

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: P966834

Luminaire Tested: **NAV-SB4C-830-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966834
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-830-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28014.3 lumens
Efficiency: N/A
Efficacy: 139.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

Input Watts (W): 200.7
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



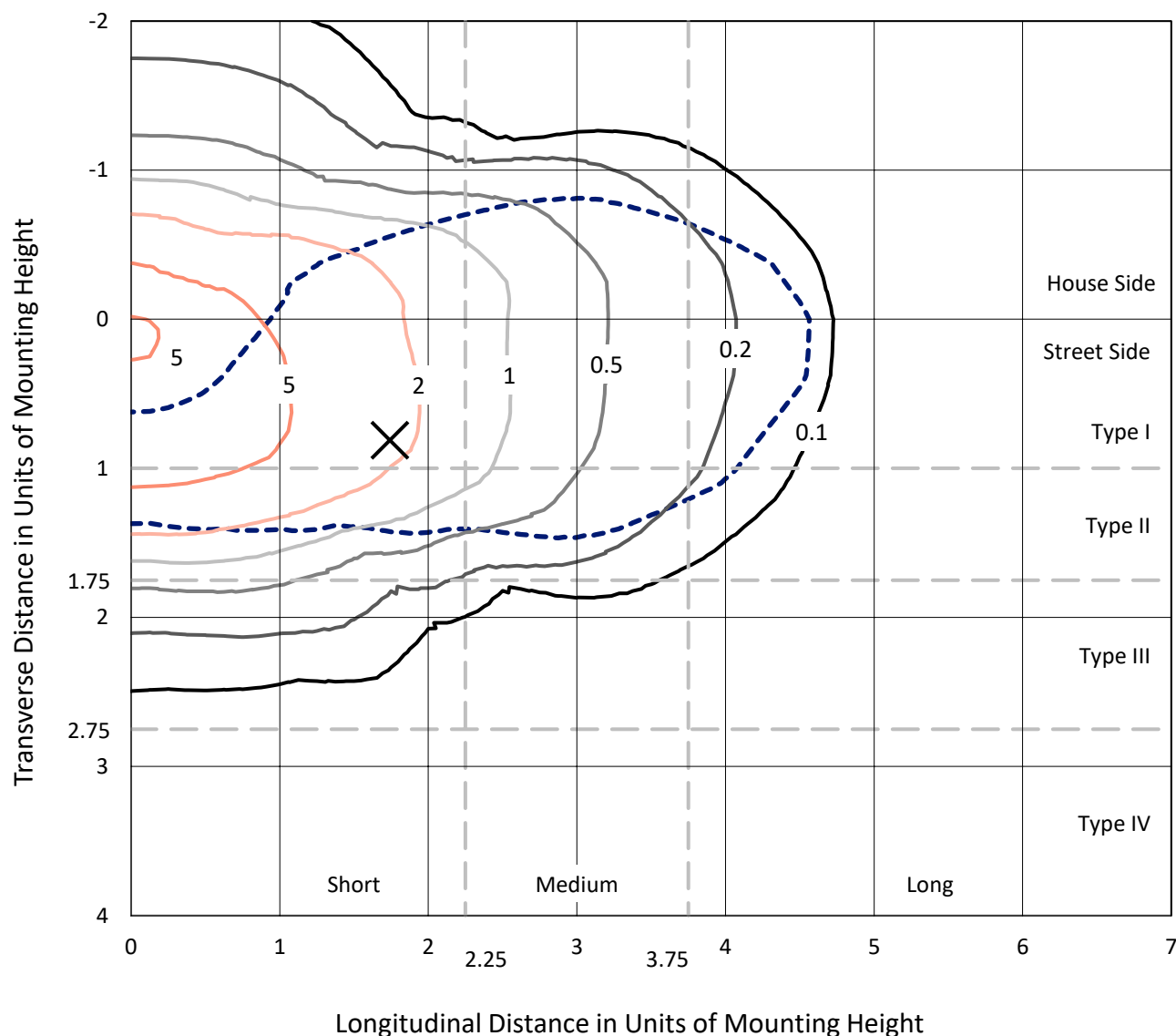
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

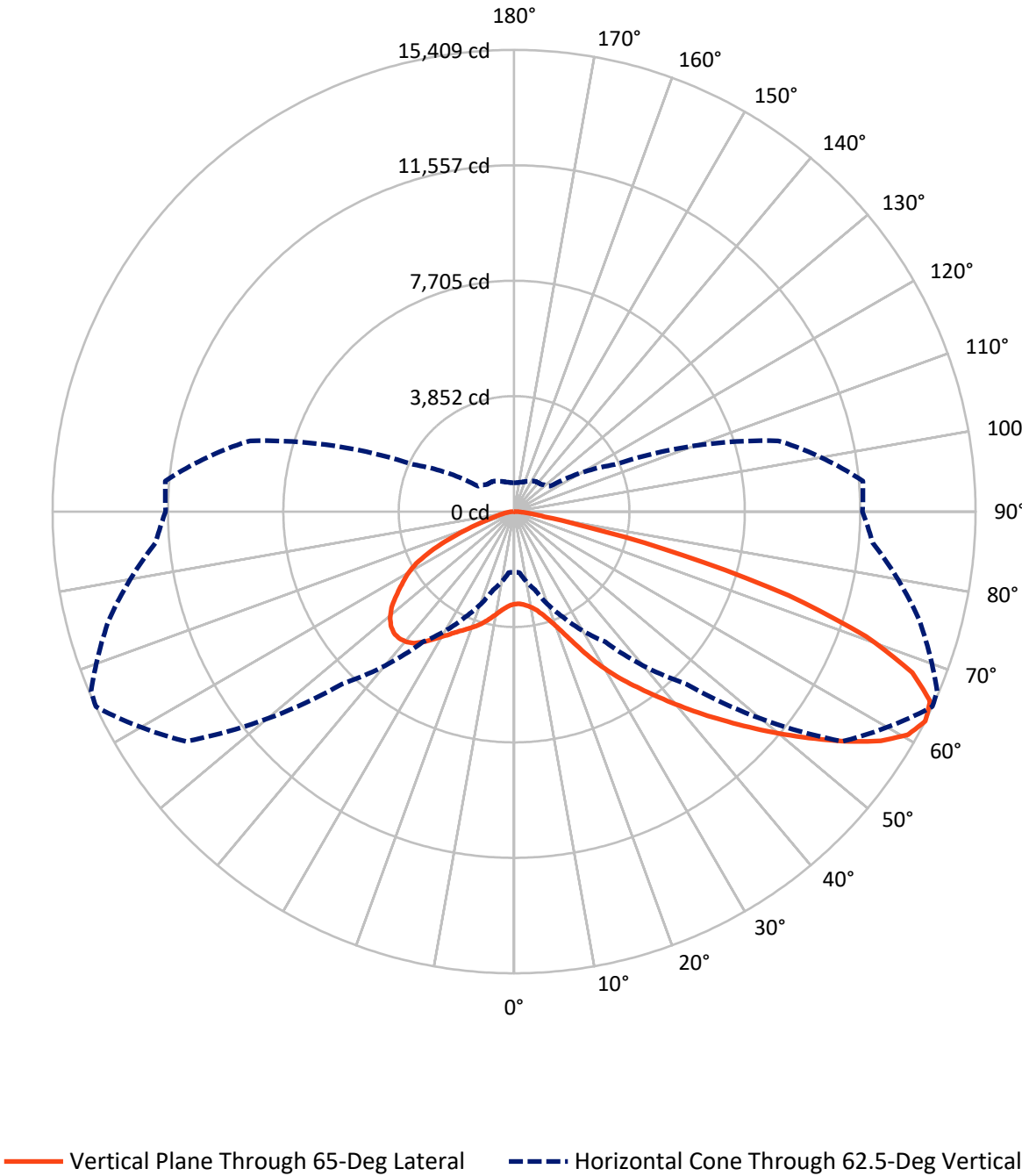


Based on 25 foot mounting height. Maximum calculated value = 7.8 fc

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	8840.1	0.0	8840.1
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	19174.2	0.0	19174.2
	% Fixture	68.4	0.0	68.4
Total	Lumens	28014.3	0.0	28014.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	307.8	1.1
10°-20°	1043.7	3.7
20°-30°	2116.2	7.6
30°-40°	3662.0	13.1
40°-50°	5541.8	19.8
50°-60°	6497.4	23.2
60°-70°	5447.3	19.4
70°-80°	3007.4	10.7
80°-90°	390.6	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°	28014.3	100.0
0°-180°	28014.3	100.0

Coefficient of Utilization



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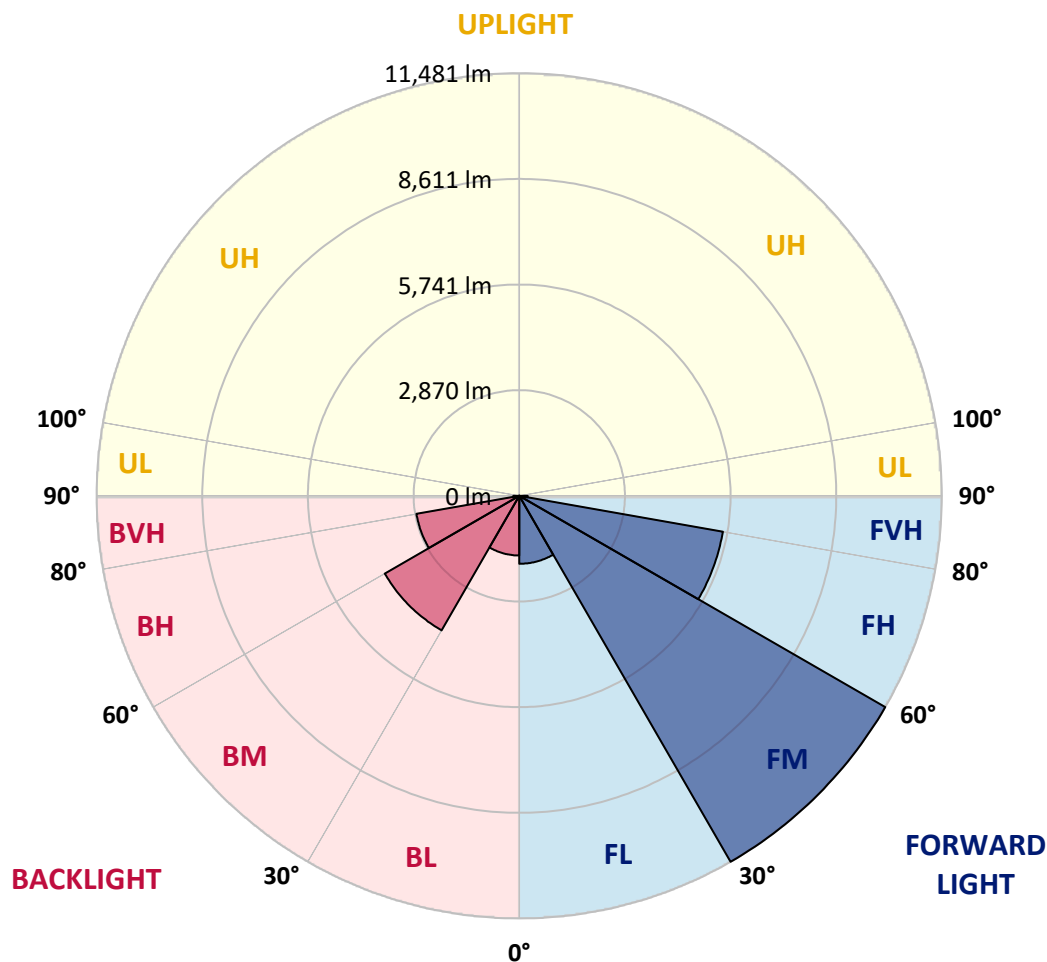
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1846.5	6.6			
FM	(30°-60°)	11481.2	41.0			
FH	(60°-80°)	5618.8	20.1			G3/7500
FVH	(80°-90°)	227.7	0.8			G3/500
BL	(0°-30°)	1621.2	5.8	B3/2500		
BM	(30°-60°)	4220.1	15.1	B3/5000		
BH	(60°-80°)	2835.8	10.1	B4/5000		G4/5000
BVH	(80°-90°)	163.0	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1
2.5°	3066.7	3058.0	3065.3	3065.3	3068.1	3066.7	3076.8	3079.8	3084.1	3092.8	3092.8
5°	3036.2	3034.7	3047.8	3059.4	3071.1	3081.3	3094.3	3113.2	3116.1	3126.2	3139.4
7.5°	3026.0	3017.3	3037.6	3052.1	3079.8	3104.5	3139.4	3171.4	3184.5	3188.8	3213.5
10°	3104.5	3090.0	3108.8	3117.5	3140.8	3165.5	3206.2	3257.1	3271.6	3289.1	3316.7
12.5°	3238.2	3222.2	3249.9	3262.9	3284.7	3306.5	3334.1	3383.5	3390.8	3422.8	3448.9
15°	3421.3	3402.5	3419.9	3435.9	3472.2	3492.6	3520.2	3568.1	3568.1	3592.8	3611.7
17.5°	3669.9	3645.2	3658.2	3664.1	3687.3	3717.9	3764.3	3806.5	3828.3	3819.6	3793.4
20°	4040.4	4010.0	4010.0	3980.9	3972.2	3996.9	4058.0	4116.1	4139.4	4094.3	4030.3
22.5°	4597.1	4553.6	4528.9	4430.0	4390.8	4393.7	4454.8	4525.9	4544.8	4464.9	4321.0
25°	5305.0	5236.6	5203.2	5057.9	4969.2	4892.2	4940.2	5031.7	5057.9	4959.1	4726.5
27.5°	6012.8	6017.2	5985.2	5810.7	5663.9	5523.0	5498.3	5594.1	5621.8	5509.9	5222.1
30°	7005.5	6902.2	6841.3	6632.0	6422.6	6224.9	6123.2	6162.5	6169.8	6036.0	5701.8
32.5°	7861.5	7835.3	7704.5	7521.4	7252.5	6942.9	6772.9	6710.4	6698.8	6508.3	6111.6
35°	8836.7	8822.2	8684.1	8466.1	8175.5	7745.2	7438.5	7259.8	7245.3	6977.9	6517.2
37.5°	9828.0	9828.0	9692.8	9454.5	9153.6	8615.8	8149.3	7865.8	7819.4	7470.5	6929.9
40°	10618.7	10570.7	10595.4	10495.1	10150.7	9579.4	8938.5	8527.2	8464.7	8046.1	7368.8
42.5°	11067.7	11051.8	11200.0	11311.9	11171.0	10714.5	9807.6	9243.8	9156.5	8679.8	7874.6
45°	11168.0	11150.6	11415.1	11825.0	12022.6	11835.2	10752.4	9998.1	9892.0	9342.6	8416.7
47.5°	10937.0	10902.1	11290.2	11936.8	12570.6	12900.5	11775.6	10816.3	10662.3	9987.9	8973.4
50°	10242.2	10208.8	10795.9	11655.0	12755.2	13624.3	12886.0	11684.0	11448.5	10679.7	9535.9
52.5°	8732.1	8748.1	9668.1	10848.3	12512.5	14074.9	13842.3	12598.2	12314.8	11387.5	10063.4
55°	6802.0	6836.9	7967.6	9266.9	11541.6	14006.5	14494.9	13540.0	13258.1	12053.2	10608.4
57.5°	4870.4	5024.4	6084.0	7370.3	9676.8	12923.7	14637.3	14435.3	14162.1	12779.9	11141.9
60°	3156.8	3184.5	4274.5	5571.0	7368.8	10999.5	14348.2	15114.0	14900.4	13521.1	11588.0
62.5°	2023.1	2042.0	2706.3	3896.6	5303.6	8137.7	13374.3	15409.1	15343.7	14010.9	12016.8
65°	1486.9	1472.3	1818.2	2575.4	3572.5	5018.6	11483.4	15266.7	15396.0	14317.6	12371.4
67.5°	1241.2	1220.9	1390.9	1783.3	2632.1	2850.1	8496.6	14340.9	14814.6	14282.7	12631.6
70°	1130.8	1113.4	1216.5	1324.1	2053.7	1908.3	4283.2	12467.4	13197.0	13885.9	12589.5
72.5°	957.8	927.3	1068.3	1175.8	1597.3	1463.6	1770.3	9576.6	10466.1	12614.2	11996.5
75°	742.7	722.3	843.0	1034.8	1200.5	1142.4	1119.1	5815.1	6786.0	9755.3	10495.1
77.5°	588.7	561.0	671.5	806.7	1079.8	861.9	815.4	2504.3	3466.3	6227.9	7852.8
80°	443.3	418.6	510.1	638.1	829.9	649.6	527.6	1021.7	1306.7	3155.4	3948.9
82.5°	315.4	293.6	356.1	468.0	558.1	582.8	324.1	572.7	643.9	1216.5	882.2
85°	202.0	188.9	238.3	293.6	354.6	374.9	197.6	299.4	328.5	501.4	367.7
87.5°	110.5	90.1	127.9	136.6	164.2	149.8	94.5	109.0	117.8	181.6	155.5
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°	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1	3087.1
2.5°	3098.7	3103.1	3117.5	3121.9	3132.1	3145.2	3153.9	3162.6	3162.6	3171.4	3171.4
5°	3140.8	3151.0	3181.5	3197.5	3223.6	3249.9	3265.9	3284.7	3296.3	3302.1	3305.1
7.5°	3222.2	3238.2	3281.8	3309.4	3354.5	3390.8	3415.5	3441.6	3447.5	3463.5	3457.6
10°	3332.7	3351.5	3401.0	3453.3	3507.0	3552.1	3575.4	3594.3	3601.5	3604.5	3597.2
12.5°	3459.2	3486.7	3550.7	3614.7	3671.3	3710.6	3716.3	3712.0	3691.6	3674.2	3674.2
15°	3614.7	3639.4	3710.6	3780.3	3835.6	3842.8	3806.5	3783.3	3758.6	3754.2	3754.2
17.5°	3800.7	3813.7	3879.1	3947.5	3951.8	3927.1	3873.4	3851.5	3828.3	3812.3	3813.7
20°	4017.3	4012.9	4059.4	4088.4	4058.0	3982.3	3900.9	3864.7	3841.4	3822.4	3824.0
22.5°	4276.0	4242.5	4236.7	4229.5	4148.1	3989.6	3879.1	3832.7	3796.3	3770.2	3778.9
25°	4652.4	4524.5	4435.8	4386.4	4203.3	3950.3	3809.4	3706.2	3637.9	3592.8	3610.3
27.5°	5123.3	4908.2	4684.4	4563.7	4203.3	3870.4	3640.8	3473.6	3361.8	3315.3	3338.5
30°	5572.4	5347.1	5017.2	4777.4	4193.1	3739.6	3369.0	3136.5	3005.7	2959.2	2986.7
32.5°	5956.1	5710.5	5370.4	5011.3	4168.4	3527.4	3031.8	2774.6	2648.1	2592.8	2620.5
35°	6312.2	6050.6	5725.0	5268.6	4103.0	3216.4	2661.2	2465.0	2324.0	2235.3	2264.4
37.5°	6677.0	6366.0	6060.7	5501.2	3985.3	2853.1	2376.4	2209.2	2043.5	1924.3	1956.3
40°	7073.7	6701.7	6419.8	5639.2	3792.0	2507.1	2155.4	2002.8	1827.0	1700.5	1725.2
42.5°	7537.4	7104.3	6819.4	5710.5	3527.4	2261.6	2011.6	1861.8	1696.2	1593.0	1613.2
45°	8021.3	7547.6	7184.2	5709.0	3232.4	2146.7	1965.0	1816.8	1633.6	1526.1	1543.5
47.5°	8528.6	8011.2	7499.6	5616.0	2976.6	2162.6	1938.9	1719.4	1517.4	1412.8	1427.2
50°	9037.3	8518.5	7804.9	5441.6	2867.5	2127.8	1841.5	1582.8	1344.4	1249.9	1255.7
52.5°	9541.6	9057.7	8067.9	5193.1	2757.1	1998.4	1716.5	1405.5	1273.2	1207.8	1207.8
55°	10048.9	9591.1	8354.3	4831.1	2481.0	1847.3	1507.2	1338.5	1216.5	1156.9	1151.1
57.5°	10557.6	10207.4	8626.0	4469.2	2133.6	1661.2	1392.4	1257.2	1159.8	1108.9	1100.2
60°	11086.6	10912.3	8906.5	4136.4	1790.6	1422.9	1308.1	1191.8	1093.0	1036.3	1032.0
62.5°	11631.7	11688.4	9126.0	3707.6	1475.2	1277.6	1232.5	1113.4	1017.4	963.6	962.2
65°	12181.1	12436.8	9269.9	3113.2	1196.2	1139.5	1151.1	1027.6	930.2	883.7	882.2
67.5°	12595.3	12976.1	9229.2	2356.0	981.0	1008.7	1049.4	937.5	845.9	809.5	811.0
70°	12641.8	12912.1	8828.0	1613.2	821.2	880.8	936.0	848.8	754.3	728.2	729.6
72.5°	12022.6	12040.1	7710.4	1053.7	694.7	773.3	816.8	758.7	667.1	640.9	639.5
75°	10399.1	9957.4	5661.1	694.7	581.4	664.2	704.9	664.2	575.5	581.4	561.0
77.5°	7879.0	7052.0	3437.3	494.2	485.4	558.1	613.4	584.2	508.7	571.2	502.9
80°	4059.4	3815.3	1533.4	369.2	383.7	446.2	504.3	466.6	402.6	383.7	350.2
82.5°	930.2	1081.4	604.6	264.6	277.6	321.2	385.2	350.2	289.3	244.2	241.3
85°	325.5	356.1	267.4	165.6	162.8	200.6	261.6	234.0	196.2	156.9	165.6
87.5°	103.2	135.2	100.2	66.8	69.8	90.1	120.6	110.5	91.5	59.6	62.5
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)