

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: P967351

Luminaire Tested: **NAV-SB4D-830-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967351
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37234.1 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
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



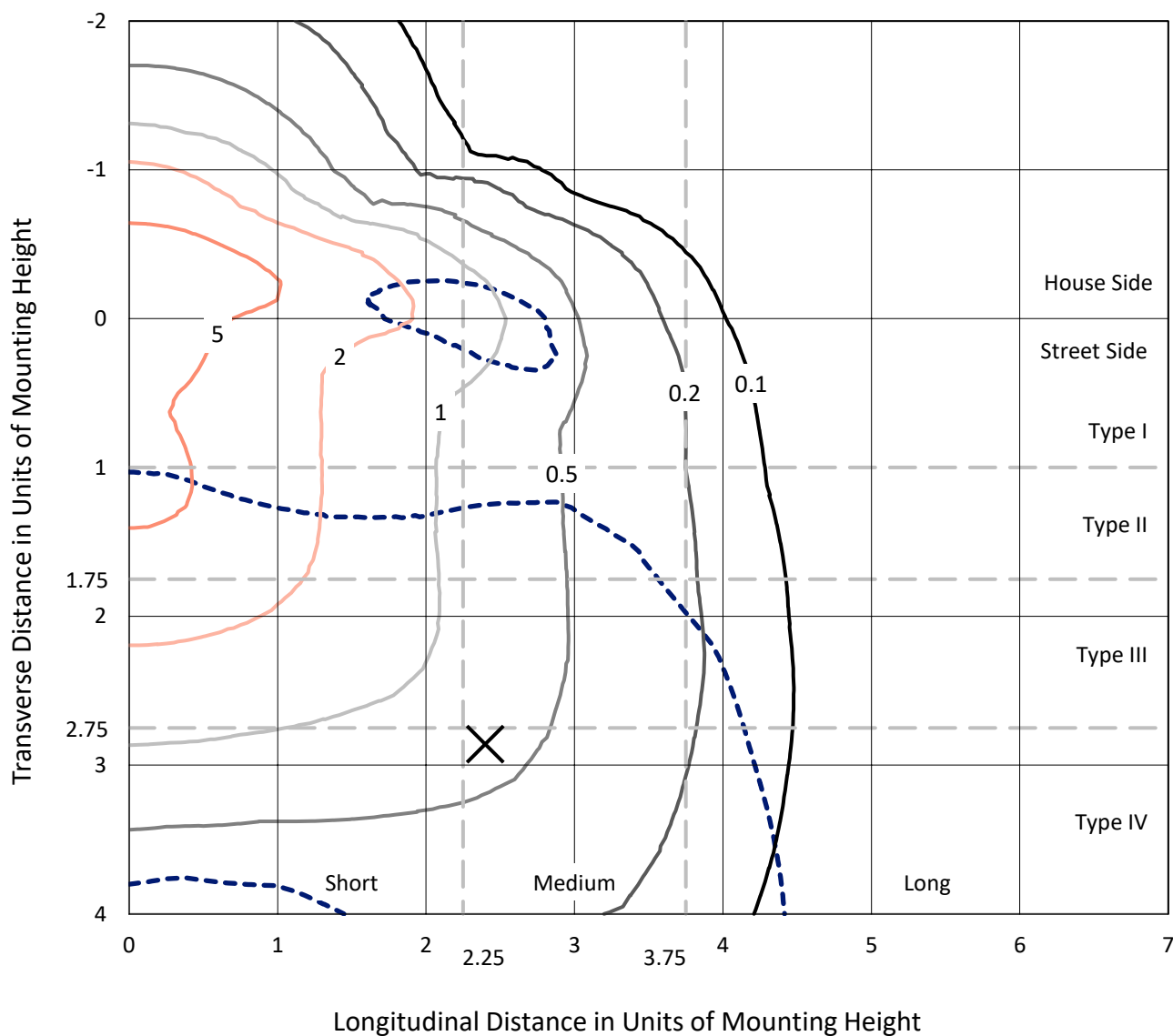
REPORT NUMBER: P967351

CATALOG NUMBER: NAV-SB4D-830-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

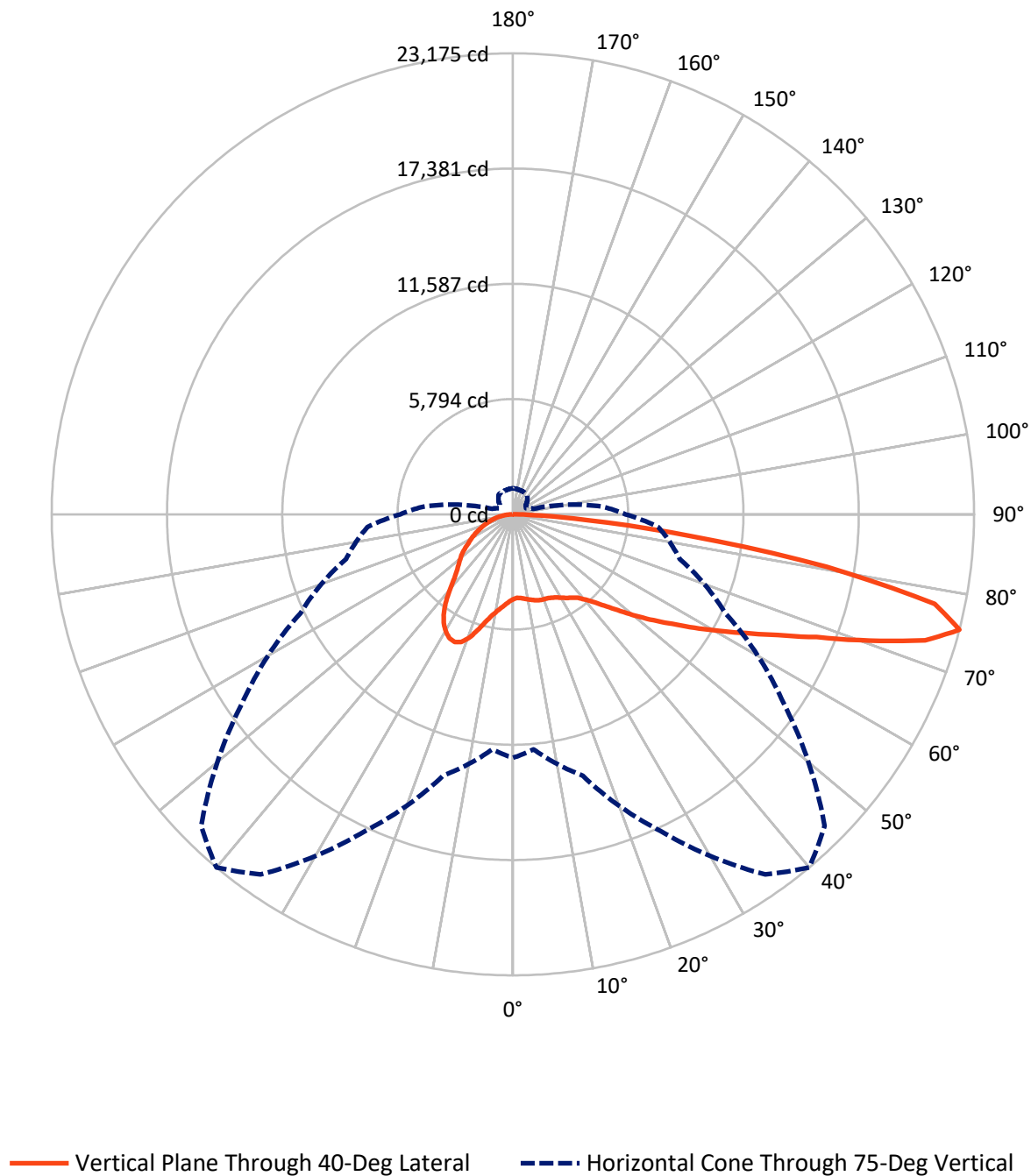
--- 1/2 Max cd



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

REPORT NUMBER: P967351
CATALOG NUMBER: NAV-SB4D-830-U-SL4

Luminous Intensity Polar Plot



REPORT NUMBER: P967351

CATALOG NUMBER: NAV-SB4D-830-U-SL4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11536.4	0.0	11536.4
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	25697.8	0.0	25697.8
	% Fixture	69.0	0.0	69.0
Total	Lumens	37234.1	0.0	37234.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	425.0	1.1
10°-20°	1426.9	3.8
20°-30°	2605.5	7.0
30°-40°	3695.3	9.9
40°-50°	4989.7	13.4
50°-60°	6712.6	18.0
60°-70°	8519.8	22.9
70°-80°	7732.2	20.8
80°-90°	1127.1	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°	37234.1	100.0
0°-180°	37234.1	100.0

Coefficient of Utilization



REPORT NUMBER: P967351

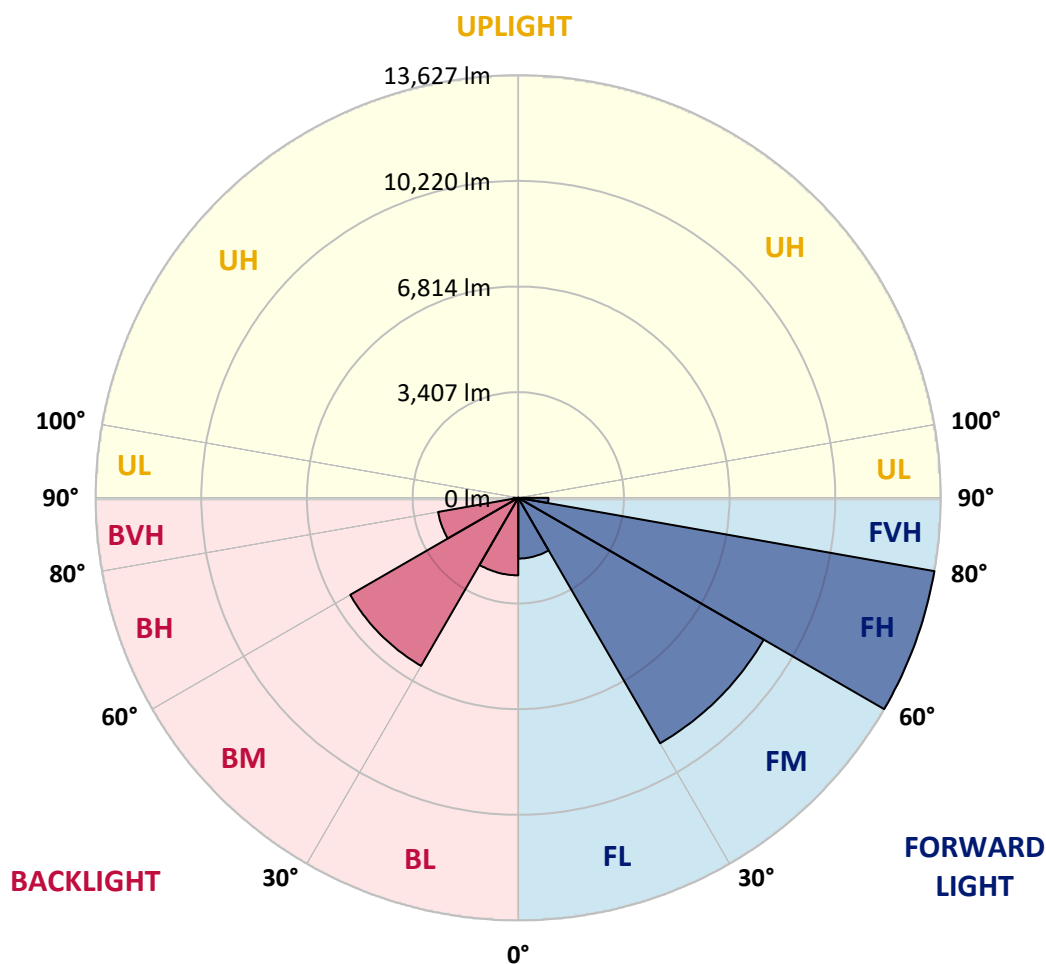
CATALOG NUMBER: NAV-SB4D-830-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1958.6	5.3			
FM	(30°-60°)	9140.1	24.5			
FH	(60°-80°)	13627.1	36.6			G5
FVH	(80°-90°)	971.9	2.6			G5
BL	(0°-30°)	2498.9	6.7	B3/2500		
BM	(30°-60°)	6257.4	16.8	B4/8500		
BH	(60°-80°)	2624.9	7.0	B4/5000		G4/5000
BVH	(80°-90°)	155.2	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



REPORT NUMBER: P967351

CATALOG NUMBER: NAV-SB4D-830-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7
2.5°	4192.6	4216.3	4210.4	4202.5	4202.5	4204.4	4202.5	4216.3	4230.2	4243.9	4265.6
5°	4236.0	4259.8	4247.9	4238.1	4230.2	4228.1	4222.2	4220.2	4228.1	4246.0	4275.6
7.5°	4321.0	4344.7	4326.9	4309.1	4293.3	4285.4	4277.5	4265.6	4259.8	4269.6	4311.0
10°	4415.8	4439.5	4417.8	4386.2	4360.5	4350.6	4342.7	4330.8	4322.9	4328.9	4374.3
12.5°	4510.5	4534.3	4504.7	4461.2	4427.6	4421.6	4411.8	4407.9	4405.9	4403.9	4449.3
15°	4599.4	4619.2	4581.6	4530.3	4494.7	4484.9	4475.0	4480.9	4490.8	4502.6	4554.0
17.5°	4668.6	4688.2	4633.0	4565.9	4532.2	4528.3	4522.4	4542.2	4569.8	4599.4	4662.6
20°	4731.7	4751.5	4680.4	4589.5	4550.1	4550.1	4552.0	4593.5	4633.0	4676.5	4763.4
22.5°	4820.6	4836.4	4749.5	4625.1	4567.8	4571.8	4587.6	4629.0	4678.4	4737.7	4858.1
25°	4952.9	4964.8	4858.1	4692.2	4627.1	4638.9	4652.8	4672.5	4719.9	4789.0	4951.0
27.5°	5166.2	5176.0	5035.8	4810.7	4712.0	4731.7	4751.5	4737.7	4759.4	4818.6	5026.0
30°	5466.4	5472.3	5294.5	4996.4	4856.1	4866.0	4870.0	4812.7	4771.3	4818.6	5079.3
32.5°	5821.9	5819.8	5608.6	5221.5	5020.0	5010.2	4976.6	4864.0	4767.3	4808.8	5126.7
35°	6372.8	6351.1	6078.6	5537.5	5205.7	5144.5	5065.4	4921.3	4787.1	4798.8	5168.2
37.5°	7285.2	7218.0	6840.8	6054.9	5482.2	5326.2	5209.7	5014.1	4830.5	4795.0	5217.6
40°	8314.1	8229.2	7814.5	6763.9	5896.9	5646.1	5458.4	5146.4	4901.5	4812.7	5290.6
42.5°	9534.6	9414.1	8967.8	7599.2	6422.2	6058.9	5776.4	5314.3	5006.2	4870.0	5389.3
45°	11033.5	10873.5	10241.6	8541.2	7083.8	6600.0	6222.8	5569.0	5166.2	4980.6	5537.5
47.5°	12548.2	12587.7	11689.1	9619.5	7877.6	7267.5	6781.6	5952.2	5399.2	5158.3	5776.4
50°	14157.7	14185.4	13128.8	10814.3	8778.2	8021.9	7409.6	6380.7	5723.1	5411.1	6133.9
52.5°	15413.7	15417.6	14436.1	12064.4	9716.3	8851.3	8087.0	6870.5	6098.3	5746.8	6609.8
55°	16199.7	16189.8	15352.4	13247.3	10794.5	9722.2	8837.4	7427.5	6556.5	6141.8	7208.2
57.5°	16770.4	16740.8	15984.5	14264.3	11943.9	10751.1	9686.7	8059.4	7097.6	6611.8	7996.1
60°	16987.6	16969.9	16413.0	15143.1	13152.5	11888.6	10666.2	8766.3	7711.8	7166.7	9009.2
62.5°	17070.6	17104.2	16833.6	15994.3	14446.0	13148.5	11742.5	9611.6	8402.9	7794.7	10077.7
65°	17362.9	17424.1	17368.8	17108.1	15907.4	14623.8	13170.2	10616.7	9157.3	8468.1	11193.4
67.5°	17941.5	18002.7	18026.5	18441.2	17692.6	16462.3	14951.6	11868.9	10040.2	9167.3	12032.8
70°	17927.7	17909.9	18328.5	19501.6	19928.2	19007.9	17353.0	13409.3	11092.8	9747.9	12139.4
72.5°	16318.2	16176.0	17165.4	19489.8	21788.5	21666.0	20285.7	15395.9	12001.1	9819.0	10533.8
75°	12242.1	11862.9	13610.7	17564.3	22098.6	23174.8	22149.9	16628.3	11785.9	8675.5	7330.6
77.5°	5235.3	4854.2	6913.9	13002.4	19778.1	21664.1	20439.7	14507.2	9408.2	5736.9	3600.1
80°	1370.5	1368.6	2089.4	5894.9	13450.7	15998.3	14035.2	9368.7	5375.5	2049.9	993.3
82.5°	566.8	553.0	768.2	2292.8	6572.3	8977.7	7326.7	4178.8	1941.2	554.9	329.8
85°	211.4	209.3	373.2	791.9	2318.4	3702.8	2679.9	1068.4	483.8	270.6	148.1
87.5°	59.2	57.3	81.0	274.5	564.8	857.1	458.2	175.8	136.2	106.6	43.5
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: P967351

CATALOG NUMBER: NAV-SB4D-830-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7	4257.7
2.5°	4271.6	4281.4	4299.3	4313.1	4330.8	4350.6	4378.3	4396.0	4413.8	4425.6	4417.8
5°	4289.4	4311.0	4356.6	4402.0	4455.3	4504.7	4561.9	4603.4	4636.9	4646.8	4650.7
7.5°	4328.9	4364.4	4441.4	4518.4	4603.4	4684.4	4767.3	4838.4	4895.6	4917.3	4919.4
10°	4398.0	4445.4	4554.0	4662.6	4775.2	4899.6	5006.2	5108.9	5189.9	5223.5	5225.4
12.5°	4484.9	4544.1	4686.3	4836.4	4992.5	5164.3	5302.4	5428.8	5529.6	5575.0	5575.0
15°	4597.4	4674.5	4856.1	5057.6	5286.6	5525.7	5701.4	5841.6	5954.1	6009.5	6005.5
17.5°	4719.9	4822.6	5051.7	5355.8	5683.6	5997.6	6203.0	6305.7	6422.2	6475.5	6473.6
20°	4838.4	4964.8	5292.6	5735.0	6171.4	6505.2	6671.0	6698.7	6706.6	6712.5	6728.3
22.5°	4960.8	5130.6	5594.8	6212.8	6681.0	6912.0	6935.7	6817.2	6651.3	6574.2	6596.0
25°	5095.1	5320.3	5989.7	6740.2	7119.3	7147.0	6965.3	6677.0	6363.0	6218.8	6240.5
27.5°	5225.4	5539.4	6463.6	7243.8	7435.4	7192.4	6801.4	6392.6	6013.4	5861.4	5879.1
30°	5355.8	5790.2	6987.0	7684.1	7579.5	7079.9	6542.7	6086.4	5705.4	5545.4	5563.2
32.5°	5488.1	6082.6	7589.3	8002.1	7553.8	6840.8	6220.7	5742.9	5407.2	5239.3	5261.0
35°	5638.2	6441.9	8160.1	8175.9	7381.9	6489.4	5796.2	5332.0	5039.8	4905.5	4935.2
37.5°	5833.7	6898.1	8663.7	8219.4	7081.8	5973.9	5268.9	4846.3	4605.3	4544.1	4587.6
40°	6076.6	7447.1	9048.8	8150.2	6637.5	5347.9	4692.2	4354.5	4218.3	4232.1	4279.5
42.5°	6392.6	8061.3	9319.3	7972.4	6019.3	4702.1	4186.7	4036.6	4101.7	4157.1	4208.4
45°	6803.3	8699.2	9487.2	7670.3	5320.3	4155.0	3888.4	3924.0	3973.4	3979.4	4018.8
47.5°	7328.6	9345.0	9597.8	7214.2	4607.3	3770.0	3698.9	3706.8	3696.9	3655.5	3687.0
50°	7984.3	9972.9	9696.5	6609.8	4001.1	3529.1	3434.3	3406.6	3270.4	3136.1	3153.8
52.5°	8730.8	10549.6	9738.0	5859.4	3529.1	3327.7	3173.6	2999.8	2745.1	2703.5	2717.4
55°	9560.3	11082.8	9631.3	4937.1	3132.1	3069.0	2835.9	2626.6	2598.9	2563.3	2569.3
57.5°	10551.7	11657.5	9414.1	3908.2	2725.3	2766.8	2539.6	2563.3	2514.0	2458.7	2448.8
60°	11635.8	12251.9	9032.9	2970.1	2304.6	2389.6	2462.7	2460.6	2446.9	2401.4	2385.6
62.5°	12611.4	12643.0	8282.5	2275.0	1935.3	2097.3	2296.7	2294.8	2282.9	2257.3	2247.4
65°	13192.0	12583.7	7030.5	1791.2	1631.2	1856.4	2071.6	2087.4	2089.4	2087.4	2087.4
67.5°	13089.2	11890.6	5312.4	1425.9	1380.5	1611.5	1848.5	1870.2	1886.0	1889.9	1893.9
70°	11928.1	10368.0	3463.9	1137.5	1157.2	1396.3	1637.1	1658.9	1672.7	1688.5	1696.4
72.5°	9297.6	7622.9	1982.8	920.2	961.8	1210.6	1427.8	1453.4	1461.3	1491.0	1502.9
75°	5665.9	4482.9	1070.4	724.8	790.0	1034.8	1220.5	1250.1	1263.9	1299.5	1303.4
77.5°	2693.7	1941.2	610.2	564.8	635.9	845.2	1030.8	1064.5	1026.9	1046.6	1030.8
80°	910.4	720.8	385.1	430.5	485.8	659.6	825.5	859.1	780.0	776.1	768.2
82.5°	318.0	292.2	244.9	286.4	314.0	472.0	624.0	667.5	580.6	578.6	550.9
85°	124.4	118.5	136.2	156.0	187.6	290.3	410.7	432.4	357.4	288.3	284.3
87.5°	25.6	27.7	33.6	35.6	57.3	100.8	148.1	181.7	144.1	122.5	112.5
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)