

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: P969320

Luminaire Tested: **NAV-SB5D-735-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969320
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39893 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

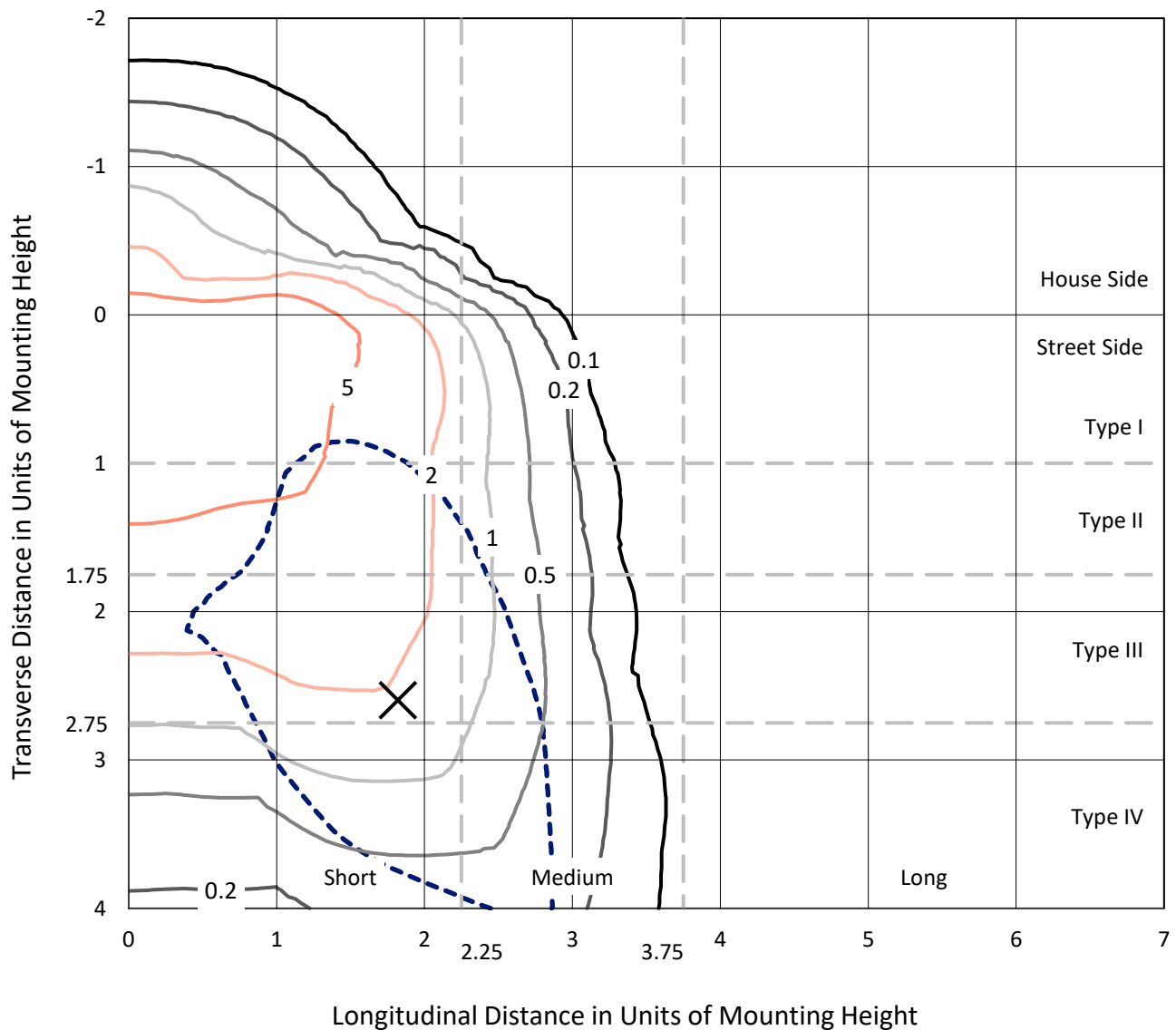
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

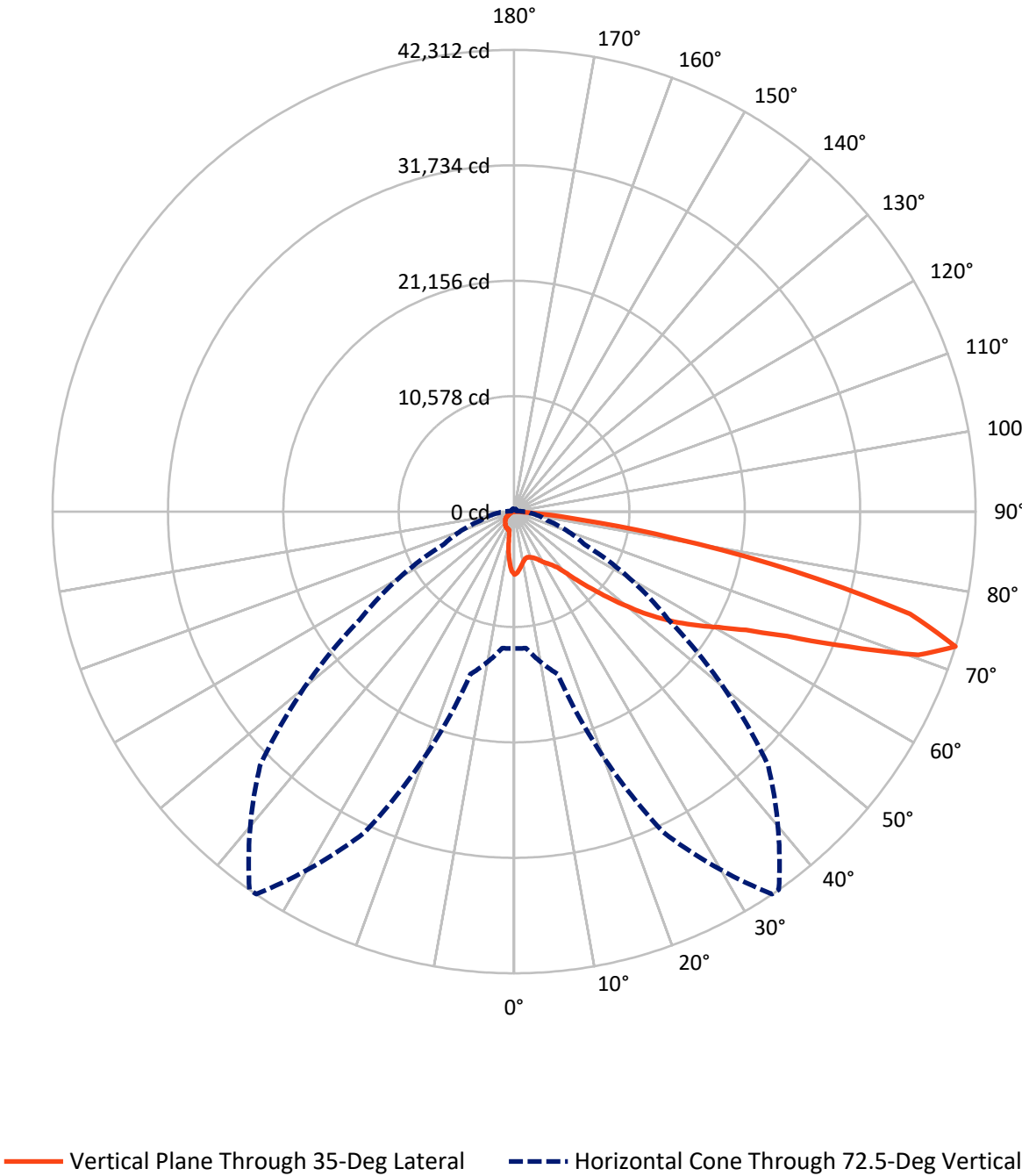
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.3 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	4489.8	0.0	4489.8
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	35403.2	0.0	35403.2
	% Fixture	88.7	0.0	88.7
Total	Lumens	39893.0	0.0	39893.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	475.1	1.2
10°-20°	1111.5	2.8
20°-30°	1805.6	4.5
30°-40°	3012.5	7.6
40°-50°	5699.8	14.3
50°-60°	9057.0	22.7
60°-70°	11204.1	28.1
70°-80°	6964.5	17.5
80°-90°	562.8	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°	39893.0	100.0
0°-180°	39893.0	100.0

Coefficient of Utilization



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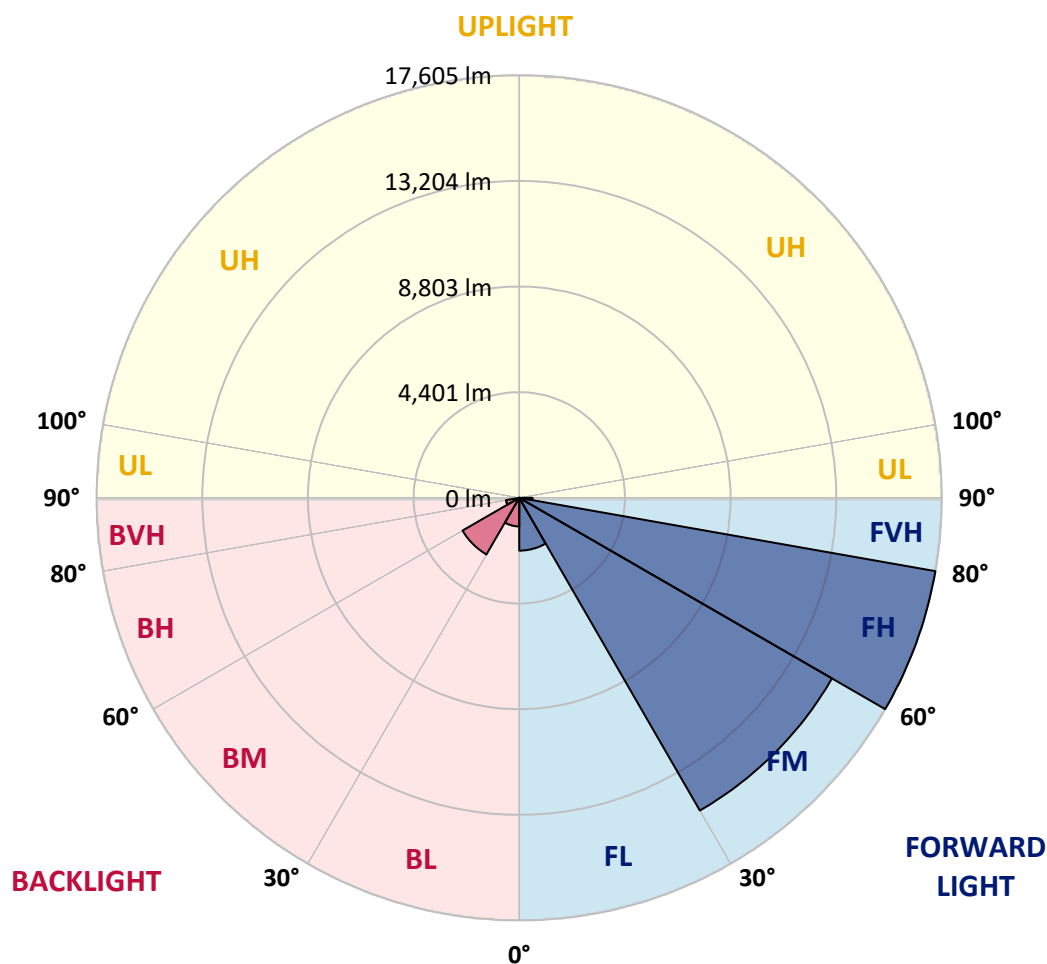
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2199.1	5.5			
FM	(30°-60°)	15043.7	37.7			
FH	(60°-80°)	17605.3	44.1			G5
FVH	(80°-90°)	555.2	1.4			G4/750
BL	(0°-30°)	1193.0	3.0	B3/2500		
BM	(30°-60°)	2725.7	6.8	B3/5000		
BH	(60°-80°)	563.4	1.4	B2/1000		G2/1000
BVH	(80°-90°)	7.7	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°	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8
2.5°	5524.6	5571.4	5580.1	5594.8	5594.8	5612.3	5641.5	5682.5	5749.6	5784.8	5808.2
5°	5092.0	5127.0	5170.9	5206.0	5273.2	5282.0	5396.0	5507.0	5662.0	5779.0	5860.7
7.5°	4656.5	4697.4	4755.8	4840.6	4928.3	4954.6	5127.0	5314.1	5559.7	5779.0	5916.3
10°	4349.5	4352.5	4405.0	4489.8	4630.1	4662.3	4872.7	5138.7	5445.7	5743.8	5968.9
12.5°	4177.1	4197.6	4221.0	4285.2	4419.7	4440.1	4665.2	4978.0	5331.6	5723.4	6030.3
15°	4177.1	4191.6	4206.3	4238.5	4346.6	4364.1	4562.9	4875.7	5273.2	5732.1	6129.7
17.5°	4221.0	4244.3	4232.6	4270.6	4384.6	4396.3	4571.7	4846.4	5270.3	5787.7	6281.7
20°	4326.1	4343.6	4320.3	4343.6	4457.7	4481.1	4662.3	4902.0	5320.0	5884.1	6471.6
22.5°	4492.8	4501.5	4446.0	4463.6	4580.4	4609.7	4820.2	5059.8	5439.9	6039.1	6725.9
25°	4703.2	4720.7	4636.0	4656.5	4767.5	4802.6	5045.3	5296.6	5629.8	6252.4	7050.5
27.5°	4945.8	4954.6	4881.6	4878.6	5021.9	5071.5	5317.1	5588.9	5884.1	6521.4	7459.6
30°	5223.5	5249.8	5179.6	5167.9	5349.3	5390.2	5632.8	5948.5	6258.3	6924.8	8041.3
32.5°	5442.7	5463.2	5422.2	5451.6	5635.7	5667.8	6015.7	6457.1	6845.9	7497.7	8833.6
35°	5758.4	5770.1	5676.6	5729.2	5939.7	6021.6	6538.9	7170.3	7585.4	8216.7	9868.3
37.5°	6901.3	6901.3	6503.8	6243.7	6445.4	6518.5	7255.1	8067.7	8497.4	9181.3	11172.0
40°	8482.8	8456.5	7874.8	7342.8	7316.4	7459.6	8275.2	9198.9	9675.4	10338.9	12639.4
42.5°	10169.3	10128.4	9336.3	8810.2	8722.4	8772.2	9453.2	10593.2	11078.4	11750.7	14217.8
45°	11665.9	11654.2	10929.4	10222.0	10064.2	10222.0	10923.5	12224.3	12572.1	13279.5	15793.3
47.5°	12919.9	12919.9	12390.9	11929.1	11847.2	11940.7	12914.1	14033.7	14001.5	14907.7	17327.9
50°	14363.9	14352.3	13849.5	13650.7	13735.5	13867.0	15205.8	15939.5	15480.6	16506.6	18698.9
52.5°	15375.3	15445.5	15273.0	15240.9	15673.5	15901.5	17532.6	17804.5	16804.8	18023.7	19724.9
55°	16176.2	16258.1	16456.9	16682.0	17515.0	17813.2	19786.3	19572.9	17912.6	19339.0	20315.3
57.5°	17310.4	17193.5	17500.4	17944.8	19292.2	19651.8	21969.7	21242.0	18804.1	20405.9	20379.7
60°	18687.2	18704.7	18757.3	19318.6	21066.5	21528.4	24121.2	22820.4	19377.0	21060.7	19666.4
62.5°	20341.6	20368.0	20476.1	21338.4	23448.8	23884.4	26412.8	24112.4	19640.1	20876.6	17824.9
65°	20227.7	20338.8	21545.9	24495.3	27070.6	27500.2	29087.4	25018.6	19242.5	19192.9	14513.1
67.5°	18427.0	18608.3	20628.1	28266.1	32530.8	33010.2	32320.4	25196.9	17526.7	14925.2	9467.8
70°	16065.2	16129.5	18558.5	31656.8	38853.4	39338.7	35214.2	23235.5	13300.0	8324.9	4241.3
72.5°	12545.8	12560.5	15410.5	32443.2	42285.1	42311.5	32943.0	17249.0	7152.8	3197.8	1473.2
75°	8962.1	8874.4	10321.3	26310.5	37202.0	37500.0	24697.1	8091.0	2733.1	1511.3	733.7
77.5°	4805.5	4902.0	5840.2	15603.4	25699.6	26208.2	13475.4	2332.6	1391.3	1028.9	485.2
80°	1484.9	1566.8	2394.0	7143.9	14556.8	14863.8	4995.5	1037.7	970.5	733.7	318.6
82.5°	467.7	485.2	1116.6	3002.0	6042.0	6182.3	1446.9	587.5	663.6	485.2	187.1
85°	134.5	137.4	496.9	1119.5	1493.7	1522.9	406.3	228.0	380.0	301.0	96.5
87.5°	14.7	46.7	187.1	187.1	131.5	128.6	43.9	49.7	108.1	38.0	17.5
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°	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8	5781.8
2.5°	5793.5	5796.5	5758.4	5694.2	5624.0	5565.5	5492.5	5434.0	5393.0	5381.4	5401.9
5°	5834.4	5814.0	5705.9	5510.0	5276.2	5074.5	4849.4	4671.0	4554.2	4504.5	4522.0
7.5°	5895.8	5837.4	5600.6	5214.8	4767.5	4370.0	3966.6	3653.8	3455.1	3355.6	3370.3
10°	5948.5	5831.5	5425.2	4788.0	4104.0	3501.8	2958.1	2581.1	2370.6	2271.2	2274.2
12.5°	5998.1	5828.6	5197.3	4282.3	3355.6	2619.1	2113.3	1926.3	1867.9	1847.4	1841.5
15°	6091.7	5837.4	4910.8	3703.5	2610.3	1979.0	1794.8	1791.8	1803.5	1797.6	1794.8
17.5°	6220.3	5846.2	4586.3	3089.7	2014.0	1745.1	1736.4	1762.6	1780.1	1771.4	1768.4
20°	6386.9	5881.2	4241.3	2481.7	1730.5	1686.6	1707.0	1730.5	1745.1	1730.5	1727.5
22.5°	6620.8	5942.6	3864.2	1993.5	1639.8	1651.6	1669.1	1695.4	1710.0	1689.5	1686.6
25°	6907.2	6039.1	3493.1	1733.4	1596.0	1610.6	1636.9	1666.1	1683.7	1663.3	1660.3
27.5°	7278.4	6194.0	3151.1	1675.0	1552.2	1560.9	1598.9	1642.8	1666.1	1639.8	1639.8
30°	7816.2	6448.3	2855.9	1701.2	1525.8	1505.4	1558.0	1619.4	1645.6	1622.3	1619.4
32.5°	8529.5	6807.8	2674.6	1742.2	1514.1	1441.0	1490.8	1569.7	1613.6	1598.9	1598.9
35°	9465.0	7354.5	2604.4	1788.9	1505.4	1373.8	1409.0	1493.7	1569.7	1584.3	1584.3
37.5°	10599.0	8114.4	2624.9	1809.3	1479.1	1318.4	1335.9	1409.0	1508.3	1555.0	1566.8
40°	11888.2	9000.1	2741.9	1788.9	1449.9	1271.5	1274.5	1330.0	1417.7	1487.9	1511.3
42.5°	13218.1	10034.9	2958.1	1712.9	1423.5	1230.6	1221.8	1259.8	1318.4	1368.0	1388.5
45°	14483.9	11098.9	3171.6	1607.7	1391.3	1189.7	1169.2	1183.9	1195.6	1216.0	1227.6
47.5°	15588.7	11847.2	3110.2	1511.3	1347.6	1142.9	1107.8	1102.0	1066.9	1063.9	1061.1
50°	16351.6	12010.8	2762.3	1414.8	1283.2	1090.3	1034.7	999.7	938.3	909.1	912.0
52.5°	16594.2	11364.9	2256.6	1318.4	1178.0	1020.2	941.3	885.7	809.6	783.4	780.4
55°	16272.7	10099.2	1803.5	1201.4	1031.9	926.6	839.0	765.9	704.5	672.3	672.3
57.5°	15486.4	8488.6	1426.5	1063.9	876.9	821.3	733.7	660.6	608.0	575.8	570.0
60°	14182.7	6740.6	1128.3	900.3	748.4	707.4	616.7	570.0	523.3	485.2	476.4
62.5°	12203.9	4811.3	885.7	713.2	625.6	578.8	526.1	491.1	435.5	382.9	374.1
65°	9523.4	2943.5	684.0	523.3	502.8	479.4	447.2	415.1	347.9	295.2	286.5
67.5°	6006.9	1394.3	488.1	394.6	397.5	385.8	371.3	344.9	295.2	248.5	242.6
70°	2645.4	675.3	321.5	301.0	295.2	295.2	306.9	298.2	251.4	207.6	198.7
72.5°	900.3	362.4	239.6	228.0	213.4	210.4	257.3	248.5	201.7	160.7	152.0
75°	470.6	242.6	175.4	163.7	128.6	154.9	204.6	192.9	143.2	105.3	96.5
77.5°	306.9	172.5	119.8	105.3	73.1	102.3	152.0	134.5	84.8	52.6	46.7
80°	192.9	114.0	70.1	49.7	35.1	55.6	81.8	58.4	32.2	11.7	8.8
82.5°	102.3	58.4	26.3	17.5	14.7	17.5	20.5	14.7	5.8	0.0	0.0
85°	40.9	20.5	8.8	5.8	3.0	0.0	5.8	3.0	0.0	0.0	0.0
87.5°	14.7	3.0	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)