA 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: 35431 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

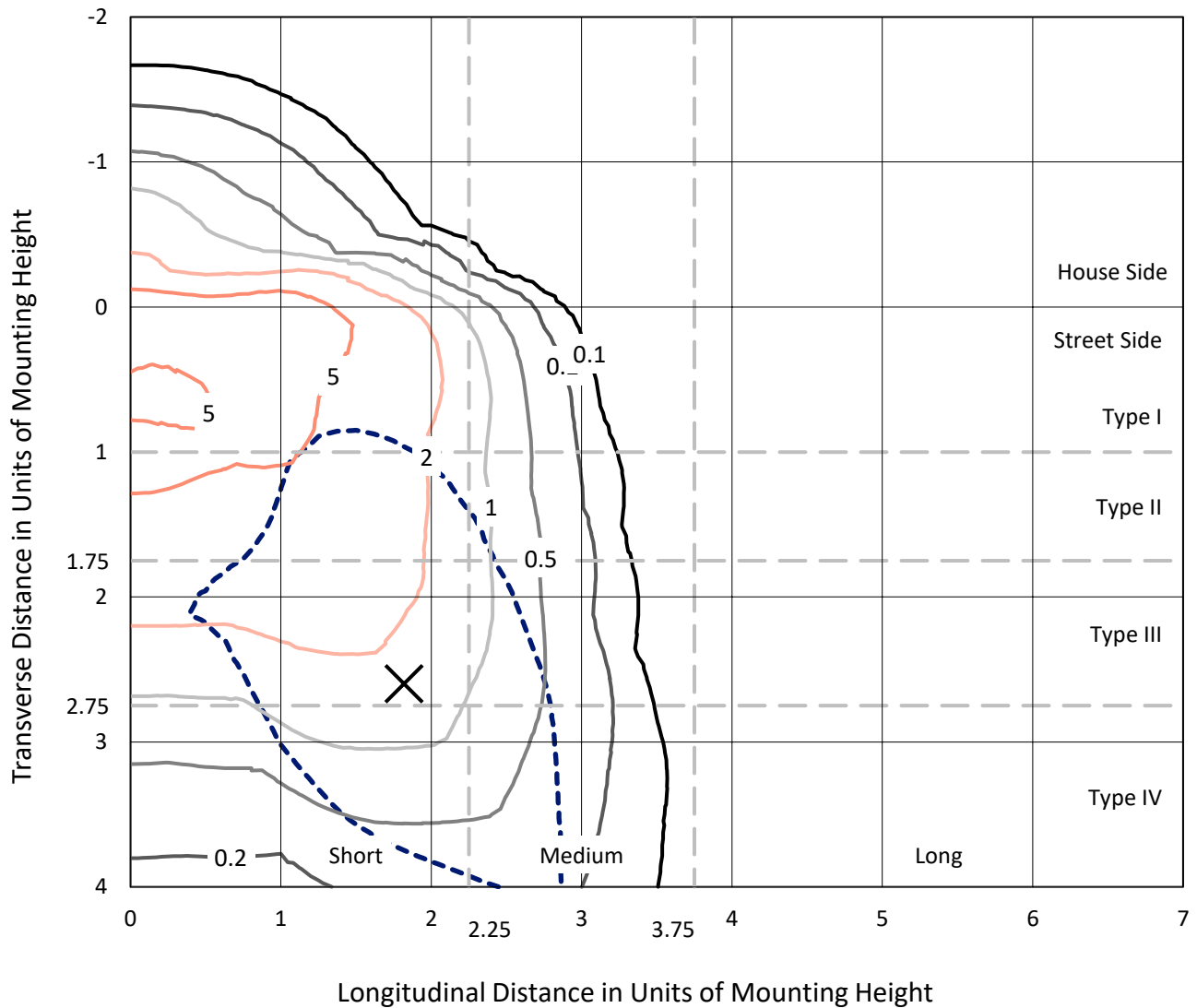
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

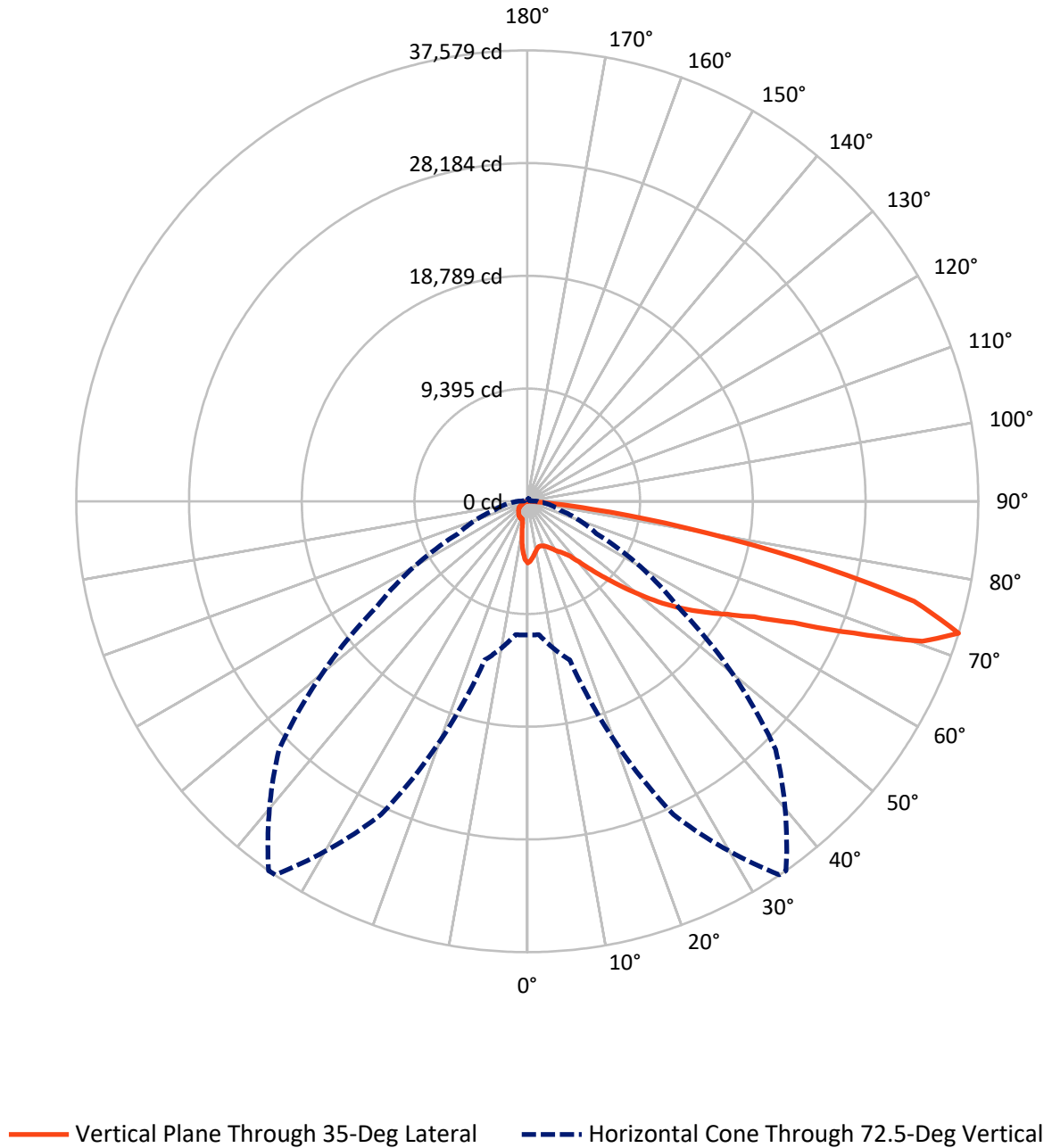
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3987.6	0.0	3987.6
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	31443.4	0.0	31443.4
	% Fixture	88.7	0.0	88.7
Total	Lumens	35431.0	0.0	35431.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	422.0	1.2
10°-20°	987.2	2.8
20°-30°	1603.6	4.5
30°-40°	2675.6	7.6
40°-50°	5062.3	14.3
50°-60°	8044.0	22.7
60°-70°	9950.9	28.1
70°-80°	6185.6	17.5
80°-90°	499.9	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°	35431.0	100.0
0°-180°	35431.0	100.0

Coefficient of Utilization



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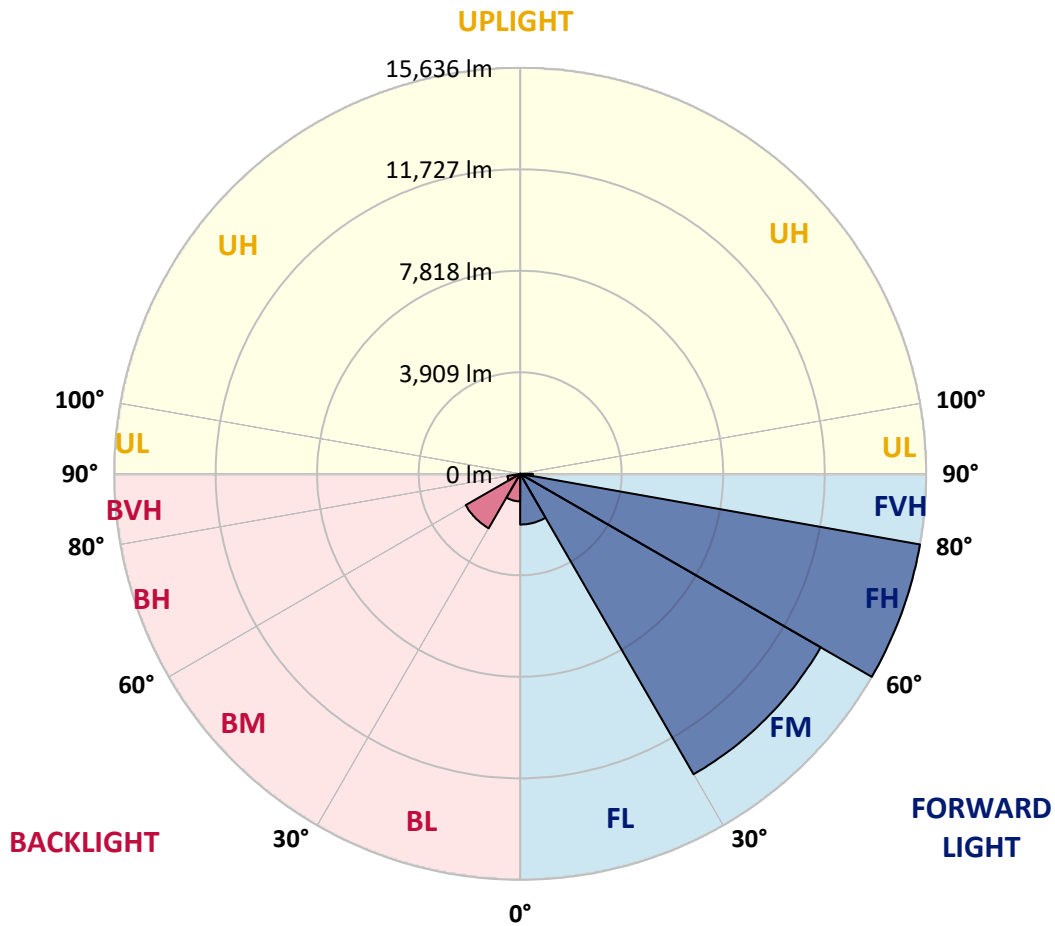
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1953.1	5.5			
FM (30°-60°)	13361.0	37.7			
FH (60°-80°)	15636.1	44.1			G5
FVH (80°-90°)	493.1	1.4			G3/500
BL (0°-30°)	1059.6	3.0	B3/2500		
BM (30°-60°)	2420.8	6.8	B2/2500		
BH (60°-80°)	500.4	1.4	B2/1000		G2/1000
BVH (80°-90°)	6.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1
2.5°	4906.7	4948.2	4956.0	4969.0	4969.0	4984.6	5010.5	5046.9	5106.6	5137.7	5158.5
5°	4522.5	4553.6	4592.5	4623.7	4683.4	4691.2	4792.5	4891.1	5028.7	5132.5	5205.2
7.5°	4135.6	4172.0	4223.9	4299.2	4377.1	4400.4	4553.6	4719.8	4937.8	5132.5	5254.6
10°	3863.0	3865.6	3912.4	3987.7	4112.3	4140.8	4327.7	4564.0	4836.6	5101.4	5301.3
12.5°	3709.9	3728.0	3748.8	3805.9	3925.3	3943.5	4143.4	4421.2	4735.3	5083.2	5355.8
15°	3709.9	3722.8	3735.8	3764.4	3860.4	3876.0	4052.6	4330.3	4683.4	5091.0	5444.1
17.5°	3748.8	3769.6	3759.2	3792.9	3894.2	3904.6	4060.3	4304.4	4680.8	5140.3	5579.1
20°	3842.3	3857.8	3837.1	3857.8	3959.1	3979.9	4140.8	4353.7	4725.0	5226.0	5747.8
22.5°	3990.2	3998.0	3948.7	3964.3	4068.1	4094.1	4281.0	4493.9	4831.4	5363.6	5973.7
25°	4177.2	4192.7	4117.5	4135.6	4234.3	4265.4	4480.9	4704.2	5000.1	5553.1	6261.9
27.5°	4392.6	4400.4	4335.5	4332.9	4460.1	4504.3	4722.4	4963.8	5226.0	5792.0	6625.3
30°	4639.3	4662.6	4600.3	4590.0	4750.9	4787.3	5002.7	5283.1	5558.3	6150.2	7141.9
32.5°	4834.0	4852.2	4815.8	4841.8	5005.3	5033.9	5342.8	5734.8	6080.1	6659.1	7845.5
35°	5114.4	5124.8	5041.7	5088.4	5275.3	5348.0	5807.5	6368.3	6737.0	7297.7	8764.5
37.5°	6129.5	6129.5	5776.4	5545.3	5724.5	5789.4	6443.6	7165.3	7546.9	8154.4	9922.4
40°	7534.0	7510.6	6994.0	6521.5	6498.1	6625.3	7349.6	8170.0	8593.2	9182.5	11225.7
42.5°	9031.9	8995.6	8292.0	7824.7	7746.8	7791.0	8395.9	9408.4	9839.3	10436.4	12627.6
45°	10361.1	10350.8	9706.9	9078.7	8938.5	9078.7	9701.7	10857.0	11165.9	11794.2	14026.9
47.5°	11474.9	11474.9	11005.0	10594.8	10522.1	10605.2	11469.7	12464.0	12435.4	13240.2	15389.8
50°	12757.4	12747.0	12300.5	12123.9	12199.2	12316.0	13505.1	14156.7	13749.1	14660.3	16607.4
52.5°	13655.6	13717.9	13564.8	13536.2	13920.4	14122.9	15571.6	15813.0	14925.1	16007.7	17518.7
55°	14367.0	14439.7	14616.2	14816.1	15556.0	15820.8	17573.2	17383.7	15909.1	17176.0	18043.1
57.5°	15374.3	15270.4	15543.0	15937.6	17134.4	17453.8	19512.5	18866.1	16700.9	18123.6	18100.2
60°	16597.0	16612.6	16659.3	17157.8	18710.3	19120.5	21423.2	20268.0	17209.7	18705.1	17466.7
62.5°	18066.4	18089.8	18185.9	18951.7	20826.1	21213.0	23458.6	21415.5	17443.4	18541.5	15831.2
65°	17965.2	18063.9	19136.1	21755.5	24042.7	24424.4	25834.1	22220.3	17090.3	17046.2	12889.8
67.5°	16366.0	16526.9	18320.9	25104.6	28892.3	29318.1	28705.4	22378.6	15566.4	13255.8	8408.9
70°	14268.3	14325.4	16482.8	28116.1	34507.7	34938.7	31275.5	20636.6	11812.4	7393.8	3767.0
72.5°	11142.6	11155.6	13686.8	28814.4	37555.6	37578.9	29258.4	15319.7	6352.7	2840.2	1308.4
75°	7959.7	7881.8	9166.9	23367.7	33040.9	33305.7	21934.7	7186.1	2427.4	1342.2	651.6
77.5°	4268.0	4353.7	5187.1	13858.1	22825.2	23276.9	11968.1	2071.7	1235.8	913.8	431.0
80°	1318.8	1391.5	2126.2	6344.9	12928.7	13201.3	4436.8	921.6	861.9	651.6	283.0
82.5°	415.4	431.0	991.7	2666.2	5366.2	5490.8	1285.1	521.8	589.3	431.0	166.2
85°	119.4	122.0	441.3	994.3	1326.6	1352.6	360.9	202.5	337.5	267.4	85.7
87.5°	13.0	41.5	166.2	166.2	116.8	114.2	38.9	44.1	96.1	33.7	15.6
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°	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1	5135.1
2.5°	5145.5	5148.1	5114.4	5057.3	4994.9	4943.0	4878.1	4826.2	4789.9	4779.5	4797.6
5°	5181.9	5163.7	5067.6	4893.7	4686.0	4506.9	4307.0	4148.6	4044.8	4000.6	4016.2
7.5°	5236.4	5184.5	4974.2	4631.5	4234.3	3881.2	3522.9	3245.2	3068.6	2980.4	2993.3
10°	5283.1	5179.3	4818.4	4252.5	3645.0	3110.2	2627.3	2292.4	2105.5	2017.2	2019.8
12.5°	5327.3	5176.7	4615.9	3803.3	2980.4	2326.1	1877.0	1710.8	1658.9	1640.8	1635.6
15°	5410.3	5184.5	4361.5	3289.3	2318.3	1757.6	1594.0	1591.4	1601.8	1596.6	1594.0
17.5°	5524.6	5192.3	4073.3	2744.1	1788.7	1549.9	1542.1	1565.5	1581.0	1573.3	1570.7
20°	5672.5	5223.4	3767.0	2204.1	1536.9	1498.0	1516.1	1536.9	1549.9	1536.9	1534.3
22.5°	5880.2	5277.9	3432.1	1770.6	1456.4	1466.8	1482.4	1505.8	1518.7	1500.6	1498.0
25°	6134.6	5363.6	3102.4	1539.5	1417.5	1430.5	1453.8	1479.8	1495.4	1477.2	1474.6
27.5°	6464.4	5501.2	2798.6	1487.6	1378.5	1386.3	1420.1	1459.0	1479.8	1456.4	1456.4
30°	6942.0	5727.1	2536.4	1510.9	1355.2	1337.0	1383.7	1438.3	1461.6	1440.9	1438.3
32.5°	7575.5	6046.4	2375.5	1547.3	1344.8	1279.9	1324.0	1394.1	1433.1	1420.1	1420.1
35°	8406.3	6531.9	2313.1	1588.8	1337.0	1220.2	1251.3	1326.6	1394.1	1407.1	1407.1
37.5°	9413.6	7206.8	2331.3	1607.0	1313.6	1170.9	1186.4	1251.3	1339.6	1381.1	1391.5
40°	10558.4	7993.5	2435.2	1588.8	1287.7	1129.3	1131.9	1181.2	1259.1	1321.4	1342.2
42.5°	11739.7	8912.5	2627.3	1521.3	1264.3	1093.0	1085.2	1118.9	1170.9	1215.0	1233.2
45°	12863.8	9857.5	2816.8	1427.9	1235.8	1056.6	1038.5	1051.4	1061.8	1080.0	1090.4
47.5°	13845.1	10522.1	2762.3	1342.2	1196.8	1015.1	983.9	978.7	947.6	945.0	942.4
50°	14522.7	10667.5	2453.3	1256.5	1139.7	968.4	919.0	887.9	833.4	807.4	810.0
52.5°	14738.2	10093.7	2004.2	1170.9	1046.2	906.0	836.0	786.6	719.1	695.8	693.2
55°	14452.6	8969.6	1601.8	1067.0	916.4	823.0	745.1	680.2	625.7	597.1	597.1
57.5°	13754.3	7539.2	1266.9	945.0	778.8	729.5	651.6	586.7	540.0	511.4	506.2
60°	12596.4	5986.7	1002.1	799.6	664.6	628.3	547.8	506.2	464.7	431.0	423.2
62.5°	10838.8	4273.2	786.6	633.5	555.6	514.0	467.3	436.1	386.8	340.1	332.3
65°	8458.2	2614.3	607.5	464.7	446.5	425.8	397.2	368.7	308.9	262.2	254.4
67.5°	5335.0	1238.4	433.6	350.5	353.1	342.7	329.7	306.3	262.2	220.7	215.5
70°	2349.5	599.7	285.6	267.4	262.2	262.2	272.6	264.8	223.3	184.3	176.5
72.5°	799.6	321.9	212.9	202.5	189.5	186.9	228.5	220.7	179.1	142.8	135.0
75°	418.0	215.5	155.8	145.4	114.2	137.6	181.7	171.3	127.2	93.5	85.7
77.5°	272.6	153.2	106.4	93.5	64.9	90.9	135.0	119.4	75.3	46.7	41.5
80°	171.3	101.2	62.3	44.1	31.2	49.3	72.7	51.9	28.6	10.4	7.8
82.5°	90.9	51.9	23.4	15.6	13.0	15.6	18.2	13.0	5.2	0.0	0.0
85°	36.3	18.2	7.8	5.2	2.6	0.0	5.2	2.6	0.0	0.0	0.0
87.5°	13.0	2.6	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)