

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: P883977

Luminaire Tested: **NAV-SB4C-827-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883977
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24434 lumens
Efficiency: N/A
Efficacy: 121.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

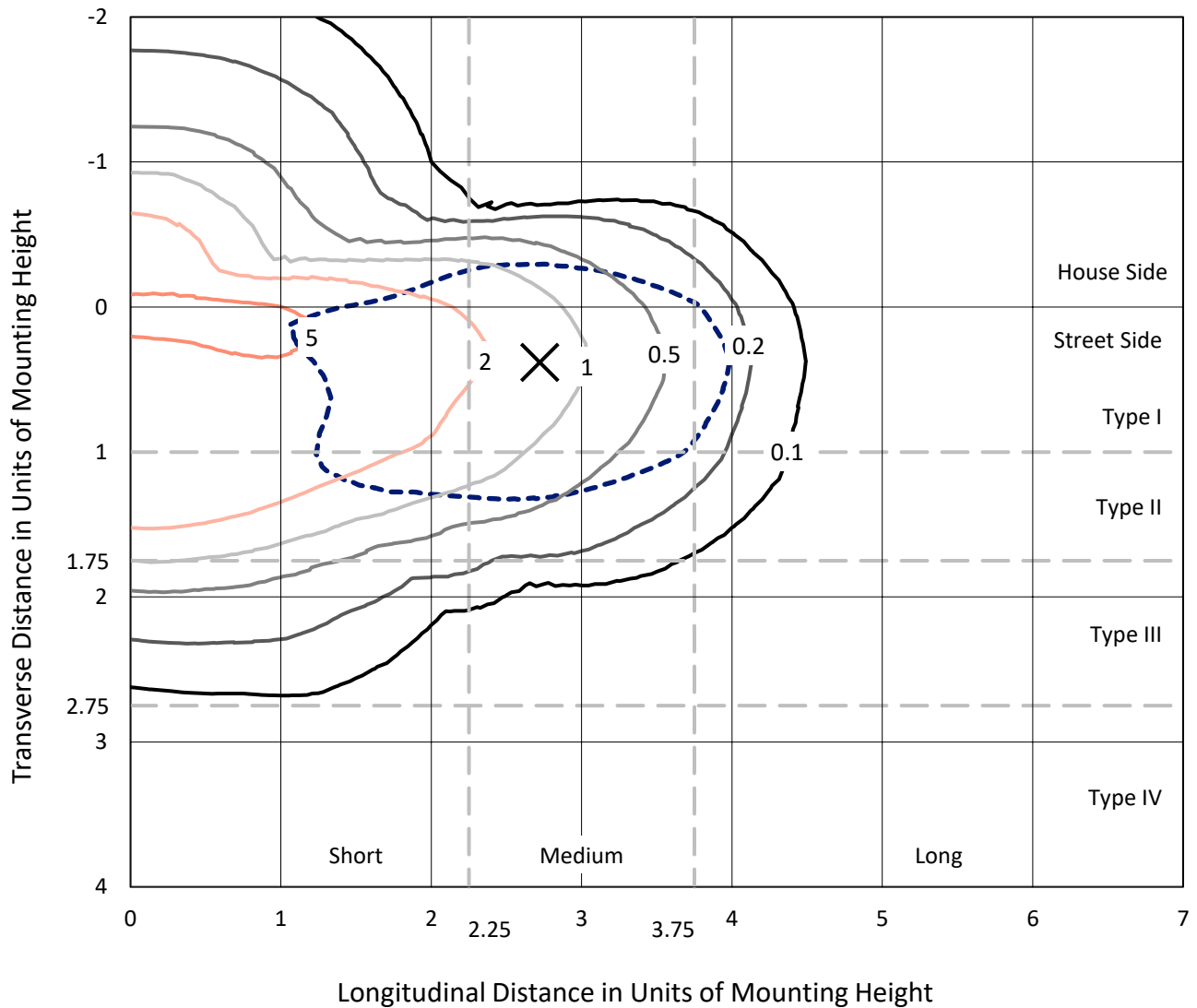
Input Watts (W): 200.7
Input Voltage (V): 120.0
Input Current (Ain): 1.714
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

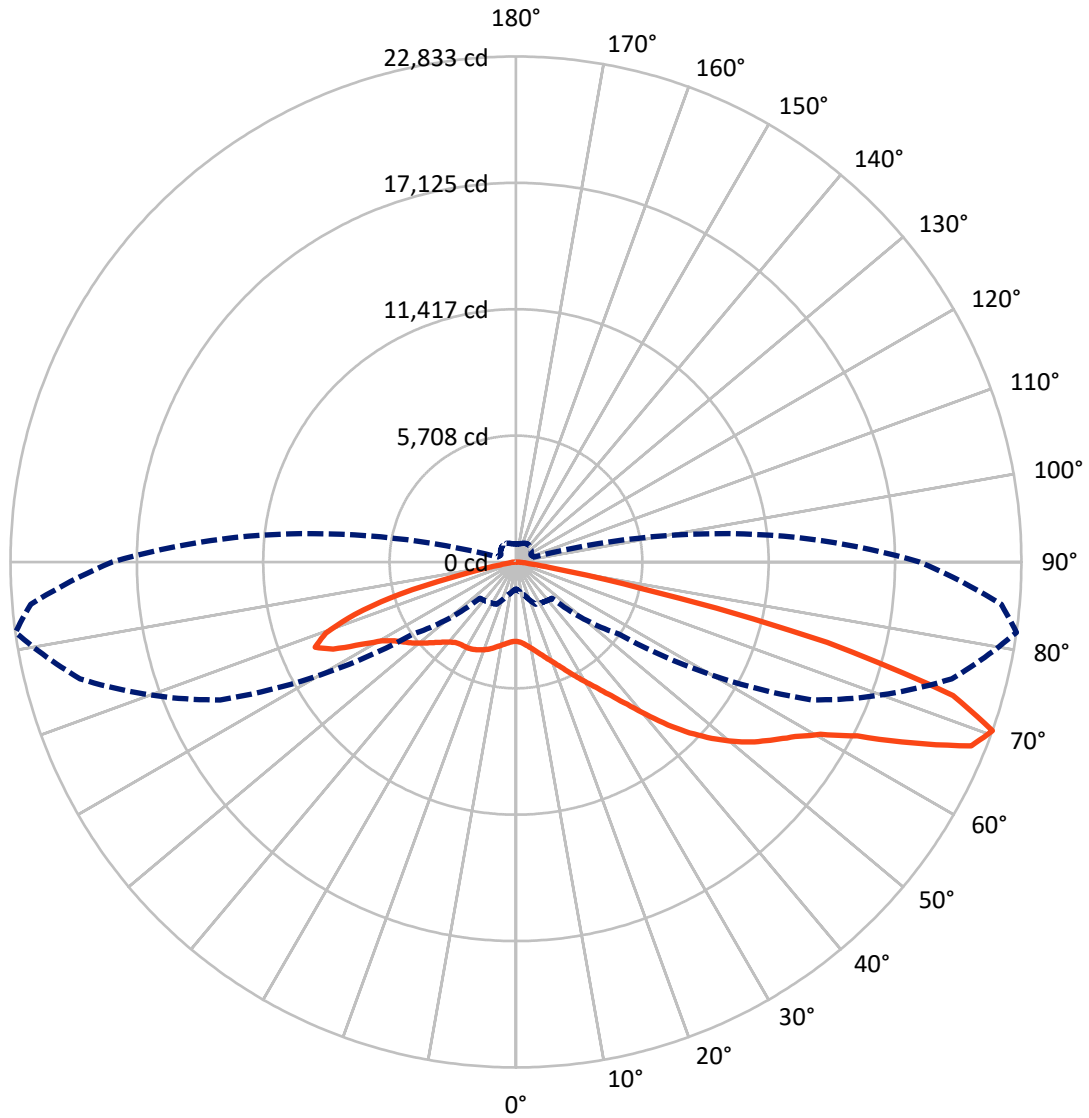
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6023.6	0.0	6023.6
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	18410.4	0.0	18410.4
	% Fixture	75.3	0.0	75.3
Total	Lumens	24434.0	0.0	24434.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.2	1.4
10°-20°	971.8	4.0
20°-30°	1625.7	6.7
30°-40°	2539.7	10.4
40°-50°	4044.8	16.6
50°-60°	5628.8	23.0
60°-70°	5888.0	24.1
70°-80°	3077.4	12.6
80°-90°	319.6	1.3
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°	24434.0	100.0
0°-180°	24434.0	100.0

Coefficient of Utilization



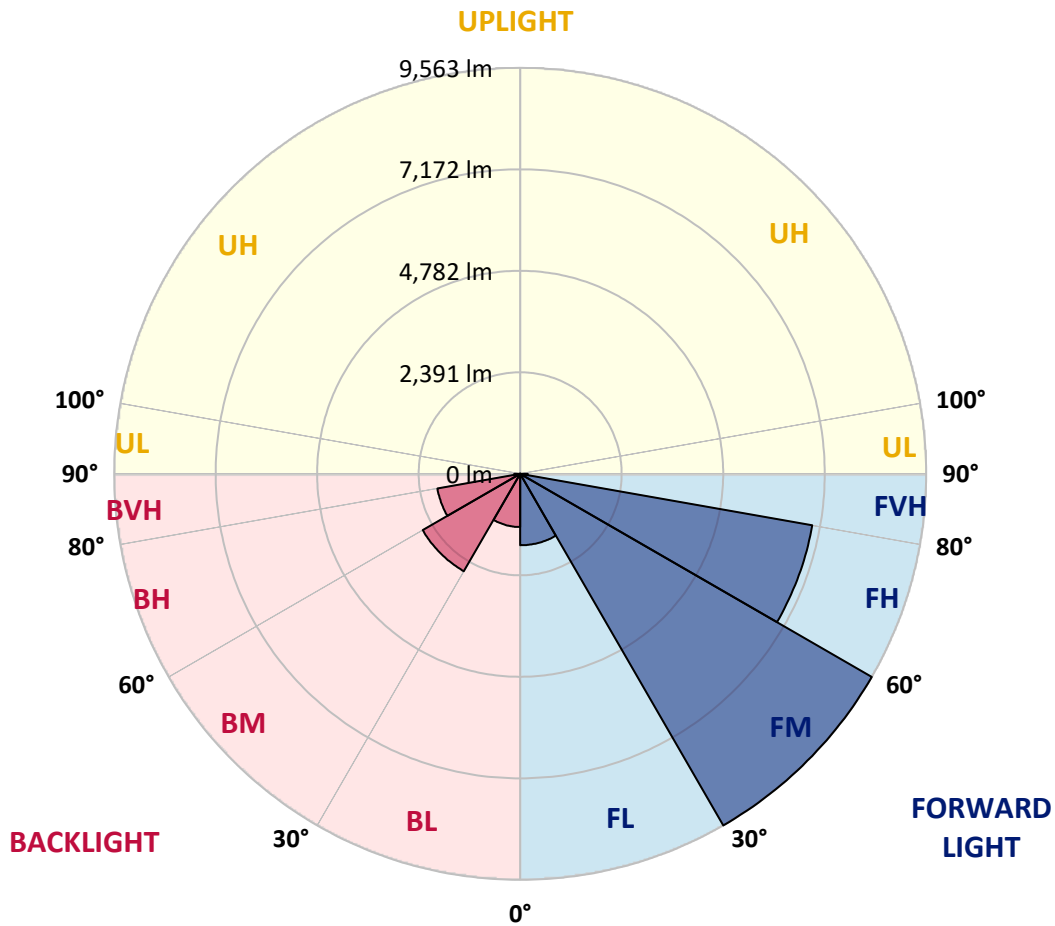
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1682.6	6.9			
FM (30°-60°)	9563.2	39.1			
FH (60°-80°)	6985.8	28.6			G3/7500
FVH (80°-90°)	178.9	0.7			G2/225
BL (0°-30°)	1253.1	5.1	B3/2500		
BM (30°-60°)	2650.1	10.8	B3/5000		
BH (60°-80°)	1979.7	8.1	B3/2500		G3/2500
BVH (80°-90°)	140.7	0.6			G2/225
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°	82°	85°
0°	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3
2.5°	3667.9	3688.6	3682.2	3675.7	3675.7	3666.6	3665.3	3652.3	3642.0	3625.1	3621.2
5°	3714.6	3736.6	3734.0	3739.2	3756.1	3760.0	3763.8	3756.1	3735.3	3714.6	3705.5
7.5°	3673.1	3697.7	3705.5	3736.6	3788.5	3835.2	3870.2	3884.4	3865.0	3835.2	3820.9
10°	3533.1	3560.3	3587.5	3661.4	3753.5	3863.7	3957.0	4012.8	4008.9	3980.4	3955.7
12.5°	3249.1	3277.6	3336.0	3479.9	3648.5	3842.9	4016.7	4133.4	4173.6	4152.8	4110.0
15°	3022.2	3046.9	3090.9	3238.7	3457.9	3753.5	4038.7	4265.6	4368.0	4356.4	4304.5
17.5°	3015.7	3026.1	3053.3	3123.4	3291.9	3613.4	4015.4	4395.3	4591.0	4589.7	4524.9
20°	3129.8	3133.7	3149.3	3163.5	3259.5	3507.1	3955.7	4502.9	4841.3	4841.3	4771.3
22.5°	3288.0	3285.4	3301.0	3288.0	3334.7	3498.1	3918.1	4597.5	5120.0	5140.8	5052.6
25°	3525.3	3512.3	3508.4	3478.6	3487.7	3582.3	3959.6	4705.1	5450.6	5493.4	5383.2
27.5°	3841.6	3820.9	3806.6	3737.9	3714.6	3756.1	4086.7	4834.8	5818.9	5892.8	5752.7
30°	4253.9	4216.3	4195.6	4076.3	3992.0	3998.5	4278.6	5007.2	6203.9	6323.2	6145.6
32.5°	4816.6	4758.3	4702.5	4506.8	4352.5	4301.9	4526.2	5245.8	6621.4	6812.0	6583.8
35°	5446.7	5400.1	5340.4	5038.3	4801.1	4684.4	4860.7	5579.0	7110.2	7412.3	7115.4
37.5°	6053.5	6013.3	6041.9	5634.7	5328.8	5158.9	5298.9	6026.3	7713.1	8159.1	7781.8
40°	6681.1	6649.9	6653.8	6264.9	5908.3	5717.7	5830.5	6587.7	8404.1	9047.2	8583.1
42.5°	7363.0	7339.7	7261.9	6917.0	6516.4	6338.8	6442.5	7236.0	9145.8	10058.5	9462.1
45°	8126.7	8112.4	8039.8	7644.4	7185.4	6985.7	7125.8	7951.7	9891.3	11010.2	10345.1
47.5°	8786.6	8798.3	8789.2	8456.0	7980.2	7687.2	7854.4	8698.5	10584.9	11904.8	11191.7
50°	9104.3	9165.2	9254.7	9151.0	8855.3	8557.1	8589.6	9419.3	11246.2	12743.7	12003.3
52.5°	8938.3	9053.7	9297.5	9463.4	9577.5	9515.3	9428.4	10135.0	11868.5	13500.8	12770.9
55°	8319.9	8481.9	8886.5	9287.1	9869.2	10321.7	10435.8	10928.5	12475.3	14167.3	13496.9
57.5°	7193.2	7456.4	7819.4	8629.7	9609.9	10712.0	11610.5	12029.3	13118.4	14879.1	14256.7
60°	5261.3	5614.0	6065.2	7271.0	8702.4	10503.2	12610.1	13719.9	14032.4	15800.9	15246.0
62.5°	3367.1	3584.9	3999.8	5135.6	6780.9	9433.6	12916.1	15833.3	15581.8	17312.6	16729.2
65°	2305.2	2445.3	2825.2	3463.0	4383.6	7022.0	12096.7	17417.7	18042.6	19708.6	19265.2
67.5°	1675.1	1781.4	2105.6	2664.4	2856.3	4155.4	9386.9	17345.1	20434.7	22177.3	21487.5
70°	1221.3	1296.5	1568.8	2105.6	2197.6	2311.7	5686.6	14744.2	20382.8	22833.3	22007.4
72.5°	905.0	956.8	1139.7	1633.6	1778.8	1561.0	2814.8	10715.9	17514.9	20652.5	19990.0
75°	654.8	693.6	828.5	1249.9	1423.6	1188.9	1404.1	6262.3	12217.3	14527.7	14644.4
77.5°	500.5	530.3	618.4	915.4	1139.7	892.0	871.3	2880.9	5792.9	5821.4	6148.2
80°	401.9	421.4	469.3	644.4	873.9	667.7	567.9	1163.0	1830.7	1549.4	1625.9
82.5°	295.6	328.0	396.7	452.5	624.9	460.3	346.2	587.3	696.2	599.0	604.2
85°	168.5	190.6	239.9	324.1	399.3	281.3	198.4	260.6	324.1	265.8	237.3
87.5°	59.6	77.8	84.3	127.1	173.7	116.7	76.5	75.2	106.3	79.1	66.1
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°	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3	3582.3
2.5°	3608.3	3601.8	3575.8	3540.8	3504.5	3469.5	3457.9	3433.2	3416.4	3407.3	3417.7
5°	3680.9	3660.1	3599.2	3521.4	3439.7	3351.5	3289.3	3232.3	3190.8	3151.9	3167.4
7.5°	3784.6	3748.3	3643.3	3507.1	3361.9	3215.4	3106.5	3023.5	2967.8	2931.5	2939.2
10°	3905.2	3849.4	3688.6	3485.1	3260.8	3050.8	2922.4	2851.1	2816.1	2796.6	2801.8
12.5°	4043.9	3964.8	3735.3	3434.5	3106.5	2866.6	2778.5	2757.7	2759.0	2760.3	2762.9
15°	4215.0	4104.8	3772.9	3324.3	2905.5	2725.3	2709.8	2743.5	2778.5	2795.3	2794.0
17.5°	4408.2	4252.6	3779.4	3142.8	2708.5	2634.6	2683.8	2756.4	2809.6	2832.9	2838.1
20°	4615.7	4403.0	3732.7	2886.1	2546.4	2560.7	2648.8	2742.2	2800.5	2830.3	2838.1
22.5°	4852.9	4563.8	3621.2	2616.4	2414.2	2480.3	2584.0	2674.8	2735.7	2765.5	2773.3
25°	5123.9	4744.0	3446.2	2389.5	2300.1	2389.5	2493.2	2568.4	2617.7	2644.9	2652.7
27.5°	5424.7	4932.0	3212.8	2209.3	2200.2	2296.2	2381.7	2440.1	2466.0	2486.8	2494.5
30°	5726.8	5103.2	2930.2	2073.2	2113.4	2204.1	2265.0	2291.0	2298.8	2302.6	2311.7
32.5°	6053.5	5251.0	2633.3	1960.4	2030.4	2114.7	2151.0	2162.6	2126.3	2101.7	2109.5
35°	6449.0	5409.1	2342.8	1870.9	1948.7	2021.3	2033.0	2022.6	1979.8	1929.2	1931.8
37.5°	6937.8	5606.2	2110.8	1807.4	1872.2	1920.2	1905.9	1903.3	1907.2	1847.6	1851.5
40°	7536.8	5862.9	1940.9	1758.1	1810.0	1820.3	1780.1	1802.2	1821.6	1730.9	1733.5
42.5°	8201.9	6172.8	1833.3	1724.4	1758.1	1733.5	1671.2	1695.9	1693.3	1574.0	1572.7
45°	8880.0	6509.9	1795.7	1699.8	1710.1	1660.9	1592.1	1598.6	1544.2	1436.6	1440.5
47.5°	9554.2	6871.6	1819.0	1679.0	1650.5	1594.7	1541.6	1513.1	1432.7	1352.3	1352.3
50°	10215.4	7251.5	1904.6	1637.5	1568.8	1536.4	1497.5	1446.9	1361.4	1292.6	1287.5
52.5°	10828.7	7634.0	2000.6	1568.8	1466.4	1485.8	1461.2	1402.9	1318.6	1248.6	1249.9
55°	11409.5	8016.5	2038.2	1474.2	1370.4	1441.7	1427.5	1319.9	1218.7	1161.7	1156.5
57.5°	12042.2	8476.8	1996.7	1353.6	1292.6	1391.2	1336.7	1217.4	1159.1	1116.3	1112.4
60°	12918.7	9198.9	1907.2	1204.5	1218.7	1316.0	1222.6	1173.4	1109.8	1061.9	1059.3
62.5°	14374.7	10546.0	1763.3	1056.7	1131.9	1204.5	1168.2	1118.9	1054.1	1007.4	1007.4
65°	16526.9	12418.2	1492.3	941.3	1034.6	1095.6	1109.8	1060.6	993.1	943.9	946.5
67.5°	18342.1	13592.9	1129.3	845.3	934.8	1007.4	1047.6	999.6	928.3	880.3	881.6
70°	18242.3	12739.8	862.2	750.7	846.6	920.5	972.4	934.8	858.3	812.9	816.8
72.5°	16202.8	10657.5	697.5	654.8	757.2	829.8	892.0	863.5	785.7	741.6	741.6
75°	11903.5	7565.3	557.5	557.5	645.7	735.1	803.9	785.7	714.4	683.3	674.2
77.5°	5017.6	3173.9	436.9	462.9	536.8	631.4	717.0	723.5	661.2	700.1	635.3
80°	1334.1	875.2	333.2	364.3	421.4	521.2	623.6	621.0	553.6	517.3	481.0
82.5°	508.2	344.9	237.3	256.7	304.7	399.3	494.0	509.5	442.1	382.5	382.5
85°	195.8	147.8	146.5	154.3	177.6	264.5	373.4	386.4	333.2	282.6	291.7
87.5°	50.6	44.1	54.5	51.9	81.7	141.3	213.9	221.7	203.6	118.0	168.5
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)