

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: P965254

Luminaire Tested: **NAV-SB3D-830-U-T2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965254
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-830-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27862.6 lumens
Efficiency: N/A
Efficacy: 127.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 218.1
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



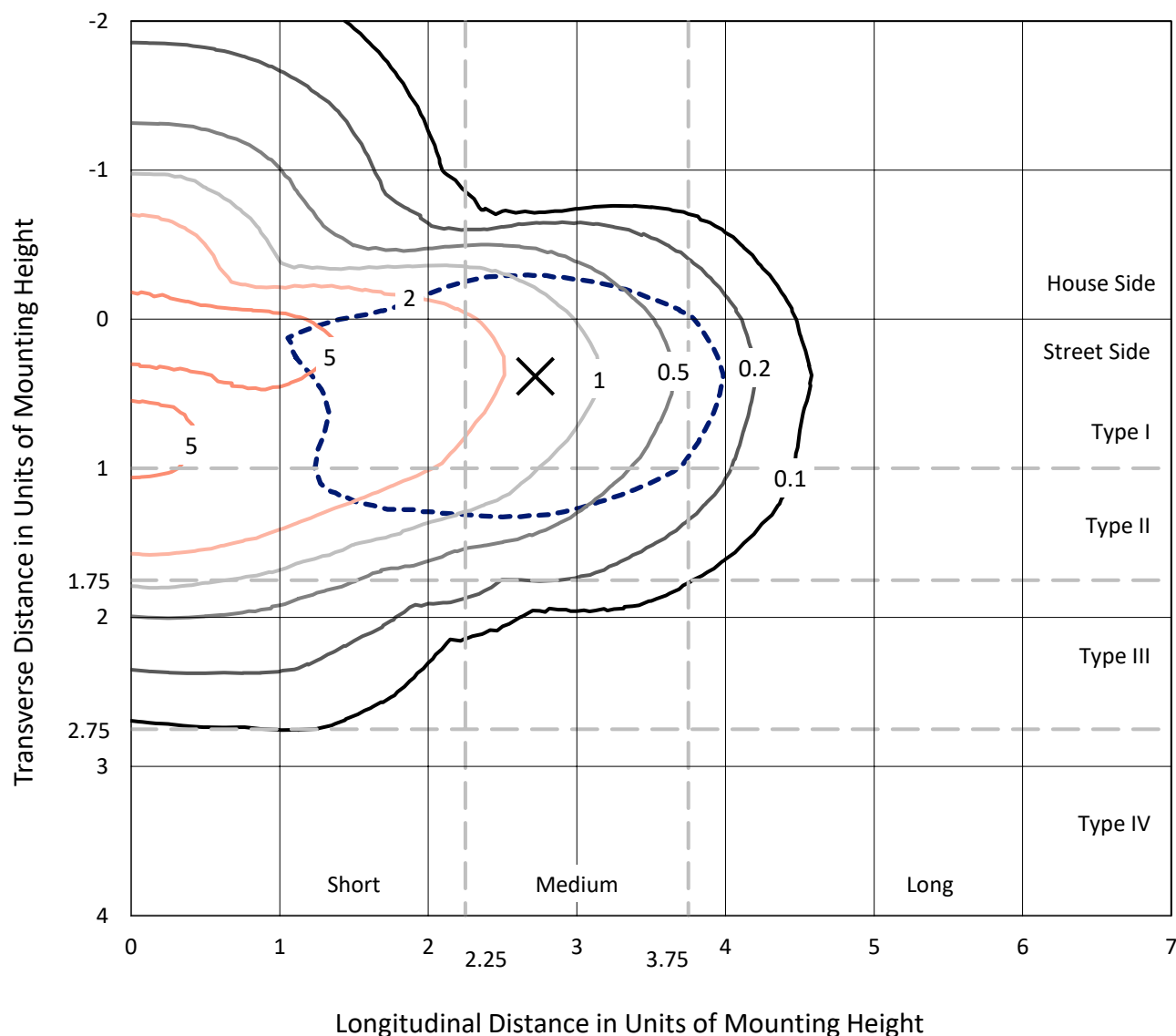
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

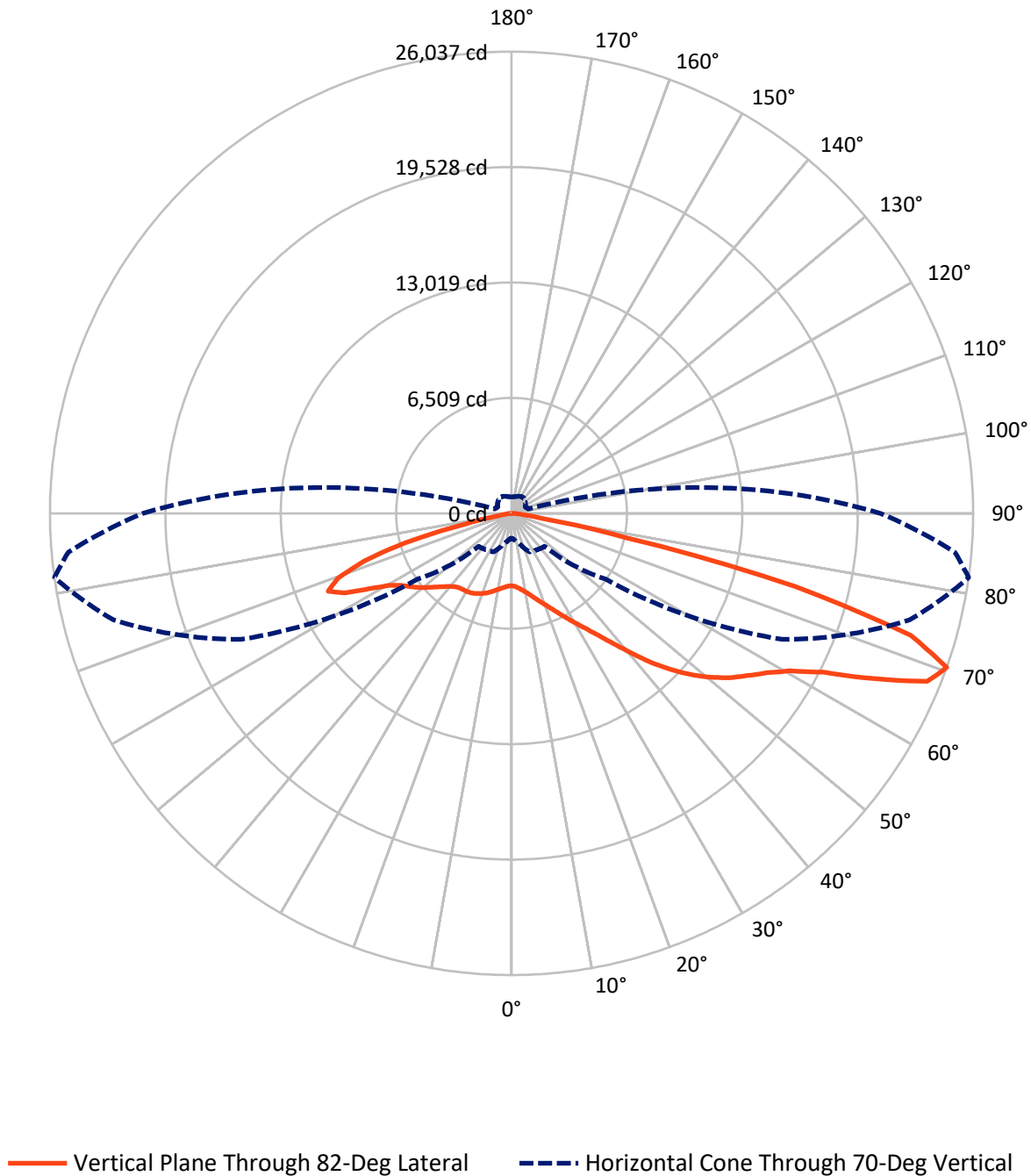
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 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	6868.8	0.0	6868.8
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	20993.8	0.0	20993.8
	% Fixture	75.3	0.0	75.3
Total	Lumens	27862.6	0.0	27862.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	385.7	1.4
10°-20°	1108.1	4.0
20°-30°	1853.8	6.7
30°-40°	2896.1	10.4
40°-50°	4612.4	16.6
50°-60°	6418.7	23.0
60°-70°	6714.2	24.1
70°-80°	3509.2	12.6
80°-90°	364.4	1.3
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°	27862.6	100.0
0°-180°	27862.6	100.0

Coefficient of Utilization



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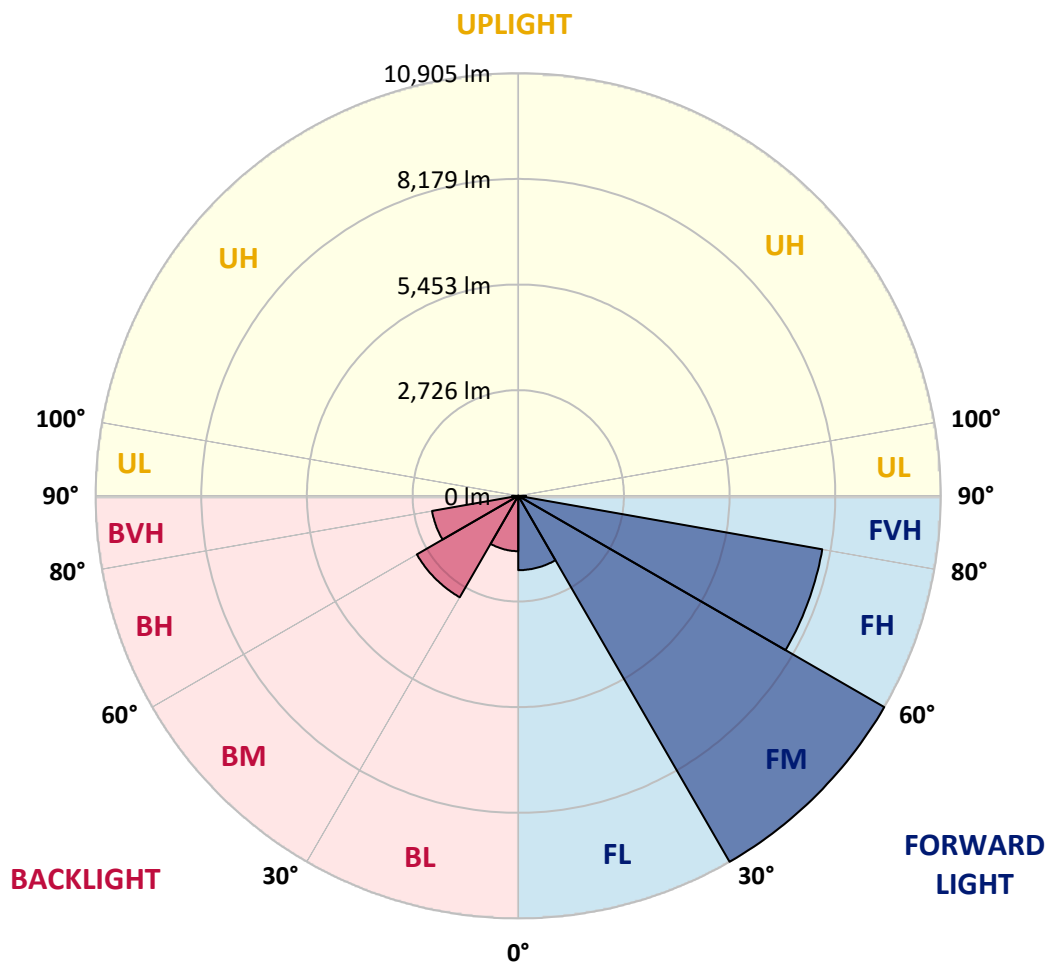
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1918.7	6.9			
FM	(30°-60°)	10905.1	39.1			
FH	(60°-80°)	7966.0	28.6			G4/12000
FVH	(80°-90°)	204.0	0.7			G2/225
BL	(0°-30°)	1429.0	5.1	B3/2500		
BM	(30°-60°)	3022.0	10.8	B3/5000		
BH	(60°-80°)	2257.4	8.1	B3/2500		G3/2500
BVH	(80°-90°)	160.4	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0
2.5°	4182.6	4206.2	4198.8	4191.4	4191.4	4181.1	4179.6	4164.9	4153.0	4133.8	4129.3
5°	4235.8	4260.9	4258.0	4263.9	4283.2	4287.6	4292.0	4283.2	4259.5	4235.8	4225.5
7.5°	4188.5	4216.5	4225.5	4260.9	4320.1	4373.3	4413.2	4429.4	4407.3	4373.3	4357.1
10°	4028.9	4059.8	4090.9	4175.2	4280.2	4405.9	4512.3	4575.8	4571.4	4538.9	4510.8
12.5°	3705.1	3737.6	3804.1	3968.2	4160.4	4382.2	4580.3	4713.4	4759.2	4735.5	4686.7
15°	3446.3	3474.4	3524.7	3693.2	3943.1	4280.2	4605.4	4864.1	4981.0	4967.7	4908.5
17.5°	3438.9	3450.8	3481.8	3561.7	3753.9	4120.5	4578.8	5012.0	5235.3	5233.8	5159.8
20°	3569.0	3573.5	3591.2	3607.5	3716.9	3999.2	4510.8	5134.7	5520.5	5520.5	5440.8
22.5°	3749.3	3746.5	3764.2	3749.3	3802.6	3988.9	4468.0	5242.7	5838.5	5862.1	5761.6
25°	4019.9	4005.2	4000.8	3966.7	3977.1	4085.0	4515.2	5365.4	6215.5	6264.3	6138.6
27.5°	4380.6	4357.1	4340.8	4262.5	4235.8	4283.2	4660.2	5513.2	6635.3	6719.6	6560.0
30°	4850.8	4808.0	4784.3	4648.3	4552.2	4559.6	4878.9	5709.9	7074.4	7210.5	7007.9
32.5°	5492.5	5425.9	5362.4	5139.1	4963.3	4905.5	5161.3	5981.9	7550.6	7767.9	7507.6
35°	6211.0	6157.8	6089.8	5745.3	5474.7	5341.7	5542.8	6361.9	8108.0	8452.4	8113.8
37.5°	6903.0	6857.1	6889.6	6425.4	6076.5	5882.8	6042.5	6871.9	8795.4	9304.0	8873.7
40°	7618.5	7583.1	7587.5	7143.9	6737.3	6520.0	6648.7	7512.1	9583.4	10316.7	9787.4
42.5°	8396.2	8369.6	8280.9	7887.6	7430.7	7228.2	7346.5	8251.4	10429.1	11470.0	10789.9
45°	9267.0	9250.7	9168.0	8717.0	8193.6	7966.0	8125.7	9067.5	11279.2	12555.1	11796.7
47.5°	10019.6	10032.9	10022.6	9642.6	9099.9	8765.8	8956.6	9919.0	12070.2	13575.3	12762.1
50°	10381.8	10451.3	10553.3	10435.0	10097.9	9757.9	9794.8	10741.1	12824.2	14531.8	13687.6
52.5°	10192.5	10324.1	10602.1	10791.3	10921.5	10850.4	10751.4	11557.2	13533.9	15395.3	14562.9
55°	9487.3	9672.1	10133.5	10590.3	11254.1	11770.1	11900.1	12461.9	14225.8	16155.2	15390.8
57.5°	8202.6	8502.7	8916.7	9840.7	10958.4	12215.1	13239.6	13717.2	14959.2	16966.9	16257.2
60°	5999.6	6401.7	6916.3	8291.2	9923.4	11977.0	14379.5	15645.1	16001.5	18018.1	17385.3
62.5°	3839.5	4088.0	4561.0	5856.2	7732.4	10757.3	14728.4	18055.1	17768.2	19741.9	19076.7
65°	2628.7	2788.4	3221.6	3949.0	4998.7	8007.4	13794.0	19861.7	20574.3	22474.1	21968.5
67.5°	1910.2	2031.4	2401.1	3038.2	3257.0	4738.5	10704.1	19778.9	23302.1	25289.2	24502.6
70°	1392.7	1478.5	1788.9	2401.1	2506.0	2636.1	6484.6	16813.1	23243.0	26037.3	25095.5
72.5°	1032.0	1091.1	1299.6	1862.8	2028.5	1780.1	3209.8	12219.5	19972.6	23550.5	22795.0
75°	746.6	791.0	944.7	1425.3	1623.4	1355.8	1601.2	7141.0	13931.6	16566.3	16699.3
77.5°	570.7	604.6	705.2	1043.8	1299.6	1017.2	993.5	3285.1	6605.8	6638.3	7010.9
80°	458.3	480.5	535.3	734.8	996.5	761.4	647.6	1326.1	2087.6	1766.8	1854.0
82.5°	337.1	374.0	452.4	516.0	712.6	524.9	394.7	669.7	794.0	683.1	689.0
85°	192.2	217.3	273.5	369.6	455.4	320.8	226.2	297.1	369.6	303.1	270.6
87.5°	68.1	88.7	96.1	144.9	198.1	133.0	87.2	85.8	121.3	90.2	75.4
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°	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0	4085.0
2.5°	4114.6	4107.2	4077.7	4037.7	3996.3	3956.4	3943.1	3915.0	3895.7	3885.4	3897.3
5°	4197.4	4173.7	4104.2	4015.5	3922.4	3821.8	3750.9	3685.8	3638.5	3594.2	3611.9
7.5°	4315.7	4274.2	4154.5	3999.2	3833.7	3666.6	3542.4	3447.8	3384.2	3342.8	3351.6
10°	4453.1	4389.6	4206.2	3974.1	3718.4	3478.8	3332.5	3251.2	3211.2	3189.1	3194.9
12.5°	4611.4	4521.2	4259.5	3916.4	3542.4	3268.9	3168.4	3144.7	3146.1	3147.7	3150.6
15°	4806.5	4680.9	4302.3	3790.8	3313.2	3107.7	3090.0	3128.4	3168.4	3187.5	3186.1
17.5°	5026.8	4849.4	4309.7	3583.8	3088.5	3004.3	3060.4	3143.3	3203.8	3230.5	3236.3
20°	5263.4	5020.9	4256.5	3291.1	2903.7	2920.0	3020.5	3127.0	3193.5	3227.5	3236.3
22.5°	5533.9	5204.2	4129.3	2983.6	2752.9	2828.3	2946.6	3050.1	3119.6	3153.6	3162.4
25°	5842.9	5409.7	3929.7	2724.9	2622.8	2724.9	2843.0	2928.8	2985.0	3016.1	3025.0
27.5°	6185.9	5624.1	3663.7	2519.3	2509.0	2618.4	2715.9	2782.5	2812.1	2835.7	2844.6
30°	6530.4	5819.2	3341.3	2364.1	2409.9	2513.4	2582.9	2612.4	2621.3	2625.7	2636.1
32.5°	6903.0	5987.7	3002.7	2235.4	2315.3	2411.4	2452.8	2466.0	2424.6	2396.6	2405.5
35°	7353.9	6168.1	2671.6	2133.4	2222.1	2304.9	2318.2	2306.5	2257.7	2200.0	2202.9
37.5°	7911.3	6392.9	2406.9	2061.0	2134.9	2189.6	2173.3	2170.4	2174.8	2106.8	2111.3
40°	8594.3	6685.7	2213.3	2004.8	2063.9	2075.7	2029.9	2055.0	2077.3	1973.7	1976.7
42.5°	9352.8	7039.0	2090.6	1966.4	2004.8	1976.7	1905.8	1933.9	1930.9	1794.9	1793.3
45°	10126.0	7423.4	2047.6	1938.3	1950.1	1893.9	1815.6	1823.0	1760.8	1638.2	1642.6
47.5°	10894.8	7835.9	2074.3	1914.6	1882.1	1818.6	1757.9	1725.4	1633.7	1542.0	1542.0
50°	11648.8	8269.1	2171.9	1867.3	1788.9	1752.0	1707.6	1649.9	1552.4	1474.1	1468.1
52.5°	12348.2	8705.2	2281.2	1788.9	1672.2	1694.3	1666.2	1599.7	1503.6	1423.7	1425.3
55°	13010.5	9141.4	2324.2	1681.0	1562.7	1644.1	1627.8	1505.1	1389.8	1324.7	1318.8
57.5°	13732.0	9666.3	2276.8	1543.5	1474.1	1586.4	1524.3	1388.3	1321.7	1272.9	1268.5
60°	14731.4	10489.7	2174.8	1373.5	1389.8	1500.6	1394.2	1338.0	1265.6	1210.8	1207.9
62.5°	16391.8	12025.8	2010.7	1205.0	1290.7	1373.5	1332.1	1275.9	1202.0	1148.7	1148.7
65°	18846.0	14160.8	1701.7	1073.4	1179.8	1249.3	1265.6	1209.4	1132.5	1076.4	1079.3
67.5°	20915.8	15500.3	1287.7	963.9	1066.0	1148.7	1194.6	1139.9	1058.6	1003.9	1005.3
70°	20802.1	14527.4	983.2	856.1	965.4	1049.7	1108.8	1066.0	978.8	927.0	931.4
72.5°	18476.3	12153.0	795.4	746.6	863.5	946.2	1017.2	984.6	896.0	845.7	845.7
75°	13573.8	8626.8	635.7	635.7	736.3	838.2	916.7	896.0	814.7	779.1	768.9
77.5°	5721.7	3619.3	498.3	527.8	612.1	720.1	817.6	825.0	754.0	798.4	724.5
80°	1521.3	997.9	380.0	415.4	480.5	594.3	711.1	708.2	631.3	589.9	548.5
82.5°	579.5	393.3	270.6	292.7	347.5	455.4	563.3	581.1	504.2	436.1	436.1
85°	223.2	168.5	167.1	175.9	202.5	301.7	425.8	440.5	380.0	322.3	332.6
87.5°	57.7	50.2	62.1	59.1	93.2	161.1	244.0	252.9	232.2	134.6	192.2
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)