

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: P967246

Luminaire Tested: **NAV-SB4D-740-U-T4W**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967246
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-740-U-T4W
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 44139.6 lumens
Efficiency: N/A
Efficacy: 150.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

Input Watts (W): 293.6
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

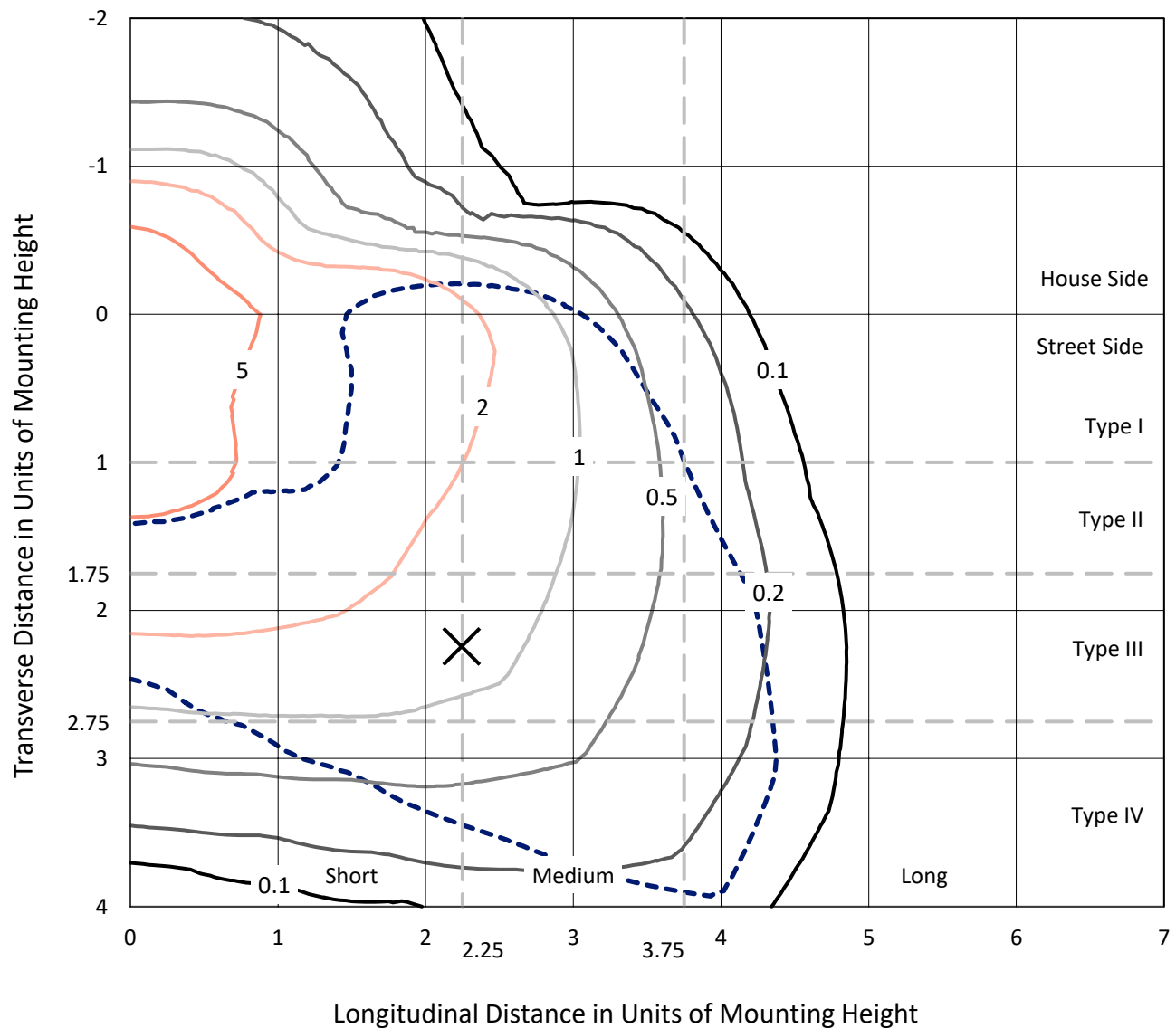


REPORT NUMBER: P967246

CATALOG NUMBER: NAV-SB4D-740-U-T4W

Iso-Footcandle Lines of Horizontal Illumination

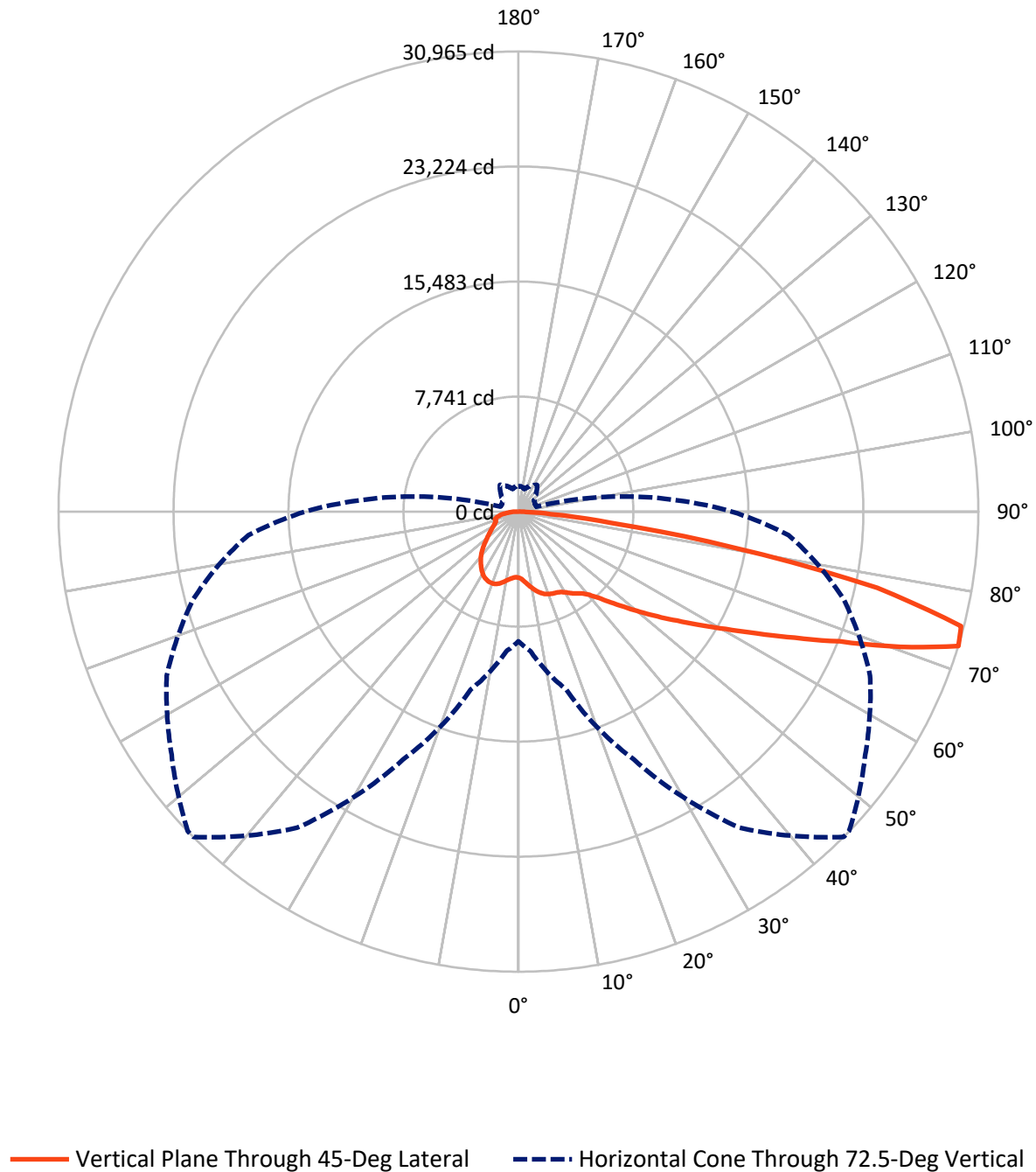
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
Type IV - Short - N/A

REPORT NUMBER: P967246
CATALOG NUMBER: NAV-SB4D-740-U-T4W

Luminous Intensity Polar Plot



REPORT NUMBER: P967246

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9978.4	0.0	9978.4
	% Fixture	22.6	0.0	22.6
Street Side	Lumens	34161.1	0.0	34161.1
	% Fixture	77.4	0.0	77.4
Total	Lumens	44139.6	0.0	44139.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	453.2	1.0
10°-20°	1511.1	3.4
20°-30°	2628.6	6.0
30°-40°	3768.2	8.5
40°-50°	5305.8	12.0
50°-60°	8127.0	18.4
60°-70°	11773.2	26.7
70°-80°	9401.6	21.3
80°-90°	1170.9	2.7
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°	44139.6	100.0
0°-180°	44139.6	100.0

Coefficient of Utilization



REPORT NUMBER: P967246

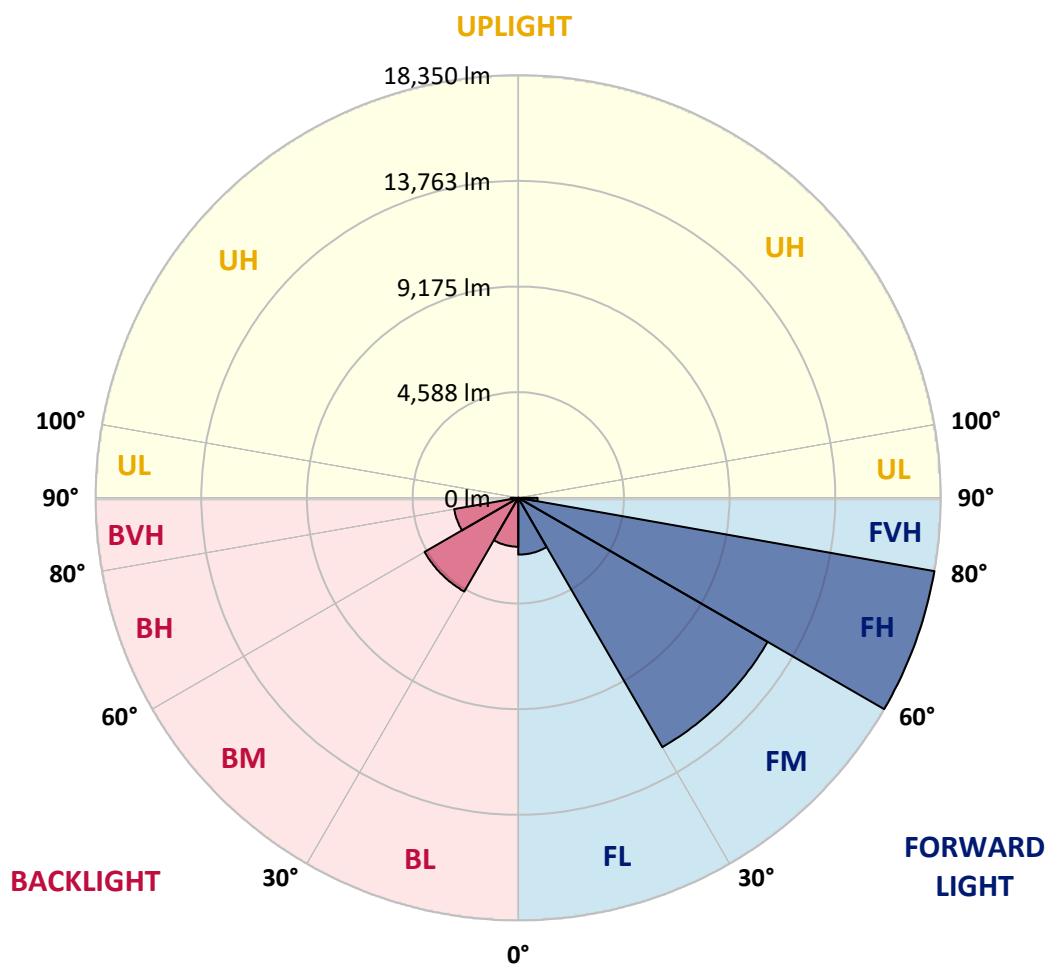
CATALOG NUMBER: NAV-SB4D-740-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2468.3	5.6			
FM	(30°-60°)	12502.6	28.3			
FH	(60°-80°)	18350.1	41.6			G5
FVH	(80°-90°)	840.0	1.9			G5
BL	(0°-30°)	2124.5	4.8	B3/2500		
BM	(30°-60°)	4698.4	10.6	B3/5000		
BH	(60°-80°)	2824.6	6.4	B4/5000		G4/5000
BVH	(80°-90°)	330.9	0.7			G3/500
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 Short



REPORT NUMBER: P967246

CATALOG NUMBER: NAV-SB4D-740-U-T4W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8
2.5°	4627.3	4657.4	4629.5	4604.0	4592.3	4562.1	4559.8	4541.2	4529.6	4497.0	4487.7
5°	4950.4	4989.9	4943.5	4892.3	4845.8	4771.4	4762.0	4708.6	4648.2	4578.4	4538.9
7.5°	5315.4	5350.4	5296.9	5220.1	5138.7	5015.5	5013.2	4915.6	4820.2	4701.7	4634.2
10°	5634.0	5680.5	5608.5	5503.8	5401.5	5262.0	5245.7	5134.1	5013.2	4859.7	4757.4
12.5°	5915.4	5948.0	5878.2	5750.4	5631.8	5492.2	5471.2	5348.0	5213.2	5038.8	4908.5
15°	6138.6	6180.4	6087.5	5950.2	5824.7	5687.5	5669.0	5557.3	5422.5	5238.8	5071.3
17.5°	6285.1	6319.9	6224.6	6071.2	5950.2	5836.3	5822.4	5729.3	5610.7	5424.8	5245.7
20°	6341.0	6378.2	6278.1	6122.3	6010.7	5922.3	5915.4	5847.9	5766.5	5596.8	5415.5
22.5°	6396.7	6431.6	6301.4	6138.6	6040.9	5985.2	5982.8	5938.6	5906.0	5766.5	5589.8
25°	6622.2	6631.5	6457.2	6222.4	6082.9	6034.0	6031.6	6029.4	6043.3	5934.0	5778.2
27.5°	6817.6	6815.2	6666.5	6445.5	6229.3	6127.0	6124.7	6148.0	6192.1	6101.4	5973.5
30°	7103.6	7078.0	6901.3	6671.1	6473.5	6315.3	6301.4	6280.5	6315.3	6243.3	6168.9
32.5°	7710.5	7629.1	7343.1	6933.8	6675.7	6554.9	6536.2	6406.0	6420.0	6375.8	6338.6
35°	8580.1	8473.2	8091.9	7431.5	6926.8	6754.9	6745.5	6580.4	6552.5	6513.0	6526.9
37.5°	9614.8	9482.3	9038.1	8152.2	7359.4	6987.3	6973.4	6824.6	6710.7	6668.8	6747.8
40°	10654.3	10486.8	10119.4	9031.2	7996.4	7375.6	7331.4	7105.9	6975.7	6905.9	7073.3
42.5°	11663.4	11523.9	11209.9	10017.1	8782.4	7943.0	7845.4	7459.3	7361.7	7296.6	7598.8
45°	12556.2	12430.7	12200.5	11070.4	9703.2	8715.0	8619.6	7989.5	7959.2	7959.2	8396.4
47.5°	13281.7	13253.9	13009.7	12144.7	10789.0	9593.9	9428.9	8726.6	8808.0	8933.6	9528.8
50°	14086.3	14009.5	13749.1	13202.7	12065.7	10600.8	10465.9	9631.1	9935.7	10279.8	11165.7
52.5°	14825.7	14867.5	14576.9	14304.8	13507.2	11723.8	11486.7	10698.4	11356.5	11926.1	13084.1
55°	15586.0	15588.4	15507.0	15469.8	15018.7	12965.5	12705.1	11981.9	13028.3	13735.2	15321.0
57.5°	16299.9	16304.6	16425.4	16753.3	16771.9	14397.9	14102.6	13558.4	14886.2	15607.0	17627.6
60°	16937.0	16969.6	17299.7	18067.1	18313.6	16039.5	15760.4	15420.9	16806.8	17532.3	20052.8
62.5°	17150.9	17269.5	18004.3	19094.8	19836.6	18053.1	17778.7	17576.5	18825.0	19499.4	22080.4
65°	16788.2	17060.2	18481.0	19943.5	21403.7	20445.8	20173.7	19952.9	20922.5	21557.3	23745.3
67.5°	15897.6	16248.7	18453.1	20834.1	23305.8	23324.4	23071.0	22552.5	23170.9	23415.1	24287.1
70°	13551.4	14076.9	16827.7	21166.7	25489.2	27261.0	27017.0	25682.2	25414.8	24233.6	22761.8
72.5°	8731.3	9438.1	12391.2	18429.8	25975.2	30965.1	30951.2	28507.4	26124.0	22643.2	18255.5
75°	3185.6	3618.0	5757.3	11568.0	21803.7	30776.8	30867.5	28023.7	23847.6	17490.4	11372.7
77.5°	1160.3	1269.6	1878.8	4445.8	13409.7	24694.0	24882.3	22403.6	16974.2	8777.8	4506.3
80°	609.3	669.6	962.7	1725.3	5745.6	14665.3	14960.6	13314.3	7977.9	2643.8	1350.9
82.5°	337.1	365.1	539.5	937.1	2588.0	6271.2	6447.9	5259.7	2806.6	1120.7	558.0
85°	181.3	193.0	253.5	511.6	1265.0	2174.1	2222.9	1571.8	1118.5	658.0	269.7
87.5°	53.5	65.1	83.7	162.8	495.3	488.3	499.9	311.6	441.8	332.5	88.4
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: P967246

CATALOG NUMBER: NAV-SB4D-740-U-T4W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8	4452.8
2.5°	4473.7	4466.7	4441.2	4429.5	4415.6	4413.3	4424.9	4427.3	4429.5	4431.9	4441.2
5°	4515.6	4492.4	4469.1	4455.2	4459.8	4462.1	4485.4	4501.7	4513.3	4522.6	4527.2
7.5°	4597.0	4578.4	4538.9	4536.5	4543.5	4564.4	4594.7	4631.9	4652.8	4669.1	4673.7
10°	4717.9	4683.0	4636.5	4643.5	4657.4	4687.6	4750.5	4780.7	4815.6	4845.8	4838.8
12.5°	4841.2	4810.9	4757.4	4762.0	4785.3	4838.8	4899.3	4936.5	4959.8	4982.9	4992.3
15°	5001.6	4948.1	4890.0	4890.0	4931.8	4989.9	5017.9	5048.1	5062.1	5087.6	5096.9
17.5°	5166.7	5096.9	5020.1	5015.5	5066.7	5094.6	5110.9	5115.5	5120.2	5148.1	5157.4
20°	5331.7	5255.1	5145.7	5136.5	5148.1	5143.4	5141.1	5136.5	5143.4	5178.3	5192.2
22.5°	5494.5	5406.2	5255.1	5213.2	5180.7	5136.5	5134.1	5131.8	5136.5	5171.3	5194.6
25°	5685.2	5578.3	5375.9	5250.4	5141.1	5080.6	5087.6	5089.9	5094.6	5122.5	5159.6
27.5°	5892.1	5773.5	5487.5	5238.8	5041.2	4999.2	4987.6	4994.6	5010.9	5055.1	5099.3
30°	6099.1	5959.6	5589.8	5192.2	4915.6	4857.4	4820.2	4836.5	4887.6	4931.8	4980.7
32.5°	6287.5	6148.0	5671.2	5089.9	4755.1	4664.5	4615.6	4636.5	4687.6	4703.9	4762.0
35°	6508.3	6350.2	5706.2	4927.2	4580.7	4441.2	4376.1	4345.9	4371.4	4355.1	4406.3
37.5°	6754.9	6589.7	5701.5	4713.3	4376.1	4215.6	4125.0	4011.0	3957.5	3901.8	3936.6
40°	7119.9	6882.7	5645.7	4455.2	4122.7	3976.2	3813.4	3620.4	3499.5	3390.2	3397.2
42.5°	7617.5	7289.6	5543.4	4171.4	3836.7	3699.4	3478.5	3253.0	3062.3	2881.0	2864.7
45°	8359.2	7822.1	5415.5	3869.2	3527.3	3392.5	3153.0	2899.5	2683.3	2450.8	2422.9
47.5°	9428.9	8538.2	5294.5	3525.1	3201.9	3078.6	2862.3	2627.5	2371.7	2146.1	2120.6
50°	10898.4	9566.0	5182.9	3190.2	2881.0	2788.0	2615.9	2376.4	2118.3	1936.9	1925.3
52.5°	12767.9	10963.5	5136.5	2867.0	2581.1	2546.1	2409.0	2185.7	1941.6	1788.1	1776.5
55°	14914.1	12635.3	5136.5	2557.8	2318.2	2329.9	2234.5	2027.7	1816.0	1678.8	1664.9
57.5°	17104.4	14328.1	5043.4	2271.7	2095.0	2143.9	2083.4	1902.1	1711.3	1569.6	1546.3
60°	19122.7	15746.5	4666.7	2011.4	1897.4	1974.2	1934.6	1778.8	1546.3	1427.7	1409.1
62.5°	20673.6	16546.4	3941.2	1804.4	1734.6	1823.0	1802.1	1616.0	1516.1	1467.2	1451.0
65°	21450.3	16416.2	3013.5	1620.7	1597.5	1734.6	1690.4	1683.5	1604.4	1548.6	1530.0
67.5°	20973.7	15295.4	2185.7	1485.8	1518.3	1653.2	1823.0	1850.8	1704.4	1595.1	1576.6
70°	18883.3	13267.8	1627.7	1357.9	1418.4	1655.6	2078.8	1936.9	1671.9	1544.0	1523.0
72.5°	14365.3	9893.9	1262.6	1223.0	1288.2	1667.2	2192.7	1897.4	1578.8	1706.7	1692.8
75°	8215.1	5431.8	1013.8	1058.0	1125.4	1557.9	2134.6	1795.1	1506.7	1567.2	1567.2
77.5°	3132.1	2088.0	837.1	895.2	904.6	1360.3	2041.6	1788.1	1434.7	1399.7	1276.5
80°	1085.9	816.2	692.9	711.6	699.9	1209.1	1957.9	1555.5	1174.2	1051.0	1016.1
82.5°	444.1	406.9	548.8	525.5	497.6	939.4	1581.2	1271.9	960.3	848.7	839.4
85°	193.0	258.1	362.7	318.6	288.3	651.1	1267.2	1076.6	811.5	699.9	697.6
87.5°	39.6	97.7	153.4	144.1	148.8	434.8	899.8	765.0	574.3	430.2	337.1
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)