

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: P967196

Luminaire Tested: **NAV-SB4D-735-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967196
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-735-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 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: 41437.7 lumens
Efficiency: N/A
Efficacy: 141.1 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



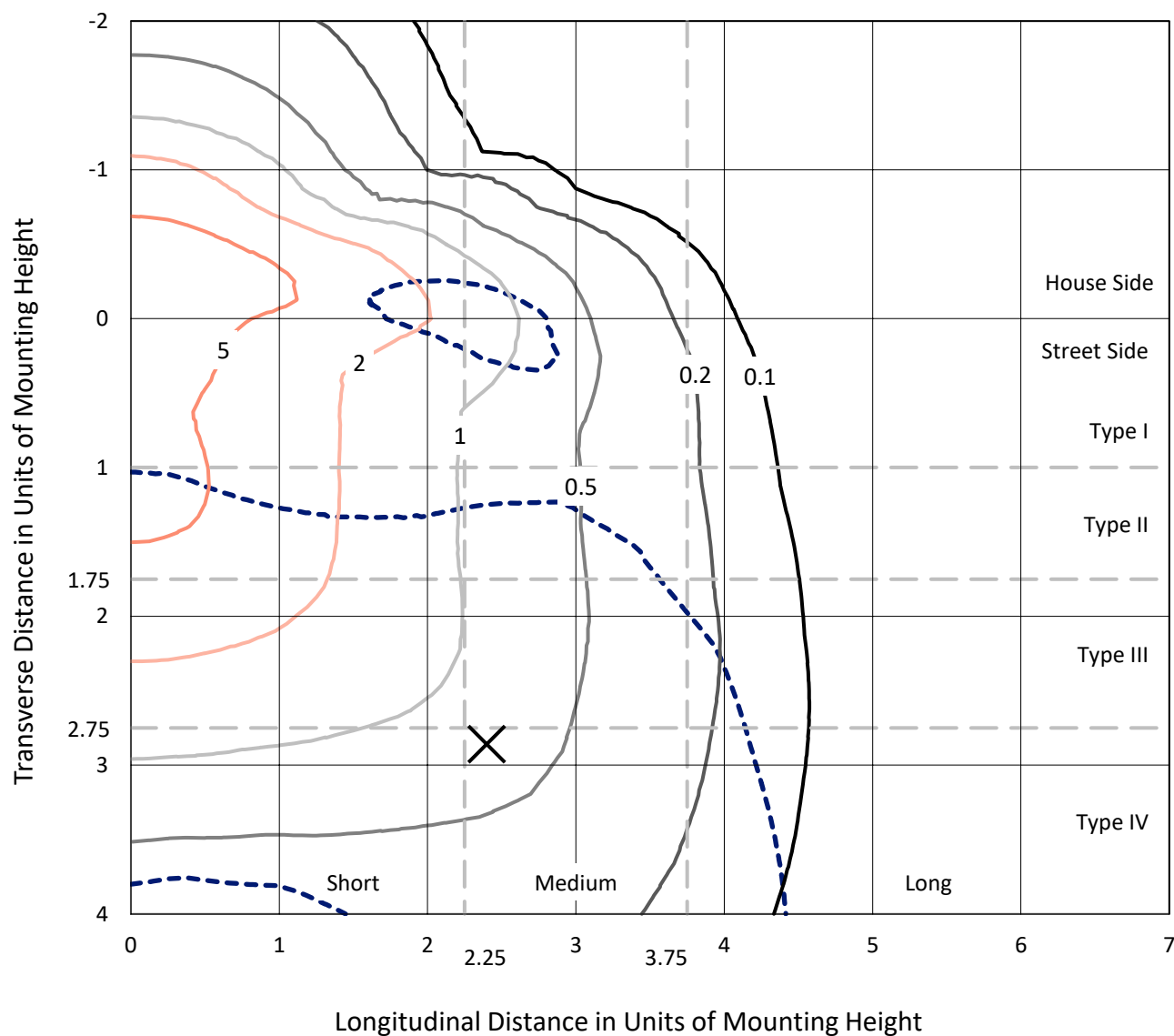
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

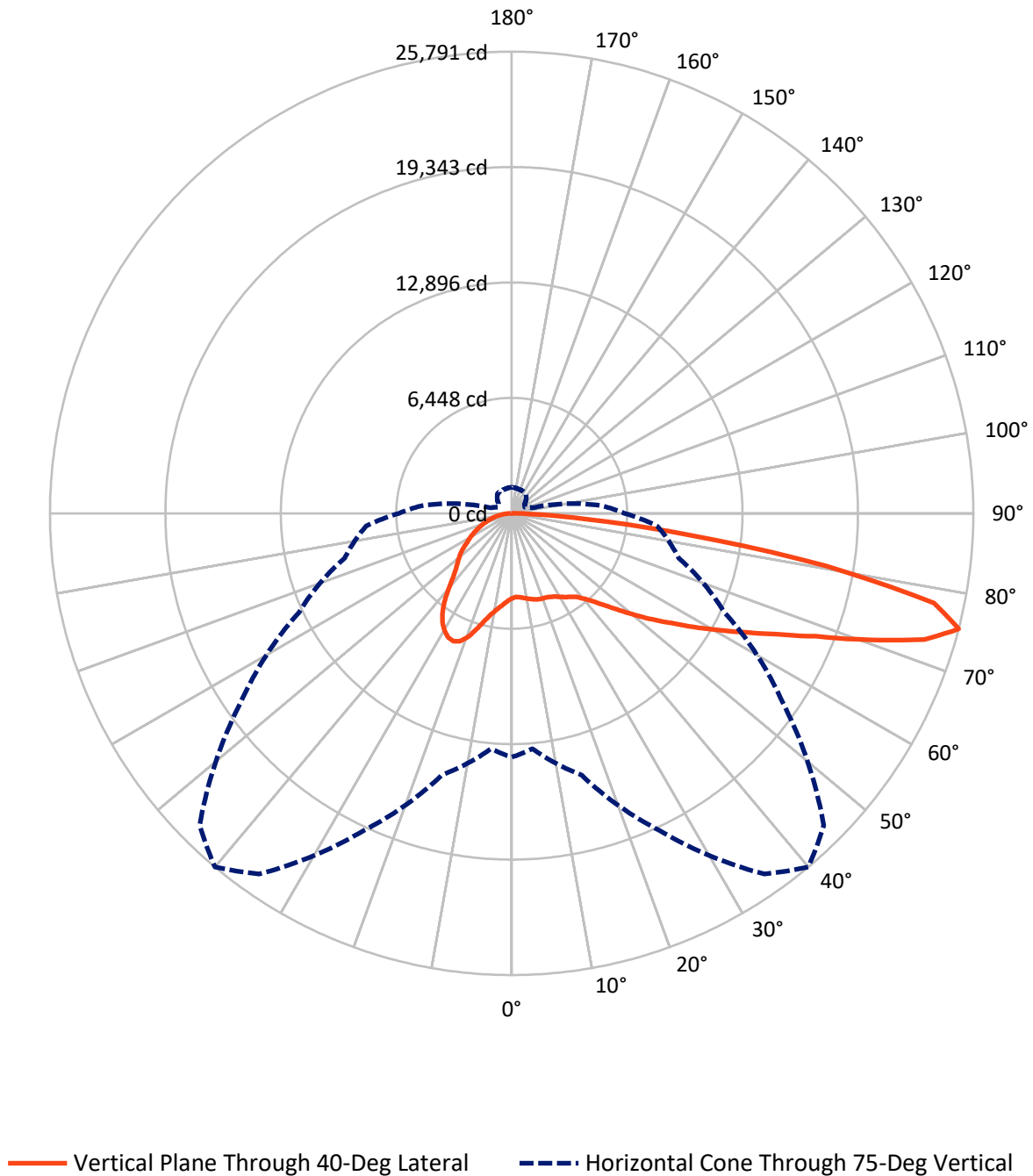
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 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	12838.8	0.0	12838.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	28598.9	0.0	28598.9
	% Fixture	69.0	0.0	69.0
Total	Lumens	41437.7	0.0	41437.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	473.0	1.1
10°-20°	1588.0	3.8
20°-30°	2899.6	7.0
30°-40°	4112.5	9.9
40°-50°	5553.1	13.4
50°-60°	7470.4	18.0
60°-70°	9481.6	22.9
70°-80°	8605.1	20.8
80°-90°	1254.4	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°	41437.7	100.0
0°-180°	41437.7	100.0

Coefficient of Utilization



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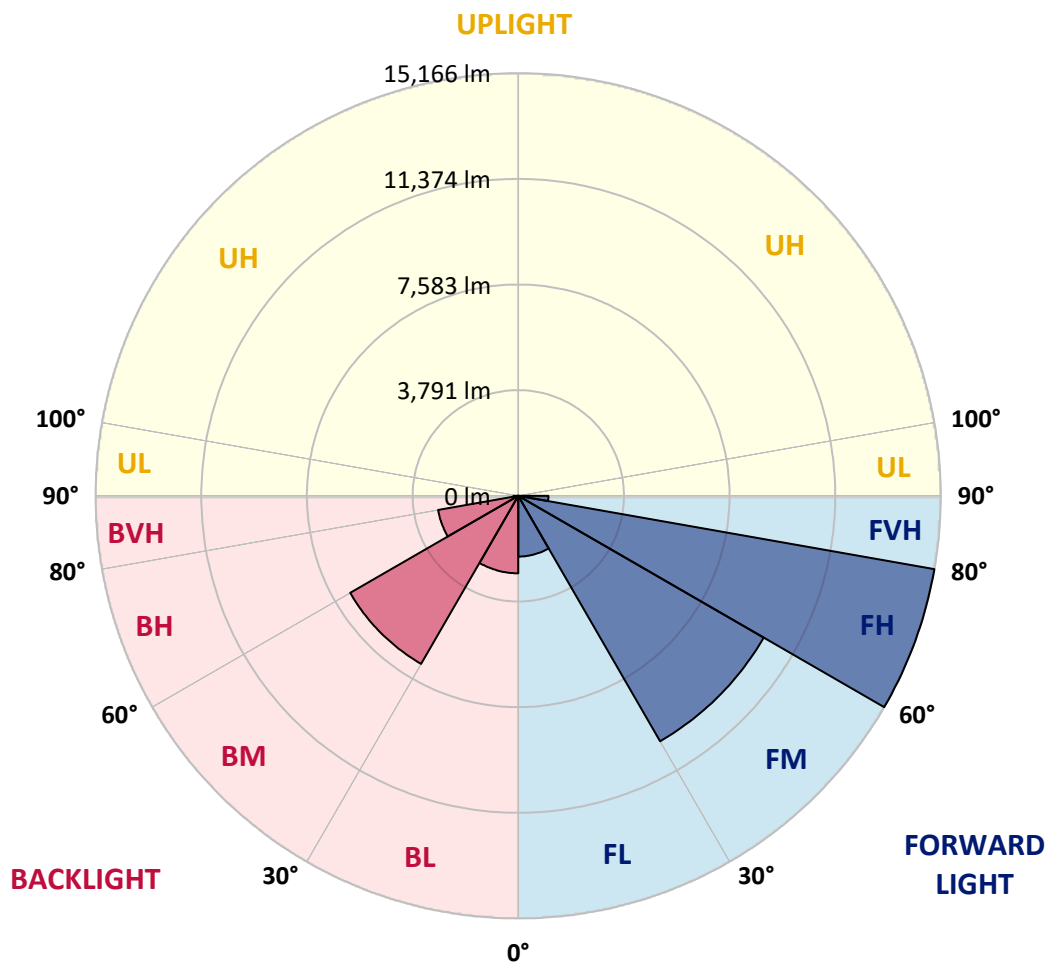
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2179.7	5.3			
FM	(30°-60°)	10172.0	24.5			
FH	(60°-80°)	15165.5	36.6			G5
FVH	(80°-90°)	1081.7	2.6			G5
BL	(0°-30°)	2781.0	6.7	B4/5000		
BM	(30°-60°)	6963.9	16.8	B4/8500		
BH	(60°-80°)	2921.2	7.0	B4/5000		G4/5000
BVH	(80°-90°)	172.7	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°	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5
2.5°	4665.9	4692.3	4685.7	4676.9	4676.9	4679.1	4676.9	4692.3	4707.7	4723.1	4747.3
5°	4714.3	4740.6	4727.5	4716.4	4707.7	4705.5	4698.9	4696.7	4705.5	4725.2	4758.3
7.5°	4808.8	4835.1	4815.3	4795.6	4778.0	4769.2	4760.4	4747.3	4740.6	4751.6	4797.8
10°	4914.3	4940.6	4916.5	4881.4	4852.8	4841.8	4833.0	4819.8	4810.9	4817.6	4868.1
12.5°	5019.7	5046.2	5013.2	4964.8	4927.5	4920.8	4909.9	4905.4	4903.3	4901.1	4951.7
15°	5118.6	5140.7	5098.9	5041.8	5002.2	4991.2	4980.2	4986.8	4997.8	5011.0	5068.1
17.5°	5195.6	5217.6	5156.1	5081.3	5043.9	5039.5	5033.0	5054.9	5085.7	5118.6	5189.0
20°	5265.9	5287.9	5208.7	5107.7	5063.7	5063.7	5066.0	5112.1	5156.1	5204.4	5301.1
22.5°	5364.8	5382.4	5285.7	5147.2	5083.5	5087.9	5105.5	5151.6	5206.6	5272.5	5406.6
25°	5512.0	5525.3	5406.6	5222.0	5149.4	5162.6	5178.0	5200.0	5252.7	5329.7	5509.9
27.5°	5749.4	5760.4	5604.4	5353.9	5243.9	5265.9	5287.9	5272.5	5296.7	5362.6	5593.4
30°	6083.5	6090.1	5892.3	5560.4	5404.4	5415.4	5419.8	5356.0	5309.9	5362.6	5652.8
32.5°	6479.1	6476.9	6241.7	5810.9	5586.8	5575.8	5538.5	5413.1	5305.5	5351.6	5705.5
35°	7092.3	7068.1	6764.8	6162.6	5793.4	5725.2	5637.4	5476.9	5327.4	5340.7	5751.7
37.5°	8107.6	8032.9	7613.2	6738.5	6101.1	5927.5	5797.8	5580.2	5375.8	5336.3	5806.6
40°	9252.8	9158.3	8696.7	7527.5	6562.7	6283.5	6074.8	5727.5	5454.9	5356.0	5887.9
42.5°	10611.0	10476.9	9980.2	8457.2	7147.2	6742.9	6428.6	5914.2	5571.4	5419.8	5997.8
45°	12279.1	12101.0	11397.8	9505.4	7883.5	7345.0	6925.3	6197.8	5749.4	5542.9	6162.6
47.5°	13964.8	14008.8	13008.8	10705.5	8767.0	8087.9	7547.3	6624.2	6008.8	5740.6	6428.6
50°	15756.0	15786.7	14611.0	12035.1	9769.2	8927.4	8246.1	7101.1	6369.2	6022.0	6826.4
52.5°	17153.8	17158.2	16066.0	13426.4	10813.1	9850.6	9000.0	7646.1	6786.8	6395.6	7356.0
55°	18028.5	18017.6	17085.7	14742.9	12013.2	10819.8	9835.2	8265.9	7296.7	6835.1	8022.0
57.5°	18663.7	18630.7	17789.0	15874.7	13292.3	11964.8	10780.2	8969.3	7898.9	7358.3	8898.8
60°	18905.5	18885.7	18265.9	16852.7	14637.3	13230.7	11870.3	9756.1	8582.4	7975.8	10026.3
62.5°	18997.8	19035.2	18734.0	17799.9	16076.9	14632.9	13068.1	10696.7	9351.6	8674.7	11215.3
65°	19323.0	19391.2	19329.7	19039.5	17703.3	16274.7	14657.1	11815.4	10191.2	9424.2	12457.1
67.5°	19967.0	20035.2	20061.5	20523.1	19690.0	18320.8	16639.5	13208.8	11173.6	10202.1	13391.2
70°	19951.6	19931.8	20397.8	21703.2	22178.0	21153.8	19312.0	14923.1	12345.0	10848.3	13509.9
72.5°	18160.4	18002.2	19103.2	21690.0	24248.3	24112.0	22575.8	17134.0	13356.1	10927.4	11723.0
75°	13624.2	13202.2	15147.2	19547.3	24593.3	25791.2	24650.5	18505.5	13116.4	9654.9	8158.2
77.5°	5826.4	5402.2	7694.5	14470.3	22011.0	24109.8	22747.2	16145.0	10470.3	6384.6	4006.6
80°	1525.3	1523.0	2325.3	6560.4	14969.2	17804.4	15619.8	10426.4	5982.4	2281.3	1105.5
82.5°	630.8	615.4	855.0	2551.6	7314.3	9991.2	8153.9	4650.5	2160.4	617.6	367.1
85°	235.1	233.0	415.4	881.3	2580.2	4120.9	2982.4	1189.0	538.4	301.1	164.8
87.5°	65.9	63.8	90.1	305.4	628.5	953.9	509.9	195.6	151.6	118.7	48.4
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°	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5	4738.5
2.5°	4753.8	4764.8	4784.6	4800.0	4819.8	4841.8	4872.5	4892.3	4912.1	4925.2	4916.5
5°	4773.6	4797.8	4848.4	4898.9	4958.2	5013.2	5076.9	5123.1	5160.5	5171.4	5175.8
7.5°	4817.6	4857.2	4942.9	5028.5	5123.1	5213.2	5305.5	5384.6	5448.4	5472.5	5474.7
10°	4894.5	4947.3	5068.1	5189.0	5314.3	5452.7	5571.4	5685.7	5775.8	5813.2	5815.3
12.5°	4991.2	5057.1	5215.4	5382.4	5556.0	5747.3	5901.1	6041.8	6153.8	6204.4	6204.4
15°	5116.5	5202.2	5404.4	5628.6	5883.5	6149.5	6345.1	6501.1	6626.3	6687.9	6683.5
17.5°	5252.7	5367.0	5621.9	5960.5	6325.3	6674.7	6903.3	7017.6	7147.2	7206.6	7204.4
20°	5384.6	5525.3	5890.1	6382.4	6868.1	7239.6	7424.2	7454.9	7463.7	7470.3	7487.9
22.5°	5520.9	5709.9	6226.4	6914.2	7435.1	7692.3	7718.7	7586.8	7402.1	7316.4	7340.6
25°	5670.3	5920.9	6665.9	7501.1	7923.0	7953.8	7751.7	7430.7	7081.3	6920.9	6945.1
27.5°	5815.3	6164.9	7193.3	8061.5	8274.7	8004.4	7569.2	7114.3	6692.3	6523.1	6542.9
30°	5960.5	6444.0	7775.9	8551.7	8435.1	7879.1	7281.3	6773.6	6349.5	6171.4	6191.2
32.5°	6107.7	6769.2	8446.1	8905.5	8406.5	7613.2	6923.1	6391.2	6017.6	5830.7	5854.9
35°	6274.7	7169.3	9081.3	9098.9	8215.4	7221.9	6450.5	5934.0	5608.8	5459.4	5492.3
37.5°	6492.2	7676.9	9641.8	9147.2	7881.3	6648.4	5863.7	5393.4	5125.3	5057.1	5105.5
40°	6762.6	8287.9	10070.3	9070.3	7386.8	5951.7	5222.0	4846.1	4694.5	4709.9	4762.7
42.5°	7114.3	8971.4	10371.4	8872.5	6698.9	5232.9	4659.3	4492.3	4564.8	4626.3	4683.5
45°	7571.4	9681.3	10558.2	8536.2	5920.9	4624.2	4327.4	4367.0	4422.0	4428.6	4472.5
47.5°	8156.0	10400.0	10681.3	8028.5	5127.5	4195.6	4116.5	4125.3	4114.2	4068.1	4103.3
50°	8885.7	11098.9	10791.2	7356.0	4452.7	3927.5	3822.0	3791.2	3639.6	3490.1	3509.9
52.5°	9716.5	11740.7	10837.3	6520.8	3927.5	3703.3	3531.8	3338.4	3054.9	3008.8	3024.2
55°	10639.5	12334.0	10718.6	5494.5	3485.7	3415.4	3156.1	2923.1	2892.3	2852.8	2859.3
57.5°	11742.8	12973.6	10476.9	4349.5	3033.0	3079.1	2826.3	2852.8	2797.8	2736.2	2725.3
60°	12949.4	13635.2	10052.7	3305.5	2564.9	2659.4	2740.6	2738.5	2723.1	2672.5	2655.0
62.5°	14035.1	14070.3	9217.5	2531.9	2153.8	2334.0	2556.0	2553.9	2540.7	2512.1	2501.1
65°	14681.3	14004.4	7824.1	1993.4	1815.4	2065.9	2305.5	2323.1	2325.3	2323.1	2323.1
67.5°	14567.0	13233.0	5912.1	1586.8	1536.3	1793.4	2057.2	2081.4	2098.9	2103.3	2107.7
70°	13274.7	11538.4	3854.9	1266.0	1287.9	1553.8	1821.9	1846.1	1861.5	1879.1	1887.9
72.5°	10347.3	8483.5	2206.6	1024.2	1070.3	1347.3	1589.1	1617.6	1626.4	1659.4	1672.5
75°	6305.5	4989.0	1191.3	806.6	879.1	1151.7	1358.2	1391.2	1406.6	1446.2	1450.6
77.5°	2997.8	2160.4	679.2	628.5	707.7	940.6	1147.3	1184.6	1142.9	1164.8	1147.3
80°	1013.2	802.2	428.6	479.1	540.7	734.1	918.7	956.0	868.2	863.8	855.0
82.5°	353.8	325.2	272.5	318.7	349.4	525.3	694.5	742.8	646.2	643.9	613.2
85°	138.5	131.9	151.6	173.6	208.8	323.1	457.2	481.3	397.8	320.9	316.5
87.5°	28.6	30.7	37.4	39.6	63.8	112.1	164.8	202.2	160.4	136.2	125.3
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)