

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: P883471

Luminaire Tested: **NAV-SB3D-827-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883471
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24511 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

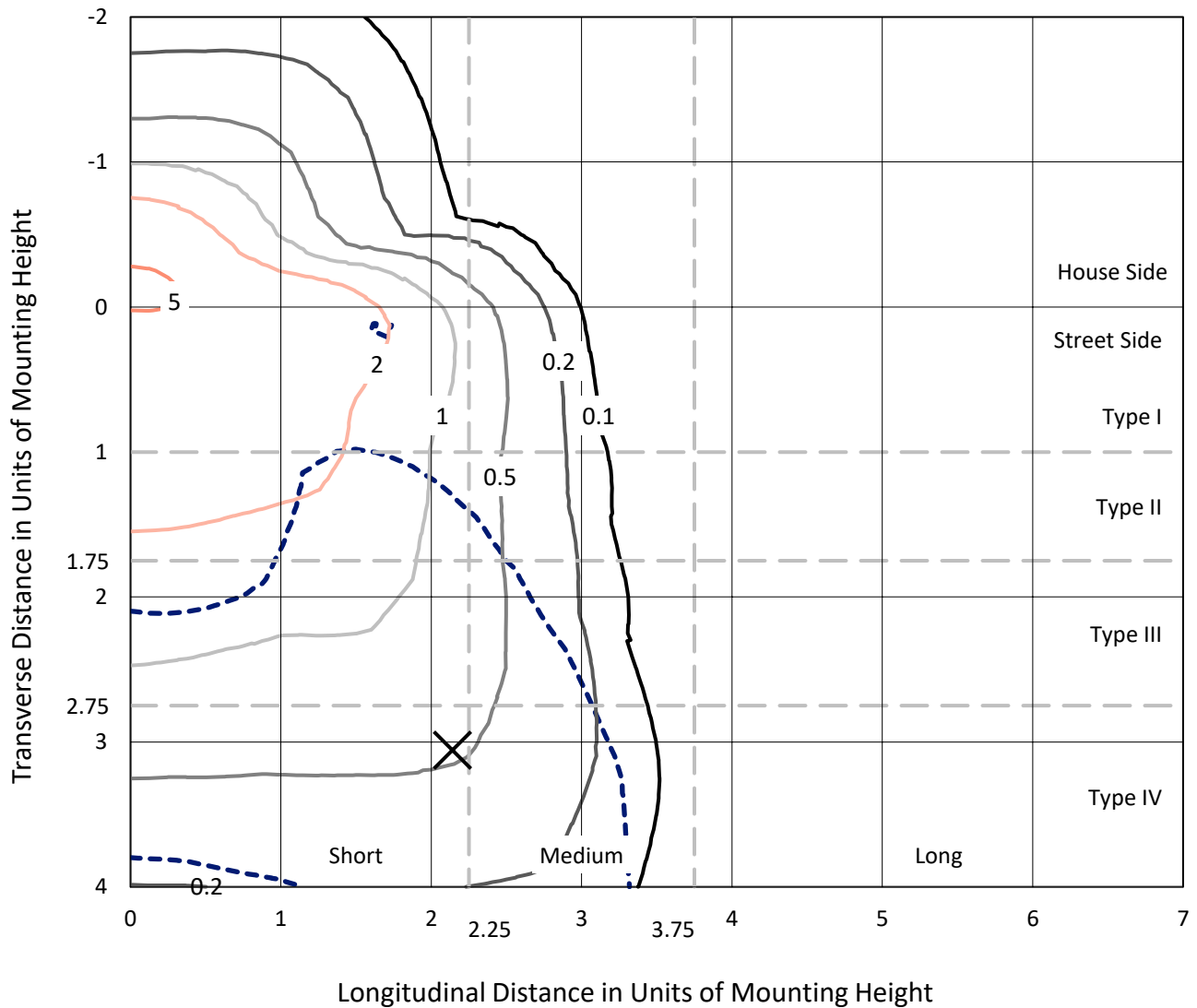
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

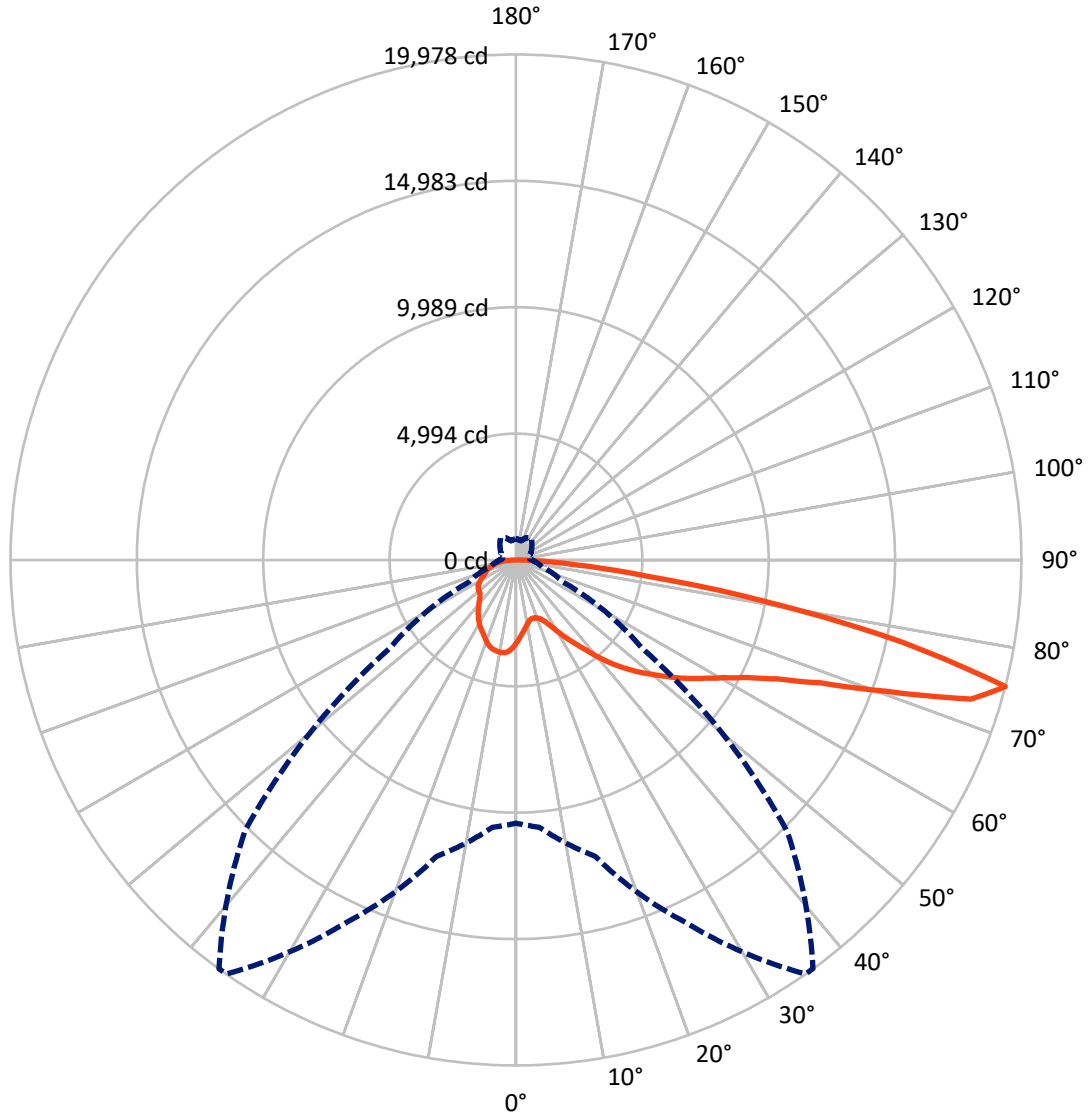
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5833.0	0.0	5833.0
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	18678.0	0.0	18678.0
	% Fixture	76.2	0.0	76.2
Total	Lumens	24511.0	0.0	24511.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	309.2	1.3
10°-20°	892.0	3.6
20°-30°	1497.9	6.1
30°-40°	2328.0	9.5
40°-50°	3455.3	14.1
50°-60°	4770.3	19.5
60°-70°	5787.4	23.6
70°-80°	4782.9	19.5
80°-90°	687.9	2.8
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°	24511.0	100.0
0°-180°	24511.0	100.0

Coefficient of Utilization



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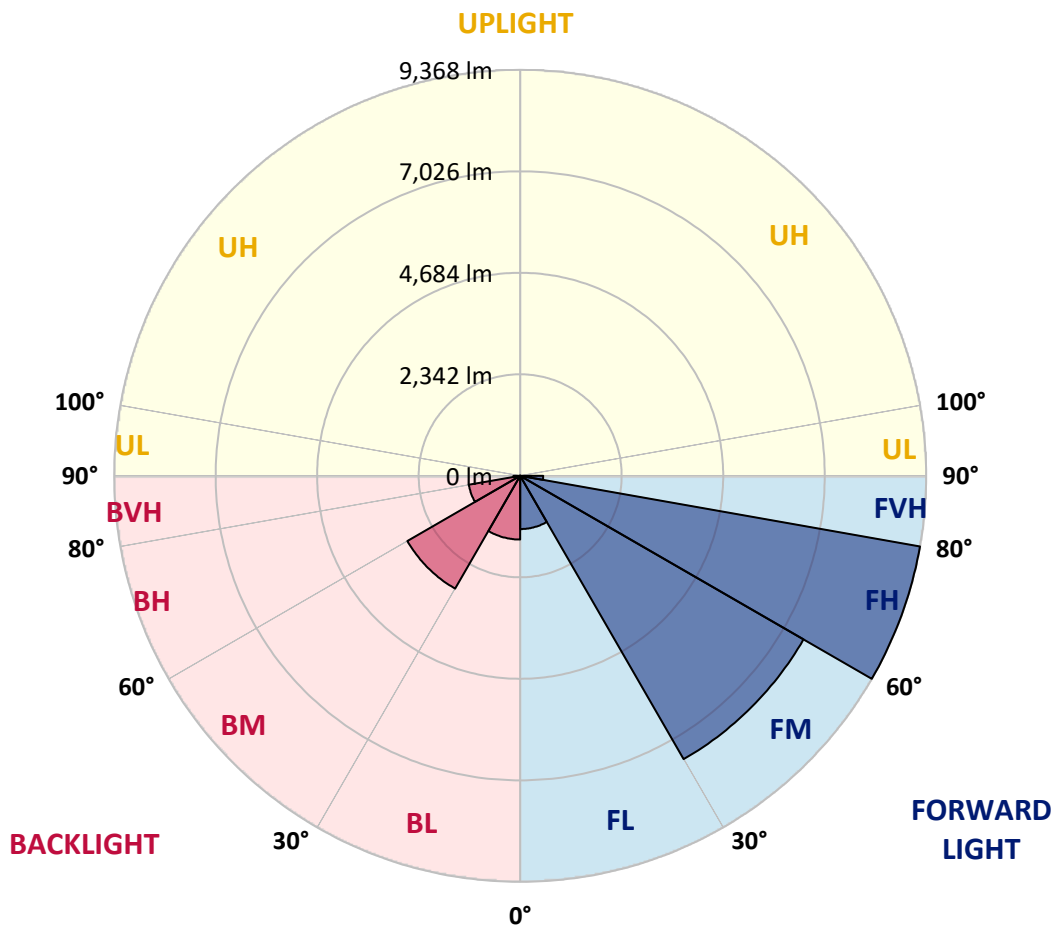
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1229.2	5.0			
FM (30°-60°)	7548.1	30.8			
FH (60°-80°)	9367.7	38.2			G4/12000
FVH (80°-90°)	533.0	2.2			G4/750
BL (0°-30°)	1470.0	6.0	B3/2500		
BM (30°-60°)	3005.5	12.3	B3/5000		
BH (60°-80°)	1202.6	4.9	B3/2500		G3/2500
BVH (80°-90°)	154.9	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-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3
2.5°	3011.8	3030.4	3038.3	3034.4	3054.2	3051.6	3079.4	3113.9	3161.6	3208.0	3275.5
5°	2780.0	2799.8	2817.1	2833.0	2871.4	2883.3	2927.0	2993.3	3080.7	3169.5	3280.8
7.5°	2564.0	2581.2	2607.7	2636.9	2701.8	2713.7	2786.6	2889.9	3011.8	3141.7	3295.4
10°	2387.7	2405.0	2432.8	2465.9	2546.8	2561.3	2654.1	2791.9	2950.9	3115.2	3311.3
12.5°	2312.2	2317.5	2333.4	2366.5	2436.8	2446.0	2548.1	2705.8	2891.3	3095.3	3335.2
15°	2308.2	2318.8	2320.2	2337.4	2395.7	2399.7	2493.8	2650.1	2854.2	3091.3	3370.9
17.5°	2348.0	2355.9	2344.0	2354.6	2403.6	2410.3	2484.5	2623.6	2842.2	3108.6	3431.9
20°	2454.0	2460.6	2424.8	2410.3	2446.0	2451.3	2524.2	2640.8	2854.2	3144.4	3515.4
22.5°	2679.3	2683.2	2595.8	2536.2	2538.8	2541.5	2605.1	2711.1	2900.5	3209.3	3621.4
25°	3030.4	3027.7	2888.6	2773.3	2707.1	2692.5	2734.9	2825.0	2978.7	3295.4	3757.9
27.5°	3441.2	3421.3	3282.2	3109.9	2965.5	2944.3	2935.0	2973.4	3090.0	3409.4	3924.8
30°	3904.9	3886.4	3736.7	3511.4	3311.3	3276.9	3189.4	3169.5	3255.7	3564.4	4156.7
32.5°	4413.8	4401.8	4222.9	3950.0	3682.3	3642.6	3495.5	3442.5	3510.1	3798.9	4480.0
35°	4840.4	4829.8	4681.4	4400.5	4073.2	4024.2	3874.5	3814.8	3849.3	4099.7	4902.7
37.5°	5226.0	5220.7	5093.5	4872.2	4534.3	4474.7	4306.4	4286.5	4279.9	4495.9	5415.5
40°	5583.8	5570.5	5438.0	5321.4	5071.0	5016.7	4868.2	4851.0	4800.7	4983.5	5995.9
42.5°	5980.0	5945.5	5753.4	5699.1	5631.5	5586.4	5497.6	5500.3	5389.0	5533.4	6610.7
45°	6303.3	6283.4	6086.0	6054.2	6127.0	6108.5	6185.3	6205.2	5989.2	6109.8	7249.4
47.5°	6650.4	6631.9	6464.9	6442.4	6639.8	6645.1	6916.8	6923.4	6574.9	6708.7	7889.4
50°	7078.4	7051.9	6886.3	6914.1	7135.4	7155.3	7652.2	7607.1	7114.2	7316.9	8524.1
52.5°	7360.7	7376.6	7340.8	7385.8	7688.0	7706.5	8375.7	8260.4	7648.2	7917.2	9146.8
55°	7568.7	7600.5	7711.8	7815.2	8271.0	8289.5	9058.1	8881.8	8090.8	8473.7	9732.5
57.5°	7836.4	7791.3	7999.3	8200.8	8824.9	8873.9	9721.9	9480.8	8483.0	8953.4	10134.0
60°	8220.6	8188.8	8350.5	8648.6	9445.0	9523.2	10424.2	10020.1	8770.5	9333.7	10212.2
62.5°	8999.8	8920.3	8945.4	9209.1	10226.8	10330.1	11216.6	10490.4	8913.6	9482.1	9793.5
65°	10164.5	10028.0	9900.8	10083.7	11327.9	11429.9	12111.0	10860.1	8860.6	9194.5	8681.7
67.5°	11631.3	11496.2	11339.8	11512.1	12949.7	13030.6	13214.8	11068.2	8443.2	8086.8	6716.7
70°	12841.1	12790.7	12977.6	13686.5	15540.2	15542.9	14629.9	10895.9	7299.7	5733.5	3886.4
72.5°	12680.8	12650.3	13634.8	15826.4	18805.2	18734.9	15969.5	9592.1	4917.3	2586.5	1456.2
75°	10403.0	10600.4	12125.6	15788.0	19977.8	19968.6	15149.3	6097.9	2034.0	1072.0	752.6
77.5°	5578.5	5891.2	7872.1	11656.5	15595.9	15830.4	10650.8	2133.3	873.2	686.4	520.7
80°	1819.3	2092.3	3137.7	5934.9	10134.0	10090.3	4564.8	837.4	597.6	486.3	360.4
82.5°	772.5	804.3	1401.9	2802.5	5200.8	5120.0	1453.6	481.0	420.0	332.6	222.6
85°	302.1	337.9	618.8	1295.9	2252.6	2203.6	524.7	238.5	269.0	217.3	132.5
87.5°	99.4	120.6	221.3	443.9	701.0	675.8	128.5	82.2	116.6	99.4	47.7
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°	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3	3266.3
2.5°	3294.1	3315.3	3340.5	3377.6	3409.4	3435.9	3463.7	3480.9	3487.5	3507.4	3506.1
5°	3317.9	3364.3	3426.6	3487.5	3547.2	3582.9	3614.7	3630.6	3645.2	3655.8	3658.5
7.5°	3357.7	3417.3	3515.4	3594.9	3645.2	3674.4	3695.6	3690.3	3695.6	3698.2	3702.2
10°	3392.1	3475.6	3592.2	3667.7	3706.2	3707.5	3702.2	3683.6	3674.4	3675.7	3678.3
12.5°	3433.2	3526.0	3651.8	3715.4	3726.1	3696.9	3674.4	3642.6	3630.6	3625.3	3622.7
15°	3488.9	3594.9	3716.8	3740.6	3714.1	3677.0	3638.6	3586.9	3560.4	3539.2	3545.8
17.5°	3556.4	3673.0	3767.1	3749.9	3692.9	3632.0	3569.7	3491.5	3437.2	3414.7	3416.0
20°	3650.5	3755.2	3805.6	3730.0	3643.9	3551.1	3445.1	3349.7	3299.4	3276.9	3274.2
22.5°	3764.5	3865.2	3842.7	3695.6	3573.7	3425.3	3292.8	3222.5	3197.4	3181.5	3184.1
25°	3901.0	3987.1	3869.2	3645.2	3458.4	3258.3	3156.3	3133.8	3121.8	3109.9	3109.9
27.5°	4078.5	4124.9	3889.0	3571.0	3278.2	3080.7	3043.6	3047.6	3043.6	3023.8	3027.7
30°	4313.0	4303.8	3907.6	3450.4	3071.5	2920.4	2923.1	2940.3	2942.9	2929.7	2936.3
32.5°	4621.8	4527.7	3916.9	3294.1	2874.0	2780.0	2782.6	2801.2	2814.4	2791.9	2802.5
35°	4995.5	4788.7	3902.3	3098.0	2721.7	2646.1	2626.3	2631.6	2635.5	2614.3	2628.9
37.5°	5431.4	5081.6	3837.4	2880.7	2595.8	2515.0	2472.5	2436.8	2415.6	2395.7	2408.9
40°	5909.7	5400.9	3718.1	2668.7	2455.3	2375.8	2312.2	2244.6	2173.1	2146.6	2158.5
42.5°	6410.6	5729.5	3573.7	2465.9	2293.7	2228.7	2161.2	2063.1	1955.8	1901.5	1908.1
45°	6930.0	6066.1	3431.9	2265.8	2128.0	2100.2	2022.0	1904.1	1787.5	1718.6	1713.3
47.5°	7438.8	6384.1	3223.9	2064.4	1973.0	2003.5	1942.5	1833.9	1704.0	1595.4	1583.4
50°	7925.1	6682.2	2883.3	1860.4	1847.1	1974.3	1916.0	1759.7	1611.3	1472.1	1460.2
52.5°	8407.5	6923.4	2447.4	1674.9	1779.5	1966.4	1881.6	1709.3	1527.8	1382.0	1366.1
55°	8816.9	7048.0	2027.3	1515.9	1681.5	1898.8	1840.5	1649.7	1409.9	1254.8	1241.6
57.5°	9050.1	6947.3	1677.5	1359.5	1546.3	1787.5	1770.3	1522.5	1269.4	1150.1	1134.2
60°	8949.4	6539.1	1391.3	1223.0	1417.8	1666.9	1648.4	1396.6	1162.1	1049.4	1033.5
62.5°	8394.2	5761.3	1164.7	1103.8	1301.2	1543.7	1526.5	1299.9	1079.9	971.3	954.0
65°	7275.9	4686.7	988.5	1004.4	1183.3	1395.3	1420.5	1219.0	1015.0	909.0	891.8
67.5°	5549.3	3394.8	850.7	918.3	1068.0	1249.5	1322.4	1160.7	960.7	860.0	844.1
70°	3162.9	1928.0	734.1	834.8	966.0	1114.4	1246.9	1114.4	902.4	818.9	808.3
72.5°	1199.2	885.1	634.7	751.3	867.9	1000.4	1163.4	1041.5	834.8	772.5	761.9
75°	640.0	539.3	534.0	653.3	755.3	889.1	1058.7	969.9	784.4	816.2	842.7
77.5°	435.9	381.6	446.5	559.2	632.1	765.9	947.4	861.3	679.8	677.1	624.1
80°	302.1	270.3	363.1	450.5	488.9	644.0	826.8	739.4	553.9	516.8	494.2
82.5°	181.5	176.2	271.6	336.6	345.8	496.9	685.1	620.1	453.2	394.9	397.5
85°	99.4	104.7	173.6	197.4	201.4	347.2	536.6	479.7	348.5	292.8	295.5
87.5°	27.8	35.8	63.6	78.2	96.7	180.2	319.3	284.9	174.9	121.9	121.9
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)