

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: P884257

Luminaire Tested: **NAV-SB5A-727-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884257
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-SB5A-727-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20439 lumens
Efficiency: N/A
Efficacy: 144.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

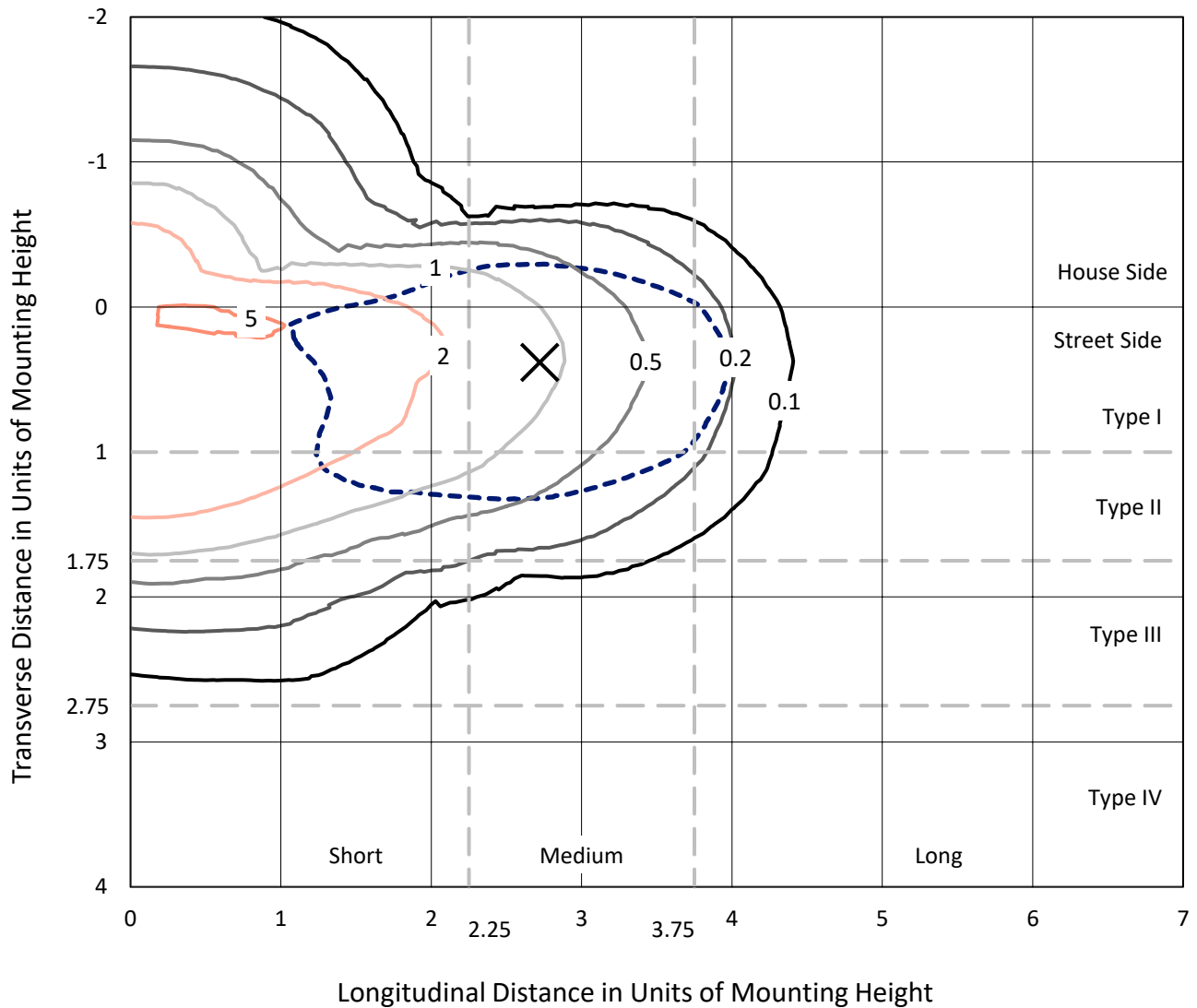
Input Watts (W): 141.7
Input Voltage (V): 120.0
Input Current (Ain): 1.201
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 10.503
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

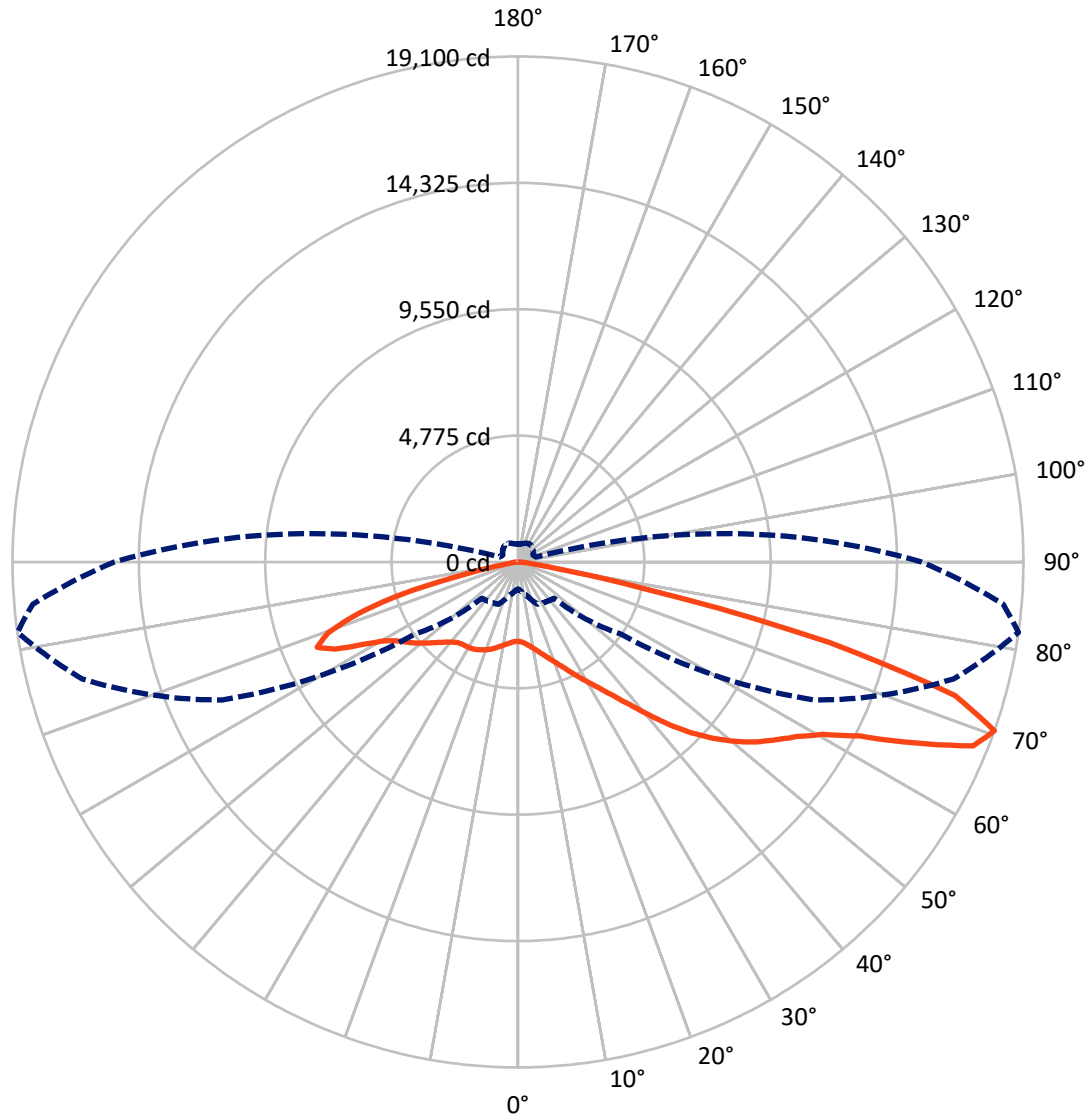
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Medium - N/A

REPORT NUMBER: P884257
CATALOG NUMBER: NAV-SB5A-727-U-T2

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	5038.7	0.0	5038.7
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	15400.3	0.0	15400.3
	% Fixture	75.3	0.0	75.3
Total	Lumens	20439.0	0.0	20439.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.9	1.4
10°-20°	812.9	4.0
20°-30°	1359.9	6.7
30°-40°	2124.5	10.4
40°-50°	3383.5	16.6
50°-60°	4708.5	23.0
60°-70°	4925.3	24.1
70°-80°	2574.2	12.6
80°-90°	267.3	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°	20439.0	100.0
0°-180°	20439.0	100.0

Coefficient of Utilization



REPORT NUMBER: P884257

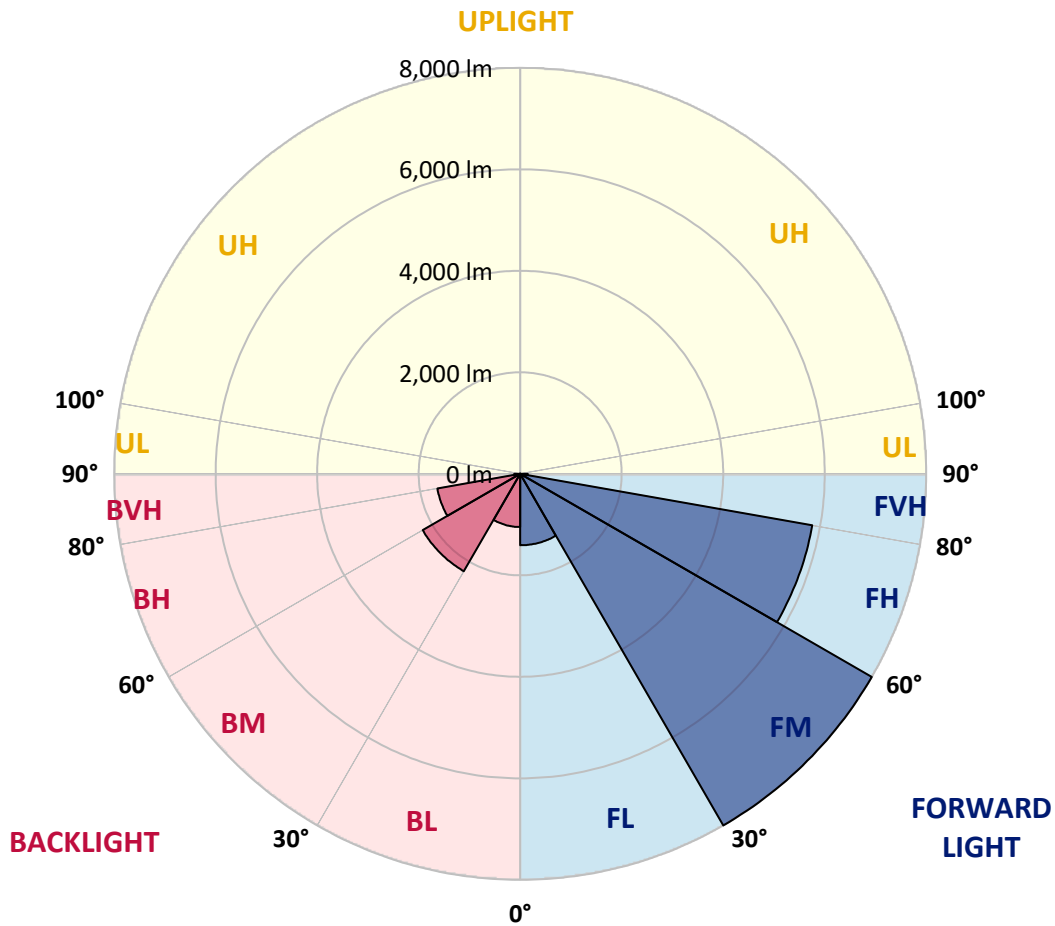
CATALOG NUMBER: NAV-SB5A-727-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1407.5	6.9			
FM (30°-60°)	7999.6	39.1			
FH (60°-80°)	5843.6	28.6			G3/7500
FVH (80°-90°)	149.6	0.7			G2/225
BL (0°-30°)	1048.2	5.1	B3/2500		
BM (30°-60°)	2216.8	10.8	B2/2500		
BH (60°-80°)	1656.0	8.1	B3/2500		G3/2500
BVH (80°-90°)	117.7	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



REPORT NUMBER: P884257
 CATALOG NUMBER: NAV-SB5A-727-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6
2.5°	3068.2	3085.5	3080.1	3074.7	3074.7	3067.1	3066.0	3055.2	3046.5	3032.4	3029.1
5°	3107.2	3125.7	3123.5	3127.8	3141.9	3145.2	3148.5	3141.9	3124.6	3107.2	3099.6
7.5°	3072.5	3093.1	3099.6	3125.7	3169.1	3208.1	3237.4	3249.3	3233.0	3208.1	3196.2
10°	2955.4	2978.2	3001.0	3062.8	3139.8	3232.0	3310.0	3356.7	3353.4	3329.6	3309.0
12.5°	2717.9	2741.7	2790.5	2910.9	3051.9	3214.6	3359.9	3457.5	3491.2	3473.8	3438.0
15°	2528.1	2548.7	2585.6	2709.2	2892.5	3139.8	3378.4	3568.2	3653.9	3644.1	3600.7
17.5°	2522.7	2531.3	2554.1	2612.7	2753.7	3022.6	3358.9	3676.6	3840.4	3839.3	3785.1
20°	2618.1	2621.4	2634.4	2646.3	2726.6	2933.7	3309.0	3766.6	4049.7	4049.7	3991.1
22.5°	2750.4	2748.3	2761.3	2750.4	2789.5	2926.1	3277.5	3845.8	4282.9	4300.2	4226.5
25°	2948.9	2938.0	2934.8	2909.8	2917.4	2996.6	3312.2	3935.8	4559.5	4595.2	4503.1
27.5°	3213.5	3196.2	3184.2	3126.8	3107.2	3141.9	3418.5	4044.3	4867.5	4929.3	4812.2
30°	3558.4	3527.0	3509.6	3409.8	3339.3	3344.8	3579.0	4188.5	5189.6	5289.4	5140.8
32.5°	4029.1	3980.3	3933.7	3769.9	3640.8	3598.5	3786.2	4388.1	5538.8	5698.2	5507.3
35°	4556.2	4517.2	4467.3	4214.6	4016.1	3918.5	4066.0	4666.8	5947.7	6200.4	5952.0
37.5°	5063.8	5030.1	5054.0	4713.5	4457.5	4315.4	4432.6	5041.0	6452.0	6825.1	6509.5
40°	5588.7	5562.7	5565.9	5240.5	4942.3	4782.9	4877.2	5510.6	7030.1	7568.0	7179.7
42.5°	6159.2	6139.6	6074.6	5786.1	5451.0	5302.4	5389.1	6052.9	7650.4	8413.9	7915.0
45°	6798.0	6786.0	6725.3	6394.5	6010.6	5843.6	5960.7	6651.5	8274.0	9210.0	8653.6
47.5°	7350.0	7359.8	7352.2	7073.4	6675.4	6430.3	6570.2	7276.2	8854.3	9958.3	9361.8
50°	7615.7	7666.7	7741.5	7654.8	7407.5	7158.0	7185.1	7879.3	9407.4	10660.0	10040.8
52.5°	7476.9	7573.4	7777.3	7916.1	8011.6	7959.5	7886.9	8477.9	9928.0	11293.4	10682.8
55°	6959.6	7095.1	7433.5	7768.6	8255.6	8634.1	8729.5	9141.7	10435.5	11850.9	11290.2
57.5°	6017.1	6237.2	6540.9	7218.8	8038.7	8960.6	9712.1	10062.5	10973.5	12446.3	11925.7
60°	4401.1	4696.1	5073.5	6082.2	7279.5	8785.9	10548.3	11476.7	11738.1	13217.4	12753.2
62.5°	2816.6	2998.8	3345.8	4295.9	5672.2	7891.2	10804.3	13244.5	13034.1	14482.0	13994.0
65°	1928.3	2045.5	2363.2	2896.8	3666.9	5873.9	10118.9	14569.9	15092.6	16486.3	16115.3
67.5°	1401.2	1490.2	1761.3	2228.8	2389.3	3476.0	7852.1	14509.1	17093.6	18551.2	17974.3
70°	1021.6	1084.6	1312.3	1761.3	1838.3	1933.8	4756.8	12333.5	17050.2	19100.0	18409.2
72.5°	757.0	800.4	953.3	1366.5	1488.0	1305.8	2354.6	8963.8	14651.2	17275.8	16721.6
75°	547.7	580.2	693.0	1045.5	1190.8	994.5	1174.6	5238.4	10219.7	12152.4	12250.0
77.5°	418.6	443.6	517.3	765.7	953.3	746.2	728.8	2409.9	4845.8	4869.6	5142.9
80°	336.2	352.5	392.6	539.0	731.0	558.5	475.0	972.8	1531.4	1296.0	1360.0
82.5°	247.3	274.4	331.9	378.5	522.8	385.0	289.6	491.3	582.4	501.1	505.4
85°	141.0	159.4	200.6	271.1	334.0	235.3	165.9	218.0	271.1	222.3	198.5
87.5°	49.9	65.1	70.5	106.3	145.3	97.6	64.0	62.9	88.9	66.2	55.3
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: P884257
 CATALOG NUMBER: NAV-SB5A-727-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6	2996.6
2.5°	3018.3	3012.9	2991.2	2961.9	2931.5	2902.3	2892.5	2871.9	2857.8	2850.2	2858.9
5°	3079.0	3061.7	3010.7	2945.6	2877.3	2803.6	2751.5	2703.8	2669.1	2636.5	2649.6
7.5°	3165.8	3135.4	3047.6	2933.7	2812.2	2689.7	2598.6	2529.2	2482.5	2452.2	2458.7
10°	3266.7	3220.0	3085.5	2915.3	2727.6	2551.9	2444.6	2384.9	2355.6	2339.4	2343.7
12.5°	3382.7	3316.6	3124.6	2873.0	2598.6	2397.9	2324.2	2306.8	2307.9	2309.0	2311.2
15°	3525.9	3433.7	3156.0	2780.8	2430.5	2279.7	2266.7	2294.9	2324.2	2338.3	2337.2
17.5°	3687.5	3557.3	3161.5	2629.0	2265.6	2203.8	2245.0	2305.8	2350.2	2369.7	2374.1
20°	3861.0	3683.1	3122.4	2414.2	2130.1	2142.0	2215.7	2293.8	2342.6	2367.6	2374.1
22.5°	4059.5	3817.6	3029.1	2188.6	2019.4	2074.7	2161.5	2237.4	2288.4	2313.3	2319.9
25°	4286.1	3968.4	2882.7	1998.8	1924.0	1998.8	2085.6	2148.5	2189.7	2212.5	2219.0
27.5°	4537.8	4125.6	2687.5	1848.1	1840.5	1920.7	1992.3	2041.1	2062.8	2080.2	2086.7
30°	4790.5	4268.8	2451.1	1734.2	1767.8	1843.7	1894.7	1916.4	1922.9	1926.2	1933.8
32.5°	5063.8	4392.4	2202.7	1639.8	1698.4	1768.9	1799.3	1809.0	1778.7	1758.1	1764.6
35°	5394.6	4524.7	1959.8	1565.0	1630.1	1690.8	1700.6	1691.9	1656.1	1613.8	1616.0
37.5°	5803.4	4689.6	1765.6	1511.9	1566.1	1606.2	1594.3	1592.1	1595.4	1545.5	1548.7
40°	6304.5	4904.3	1623.6	1470.7	1514.0	1522.7	1489.1	1507.5	1523.8	1447.9	1450.0
42.5°	6860.9	5163.5	1533.6	1442.5	1470.7	1450.0	1398.0	1418.6	1416.4	1316.6	1315.6
45°	7428.1	5445.5	1502.1	1421.8	1430.5	1389.3	1331.8	1337.3	1291.7	1201.7	1204.9
47.5°	7992.1	5748.1	1521.6	1404.5	1380.6	1334.0	1289.5	1265.7	1198.4	1131.2	1131.2
50°	8545.2	6065.9	1593.2	1369.8	1312.3	1285.2	1252.7	1210.4	1138.8	1081.3	1077.0
52.5°	9058.2	6385.8	1673.5	1312.3	1226.6	1242.9	1222.3	1173.5	1103.0	1044.4	1045.5
55°	9544.0	6705.8	1704.9	1233.1	1146.4	1206.0	1194.1	1104.1	1019.5	971.8	967.4
57.5°	10073.3	7090.8	1670.2	1132.3	1081.3	1163.7	1118.2	1018.4	969.6	933.8	930.5
60°	10806.5	7694.9	1595.4	1007.5	1019.5	1100.8	1022.7	981.5	928.4	888.2	886.1
62.5°	12024.4	8821.7	1475.0	883.9	946.8	1007.5	977.2	936.0	881.7	842.7	842.7
65°	13824.8	10387.8	1248.3	787.4	865.5	916.4	928.4	887.2	830.8	789.6	791.7
67.5°	15343.1	11370.4	944.6	707.1	782.0	842.7	876.3	836.2	776.5	736.4	737.5
70°	15259.6	10656.8	721.2	628.0	708.2	770.0	813.4	782.0	718.0	680.0	683.3
72.5°	13553.6	8915.0	583.5	547.7	633.4	694.1	746.2	722.3	657.2	620.4	620.4
75°	9957.3	6328.4	466.4	466.4	540.1	614.9	672.4	657.2	597.6	571.6	564.0
77.5°	4197.2	2655.0	365.5	387.2	449.0	528.2	599.8	605.2	553.1	585.7	531.4
80°	1116.0	732.1	278.7	304.8	352.5	436.0	521.7	519.5	463.1	432.7	402.4
82.5°	425.1	288.5	198.5	214.7	254.9	334.0	413.2	426.2	369.8	319.9	319.9
85°	163.8	123.6	122.6	129.1	148.6	221.2	312.4	323.2	278.7	236.4	244.0
87.5°	42.3	36.9	45.6	43.4	68.3	118.2	179.0	185.5	170.3	98.7	141.0
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)