

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: P963131

Luminaire Tested: **NAV-SB2D-830-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963131
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-830-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18629.4 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
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



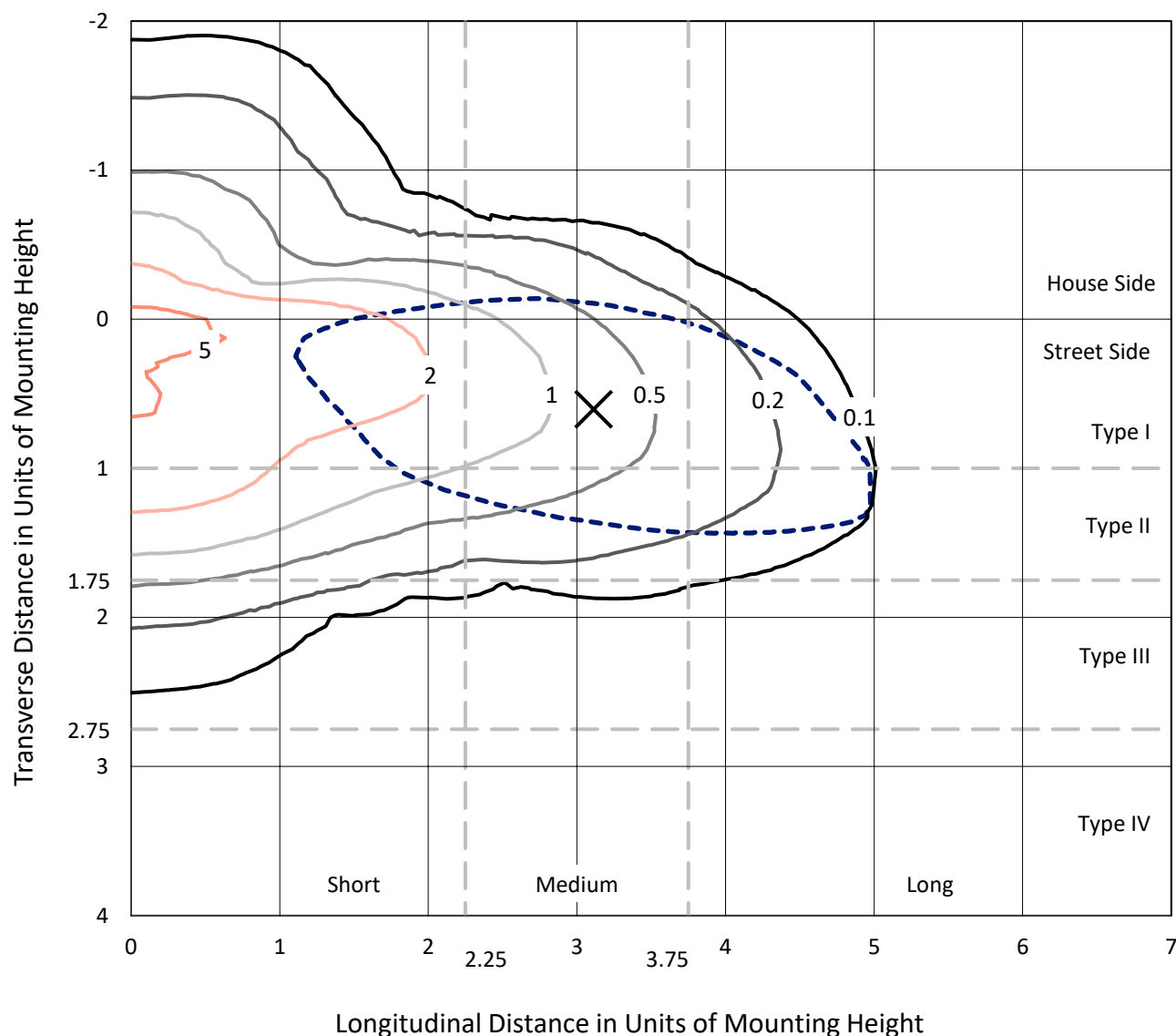
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

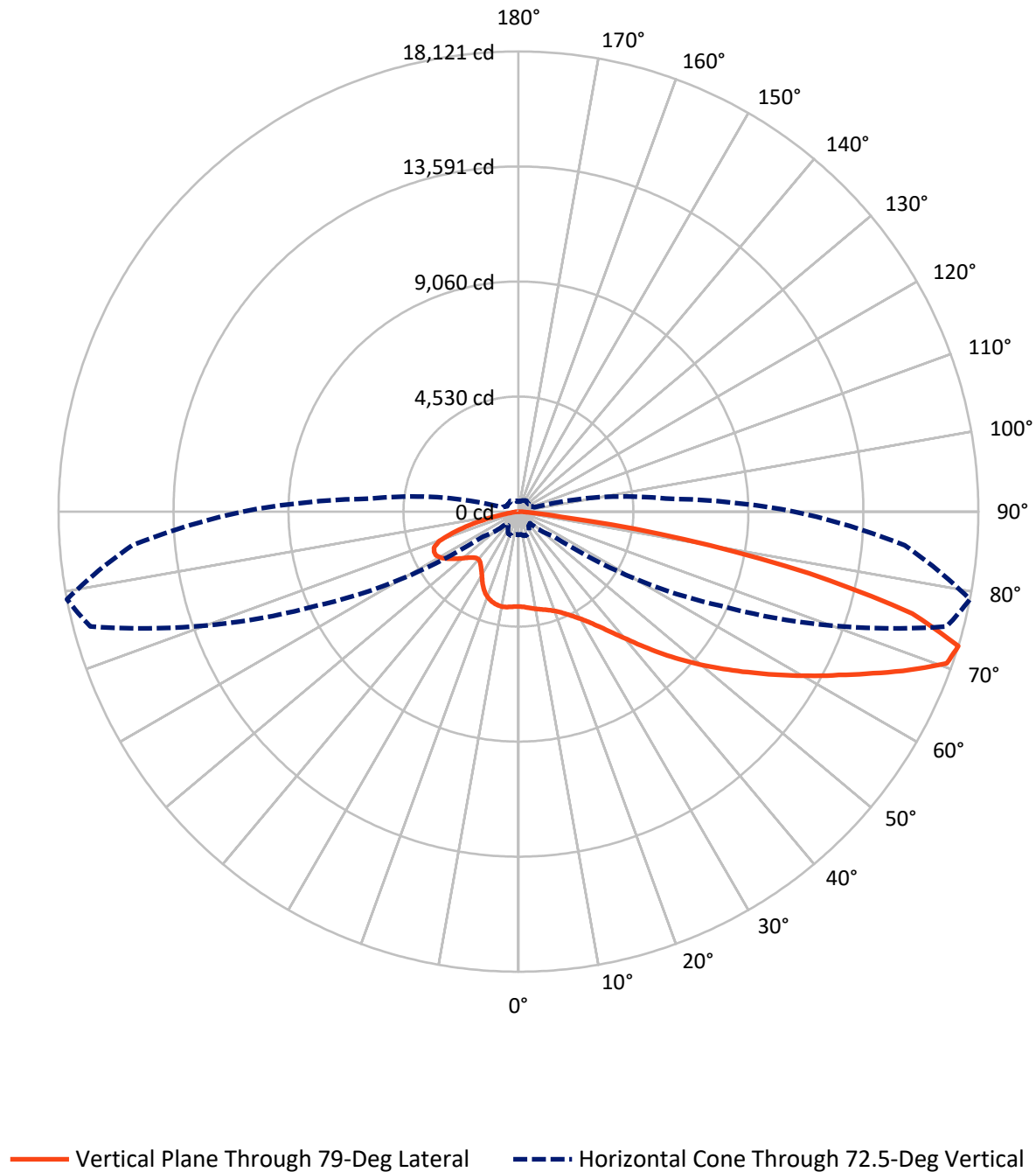
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4099.5	0.0	4099.5
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	14529.9	0.0	14529.9
	% Fixture	78.0	0.0	78.0
Total	Lumens	18629.4	0.0	18629.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	339.5	1.8
10°-20°	887.5	4.8
20°-30°	1432.1	7.7
30°-40°	2149.3	11.5
40°-50°	3048.9	16.4
50°-60°	3850.4	20.7
60°-70°	3910.6	21.0
70°-80°	2665.3	14.3
80°-90°	345.8	1.9
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°	18629.4	100.0
0°-180°	18629.4	100.0

Coefficient of Utilization



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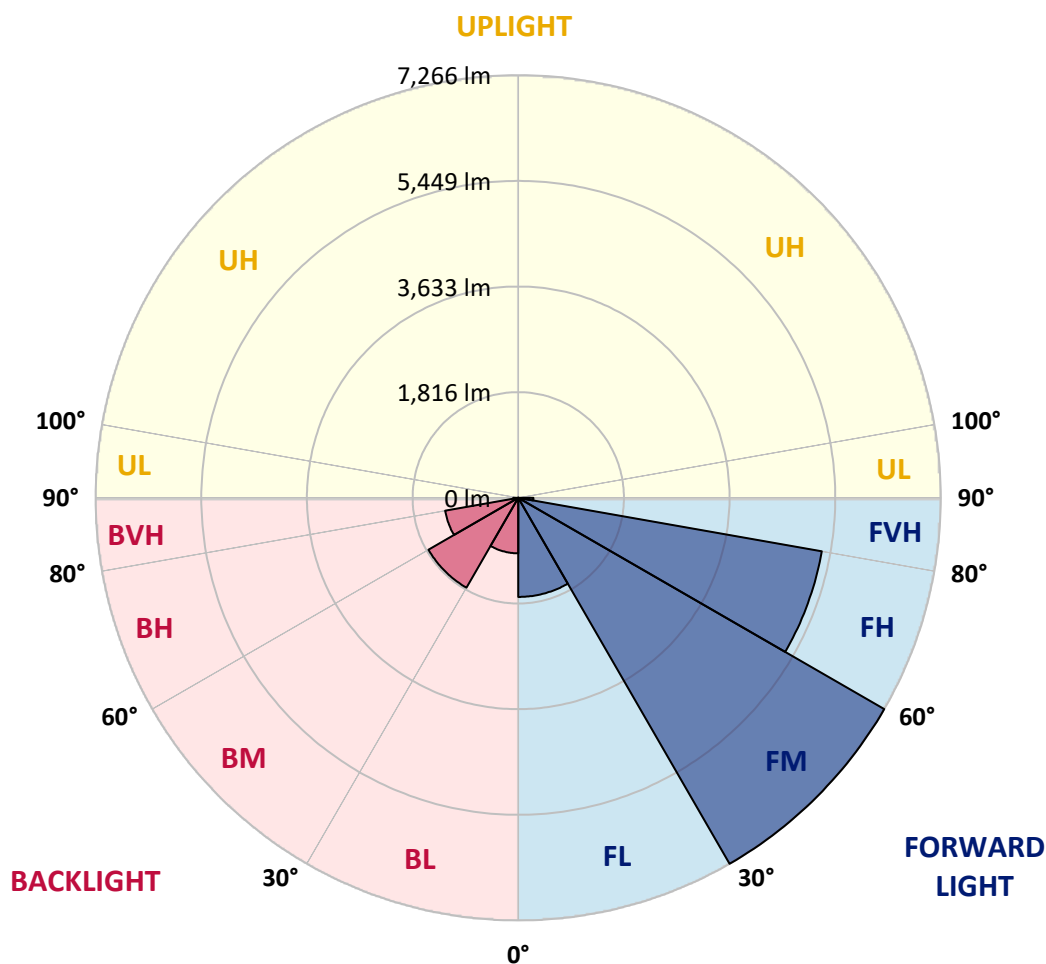
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1704.1	9.1			
FM	(30°-60°)	7265.8	39.0			
FH	(60°-80°)	5299.4	28.4			G3/7500
FVH	(80°-90°)	260.5	1.4			G3/500
BL	(0°-30°)	954.9	5.1	B2/1000		
BM	(30°-60°)	1782.8	9.6	B2/2500		
BH	(60°-80°)	1276.4	6.9	B3/2500		G3/2500
BVH	(80°-90°)	85.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7
2.5°	3741.7	3723.9	3734.8	3730.8	3735.7	3741.7	3743.6	3746.6	3756.4	3755.4	3754.5
5°	3733.8	3716.0	3730.8	3725.9	3738.7	3752.5	3764.3	3775.2	3791.0	3797.8	3788.0
7.5°	3717.0	3705.2	3719.9	3734.8	3758.4	3779.1	3795.9	3820.5	3843.1	3847.0	3854.0
10°	3619.5	3610.6	3645.1	3683.5	3748.5	3804.7	3841.2	3869.8	3894.4	3898.3	3908.2
12.5°	3517.9	3507.1	3545.6	3597.7	3703.2	3804.7	3881.6	3919.0	3940.7	3953.5	3968.3
15°	3501.2	3492.4	3514.0	3559.3	3647.1	3778.2	3909.1	3978.1	3996.9	4011.6	4017.6
17.5°	3582.0	3565.3	3574.1	3589.9	3641.1	3753.4	3930.9	4045.2	4073.8	4089.5	4089.5
20°	3769.2	3745.6	3731.8	3700.2	3691.4	3757.4	3928.8	4125.9	4163.4	4183.1	4188.0
22.5°	4018.5	4002.7	3973.2	3893.4	3806.6	3805.7	3966.3	4229.5	4299.4	4318.1	4306.3
25°	4320.1	4296.4	4259.0	4150.6	3984.1	3901.3	4029.4	4361.5	4478.7	4483.7	4449.2
27.5°	4666.9	4631.5	4580.2	4437.3	4212.6	4051.1	4125.9	4513.2	4684.7	4682.7	4611.8
30°	5032.5	4997.1	4942.9	4769.4	4486.6	4253.0	4260.0	4676.8	4929.1	4918.3	4797.0
32.5°	5299.6	5273.0	5262.1	5128.2	4801.9	4491.5	4413.6	4858.1	5230.6	5220.7	5051.3
35°	5504.6	5470.1	5482.8	5414.9	5145.9	4758.6	4601.9	5074.0	5597.2	5596.2	5385.3
37.5°	5707.5	5677.0	5687.8	5642.5	5464.2	5097.5	4831.5	5338.0	6051.5	6073.1	5789.3
40°	5892.8	5860.3	5903.7	5861.3	5711.5	5458.2	5092.6	5636.6	6577.6	6619.0	6278.1
42.5°	6004.1	5978.5	6050.5	6051.5	5926.3	5762.8	5379.4	5965.7	7186.7	7279.3	6879.2
45°	6042.6	6033.8	6142.1	6164.8	6116.5	5939.2	5637.6	6324.5	7843.0	8008.5	7564.1
47.5°	6001.2	5984.5	6134.2	6218.0	6256.4	6021.9	5851.4	6712.7	8513.0	8755.4	8311.0
50°	5792.3	5759.8	5982.5	6158.9	6295.9	6076.1	6067.3	7161.1	9274.8	9539.9	9061.9
52.5°	5416.8	5392.2	5645.5	5952.0	6209.1	6102.7	6309.7	7650.8	9998.1	10341.0	9831.5
55°	4936.9	4904.4	5183.3	5583.4	5993.3	6093.8	6552.1	8198.7	10851.5	11199.3	10626.8
57.5°	4176.3	4111.2	4464.0	4936.9	5641.5	6083.0	6804.4	8743.7	11718.6	12135.5	11475.2
60°	3066.6	2970.0	3402.7	3963.4	4953.7	5977.6	7116.7	9354.6	12759.2	13134.7	12401.5
62.5°	1785.6	1729.4	2012.2	2535.4	3733.8	5356.8	7292.2	10065.1	13782.0	14176.3	13312.1
65°	1386.5	1370.7	1395.3	1435.7	2078.3	4010.6	6751.2	10757.8	15082.9	15358.8	14261.0
67.5°	1268.2	1256.4	1267.2	1191.4	1054.4	2234.0	5341.0	10933.3	16476.3	16643.7	15091.7
70°	1127.3	1113.6	1149.0	1083.9	829.7	1016.0	3451.0	10296.6	17584.8	17899.2	15723.4
72.5°	918.4	902.6	985.4	955.8	698.6	652.3	1733.4	8784.0	17468.6	18120.9	15271.1
75°	705.6	696.7	795.2	819.9	569.6	513.4	831.7	6529.4	15372.5	16029.9	13161.3
77.5°	547.9	541.0	591.2	680.9	459.2	398.1	511.5	4141.7	11584.6	11699.9	9069.8
80°	410.9	391.2	437.6	527.2	357.7	290.7	346.9	2415.3	7322.7	6637.8	3947.6
82.5°	257.2	247.3	285.8	351.8	252.3	200.1	225.7	1334.2	2934.6	1728.5	761.8
85°	146.8	142.9	155.7	201.0	136.9	115.3	129.0	589.3	536.1	368.6	229.6
87.5°	59.1	57.2	70.9	89.7	50.2	42.3	45.3	141.9	118.3	109.4	75.8
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°	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7	3739.7
2.5°	3750.5	3750.5	3736.7	3715.0	3690.4	3674.6	3649.0	3642.1	3615.5	3607.6	3620.4
5°	3795.9	3788.0	3745.6	3684.5	3600.7	3523.8	3439.1	3385.9	3311.1	3284.4	3304.1
7.5°	3853.0	3831.3	3758.4	3624.4	3448.9	3276.5	3097.1	2961.2	2831.2	2784.8	2790.7
10°	3905.2	3874.7	3750.5	3516.0	3212.5	2913.9	2628.1	2428.1	2276.3	2214.2	2228.0
12.5°	3957.4	3901.3	3698.3	3335.7	2876.5	2471.5	2167.0	2011.3	1917.7	1842.7	1867.3
15°	4006.7	3927.9	3617.4	3094.3	2507.9	2096.9	1872.3	1748.1	1673.2	1624.0	1632.8
17.5°	4063.9	3950.6	3496.3	2787.8	2157.1	1837.8	1654.6	1579.6	1564.9	1558.9	1562.9
20°	4143.7	3971.3	3336.7	2444.8	1898.9	1630.9	1536.3	1529.4	1528.4	1525.4	1535.2
22.5°	4229.5	3995.9	3125.7	2133.4	1679.2	1501.8	1485.0	1471.2	1462.4	1461.3	1472.2
25°	4330.9	4003.8	2861.7	1878.2	1491.9	1440.6	1421.0	1400.3	1394.4	1394.4	1400.3
27.5°	4429.4	3977.2	2554.2	1656.5	1386.5	1384.5	1358.9	1352.0	1351.1	1353.9	1361.8
30°	4528.0	3926.9	2248.7	1451.5	1325.4	1325.4	1316.5	1321.4	1325.4	1335.3	1342.1
32.5°	4661.1	3873.7	1993.5	1299.8	1272.1	1262.3	1271.2	1281.0	1284.9	1297.8	1308.6
35°	4856.1	3836.3	1790.5	1217.0	1217.0	1204.2	1209.1	1207.1	1198.2	1192.4	1206.1
37.5°	5114.3	3834.3	1623.0	1178.5	1170.7	1168.7	1169.7	1156.9	1122.4	1081.0	1082.0
40°	5424.7	3887.5	1493.9	1152.0	1146.1	1157.8	1152.0	1117.5	1022.8	950.9	948.9
42.5°	5841.6	4039.2	1411.1	1119.4	1137.1	1152.0	1128.3	1009.1	945.0	896.8	894.7
45°	6332.3	4285.6	1368.8	1085.0	1120.4	1138.2	1023.9	971.6	920.3	862.2	858.3
47.5°	6888.1	4596.0	1358.9	1052.5	1083.0	1093.8	979.5	955.8	897.7	834.7	829.7
50°	7493.2	4963.6	1385.5	1014.0	1028.8	991.4	964.7	943.0	882.9	820.8	814.0
52.5°	8118.9	5368.5	1438.7	961.8	974.6	933.2	958.8	940.1	874.0	790.3	784.4
55°	8733.8	5776.5	1489.9	900.7	919.4	881.0	942.1	928.2	833.6	739.0	734.1
57.5°	9358.6	6182.5	1540.2	846.4	866.2	830.7	915.4	896.8	788.3	691.8	689.8
60°	10007.9	6576.7	1563.8	794.3	808.0	784.4	875.0	842.6	737.1	643.5	640.5
62.5°	10615.9	6904.8	1525.4	742.0	750.9	741.1	821.8	778.5	685.8	589.3	588.2
65°	11225.9	7100.0	1407.2	690.7	692.8	687.8	746.9	709.5	625.8	542.0	536.1
67.5°	11778.7	7209.3	1218.9	635.6	630.7	628.7	677.0	634.6	567.6	494.7	488.7
70°	11895.9	6931.5	931.2	570.5	570.5	565.6	600.1	556.8	503.6	444.4	442.5
72.5°	10865.2	5830.7	661.2	496.6	504.5	494.7	523.3	486.8	438.5	399.1	387.2
75°	8761.4	4275.8	480.9	420.8	434.6	417.8	444.4	418.8	377.4	376.4	339.0
77.5°	6019.9	2643.9	348.8	346.9	356.7	335.1	365.6	351.8	314.4	297.6	278.9
80°	2569.0	1054.4	254.2	268.0	268.0	248.4	283.8	287.7	255.2	247.3	247.3
82.5°	511.5	299.6	178.4	184.3	173.4	167.5	201.0	222.7	307.5	341.9	343.0
85°	153.8	110.4	107.4	100.6	88.7	89.7	118.3	223.7	275.9	157.6	136.0
87.5°	42.3	27.6	28.6	22.7	18.8	24.6	40.4	169.5	92.7	39.5	33.5
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)