

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: P965549

Luminaire Tested: **NAV-SB4A-727-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965549
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-SB4A-727-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16988.4 lumens
Efficiency: N/A
Efficacy: 149.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

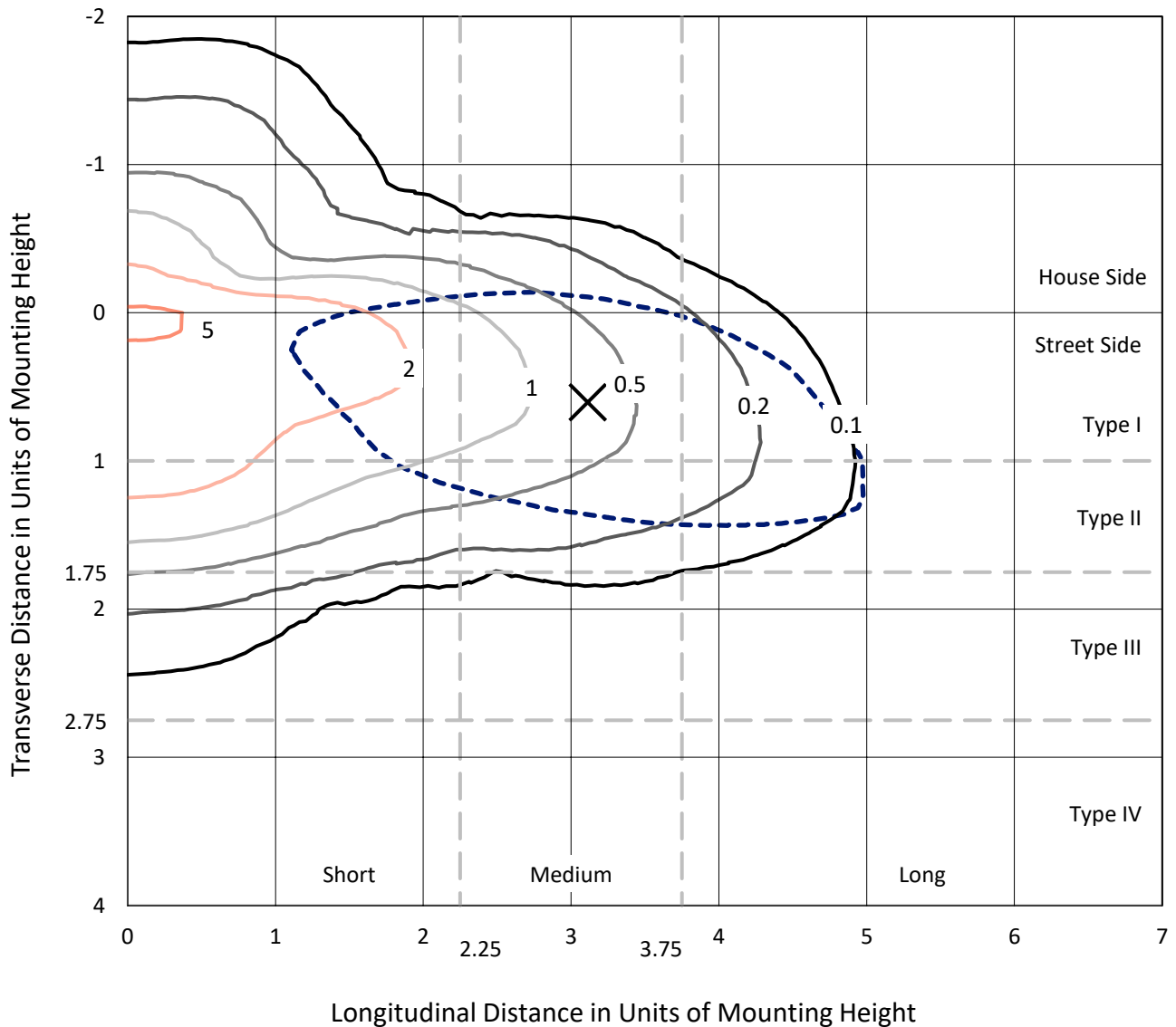
Input Watts (W): 114
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

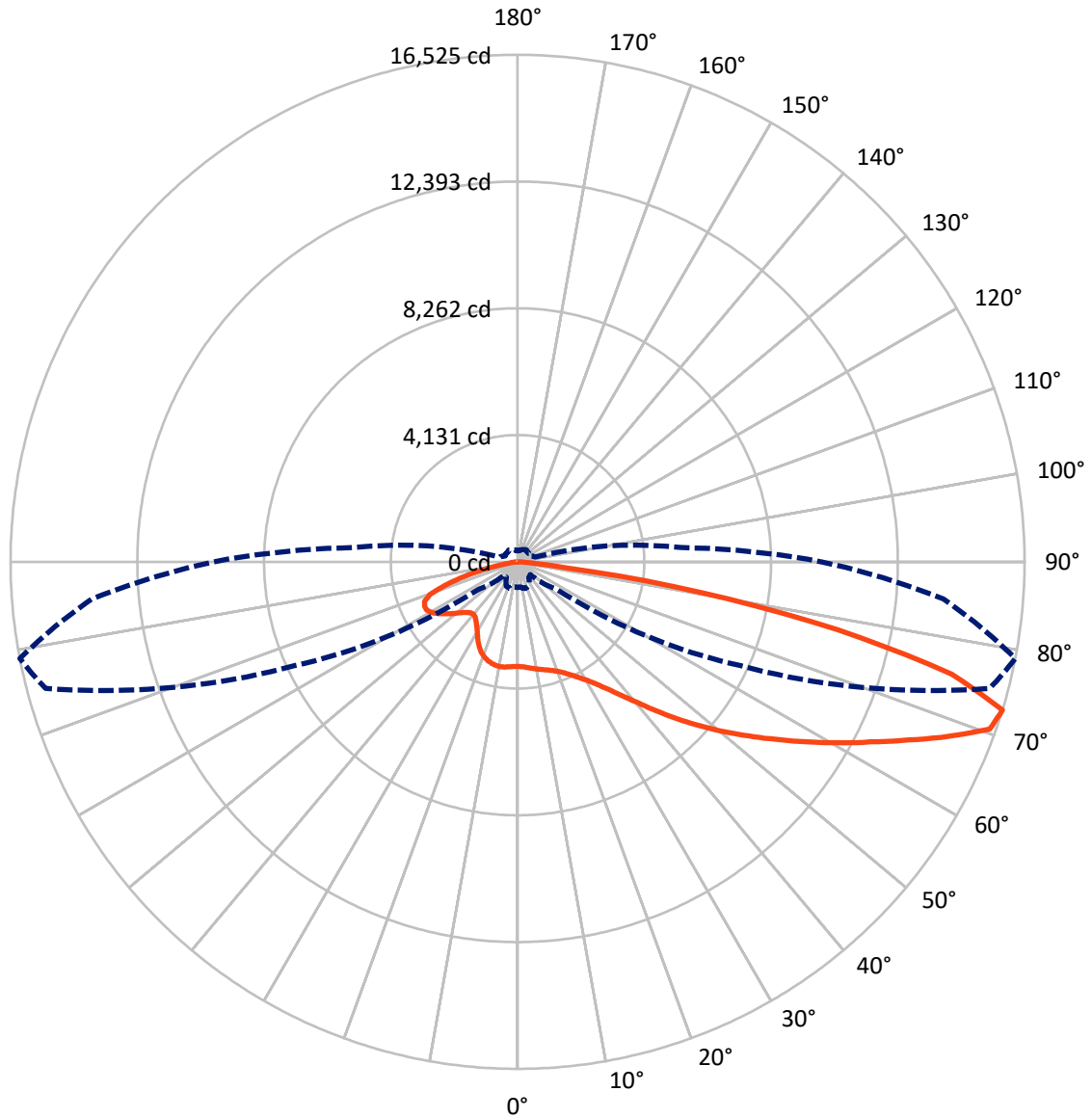
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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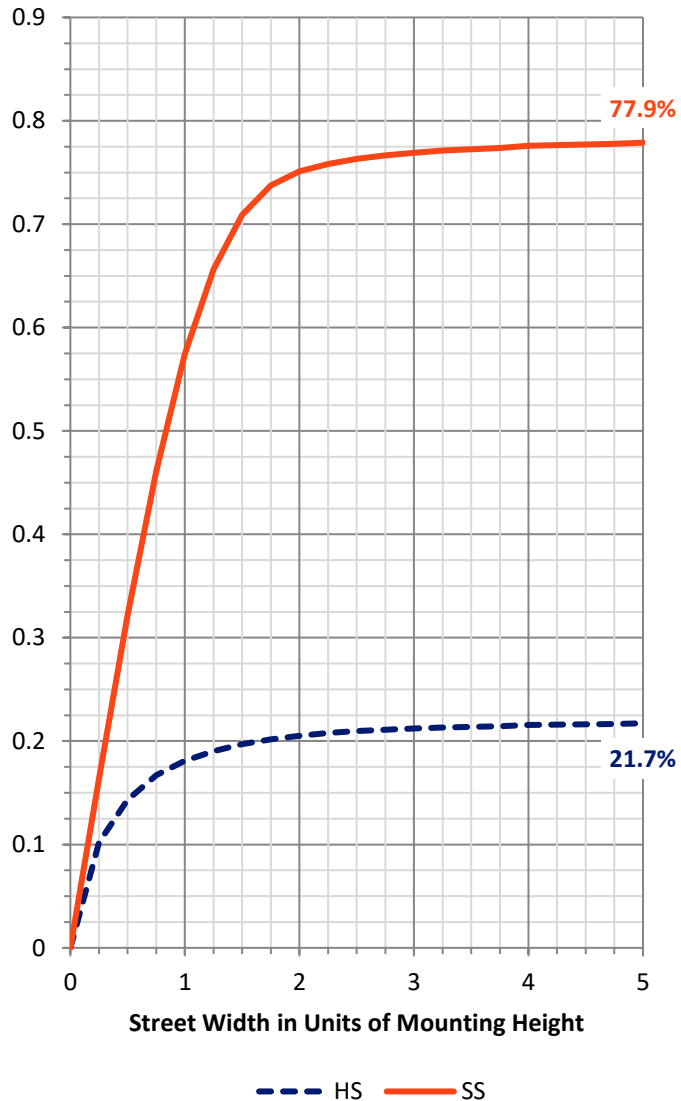
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3738.4	0.0	3738.4
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	13250.0	0.0	13250.0
	% Fixture	78.0	0.0	78.0
Total	Lumens	16988.4	0.0	16988.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	309.6	1.8
10°-20°	809.3	4.8
20°-30°	1305.9	7.7
30°-40°	1960.0	11.5
40°-50°	2780.4	16.4
50°-60°	3511.2	20.7
60°-70°	3566.1	21.0
70°-80°	2430.5	14.3
80°-90°	315.3	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°	16988.4	100.0
0°-180°	16988.4	100.0

Coefficient of Utilization

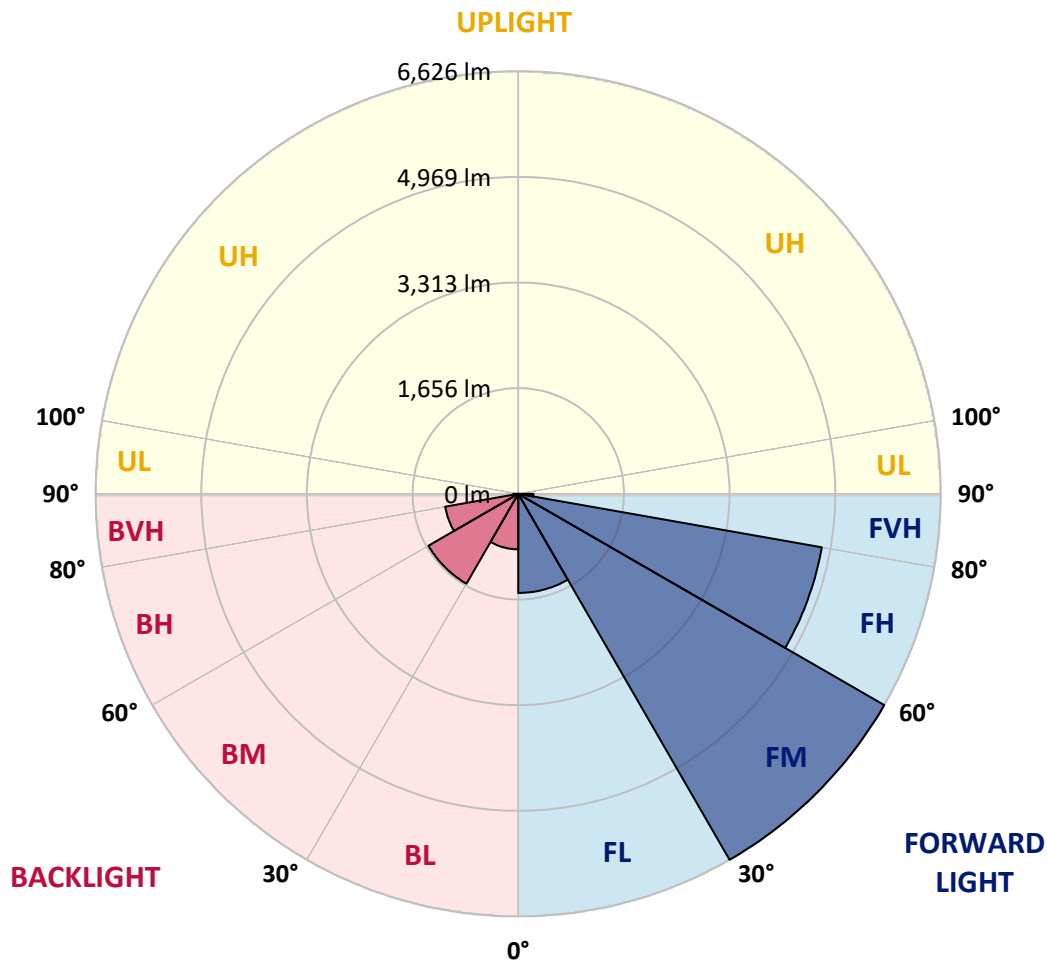


REPORT NUMBER: P965549
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1554.0	9.1			
FM (30°-60°)	6625.8	39.0			
FH (60°-80°)	4832.6	28.4			G2/5000
FVH (80°-90°)	237.5	1.4			G3/500
BL (0°-30°)	870.8	5.1	B2/1000		
BM (30°-60°)	1625.8	9.6	B2/2500		
BH (60°-80°)	1164.0	6.9	B3/2500		G3/2500
BVH (80°-90°)	77.8	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°	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3
2.5°	3412.0	3395.8	3405.8	3402.2	3406.7	3412.0	3413.9	3416.5	3425.6	3424.6	3423.7
5°	3404.8	3388.6	3402.2	3397.7	3409.4	3422.0	3432.7	3442.6	3457.0	3463.3	3454.2
7.5°	3389.6	3378.8	3392.2	3405.8	3427.3	3446.2	3461.4	3484.0	3504.6	3508.2	3514.5
10°	3300.6	3292.5	3324.0	3359.0	3418.4	3469.5	3502.8	3528.9	3551.3	3554.9	3563.9
12.5°	3208.0	3198.2	3233.3	3280.8	3377.0	3469.5	3539.6	3573.8	3593.5	3605.2	3618.8
15°	3192.8	3184.7	3204.5	3245.8	3325.8	3445.3	3564.8	3627.7	3644.8	3658.2	3663.7
17.5°	3266.5	3251.2	3259.3	3273.6	3320.4	3422.8	3584.6	3688.8	3714.9	3729.3	3729.3
20°	3437.2	3415.6	3403.1	3374.3	3366.2	3426.5	3582.8	3762.5	3796.7	3814.6	3819.2
22.5°	3664.6	3650.2	3623.3	3550.4	3471.4	3470.4	3616.9	3856.9	3920.6	3937.7	3927.0
25°	3939.5	3918.0	3883.8	3785.0	3633.1	3557.7	3674.4	3977.3	4084.2	4088.7	4057.3
27.5°	4255.8	4223.5	4176.8	4046.5	3841.6	3694.2	3762.5	4115.7	4272.0	4270.3	4205.6
30°	4589.2	4556.8	4507.4	4349.3	4091.4	3878.4	3884.7	4264.8	4494.8	4485.0	4374.5
32.5°	4832.8	4808.5	4798.6	4676.4	4379.0	4095.9	4024.9	4430.2	4769.8	4760.9	4606.3
35°	5019.6	4988.3	5000.0	4937.9	4692.6	4339.4	4196.6	4627.0	5104.2	5103.3	4911.0
37.5°	5204.7	5177.0	5186.8	5145.5	4982.8	4648.6	4406.0	4867.8	5518.4	5538.2	5279.4
40°	5373.8	5344.0	5383.6	5345.0	5208.3	4977.4	4644.1	5140.1	5998.3	6036.0	5725.0
42.5°	5475.2	5451.9	5517.5	5518.4	5404.3	5255.1	4905.5	5440.2	6553.6	6638.1	6273.2
45°	5510.3	5502.2	5601.1	5621.7	5577.7	5416.0	5141.0	5767.4	7152.0	7303.0	6897.7
47.5°	5472.6	5457.3	5593.9	5670.3	5705.4	5491.4	5335.9	6121.4	7763.1	7984.2	7579.0
50°	5282.0	5252.4	5455.5	5616.4	5741.2	5540.8	5532.7	6530.3	8457.8	8699.5	8263.7
52.5°	4939.7	4917.2	5148.2	5427.7	5662.2	5565.1	5753.8	6976.9	9117.4	9430.1	8965.5
55°	4502.1	4472.4	4726.7	5091.6	5465.4	5557.0	5974.9	7476.5	9895.6	10212.8	9690.7
57.5°	3808.4	3749.0	4070.7	4502.1	5144.6	5547.2	6204.9	7973.5	10686.3	11066.4	10464.4
60°	2796.5	2708.5	3102.9	3614.3	4517.4	5451.1	6489.8	8530.6	11635.3	11977.6	11309.1
62.5°	1628.3	1577.1	1835.0	2312.1	3404.8	4884.8	6649.8	9178.5	12568.0	12927.5	12139.4
65°	1264.3	1250.0	1272.4	1309.3	1895.2	3657.4	6156.5	9810.2	13754.3	14005.8	13004.8
67.5°	1156.5	1145.7	1155.6	1086.4	961.6	2037.2	4870.5	9970.2	15024.9	15177.6	13762.3
70°	1028.0	1015.5	1047.8	988.5	756.7	926.5	3147.0	9389.6	16035.8	16322.5	14338.3
72.5°	837.5	823.2	898.6	871.7	637.1	594.9	1580.7	8010.3	15929.7	16524.6	13925.9
75°	643.4	635.3	725.2	747.6	519.4	468.2	758.4	5954.2	14018.4	14617.8	12001.9
77.5°	499.6	493.3	539.2	620.9	418.7	363.1	466.4	3776.9	10564.2	10669.2	8270.8
80°	374.7	356.7	399.0	480.7	326.2	265.1	316.3	2202.5	6677.7	6053.0	3599.9
82.5°	234.5	225.6	260.6	320.8	230.0	182.4	205.8	1216.8	2676.1	1576.1	694.6
85°	133.9	130.3	142.0	183.3	124.9	105.2	117.7	537.4	488.8	336.1	209.4
87.5°	53.9	52.1	64.7	81.8	45.8	38.6	41.3	129.4	107.8	99.7	69.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P965549
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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3	3410.3
2.5°	3420.1	3420.1	3407.5	3387.8	3365.3	3350.9	3327.6	3321.3	3297.0	3289.8	3301.5
5°	3461.4	3454.2	3415.6	3360.0	3283.6	3213.5	3136.2	3087.6	3019.3	2995.0	3013.1
7.5°	3513.6	3493.8	3427.3	3305.1	3145.1	2987.9	2824.4	2700.4	2581.8	2539.5	2544.9
10°	3561.3	3533.4	3420.1	3206.3	2929.4	2657.2	2396.7	2214.2	2075.8	2019.1	2031.8
12.5°	3608.8	3557.7	3372.6	3041.8	2623.1	2253.8	1976.1	1834.0	1748.8	1680.4	1702.8
15°	3653.8	3581.9	3298.9	2821.6	2287.0	1912.2	1707.3	1594.2	1525.8	1480.9	1489.0
17.5°	3705.9	3602.6	3188.3	2542.2	1967.1	1675.9	1508.8	1440.4	1427.0	1421.6	1425.2
20°	3778.7	3621.4	3042.7	2229.5	1731.6	1487.2	1401.0	1394.6	1393.8	1391.0	1400.0
22.5°	3856.9	3643.9	2850.4	1945.6	1531.2	1369.5	1354.2	1341.6	1333.5	1332.6	1342.5
25°	3949.4	3651.0	2609.5	1712.8	1360.5	1313.7	1295.8	1276.9	1271.5	1271.5	1276.9
27.5°	4039.3	3626.9	2329.2	1510.5	1264.3	1262.6	1239.2	1232.9	1232.0	1234.7	1241.9
30°	4129.1	3580.9	2050.6	1323.7	1208.7	1208.7	1200.6	1205.1	1208.7	1217.6	1224.0
32.5°	4250.5	3532.5	1817.9	1185.3	1160.1	1151.2	1159.2	1168.2	1171.8	1183.5	1193.4
35°	4428.4	3498.3	1632.8	1109.8	1109.8	1098.1	1102.6	1100.8	1092.8	1087.3	1099.9
37.5°	4663.9	3496.5	1480.0	1074.7	1067.5	1065.8	1066.6	1054.9	1023.6	985.7	986.7
40°	4946.9	3545.1	1362.3	1050.5	1045.1	1055.9	1050.5	1019.1	932.7	867.2	865.4
42.5°	5327.0	3683.4	1286.8	1020.8	1037.0	1050.5	1028.9	920.1	861.8	817.7	815.9
45°	5774.5	3908.1	1248.1	989.3	1021.7	1037.9	933.7	886.0	839.3	786.3	782.7
47.5°	6281.3	4191.1	1239.2	959.7	987.6	997.4	893.2	871.7	818.7	761.2	756.7
50°	6833.1	4526.3	1263.4	924.7	938.2	904.0	879.8	860.0	805.1	748.6	742.3
52.5°	7403.7	4895.7	1312.0	877.1	888.8	851.0	874.3	857.3	797.0	720.7	715.3
55°	7964.5	5267.7	1358.7	821.3	838.4	803.4	859.1	846.5	760.2	673.9	669.4
57.5°	8534.2	5637.9	1404.6	771.9	789.9	757.6	834.9	817.7	718.9	630.8	629.0
60°	9126.4	5997.4	1426.1	724.3	736.9	715.3	798.0	768.3	672.2	586.8	584.1
62.5°	9680.8	6296.6	1391.0	676.7	684.7	675.8	749.5	709.9	625.5	537.4	536.5
65°	10237.1	6474.5	1283.2	630.0	631.7	627.2	681.1	647.0	570.6	494.3	488.8
67.5°	10741.2	6574.2	1111.6	579.6	575.1	573.3	617.4	578.7	517.6	451.1	445.7
70°	10848.1	6320.9	849.2	520.3	520.3	515.8	547.2	507.7	459.2	405.3	403.4
72.5°	9908.2	5317.1	603.0	452.9	460.1	451.1	477.1	443.9	399.9	364.0	353.1
75°	7989.6	3899.1	438.5	383.8	396.3	381.0	405.3	381.9	344.2	343.3	309.1
77.5°	5489.7	2411.0	318.2	316.3	325.3	305.6	333.4	320.8	286.7	271.4	254.3
80°	2342.7	961.6	231.9	244.5	244.5	226.4	258.8	262.4	232.8	225.6	225.6
82.5°	466.4	273.2	162.7	168.0	158.2	152.7	183.3	203.1	280.3	311.8	312.7
85°	140.2	100.7	98.0	91.6	80.9	81.8	107.8	204.0	251.6	143.8	124.0
87.5°	38.6	25.1	26.0	20.7	17.1	22.4	36.8	154.6	84.5	36.0	30.5
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)