

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: P969238

Luminaire Tested: **NAV-SB5D-727-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969238
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-SB5D-727-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 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: 48574.7 lumens
Efficiency: N/A
Efficacy: 133.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B4 - U0 - G5

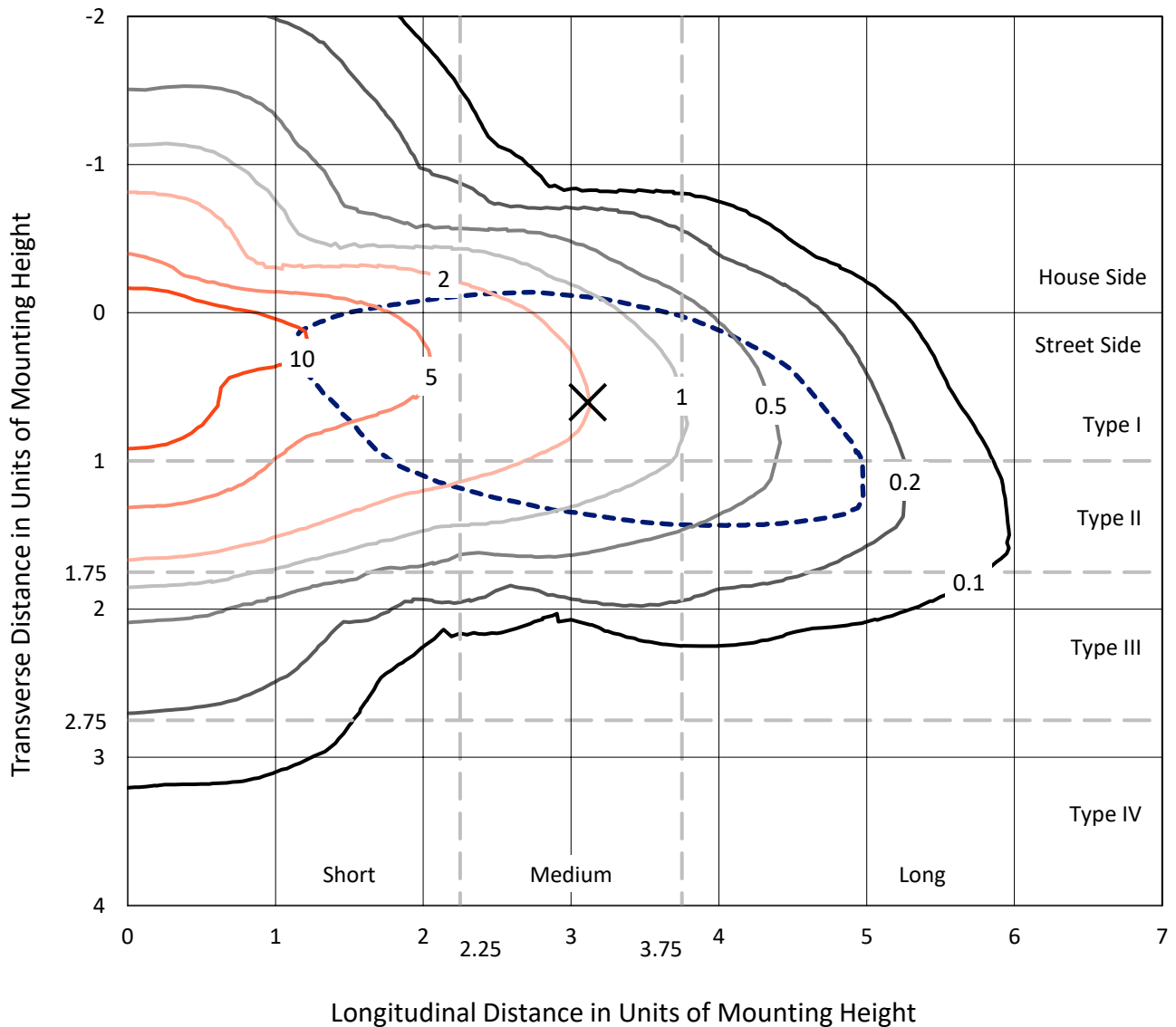
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P969238
 CATALOG NUMBER: NAV-SB5D-727-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

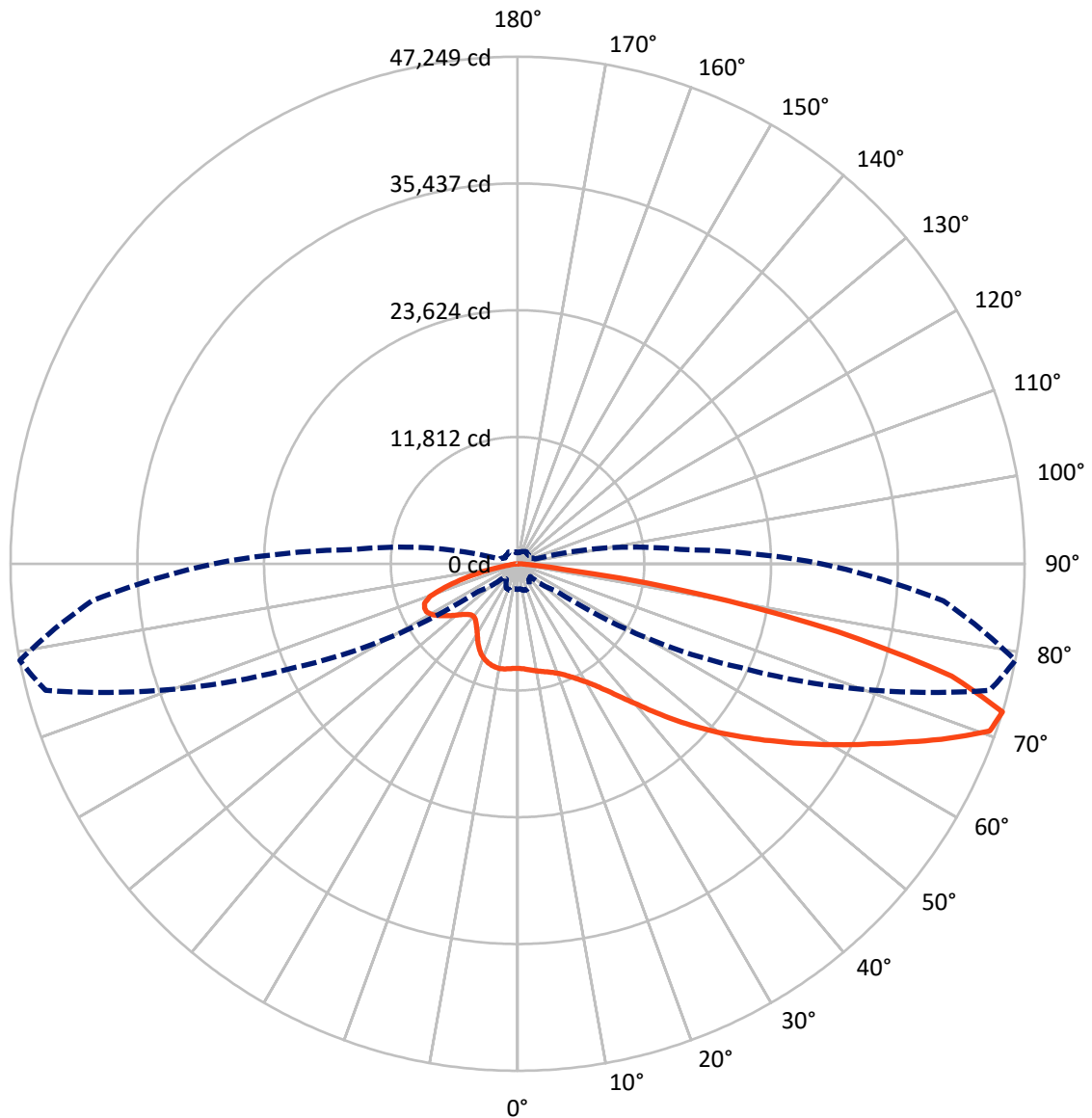
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.7 fc
 Type II - Medium - N/A

REPORT NUMBER: P969238
CATALOG NUMBER: NAV-SB5D-727-U-SL2

Luminous Intensity Polar Plot



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

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 CATALOG NUMBER: NAV-SB5D-727-U-SL2

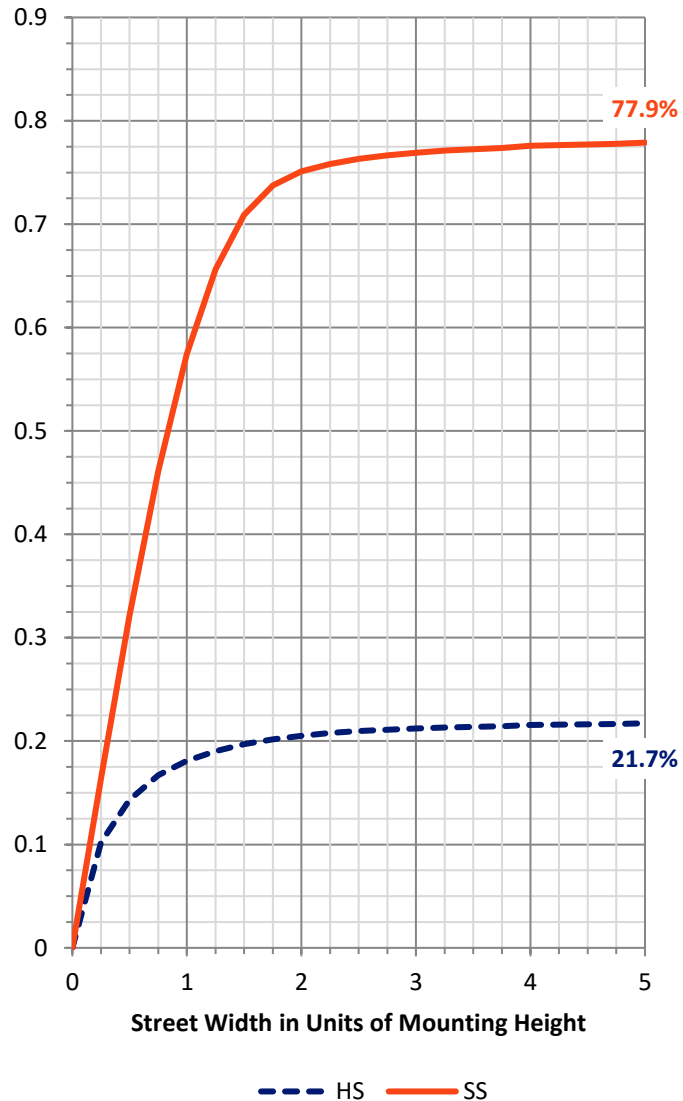
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10689.1	0.0	10689.1
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	37885.6	0.0	37885.6
	% Fixture	78.0	0.0	78.0
Total	Lumens	48574.7	0.0	48574.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	885.1	1.8
10°-20°	2314.1	4.8
20°-30°	3734.0	7.7
30°-40°	5604.2	11.5
40°-50°	7949.9	16.4
50°-60°	10039.7	20.7
60°-70°	10196.6	21.0
70°-80°	6949.5	14.3
80°-90°	901.6	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°	48574.7	100.0
0°-180°	48574.7	100.0

Coefficient of Utilization



REPORT NUMBER: P969238

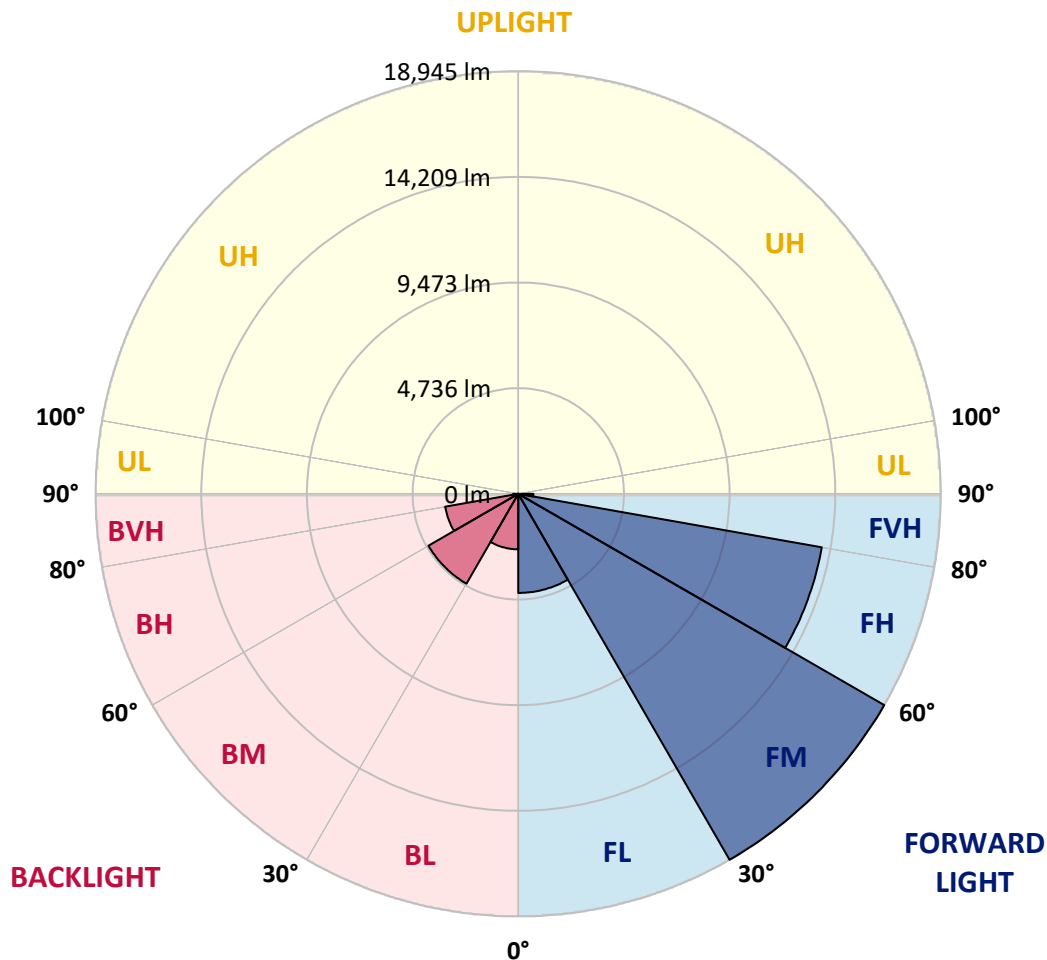
CATALOG NUMBER: NAV-SB5D-727-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4443.4	9.1			
FM (30°-60°)	18945.1	39.0			
FH (60°-80°)	13817.9	28.4			G5
FVH (80°-90°)	679.2	1.4			G4/750
BL (0°-30°)	2489.8	5.1	B3/2500		
BM (30°-60°)	4648.6	9.6	B3/5000		
BH (60°-80°)	3328.2	6.9	B4/5000		G4/5000
BVH (80°-90°)	222.4	0.5			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 II Medium



REPORT NUMBER: P969238
 CATALOG NUMBER: NAV-SB5D-727-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9
2.5°	9756.1	9709.8	9738.1	9727.8	9740.7	9756.1	9761.2	9768.9	9794.6	9792.0	9789.5
5°	9735.6	9689.2	9727.8	9714.9	9748.4	9784.3	9815.2	9843.4	9884.5	9902.5	9876.8
7.5°	9691.8	9661.0	9699.6	9738.1	9799.7	9853.7	9897.4	9961.6	10020.7	10031.0	10049.0
10°	9437.5	9414.3	9504.2	9604.5	9774.1	9920.5	10015.6	10090.1	10154.4	10164.6	10190.2
12.5°	9172.8	9144.5	9244.8	9380.9	9655.8	9920.5	10121.0	10218.5	10275.1	10308.5	10347.1
15°	9129.2	9106.0	9162.5	9280.8	9509.4	9851.2	10192.9	10372.7	10421.6	10460.1	10475.5
17.5°	9339.8	9296.1	9319.3	9360.4	9494.0	9786.9	10249.4	10547.5	10622.0	10663.1	10663.1
20°	9828.0	9766.3	9730.3	9648.1	9625.1	9797.2	10244.3	10758.1	10855.8	10907.1	10920.0
22.5°	10478.1	10437.0	10359.9	10151.7	9925.7	9923.0	10341.8	11027.9	11210.3	11259.2	11228.4
25°	11264.3	11202.6	11105.0	10822.4	10388.2	10172.3	10506.4	11372.2	11677.9	11690.8	11600.8
27.5°	12168.7	12076.2	11942.6	11570.1	10984.2	10562.8	10758.1	11767.9	12215.0	12209.8	12024.9
30°	13121.9	13029.5	12888.1	12435.9	11698.5	11089.6	11107.6	12194.4	12852.2	12824.0	12507.9
32.5°	13818.3	13748.9	13720.6	13371.2	12520.8	11711.3	11508.4	12667.2	13638.4	13612.7	13170.8
35°	14352.8	14262.8	14296.2	14119.0	13417.5	12407.7	11999.2	13229.9	14594.3	14591.7	14041.9
37.5°	14882.1	14802.3	14830.6	14712.4	14247.4	13291.6	12597.9	13918.5	15778.7	15835.3	15095.3
40°	15365.1	15280.3	15393.3	15282.9	14892.3	14232.0	13278.8	14697.1	17150.8	17258.7	16369.8
42.5°	15655.4	15588.6	15776.2	15778.7	15452.5	15025.9	14026.4	15555.2	18738.7	18980.2	17937.1
45°	15755.7	15732.5	16015.1	16074.3	15948.4	15485.8	14699.6	16490.5	20450.0	20881.6	19722.8
47.5°	15647.8	15604.1	15994.6	16213.0	16313.2	15701.7	15257.1	17502.8	22197.2	22829.2	21670.4
50°	15103.0	15018.2	15598.9	16058.8	16416.0	15843.0	15819.8	18671.9	24183.3	24874.5	23628.3
52.5°	14124.1	14059.8	14720.1	15519.2	16189.9	15912.4	16452.0	19949.0	26069.2	26963.4	25635.0
55°	12872.8	12788.0	13515.1	14558.3	15627.1	15889.2	17084.0	21377.5	28294.4	29201.3	27708.5
57.5°	10889.2	10719.6	11639.4	12872.8	14709.9	15861.0	17741.8	22798.4	30555.5	31642.3	29920.8
60°	7996.0	7744.2	8872.2	10334.2	12916.4	15586.0	18556.3	24391.4	33268.7	34247.7	32336.1
62.5°	4655.8	4509.3	5246.8	6611.1	9735.6	13967.4	19013.6	26244.0	35935.8	36963.5	34710.2
65°	3615.2	3574.1	3638.2	3743.6	5418.9	10457.5	17603.0	28050.3	39327.4	40046.9	37184.5
67.5°	3306.9	3276.0	3304.3	3106.5	2749.3	5824.9	13926.3	28507.6	42960.6	43397.4	39350.6
70°	2939.4	2903.4	2996.0	2826.3	2163.5	2649.1	8998.1	26847.8	45851.1	46670.8	40997.5
72.5°	2394.7	2353.6	2569.4	2492.3	1821.7	1701.0	4519.6	22903.7	45547.9	47248.9	39818.2
75°	1839.7	1816.6	2073.5	2137.7	1485.1	1338.6	2168.6	17024.9	40082.8	41796.6	34317.1
77.5°	1428.5	1410.6	1541.6	1775.5	1197.3	1038.0	1333.5	10799.2	30206.0	30506.7	23648.9
80°	1071.4	1020.1	1140.8	1374.6	932.6	758.0	904.5	6297.6	19093.3	17307.5	10293.0
82.5°	670.7	644.9	745.2	917.3	657.7	521.6	588.3	3479.0	7651.7	4506.7	1986.1
85°	382.8	372.6	406.0	524.2	357.1	300.6	336.6	1536.5	1397.8	960.9	598.7
87.5°	154.2	149.0	185.0	233.8	131.0	110.5	118.2	370.0	308.3	285.2	197.8
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: P969238
 CATALOG NUMBER: NAV-SB5D-727-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9	9750.9
2.5°	9779.2	9779.2	9743.2	9686.7	9622.5	9581.3	9514.6	9496.5	9427.1	9406.6	9440.0
5°	9897.4	9876.8	9766.3	9607.0	9388.6	9188.2	8967.2	8828.5	8633.3	8563.9	8615.2
7.5°	10046.4	9989.9	9799.7	9450.3	8992.9	8543.3	8075.7	7721.1	7381.9	7261.2	7276.6
10°	10182.6	10102.9	9779.2	9167.7	8376.3	7597.7	6852.6	6331.0	5935.4	5773.5	5809.4
12.5°	10318.8	10172.3	9643.0	8697.4	7500.1	6444.1	5650.1	5244.2	5000.1	4804.8	4869.1
15°	10447.2	10241.7	9432.4	8068.0	6539.2	5467.8	4881.9	4558.2	4362.9	4234.4	4257.5
17.5°	10596.2	10300.7	9116.2	7268.9	5624.5	4792.0	4314.0	4118.8	4080.2	4064.8	4075.1
20°	10804.4	10354.8	8700.0	6374.7	4951.3	4252.4	4005.7	3987.8	3985.2	3977.4	4003.1
22.5°	11027.9	10418.9	8150.2	5562.8	4378.3	3915.8	3872.1	3836.2	3813.0	3810.4	3838.7
25°	11292.5	10439.5	7461.6	4897.3	3890.1	3756.5	3705.1	3651.2	3635.7	3635.7	3651.2
27.5°	11549.5	10370.1	6659.9	4319.1	3615.2	3610.0	3543.2	3525.3	3522.6	3530.4	3550.9
30°	11806.5	10239.1	5863.4	3784.7	3455.9	3455.9	3432.7	3445.5	3455.9	3481.5	3499.6
32.5°	12153.3	10100.3	5197.9	3389.1	3317.1	3291.4	3314.5	3340.3	3350.5	3383.9	3412.2
35°	12662.0	10002.8	4668.7	3173.2	3173.2	3139.8	3152.7	3147.6	3124.4	3109.0	3145.0
37.5°	13335.2	9997.5	4231.8	3073.1	3052.4	3047.3	3049.9	3016.5	2926.6	2818.6	2821.2
40°	14144.6	10136.3	3895.2	3003.7	2988.2	3019.0	3003.7	2913.7	2667.0	2479.5	2474.4
42.5°	15231.5	10532.0	3679.4	2918.9	2965.1	3003.7	2942.0	2631.1	2464.1	2338.1	2333.0
45°	16511.0	11174.3	3568.9	2828.9	2921.5	2967.7	2669.6	2533.4	2399.8	2248.2	2238.0
47.5°	17960.2	11983.8	3543.2	2744.1	2823.8	2852.1	2554.0	2492.3	2340.7	2176.3	2163.5
50°	19537.8	12942.2	3612.6	2643.9	2682.4	2584.8	2515.5	2459.0	2302.1	2140.3	2122.4
52.5°	21169.4	13998.1	3751.3	2507.8	2541.2	2433.2	2500.1	2451.2	2279.1	2060.7	2045.3
55°	22772.7	15061.9	3885.0	2348.5	2397.3	2297.0	2456.3	2420.4	2173.7	1927.1	1914.2
57.5°	24401.7	16120.5	4016.0	2207.1	2258.5	2166.0	2387.0	2338.1	2055.5	1803.7	1798.6
60°	26095.0	17148.2	4077.7	2070.9	2106.9	2045.3	2281.6	2196.9	1921.9	1677.8	1670.1
62.5°	27680.2	18003.9	3977.4	1934.8	1957.9	1932.2	2142.9	2029.8	1788.3	1536.5	1533.9
65°	29270.7	18512.6	3669.1	1801.1	1806.3	1793.4	1947.6	1850.0	1631.6	1413.2	1397.8
67.5°	30712.2	18797.8	3178.3	1657.2	1644.4	1639.3	1765.2	1654.7	1480.0	1289.9	1274.4
70°	31017.9	18073.2	2428.1	1487.7	1487.7	1474.9	1564.8	1451.7	1312.9	1158.8	1153.6
72.5°	28330.4	15203.2	1724.0	1295.0	1315.6	1289.9	1364.4	1269.3	1143.4	1040.6	1009.8
75°	22844.7	11148.7	1253.9	1097.2	1133.1	1089.5	1158.8	1092.0	984.1	981.5	883.9
77.5°	15696.5	6893.7	909.6	904.5	930.1	873.6	953.2	917.3	819.7	775.9	727.1
80°	6698.5	2749.3	662.9	698.8	698.8	647.5	739.9	750.3	665.4	644.9	644.9
82.5°	1333.5	781.2	465.0	480.5	452.2	436.8	524.2	580.7	801.7	891.5	894.1
85°	400.9	287.8	280.0	262.1	231.2	233.8	308.3	583.2	719.4	411.1	354.5
87.5°	110.5	72.0	74.5	59.1	48.8	64.3	105.4	442.0	241.5	102.8	87.3
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)