

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: P884454

Luminaire Tested: **NAV-SB5B-740-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884454
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-740-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30537 lumens
Efficiency: N/A
Efficacy: 167.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

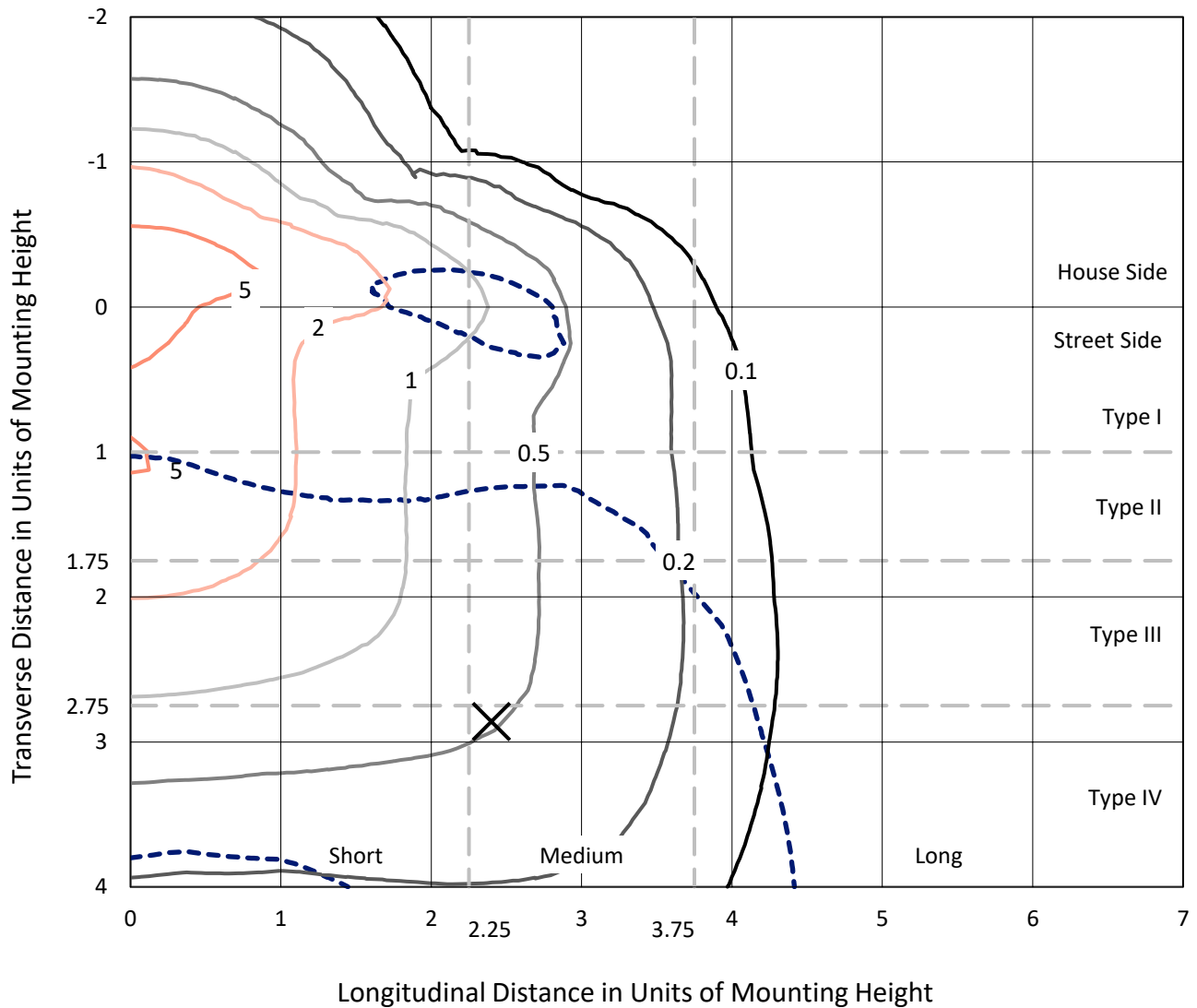
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

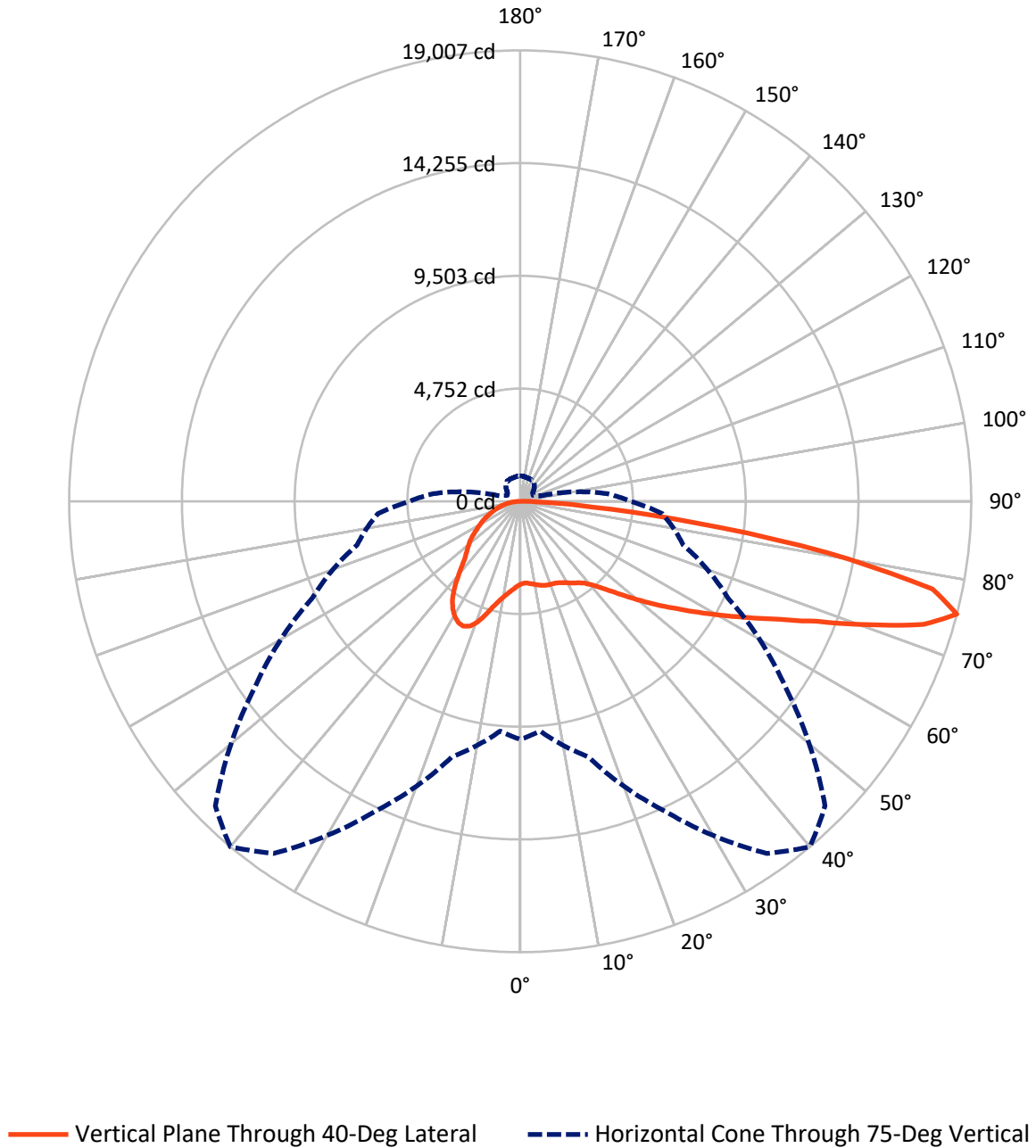
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9461.4	0.0	9461.4
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	21075.6	0.0	21075.6
	% Fixture	69.0	0.0	69.0
Total	Lumens	30537.0	0.0	30537.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.6	1.1
10°-20°	1170.3	3.8
20°-30°	2136.8	7.0
30°-40°	3030.6	9.9
40°-50°	4092.3	13.4
50°-60°	5505.2	18.0
60°-70°	6987.4	22.9
70°-80°	6341.5	20.8
80°-90°	924.4	3.0
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°	30537.0	100.0
0°-180°	30537.0	100.0

Coefficient of Utilization



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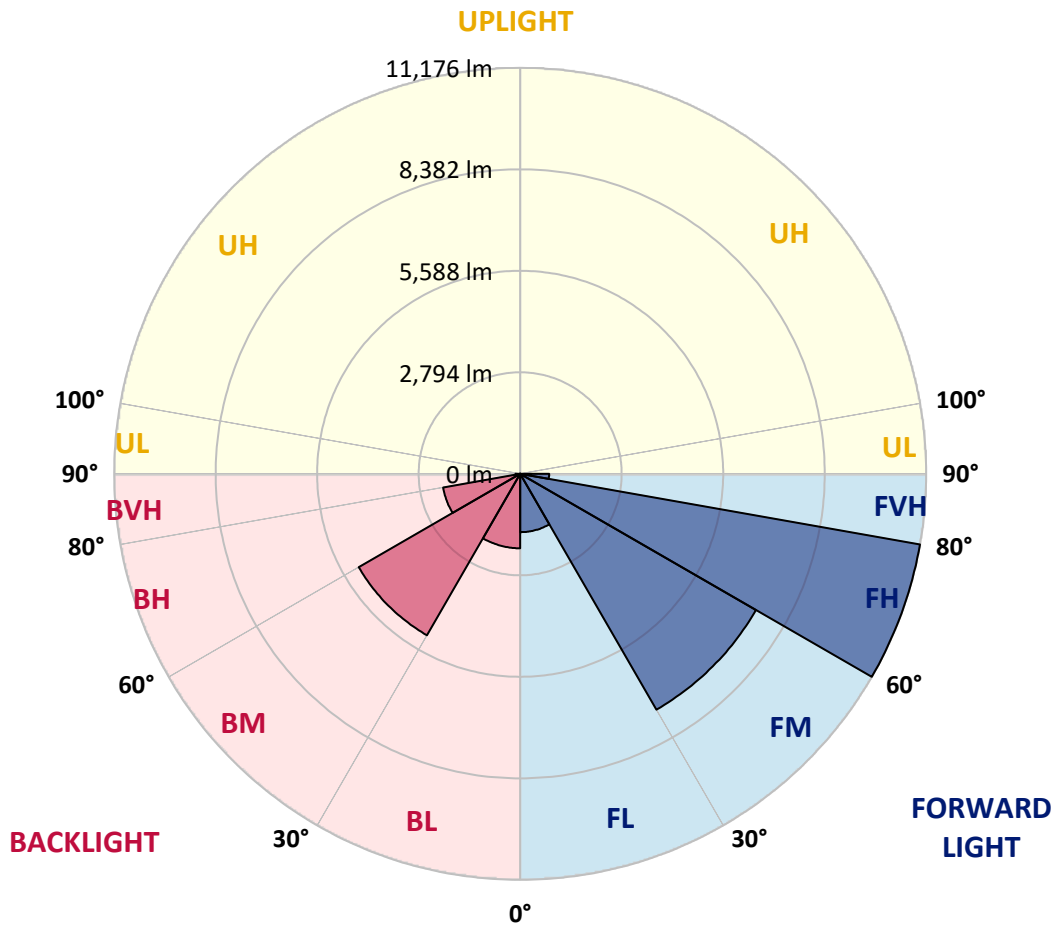
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1606.3	5.3			
FM (30°-60°)	7496.2	24.5			
FH (60°-80°)	11176.1	36.6			G4/12000
FVH (80°-90°)	797.1	2.6			G5
BL (0°-30°)	2049.4	6.7	B3/2500		
BM (30°-60°)	5131.9	16.8	B4/8500		
BH (60°-80°)	2152.7	7.0	B3/2500		G3/2500
BVH (80°-90°)	127.3	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9
2.5°	3438.5	3457.9	3453.1	3446.6	3446.6	3448.2	3446.6	3457.9	3469.3	3480.6	3498.4
5°	3474.1	3493.6	3483.8	3475.8	3469.3	3467.7	3462.8	3461.2	3467.7	3482.2	3506.5
7.5°	3543.8	3563.2	3548.6	3534.1	3521.1	3514.6	3508.1	3498.4	3493.6	3501.7	3535.7
10°	3621.5	3641.0	3623.1	3597.2	3576.2	3568.1	3561.6	3551.9	3545.4	3550.3	3587.5
12.5°	3699.3	3718.7	3694.4	3658.8	3631.2	3626.4	3618.3	3615.0	3613.4	3611.8	3649.1
15°	3772.1	3788.3	3757.6	3715.5	3686.3	3678.2	3670.1	3675.0	3683.1	3692.8	3734.9
17.5°	3828.8	3845.0	3799.7	3744.6	3717.1	3713.8	3709.0	3725.2	3747.8	3772.1	3824.0
20°	3880.7	3896.9	3838.5	3764.0	3731.7	3731.7	3733.3	3767.3	3799.7	3835.3	3906.6
22.5°	3953.5	3966.5	3895.2	3793.2	3746.2	3749.5	3762.4	3796.4	3836.9	3885.5	3984.3
25°	4062.1	4071.8	3984.3	3848.3	3794.8	3804.5	3815.9	3832.1	3870.9	3927.6	4060.4
27.5°	4237.0	4245.1	4130.1	3945.4	3864.5	3880.7	3896.9	3885.5	3903.3	3951.9	4122.0
30°	4483.2	4488.0	4342.3	4097.7	3982.7	3990.8	3994.0	3947.1	3913.1	3951.9	4165.7
32.5°	4774.7	4773.1	4599.8	4282.3	4117.1	4109.0	4081.5	3989.2	3909.8	3943.8	4204.6
35°	5226.6	5208.8	4985.3	4541.5	4269.4	4219.2	4154.4	4036.1	3926.0	3935.7	4238.6
37.5°	5974.9	5919.8	5610.4	4965.8	4496.1	4368.2	4272.6	4112.3	3961.6	3932.5	4279.1
40°	6818.7	6749.0	6408.9	5547.3	4836.2	4630.6	4476.7	4220.8	4019.9	3947.1	4339.0
42.5°	7819.6	7720.8	7354.8	6232.4	5267.1	4969.1	4737.5	4358.5	4105.8	3994.0	4420.0
45°	9048.9	8917.7	8399.5	7004.9	5809.7	5412.8	5103.5	4567.4	4237.0	4084.7	4541.5
47.5°	10291.2	10323.6	9586.7	7889.3	6460.7	5960.3	5561.8	4881.6	4428.1	4230.5	4737.5
50°	11611.2	11633.9	10767.4	8869.2	7199.3	6579.0	6076.9	5233.1	4693.7	4437.8	5030.6
52.5°	12641.3	12644.5	11839.6	9894.4	7968.6	7259.2	6632.4	5634.7	5001.5	4713.2	5420.9
55°	13285.9	13277.8	12591.1	10864.6	8853.0	7973.5	7247.9	6091.5	5377.2	5037.1	5911.7
57.5°	13754.0	13729.7	13109.4	11698.7	9795.6	8817.3	7944.3	6609.8	5821.0	5422.6	6557.9
60°	13932.2	13917.6	13460.8	12419.4	10786.8	9750.2	8747.7	7189.6	6324.7	5877.7	7388.8
62.5°	14000.2	14027.7	13805.8	13117.5	11847.7	10783.6	9630.4	7882.8	6891.6	6392.7	8265.0
65°	14239.9	14290.1	14244.7	14031.0	13046.2	11993.4	10801.4	8707.2	7510.3	6945.0	9180.1
67.5°	14714.4	14764.7	14784.1	15124.2	14510.4	13501.3	12262.3	9734.0	8234.3	7518.4	9868.5
70°	14703.1	14688.5	15031.9	15994.0	16343.8	15589.0	14231.8	10997.4	9097.5	7994.5	9955.9
72.5°	13383.1	13266.5	14077.9	15984.2	17869.5	17769.1	16637.0	12626.7	9842.6	8052.9	8639.2
75°	10040.2	9729.2	11162.6	14405.1	18123.8	19006.5	18165.9	13637.4	9666.0	7115.1	6012.1
77.5°	4293.7	3981.1	5670.4	10663.7	16220.7	17767.5	16763.3	11897.9	7716.0	4705.1	2952.6
80°	1124.0	1122.4	1713.6	4834.6	11031.4	13120.7	11510.8	7683.6	4408.7	1681.2	814.7
82.5°	464.8	453.5	630.0	1880.4	5390.2	7362.9	6008.9	3427.2	1592.1	455.1	270.5
85°	173.3	171.7	306.1	649.5	1901.5	3036.8	2197.9	876.2	396.8	221.9	121.5
87.5°	48.6	47.0	66.4	225.1	463.2	702.9	375.8	144.1	111.8	87.5	35.6
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°	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9	3491.9
2.5°	3503.3	3511.4	3526.0	3537.3	3551.9	3568.1	3590.7	3605.3	3619.9	3629.6	3623.1
5°	3517.9	3535.7	3572.9	3610.2	3653.9	3694.4	3741.4	3775.4	3802.9	3811.0	3814.3
7.5°	3550.3	3579.4	3642.6	3705.7	3775.4	3841.8	3909.8	3968.1	4015.1	4032.9	4034.5
10°	3606.9	3645.8	3734.9	3824.0	3916.3	4018.3	4105.8	4190.0	4256.4	4284.0	4285.6
12.5°	3678.2	3726.8	3843.4	3966.5	4094.5	4235.4	4348.7	4452.4	4535.0	4572.2	4572.2
15°	3770.5	3833.7	3982.7	4147.9	4335.8	4531.8	4675.9	4790.9	4883.2	4928.6	4925.3
17.5°	3870.9	3955.2	4143.0	4392.5	4661.3	4918.9	5087.3	5171.5	5267.1	5310.8	5309.2
20°	3968.1	4071.8	4340.6	4703.4	5061.4	5335.1	5471.1	5493.8	5500.3	5505.2	5518.1
22.5°	4068.5	4207.8	4588.4	5095.4	5479.2	5668.7	5688.2	5591.0	5455.0	5391.8	5409.6
25°	4178.7	4363.3	4912.4	5527.8	5838.8	5861.5	5712.5	5476.0	5218.5	5100.3	5118.1
27.5°	4285.6	4543.1	5301.1	5940.8	6097.9	5898.7	5578.0	5242.8	4931.8	4807.1	4821.7
30°	4392.5	4748.8	5730.3	6302.0	6216.2	5806.4	5365.9	4991.7	4679.1	4548.0	4562.5
32.5°	4501.0	4988.5	6224.3	6562.8	6195.1	5610.4	5101.9	4709.9	4434.6	4296.9	4314.7
35°	4624.1	5283.3	6692.4	6705.3	6054.2	5322.1	4753.6	4373.0	4133.3	4023.2	4047.5
37.5°	4784.4	5657.4	7105.4	6740.9	5808.0	4899.4	4321.2	3974.6	3777.0	3726.8	3762.4
40°	4983.6	6107.7	7421.2	6684.3	5443.6	4386.0	3848.3	3571.3	3459.6	3470.9	3509.8
42.5°	5242.8	6611.4	7643.1	6538.5	4936.7	3856.4	3433.6	3310.5	3364.0	3409.3	3451.5
45°	5579.7	7134.5	7780.8	6290.7	4363.3	3407.7	3189.1	3218.2	3258.7	3263.6	3296.0
47.5°	6010.5	7664.1	7871.5	5916.5	3778.6	3091.9	3033.6	3040.1	3032.0	2998.0	3023.9
50°	6548.2	8179.2	7952.4	5420.9	3281.4	2894.3	2816.6	2793.9	2682.1	2572.0	2586.6
52.5°	7160.4	8652.1	7986.5	4805.5	2894.3	2729.1	2602.8	2460.2	2251.3	2217.3	2228.6
55°	7840.7	9089.4	7899.0	4049.1	2568.8	2516.9	2325.8	2154.1	2131.4	2102.3	2107.2
57.5°	8653.7	9560.7	7720.8	3205.3	2235.1	2269.1	2082.9	2102.3	2061.8	2016.5	2008.4
60°	9542.9	10048.3	7408.2	2435.9	1890.1	1959.8	2019.7	2018.1	2006.7	1969.5	1956.5
62.5°	10343.0	10368.9	6792.8	1865.8	1587.2	1720.1	1883.6	1882.0	1872.3	1851.3	1843.2
65°	10819.2	10320.4	5765.9	1469.0	1337.8	1522.5	1699.0	1712.0	1713.6	1712.0	1712.0
67.5°	10735.0	9751.9	4356.8	1169.4	1132.1	1321.6	1516.0	1533.8	1546.8	1550.0	1553.2
70°	9782.6	8503.1	2840.9	932.9	949.1	1145.1	1342.7	1360.5	1371.8	1384.8	1391.3
72.5°	7625.3	6251.8	1626.1	754.8	788.8	992.8	1171.0	1192.1	1198.5	1222.8	1232.5
75°	4646.8	3676.6	877.8	594.4	647.9	848.7	1000.9	1025.2	1036.6	1065.7	1069.0
77.5°	2209.2	1592.1	500.5	463.2	521.5	693.2	845.5	873.0	842.2	858.4	845.5
80°	746.7	591.2	315.8	353.1	398.4	541.0	677.0	704.5	639.8	636.5	630.0
82.5°	260.8	239.7	200.8	234.8	257.5	387.1	511.8	547.4	476.2	474.6	451.9
85°	102.0	97.2	111.8	128.0	153.9	238.1	336.9	354.7	293.2	236.5	233.2
87.5°	21.1	22.7	27.5	29.2	47.0	82.6	121.5	149.0	118.2	100.4	92.3
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)